

WATER ASSET MANAGEMENT PLAN

PREPARED FOR:

VILLAGE OF BLISSFIELD, MICHIGAN

PREPARED BY:

POGGEMEYER DESIGN GROUP, INC.
1168 NORTH MAIN STREET
BOWLING GREEN, OHIO 43402

PDG PROJECT NO. 123700-00012

JUNE 2018

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INTRODUCTION

Water systems are made up of assets. The visible assets include pipes, valves, tanks, pumps, hydrants and the treatment facility. Assets lose value over time as the system ages and deteriorates. As the assets deteriorate, the level of service the customers' desire may become compromised and O&M costs may increase.

Asset management is an approach to manage the assets of the system and assist the utility with making decisions on aging assets. The goal is to meet a required level of service in the most cost-effective way through the creation, acquisition, operation, maintenance, rehabilitation and disposal of assets to provide for present and future customers. The intent is to ensure long term sustainability of the water utility.

Asset management is a set of procedures to manage assets thru their life cycles. The five core components of an asset management plan are:

1. Asset Inventory
2. Level of Service
3. Critical Assets
4. Revenue Structure
5. Capital Improvement Project Plan

TEAM MEMBERS

Contact Person: James Wonacott
Village
Title: Administrator
Overall
Role: Management
Email: administrator@blissfieldmichigan.gov

Team Member: Kipp Scott
Title: Water treatment Supervisor
Role: Water Treatment Plant Supervisor
Email: waterplant@blissfieldmichigan.gov

Team Member: Brent Kastel
Title: Supervisor of Public Works
Role: Water Distribution System Supervisor
Email: publicworks@blissfieldmichigan.gov

MISSION STATEMENT

To provide safe, clean, affordable drinking water to the residents and businesses of Blissfield.

INVENTORY OF ASSETS

In 2016 the Village of Blissfield completed a Utility Master Plan that included assessing each component of the water treatment plant and water distribution system. The distribution system portion also included a hydraulic model to determine the order in which the water mains should be replaced to provide the village the greatest benefit. This master plan was the basis for the inventory of assets.

The MDEQ forms guidance worksheet was used to inventory the assets and consists of a list of assets, their age, condition, useful life and replacement costs.

The village will maintain and update this spreadsheet as items get replaced or need to be moved up on the list.

CRITICALITY OF ASSETS

A criticality factor was assigned to each asset based on its condition, probability of failure and consequence of failure. Not all assets are equally important. The probability of failure and the consequence of the failure determine the criticality. If the product of the probability and consequence of failure is 16 or greater, that asset shall be located on the Capital Improvement Plan (CIP) list.

The tables below illustrate what each rating means.

TABLE 1 - CONDITION ASSESSMENT	
Condition Rating	Description
5	Asset Unserviceable – over 50% of asset requires replacement
4	Significant deterioration- significant renewal/upgrade required (20-40%)
3	Moderate Deterioration- significant maintenance required (10-20%)
2	Minor Deterioration – minor maintenance required (5%)
1	New or Excellent Condition – only normal maintenance required

TABLE 2 - PROBABILITY OF FAILURE	
Performance Rating	Description
5	Imminent – Likely to occur in the life of the item
4	Probable – will occur several times in the life of an item
3	Occasional – Likely to occur sometime in the life of an item
2	Remote – Unlikely but possible to occur in the life of an item.
1	Improbable – So unlikely, it can be assumed occurrence may not be

	experienced
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TABLE 3 - CONSEQUENCE OF FAILURE	
Performance Rating	Description
5	Catastrophic Disruption
4	Major Disruption
3	Moderate Disruption
2	Minor Disruption
1	Insignificant Disruption

The ratings were determined based on the assessment that was completed in 2016 and included in the Asset Inventory located in Appendix A.

LEVEL OF SERVICE GOALS

The Level of Service (LOS) defines how Blissfield wants the utility to perform over the long term. The LOS can include technical, managerial, or financial components as long as all regulatory requirements are met. The LOS sets the goals for the utility and allows the operations staff to know what is expected of them and the management staff to understand how to use the staff and other resources efficiently and effectively.

There is a direct link between the LOS provided and the cost to the customer. When a higher LOS is provided, costs to provide that higher level of service will likely increase.

The Table below states Blissfield's LOS goals.

TABLE 4 – LEVEL OF SERVICE				
Sample Areas	Objectives	Level of Service	Is it Measureable	How often Measured
Safe Drinking Water	All federal and state regulations will be met	Perform all required monitoring	Yes	Monthly reporting
Health, Safety	To provide a safe and injury free work place	No MIOSHA safety violations	Yes	MIOSHA is reviewed every 3-4 yrs; however informal review is done yearly
Operator certification	Must have operator in charge & backup operator on staff	2 certified operators on staff with level F2& 4 - level F4 license at WTP; 1 - level S4 & 2- Level S3 for distribution	Yes	Yearly
Customer Complaints	To provide excellent customer service	All complaints will be investigated within 2 business days	Yes	Audited Yearly

Response Time	To provide excellent customer service	Customer emergency response time within 2 hours Customers will receive written notice 24 hours in advance of any planned interruption in service.	Yes	Audited Yearly
Operating Reserves	Enough reserves to cover all anticipated major expenses and potential unexpected breakdowns	Follow MDEQ Asset Management Guidelines	Yes	Bi-Annually
Supply Water	Preventative maintenance on all equipment related to the supply water to prevent unscheduled breakdowns	Document all Maintenance performed	Yes	Audited Yearly

The Asset Management Team developed the LOS based on input from their staff. The LOS may change and adjust over time. This may be required because Blissfield may discover that it is too costly to operate at this LOS or that new rules and regulation require a change in operation.

