

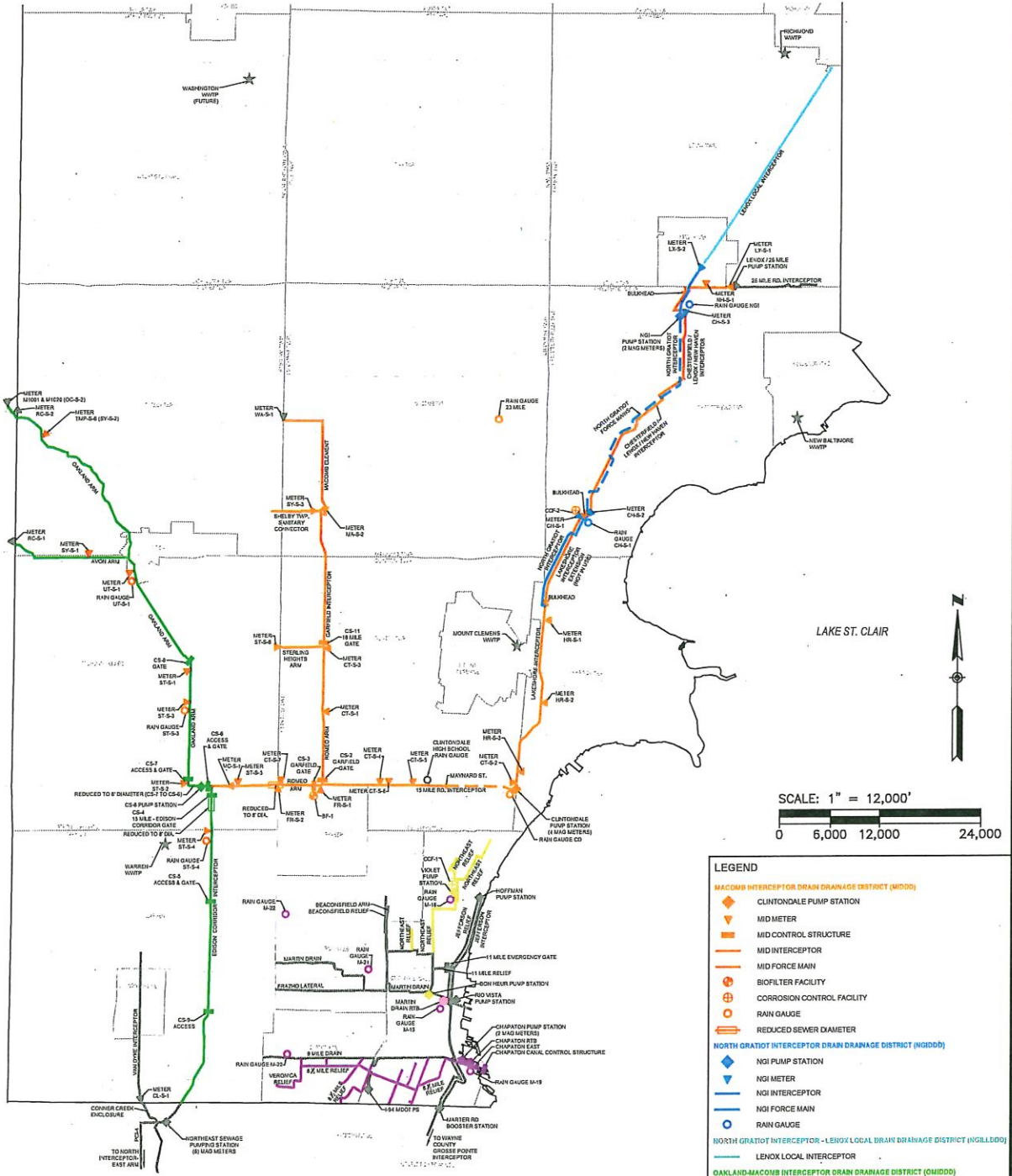
MARTIN SANITARY DIVERSION DRAIN  
INTRA-COUNTY DRAINAGE BOARD  
MAY 11, 2020  
10:15 A.M.  
AGENDA

