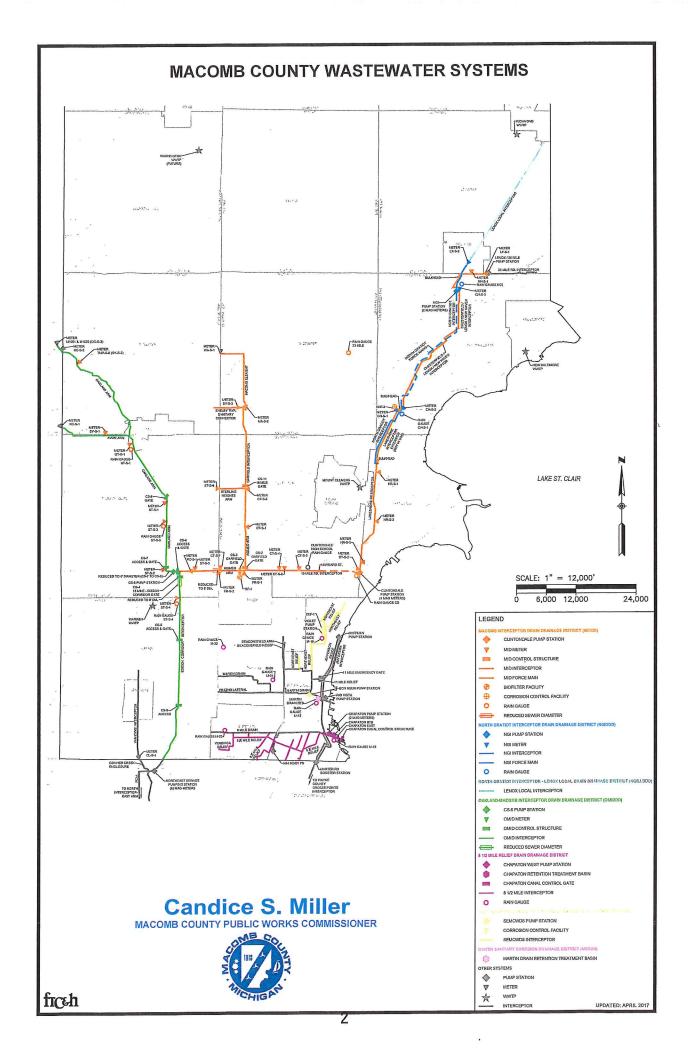
Miller Santo Haugh

MARTIN SANITARY DIVERSION DRAIN INTRA-COUNTY DRAINAGE BOARD MAY 13, 2019 10:15 A.M. AGENDA

		Page
1.	Call of meeting to order and roll call	
2.	Approval of Agenda for May 13, 2019	
3.	Approval of Minutes for April 8, 2019	3
4.	Public Participation	
5.	Martin Permanent Flow Meters Recommendation – Vince Astorino	5
	Motion: To approve the Hesco quote in the not-to-exceed amount of \$47,273.50 for the purchase and installation of four required flow-based sampling meters	
6.	Consideration for approval of invoices (see attached)	15
7.	Financial Report – Bruce Manning	16
8	Adiourn	



An adjourned meeting of the Intra-County Drainage Board for the **MARTIN SANITARY DIVERSION DRAIN** was held in the Office of the Macomb County Public Works Commissioner, 21777 Dunham, Clinton Township, Michigan, on April 8, 2019, at 10:13 A.M.

PRESENT:

Candice S. Miller, Chair

Bryan Santo, Member

Harold Haugh, Member

ALSO PRESENT: Robert Mijac, Macomb County Board of Commissioners; Brian Baker, Chief Deputy Commissioner, Karen Czernel, Deputy Government Relations, Vince Astorino, Operations & Flow Manager, Evans Bantios, Construction & Maintenance Manager, Dan Heaton, Communications Manager, Kellie Kource, Drain Account Specialist, Bruce Manning, Financial Manager, Tom Stockel, Construction Engineer, Kyle McKee, Community Services Manager, Macomb County Public Works

The meeting was called to order by the Chair, Candice Miller. A motion was made by Mr. Haugh supported by Mr. Santo to approve the agenda as presented.