CAPITAL IMPROVEMENT PLAN (CIP)

A 5 year and 20 year Capital Improvement Project Plan (CIP) are located in Appendix A. Projects that are to replace or improve deteriorated assets from the asset inventory worksheet are included. The CIP includes the project's anticipated cost so that funding of the project can be determined.

The reserve required each year according to these projects is then added to the budget.

The CIP is to be re-submitted any time it is updated.

FUNDING STRUCTURE AND RATE METHODOLOGY

The rate methodology is to help determine rates and charges that will provide sufficient revenues to cover operation, maintenance, replacement, CIP and debt costs. A billable flow will generate revenues thru a rate based on usages. A readiness to serve method will generate revenues thru a fixed unit.

2017 year ending budget were used in the Rate Methodology Worksheet located in Appendix A. Different percentages of variable versus fixed costs can be evaluated. The Village's current

charges are \$4.99/ 1000 gal with a \$32.37 per month fixed charge.

The CIP budget numbers are included as well as a replacement budget. The Replacement expenses spreadsheet can be seen in the appendix. These are projects that will be funded out of system revenues.

Rates and charges are developed based upon the billable units the community employs once the total system expense have been identified. Revenues must beat or exceed the expense or the community will be forced to subsidize the water system. Rates and charges should be increased to minimize/eliminate subsidies.

The annual operating budget, current rates, and documentation of legal authority for rate setting are located in Appendix B.

CONCLUSION

Asset management is a process of operating, maintaining and upgrading assets cost-effectively. It is an active, ongoing process that needs to be monitored and updated.

APPENDIX A

APPENDIX B

Asset Inventory

Table 1

Directions

- A. List assets
- B. Enter asset information
- C. To add more assets use insert function and add rows then copy first asset row to new rows to transfer formulas
- D. Enter information in highlighted cells
- E. Remaining cells will calculate automatically.

A	B	C	D	E	F	G	H	I	J	K	L	M
Source Assets	Material	Location	Latitude	Longitude	Manufacturer	Original Cost	Replacement Cost	Remaining Useful Life in Years	Condition	Probability of Failure	Consequence of Failure	Criticality Factor
Low Service Pump- 1,833 gpm @ 64'	vertical tu	1330 Beamer r	41°49'29"N	83°52'18"W			\$ 20,000	2	3	4	5	20
Low Service Pump 2-1,833 gpm @ 64'	vertical tu	1330 Beamer r	41°49'29"N	83°52'18"W			\$ 20,000	2	3	4	5	20
Low Service Pump 3-1,833 gpm @ 64'	vertical tu	1330 Beamer r	41°49'29"N	83°52'18"W			\$ 20,000	2	3	4	5	20
Intake 1, 1.3 mgd	1929	1330 Beamer r	41°49'29"N	83°52'18"W			\$ 2,000,000	20	3	1	5	5
Intake 2, 3.6 mgd	1999	1330 Beamer r	41°49'29"N	83°52'18"W			\$ 2,000,000	40	2	1	5	5
								0				0
								0				0

If Criticality Factor is greater than 16 cell will turn RED
 If Criticality Factor is greater than 16 [add to CIP table](#)

A	B	C	D	E	F	G	H	I	J	K	L	M
Treatment Assets	Material	Location	Latitude	Longitude	Manufacturer	Original Cost	Replacement Cost	Remaining Useful Life in Years	Condition	Probability of Failure	Consequence of Failure	Criticality Factor
Pretreatment reactor basins (3) - 26,000 gal each	concrete	WTP	41°49'26.8"N	83°52'15.4"W	ANCO Mixers		\$ 435,000	20	2	2	4	8
Flash Mix (2), 539 gal each	concrete	WTP	41°49'26.8"N	83°52'15.4"W	ANCO Mixers		\$ 20,000	20	2	2	4	8
Clarifiers (2), 250,000 gal each		WTP	41°49'26.8"N	83°52'15.4"W	US Filter		\$ 100,000	20	2	2	4	8
filtration (4), 208 sq ft area each	concrete	WTP	41°49'26.8"N	83°52'15.4"W	US Filter		\$ 325,000	20	2	2	4	8
Filter backwash pumps (2), 2496 gpm @ 25' TDH	verrical tu	WTP	41°49'26.8"N	83°52'15.4"W	Floway Pumps		\$ 40,000	2	2	4	3	12
Nitrate Removal System (4), 850 gpm blended water		WTP	41°49'26.8"N	83°52'15.4"W	Hungerford and Terry		\$ 70,000	2	2	4	3	12
chlorinators (2)	vacuum fe	WTP	41°49'26.8"N	83°52'15.4"W	Regal		\$ 35,000	2	2	4	4	16
Ferric Sulfate feed (2) 1.5-19 gph		WTP	41°49'26.8"N	83°52'15.4"W	Jesco		\$ 5,000	2	2	4	4	16
Ferric Sulfate Storage	580/376 g	WTP	41°49'26.8"N	83°52'15.4"W	Edwards Fiberglass		\$ 15,000	2	2	2	4	8
Flouride, 6.26 gph		WTP	41°49'26.8"N	83°52'15.4"W	Prominent		\$ 10,000	2	2	4	3	12
Caustic Soda feed, 19 gph		WTP	41°49'26.8"N	83°52'15.4"W	Jesco		\$ 5,000	2	2	4	3	12
Caustic Soda Storage	3800/206	WTP	41°49'26.8"N	83°52'15.4"W	Edwards Fiberglass		\$ 15,000	2	2	2	3	6
Phosphate Feeders (2), 1.6 gph		WTP	41°49'26.8"N	83°52'15.4"W	Jesco		\$ 5,000	2	2	4	3	12
Polymer Feeders (2), 0.6 gph		WTP	41°49'26.8"N	83°52'15.4"W	Prominent		\$ 5,000	2	2	4	4	16
Potassium Permanganate feeder (1), 19 gph		WTP	41°49'26.8"N	83°52'15.4"W	Jesco		\$ 15,000	2	2	4	3	12
Powder activated carbon feeder (2), 0.15 gpm	peristalic	WTP	41°49'26.8"N	83°52'15.4"W	Bredel		\$ 20,000	2	2	4	2	8
high service pumps (2), 973 gpm @ 187 TDH	verrical tu	by clearwell	41°49'22.6"N	83°52'12.1"W	Floway Pumps		\$ 184,000	2	2	4	5	20
sludge transfer station, 45,000 gal		WTP	41°49'24.8"N	83°52'18.3"W	ABS Submersible		\$ 15,000	20	2	2	4	8
sludge dewatering plant		West of WTP	41°49'24.7"N	83°52'18.9"W	CBB Decanter		\$ 1,100,000	20	2	2	4	8