**NOTE: THIS MEETING WILL BE HELD BY TELECONFERENCE**

**Call in Number: 1-408-418-9388**  
**Access Code: 710 147 644**

	Page
1. Call of meeting to order and roll call	
2. Approval of Agenda for May 11, 2020	
3. Approval of Minutes for April 13, 2020	3
4. Public Participation	
5. Martin RTB Drain Gate Hydraulic Power Unit – Vince Astorino	5
Motion: To approve the quote from Rittertech at a not to exceed cost of \$20,519 and the quote from Colville Electric at a not to exceed cost of \$13,090 for the replacement and installation of the Martin Drain Gate Hydraulic Accumulator.	
6. Consideration for approval of invoices (see attached)	11
7. Financial Report – Bruce Manning	12
8. Adjourn	

# MACOMB COUNTY WASTEWATER SYSTEMS



- LEGEND**
- MACOMB INTERCEPTOR DRAIN DRAINAGE DISTRICT (MIDD)
    - ◆ CUNTIONDALE PUMP STATION
    - ◇ MID METER
    - ◇ MID CONTROL STRUCTURE
    - MID INTERCEPTOR
    - MID FORCE MAIN
    - ⊕ BIOFILTER FACILITY
    - ⊕ CORROSION CONTROL FACILITY
    - RAIN GAUGE
    - ⊖ REDUCED SEWER DIAMETER
  - NORTH GRATIOT INTERCEPTOR DRAIN DRAINAGE DISTRICT (NGIDD)
    - ◆ NGI PUMP STATION
    - ◇ NGI METER
    - ◇ NGI INTERCEPTOR
    - NGI FORCE MAIN
    - RAIN GAUGE
  - NORTH GRATIOT INTERCEPTOR - LENOX LOCAL DRAIN DRAINAGE DISTRICT (NGLLDD)
    - LENOX LOCAL INTERCEPTOR
  - OAKLAND-MACOMB INTERCEPTOR DRAIN DRAINAGE DISTRICT (OMIDD)
    - ◆ CS-4 PUMP STATION
    - ◇ OMD METER
    - ◇ OMD CONTROL STRUCTURE
    - OMD INTERCEPTOR
    - ⊖ REDUCED SEWER DIAMETER
  - 1/2 MILE RELIEF DRAIN DRAINAGE DISTRICT
    - ◆ CHAPATON WEST PUMP STATION
    - ◇ CHAPATON RETENTION TREATMENT BASIN
    - ◇ CHAPATON CANAL CONTROL GATE
    - 1/2 MILE INTERCEPTOR
    - RAIN GAUGE
  - SEMI-COUNTY WASTEWATER SYSTEMS (SCWWS)
    - ◆ SEMCOWS PUMP STATION
    - ◇ CORROSION CONTROL FACILITY
    - SEMCOWS INTERCEPTOR
  - MARTIN DRAIN RETENTION DRAINAGE DISTRICT (MRDD)
    - ◆ MARTIN DRAIN RETENTION TREATMENT BASIN
  - OTHER SYSTEMS
    - ◆ PUMP STATION
    - ◇ METER
    - ★ WWTP
    - INTERCEPTOR

**Candice S. Miller**  
 MACOMB COUNTY PUBLIC WORKS COMMISSIONER



UPDATED: APRIL 2017

An adjourned meeting of the Intra-County Drainage Board for the **MARTIN SANITARY DIVERSION DRAIN** was held via telephone conference per the State of Michigan Executive Order due to the COVID-19 pandemic, on April 13, 2020, at 10:32 A.M.

PRESENT: Candice S. Miller, Chair  
Harold Haugh, Member  
Bryan Santo, Member

ALSO PRESENT: Brian Baker, Chief Deputy, Stephen Downing, Construction & Maintenance Manager, Bruce Manning, Financial Manager, Tom Stockel, Construction Engineer, Jeff Bednar P.E., Environmental Resources Manager, Vince Astorino, Operations & Flow Manager, Karen Czernel, Deputy, Kellie Kource, Drain Account Specialist, 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 with the updated Financial Report.