Adopted:

YEAS: 3

NAYS: 0

Minutes of the meeting of March 11, 2019 were presented. A motion was made by Mr. Santo, supported by Mr. Haugh to approve the minutes as presented.

Adopted:

YEAS: 3

NAYS: 0

The meeting was opened to public participation, then closed, there being no comments from the public.

Mr. Astorino updated the board that they have been evaluating storage options to reduce our overflow. They narrowed it down to a combination of two options consisting of an in-system storage and building an equalization basin or a deep storage tunnel. From the metering project they found out there is around 5 million gallons of in system storage available. They will put together a high level cost/benefit analysis this week. There is a meeting with the mayors on Monday to present options to them and decide how to move forward. Ms. Miller discussed potential for funding from SEMSD. We applied for Section 219 funding for the flushing system. Army Corp. has been requesting a project they could work with us on. There is 25% match and we asked for \$1.5 million to design and construct the flushing system.

A motion was made by Ms. Santo, supported by Mr. Haugh to receive and file the project update by Mr. Astorino.

Adopted:

YEAS: 3

NAYS: 0

The Chair presented the invoices totaling \$16,380.40 to the board for review and approval.

A motion was made by Mr. Santo, supported by Mr. Haugh to approve the invoices as presented.

Adopted:

YEAS: 3

NAYS: 0

A motion to receive and file the financial report given by Mr. Manning was made by Mr. Santo and supported by Mr. Haugh.

Adopted:

YEAS: 3

NAYS: 0

There being no further business, it was moved by Mr. Santo, supported by Mr. Haugh, that the meeting of the Martin Sanitary Diversion Drain Board be adjourned.

Adopted:

YEAS: 3

NAYS: 0

The meeting was adjourned at 10:22 a.m.

Candice S. Miller, Chair

Macomb County Public Works Commissioner

STATE OF MICHIGAN COUNTY OF MACOMB

I certify that the foregoing is a true and correct copy of proceedings taking by the Intra-County Drainage Board for the Drainage District shown on the attached set of minutes, on April 8, 2019 the original of which is on file in the Public Works Commissioner's Office. Public notice of the meeting was given pursuant to Act No. 267, Public Acts of Michigan, 1975, including, in the case of a special or rescheduled meeting or a meeting secured for more than 36 hours, notice by posting at least 18 hours prior to the time set for the meeting.

Candice S. Miller, Chair

Macomb County Public Works Commissioner

DATED: 4/8/19

Candice S. Miller



Public Works Commissioner Macomb County

To: Candice Miller, Macomb County Public Works Commissioner

CC: Brian Baker, Chief Deputy

From: Vincent Astorino, Operations & Flow Manager

Date: May 3, 2019

Subject: Martin Permanent Flow Meters Recommendation

The Martin Retention Basin has been issued a new National Pollutant Discharge Elimination System permit with the Michigan Department of Environmental Quality (MDEQ). As part of the new permit, the MDEQ is changing the sampling protocols during discharge events which will require the MCPWO to add flow meters into the system for flow-based sampling instead of the current time-based sampling.

During the budget planning process for Fiscal Year 17/18, the MCPWO budgeted \$100,000 for the flow metering portion of this work. In an effort to keep costs down, the MCPWO is also designing and handling procurement and construction oversight for this work. This office has reached out to two companies to provide pricing for the flow metering equipment which are Hesco and ADS Environmental Services. We came up with a plan to install 4 – flow meters and bring all of the data back to one central panel in the building to satisfy the requirements of the permit. Both teams were given the same plan and asked to come up with pricing for it.