If Criticality Factor is greater than 16 cell will turn RED
 If Criticality Factor is greater than 16 [add to CIP table](#)

A	B	C	D	E	F	G	H	I	J	K	L	M
Storage/Distribution Assets	Material	Location			Manufacturer	Original Cost	Replacement Cost	Remaining Useful Life in Years	Condition	Probability of Failure	Consequence of Failure	Criticality Factor
valves (243 valves total)	DI	various					22500	0	4	3	3	9

clearwell stroage	concrete	WTP			unknown	unknown	748,000	10	3	2	5	10
400,000 elevated tank	steel 1992	sherman street					1,000,000	70	2	1	2	2
hydrants (189 total)	DI	various					60,000	0	4	3	4	12
2" Waterline (2142 feet)	Sand Cast and DI	replace all sand cast					62,500	10	3	5	3	15
4" WL (14,166 feet)	Sand Cast and DI	replace all sand cast with 8" DIP					1,035,000	10	4	5	3	15
6" WL (46,171 feet)	Sand Cast and DI	replace all sand cast with 8" DIP					3,435,000	10	4	5	3	15
8" WL (32,191 feet)	Sand Cast and DI	replace all sand cast with 8" DIP					930,000	10	4	5	3	15
10" WL (6,761 feet)	Sand Cast and DI	replace all sand cast with 10" DIP					928,000	10	4	5	3	15
12" WL (128,782 feet)	DI							40	2	3	3	9

If Criticality Factor is greater than 16 cell will turn RED
If Criticality Factor is greater than 16 [add to CIP table](#)

Capital Improvement Project Plan

Directions

- A. List projects to be completed
- B. Determine how long before the project must begin
- C. Enter the total projected cost of the project
- D. To add more CIP's use insert function and add rows then copy first CIP row to new rows to transfer formulas

E. Enter information in highlighted cells

F. Remaining cells will calculate automatically.

5 year CIP

A	B		C	
Projects	Years Until Project Must Begin	Completion Date	Cost	Reserve Required Each Year
chlorine residual monitoring	5	9/30/2023	\$ 8,400	\$ 1,680
rapid sand mixer catwalk	5	9/30/2023	\$ 10,800	\$ 2,160
HSP#3 install	5	9/30/2023	\$ 110,400	\$ 22,080
geotubes at WTP	5	9/30/2023	\$ 304,800	\$ 60,960
filtered water to nitrate reduction system	5	9/30/2023	\$ 84,000	\$ 16,800
clean/repair Clearwell	5	9/30/2023	\$ 207,240	\$ 41,448
Replace valves (45 valves at \$500 each)	10	9/30/2028	\$ 22,500	\$ 2,250
Replace hydrants (30 at \$2,000 each)	10	9/30/2028	\$ 60,000	\$ 6,000
Low Service Pumps	2	9/30/2020	\$ 60,000	\$ 30,000
			\$ -	\$ -
			\$ -	\$ -
			\$ -	\$ -
Total Capital Improvement reserve required in the current year				\$ 183,378

Click Total to add to Budget

20 year CIP

A	B		C	
Projects	Years Until Project Must Begin	Completion Date	Cost	Reserve Required Each Year
N. Lane Water line	10	9/30/2028	\$ 398,400	\$ 39,840

Parkwood Ave Loop	10	9/30/2028	\$ 202,440	\$ 20,244
Worth Street Water line	10	9/30/2028	\$ 206,880	\$ 20,688
Sherman Water line	10	9/30/2028	\$ 268,440	\$ 26,844
E. Adrian Water line	10	9/30/2028	\$ 106,920	\$ 10,692
Cherry St Water line	10	9/30/2028	\$ 229,440	\$ 22,944
N. Quick St Water line	10	9/30/2028	\$ 390,360	\$ 39,036
MacArthur Water line	10	9/30/2028	\$ 158,400	\$ 15,840
400,000 gal Elevated Tank	10	9/30/2028	\$ 1,250,000	\$ 125,000
Blissfield Hwy Water line	15	9/30/2033	\$ 156,000	\$ 10,400
S. Monroe St Water line	15	9/30/2033	\$ 186,000	\$ 12,400
Mt. Vernon Dr Loop	15	9/30/2033	\$ 109,800	\$ 7,320
Driggs Rd/S. Wellsville Loop	15	9/30/2033	\$ 450,000	\$ 30,000
Joy St/Westbrooke Lane Loop	15	9/30/2033	\$ 429,000	\$ 28,600
Quick St/Blissfield Hgts Loop	15	9/30/2033	\$ 480,000	\$ 32,000
Replace Sand Cast Pipe-Phase 1	20	9/30/2038	\$ 3,800,000	\$ 190,000
New Resident Meters	15	9/30/2033	\$ 1,000,000	\$ 66,667
	0		\$ -	\$ -
Total Capital Improvement reserve required in the current year				\$ 698,515

