



301 East Main Street
Lowell, Michigan 49331
Phone (616) 897-8457
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CITY OF LOWELL
CITY COUNCIL AGENDA
MONDAY, JULY 20, 2020, 7:00 P.M.

1. CALL TO ORDER; PLEDGE OF ALLEGIANCE; ROLL CALL
2. CONSENT AGENDA
 - Approval of the Agenda.
 - Approve and place on file the minutes of the July 6, 2020 Regular City Council meeting.
 - Authorize payment of invoices in the amount of \$278,567.29

3. CITIZEN DISCUSSION FOR ITEMS NOT ON THE AGENDA

IF YOU WISH TO ADDRESS AN AGENDA ITEM, PUBLIC COMMENT FOR EACH ITEM WILL OCCUR AFTER THE INITIAL INFORMATION IS SHARED ON THE MATTER AND INITIAL DELIBERATIONS BY THE PUBLIC BODY. PUBLIC COMMENT WILL OCCUR BEFORE A VOTE ON THE AGENDA ITEM OCCURS.

4. OLD BUSINESS

- a. Showboat

5. NEW BUSINESS

- a. Lowell Township Water Report
- b. Bond Authorizing Ordinance – 20-03
- c. Vacation Days Accrued
- d. CARES ACT – Hazard Pay

6. BOARD/COMMISSION REPORTS

7. MONTHLY REPORTS

8. MANAGER'S REPORT

9. APPOINTMENTS

10. COUNCIL COMMENTS

11. ADJOURNMENT

NOTE: Any person who wishes to speak on an item included on the printed meeting agenda may do so. Speakers will be recognized by the Chair, at which time they will be allowed five (5) minutes maximum to address the Council. A speaker representing a subdivision association or group will be allowed ten (10) minutes to address the Council.



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MEMORANDUM

TO: Lowell City Council
FROM: Michael Burns, City Manager
RE: Council Agenda for Monday, July 20, 2020

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4. OLD BUSINESS

- a. Showboat. City Manager Michael Burns will provide information at the meeting.

5. NEW BUSINESS

- a. Lowell Township Water Report.
- b. Bond Authorizing Ordinance – 20-03. LL&P General Manager Steve Donkersloot provided a memo.

Recommended Motion: That the City Council adopt the Bond Authorizing Ordinance.

- c. Vacation Days Accrued. City Manager Michael Burns provided a memo.

Recommended Motion: That the Lowell City Council approve the above listed increase to vacation days based on years of service for non-union and department director employees.

- d. CARES ACT – Hazard Pay. City Manager Michael Burns provided a memo.

Recommended Motion: That the City of Lowell apply for the Hazard Pay reimbursement in the matter described.

6. BOARD/COMMISSION REPORTS
7. MONTHLY REPORTS
8. MANAGER'S REPORT
9. APPOINTMENTS
10. COUNCIL COMMENTS
11. ADJOURNMENT

**PROCEEDINGS
OF
CITY COUNCIL
OF THE
CITY OF LOWELL
MONDAY, JULY 06, 2020, 7:00 P.M.**

1. **CALL TO ORDER; PLEDGE OF ALLEGIANCE; ROLL CALL.**

The Meeting was called to order at 7:00 p.m. by Mayor DeVore and City Clerk Susan Ullery called roll.

Present: Councilmembers Cliff Yankovich, Greg Canfield, Marty Chambers, Jim Salzwedel and Mayor DeVore..

Absent: None.

Also Present: City Manager Michael Burns, City Clerk Susan Ullery, Police Chief Chris Hurst, City Attorney Jessica Wood, and DPW Director Dan Czarnecki.

2. **APPROVAL OF THE CONSENT AGENDA.**

- Approval of the Revised Agenda.
- Approve and place on file the minutes of the June 15, 2020 Regular City Council meeting.
- Authorize payment of invoices in the amount \$335,649.72.

IT WAS MOVED BY CANFIELD and seconded by CHAMBERS to approve the consent agenda as written.

YES: Councilmember Canfield, Mayor DeVore, Councilmember Salzwedel, Councilmember Yankovich, and Councilmember Chambers.

NO: None.

ABSENT: None.

MOTION CARRIED.

3. **CITIZEN COMMENTS FOR ITEMS NOT ON THE AGENDA.**

Lynn Afendoulus who grew up and raised her kids in West Michigan, introduced herself and her explained her role in running for legislative Congress.

Bill Bleadzoe who resides at 1180 Lincoln Lake did not agree with how the City handled 2nd Amendment rights in regards to the incident that involved the Chief of Police and his resignation.

City Clerk Susan Ullery read the headers on two petitions that came via letters to the City of Lowell. The first petition header reads "We the people, Michigan citizens with the best of interest in the community of Lowell do not consent to having a Lowell City Manager who has given over his own personal political motives and has forsaken the constitutional freedoms, protections and rights guaranteed all citizens. We petition City Council to force the termination of the Lowell City Manager Michael Burns." This petition was signed by 104 people for Mike Burns resignation. Many of the signatures were illegible and none of the residence were confirmed.

The second petition header reads, "We the people, Michigan citizens with the best of interest in the community of Lowell do not consent to having a Lowell Mayor who governs more of his personal political learnings, than by the law of the land forsaking the constitutional freedoms protections and rights guaranteed all citizens. And that Mayor Mike DeVore has broken all the same standards that he forced the resignation of Police Chief Bukala over doing so in a much more profane manner himself. We petition

Mayor DeVore for his resignation, thereby saving the citizens of Lowell yet another recall initiative.” This petition was signed by 102 people for Mayor Mike DeVores’ resignation. Many of the signatures were illegible and none of the residence were confirmed.

Mayor DeVore then stated that Michael Burns has promoted Chris Hurst from interim chief to Chief of Police for the City of Lowell and he will now be officially sworn in.

City of Lowell Clerk Susan Ullery swore Chris Hurst in as Chief of Police.

4. **OLD BUSINESS**

a. Staal Estate.

City Manager Michael Burns stated in May 2020, the City Council approved for money to be set aside for a bench pertaining to the Staal Estate and \$25,000 to be set aside for the City’s portion of the LARA trail extension. The remaining funds would be determined on a later date. After the City Council took action on the matter, I received a letter from the conservator of the estate, Mr. Bill Cutler. He stated the estate would like to utilize the remaining portion of the funds for the Showboat. If you recall, I presented the memo to you in my weekly correspondence. Last week, I received a phone call from Mr. Cutler following up on the letter. I mentioned that we utilized \$25,000 for the trail and told him we didn’t receive the letter until after the Council took action. During our discussion, he was fine with the decision on the trail. However, he asked if the Council would consider the remaining portion to be used for the Showboat. He believed this action would close out all matters on the City’s portion for the estate. The City has yet to receive the funds for the estate.

IT WAS MOVED BY CHAMBERS and seconded by SALZWEDEL to agree to use the remaining proceeds after the trail contribution and the bench contribution to be used for the Lowell Showboat.

YES: Mayor DeVore, Councilmember Salzwedel, Councilmember Yankovich, Councilmember Chambers, Councilmember Canfield.

NO: None.

ABSENT: None.

MOTION CARRIED.

b. Laurels of Kent Drain Issues.

City DPW Director Dan Czarnecki stated at the June 1st Council Meeting we received concerns form the neighbor on Donna Drive that surface water runoff from the Laurels of Kent was affecting their property. At that time, they were reminded this is really an issue between the neighbors, but to help keep dialog going and to keep all parties working together, I sent Laurels of Kent a letter explaining the situation as it was presented to the City. The letter was mailed on June 5th. On June 18th, I received a call from the corporate offices of Laurel Health Care Company. I talked to their property representative Mr. Derek Zajac and had a good conversation about the Laurels of Kent facility and their drainage. Mr. Zajac had a good understanding of the situation and he said he has had multiple conversations with Mrs. Marsman and Mrs. Krause. I assured him the City is not taking sides on the issue between private parties and the City is only trying to keep the conversation going so it can be resolved amicably and quickly. Dan continued to explain their conversation and all the facets involved. After talking with Mr. Zajac, he had contacted the Kent County Drain Commissioner’s office and spoke to Joel Morgan, the Senior Engineer at KCDC. He informed me the drain commissioner’s office is currently putting out a request for proposals to perform maintenance work on the entire Cherry Creek County Drain from Main St to just north of Foreman St. which will be a two-year project. The bids for the ditch work are to be opened up July 8th. The contractor

will have the end of September to complete the first phase of the work and the second phase will be conducted in 2021.

5. **NEW BUSINESS**

a. #16 Truck Dump Box Body Replacement.

City DPW Director Dan Czarnecki stated we have budgeted for the purchase of a new stainless steel dump box on Truck #16 along with the optional crossmemberless western style understructure, through the MI-Deal State Purchasing Program, for Truck #16, at a cost not to exceed \$16,678.00.

IT WAS MOVED BY YANKOVICH and seconded by CHAMBERS to approve the purchase of a new stainless steel dump box on Truck #16 along with the optional crossmemberless western style understructure, through the MI-Deal State Purchasing Program, for Truck #16, at a cost not to exceed \$16,678.00.

YES: Councilmember Yankovich, Councilmember Chambers, Councilmember Canfield, Mayor DeVore, and Councilmember S

NO: None.

ABSENT: None.

MOTION CARRIED.

6. **BOARD/COMMISSION REPORTS.**

There were none.

7. **MANAGER'S REPORT.**

- Burns congratulated Chris Hurst on his promotion to Chief of Police. Hurst has been with the department for over 25 years and has done an exemplary job and is an exemplary leader. Burns is pleased that he has accepted the position and he is looking forward to working with him.
- The Showboat will be arriving and assembly will begin this Wednesday.
- We did receive our MERS actuarial for the 2020-2021 calendar year.
- We were notified today, that Kent County is eligible for small business and administration loans for businesses that were impacted by the flood.
- We get a Statutory Constitutional Revenue Sharing every 2 months and in the August payment that we will be getting; they have guaranteed 150 percent Statutory Constitutional Revenue Sharing payments for municipalities statewide. The dollar amount is not yet confirmed.
- Last week the governor signed a bill for additional CARES ACT funding for Municipalities. I need to look into it further and will let you know more info once I get it.
- Suffolk and Elizabeth Street project is moving along really well. Riverside Drive work will begin on July 13th.
- Division Street Bridge will begin this week and that work is being done by Kent County. They will begin by reducing the bridge from 13 feet to 10 feet and that will go through the end of August. At the end of August, the bridge will be shut down for 30 days starting August 28th.
- Kent County has received \$122 Million Dollars through the CARES ACT from the Federal

Government. Of that money, about \$15 Million Dollars will be going to the Municipalities for their PPE (Personal Protection Equipment). We have already put in our first request for reimbursement from Kent County which is about \$15,000 in expenses we have had at this point. It is my understanding we are eligible for reimbursement at 100%.

8. **APPOINTMENTS.**

Light & Power Board members Perry Beechum and Daniel Crawford would like to continue serving on the board. with terms expiring June 2023.

By general consensus, the Council agreed to reappoint Perry Beechum and Daniel Crawford to the Lowell Light and Power Board.

DeVore noted that Arbor Board member Diane Lawarre is resigning.

9. **COUNCIL COMMENTS.**

Councilmember Salzwedel wanted to discuss the Line Shack building and stated he was disappointed to hear that the RFP was pulled. He did not receive an apology from the City for the error that was made but moving forward, it is important to make sure that we have our I's dotted and T's crossed.

Councilmember Canfield stated he met with Jerry Hale and Bill Wheelen and they received their feasibility water/sewer study and they would still like us to take one more look at it and they need to move on it pretty quickly. Would like to see it on our agenda and maybe get some help from William & Works understanding it all. Congrats to Chris Hurst.

Mayor DeVore congratulated Chris Hurst for the Chief of Police position.

10. **ADJOURNMENT.**

IT WAS MOVED BY SALZWEDEL and seconded by CANFIELD to adjourn at 7:32.

YES: Councilmember Salzwedel, Councilmember Yankovich, Councilmember Chambers and Councilmember Canfield and Mayor DeVore.

NO: None.

ABSENT: None.

MOTION CARRIED.

DATE:

APPROVED:

Mike DeVore, Mayor

Sue Ullery, Lowell City Clerk

Vendor Code	Vendor Name Invoice	Description	Amount
10816	AMAZON CAPITAL SERVICES 1HHM-QGTM-9XT7	DPW BATTERY REPLACEMENT	27.77
TOTAL FOR: AMAZON CAPITAL SERVICES			27.77
02290	AMERICAN WATER WORKS 7001816814	MEMBERSHIP DUES - BRECKEN	224.00
TOTAL FOR: AMERICAN WATER WORKS			224.00
10731	APPLIED IMAGING 1557577	CITY HALL COPY MACHINE	386.55
TOTAL FOR: APPLIED IMAGING			386.55
10799	ARCHIVESOCIAL, INC 11022	ARCHIVE ECONOMY 1 YR	2,388.00
TOTAL FOR: ARCHIVESOCIAL, INC			2,388.00
00045	BARTLETT, SANDY JULY 2020	MILEAGE AND METER READS	769.40
TOTAL FOR: BARTLETT, SANDY			769.40
00344	CITY OF LOWELL 7/1/2020	SUMMER TAX 41-20-02-404-003	1,503.21
TOTAL FOR: CITY OF LOWELL			1,503.21
10493	COMCAST CABLE 7/6 - 8/5/2020	DPW CABLE	50.41
TOTAL FOR: COMCAST CABLE			50.41
CREEKSIDE	DEVRIES, FRAN 7/11/2020	CREEKSIDE DEPOSIT	50.00
TOTAL FOR: DEVRIES, FRAN			50.00
00148	DICKINSON WRIGHT PLLC 1483310	MI TAX TRIBUNAL	111.00
TOTAL FOR: DICKINSON WRIGHT PLLC			111.00
10485	ELECTIONSOURCE 20-50404	BALLOTCHART.COM	70.00
TOTAL FOR: ELECTIONSOURCE			70.00
10867	FENCE CONSULTANTS OF WEST MI INC 49074	FENCE RENTAL SHOWBOAT	3,900.00
TOTAL FOR: FENCE CONSULTANTS OF WEST MI INC			3,900.00
10866	GRAND VALLEY CONCRETE PRODUCTS 58658	REPAIRS FOR STREET RESURFACE	380.00
TOTAL FOR: GRAND VALLEY CONCRETE PRODUCTS			380.00
00710	HAROLD ZEIGLER FORD, INC. 218316	2014 EXPLORER R & M	194.93
TOTAL FOR: HAROLD ZEIGLER FORD, INC.			194.93
REFUND TAX	HBI TITLE SERVICES INC. 07/17/2020	2020 Sum Tax Refund 41-20-02-433-003	300.49
TOTAL FOR: HBI TITLE SERVICES INC.			300.49

Vendor Code	Vendor Name	Description	Amount
REFUND TAX	JANOWSKI RONALD		
	07/17/2020	2020 Sum Tax Refund 41-20-02-418-011	120.18
TOTAL FOR: JANOWSKI RONALD			120.18
REFUND TAX	JANOWSKI RONALD M & WAID KAREN D		
	07/17/2020	2020 Sum Tax Refund 41-20-02-418-012	91.66
TOTAL FOR: JANOWSKI RONALD M & WAID KAREN D			91.66
10181	LOWELL AREA FIRE AUTHORITY		
	41	1ST QTR 2020	28,973.12
TOTAL FOR: LOWELL AREA FIRE AUTHORITY			28,973.12
00341	LOWELL LIGHT & POWER		
	3421	DDA LOAN	34,263.28
	JUNE 2020	ELECTRIC STATEMENTS	20,981.90
TOTAL FOR: LOWELL LIGHT & POWER			55,245.18
10185	LUDEMA AND BOYINK		
	35286	BLUEGRASS SOD	9.60
TOTAL FOR: LUDEMA AND BOYINK			9.60
02581	MARKS BODY SHOP		
	107745	LPD VEHICLE R & M	200.00
TOTAL FOR: MARKS BODY SHOP			200.00
00418	MICHIGAN POLICE EQUIPMENT CO		
	4/20/2020	POLICE DEPT	1,631.95
TOTAL FOR: MICHIGAN POLICE EQUIPMENT CO			1,631.95
00434	MICHIGAN RURAL WATER ASSOC.		
	7/11/2020	MEMBERSHIP - BRECKEN	735.00
TOTAL FOR: MICHIGAN RURAL WATER ASSOC.			735.00
10838	MORAN IRON WORKS, INC		
	16235	LABOR INCLUDED TO DATE	65,995.20
	16236	MATERIAL FROM ALRO STEEL	53,490.15
	16237	MATERIAL FROM BRYNE RICE AND TURNER	2,037.09
	16248	SHOWBOAT LABOR	48,577.72
TOTAL FOR: MORAN IRON WORKS, INC			170,100.16
02020	OTIS ELEVATOR CORPORATION		
	CVG17581001	LOAD TESTING	1,900.00
TOTAL FOR: OTIS ELEVATOR CORPORATION			1,900.00
00499	PETTY CASH		
	7/17/2020	MISC PETTY CASH	80.34
TOTAL FOR: PETTY CASH			80.34
10752	PRINTEK LLC		
	307321	LPD R & M	196.42
TOTAL FOR: PRINTEK LLC			196.42
02331	PROGRESSIVE HEATING COOLING, CORP.		
	2016135-N	CITY HALL R & M	130.00
TOTAL FOR: PROGRESSIVE HEATING COOLING, CORP.			130.00
01159	PURCHASE POWER		
	7/10/2020	POSTAGE METER REFILL	471.19
TOTAL FOR: PURCHASE POWER			471.19