We received two quotes that are attached for the procurement and installation of this equipment. The ADS Environmental Services quote was for \$56,710 with the base portion of the quote. The Hesco quote was for \$47,273.50. At this time there will be no monthly service requirements for the Hesco supplied equipment as our staff is already trained on it. The ADS equipment will require support which will bring their total cost up to \$72,310 for 6-months of service.

I recommend moving forward with the Hesco quote in the total not-to-exceed amount of \$47,273.50. There will be some miscellaneous electrical work to accomplish this task but we should still be under budget when all work is completed.

Attachments: Hesco Quote – 4/23/19

ADS Environmental Services Quote - 5/2/19



Knowledgeable • Professional • Attentive • Likeable

28838 Van Dyke • Warren, MI 48093 Phone: 586.978.7200 • Fax: 586.978.2200 www.hesco-mi.com

Tuesday, April 23, 2019

Vince Astorino 21777 Dunham Road Clinton Township, MI 48036

RE: Martin RTB - Flow Meters

Vince,

Attached you will find our proposal to provide 4 Isco 2150 flow meters as detailed on the drawings that you sent to

In general, we propose to provide the flow metering equipment and do all of the in-sewer installation work, with the exception of any concrete coring, which will be done by others.

Additionally we understand that Macomb County will receive the 2108 Analog Output modules and the 120 VAC power supplies and construct the panels in house. HESCO can mount the panels and terminate the wiring inside of them.

Thank you for this opportunity

Best regards,

Kevin Livingston

Kevin Livingston, P.E. HESCO E-mail: Kevin@hesco-mi.com Tel:(586)978-7200 Fax:(586)978-2200



Knowledgeable • Professional • Attentive • Likeable

28838 Van Dyke • Warren, MI 48093 Phone: 586.978.7200 • Fax: 586.978.2200 www.hesco-mi.com

Tuesday, April 23, 2019

To:	Macomb County Public Works Commissioner	RFQ#:	Verbal
	Vince Astorino 21777 Dunham Road Clinton Township, MI 48036	Quote #:	0703969092KSL Please refer to this number when ordering
Phone:	586-469-5325		
Fax:			
E-mail:	Vincent Astorino <vincent.astorino@macombgov.org></vincent.astorino@macombgov.org>		

PRICE QUOTE Martin RTB - Flow Meters

Item	Description	Qty	Unit Price	Subtotal
1.00	HESCO	1 LS	\$28,836.50	\$28,836.50
	Flow Metering Equipment			
	Teledyne Isco 2100 Series Flow Metering Equipment			
	MTD-02			
	(1) Isco 2150 AV flow meter with 50-feet cable (1) Isco 2150 Network cable - 350-feet long (1) Isco 2108 Analog Output Module (1) Isco ABS Wall mounting plate (1) Stainless Steel sensor mounting plate			
	MTD-01 N&S			
	(1) Isco 2150 AV flow meter with 50-feet cable (1) Isco 2150 AV flow meter with 75-feet cable (2) Isco 2150 Network cable - 900-feet long (2) Isco 2108 Analog Output Module (2) Isco ABS Wall mounting plate (2) Stainless Steel sensor mounting plate (1) 1" U-Guard - 600 If (400) 1/4" stainless steel anchors			
	MTD-DW			
	 (1) Isco 2150 AV flow meter with 75-feet cable (1) Isco 2150 Network cable - 75-feet long (1) Isco 2108 Analog Output Module (1) Isco ABS Wall mounting Plate (1) Stainless Steel sensor mounting plate 			

Item	Description	Qty	Unit Price	Subtotal
2.00	HESCO	1 LS	\$18,000.00	\$18,000.00
	Field Service - CSE Crew			
	2150 flow meter installation			
	HESCO will supply a 3 man confined space entry team to install the 4 flow meters. Our work will generally consist of the following:			
	Mount area velocity sensors to the bottom of the pipe using stainless steel hardware Mount area velocity meters and securely run flow meter cabling between sensor and the meter Install 6 conductor network cable between flow meter and 2108 AO module. Cable in the sewer will be protected with 1" U-guard. Cable outside of sewer will be pulled through existing conduit. Terminate network cables inside the Customer supplied cabinet containing 2108 AO modules Program meters and scale 4-20 mA outputs ***Coring between sewer conduit walls is excluded and should be done by others****			