Click Total to add to Budget

Rate Methodology Table 4

Directions

A. To add more line item expenses use insert function and add rows then copy first line item row to new rows to transfer formulas

B. Enter information in highlighted cells

C. Remaining cells will calculate automatically.

Gallons (mil)	<<< Click at left and select flow units (million cubic feet or millions of gallons)
240.44	<<< Enter annual billable flow in units selected above
31.5	<<< Enter typical quarterly flow of single-family home in units selected above
Hookups	<<< Click at left and select the type of fixed units
1,475	<<< Enter number of fixed units

Calculate Operating Reserve (optional if creating budget for only OM&R)	
\$ 1,908,250	Total OM&R from Expenditures in table below
\$ 954,125	Targeted Operating Reserve Amount (this is 50% of OM&R)
\$ 7,205,540	<<< Enter amount of cash or equivalents
\$ (6,251,415)	Additional Operating Reserves Needed (If negative number, stop here)
5	<<< Enter # of years to accumulate reserves (rule of thumb is 5 years)
\$ -	Annual Contribution To Achieve Targeted Operating Reserve Amount

1. Edit budget items below, if needed
2. Enter budget amount for each item in highlighted cells
3. Under Options 3 and 4, enter percent of entire budget allocated to billable flow (Variable). The remainder is allocated to Fixed.
4. Under Option 5, enter percent of each budget item allocated to billable flow. The remainder is allocated to Fixed.
5. Click on Capital Improvements tab and Replacement tab to complete those worksheets

Expenditures	Budget	Option 1		Option 2		Option 3		Option 4		Option 5	
		Variable	Fixed	Variable	Fixed	Variable	Fixed	Variable	Fixed	Variable	Fixed
		100%	100%	80%	20%	20%	80%	%	50%	50%	
Operation, Maintenance and Repair (OM&R)											
Salaries	\$ 285,684	\$ 285,684	\$ 285,684	\$ 228,547	\$ 57,137	\$ 57,137	\$ 228,547	50%	\$ 142,842.09	\$ 142,842	
* Insurance	\$ 57,095	\$ 57,095	\$ 57,095	\$ 45,676	\$ 11,419	\$ 11,419	\$ 45,676	50%	\$ 28,547.62	\$ 28,548	
* Dental	\$ 5,703	\$ 5,703	\$ 5,703	\$ 4,563	\$ 1,141	\$ 1,141	\$ 4,563	50%	\$ 2,851.57	\$ 2,852	
* MERS	\$ 31,634	\$ 31,634	\$ 31,634	\$ 25,307	\$ 6,327	\$ 6,327	\$ 25,307	50%	\$ 15,816.80	\$ 15,817	
* Medicare	\$ 21,799	\$ 21,799	\$ 21,799	\$ 17,439	\$ 4,360	\$ 4,360	\$ 17,439	50%	\$ 10,899.33	\$ 10,899	
* FICA	\$ 10,743	\$ 10,743	\$ 10,743	\$ 8,595	\$ 2,149	\$ 2,149	\$ 8,595	50%	\$ 5,371.62	\$ 5,372	
* Disability	\$ 2,119	\$ 2,119	\$ 2,119	\$ 1,695	\$ 424	\$ 424	\$ 1,695	50%	\$ 1,059.45	\$ 1,059	
Unemployment Insurance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0%	\$ -	\$ -	
Postage	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0%	\$ -	\$ -	
Bank Charges	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0%	\$ -	\$ -	
Operating Supplies	\$ 339,086	\$ 339,086	\$ 339,086	\$ 271,268	\$ 67,817	\$ 67,817	\$ 271,268	50%	\$ 169,542.75	\$ 169,543	
Contract Services	\$ 77,385	\$ 77,385	\$ 77,385	\$ 61,908	\$ 15,477	\$ 15,477	\$ 61,908	50%	\$ 38,692.31	\$ 38,692	
Telephone	\$ 1,683	\$ 1,683	\$ -	\$ 1,346	\$ 337	\$ 337	\$ 1,346	50%	\$ 841.33	\$ 841	
Dues	\$ 3,394	\$ 3,394	\$ 3,394	\$ 2,715	\$ 679	\$ 679	\$ 2,715	50%	\$ 1,696.75	\$ 1,697	
Printing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0%	\$ -	\$ -	
Insurance & Bonds	\$ 9,135	\$ 9,135	\$ 9,135	\$ 7,308	\$ 1,827	\$ 1,827	\$ 7,308	50%	\$ 4,567.50	\$ 4,568	
Utilities	\$ 103,067	\$ 103,067	\$ 103,067	\$ 82,453	\$ 20,613	\$ 20,613	\$ 82,453	50%	\$ 51,533.25	\$ 51,533	
Repairs	\$ 911	\$ 911	\$ 911	\$ 729	\$ 182	\$ 182	\$ 729	50%	\$ 455.61	\$ 456	
Maintenance	\$ 58,927	\$ 58,927	\$ 58,927	\$ 47,142	\$ 11,785	\$ 11,785	\$ 47,142	50%	\$ 29,463.68	\$ 29,464	
Rentals	\$ 17,994	\$ 17,994	\$ 17,994	\$ 14,395	\$ 3,599	\$ 3,599	\$ 14,395	50%	\$ 8,996.93	\$ 8,997	
GIS software	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	50%	\$ -	\$ -	
Replacement (See Table 4)	\$ 881,893	\$ 881,893	\$ -	\$ -	\$ -	\$ -	\$ -	0%	\$ -	\$ -	
Total OM&R	\$ 1,908,250	\$ 1,908,250	\$ 44,596	\$ 821,086	\$ 205,271	\$ 205,271	\$ 821,086		\$ 410,543	\$ 410,543	
Capital Improvement (See Table 5)	\$ 881,893	\$ 881,893	\$ 881,893	\$ 705,514	\$ 176,379	\$ 176,379	\$ 705,514	50%	\$ 440,946	\$ 440,946	
Operating Reserves	\$ 562,174	\$ 562,174	\$ 562,174	\$ 449,739	\$ 112,435	\$ 112,435	\$ 449,739	50%	\$ 281,087	\$ 281,087	
Debt Expenses	\$ 636,250	\$ 636,250	\$ 636,250	\$ 509,000	\$ 127,250	\$ 127,250	\$ 509,000	50%	\$ 318,125	\$ 318,125	
Miscellaneous	\$ 2,239	\$ 2,239	\$ 2,239	\$ 1,791	\$ 448	\$ 448	\$ 1,791	50%	\$ 1,119	\$ 1,119	
Total Water System Expenses	\$ 3,990,805	\$ 3,990,805	\$ 2,127,151	\$ 2,487,130	\$ 621,783	\$ 621,783	\$ 2,487,130		\$ 1,451,821	\$ 1,451,821	