Adopted: YEAS: 3  
NAYS: 0

Minutes of the meeting of March 9, 2020 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. Baker updated the board that the insurance renewal policy will have a 2% increase. We still do not have the 3 year history to get more quotes. The cost will be split between each of the drainage districts (8.5, Martin, and MIDDD). A charge of \$5,102 will be added to the cost of the policy for terrorism risk insurance.

A motion was made by Mr. Haugh, supported by Mr. Santo to approve the Chapter 20 General Liability Insurance coverage renewal with Argonaut Insurance Company in the amount of \$189,369 and \$5,102 for terrorism risk insurance (Martin share \$1,166.82)

Adopted: YEAS: 3  
NAYS: 0

The Chair presented the invoices totaling \$24,996.18 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. Haugh, supported by Mr. Santo that the meeting of the Martin Sanitary Diversion Drain Board be adjourned.

Adopted: YEAS: 3  
NAYS: 0

The meeting was adjourned at 10:36 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 13, 2020 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: 4/13/20





**Candice S. Miller**

Public Works Commissioner  
Macomb County

To: Martin Sanitary Diversion Drain Drainage District Board Members

CC: File

From: Vincent Astorino, Operations & Flow Manager

Date: April 29, 2020

Subject: Martin RTB Drain Gate Hydraulic Power Unit

The 2019/2020 Martin Sanitary Diversion Drain Drainage District (MSDDDD) budget allocated \$50,000 for the replacement of the Drain Gate Hydraulic Accumulator, also known as a Hydraulic Power Unit (HPU). The HPU is the unit that raises/lowers the actual steel gate that is used to drain the basin. The existing HPU was installed in 1980 and repairs have become increasingly more costly and complicated, indicating the unit has reached the end of its service life. The purpose of this memorandum is to recommend the approval of two contractor quotations that will facilitate the completion of this project.

In October 2019, MCPWO staff engaged Fishbeck, Thompson, Carr & Huber, Inc. (now Fishbeck, Inc.) through the as-needed engineering contract to provide the design of a replacement HPU and to assist with the procurement of quotes for a new unit. Fishbeck conducted a site visit, reviewed historical documents, and has provided general engineering assistance throughout the procurement process.

The 3'x5' sluice gate in question is critical in minimizing the volume of wastewater discharged from the Martin Retention Treatment Basin to Lake St. Clair during spill events. During the beginning of a wet-weather event, the gate is opened to allow some influent flow directly to the Jefferson Interceptor while the rest begins filling the basin. Throughout the event, levels in the Jefferson Interceptor are monitored and usually downstream sewer conditions necessitate the full closure of the gate. As levels in the Jefferson Interceptor recede and stabilize near the end of the event, the position of the drain gate is periodically adjusted by MCPWO staff to hold a target level in the Interceptor. Our team has begun the process of automating the adjustments of the drain gate position at both the beginning and end of wet-weather events. These adjustments, or modulations, maximize the amount of wastewater that is diverted to the Jefferson Interceptor and ultimately to the Detroit Wastewater Treatment Plant.

MCPWO staff obtained quotes ranging from \$10,000 to \$130,000 that are summarized in the table below.

Manufacturer	Gate Operation Technology	Quoted Cost
Rotork	Electric actuator	\$10,000
Auma	Electric actuator	\$28,000
Rittertech/Colville	In-kind HPU replacement	\$33,609
REXA	Hybrid hydraulic actuator unit without HPU	\$53,652
HydroGate	In-kind HPU replacement	\$115,000

Rodney Hunt	In-kind HPU replacement	\$130,000
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The quotes varied significantly as several different technologies of gate operation were explored. The two lower-cost electric alternatives were not pursued further because of additional unquoted costs that our team anticipated as well as operational performance concerns. Ultimately, it was determined that an in-kind replacement of the HPU best utilized the existing infrastructure at the facility while also meeting future operational goals.

MCPWO staff is recommending award of the project to the contractors noted in the table below.