Grand Total	\$47,273.50
Shipping & Handling Best Way	\$437.00
Misc. Charge	\$0.00
Sales Tax [6.0000%]	\$0.00
Taxable Subtotal	\$0.00
Subtotal	\$46,836.50

Terms & Conditions							
Proposed Shipping Date 4 Weeks ARO Payment Net 30 Terms							
Shipping Method Best Way	Shipping Terms	Prepaid and Added to Invoice					
F.O.B. Factory	This Quo	otation is valid until 5/23/2019.					

If favored with an Order, please make the Purchase Order out to: HESCO 28838 Van Dyke Warren, MI 48093 and fax it to (586) 978-2200 for order entry and processing Thank you for your inquiry!



340 The Bridge Street, Suite 204 Huntsville, AL 35806 256-430-3366 www.adsenv.com

A Division of ADS LLC

Macomb County Public Works 21777 Dunham Road Clinton Township, MI 48036 Steve Rozycki (586.696.0235) **ADS Environmental Services**

1100 Owendale Drive – Suite K

Troy, MI 48083

Chris Skehan (708.341.9701) Email: cskehan@idexcorp.com

Quote Reference: MacombCo.MartinRTB.EQP.MI19

Date: May 2, 2019 Terms: Net 30

Shipment: FOB Shipping Point (to ADS office)

Delivery: 30 Days ARO **Effective To:** 6/2/2019

<<HARDWARE & INSTALLATION>>

Part Number	Quantity	Unit Retail Price	Extended Price
Triton+ KIT compatible with XIO and Dual CS4 Sensor Config.	4	\$6,450.00	\$25,800.00
Triton+ Area Velocity Flow Meter. (8000-FST-IM-EP-4VZ)			
 2x Peak Combo Sensor (CS4), with 35' cables - Slimline 			
U/S, V-Peak, Pressure 0-5/15 PSI. (8K-CS4-15-35)			
 Installation Band and Mounting Hook. (IKIT) 			
 Wireless Antenna 4G, SMA, with 12' cable. (9000-0080) 			
 Verizon Wireless 4G LTEm SIM. (pre-installed) 			
XIO SCADA Module	4	\$3,195.00	\$12,780.00
 XIO SCADA Module with 2x 4-20 Analog I/O ports (8000- 0400) 			
XIO SCADA Module Cable (In Stock length = 100')	2	\$850.00	\$1,700.00
• 8000-0378-100			
XIO SCADA Module Cable (Custom length = 500')	2	\$3,200.00	\$6,400.00
• 8000-0378-500			
Professional Installation for Triton+ A/V Flow Meter for	2	\$1,850.00	\$3,700.00
Dewatering Location and RTB Influent Location			
 Professional Installation, Programming, and 			
Commissioning of Triton+ Systems (includes confined			
space entry and basic traffic control and includes			
mounting XIO Panel inside cabinet, pulling sensor and			
comm cables through conduit, activating unit, etc.)		ć2.4CF.00	\$6,330.00
Professional Installation for ADS Triton+ A/V Flow Meter for	2 .	\$3,165.00	\$6,330.00
Double Box Location including Uguard and Power Cable Runs			
Professional Installation, Programming, and			
Commissioning of Triton+ Systems (includes confined			
space entry and basic traffic control and includes			
mounting XIO Panel inside cabinet, pulling sensor and			
comm cables through conduit, activating unit, etc.)			
UGuard and Customized Power Connection Installation			
(500 feet)			\$56,710.00
Hardware and Installation Total			7JU,7 IU.UU