Calculate Rate	Option 1	Option 2	Option 3	Option 4	Option 5
Rate per 1000 Gallons	\$ 16.60		\$ 10.34	\$ 2.59	\$ 6.04
Readiness to serve charge/Hookup	\$ -	\$ 1,442.14	\$ 421.55	\$ 1,686.19	\$ 984.29
Quarterly Bill for single-family home	\$ 522.84	\$ 360.53	\$ 431.23	\$ 503.01	\$ 436.27

Replacement Expenses

Table 5

Directions

- A. List assets to be replaced or rehabilitated
- B. Determine how long before action must take place
- C. Enter cost to replace or rehabilitate
- D. To add more replacement items use insert function and add rows then copy first line item row to new rows to transfer formulas
- E. Enter information in highlighted cells
- F. Remaining cells will calculate automatically.

A	B	C	
Projects	Remaining Useful Life in Years	Replacement Cost	Reserve Required Each Year
Replace valves (45 valves at \$500 each)	10	\$ 22,500	\$ 2,250
low service pumps (3)	2	\$ 60,000	\$ 30,000
filtered water to nitrate reduction system	5	\$ 84,000	\$ 16,800
clean/repair Clearwell	5	\$ 207,240	\$ 41,448
Replace hydrants (30 at \$2,000 each)	10	\$ 60,000	\$ 6,000
chlorine residual monitoring	5	\$ 8,400	\$ 1,680
rapid sand mixer catwalk	5	\$ 10,800	\$ 2,160
HSP#3 install	5	\$ 110,400	\$ 22,080
geotubes at WTP	5	\$ 304,800	\$ 60,960
N. Lane Water line	10	\$ 398,400	\$ 39,840
Parkwood Ave Loop	10	\$ 202,440	\$ 20,244
Worth Street Water line	10	\$ 206,880	\$ 20,688
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Mt. Vernon Dr Loop	15	\$ 109,800	\$ 7,320
Driggs Rd/S. Wellsville Loop	15	\$ 450,000	\$ 30,000
Joy St/Westbrooke Lane Loop	15	\$ 429,000	\$ 28,600
Quick St/Blissfield Hgts Loop	15	\$ 480,000	\$ 32,000

Replace Sand Cast Pipe-Phase 1	20	\$ 3,800,000	\$ 190,000
New Resident Meters	15	\$ 1,000,000	\$ 66,667
Total Replacement reserves required in the current year			\$ 881,893