Company	Project Role	Quoted Cost
Rittertech	HPU and associated hydraulic components	\$20,519
Colville Electric Co.	Electrical panel, controls, and switches	\$13,090
Fishbeck	Professional Services (previously authorized)	\$10,000
<b>TOTAL PROJECT COST:</b>		<b>\$43,609</b>

For this project \$50,000 has already been budgeted so the remaining budgeted funds of \$6,391 will be used for additional MCPWO expenses related to integrating the new HPU into the SCADA system and completing the automatic gate position programming. Upon approval, MCPWO staff will execute the contracts with the two entities. Fabrication of the HPU is expected to take approximately 12 weeks corresponding to an installation in August 2020.

Attachments: Rittertech Quote Dated 04/21/20  
Colville Electric Quote Dated 04/15/20

Date: April 21, 2020

Quote Number: M20-0016A Revision 1

To:

Macomb DPW – Martin Retention Basin  
23001 East 9 Mile Road  
St. Clair Shores, MI 48080

Attention: Pete Trombley

Subject:

3GPM, 10HP, 30 Gallon JIC  
Hydraulic Power Unit  
w/D03 Valving

Page 1 of 3

We propose to furnish the following, to build one (1) 3GPM, 10HP, 30 Gallon JIC hydraulic power unit with two (2) pump/motor sets and back-up hand pump assembly.

Revision 1 April 17<sup>th</sup> : Parker accumulator with valve assembly added to HPU.  
Includes estimate for shipping and installation

The unit will include the following items:

**Hydraulic Power Unit:**

- A) Magnaloy RJIC030-FT 30 Gallon JIC Reservoir
- B) Magnaloy RJDPR030 Drip Stand (48" x 36" x 8")
- C) Magnaloy SLLG-05T-C Sight Level Gauge
- D) Magnaloy FB-H008 Filler Breather
- E) Teco Westinghouse NP0104C Electric Motor (2 Pcs.)  
215TC Frame, 10HP, 1800 RPM, 230/460V, 60Hz 3PH
- F) Fluidyne V10-1S2S-1A20R Vane Pump – 3.0GPM @ 1800RPM (2 Pcs.)
- G) Magnaloy M182522A Pump/Motor Adapter (2 Pcs.)
- H) Magnaloy M200 Coupling Assembly w/Hytrel Insert (2 Pcs.)
- I) Tech Products 52525 Pump/Motor Isolation Mounts (8 Pcs.)
- J) Stauff SUS-088-N16-140-125-A-B0.2 Inlet Strainer (2 Pcs.)
- K) Magnaloy SLFE-500-100T Tank Top Flange Kit (2 Pcs.)
- L) Parker 12AT10CN25MMH Return Filter Assembly
- M) Stauff SPG-063-03000-05-S-U04 Pressure Gauge – 0-3000 PSI (4 Pcs.)
- N) DMIC DGMV-S41 Gauge Isolator (4 Pcs.)
- O) Parker V500P-12 Reservoir Drain Ball Valve
- P) Parker C820S Pump Pressure Out Check Valve (3 Pcs.)

**Prices Good for 30 Days**

Terms: See Note

F.O.B. Pewaukee, WI

Delivery: 10-14 Weeks ARO

Quote Prepared By: Mike Swiatkowski – Strategic Account Manager



Date: April 21, 2020

Quote Number: M20-0016A Revision 1

To:

Macomb DPW – Martin Retention Basin  
23001 East 9 Mile Road  
St. Clair Shores, MI 48080

Attention: Pete Trombley

Subject:

3GPM, 10HP, 30 Gallon JIC  
Hydraulic Power Unit  
w/D03 Valving

Page 2 of 3

We propose to furnish the following, to build one (1) 3GPM, 10HP, 30 Gallon JIC hydraulic power unit with two (2) pump/motor sets and back-up hand pump assembly.

Revision 1 April 21st : Parker accumulator with valve assembly added to HPU.