<<TURNKEY SERVICES>>

Part Number	Quantity	Unit Retail Price	Extended Price
Turnkey Services, Operation and Maintenance and Analysis	4	\$650.00/meter/month	\$2,600.00
See Below for Description of Turnkey Services			
Services Total for May through October (6 months)			\$15,600.00

<<TOTAL>>

NOTES:

- 1. The above prices include all of the required labor and materials to support the installation of the flow monitors.
- 2. The above prices do not include any special, modified, or custom documentation or manuals that may be required. Standard ADS Environmental Services manuals, appropriate to the flow monitors delivered, are included with the equipment.
- 3. Sale of the above equipment and software is subject to acceptance of ADS Environmental Services Equipment Sale Agreement. Activation of software requires users to execute ADS Environmental Services Software License Agreement.
- 4. Acceptance of this proposal for the purchase of ADS Products constitutes you and/or your company's agreement to ADS' Standard Terms and Conditions of Sale found at http://www.adsenv.com/equipt-service-terms-conditions. ADS' Terms and Conditions supersede any terms and conditions in any documentation submitted by you and/or your company as a buyer of ADS products
- 5. Turnkey Flow Monitoring Services Details Listed Below

Client Name:	ADS LLC
Signature	Signature
Printed Name/Title	Printed Name/Title
Date	Date

Turnkey Flow Monitoring Services from ADS

As part of a Services Agreement, ADS will perform the following services on the installed ADS Flow Monitors or ADS Hardware for the Owner/Customer/Client. These services include the following:

- A. Remote Diagnostics: Remote diagnostic and inspection (wireless equipment) will be utilized at all locations. ADS will ensure wireless telemetry is working correctly at any unit that has this feature.
- **B.** Turnkey Maintenance: Preventative maintenance services necessary to keep the equipment operating in accordance with the manufacturer's design specifications. The types of services to be performed under this Agreement include but are not limited to the following:
 - Communication link failures (no connection)
 - Depth Sensor Troubleshooting (cleaning, scrubbing, adjusting, and/or other common flow monitoring troubleshooting procedures by a certified ADS field service crew); Includes all depth sensors installed
 - Velocity Sensor Troubleshooting (cleaning, scrubbing, adjusting, and/or other common flow monitoring troubleshooting procedures by a certified ADS field service crew); Includes all velocity sensors installed
 - Rain Gauge Troubleshooting (cleaning/cleaning debris from the bucket or issues that may arise with the ADS data logger/wireless telemetry)
 - ADS SCADA Modules (communication errors on the ADS hardware side or issues that may arise for the XIO, XBUS, or ExPac Systems)
- C. Service Schedule: The field service shall accommodate normal operating hours of 8:00 a.m. to 5:00 p.m. Monday through Friday (service during holidays or outside of normal business hours shall be at ADS's current Time and Materials rate).
- **D.** Response Time: ADS will investigate and troubleshoot perceived problems within three to five (3-5) business days of discovery of the malfunction.

Data Processing and Analysis Services

As part of this Service Agreement, ADS will provide data processing services for all of the monitoring equipment installed including data collection, data auditing, and data editing including:

- A. **Data Collection:** An ADS data analyst will review each location information file for each site and create a site sheet. The analyst will collect data from each monitoring location twice weekly. If the monitor does not collect successfully, the analyst schedules service and a manual collect for the site.
- B. **Data Auditing:** The data analyst reviews the collected data at each site twice weekly. The Analyst will review the data for regular diurnal patterns in free flow; reasonable depths and velocities for the site; or to see if the site is influenced by obstructions. If data appears compromised, the analyst schedules a service call.
- C. Data Finalization: An ADS Data Analyst will edit the collected data to remove data spikes/drops, add and compare confirmation points, and investigate data gaps. All edited data is reviewed and confirmed by an ADS Project Manager, Senior Data Analysis or Data Manager to ensure maximum quality and accuracy. The finalized data is included to create the monthly report and a library of final data.
- D. **Final Data Review:** A Senior Data Analyst, or Project Manager, or Project Engineer Assistant will review all final data and reports before they are delivered. This includes a detailed checklist which includes the following: Pipe shape; Pipe dimensions; Physical offset; Average to Peak application; DFINAL composition; Velocity Data editing; Gain values; Scattergraph; Hydraulic Coefficient (if applicable); QFINAL selection; Silt; and Comparison to upstream and downstream locations (if applicable).