07/17/2020 12:58 PM
User: LORI
DB: Lowell

INVOICE APPROVAL BY INVOICE REPORT FOR CITY OF LOWELL
POST DATES 07/01/2020 - 07/17/2020
BOTH JOURNALIZED AND UNJOURNALIZED
BOTH OPEN AND PAID - CHECK TYPE: PAPER CHECK

Page: 3/3

Vendor Code	Vendor Name Invoice	Description	Amount
10701	QUEBERG, ANN M. 0003	NW PUMP STATION BOX	47.56
TOTAL FOR: QUEBERG, ANN M.			47.56
10378	RUESINK, KATHIE 911046/911047	CLEANING SERVICES 7/5 - 7/16	450.00
TOTAL FOR: RUESINK, KATHIE			450.00
10849	SMART BUSINESS SOURCE OE-27816-1	OFFICE SUPPLIES	140.04
	OE-27816-2	OFFICE SUPPLIES	31.17
TOTAL FOR: SMART BUSINESS SOURCE			171.21
10813	SOYKA, CODY 7/6/2020	REIMBURSE FOR WORK BOOTS	105.99
TOTAL FOR: SOYKA, CODY			105.99
10459	TRANSUNION RISK AND ALTERNATIVE 181229-202006-1	POLICE DEPT - JUNE 2020	104.00
TOTAL FOR: TRANSUNION RISK AND ALTERNATIVE			104.00
10484	VERGENNES BROADBAND 5267-20200717-1	ACCOUNT STATEMENT	309.99
TOTAL FOR: VERGENNES BROADBAND			309.99
00666	VERGENNES TOWNSHIP TREASURER 7/1/2020	SUMMER TAX 41-16-35-426-052	1,714.33
	7/2020	SUMMER TAX 41-16-35-100-601	4,506.83
TOTAL FOR: VERGENNES TOWNSHIP TREASURER			6,221.16
02203	VISA 6/30/2020	MERCANTILE VISA - JUNE	916.82
TOTAL FOR: VISA			916.82
TOTAL - ALL VENDORS			278,567.29

GL Number	Invoice Line Desc	Vendor	Invoice Description	Amount	Check #
Fund 101 GENERAL FUND					
Dept 000					
101-000-040.000	ACCOUNTS RECEIVABLE	VISA	MERCANTILE VISA - JUNE	63.58	74533
101-000-084.015	DUE FROM FIRE AUTHORITY	VERGENNES BROADBAND	ACCOUNT STATEMENT	28.57	74531
101-000-085.000	DUE FROM LIGHT & POWER	DICKINSON WRIGHT PLLC	VACATION OF NORTH ST	175.75	74478
101-000-085.000	DUE FROM LIGHT & POWER	VERGENNES BROADBAND	ACCOUNT STATEMENT	58.58	74531
101-000-285.004	CREEKSIDE DEPOSIT	CARLSON, STEVE	CANCELLED CREEKSIDE RESER	125.00	74474
101-000-285.004	CREEKSIDE DEPOSIT	DEVRIES, FRAN	CREEKSIDE DEPOSIT	50.00	74477
Total For Dept 000				501.48	
Dept 172 MANAGER					
101-172-742.000	MARIJUANA ADMIN. FEES	DICKINSON WRIGHT PLLC	GENERAL MUNICIPAL	555.00	74478
101-172-801.000	PROFESSIONAL SERVICES	DICKINSON WRIGHT PLLC	WARE ROAD LANDFILL	55.50	74478
Total For Dept 172 MANAGE				610.50	
Dept 191 ELECTIONS					
101-191-740.000	OPERATING SUPPLIES	ELECTIONSOURCE	BALLOTCHART.COM	70.00	74482
101-191-740.000	OPERATING SUPPLIES	SMART BUSINESS SOURCE	OFFICE SUPPLIES	29.34	74521
Total For Dept 191 ELECTI				99.34	
Dept 209 ASSESSOR					
101-209-860.000	TRAVEL EXPENSES	RASHID, JEFFREY	ASSESSING EXPENSES JUNE	14.38	74516
Total For Dept 209 ASSESS				14.38	
Dept 210 ATTORNEY					
101-210-801.000	PROFESSIONAL SERVICES	DICKINSON WRIGHT PLLC	GENERAL MUNICIPAL	3,515.00	74478
101-210-801.000	PROFESSIONAL SERVICES	DICKINSON WRIGHT PLLC	VACATION OF NORTH ST	175.75	74478
101-210-801.000	PROFESSIONAL SERVICES	DICKINSON WRIGHT PLLC	PERSONNEL ISSUE	3,607.50	74478
101-210-801.000	PROFESSIONAL SERVICES	DICKINSON WRIGHT PLLC	MI TAX TRIBUNAL MATTER	568.00	74478
101-210-802.000	LABOR RELATIONS ATTORNEY	FAHEY SCHULTZ BURZYCH RHO	LABOR RELATIONS	1,196.50	74484
101-210-802.000	LABOR RELATIONS ATTORNEY	FAHEY SCHULTZ BURZYCH RHO	EMPLOYMENT MATTERS	100.00	74484
Total For Dept 210 ATTORN				9,162.75	
Dept 253 TREASURER					
101-253-801.000	PROFESSIONAL SERVICES	DICKINSON WRIGHT PLLC	MI TAX TRIBUNAL	111.00	74478
Total For Dept 253 TREASU				111.00	
Dept 265 CITY HALL					
101-265-727.000	OFFICE SUPPLIES	SMART BUSINESS SOURCE	OFFICE SUPPLIES	27.43	74521
101-265-730.000	POSTAGE	PURCHASE POWER	POSTAGE METER REFILL	471.19	74514
101-265-740.000	OPERATING SUPPLIES	PETTY CASH	MISC PETTY CASH	21.87	74508
101-265-740.000	OPERATING SUPPLIES	SELF SERVE LUMBER	ACCOUNT STATEMENT	6.05	74519
101-265-740.000	OPERATING SUPPLIES	SMART BUSINESS SOURCE	OFFICE SUPPLIES	76.42	74521
101-265-740.000	OPERATING SUPPLIES	SMART BUSINESS SOURCE	OFFICE SUPPLIES	31.17	74521
101-265-802.000	CONTRACTUAL	RUESINK, KATHIE	CLEANING SERVICES 6/14 -	540.00	74466
101-265-802.000	CONTRACTUAL	OTIS ELEVATOR CORPORATION	LOAD TESTING	1,900.00	74507
101-265-802.000	CONTRACTUAL	RUESINK, KATHIE	CLEANING SERVICES 7/5 - 7	330.00	74518
101-265-850.000	COMMUNICATIONS	VERGENNES BROADBAND	ACCOUNT STATEMENT	43.57	74531
101-265-920.000	PUBLIC UTILITIES	LOWELL LIGHT & POWER	ELECTRIC STATEMENTS	3,485.80	74498
101-265-930.000	REPAIR & MAINTENANCE	PROGRESSIVE HEATING COOLI	CITY HALL R & M	130.00	74513
Total For Dept 265 CITY H				7,063.50	
Dept 276 CEMETERY					
101-276-740.000	OPERATING SUPPLIES	BERNARDS ACE HARDWARE	ACCOUNT STATEMENT	10.49	74472
101-276-740.000	OPERATING SUPPLIES	SELF SERVE LUMBER	ACCOUNT STATEMENT	139.00	74519
101-276-740.000	OPERATING SUPPLIES	VISA	MERCANTILE VISA - JUNE	318.00	74533
101-276-744.000	UNIFORMS	SELF SERVE LUMBER	ACCOUNT STATEMENT	13.99	74519
101-276-920.000	PUBLIC UTILITIES	LOWELL LIGHT & POWER	ELECTRIC STATEMENTS	56.44	74498
101-276-930.000	REPAIR & MAINTENANCE	LUDEMA AND BOYINK	BLUEGRASS SOD	9.60	74500
101-276-930.000	REPAIR & MAINTENANCE	SELF SERVE LUMBER	ACCOUNT STATEMENT	12.24	74519
Total For Dept 276 CEMETE				559.76	
Dept 301 POLICE DEPARTMENT					
101-301-626.000	REPORTS & FINGERPRINT FEE	STATE OF MICHIGAN	LIVE SCAN JUNE	43.25	74523

GL Number	Invoice Line Desc	Vendor	Invoice Description	Amount	Check #
Fund 101 GENERAL FUND					
Dept 301 POLICE DEPARTMENT					
101-301-660.002	SEX OFFENDER FEES	STATE OF MICHIGAN	LPD - SOR JUNE 2020	30.00	74523
101-301-727.000	OFFICE SUPPLIES	HOOPER PRINTING	LPD ID BADGE - CULVER	15.00	74490
101-301-740.000	OPERATING SUPPLIES	PETTY CASH	MISC PETTY CASH	9.28	74508
101-301-740.000	OPERATING SUPPLIES	VISA	MERCANTILE VISA - JUNE	37.53	74533
101-301-743.000	AMMUNITION	MICHIGAN POLICE EQUIPMENT	POLICE DEPT	1,631.95	74503
101-301-744.000	UNIFORMS	VISA	MERCANTILE VISA - JUNE	70.00	74533
101-301-850.000	COMMUNICATIONS	VERGENNES BROADBAND	ACCOUNT STATEMENT	43.57	74531
101-301-930.000	R & M EQUIPMENT	PRINTEK LLC	LPD R & M	196.42	74511
101-301-931.000	R & M POLICE CARS	HAROLD ZEIGLER FORD, INC.	2014 EXPLORER R & M	194.93	74488
101-301-931.000	R & M POLICE CARS	MARKS BODY SHOP	LPD VEHICLE R & M	200.00	74501
101-301-931.000	R & M POLICE CARS	VISA	MERCANTILE VISA - JUNE	1.61	74533
101-301-955.000	MISCELLANEOUS EXPENSE	TRANSUNION RISK AND ALTER	POLICE DEPT - JUNE 2020	104.00	74529
101-301-955.000	MISCELLANEOUS EXPENSE	PETTY CASH	MISC PETTY CASH	39.19	74508
101-301-955.000	MISCELLANEOUS EXPENSE	VISA	MERCANTILE VISA - JUNE	100.00	74533
101-301-960.000	SALVAGE EXPENSES	VISA	MERCANTILE VISA - JUNE	41.33	74533
101-301-984.000	EQUIPMENT	BERNARDS ACE HARDWARE	ACCOUNT STATEMENT	9.99	74472
101-301-984.000	EQUIPMENT	VISA	MERCANTILE VISA - JUNE	96.95	74533
Total For Dept 301 POLICE				2,865.00	
Dept 336 FIRE					
101-336-985.000	FIRE COMMISSION PAYMENT	LOWELL AREA FIRE AUTHORIT	MCGARTH CONSULTING GROUP	5,737.50	74497
101-336-985.000	FIRE COMMISSION PAYMENT	LOWELL AREA FIRE AUTHORIT	1ST QTR 2020	28,973.12	74497
Total For Dept 336 FIRE				34,710.62	
Dept 400 PLANNING & ZONING					
101-400-801.000	PROFESSIONAL SERVICES	WILLIAMS & WORKS INC.	PROFESSIONAL SERVICES	874.00	74534
101-400-801.000	PROFESSIONAL SERVICES	WILLIAMS & WORKS INC.	PROFESSIONAL SERVICES	963.00	74534
101-400-801.000	PROFESSIONAL SERVICES	WILLIAMS & WORKS INC.	PROFESSIONAL SERVICES	146.00	74534
101-400-801.000	PROFESSIONAL SERVICES	WILLIAMS & WORKS INC.	PROFESSIONAL SERVICES	212.00	74534
101-400-801.000	PROFESSIONAL SERVICES	WILLIAMS & WORKS INC.	PROFESSIONAL SERVICES	1,020.00	74534
101-400-801.000	PROFESSIONAL SERVICES	WILLIAMS & WORKS INC.	PROFESSIONAL SERVICES	1,565.00	74534
Total For Dept 400 PLANNI				4,780.00	
Dept 426 EMERGENCY MANAGEMENT					
101-426-740.000	OPERATING SUPPLIES	SERVPRO OF GR, IONIA & MO	BIO REMEDIATION JUNE	3,583.60	74520
101-426-801.000	PROFESSIONAL SERVICES	DICKINSON WRIGHT PLLC	GENERAL MUNICIPAL	2,146.00	74478
Total For Dept 426 EMERGE				5,729.60	
Dept 441 DEPARTMENT OF PUBLIC WORKS					
101-441-727.000	OFFICE SUPPLIES	SMART BUSINESS SOURCE	OFFICE SUPPLIES	6.85	74521
101-441-740.000	OPERATING SUPPLIES	BERNARDS ACE HARDWARE	ACCOUNT STATEMENT	14.17	74472
101-441-802.000	CONTRACTUAL	STEALTH PEST MANAGEMENT L	PEST CONTROL	50.00	74524
101-441-850.000	COMMUNICATIONS	COMCAST CABLE	DPW CABLE	50.41	74465
101-441-850.000	COMMUNICATIONS	VERGENNES BROADBAND	ACCOUNT STATEMENT	28.57	74531
101-441-920.000	PUBLIC UTILITIES	CONSUMERS ENERGY	ACCOUNT STATMENTS	105.87	74476
101-441-920.000	PUBLIC UTILITIES	LOWELL LIGHT & POWER	ELECTRIC STATEMENTS	380.52	74498
101-441-926.000	STREET LIGHTING	LOWELL LIGHT & POWER	ELECTRIC STATEMENTS	1,074.15	74498
101-441-930.000	REPAIR & MAINTENANCE	AMAZON CAPITAL SERVICES	DPW BATTERY REPLACEMENT	27.77	74468
Total For Dept 441 DEPART				1,738.31	
Dept 747 CHAMBER/RIVERWALK					
101-747-920.000	CHAMBER UTILITIES	CONSUMERS ENERGY	ACCOUNT STATMENTS	16.46	74476
101-747-920.000	CHAMBER UTILITIES	LOWELL LIGHT & POWER	ELECTRIC STATEMENTS	130.27	74498
Total For Dept 747 CHAMBE				146.73	
Dept 751 PARKS					
101-751-740.000	OPERATING SUPPLIES	TRACTOR SUPPLY CREDIT PLA	ACCOUNT STATEMENT	99.99	74528
101-751-802.000	CONTRACTUAL	PREIN & NEWHOF, INC.	WATER TESTING MAY	155.00	74510
101-751-802.000	CONTRACTUAL	TRUGREEN	REC PARK LAWN CARE	133.02	74530
101-751-920.000	PUBLIC UTILITIES	LOWELL LIGHT & POWER	ELECTRIC STATEMENTS	539.50	74498

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BOTH OPEN AND PAID

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Dept 757 SHOWBOAT					
101-757-920.000	SHOWBOAT UTILITIES	LOWELL LIGHT & POWER	ELECTRIC STATEMENTS	50.68	74498
Total For Dept 757 SHOWBO				50.68	
Dept 790 LIBRARY					
101-790-802.000	CONTRACTUAL	RUESINK, KATHIE	CLEANING SERVICES 6/14 -	60.00	74466
101-790-802.000	CONTRACTUAL	PROGRESSIVE HEATING COOLI	LIBRARY PREVENTIVE MAINTEN	398.00	74513
101-790-802.000	CONTRACTUAL	RUESINK, KATHIE	CLEANING SERVICES 7/5 - 7	120.00	74518
101-790-887.000	CONTRIBUTIONS & MAINTENAN	STEALTH PEST MANAGEMENT L	PEST CONTROL	40.00	74524
101-790-920.000	PUBLIC UTILITIES	CONSUMERS ENERGY	ACCOUNT STATEMENTS	134.37	74476
101-790-920.000	PUBLIC UTILITIES	LOWELL LIGHT & POWER	ELECTRIC STATEMENTS	1,149.75	74498
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Dept 804 MUSEUM					
101-804-887.000	CONTRIBUTIONS & MAINTENAN	STEALTH PEST MANAGEMENT L	PEST CONTROL	40.00	74524
101-804-920.000	PUBLIC UTILITIES	CONSUMERS ENERGY	ACCOUNT STATEMENTS	15.77	74476
101-804-920.000	PUBLIC UTILITIES	LOWELL LIGHT & POWER	ELECTRIC STATEMENTS	226.39	74498
Total For Dept 804 MUSEUM				282.16	
Total For Fund 101 GENERA				71,312.87	
Fund 202 MAJOR STREET FUND					
Dept 450 CAPITAL OUTLAY					
202-450-970.000	CAPITAL OUTLAY	WILLIAMS & WORKS INC.	STREET CONSTRUCTION ENGIN	4,927.85	74534
Total For Dept 450 CAPITA				4,927.85	
Dept 463 MAINTENANCE					
202-463-740.000	OPERATING SUPPLIES	SUPERIOR ASPHALT, INC.	STREET SUPPLIES	926.10	74525
Total For Dept 463 MAINTEN				926.10	
Dept 474 TRAFFIC					
202-474-740.000	OPERATING SUPPLIES	DORNBOS SIGN, INC	STATE CHAMP SIGN - BOWL	39.88	74480
202-474-740.000	OPERATING SUPPLIES	SELF SERVE LUMBER	ACCOUNT STATEMENT	92.59	74519
202-474-740.000	OPERATING SUPPLIES	TRACTOR SUPPLY CREDIT PLA	ACCOUNT STATEMENT	46.34	74528
Total For Dept 474 TRAFFI				178.81	
Total For Fund 202 MAJOR				6,032.76	
Fund 203 LOCAL STREET FUND					
Dept 450 CAPITAL OUTLAY					
203-450-970.000	CAPITAL OUTLAY	WILLIAMS & WORKS INC.	STREET CONSTRUCTION ENGIN	2,653.46	74534
Total For Dept 450 CAPITA				2,653.46	
Dept 463 MAINTENANCE					
203-463-740.000	OPERATING SUPPLIES	SUPERIOR ASPHALT, INC.	STREET SUPPLIES	926.10	74525
Total For Dept 463 MAINTEN				926.10	
Total For Fund 203 LOCAL				3,579.56	
Fund 248 DOWNTOWN DEVELOPMENT AUTHORITY					
Dept 463 MAINTENANCE					
248-463-740.000	OPERATING SUPPLIES	CITY OF LOWELL	SUMMER TAX 41-20-02-404-0	1,503.21	74475
248-463-740.000	OPERATING SUPPLIES	DICKINSON WRIGHT PLLC	RIVERSIDE PARK	203.50	74478
248-463-740.000	OPERATING SUPPLIES	DICKINSON WRIGHT PLLC	RIVERSIDE PARK	92.50	74478
248-463-740.000	OPERATING SUPPLIES	THORNAPPLE RIVER NURSERY,	WOOD CHIPS	112.00	74526
248-463-740.000	OPERATING SUPPLIES	WILLIAMS & WORKS INC.	DNR LEGAL DESCRIPTION	780.75	74534
248-463-920.000	PUBLIC UTILITIES	LOWELL LIGHT & POWER	ELECTRIC STATEMENTS	419.68	74498
248-463-930.000	REPAIR & MAINTENANCE	BERNARDS ACE HARDWARE	ACCOUNT STATEMENT	21.30	74472
Total For Dept 463 MAINTEN				3,132.94	
Dept 906 DEBT SERVICE					
248-906-991.000	PRINCIPAL ON BONDS	LOWELL LIGHT & POWER	DDA LOAN	33,000.00	74499
248-906-995.000	INTEREST ON BONDS	LOWELL LIGHT & POWER	DDA LOAN	1,263.28	74499