Click Total to add to Budget

PERIOD ENDING 09/30/2017

GL NUMBER	DESCRIPTION	2016-17	YTD BALANCE	ACTIVITY FOR		AVAILABLE	% BDGT USED
		ORIGINAL BUDGET	09/30/2017	INCREASE	MONTH 09/30/2017 (DECREASE)	BALANCE (ABNORMAL)	
Fund 595 - WATER AND SEWER FUND							
Revenues							
Dept 000 - REVENUE							
595-000-590.000	WWTP TRANSFERS	0.00	100,000.00	100,000.00		(25,000.00)	133.33
595-000-642.000	SEWER CONNECTION CHARGES	1,500.00	0.00	0.00		1,500.00	0.00
595-000-643.000	WATER CONNECTION CHARGES	1,500.00	0.00	0.00		1,500.00	0.00
595-000-651.000	WATER SAMPLES	25,000.00	30,950.00	3,700.00		(5,950.00)	123.80
595-000-652.000	WATER SALES	2,230,000.00	1,971,772.80	91,834.06		258,227.20	88.42
595-000-655.000	TANK WATER	25,000.00	22,075.00	2,660.75		2,925.00	88.30
595-000-662.000	WATER LATE CHARGES	25,000.00	21,575.27	2,332.72		3,424.73	86.30
595-000-673.000	UTILITY INTEREST	500.00	67.99	0.00		432.01	13.60
595-000-674.000	BOND REDEMPTION INTEREST	0.00	3.20	0.00		(3.20)	100.00
595-000-675.000	BOND RESERVE INTEREST	0.00	0.10	0.00		(0.10)	100.00
595-000-692.000	WATER TURN ON/OFF	1,200.00	0.00	0.00		1,200.00	0.00
595-000-698.000	UTILITY MISCELLANEOUS	10,000.00	2,999.00	0.00		7,001.00	29.99
Total Dept 000 - REVENUE		2,319,700.00	2,149,443.36	200,527.53		245,256.64	89.76
TOTAL REVENUES		2,319,700.00	2,149,443.36	200,527.53		245,256.64	89.76
Expenditures							
Dept 548 - SEWER DEPARTMENT							
595-548-706.000	WWTP PLANT OPERATOR WAGES	99,850.00	82,901.15	6,161.62		16,948.85	83.03
595-548-706.001	DPW WWTP WAGES	1,910.00	1,067.76	187.42		842.24	55.90
595-548-719.000	WWTP BENEFITS	44,330.00	6,169.17	231.30		38,160.83	13.92
595-548-719.002	WWTP RETIREMENT EXPENSE	0.00	9,377.77	883.22		(9,377.77)	100.00
595-548-719.003	WWTP HEALTH INSURANCE	0.00	11,649.20	868.85		(11,649.20)	100.00
595-548-719.004	WWTP DENTAL INSURANCE	0.00	1,386.31	107.73		(1,386.31)	100.00
595-548-719.005	WWTP DISABILITY/LIFE	0.00	601.90	49.34		(601.90)	100.00
595-548-719.006	WWTP HRA	0.00	545.59	98.35		(545.59)	100.00
595-548-719.008	WWTP WORKERS COMPENSATION	0.00	2,542.86	200.52		(2,542.86)	100.00
595-548-727.000	WWTP OFFICE SUPPLIES	200.00	76.10	0.00		123.90	38.05
595-548-740.000	WWTP TOOLS AND SUPPLIES	1,000.00	3,413.29	284.85		(2,413.29)	341.33
595-548-743.000	WWTP CHEMICALS	8,000.00	5,572.36	928.53		(572.36)	111.45
595-548-743.001	WWTP LAB CHEMICALS	1,000.00	609.80	0.00		(109.80)	121.96
595-548-757.000	WWTP LAB EQUIPMENT	0.00	13,034.63	5,559.60		(3,034.63)	130.35
595-548-768.000	WWTP CLOTHING	250.00	327.52	0.00		(77.52)	131.01
595-548-818.000	WWTP OUTSIDE CONTRACTOR	25,000.00	49,009.04	(25,835.89)		10,990.96	81.68
595-548-821.000	WWTP ENGINEERING	95,000.00	16,647.35	13,982.82		78,352.65	17.52
595-548-853.000	WWTP TELEPHONE	1,000.00	3,424.03	90.39		575.97	85.60
595-548-913.000	WWTP INSURANCE	7,800.00	8,600.00	8,600.00		(800.00)	110.26
595-548-921.000	WWTP ELECTRIC	45,000.00	77,180.06	7,180.13		(32,180.06)	171.51
595-548-923.000	WWTP GAS	1,500.00	1,216.56	27.91		283.44	81.10
595-548-927.000	WWTP WATER	4,000.00	14,739.20	3,613.83		(7,239.20)	196.52
595-548-931.000	WWTP BLDG MAINT.	1,500.00	905.01	207.02		594.99	60.33
595-548-933.000	WWTP EQUIPMENT MAINTENANCE	26,000.00	55,047.27	9,675.79		(15,047.27)	137.62
595-548-934.000	WWP MAINTENANCE AGREEMENT	0.00	364.28	0.00		(364.28)	100.00
595-548-943.000	WWTP EQUIPMENT RENTAL	500.00	274.36	0.00		225.64	54.87
595-548-956.000	WWTP MISCELLANEOUS	2,300.00	2,701.00	0.00		(401.00)	117.43
595-548-960.000	WWTP EDUCATION	750.00	65.00	0.00		685.00	8.67
595-548-982.000	WWTP NEW EQUIPMENT	13,000.00	0.00	0.00		13,000.00	0.00
Total Dept 548 - SEWER DEPARTMENT		379,890.00	369,448.57	33,103.33		72,441.43	83.61
Dept 552 - SEWER COLLECTION							
595-552-706.000	SEWER COLLECTION WAGES	36,620.00	36,260.56	10,870.71		359.44	99.02