Data Deliverables

ADS will provide the Owner/Customer/Client with all the data collected during each monthly flow-monitoring period. The installation sheets will provide a brief narrative summary of observed flow conditions and will be made available through our online system. Both raw and final data will be provided via ADS FlowView.com or PRISM web hosted systems.

- A. Access: ADS will provide secure access to the FlowView/PRISM system for the client and others designated employees. Users receive a unique login and password to access the web based system. In addition to web based data access and reporting tools, ADS software can provide the following features:
 - Automated data collection and data warehousing;
 - Smart Logic support of real time alarming to reduce data abnormalities and increase alarm reliability;
 - Location Mapping of all monitors deployed for this study;
 - Built in flow meter performance monitoring including sensor health;
 - Interactive graphing displays, such as Hydrograph and Scattergraphs;
 - Data exporting tools/templates;
 - Permission-based data sharing including documents and reports;
 - Customer support center available via a toll-free number
- B. **Reporting:** ADS will provide the Owner/Customer/Client with the ability to generate and examine predefined or user defined, interactive reports using the ADS FlowView reporting system. FlowView/PRISM is a hosted system available via the internet using any web browser software. The system will include the ability to generate and view:
 - User defined hydrographs of depth, velocity, flow, and rain for each site;
 - Scattergraphs for each site;
 - Monthly rainfall hyetographs;
 - Tabular depth, velocity, flow, and rain data in a user defined format;
 - Detailed site reports with digital photographs on the monitor installations;
 - Monthly service reports
- C. Library of Final Data: ADS will store all of the raw and edited final level, velocity, flow and rainfall data within the ADS FlowView and or PRISM system, which will be available to the Owner/Customer/Client as needed during the project, and up to 60 days after the end of the project. All finalized data will be posted to the system 30 days after the end of the month (eg. All June Data will be posted by July 30th). All finalized data points will also be stored and accessible along with the raw data collected

Client Responsibilities

ADS ask that the client perform the following functions in connection with this Project:

- 1. Access to the site of work with sufficient area for placement of personnel and equipment, including all right-of-way and ramps, if required. This includes, but is not limited to, exposing manholes, clearing easements and/or constructing roads or ramps suitable for truck/van, if necessary.
- 2. Assist in obtaining and complying with any special permits.
- 3. Provide a map or currently installed monitoring locations.
- 4. Any information concerning bypasses, overflows, base flows, critical surcharge areas, and maintenance habits that may affect flow monitoring data.
- 5. Any information regarding the basin size in acres and upstream LF of pipe segments.
- 6. (if required) Suitable locations for the Rain Gauge Devices, ideally on a roof or raised structure with no overhead obstructions (Trees, Roofs, Poles, Etc.)
- 7. Traffic Assistance if complex lane closures or multiple safety crews are required

Exclusions: Unless agreed upon between both parties, the following exclusions would apply to this project:

- changes or alterations in specifications;
- additional installation, moving, or removing of equipment except that which is outlined or required as part of this agreement;
- repairs made necessary by accident of the client, its employees, agents, contractors or invitees;
- repairs made necessary due to attempts by *the client* to repair or maintain the equipment unless authorized by ADS:
- maintenance and repair necessary to put equipment not under the comprehensive scheduled service contract in good repair;
- equipment repair or replacement outside manufacturer's design specifications; and
- repairs made necessary due to events beyond ADS's control (force majeure)