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		Total For Dept 906 DEBT S		34,263.28	
		Total For Fund 248 DOWNTO		37,396.22	
Fund 249 BUILDING INSPECTION FUND					
Dept 371 BUILDING INSPECTION DEPARTMENT					
249-371-802.000	CONTRACTUAL		PROFESSIONAL CODE INSPECT PERMITS & INSPECTIONS	4,397.40	74512
		Total For Dept 371 BUILDI		4,397.40	
		Total For Fund 249 BUILDI		4,397.40	
Fund 260 DESIGNATED CONTRIBUTIONS					
Dept 751 PARKS					
260-751-970.000	CAPITAL OUTLAY	MORAN IRON WORKS, INC	MATERIAL FROM ALRO STEEL	53,490.15	74467
260-751-970.000	CAPITAL OUTLAY	MORAN IRON WORKS, INC	MATERIAL FROM BRYNE RICE	2,037.09	74467
260-751-970.000	CAPITAL OUTLAY	MORAN IRON WORKS, INC	LABOR INCLUED TO DATE	65,995.20	74467
260-751-970.000	CAPITAL OUTLAY	FENCE CONSULTANTS OF WEST	FENCE RENTAL SHOWBOAT	3,900.00	74485
260-751-970.000	CAPITAL OUTLAY	MORAN IRON WORKS, INC	SHOWBOAT LABOR	48,577.72	74505
260-751-970.000	CAPITAL OUTLAY	MORAN IRON WORKS, INC	SHOWBOAT MATERIALS	12,295.74	74505
260-751-970.000	CAPITAL OUTLAY	MORAN IRON WORKS, INC	SHOWBOAT MATERIAL	14,708.00	74505
		Total For Dept 751 PARKS		201,003.90	
		Total For Fund 260 DESIGN		201,003.90	
Fund 581 AIRPORT FUND					
Dept 000					
581-000-740.000	OPERATING SUPPLIES	SELF SERVE LUMBER	ACCOUNT STATEMENT	59.19	74519
581-000-740.000	OPERATING SUPPLIES	TRACTOR SUPPLY CREDIT PLA	ACCOUNT STATEMENT	101.11	74528
581-000-920.000	PUBLIC UTILITIES	CONSUMERS ENERGY	ACCOUNT STATEMENT	26.58	74476
581-000-955.000	MISCELLANEOUS EXPENSE	VERGENNES BROADBAND	ACCOUNT STATEMENT	49.99	74531
581-000-955.000	MISCELLANEOUS EXPENSE	VERGENNES TOWNSHIP TREASU	SUMMER TAX 41-16-35-100-6	4,506.83	74532
		Total For Dept 000		4,743.70	
		Total For Fund 581 AIRPOR		4,743.70	
Fund 590 WASTEWATER FUND					
Dept 000					
590-000-043.000	DUE FROM EARTH TECH	LOWELL LIGHT & POWER	ELECTRIC STATEMENTS	6,159.49	74498
590-000-043.000	DUE FROM EARTH TECH	VERGENNES BROADBAND	ACCOUNT STATEMENT	28.57	74531
		Total For Dept 000		6,188.06	
Dept 551 COLLECTION					
590-551-740.000	OPERATING SUPPLIES	AMAZON CAPITAL SERVICES	W/S MARKING PAINT	29.29	74468
590-551-744.000	UNIFORMS	SOYKA, CODY	REIMBURSE FOR WORK BOOTS	52.99	74522
590-551-930.000	REPAIR & MAINTENANCE	EJ USA, INC.	WATER DEPT R & M	1,650.72	74481
590-551-930.000	REPAIR & MAINTENANCE	LEE'S TRENCHING SERVICE,	REPAIR STORM SEWER MANHOL	17,332.15	74496
590-551-930.000	REPAIR & MAINTENANCE	PLUMMERS ENVIRONMENTAL SE	CLEANING SEWER MAIN	1,733.25	74509
		Total For Dept 551 COLLEC		20,798.40	
Dept 552 CUSTOMER ACCOUNTS					
590-552-703.000	SALARIES-METER READS	BARTLETT, SANDY	MILEAGE AND METER READS	353.65	74471
590-552-860.000	TRAVEL EXPENSES	BARTLETT, SANDY	MILEAGE AND METER READS	31.05	74471
		Total For Dept 552 CUSTOM		384.70	
		Total For Fund 590 WASTEW		27,371.16	
Fund 591 WATER FUND					
Dept 570 TREATMENT					
591-570-740.000	OPERATING SUPPLIES	BERNARDS ACE HARDWARE	ACCOUNT STATEMENT	79.03	74472
591-570-740.000	OPERATING SUPPLIES	IDEXX DISTRIBUTION CORP.	WTP SUPPLIES	229.33	74492
591-570-740.000	OPERATING SUPPLIES	IDEXX DISTRIBUTION CORP.	WTP SUPPLIES	921.19	74492
591-570-740.000	OPERATING SUPPLIES	TRACTOR SUPPLY CREDIT PLA	ACCOUNT STATEMENT	99.99	74528
591-570-802.000	CONTRACTUAL	STEALTH PEST MANAGEMENT L	PEST CONTROL	40.00	74524
591-570-850.000	COMMUNICATIONS	VERGENNES BROADBAND	ACCOUNT STATEMENT	28.57	74531
591-570-920.000	PUBLIC UTILITIES	CONSUMERS ENERGY	ACCOUNT STATMENTS	135.15	74476

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Fund 591 WATER FUND					
Dept 570 TREATMENT					
591-570-920.000	PUBLIC UTILITIES	LOWELL LIGHT & POWER	ELECTRIC STATEMENTS	5,317.03	74498
Total For Dept 570 TREATM				6,850.29	
Dept 571 DISTRIBUTION					
591-571-740.000	OPERATING SUPPLIES	AMAZON CAPITAL SERVICES	W/S MARKING PAINT	29.29	74468
591-571-740.000	OPERATING SUPPLIES	BERNARDS ACE HARDWARE	ACCOUNT STATEMENT	18.99	74472
591-571-740.000	OPERATING SUPPLIES	PETTY CASH	MISC PETTY CASH	10.00	74508
591-571-744.000	UNIFORMS	SOYKA, CODY	REIMBURSE FOR WORK BOOTS	53.00	74522
591-571-801.000	CROSS CONNECTIONS	HYDROCORP	CROSS CONNECTION MAY 2020	937.00	74491
591-571-801.000	CROSS CONNECTIONS	HYDROCORP	CROSS CONNECTION JUNE 202	937.00	74491
591-571-864.000	CONFERENCES & CONVENTIONS	AMERICAN WATER WORKS	MEMBERSHIP DUES - BRECKEN	224.00	74469
591-571-864.000	CONFERENCES & CONVENTIONS	MICHIGAN RURAL WATER ASSO	MEMBERSHIP - BRECKEN	735.00	74504
591-571-920.000	PUBLIC UTILITIES	CONSUMERS ENERGY	ACCOUNT STATMENTS	42.77	74476
591-571-920.000	PUBLIC UTILITIES	LOWELL LIGHT & POWER	ELECTRIC STATEMENTS	1,992.20	74498
591-571-930.000	REPAIR & MAINTENANCE	AMAZON CAPITAL SERVICES	WATER DEPT NYLON ROPE	40.18	74468
591-571-930.000	REPAIR & MAINTENANCE	EJ USA, INC.	PARTS FOR STREET REPAIRS	773.31	74481
591-571-930.000	REPAIR & MAINTENANCE	ETNA SUPPLY COMPANY	NW PUMP STATION	658.00	74483
591-571-930.000	REPAIR & MAINTENANCE	FRANKLIN HOLWERDA CO.	NE RESERVIOR R & M	2,795.00	74486
591-571-930.000	REPAIR & MAINTENANCE	GRAND VALLEY CONCRETE PRO	REPAIRS FOR STREET RESURF	380.00	74487
591-571-930.000	REPAIR & MAINTENANCE	MICHIGAN CAT	NE PUMP STATION GEN R & M	3,569.74	74502
591-571-930.000	REPAIR & MAINTENANCE	MICHIGAN CAT	GENERATOR RENTAL	910.00	74502
591-571-930.000	REPAIR & MAINTENANCE	QUEBERG, ANN M.	NW PUMP STATION BOX	47.56	74515
591-571-930.000	REPAIR & MAINTENANCE	TIP TOP GRAVEL CO.	TOP SOIL FOR WATER DEPT	72.15	74527
591-571-930.000	REPAIR & MAINTENANCE	TRACTOR SUPPLY CREDIT PLA	ACCOUNT STATEMENT	46.12	74528
591-571-955.000	MISCELLANEOUS EXPENSE	VISA	MERCANTILE VISA - JUNE	95.00	74533
591-571-955.000	MISCELLANEOUS EXPENSE	VERGENNES TOWNSHIP TREASU	SUMMER TAX 41-16-35-426-0	1,714.33	74532
591-571-970.000	CAPITAL OUTLAY	FRANKLIN HOLWERDA CO.	REBUILD ALTITUDE VALVE	3,475.00	74486
Total For Dept 571 DISTRI				19,555.64	
Dept 572 CUSTOMER ACCOUNTS					
591-572-703.000	SALARIES-METER READS	BARTLETT, SANDY	MILEAGE AND METER READS	353.65	74471
591-572-860.000	TRAVEL EXPENSES	BARTLETT, SANDY	MILEAGE AND METER READS	31.05	74471
Total For Dept 572 CUSTOM				384.70	
Total For Fund 591 WATER				26,790.63	
Fund 636 DATA PROCESSING FUND					
Dept 000					
636-000-740.000	OPERATING SUPPLIES	VISA	MERCANTILE VISA - JUNE	92.82	74533
636-000-802.000	CONTRACTUAL	ARCHIVESOCIAL, INC	ARCHIVE ECONOMY 1 YR	2,388.00	74464
636-000-802.000	CONTRACTUAL	APPLIED IMAGING	CITY HALL COPY MACHINE	386.55	74470
Total For Dept 000				2,867.37	
Total For Fund 636 DATA P				2,867.37	
Fund 661 EQUIPMENT FUND					
Dept 895 FLEET MAINT. & REPLACEMENT					
661-895-930.000	REPAIR & MAINTENANCE	BETTEN BAKER	2008 CHEVY IMPALA R & M	32.25	74473
661-895-930.000	REPAIR & MAINTENANCE	INTERSTATE BILLING SERVIC	AVIS CONTRUCTION	1,162.20	74493
661-895-930.000	REPAIR & MAINTENANCE	MICHIGAN CAT	#31 LOADER ANNUAL SERVICE	2,393.58	74502
661-895-930.000	REPAIR & MAINTENANCE	NAPA AUTO PARTS	ACCOUNT STATEMENT	376.40	74506
661-895-930.000	REPAIR & MAINTENANCE	RONDA AUTO CENTERS	#9 2016 CHEVY SILVERADO R	190.88	74517
Total For Dept 895 FLEET				4,155.31	
Total For Fund 661 EQUIPM				4,155.31	
Fund 703 CURRENT TAX COLLECTION FUND					
Dept 000					
703-000-275.000	DUE TO TAXPAYERS	HBI TITLE SERVICES INC.	2020 Sum Tax Refund 41-20	300.49	74489
703-000-275.000	DUE TO TAXPAYERS	JANOWSKI RONALD	2020 Sum Tax Refund 41-20	120.18	74494
703-000-275.000	DUE TO TAXPAYERS	JANOWSKI RONALD M & WAID	2020 Sum Tax Refund 41-20	91.66	74495

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Dept 000					
Total For Dept 000				512.33	
Total For Fund 703 CURREN				512.33	

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INVOICE GL DISTRIBUTION REPORT FOR CITY OF LOWELL
EXP CHECK RUN DATES 07/01/2020 - 07/17/2020
BOTH JOURNALIZED AND UNJOURNALIZED
BOTH OPEN AND PAID

GL Number	Invoice Line Desc	Vendor	Invoice Description	Amount	Check #
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Fund Totals:

Fund 101	GENERAL FUND			71,312.87	
Fund 202	MAJOR STREET FUN			6,032.76	
Fund 203	LOCAL STREET FUN			3,579.56	
Fund 248	DOWNTOWN DEVELOP			37,396.22	
Fund 249	BUILDING INSPECT			4,397.40	
Fund 260	DESIGNATED CONTR			201,003.90	
Fund 581	AIRPORT FUND			4,743.70	
Fund 590	WASTEWATER FUND			27,371.16	
Fund 591	WATER FUND			26,790.63	
Fund 636	DATA PROCESSING			2,867.37	
Fund 661	EQUIPMENT FUND			4,155.31	
Fund 703	CURRENT TAX COLL			512.33	

390,163.21



Lowell Charter Township

Water and Sewer Feasibility Study

June 4, 2020



Moore+Bruggink
Consulting Engineers

Engineering Clean Water 

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1.0 EXECUTIVE SUMMARY

Lowell Township has authorized Moore+Bruggink to conduct a feasibility study on separating their water and sewer system from the City of Lowell. This report will outline the methods, calculations, and conclusions from the feasibility study.

1.1 Background

Lowell Township currently has a treatment agreement in place with the City of Lowell. At the time of this report, there are 7 years remaining in the Sanitary Sewer Use Agreement and 12 years remaining in the Water Supply Agreement between the City and the Township.

The Township is served by the City using a 12 inch water main connection on Alden Nash Avenue. The City also provides sanitary sewer service to a portion of the Township west of the City limits. A township-owned lift station pumps sanitary sewage west to the City of Lowell Waste Water Treatment Plant.

Steady growth and development of the Township, combined with the treatment costs from the City of Lowell, prompted the Township to investigate altering flows to a new Water Resource Recovery Facility (WRRF) owned and operated by the Township. At the same time, this study explored the option of a new Water Treatment Plant (WTP) for the Township as well. This report provides the results and recommendations of the feasibility study performed.

1.2 Scope

The scope of this study is to provide the Township with the feasibility of a water treatment plant, wastewater treatment plant, and associated water and sanitary mains to be owned and operated by Lowell Township. Moore+Bruggink (M+B) performed the study by completing research on land use summaries, flow projections, a proposed water system (wells, mains, treatment facility, etc.), a proposed wastewater system (sanitary collections, treatment types, effluent limits, etc.), capital and operational costs, rates, and funding.

1.3 Results

Moore+Bruggink determined that constructing a water treatment system and wastewater treatment system owned by Lowell Township may be feasible. The Township's population is showing consistent growth, and the anticipated industrial park near the M-50/I-96 intersection is evidence of that. The M-50 development offers great synergy with what the Township is considering, and may be used as a potential location for constructed water systems. Table 1 gives the projected overall capital costs of constructing independent Township-owned water treatment systems.

Table 1 – Projected Overall Capital Costs

Treatment	Cost
<i>Water System</i>	\$11,500,000
<i>Wastewater System</i>	\$19,100,000
Total Cost	\$30,600,000

1.4 Recommendation

Moore+Bruggink recommends the Township utilize this document to continue negotiations with the City of Lowell and the real estate developer community on a proper path to proceed. Public review of the proposed new utility district is also recommended.

In regard to expanding a drinking water district in the southern end of the Township, M+B recommends building a water system that only serves that area and maintain the contract with the City of Lowell to serve the existing water district in the northern area of the Township. If a contract cannot be maintained, a separate drinking water plant is recommended to be constructed in that district.

In considering the creation of a wastewater system to serve the southern end of the Township, M+B recommends negotiating with the City of Lowell become a join Sewer Authority and expanding the capacity at the current treatment plant. If an agreement cannot be reached, a Water Resource Recovery Facility along Grand River Drive that serves the entire Township is recommended.

2.0 STUDY BACKGROUND AND SET-UP

2.1 Land Use Summary

The majority of the residential land use in Lowell Township is characterized by Rural Residential, with several Low Density Residential and Mixed-Use Planning Areas. These are typically single-family houses on 5-10 acre lots, along Township local roads with hilly and wooded terrain. There are several multi-family structures within the Township, including Stone Ridge Apartments with 96 units and Green Acres assisted care facility with 20 units. Mobile homes compose 16% of all dwelling units, mostly within the Key Heights Mobile Home Park.