The unit will include the following items:

**Hydraulic Power Unit - Continued:**

- Q) Magnaloy BM-ASP03S2-02-1/C D03 2 Station Manifold w/Relief Cavity
- R) Magnaloy CP-ASP03E-1/Z D03 Cover Plate (Spare Station)
- S) Parker RAH101S30 Main Relief Valve (Set @ 2200 PSI)
- T) Parker D1VW001CNYGH56 D03 Directional Control Valve (120VAC)
- U) Parker PRH101S20 Cartridge Pressure Reducing Module (Cap Port - Set as Required)
- V) Parker P10-3V Cartridge Cavity Plug
- W) Parker BD03-DDX-A D03 Cartpak Body
- X) Parker FM2DDKN D03 Dual Flow Control Module
- Y) Doering DCHP16365PS-24-S Cartridge Hand Pump w/Handle
- Z) Doering MAN-16-3-P-S Cartridge Hand Pump Body
- AA) Parker BA10B3T01P2 10 Gallon Accumulator
- BB) Valve Assembly (Parker B10-3-A6T Valve Body, CPC101P Pilot to close valve, N620S Needle Valve)
- CC) IFM Efeator PN3071 Pressure Switch (24VDC, Analog – Set as Required)
- DD) ACT B40033AFD2B658 Level/Temperature Switch
- EE) 37° Tube Fittings & Piping, SAE Ported
- FF) Tested and Painted RAL7031 (Blue-Gray)
- GG) Packaged for Domestic Shipping

Net Each: \$18,667.00

**Prices Good for 30 Days**

**Terms:** See Note

**F.O.B.** Pewaukee, WI

**Delivery:** 10-14 Weeks ARO

**Quote Prepared By:** Mike Swiatkowski – Strategic Account Manager



Services

Shipping

Shipping from Wisconsin to Martin Retention Basin \$600

Installation

Ritter will install the hydraulic power unit. We will handle pipefitting and start up of the unit.

Ritter will also remove the current HPU at no additional cost to Macomb DPW.

Will conduct site visit before hand to provide more detailed estimate of labor hours.

Labor rate: \$125 per hour

Estimated maximum labor is 8 hours

New Oil (5 Gallon containers, 6 needed for reservoir and system) \$222

Removal of old oil \$30

**Project Total (Estimated Maximum) \$20,519**

**Prices Good for 30 Days**

**Terms:** See Note

**F.O.B.** Pewaukee, WI

**Delivery:** 10-14 Weeks ARO

**Quote Prepared By:** Mike Swiatkowski – Strategic Account Manager

**Colville Electric Co., LLC**  
 23416 Gratiot Ave  
 Eastpointe, MI 48021  
 office@colvilleelectric.com

**ADDRESS**

Macomb County DPW  
 Martin Basin  
 23001 Nine Mile Rd.  
 St. Clair Shores, MI 48080

**SHIP TO**

Macomb County DPW  
 Martin Basin  
 23001 Nine Mile Rd.  
 St. Clair Shores, MI 48080

**Estimate 20-099**

**DATE** 04/15/2020



DATE	DESCRIPTION	AMOUNT
	Control Panel 2 NEMA Size 1 Starters w/ electronic overloads. Single panel mounted disconnect with separate over current devices. Control relays as needed to preform basic alternating pump operation. Remote and Local gate control. Pumps, pressure switches and solenoids by others. Local display of gate location from existing 4-20mA Loop. Local limit indication., 1 @ \$6,870.00	6,870.00
	Install control panel on existing feeders. Install two contol conduits to existing scada panel for analog loop and control wiring. Install conduits and wiring to pressure switches and pumps provided by others. Pull wiring and supply support for startup(by others), SCADA integration and testing (by others), 1 @ \$3,280.00	3,280.00
	Install additional keyed selector switch at rear door for gate operation with open/close indication. Install selector switch on accumulator panel to disable exterior controls. Install wiring to SCADA for indication of remote operation indication. Programming by others., 1 @ \$2,940.00	2,940.00

**TOTAL \$13,090.00**

Accepted By

Accepted Date

Terms are NET 30 unless otherwise noted.  
 All past due accounts subject to 1.5% per month finance charge.