Project Balance								
<u>Project Summary</u>			Generator Preventative Maintenance	Generator Load Bank Test	Monthly Electric - 03.16.19 - 04.15.19	Hypochlorite Solution - 4,539 gallons	Martin Rain Event Testing	
Invoice Detail			806.74 Invoice #S6-18426 - 04.01.19	628.40 Invoice #S6-18427 - 04.01.19	902.78 Invoice #19-187 - 04.16.19	1,103.60 Invoice #786867 - 04.23.19	560.00 Invoice #1900002123 - 04.12.19	
Amount			\$ 806.74	\$ 628.40	\$ 902.78	\$ 4,103.60	\$ 560.00	\$ 7,001.52
Vendor			Cummins Bridgeway	Cummins Bridgeway	OTE Energy	JCI Jones Chemicals Inc.	TestAmerica	11
			Cum	Cum	DIE	JCI J	Test	Total
Manager			Rozycki		П	Astorino JCI J	Astorino Test	Tota
Apportionment Manager	Chapter 20 Roseville - 78.09%	St. Clair Shores - 21.91%			П			Tota

YTD Budget

Fund: Martin Sanitary Diversion

As of Fiscal Period: Oct 1, 2018-Apr 30, 2019

	2019			REMAINING	
DESCRIPTION	FINAL BUDGET	ENCUMBERED	ACTUAL	BUDGET	PCT UTILIZED
REVENUE ACCOUNTS					
State-Grants		anguna sa majayan sa yar i ya -	-		NA RESERVED TO SECURE
Investment Inc-Interest	500	Special and a special state of the Santa	2,349	(1,849)	54.8%
Reimb-Local Communities	699,485	dealer trade and a second property of the Audit 1 (196)	699,485		100.0%
PY Revenue-Fund Balance	95,750	P. C. S. C.		95,750	0.0%
Total Revenue Accounts	795,735	-	701,834	93,901	88.2%
EXPENSE ACCOUNTS					
Application/Permit Fee	3,000	an management to the own to be	3,000	191 20 20 20 20 20 20 20	100.0%
Dues, Training, Conf, Subs.	5,750		135	5,615	2.3%
Engineering	N			V = 180.5V	
-As Needed Engineering	15,000	manufacture of the board backers	5,256	9,744	35.0%
-Design Basin Equipment Hatch	12,000	and the state of the state of the state of	end discounts - Engineer	12,000	0.0%
-Design Flushing System Upgrades & First Flush Capture	200,000	by historical diseasement from the first transfer	manufacture of the last of the	200,000	0.0%
-SAW Match	17,700	wife I was I to 100 them the top of the control of	12,415	5,285	70.1%
-Study of Disinfection System	20,000	**** * * * * * * * * * * * * * * * * *	5,932	14,068	29.7%
New Equipment	15,250		7,004	8,246	45.9%
Operating Supplies	44,550	A CONTRACTOR AND	18,191	26,359	40.8%
Other Professional Srvcs	20,600	enterit enterine Australia of the Communication of the	13,465	7,135	65.4%
Personnel Services	168,081	a wood about the contract of the state of the state of	31,015	137,066	18.5%
Repair & Maintenance	60,810	agentage of present on the second contract of	5,920	54,890	9.7%
Scada System	16,914	desperation to activities and residence to		16,914	0.0%
Utilities	46,080	a desirable trace of the state of the state	10,700	35,380	23.2%
Capital Reserve	150,000	Brief appropriate as at an alternative a New Jones No.	a contract of position to the territory	150,000	0.0%
Total Expense Accounts	795,735	-2	113,033	682,702	14.2%

	O&M Balance 9/30/2018	O&M	Total 4/30/2019
Cash - Operating	338,645	601,216	939,861
Accounts Receivable			0
Assets			0
Liabilities			0
Revenues		701,834	701,834
Expenditures		100,618	100,618
Equity	338,645		939,861