Future Land Use estimates several zones slated to become High Density Residential, including parcels southwest of Parnell Avenue and Vergennes Street, and along I-96 (Appendix A, Township's 2014 Master Plan Future Land Use Map). The map shows other zones to become Low Density Residential just south of the Grand River, and directly east of Parnell Avenue. Additional anticipated developments include an industrial park near the M-50/I-96 intersection and improvements to the Fairgrounds.

The Grand River spans the Township's limits in an east-west direction. The lowest point in the Township is at the intersection of the Grand River and Timpson Road (630 feet), while the highest point is at the intersection of Cascade and Timpson Roads (890 feet).

The population of Lowell Township was 6,702 in 2018, with a steady growth of 12.7%¹ from 2010 to 2018, and 13.9%² in the previous decade. Although the Township has been growing at a similar rate as adjacent communities, the City of Lowell has experienced a loss of population in the past 20 years.

2.2 Ultimate Flow Projections

Five zones were considered when estimating the future Residential Equivalent Units (REUs) for Lowell Township. The Zones are outlined in Figure 1. These estimates were calculated in one of two ways: REU per acre or REU per parcel. For larger parcels (greater than 13 acres) or parcels anticipated to subdivide, REUs were estimated per acre. For smaller parcels not slated for any additional growth or subdivision, REUs were estimated per parcel.

Some assumptions were made for these calculations. Demands were calculated based on a capacity of "fully-developed." A fully-developed acre assumes high density land use with 3.11 dwelling units per acre. A fully-developed parcel assumes one dwelling unit or 1 REU, equated to 300 gpd. This is equivalent to 3 residents per parcel, requiring 100 gpd per capita. Therefore, no matter what size parcel, the demand will be 300 gpd when calculating demand using 1 REU per parcel.

¹ US Census

² Lowell Township Master Plan, 2015

Table 2 – Examples of REU Calculations

1 REU per acre Larger parcel (>13 acres) or sub-dividable	1 REU per parcel Smaller lots or established neighborhoods
<p>Ex. 20-acre parcel</p> $= 20 \frac{\text{acres}}{\text{parcel}} \times 3.11 \frac{\text{REU}}{\text{acre}} \times 3 \frac{\text{people}}{\text{REU}} \times 100 \frac{\text{gpc}}{\text{day}}$ $= 18,660 \frac{\text{gallons}}{\text{day}}$ <p>(gpc, gallons per capita)</p>	<p>Ex. 3-acre parcel</p> $= 3 \frac{\text{acres}}{\text{parcel}} = 1 \frac{\text{REU}}{\text{parcel}} \times 3 \frac{\text{people}}{\text{REU}} \times 100 \frac{\text{gpc}}{\text{day}}$ $= 300 \frac{\text{gallons}}{\text{day}}$ <p>(gpc, gallons per capita)</p>

2.2.1 Zone Descriptions

Zone 1 is the northwest portion of the Township that is expected to become high-density residential. Consumers Power owns a 56-acre strip of land that runs north to south in this area. Zone 1 has 76 parcels that cover 703 acres, which demands 0.35 MGD when fully developed.

Zone 2 is the current service district for the Township. There are two portions of this zone: "A," which is the flow from the existing connections; and "B," which is the parcels that are currently not connected to the system within the same Township sections. The current average sewer rate is 0.14 MGD, and the current average water rate is 0.18 MGD. A demand of 0.42 MGD is anticipated when fully developed.

Zone 3 is composed of two quadrants between Morse Lake and Timpson, west of the anticipated industrial park off M-50 and I-96. Twenty parcels cover 275 acres in this zone, an anticipated 0.19 MGD of additional demand.

Zone 4 is the anticipated industrial park at M-50 and I-96. REU estimates were for sanitary sewer flowrates, estimated with commercial and industrial PUDs in 2017, and the anticipated demand is 0.20 MGD. This area covers 116 useable acres.

Zone 5 is the area of selected parcels off Alden Nash for the allowance of additional development near M-50 and I-96. This zone includes seven larger parcels that cover 403 acres, and anticipates 0.44 MGD of maximum additional demand.

Table 3 – Ultimate Flow Calculations

Parcel	Address	Area (ac)	REU	Ultimate Flow (MGD)
Zone 1	NW Lowell Twp Parcels	703	1151	0.35
Zone 2	Existing Service District Expansion	445	1383	0.42
Zone 3	W. of M-50 Development	276	645	0.19
Zone 4	M-50 Development	116	673	0.20
Zone 5	Nearby M-50 Parcels	480	1483	0.44

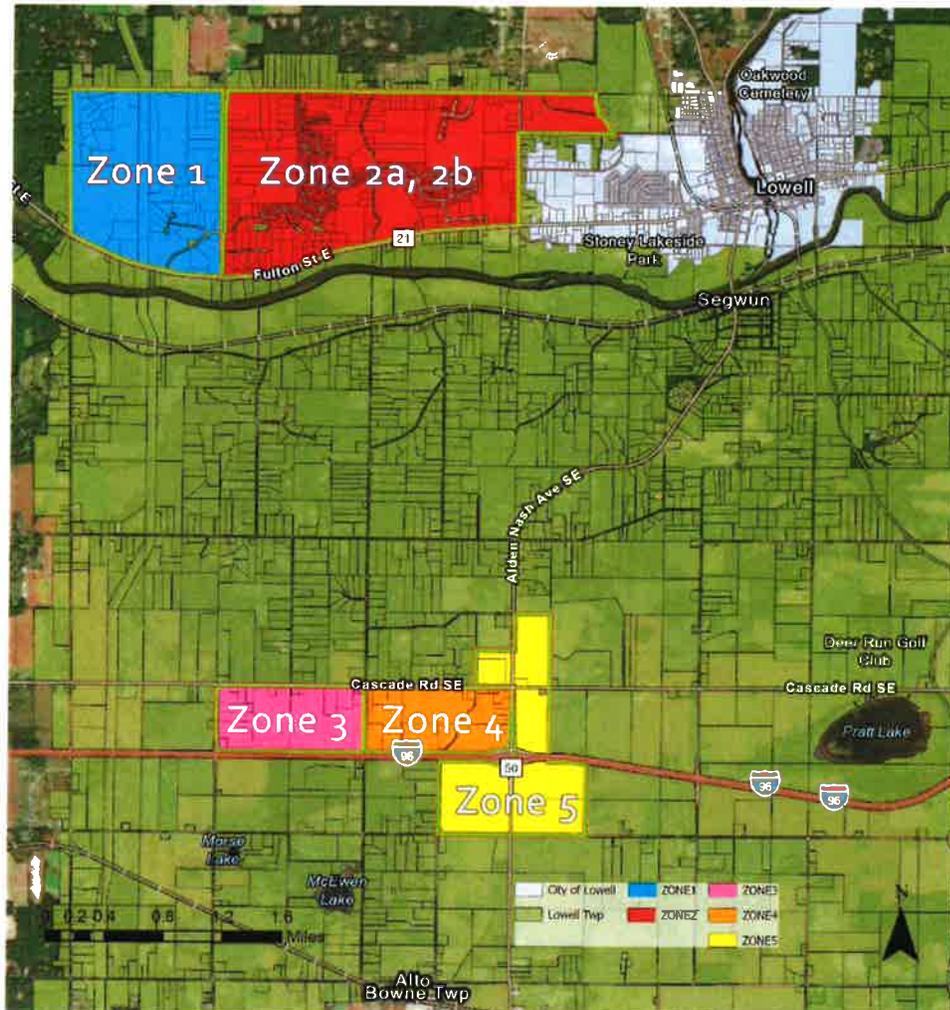


Figure 1 – Zoning for REU Estimates

2.3 Timeline

2.3.1 Water Contract

The 1992 Water Supply Agreement between the City of Lowell and Lowell Charter Township was signed under the initial term of 40 years. The Agreement may be extended under the same or potentially revised terms and provisions. The Agreement is currently anticipated to conclude on October 15, 2032.

2.3.2 Sewer Contract

The 1987 Interjurisdictional Sanitary Sewer Use Agreement between the City of Lowell and Lowell Township outlined a contract effective for 40 years. Provided this Agreement is not sooner terminated, this contract will be concluded on September 15, 2027. With seven more years under the existing Sewer contract, a Feasibility Study for the Township is both important and timely.

2.3.3 Rate of Development

Zone 4, the proposed industrial park off of M-50, is anticipated to start construction within the next year and begin industrial activities in this area within the next ten years or so. The anticipated demands are reflected in the flow projections. The developments in Zones 3 and 5, which surround Zone 4, are anticipated to grow at relatively steady rates. Therefore, flow projections will likely follow these patterns and increase at around 5-10% every five years.

Similarly, Zones 1 and 2 will likely see similar growth at around 5-10% every five years. Lowell Township has seen about 12.7% population growth historically, so these flow projections seem appropriate.

By 2050, Zone 4 will be the only zone with full-flow demands of 100%, while Zones 1, 2, 3, and 5 will be expected to have between 65% and 75% demands. This sums to a flow of 1.34 MGD by 2050, which is a 30-year planning timeframe.

2.4 Flow Projections

2.4.1 Sewer

The current sewer demand is about 0.14 MGD for the existing service area. Since 2007, the demand has grown 42%. The sewer service area currently covers less parcels than the water service area in Lowell Township. This growth is captured in Zone 2b by adding in the additional connections that the water service currently serves, which amounts to 0.04 MGD additional demand (summing to 0.46 MGD of demand in the Zone 2b column).

Table 4 – Ultimate Sewer Flow Projections

Description	Zone 1	Zone 2		Zone 3	Zone 4	Zone 5	Total
	NW Low	a	b	W. of M-50	M-50	E. of M-50	
<i>Flow</i>	0.35	0.14	0.46	0.19	0.20	0.44	1.78
2020	5%	76%	5%	5%	50%	5%	0.28
2025	15%	78%	15%	10%	75%	15%	0.46
2030	25%	80%	20%	20%	100%	25%	0.64
2035	35%	85%	35%	25%	100%	35%	0.80
2040	45%	90%	45%	35%	100%	45%	0.95
2045	55%	95%	60%	50%	100%	55%	1.14
2050	65%	100%	75%	75%	100%	65%	1.34

2.4.2 Water

Water use increases by twofold or more during the summer months. Therefore, M+B averaged the current demands and used these in Zone 2a as the baseline flow for the current service area. This area serves a larger portion of Zone 2 than sewer currently. M+B expects the sewer projections to change slightly more than water projections in Zone 2b, based on the proposed additional service connections. The flow projections were calculated with minimal irrigation considerations due to the type of development proposed.

Table 5 assumes the water contract with the City of Lowell is terminated upon the construction of an independent system. In the full report, several alternatives will be looked at.

Table 5 – Ultimate Water Flow Projections

Description	Zone 1	Zone 2		Zone 3	Zone 4	Zone 5	Total
	NW Low	a	b	W. of M-50	M-50	E. of M-50	
<i>Flow</i>	0.35	0.18	0.42	0.19	0.20	0.44	1.78
2020	5%	100%	5%	5%	50%	5%	0.35
2025	15%	100%	15%	10%	75%	15%	0.53
2030	25%	100%	20%	20%	100%	25%	0.70
2035	35%	100%	35%	25%	100%	35%	0.85
2040	45%	100%	45%	35%	100%	45%	0.99
2045	55%	100%	60%	50%	100%	55%	1.16
2050	65%	100%	75%	75%	100%	65%	1.35

2.5 Alternative Solutions

Considering the numerous methods for accomplishing the goal of an independent Water and Sewer System, it is necessary to analyze different alternatives. This study chose to look at several options. These were chosen based on the team’s prior experience, knowledge of the area, the amount of time and effort allowed for the study, and input from key stakeholders.

3.0 WATER SYSTEM

3.1 Existing System

Water enters the Township using a City-owned 800,000-gallon ground storage tank and booster pump station on Gee Drive, east of Alden Nash Avenue. The booster station is equipped with three 200-gpm capacity pumps. The booster station then supplies water from the City to a Township-owned 500,000-gallon elevated storage tank on Foreman Street, west of Cumberland Drive. The Township is served by a 12-inch water main connection on Alden Nash Avenue. Table 6 depicts the actual water usage by Lowell Township by month for the last year.

Table 6 – Water Usage by Month in Lowell Township

Month	Water Usage (MG)	Water Usage (MGD)
March 2019	3.891	0.126
April 2019	3.762	0.134
May 2019	4.553	0.147
June 2019	5.477	0.183
July 2019	10.126	0.327
August 2019	9.074	0.293
September 2019	6.627	0.221
October 2019	4.890	0.158
November 2019	4.209	0.140
December 2019	4.433	0.143
January 2020	4.235	0.137
February 2020	4.061	0.140
March 2020	n/a	n/a
Average (MGD)		0.179
MGD (excluding summer)		0.148

3.2 Proposed System Alternatives

Three basic water system alternatives presented themselves in this study for a water system.

Table 7 – Water System Alternatives

1	A system “fed” from the north	This would locate the well and treatment near the <i>north</i> service area of the Township.
2	A system “fed” from the south	This would locate the well and treatment near the <i>south</i> service area of the Township.
3	A separated system	This is where wells and treatments would occur both north of the Grand River and near the M-50 site.
4	A partial system	This would keep the existing service district connected to the City of Lowell and establish an independent service district near the M-50 site.
5	A dependent system	This would expand the utility district served by the city of Lowell to include the zone to the south.

These water system alternatives will be discussed in each of the analyses of the components of a water system and in the summary.

3.3 Proposed Wells and Site

The proposed location of the wells after considering the base water system alternatives is mainly determined by the groundwater quality and the long-term groundwater supply. The water quality can be altered through the treatment process, as described in Section 3.4, however there must be enough groundwater available to meet the pumping requirements of the Township.

Many of the Water Well Records in the M-50 Development area indicate that the static water level (SWL) near the M-50 Development site is around 55 feet below ground surface (bgs). The nearest Type II (servicing 25 or more people) wells on the Wellogic Database have water intakes at about 140 feet bgs.

On the north side of the Grand River, there are already about 15 Type I wells (supplies water to the same population year-round) in the Wellogic Database. These wells are located at the City of Lowell Water Treatment Plant, "Cumberland Manor," Eastgate Woods neighborhood, and Key Heights Mobile Home Park. The four wells at the City's plant have depths varying from 87 to 110 feet bgs, and SWLs varying from 16 to 27 feet bgs. Additionally, the Water Well and Pump Record from the City's well installed in 1990 indicates that the SWL dropped approximately 8 feet after 24 hours of pumping at 700 gpm.

While the Wellogic data is useful for planning, Moore+Bruggink recommends that test borings be drilled before well drilling to obtain more detailed information about the depth of the water-producing zones, confining beds, well production capabilities, water levels, and groundwater quality. It is recommended to use rotary drilling on any test borings or well drilling on the M-50 Development site, while borings completed on the north side of the Grand River could use a hollow-stem auger. The final design is subject to site-specific observations made in the test boring or during the well drilling.

Stakeholders have proceeded with procuring test wells near M-50. However, at the time of this report, the wells have not been drilled nor any data produced. This section should be updated to include the data from the test wells after the drilling has been completed.

Additional Cost will be incurred to transport the water from the well sites to the treatment process depending on the location of the wells.

3.4 Proposed Treatment

The following is an overview of the steps needed to produce quality water to a future water system.

3.4.1 Water Quality Requirements

Overview

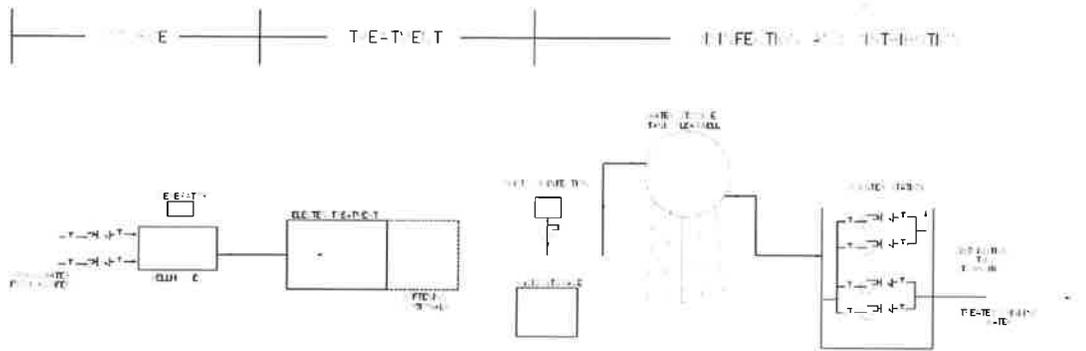


Figure 2 – General Water Treatment Process Flow Diagram

Water would start at a wellhouse, which would house two 750-gpm pumps, pumping groundwater from two 12-inch production wells. These would draw from about 150 feet below ground surface, and pump to a head tank. From the head tank, water will flow to the water treatment plant and enter the selected treatment process. Water will be treated initially to remove iron and other contaminant particles that may be present in the groundwater. An additional option for softening may be desired to treat exceptionally high levels of hardness (if found during exploratory well testing) or achieve a certain taste satisfaction.

The decision to add a softening process will be dependent on the location and depth of the groundwater wells. Source water may have a high mineral content, or hardness. Too much hardness can promote scaling in pipes and plumbing fixtures, while too little hardness can contribute to corrosion and does not provide consumers with needed minerals. In addition, because Township customers north of the Grand River already served by City water are familiar with the taste of the softened water, a continued service of similar water quality may be strongly desired by the customers. Therefore, the groundwater may need to be softened using one of the methods described in Section 3.4.2.