MARTIN SANITARY DIVERSION - 4/21/20 - 5/5/20

<u>Funding Source</u>	<u>Apportionment</u>	<u>Manager</u>	<u>Vendor</u>	<u>Amount</u>	<u>Invoice Detail</u>	<u>Project Summary</u>	<u>Project Balance</u>
Martin Sanitary Diversion Drain	Chapter 20 Roseville - 78.09% St. Clair Shores - 21.91%	Astorino	Access Interactive	\$ 7,976.55	Invoice #INV000102397 - 4.16.20	SCADA Equipment On-Call Emergency Response Agreement - Possible COVID Reimbursement Monthly Electric - 3.18.20 - 4.16.20 Liability Insurance Martin RTB Disinfection Improvements - Design	
		Astorino	Colville Electric Co., LLC	\$ 787.50	Invoice #I20-0241 - 4.28.20		
		Astorino	DTE Energy	\$ 789.92	Invoice #20-196 - 4.17.20		
		Baker	Nickel & Saph, Inc.	\$ 1,166.83	Invoice #20492 - 4.13.20		
		Astorino	Wade Trim	\$ 4,385.00	Invoice #2017955 - 4.30.20		
		<b>Total</b>			\$ 15,105.80		



YTD Budget  
Fund: Martin Sanitary Diversion  
As of Fiscal Period: Oct 1, 2019-April 30, 2020

DESCRIPTION	2020 FINAL BUDGET	ENCUMBERED	ACTUAL	REMAINING BUDGET	PCT UTILIZED
<b>REVENUE ACCOUNTS</b>					
State-Grants	-			-	100.0%
Investment Inc-Interest	5,000		3,104	1,896	62.1%
Reimb-Local Communities	838,682		838,682	-	100.0%
PY Revenue-Fund Balance	286,915			286,915	0.0%
<b>Total Revenue Accounts</b>	<b>1,130,597</b>	<b>-</b>	<b>841,786</b>	<b>288,811</b>	<b>74.5%</b>
<b>EXPENSE ACCOUNTS</b>					
Application/Permit Fee	3,000		6,000	(3,000)	200.0%
Dues, Training, Conf, Subs.	3,150			3,150	0.0%
<b>Engineering</b>					
-As Needed Engineering	15,000		650	14,350	4.3%
- Disinfection System Replacement	200,000		20,766	179,234	10.4%
-CCTV of Dewatering Line and Influent and Effluent Boxes	25,000		246	24,754	1.0%
-Design Flushing System Upgrades & First Flush Capture	375,000			375,000	0.0%
-Replace Drain Gate Hydraulic Accumulator*	-		820	(820)	0.0%
-Design Basin Equipment Hatch	12,000		2,050	9,950	17.1%
New Equipment	12,900			12,900	0.0%
Operating Supplies	55,900		17,255	38,646	30.9%
Other Professional Svcs	18,000		3,624	14,376	20.1%
Personnel Services	188,558		42,152	146,406	22.4%
Repair & Maintenance	138,740		55,735	83,005	40.2%
Scada System	24,894		12,452	12,442	50.0%
Utilities	43,150		9,035	34,115	20.9%
Capital Reserve	15,305		15,305	-	100.0%
<b>Total Expense Accounts</b>	<b>1,130,597</b>	<b>-</b>	<b>186,090</b>	<b>944,508</b>	<b>16.5%</b>

	O&M Balance 9/30/2019	O&M	Total 4/30/2020
Cash - Operating	687,459	655,697	1,343,156
Accounts Receivable			0
Assets			0
Liabilities			0
Revenues		841,786	841,786
Expenditures		186,090	186,090
Equity	687,459		1,343,156

**Detail of 2019 Equity**

Design Basin Equipment Hatch	12,000
Sampling Pumps	7,500
Replace Drain Gate Hydraulic Accumulator*	50,000
Design Flushing System Upgrades & First Flush Capture	200,000
SCADA Reserves	11,610
Capital Reserves	406,349

\* Project was projected to be completed during 18/19 budget cycle. However it was not completed, so funds designated in 18/19 for this project will be used in 19/20