User: jwonacott

DB: Blissfield

PERIOD ENDING 09/30/2017

GL NUMBER	DESCRIPTION	2016-17	YTD BALANCE	ACTIVITY FOR		AVAILABLE	% BDGT USED
		ORIGINAL BUDGET	09/30/2017	INCREASE	MONTH 09/30/2017 (DECREASE)	BALANCE (ABNORMAL)	
Fund 595 - WATER AND SEWER FUND							
Expenditures							
595-552-719.000	SEWER COLLECTION BENEFITS	16,110.00	3,302.71		1,360.38	12,807.29	20.50
595-552-719.002	SEWER COLLEC RETIREMENT EXP	0.00	3,219.96		438.80	(3,219.96)	100.00
595-552-719.003	SEWER COLLEC HEALTH INSURANCE	0.00	7,155.23		1,111.93	(7,155.23)	100.00
595-552-719.004	SEWER COLLEC DENTAL INSURANCE	0.00	737.81		108.62	(737.81)	100.00
595-552-719.005	SEWER COLLEC DISABILITY/LIFE	0.00	208.29		30.42	(208.29)	100.00
595-552-719.006	SEWER COLLECTION HRA	0.00	223.20		40.23	(223.20)	100.00
595-552-719.008	SEWER COLLEC WORKERS COMP	0.00	836.56		105.05	(836.56)	100.00
595-552-740.000	SEWER COLLEC TOOLS & SUPPLIES	1,000.00	7,522.27		656.84	(6,522.27)	752.23
595-552-781.000	SEWER COLLEC LIFT STATION	4,000.00	6,053.00		31.91	(2,053.00)	151.33
595-552-818.000	SEWER COLLEC OUTSIDE CONTRACT	15,000.00	2,725.16		0.00	7,274.84	27.25
595-552-821.000	SEWER COLLECTION ENGINEERING	0.00	1,201.09		(781.57)	798.91	60.05
595-552-853.000	LIFT STATION TELEPHONE	500.00	441.75		37.00	58.25	88.35
595-552-921.000	LIFT STATION ELECTRIC	8,500.00	12,201.32		1,568.04	(3,701.32)	143.54
595-552-923.000	LIFT STATION GAS	1,000.00	525.55		87.94	474.45	52.56
595-552-943.000	SEWER COLLEC EQUIPMENT RENTAL	5,000.00	9,333.41		1,579.84	(4,333.41)	186.67
595-552-956.000	SEWER COLLECTION MISC.	1,000.00	1,403.26		0.00	(403.26)	140.33
595-552-960.000	SEWER COLLEC EDUCATION	500.00	500.00		0.00	500.00	0.00
595-552-982.000	SEWER COLLEC NEW EQUIPMENT	4,200.00	3,143.92		207.00	1,056.08	74.86
Total Dept 552 - SEWER COLLECTION		93,430.00	96,495.05		17,453.14	(6,065.05)	106.71
Dept 554 - WATER DISTRIBUTION							
595-554-706.000	WATER DISTRIBUTION DPW WAGES	61,860.00	53,848.66		779.50	8,011.34	87.05
595-554-719.000	BENEFITS	27,220.00	2,278.76		(1,781.42)	24,941.24	8.37
595-554-719.002	RETIREMENT EXPENSE	0.00	6,224.26		399.86	(6,224.26)	100.00
595-554-719.003	HEALTH INSURANCE	0.00	14,842.68		898.69	(14,842.68)	100.00
595-554-719.004	DENTAL INSURANCE	0.00	1,590.32		89.86	(1,590.32)	100.00
595-554-719.005	DISABILITY/LIFE	0.00	441.75		24.47	(441.75)	100.00
595-554-719.006	HRA	0.00	356.27		64.22	(356.27)	100.00
595-554-719.008	WORKERS COMPENSATION	0.00	2,317.51		155.76	(2,317.51)	100.00
595-554-740.000	WATER DISTRIBUTION TOOLS AND SUPPLIES	1,000.00	833.49		25.34	166.51	83.35
595-554-818.000	WATER DISTRIBUTION OUTSIDE CONT	29,000.00	27,776.26		0.00	1,223.74	95.78
595-554-821.000	WATER DISTRIBUTION ENGINEERING	0.00	86.69		(781.57)	(86.69)	100.00
595-554-921.000	WATER TOWER ELECTRIC	1,500.00	1,320.32		56.83	179.68	88.02
595-554-933.000	WATER DISTRIBUTION EQUIPMENT MAINT	16,500.00	3,148.54		0.00	6,851.46	31.49
595-554-943.000	WATER DISTRIBUTION EQUIPMENT RENTAL	13,000.00	10,354.67		1,200.47	2,645.33	79.65
595-554-956.000	WATER DISTRIBUTION MISC	500.00	755.06		0.00	(255.06)	151.01
595-554-960.000	WATER DISTRIBUTION EDUCATION	1,000.00	1,146.00		76.00	(146.00)	114.60
595-554-982.000	WATER DISTRIBUTION NEW EQUIP	18,000.00	546.94		0.00	9,453.06	5.47
Total Dept 554 - WATER DISTRIBUTION		169,580.00	127,868.18		1,208.01	27,211.82	82.45
Dept 556 - WATER DEPARTMENT							
595-556-706.000	WATER OPERATOR WAGES	225,460.00	228,126.06		18,985.18	(2,666.06)	101.18
595-556-706.001	DPW WATER WAGES	3,630.00	3,709.46		363.97	(79.46)	102.19
595-556-719.000	WATER BENEFITS	100,800.00	17,603.76		1,348.55	83,196.24	17.46
595-556-719.002	RETIREMENT EXPENSE	0.00	25,409.33		2,179.83	(25,409.33)	100.00
595-556-719.003	HEALTH INSURANCE	0.00	42,252.56		3,461.03	(42,252.56)	100.00
595-556-719.004	DENTAL INSURANCE	0.00	4,112.81		342.49	(4,112.81)	100.00
595-556-719.005	DISABILITY/LIFE	0.00	1,677.14		139.78	(1,677.14)	100.00
595-556-719.006	HRA	0.00	1,559.86		281.19	(1,559.86)	100.00
595-556-719.008	WORKERS COMPENSATION	0.00	8,425.72		662.80	(8,425.72)	100.00
595-556-727.000	WATER PLANT OFFICE SUPPLIES	350.00	503.06		503.06	(153.06)	143.73
595-556-740.000	WATER PLANT TOOLS & SUPPLIES	4,000.00	4,461.24		847.64	(461.24)	111.53