After treatment and potentially softening, water is then filtered using layers of gravel, sand, and Anthracite, and finally disinfected. Disinfection can be achieved using chlorination, ozone treatment, exposure to UV light, or a combination of the three.

3.4.2 Treatment Alternatives

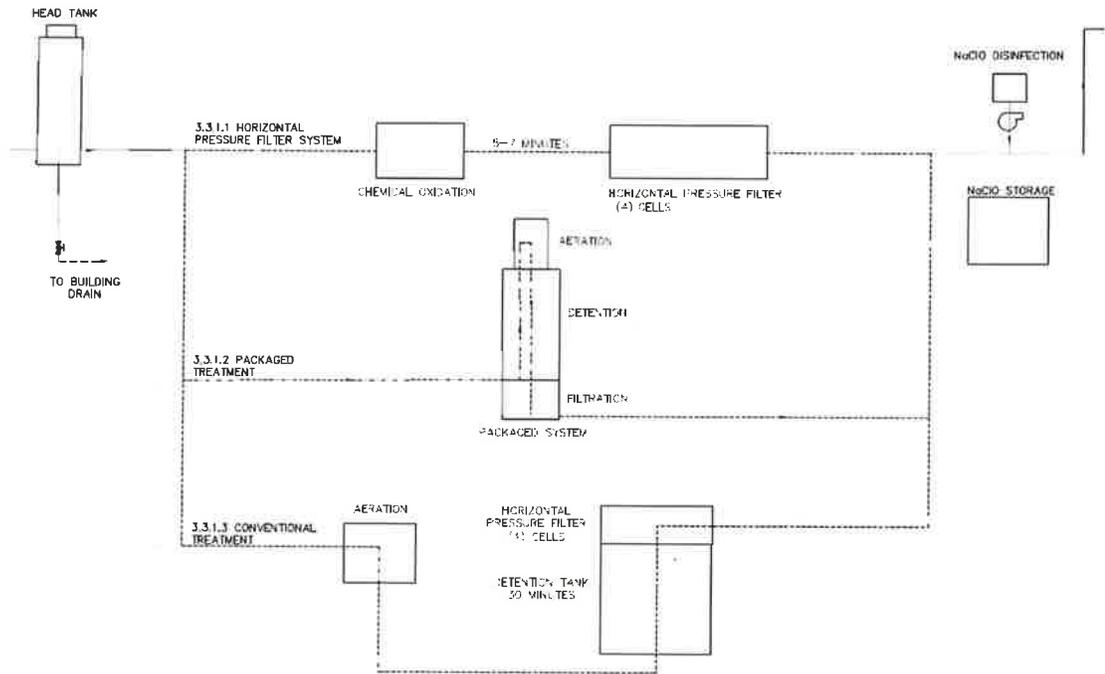


Figure 3 – Treatment of Drinking Water Alternatives

Current design parameters for treatment options were based on two WTP design flows: 0.5 MGD and 1.0 MGD. The raw water qualities for preliminary quotes were from a previous water treatment evaluation in the same general area. The evaluation report: a hardness of 349.0 mg/L as CaCO₃ and magnesium of 26.0 mg/L. Specific treatment process recommendation varies based on how big the WTP is and if the water will need to be softened. Some of this will be revealed when the testing wells are developed, and wells may need to be appropriately sized or spaced based on the available production from the test wells. Figure 4 shows a diagram through which alternatives can be selected based on design flow and whether softening is deemed necessary or not.

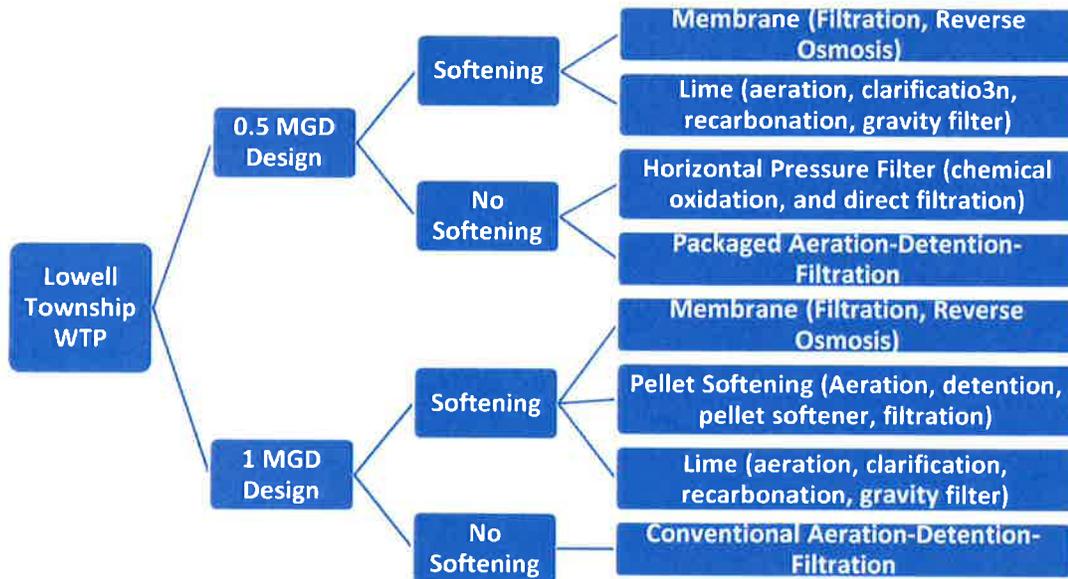


Figure 4 – Water Treatment Alternatives Map

1. Horizontal Pressure Filter System

For a smaller WTP that does not need the softening option initially, the horizontal pressure filter would be one recommended option. There is a small footprint to this option, and the use of only the well pump to provide system pressure. This option also has the flexibility to be expanded to a larger, conventional aeration-detention-filtration or reverse osmosis treatment in the future, because the filter is also used in these treatment or softening schemes. If ammonia is present in the groundwater, this option is more challenging to achieve optimum chemical dosage to the filter media.

2. Packaged Treatment

This is another non-softening option that is slightly more cost-effective than the Pressure Filter, but requires additional pumping. The well pumps provide pressure to the aeration. The configuration is vertical, with the influent entering aeration at the top, and dropping down into a detention tank. From there, a high-service pump would pressurize the effluent through the filter and out to distribution. Without a redundant package, treatment stops if any part of the process is down. This orientation is taller, and some communities have complained about the aesthetics of the vertical height of this option, which often rises up past building roofs.

3. Conventional Treatment

Much like the Packaged option, this process removes iron and manganese, but in a separated layout with larger footprint. This option can handle larger design flows, however, and is a robust system. It does not include softening.

3.4.3 Softening Alternatives

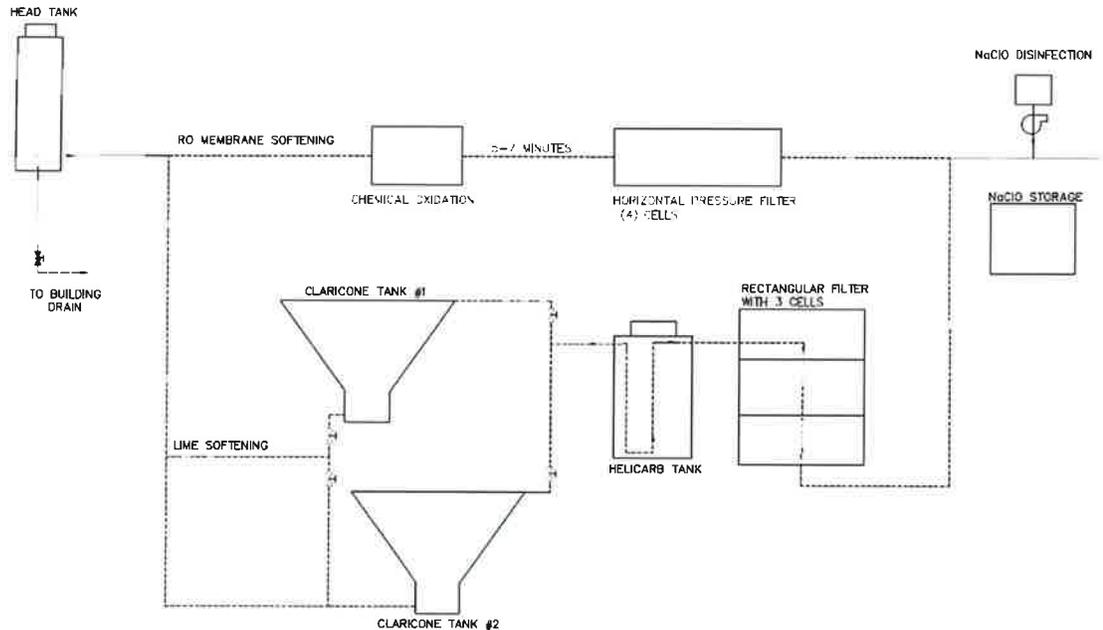


Figure 5 – Softening Alternatives

1. Lime Softening

Lime softening of municipal water involves mixing lime-soda with water, allowing the resulting sludge to settle, and then drawing off the clear, softened water. The lime softening process benefits include additional water treatment beyond hardness; suspended matter is also removed, and alkalinity and silica are typically reduced.

Lime softening is a trusted softening option and what the City of Lowell currently uses; however, the chemical need is a constant expense and hardship, and the plant layout has the largest footprint due to the number of components needed. There is an option to supply hydrated lime to this alternative, which would omit the need for a lime slaker. Operators enjoy the lower maintenance of hydrated lime, as opposed to quicklime, although the cost and required volume increase with this option.

2. Ion Exchange

Ion Exchange is a physical-chemical process that selectively removes contaminants from water by swapping out ions of similar electrical charges. In this way, ion exchange targets specific constituents for removal based on their ionic charges, while leaving desirable minerals in the solution. Treatment by Ion Exchange may not be a good fit for Lowell Township due to the cost of the brine needed, or the high levels of chlorides in ion exchange treatment residuals (backwash/regeneration water). Additionally, state regulators are beginning to issue new permits

with chloride limits to WWTPs, so this may cause a strain on the downstream treatment plant in the future.

3. Membrane

Reverse osmosis (RO) is a method of physical separation where pressure is applied to filter water through a semipermeable membrane. With the finest pore sizes of any membrane filtration type, RO removes all contaminant ions or particles larger than water molecules, yielding a filtrate of consistently high purity. Treatment by membrane filtration generates high quantities of treatment residuals (reject water). Although two membranes are needed for this option, a third membrane is recommended for redundancy.

This option would begin with the same pressure filter, upsized for increased flow to account for waste flow from the membrane process. A portion of the filtrate will bypass the RO system, to achieve a final desired hardness blend. Membranes should be changed about every 5 years, while the rest of the RO system is designed for long-term use.

3.5 Treatment Locations

The Township has a few options for locating a new water treatment facility. They are dependent on the water system alternative desired. Two main options were considered.

Option A is to construct a facility at the M-50 Development on the south side of the Grand River, which could serve water system alternatives 2, 3 (South Plant), or 4.

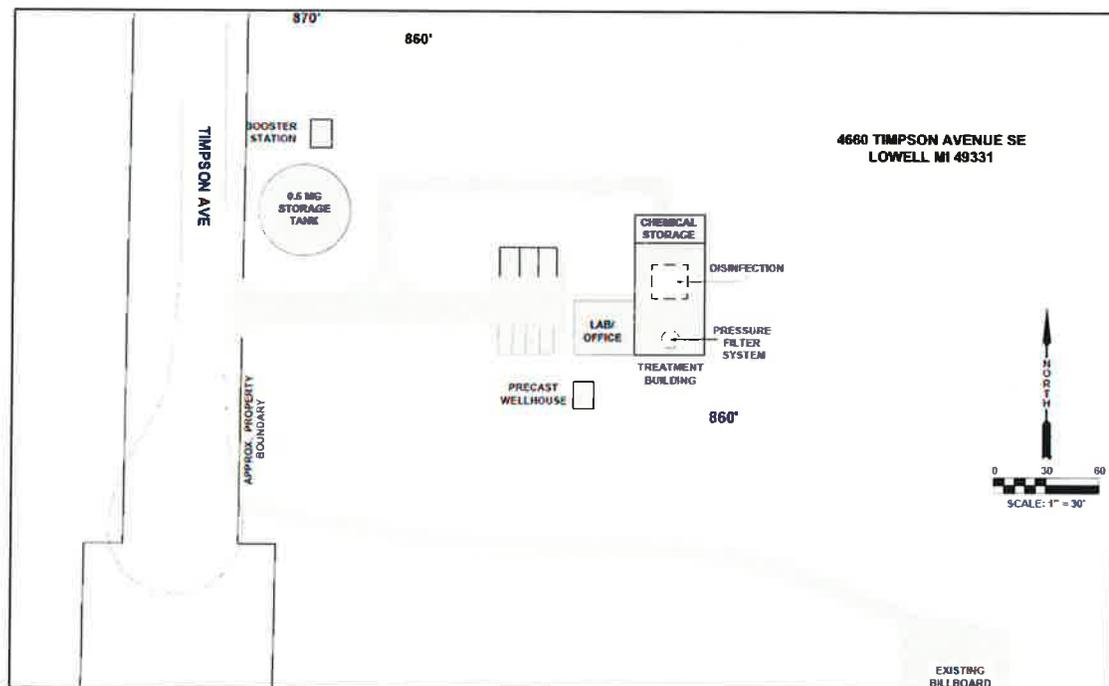


Figure 6 – Option A WTP Site Layout Near M-50

Alternatively, Option B would be located on the north side of the Grand River, somewhere near Fulton between Birmingham and Alden Nash. Option B would service the Water System Alternatives 1 and 3 (North Plant). Figure 7 is an example of the conceptual site layout for a water plant.

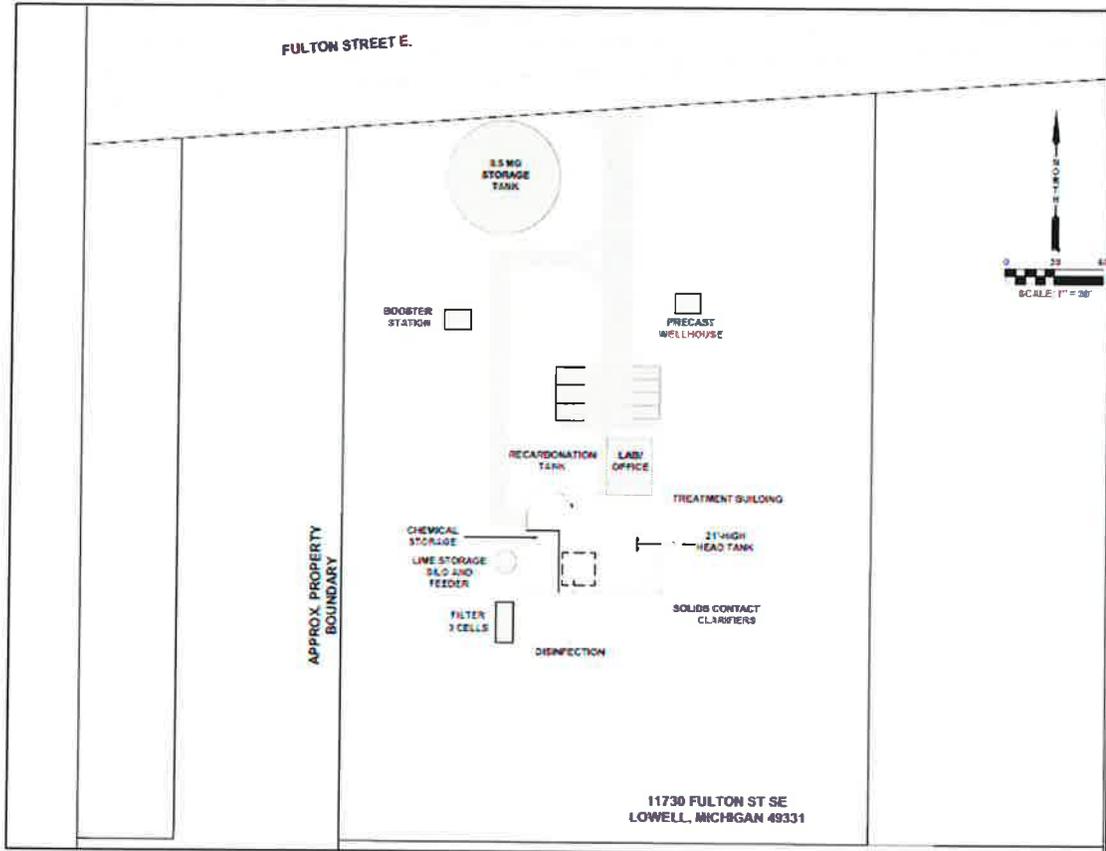


Figure 7 – Option B WTP Site Layout North of Grand River

3.6 Water Towers

In all of the water system alternatives, there is need for an additional water tower. As mentioned, the highest elevation in the Township is near the intersection of Cascade and Timpson Roads (890 feet). Conveniently, this is also near the location of the proposed M-50 Development. Moore+Bruggink recommends that an additional 500,000-gallon elevated storage tank be installed on the property to serve the proposed utility district.

3.7 Routing of Proposed Mains

In the water system alternatives 1, 2, or 5, a connection between the two areas is necessary. This would require a long section of transmission water main routed through an area unlikely to be developed in the future.

Routes were analyzed from the M-50 Development property to the existing water system in Lowell Township. The preferred route from the development to the water main travels north on Alden Nash Avenue, westbound on 36th Street, and northbound on Bewell Avenue, before crossing under the Grand River using Township property west of Grand River Riverfront Township Park. The length of this route is approximately 23,000 linear feet. The proposed route and the approximate elevation profile for the route are shown below in Figure 9 and Figure 10, respectively.



Figure 8 – Southern Water Tower Rendering

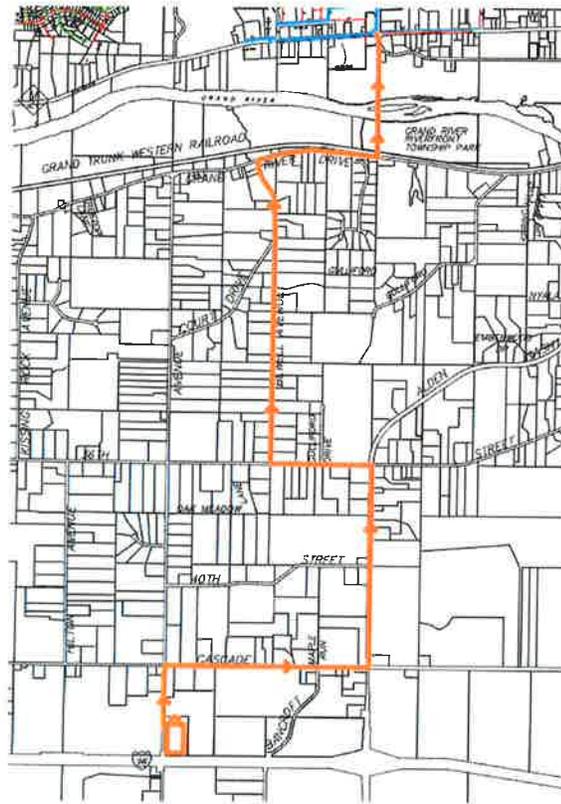
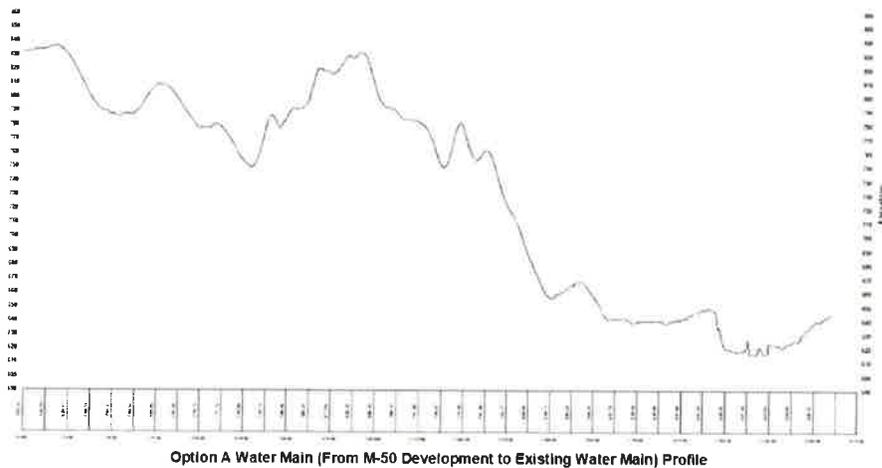


Figure 9 – Proposed Route Between the Southern and Northern Water Districts



Option A Water Main (From M-50 Development to Existing Water Main) Profile

Figure 10 – Elevation Profile of Transmission Water Main from South to North

3.8 Capital Cost Projections

The capital costs for water systems contain some differences and Table 8 shows the projected capital costs for water alternatives. Treatment costs vary between the

alternatives. The more conservative cost estimates were considered. The full cost estimates for the water system can be found in Section 8.10.

Table 8 – Projected Water System (Capital Costs Only)

Option	1	2	3	4	5
Type	1 System	1 System	2 Separate	Keep Service	Keep Service
Descriptions	North of River	By M-50	Systems	New M-50	Expand City
Wells	\$490,000	\$490,000	\$970,000	\$490,000	\$245,000
Water Plant (north)	\$5,800,000		\$4,930,000	-	
Water Plant (M-50)		\$5,800,000	\$4,400,000	\$4,400,000	
City Water Plant Upgrades*					\$3,000,000
Main to M-50 site	\$3,900,000	\$3,900,000			\$3,900,000
500,000 Gallon Water Tower	\$1,200,000	\$1,200,000	\$1,200,000	\$1,200,000	\$1,200,000
Water Booster Station	\$1,000,000	\$1,000,000			\$1,000,000
Land Acquisition/Development	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
Total	\$12,390,000	\$12,490,000	\$11,500,000	\$6,090,000	\$9,345,000

*Conceptual Number, Negotiations with the City would be needed.

Selection of Treatment Alternatives for Table 8 was based on the most conservative cost options. Currently, this is Lime Softening for the softening options, and Horizontal Pressure Filter for the non-softening options.

Option 1 is for a single system, with wells and a new treatment plant with softening on the north side of the river. Distribution via pipes connects the M-50 Development park to this plant. The cost estimate is based on a 1 MGD treatment plant using Lime Softening. Land would need to be acquired for this new plant location, so there is an added cost item in this option. A new well, pumps, and wellhouse are included in this calculation.

Option 2 is for a single system, with wells and treatment plant with softening by the M-50 Development park. Service is connected to the northern part of the Township via pipes. The cost estimate is again, based on a 1 MGD treatment plant using lime softening.

Option 3 is for two separate Township systems: one on the north side of the river sized at 0.5 MGD with Lime Softening, and one near the M-50 Development park sized at 0.5 MGD without softening. Because the plants are 0.5 MGD, the costs for the lime plant is 75% of the vendor quote (75% of the 1 MGD Lime Softening quote). The 0.5 MGD option for the Horizontal Pressure Filter plant was quoted separately. Land acquisition is added to this option for the new plant north of the river. For wells, the north side needs a full new development (wells, pumps, wellhouse), and the M-50 site needs the wellhouse and pumps.

Option 4 has a 0.5 MGD, non-softening plant at the M-50 Development site. The 0.5 MGD Horizontal Pressure Filter plant cost has been quoted by a vendor. This option includes only a new wellhouse and pumps for the M-50 site since the wells have been developed.

Finally, Option 5 accounts for City plant upgrades at \$3,000,000 to account for some additional demand for the M-50 site. This value is an estimate and will need to be determined with negotiations. There is a 50% cost of a new well configuration for any additional upgrades to the current City pumps and wellhouse.

3.9 Operation and Maintenance Projections

The operation of a water treatment system will cost significantly more than what is currently incurred by the Township for their current system. The components are outlined in Table 9. These costs are a general outline of one water treatment system and is on the conservative side.

Table 9 – Water Treatment System O&M

O&M Items	Cost per year
Personnel	\$75,000.00
Administrative and Lab	\$5,000.00
Electrical Utility	\$219,000.00
Process Chemical	\$218,000.00
Professional Services	\$3,000.00
Short-Live Asset Repair/Replacement	\$5,000.00
Total O&M Costs per Year	\$525,000.00

The Township currently incurs approximately \$400,000 a year to operate and maintain the current water system. The township will likely incur an additional \$525,000 a year to operate an expanded system with one water treatment plant.

3.10 Water Rate Analysis

Table 10 contains the summary of the REU values and water flow values to determine the impacts to water rates if an expansion were to occur.

Table 10 – Water System REU Summary

	# of Users	# of REUs	Water Use [^]
<i>Commercial</i>	27	527	-
<i>Residential</i>	694	694	-
<i>Total Current Connections</i>	310	1,221	5,144
<i>Near Term Southern District Connections*</i>		337	2,524
Total Potential Connections		1,557	7,668

*50% from Zone 4

[^]Estimated Water Use in 1000 Gallon Units

A Napkin Rate analysis is where O&M cost and depreciation cost are taken into consideration. These two components can typically make up most of the expenses in a water system. O&M costs are typically recovered by the commodity fee and depreciation costs are typically recovered through a readiness to serve fee. Table 11 outlines a brief "napkin" rate analysis for the water system.

Table 11 – Water Rate Analysis

	Current	Water System Alternative 3	Water System Alternative 4
Operation & Maintenance (O&M):			
<i>Current O&M Costs</i>	\$400,000	\$400,000	\$400,000
<i>Added O&M Costs</i>		\$1,000,000	\$525,000
<i>Total O&M Costs per Year</i>	\$400,000	\$1,400,000	\$925,000
<i># 1000 Gallons used/Month</i>	5,144	7,668	7,668
<i>Month</i>	12	12	12
<i>\$/Month/REU</i>	\$6.48	\$15.22	\$10.05
Depreciation:			
<i>Current Infrastructure Value*</i>	\$16,000,000	\$16,000,000	\$16,000,000
<i>Added Infrastructure Value</i>		\$11,500,000	\$6,090,000
<i>Total Infrastructure Value</i>	\$16,000,000	\$27,500,000	\$22,090,000
<i>Life Span of Infrastructure</i>	40	40	40
<i># of REU's in Water System</i>	1,221	1,557	1,557
<i>Months</i>	12	12	12
<i>\$/Month/REU</i>	\$27.31	\$36.79	\$29.56
Napkin Rate Calculation:			
<i>Readiness To Serve: \$/REU/Month</i>	\$27.31	\$36.79	\$29.56
<i>Commodity Charge: \$/1000 Gal</i>	\$6.48	\$15.22	\$10.05
Current Rates:			
<i>Readiness To Serve: \$/REU/Month</i>	\$20.00		
<i>Commodity Charge: \$/1000 Gal</i>	\$4.00		
Napkin Rate Recommendation:			
<i>Readiness To Serve: \$/REU/Month</i>		\$26.95	\$21.65
<i>Commodity Charge: \$/1000 Gal</i>		\$9.39	\$6.21

*80,373' of water main from AIA's report x \$200/ft = ~ \$16 million

This analysis is mainly used to show a comparison of the revenue generated from the existing rates and after an expansion of the utility district. This does not take into consideration fire protection fees, which is an ongoing revenue source. It is not recommended to set rates based on a connection fee as a connection fee is one-time revenue and is not sustainable for a utility.

The recommendation of this analysis is to keep the ratio between the rate calculation between alternatives equal to the current rate and the recommended rate. Therefore, it is recommended that if Water System Alternative 3 is implemented, that rates increase to \$27/REU and \$9.5/1000 Gallons. Alternatively, if Water System Alternative 4 is implemented, it is recommended to increase the rates to \$22/REU and \$6.25/1000 Gallons.

This analysis is only for a correlation and will need to be reevaluated after numerous decisions are made, most importantly if there will be a debt service added to the township's ongoing cost.

4.0 WASTEWATER SYSTEM

4.1 Existing Collection System

The City provides sanitary sewer service to a portion of the Township that lies west of the City limits. The majority of the sanitary sewer lines are 8-12 inch, however a 15-inch sanitary line feeds into the “Cumberland Manor” Lift Station. The lift station is located on the parcel at the northwest corner of Fulton Street and Birmingham Drive. From the west, a pumping station servicing Key Heights Mobile Home Park also utilizes the lift station. An 8-inch forcemain travels east from the lift station, east on Bowes Street, and toward the City of Lowell Waste Water Treatment plant.

Currently, the City reserves about 18% of the capacity of the City’s 1.4 MG treatment plant for the Township. This amounts to 252,000 gallons per day. The wastewater flows have increased 42% since 2007.

Table 12 shows the actual wastewater generated by Lowell Township by month for the last year.

Table 12 – Wastewater Generated by Month in Lowell Township

Month	Waste (MG)	Waste (MGD)
March 2019	n/a	n/a
April 2019	4.013	0.143
May 2019	4.160	0.134
June 2019	4.385	0.146
July 2019	3.768	0.122
August 2019	4.057	0.131
September 2019	4.184	0.139
October 2019	4.218	0.136
November 2019	4.106	0.137
December 2019	4.185	0.135
January 2020	4.128	0.133
February 2020	4.505	0.155
March 2020	3.916	0.126
Average (MGD)		0.1365
MGD (excluding summer)		0.1385

4.2 Proposed System Alternatives

The topography and the water bodies in Lowell Township present several alternatives. The alternatives have one common thread – they all have an effluent discharge to the Grand River. The discharge is the common thread as it will present the least stringent discharge limitation, allowing for lower capital equipment cost by elimination of some unit processes. A groundwater discharge with the projected flows and area soils would require a significant land area.

The alternatives for a wastewater system are shown in Table 13.

Table 13 – Wastewater System Alternatives

1	A complete system	This would separate completely from the City of Lowell with one central WRRF and a discharge to the Grand River.
2	A partial System	This would leave the northern area connected to the City of Lowell and create a new service district and WRRF to service the southern area.
3	A dependent system	The southern area will send its waste to the City of Lowell's WRRF.

Most of this report will be focused on the feasibility and investigation of sanitary system Alternative #1: a complete system.

4.3 Proposed Effluent Limits

Effluent limits are national regulatory standards for wastewater discharged to surface waters from municipal wastewater treatment plant facilities. The Environmental Protection Agency (EPA) issues the regulations based on the performance of treatment and control technologies. The National Pollutant Discharge Elimination System (NPDES) permits established effluent limits and conditions for any wastewater treatment facility discharging into water bodies of the United States.

Table 14 summarizes the NPDES effluent concentration limits from the City of Lowell's wastewater treatment facility. The information was gathered from Discharge Monitoring Reports completed in 2017. An example report is displayed in Section 8.3. It is assumed that a new facility constructed in general proximity to the Lowell WWTP would have similar limits.

Table 14 – NPDES Effluent Parameters for the City of Lowell's Wastewater Treatment Plant

Parameter	Quality or Concentration				Frequency of Analysis	Sample Type
	Minimum	Average	Maximum	Units		
Flow	NA	NA	NA	NA	Weekdays	Record Flow
Total Suspended Solids	NA	30 Monthly Average	45 7 Day Average	mg/L	Weekdays	24 Hour Comp.
CBOD	NA	25 Monthly Average	40 7 Day Average	mg/L	Weekdays	24 Hour Comp.
Nitrogen, Total Ammonia	NA	NA	Report Daily Max	mg/L	Weekly	24 Hour Comp.
Total Phosphorous	NA	1.0 Monthly Average	Report Daily Max	mg/L	Weekly	24 Hour Comp.
Total Chlorine	NA	NA	0.038 Daily Max	mg/L	Weekdays	Grab
Total Mercury	NA	NA	Report Max Monthly Avg	mg/L	Quarterly	Grab
Total Mercury (Calculated)	NA	NA	3.0 12-Mo Rolling Avg	ng/L	Quarterly	Calculated
Fecal Coliform	NA	200 Monthly Average	400 7 Day Average	mg/L	Daily	Grab
BOD, 5-Day Percent	85 Min % Removal	NA	Minimum Daily % Removal	Percent	Once/ Month	Calculated
Suspended Solids, Percent Removal	90 Min % Removal	NA	Minimum Daily % Removal	Percent	Once/ Month	Calculated
pH	6.5 Daily Minimum	NA	9.0 Daily Max	S.U.	Weekdays	Grab
Dissolved Oxygen	3.0 Daily Minimum	NA	NA	mg/L	Weekdays	Grab

In addition to the above limits, the Township would also need to report the flow in conduit or flow through the proposed treatment plant. A monthly average and daily maximum are needed for recording flow data.

4.4 Proposed Treatment Type

Using the MDEQ estimated limits, Moore+Bruggink contacted several vendors and reviewed previously quoted equipment to discuss treatment technologies and begin to develop conceptual costs.

The heart of the treatment process is around the biological treatment. Several alternatives are listed below that the Township can choose from and will be detailed in this study.

4.4.1 Treatment Methods

1. SBR

A sequencing batch reactor (SBR) is comprised of two treatment basins working in sequence to treat batches of wastewater through the activated sludge process. As one batch is being treated in one tank, the other is being filled and prepared for treatment. Due to the sequencing of these

reactors, they can adapt to different volumes of influent, work with automated controls, and use less space. They can easily be set up for modular expansion. The disadvantage to SBRs is that control and timing units are necessary, and they may require more maintenance.

2. MBR

A membrane bioreactor (MBR) combines a membrane process with a suspended growth biological treatment method. After going through the activated sludge process, the water would go through a membrane that removes solids. Different types of semi-permeable membranes can be used depending on the size of solids that need removal. MBRs are known to produce an extremely high quality effluent and less sludge, and have a lower water content in sludge compared to other methods. The Township may, however, incur higher operating costs due to the pumping energy necessary to run this process, chemicals necessary for membrane cleaning, and frequent membrane module replacement.

3. MBBR

A moving bed biofilm reactor (MBBR) utilizes plastic carriers covered in a biofilm in order to effectively treat the waste. The plastic carriers have a similar density to water, so they mix throughout the tank, and increase the biofilm's surface area. MBBR systems are very low maintenance, adaptable to different types and amounts of waste, and have a relatively small footprint. While the MBBR system does not require much intervention, it will require constant monitoring. This technology can be modular, but must be well thought out ahead of time.

4. CLR

A closed loop reactor (CLR) is a type of oxidation ditch process. Closed loop reactors and other types of oxidation ditches are modified activated sludge biological treatment processes that utilize long solids retention times (SRTs) to remove biodegradable organics. Preliminary treatment, such as bar screens and grit removal, normally precedes the oxidation ditch. Surface aerators, such as brush rotors, disc aerators, or fine bubble diffusers are used to circulate the mixed liquor. The mixing process entrains oxygen into the mixed liquor to foster microbial growth. This technology is very effective in small installations, small communities, and isolated institutions. Generally it requires more land than conventional treatment plants. While modular by nature, it must be done in large "chunks" that match with the sizing of the reactor tanks.

Figure 11 shows the proposed process flow diagram for the wastewater treatment plant. Note that each of the above treatment methods are listed in the Secondary Treatment portion of the plant; however, only one of the methods will be in the actual design.