PERIOD ENDING 09/30/2017

GL NUMBER	DESCRIPTION	2016-17	YTD BALANCE	ACTIVITY FOR		AVAILABLE	% BDGT USED
		ORIGINAL BUDGET	09/30/2017	INCREASE	MONTH 09/30/2017 (DECREASE)	BALANCE (ABNORMAL)	
Fund 595 - WATER AND SEWER FUND							
Expenditures							
595-556-743.000	WATER PLANT CHEMICALS	250,000.00	294,809.77	53,259.78		(44,809.77)	117.92
595-556-757.000	WATER PLANT LAB SUPPLIES	15,000.00	24,109.76	8,377.68		(9,109.76)	160.73
595-556-768.000	WATER PLANT CLOTHING	2,250.00	1,948.73	185.58		301.27	86.61
595-556-818.000	WATER PLANT OUTSIDE CONTRACTOR	3,000.00	7,659.79	328.59		20,340.21	27.36
595-556-821.000	WATER PLANT ENGINEERING	0.00	0.00	(781.55)		1,000.00	0.00
595-556-822.000	DUMPSTER WASTE AT WTP	35,000.00	32,520.78	13,467.71		2,479.22	92.92
595-556-824.000	SLUDGE SYSTEM CHEMICALS	25,000.00	12,420.00	0.00		12,580.00	49.68
595-556-853.000	WATER PLANT TELEPHONE	1,500.00	1,682.65	220.35		(182.65)	112.18
595-556-913.000	WATER PLANT INSURANCE	8,100.00	9,135.00	9,135.00		(1,035.00)	112.78
595-556-921.000	WATER PLANT ELECTRIC	75,000.00	83,841.81	7,901.59		(8,841.81)	111.79
595-556-923.000	WATER PLANT GAS	22,000.00	17,904.37	130.54		4,095.63	81.38
595-556-931.000	WTP BUILDING MAINT	0.00	8,115.78	5,775.54		(8,115.78)	100.00
595-556-933.000	WTP EQUIPMENT MAINTENANCE	50,000.00	47,663.04	2,416.07		(12,663.04)	136.18
595-556-933.001	LAB: WATER TESTING	6,000.00	9,341.09	749.61		(3,341.09)	155.68
595-556-934.000		0.00	364.28	0.00		(364.28)	100.00
595-556-943.000	WTP EQUIPMENT RENTAL	2,750.00	7,639.18	508.76		(4,889.18)	277.79
595-556-956.000	WTP MISCELLANEOUS	1,500.00	1,483.73	37.45		16.27	98.92
595-556-960.000	WTP EDUCATION	2,000.00	2,247.50	570.00		(247.50)	112.38
595-556-982.000	WTP NEW EQUIPMENT	2,400.00	0.00	0.00		2,400.00	0.00
Total Dept 556 - WATER DEPARTMENT		835,740.00	900,728.26	131,398.22		(53,988.26)	106.38
Dept 900 - ADMINISTRATION							
595-900-703.000	UTILITY CLERK/TREAS WAGES	69,610.00	69,761.46	6,049.62		(151.46)	100.22
595-900-705.000	UTILITY ADMIN WAGES	36,160.00	36,654.74	2,781.87		(494.74)	101.37
595-900-719.000	UTILITY ADM BENEFITS	46,540.00	18,246.41	3,541.29		28,293.59	39.21
595-900-719.002	RETIREMENT EXPENSE	0.00	6,535.68	548.83		(6,535.68)	100.00
595-900-719.003	HEALTH INSURANCE	0.00	24,182.52	2,079.73		(24,182.52)	100.00
595-900-719.004	DENTAL INSURANCE	0.00	2,005.05	176.12		(2,005.05)	100.00
595-900-719.005	DISABILITY/LIFE	0.00	737.08	62.34		(737.08)	100.00
595-900-719.006	HRA	0.00	650.57	117.27		(650.57)	100.00
595-900-719.007	PAYROLL EXPENSES	0.00	1,722.54	376.90		(1,722.54)	100.00
595-900-719.008	WORKERS COMPENSATION	0.00	394.27	29.13		(394.27)	100.00
595-900-727.000	UTILITY ADMIN OFFICE SUPPLIES	9,000.00	7,636.25	868.69		1,363.75	84.85
595-900-802.000	UTILITY AUDITOR	5,800.00	5,825.00	0.00		(25.00)	100.43
595-900-934.000	UTILITY MAINTENANCE AGREEMENT	2,500.00	3,309.29	266.97		(809.29)	132.37
595-900-959.000	WATER PLANT DEPRECIATION	0.00	316,183.35	316,183.35		(316,183.35)	100.00
595-900-965.000	TRANSFERS TO DEBT SERVICE FUND	33,880.00	33,868.72	0.00		11.28	99.97
595-900-991.000	WWTP BOND PAYMENT	40,000.00	0.00	(40,000.00)		40,000.00	0.00
595-900-992.000	DWARF BOND PAYMENT	420,000.00	0.00	(420,000.00)		420,000.00	0.00
595-900-994.000	DWARF INTEREST PAYMENT	40,520.00	18,395.92	(22,121.76)		22,124.08	45.40
595-900-995.000	WWTP INTEREST PAYMENT	28,260.00	28,260.00	0.00		0.00	100.00
595-900-996.000	WTP CAPITAL PROJECT BOND PAYMENT	50,000.00	0.00	(50,000.00)		50,000.00	0.00
595-900-997.000	WTP CAPTIAL PROJECTS BOND INTEREST	57,260.00	57,256.50	0.00		3.50	99.99
595-900-999.000	WWTP TRANSFER AGENT FEES	1,000.00	788.50	0.00		211.50	78.85
Total Dept 900 - ADMINISTRATION		840,530.00	632,413.85	(199,039.65)		208,116.15	75.24
TOTAL EXPENDITURES		2,319,170.00	2,126,953.91	(15,876.95)		247,716.09	89.57
Fund 595 - WATER AND SEWER FUND:							
TOTAL REVENUES		2,319,700.00	2,149,443.36	200,527.53		245,256.64	89.76

REVENUE AND EXPENDITURE REPORT FOR VILLAGE OF BLISSFIELD

PERIOD ENDING 09/30/2017

GL NUMBER	DESCRIPTION	2016-17	YTD BALANCE	ACTIVITY FOR		AVAILABLE		% BDT USED
		ORIGINAL BUDGET	09/30/2017 (NORMAL (ABNORMAL))	MONTH	09/30/2017 (INCREASE (DECREASE))	NORMAL	(ABNORMAL) BALANCE	
Fund 595 - WATER AND SEWER FUND								
TOTAL EXPENDITURES		2,319,170.00	2,126,953.91		(15,876.95)		247,716.09	89.57
NET OF REVENUES & EXPENDITURES		530.00	22,489.45		216,404.48		(2,459.45)	112.28