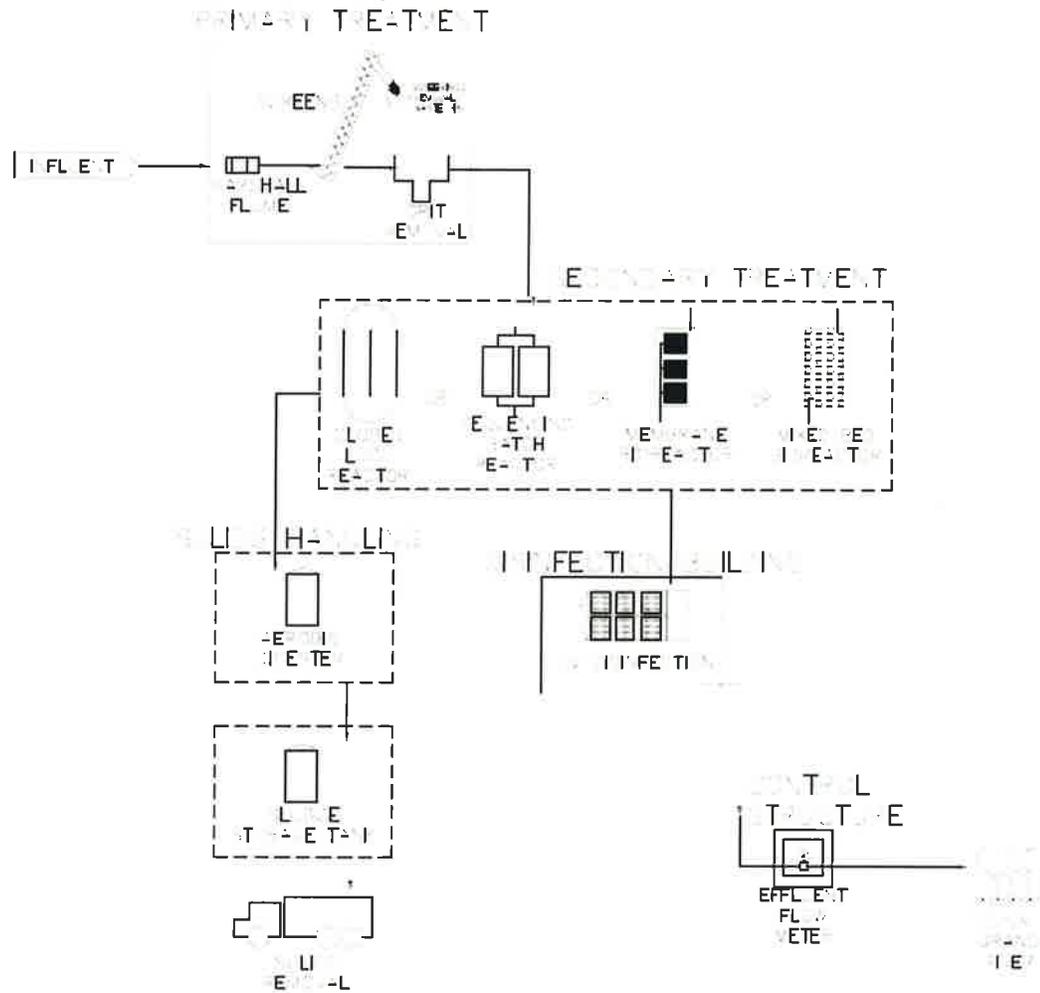


Figure 11 – Lowell Township Wastewater Treatment Plant Process Flow Diagram

Each of these secondary treatment methods are ideal in different situations, on a case-by-case basis. To determine which treatment method is ideal for Lowell Township, Moore+Bruggink used a weighted decision matrix to provide a quantitative score to each option, shown in Table 15. The criteria in the decision matrix are weighted from 1 through 5, with 5 being the most important criteria. The criteria are then scored from 1 through 5, with 5 being the highest score per criteria. The score is then multiplied by the weighting, which allows the maximum overall score to be 100.

Table 15 – Weighted Decision Matrix for Different Wastewater Treatment Processes

Moore + Bruggink		WWTP Options							
		SBR		MBR		MBBR		CLR	
Criteria	Weighting	Score	Weighted Total						
Technical reliability	5	5	25	2	10	3	15	2	10
Capital costs	4	4	16	3	12	1	4	4	16
Operating costs	3	5	15	1	3	3	9	5	15
Adaptability to influent	3	4	12	3	9	5	15	5	15
Simplicity and ease of use	2	3	6	1	2	2	4	5	10
Space required	2	5	10	5	10	5	10	1	2
Aesthetics	1	1	1	2	2	2	2	1	1
		Overall Score	85	Overall Score	48	Overall Score	59	Overall Score	69

Using the weighted decision matrix, Moore+Bruggink recommends the option to construct a new Sequencing Batch Reactor plant as best able to treat the wastewater efficiently.

4.5 Proposed Site Considerations

Moore+Bruggink considered three potential areas for a Water Resource Recovery Facility (WRRF) in Lowell Township; (1) on Fulton Street near the west limits of the Township; (2) on or near Township property by Grand River Riverfront Park; and (3) on Township property at the Lowell Charter Township Hall. The location of these three sites is shown below in Figure 12.



Figure 12 – Possible Locations for a Wastewater Treatment Plant in Lowell Township

Preliminary cost estimates indicate that the potential WRRF facility situated near the Grand River Riverfront Park would be the most cost-effective for the Township. However, since the FEMA 100 Year Flood Plain ranges from an elevation of 634 at the east end of the

Township to 632 at the west end of the Township³, it is recommended that the Township purchase a nearby parcel on the south side of Grand River Drive. Purchasing a parcel near the Township property would allow for an effluent discharge line to be routed to the Grand River with ease. Alternatively, the Town Hall parcel located at 2910 Alden Nash represents another potential for a WRRF site, but requires additional infrastructure to utilize this site, such as an effluent lift station and force main.

4.6 Routing of Sanitary Collections

Routes were analyzed from the M-50 Development park to each of the proposed facility locations, as well as from the current lift station to the proposed facility locations. M+B plotted the proposed sanitary sewer collection routes for Option 2 (Grand River Drive). Note that this route follows roughly the same path as the water main route for water treatment Option A; however, it does not cross under the Grand River. The preferred route from the M-50 Development to the proposed facility travels northbound on Alden Nash Avenue, westbound on 36th Street, northbound on Bewell Ave, and eastbound on Grand River Drive. The length of this route is approximately 21,800 linear feet. The proposed route and the approximate elevation profile for the route are shown below in Figure 13 and Figure 14, respectively.

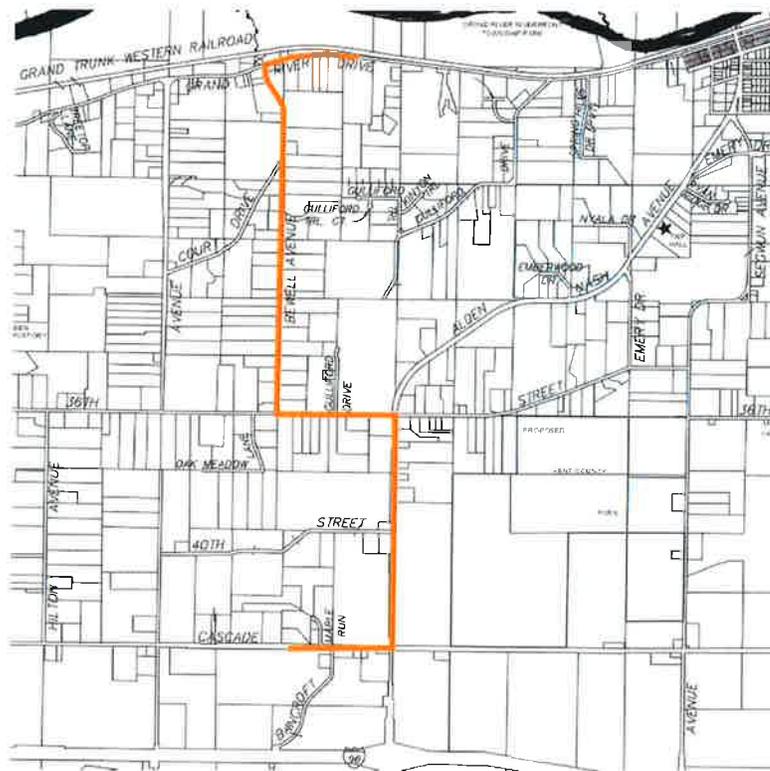


Figure 13 – Proposed Route from M-50 Development to Potential WRRF on Grand River Drive

³ Lowell Township Master Plan, 2015

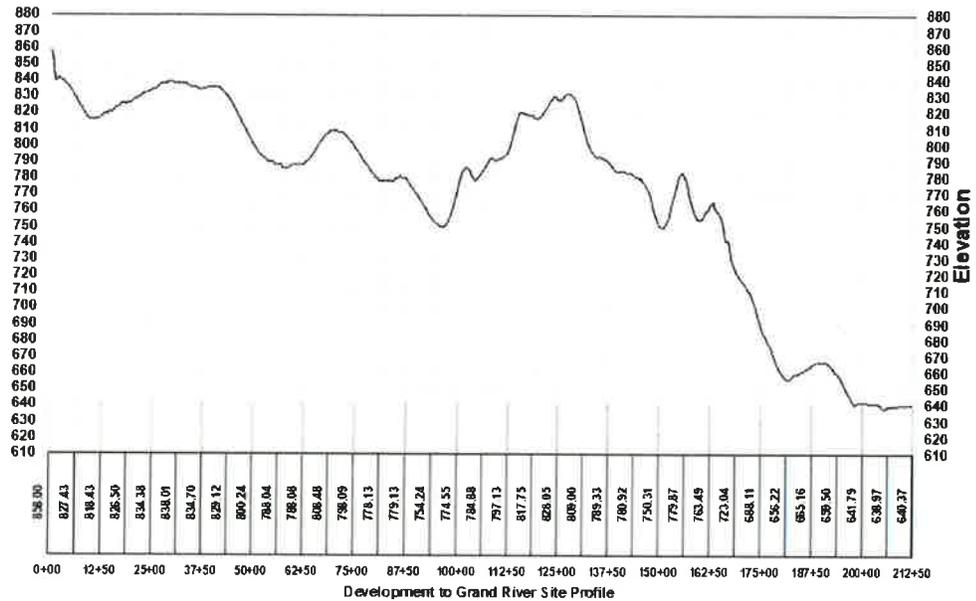


Figure 14 – Elevation Profile of Route from M-50 Development to Potential WRRF on Grand River Drive

The preferred route from the existing, Township-owned lift station to the proposed facility travels eastbound on Fulton Street and crosses under the Grand River using Township-owned property (11971 Grand River Drive SE). The length of this route is approximately 6,700 linear feet. The proposed route and the approximate elevation profile for the route are shown below in Figure 15 and Figure 16, respectively.

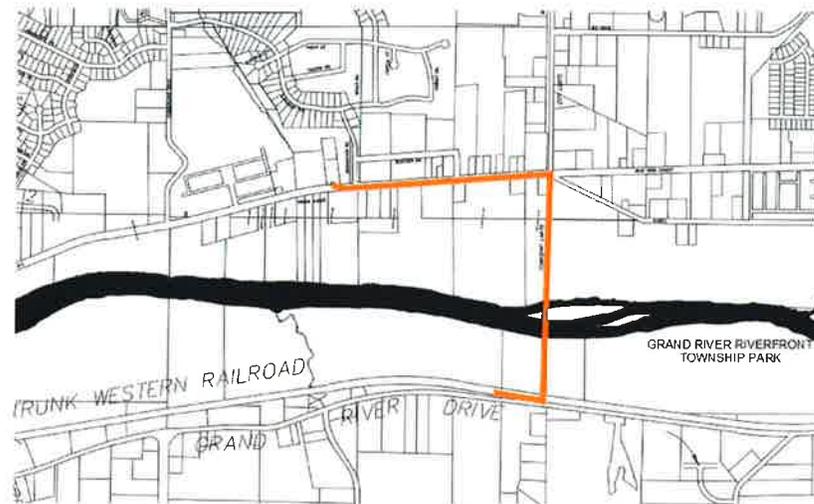


Figure 15 – Proposed Route from Lift Station to Potential WRRF on Grand River Drive

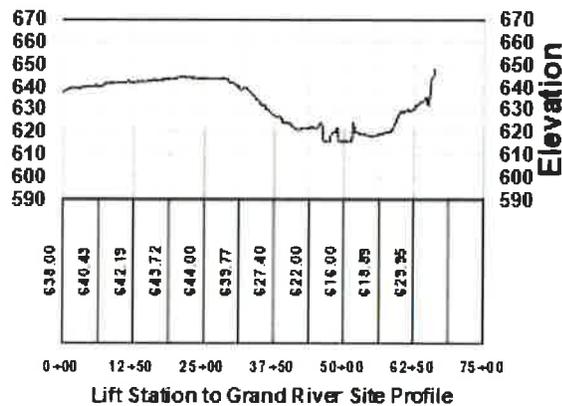


Figure 16 – Elevation Profile of Route from Lift Station to Potential WRRF on Grand River Drive

Note that constructing the treatment facility on or near Grand River Drive near the Grand River Riverfront Park has a significantly lower capital cost than the other proposed locations, even with a purchase of land.

4.7 Conceptual Site Layouts

Option 1 location was found to be the most expensive option in terms of sanitary sewer collection system. Therefore, M+B completed conceptual site layouts only for Options 2 and 3.

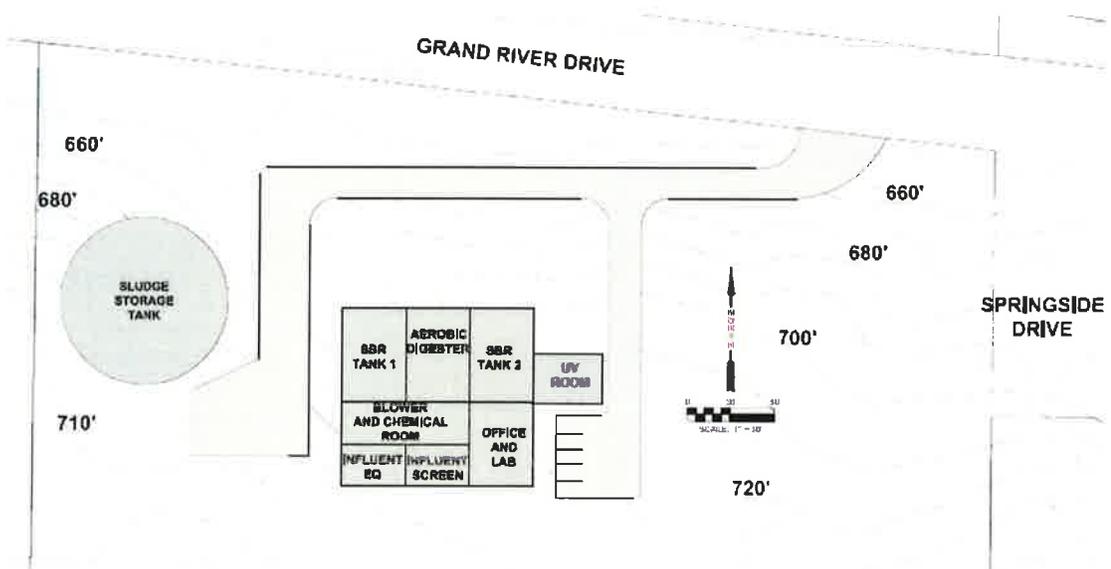


Figure 17 – Treatment Plant Layout for Option 2

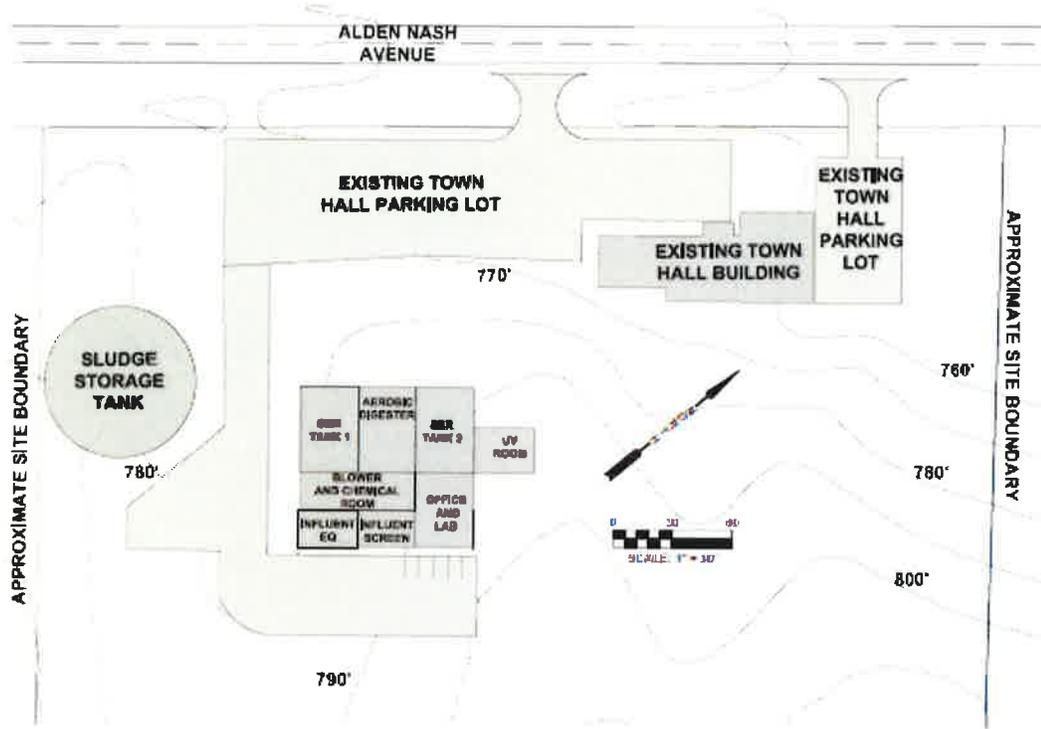


Figure 18 – Treatment Plant Layout for Option 3

4.8 Capital Cost Projections

A summary of the Wastewater System Alternatives is broken down in Table 16 below.

Table 16 – Wastewater System Alternatives

Option	1A	1B	1C	2	3
Type	Full System	Full System	Full System	Partial System	Dependent System
Name	Grand River Dr	Township Hall	Fulton St	Partial at Township Hall	
Treatment Plant Site Costs	\$1,175,000	\$1,622,000	\$981,000	\$1,622,000	\$6,000,000
Lift Station at M-50 Development	\$484,000	\$484,000	\$484,000	\$484,000	\$484,000
South District Collection System Costs Sewer	\$3,062,000	\$2,350,000	\$5,730,000	\$2,350,000	\$2,977,000
North District Collection Sewer Costs	\$1,021,000	\$2,508,000	\$1,741,000		
Lakeside SBR WWTP	\$13,270,000	\$13,270,000	\$13,270,000	\$9,953,000	
Total Cost	\$19,012,000	\$20,234,000	\$22,206,000	\$14,409,000	\$9,461,000

4.8.1 Complete Wastewater System

Table 16 contains the projected capital costs for the entirety of a Lowell Township-owned sequencing batch reactor wastewater treatment plant, along with the associated sanitary sewer needed to serve the residents.

Costs associated with the sanitary sewers from the M-50 Development area, and from the lift station to the proposed facilities are found in Section 8.4 and 8.5, respectively. Full cost estimates for the wastewater treatment plant costs are shown in Section 8.6, and cost estimates for the site construction and effluent mains are shown in Section 8.7. Note that full cost estimates were also completed for MBBR, MBR, and oxidation ditch type wastewater plants. The costs for the alternative wastewater treatment plant options are shown in Section 8.8.

4.8.2 Partial Wastewater System

A partial system would cut out the need for the North District Collection System Costs and would reduce the size of the WRRF, likely in half. However, it is likely the cost of the WRRF would only be reduced by 25%, putting the costs at ~\$14.5 million, as shown in Table 16. A partial system was only investigated conceptually as it was not a main objective of this report and deemed significantly less feasible.

4.8.3 Dependent Wastewater System

A dependent wastewater system would maintain and expand the relationship with the City of Lowell. This would require the same Southern District Collection System costs, the added cost to enter the City of Lowell WWTP, and the cost of upgrades for the additional flow at the Lowell WWTP.

In projects that M+B has been a part of, customer communities purchased capacity at existing WWTPs at a rate of ~\$12 million per 1 million gallons of daily flow (MGD). With the southern district projected to require ~0.5 MGD, projected purchased capacity is around \$6 million. This would put the total cost of expanding the utility district to approximately \$9.5 million, as shown in Table 16.

4.9 Operating Costs

The operational cost of a wastewater treatment plant of this caliber is over \$350,000.00 per year.

Table 17 – Estimated WRRF Operating and Maintenance (O&M) Costs

O&M Item	Cost per Year
<i>Personnel</i>	\$150,000.00
<i>Administrative and Lab</i>	\$5,000.00
<i>Electrical Utility</i>	\$95,000.00
<i>Process Chemical</i>	\$40,000.00
<i>Professional Services</i>	\$5,000.00
<i>Sludge Disposal</i>	\$50,000.00
<i>Short-Live Asset Repair/Replacement</i>	\$5,000.00
Total O&M Costs per Year	\$350,000.00

- The personnel costs are difficult to estimate due to the variability of the employees at the WRRF. The Township will need to hire a licensed operator and have local staff that will operate the plant and collect/analyze samples. This could be a Township employee or a contract operations group such as Infrastructure Alternatives. Estimated labor requirements for a SBR plant are about 10 man hours per week for process testing and 6 man hours per week for general plant cleanup and routine maintenance.
- The administrative and lab costs are the costs of sending samples to certified labs for analyzing the wastewater.
- The electrical utility costs are calculations that account for the power required to operate the pumps, SBR (including pre-equalization, post-equalization, aerobic digester), and the UV system. The calculations rely on an assumed rate of \$0.08/kWh.
- Process Chemical costs are derived from the chemicals needed in the operation of the WRRF.
- The professional services cost accounts for any engineering assistance that the Township may need from M+B in a typical year of WRRF operations.
- Sludge disposal costs assume that the sludge will be dewatered and disposed of at a landfill.
- Finally, the asset repair/replacement costs include routine maintenance like oil changes, grease, and filter, belt, and battery changes.

The new operating expenses would be added on to the current expenses that the Township has to operate their existing sewer system. The current estimated expenses of the sewer system for the township is \$150,000. Together, this would make ongoing expenses of over \$500,000.

4.10 Sewer Rate Analysis

Table 18 contains the summary of the REU values and Water flow values to determine the impacts to water rates if an expansion were to occur.

Table 18 – Sanitary System REU Summary

	# of Users	# of REUs
<i>Commercial</i>	30.00	768.16
<i>Residential</i>	280.00	280.00
<i>Total Current Connections</i>	310.00	1,048.16
<i>Near Term Southern District Connections*</i>		336.50
Total Potential Connections		1,384.66

*50% from Zone 4

A Napkin Rate analysis is where O&M cost and deprecation cost are taken into consideration. These two components can typically make up most of the expenses in a water system. O&M costs are typically recovered by the commodity fee and Depreciation costs are typically recovered through a readiness to serve fee. Table 19 outlines a brief "napkin" rate analysis for the sewer system.

Table 19 – Sewer Rate Analysis

	Current	Sanitary System Alternative 1	Sanitary System Alternative 5
Operation & Maintenance (O&M)			
<i>Current O&M Costs</i>	\$150,000	\$150,000	\$150,000
<i>Added O&M Costs</i>		\$350,000	\$150,000
<i>Total O&M Costs per Year</i>	\$150,000	\$500,000	\$300,000
<i># of REU</i>	1048.16	1384.66	1384.66
<i>Month</i>	12	12	12
<i>\$/Month/REU</i>	\$11.93	\$30.09	\$18.05
Depreciation			
<i>Current Infrastructure Value*</i>	\$16,000,000	\$16,000,000	\$16,000,000
<i>Added Infrastructure Value</i>		\$16,000,000	\$8,000,000
<i>Total Infrastructure Value</i>	\$16,000,000	\$32,000,000	\$24,000,000
<i>Life Span of Infrastructure</i>	40	40	40
<i># of REU's</i>	1,048	1,385	1,385
<i>Months</i>	12	12	12
<i>\$/Month/REU</i>	\$31.80	\$48.15	\$36.11
Readiness To Serve: \$/REU/Month			
<i>Napkin Rate Calculation:</i>	\$43.73	\$78.24	\$54.16
<i>Current Rates:</i>	\$21.00		
Napkin Rate Recommendation:		\$37.57	\$26.01

*Same Value used as Water Rate Analysis 80,373' of water main from AIA's 2015 Water Reliability Study x \$200/ft = ~ \$16 million

This analysis is mainly used to show a comparison of the revenue generated from the existing rates and after an expansion of the utility district. This does not take into consideration industrial pretreatment fees, which are an ongoing revenue source. It is not recommended to set rates based on a connection fee as a connection fee is one-time revenue and is not sustainable for a utility.

Lowell Township's current rates only have one metric, so the O&M and Depreciation components of the rate analysis are combined for a recommended rate.

The recommendation of this analysis is to at a minimum keep the ratio between the rate calculation between alternatives equal to the current rate and the recommended rate. Therefore, it is recommended that if Sanitary System Alternative 1 is implemented, that rates increase significantly to at least \$37/REU to maintain the same level of service. Alternatively, if Sanitary System Alternative 5 is implemented, it is recommended that minor increases occur to the sanitary system rates to at least \$26/REU to maintain the same level of service.

This analysis is only for a correlation and will need to be reevaluated after numerous decisions are made, most importantly if there will be a debt service added to the township's ongoing cost.

5.0 RATES REVIEW

5.1 Current Rates

The City of Lowell water and sewer rates for fiscal year 2019/2020 are shown in Table 20.

Table 20 – Township Utility Rates

Lowell Township Water and Sewer Rates		
Sewer		
Sewer Service	\$21	Per REU
Sewer Connection Fee	\$2,750	Per REU
Sewer Frontage Charge	\$50	Frontage Foot
Water		
Readiness to serve	\$20	Per Month Per REU
Commodity Charge	\$4	per 1000 Gallons

A full schedule of rates and fees are shown in Section 8.9.

5.2 Potential Rate Structure Changes

Currently, the users of Lowell Township generally fit a similar user class, since the City of Lowell System is being utilized and it is mostly residential flow. With the addition of commercial and industrial users in a new southern service district, the users will be more diverse. This may also bring different cost structures to serve various types of users. The costs of the water and sewer systems can then be allocated more efficiently with a more complex rate structure. The following are items to consider:

1. Water Rates
 - a. Tiered Readiness to serve fee based on water meter size
 - b. Fire Protection Connection Fee
 - c. Water Main Replacement Fee
2. Sewer Rates
 - a. Tiered Readiness to serve fee
 - b. Moving from REU to a Readiness to Serve and Commodity Fees
 - c. Industrial User Connection

5.3 Potential Rate Structure Changes

Based on the leading alternatives, Table 21 displays a minimum to recommended rates increase. Please note it is highly recommended to do a full rate structure analysis and cost recovery analysis prior to and after implementing system expansion.



Table 21 – Recommended Rates

Water	Current Rates	Option 4
Readiness To Serve: \$/REU/Month	\$20.00	\$22.00
Commodity Charge: \$/1000 Gal	\$4.00	\$6.25
Sanitary	Current	Option 5
\$/REU/Month	\$21.00	\$26.00

6.0 FUTURE PLANNING CONSIDERATIONS

6.1 City of Lowell Negotiation

Alternatives for both the water system and wastewater system includes a forms of continued partnership with the City of Lowell. This should be the starting point for negotiations and continued service. It is understood that there is some discussion in three alternatives to expanded the utility district, first as a customer community, second serviced through a 425 Agreement and third through a joint utility authority.

6.2 Developer Negotiation

As a large portion of the Southern Service District is owned by a developer looking to utilize the expanded utility district, negotiations with this property owner are recommended.

The Township may want to consider some of the following things:

6.2.1 Development Fee/Agreements

This tool would allow for a developer to pay for township infrastructure to service their site.

6.2.2 Tax Increment Financing District

This tool would allow the added tax revenue to be used to pay for the new improvements.

6.2.3 Connection Fees/Frontage Fees Escrow

Consider a holding cost for connections of neighboring property owners that do not want to contribute to the utility district costs at this time.

6.3 Construction Funding Options

There are several options for funding wastewater system improvement projects, each with its own benefits and challenges.

6.3.1 EDA – Economic Development Agency

The EDA provides grant funding for projects that create job growth in the area. There is typically a local match required.

6.3.2 USDA – Rural Economic Development Funding

The USDA-RD provides extremely low interest loan rates that allow communities to extend payments out to 40 years, and the potential for up to 40% grant following application evaluation if qualified. The application process requires the creation of a Preliminary Engineering Report (PER). Another major benefit is the lack of prevailing wage requirements, which results in lower project costs.

6.3.3 The Clean Water State Revolving Fund (CWSRF)

The CWSRF provides federal funding and low interest, 20-year loans to municipalities to assist with treatment system improvements. The SRF process requires that a project be nominated with submission of a project plan (PER) and includes prevailing wages. Nominated projects are added to a Project Priority List (PPL), with projects being selected from the PPL for SRF funding. Submission deadline for inclusion in the annual PPL is July 1st. SRF funding can have additional design requirements demanding additional effort; starting this process should be considered as soon as project plans are completed.

6.3.4 Green Project Reserve (GPR) Grants

This program, administered through SRF, grants funds for projects falling into one of four categories: Green Infrastructure, Water Efficiency, Energy Efficiency, and Environmentally Innovative. Some of the proposed infrastructure may qualify.

6.3.5 Municipal Bonding

The municipality may wish to engage in issuing bonds to cover the cost of the project, which would require payback of the loan in 20 years, and would not include prevailing wages. Bonds can be rolled into future bonding endeavors with combined payments to add flexibility to funding projects as well. Bond interest rates are subject to market flexibility and the credit rating of the municipality, which may cause other funding sources to be more beneficial.

In Lowell Township's case, the EDA funding program is recommended; however, if that were to be denied, the USDA-RD funding program is recommended, as the payments can be outlaid 40 years, providing fiscal security. There is no penalty for early pay-off through the RD program, so the Township could retain incoming revenue to make additional payments as available.

7.0 CONCLUSION

7.1 Water System

In regard to constructing a drinking water district in the south, M+B recommends building a water system that only serves that area, and maintain the contract with the City of Lowell to serve the existing water district in the north. If a contract cannot be maintained, a separate drinking water plant is recommended to be constructed in that district. This can be staggered on timing, since the water contract with Lowell still has 12 years remaining.

7.2 Wastewater System

As far as expanding a wastewater system to serve the south, M+B recommends negotiating with the City of Lowell to purchase additional treatment capacity. If an agreement cannot be reached, a Water Resource Recovery Facility along Grand River Drive that serves the entire Township is recommended.

7.3 Next Steps

This feasibility study has determined that it is a possibility for Lowell Township to construct, own, and operate their own water and sanitary utilities. As detailed, Moore+Bruggink recommends the Township to utilize this document to continue negotiations with the City of Lowell to see if expansion of their utilities is feasible. Engaging stakeholders for a public review of the proposed new utility district is also recommended. At that point, if deemed appropriate to move forward with Township owned utilities, funding avenues should be determined, engineering reports written to procure that funding and set final cost estimates, and detailed design should commence.

7.4 Acknowledgements

This report was worked on by a team at Moore+Bruggink including Brian Hannon, P.E., Adam DeYoung, P.E., Hattie Greydanus, Jack Markosky and Jacob Bruggink. The team was assisted by Lowell Charter Township Staff including Jerry Hale, Monica Burt, Ronda Benedict, Bill Thompson, Kathy Fremer, and Monica Burt. Mitch Strawser from Infrastructure Alternatives, Inc. who contract operates the township's utilities was also vital to this report as were numerous vendors providing quotations for potential and future equipment.



8.0 APPENDICES

8.2 Appendix B – Full Cost Estimate for Proposed Water Main Routing

Lowell Township Feasibility Study

Engineer's Estimate

Option A/B - Route from Existing Water Main to Development using Township parcels and Bewell

Water Main Items

1	Mobilization, Max 10%	LSUM	1	\$351,700.00	\$351,700.00
2	SESC Measures	LSUM	1	\$12,500.00	\$12,500.00
3	Clearing/Grubbing (for Hydrants)	LSUM	1	\$17,450.00	\$17,450.00
4	16 inch Water Main, CL 53 DI, w Polywrap & Sand Backfill	Pt	2,000	\$145.00	\$290,000.00
5	6 inch Water Main, CL 53 DI, w Polywrap & Sand Backfill	Pt	500	\$85.00	\$42,500.00
6	16 inch Water Main, Directional Drilled, DR 11 HDPE	Pt	21,000	\$120.00	\$2,520,000.00
7	Thrust Assembly (HDPE/DI interface)	Ea	20	\$2,500.00	\$50,000.00
8	16 inch Plug	Ea	1	\$750.00	\$750.00
9	16 inch Sleeve	Ea	1	\$2,500.00	\$2,500.00
10	16 inch Gate Valve and Box, DI	Ea	1	\$5,500.00	\$5,500.00
11	16 inch Gate Valve and Box for HDPE	Ea	22	\$5,500.00	\$121,000.00
12	16 inch x 16 inch x 6 inch Tapping Sleeve for HDPE to Ductile	Ea	43	\$3,500.00	\$150,500.00
13	16 inch x 16 inch x 6 inch Tee, DI	Ea	4	\$1,800.00	\$7,200.00
14	16 inch x 16 inch x 12 inch Tee, DI	Ea	1	\$2,200.00	\$2,200.00
15	5 inch Hydrant	Ea	47	\$3,800.00	\$178,500.00
16	6 inch Gate Valve and Box	Ea	47	\$1,200.00	\$56,400.00
17	Restoration	LSUM	1	\$35,000.00	\$35,000.00
18	Traffic Control	LSUM	1	\$25,000.00	\$25,000.00

Subtotal Water Main Items: \$3,868,800.00

Option A/B - Route from Existing Water Main to Development using M-50

Item #	PROPOSAL ITEM	ESTIMATED		UNIT	AMOUNT
		UNIT	QUANTITY		
Water Main Items					
1	Mobilization, Max 10%	LSUM	1	\$438,900.00	\$438,900.00
2	SESC Measures	LSUM	1	\$12,500.00	\$12,500.00
3	Clearing/Grubbing (for Hydrants)	LSUM	1	\$17,450.00	\$17,450.00
4	16 inch Water Main, CL 53 DI, w Polywrap & Sand Backfill	Pt	2,000	\$145.00	\$290,000.00
5	6 inch Water Main, CL 53 DI, w Polywrap & Sand Backfill	Pt	500	\$85.00	\$42,500.00
6	16 inch Water Main, Directional Drilled, DR 11 HDPE	Pt	27,000	\$120.00	\$3,240,000.00
7	Thrust Assembly (HDPE/DI interface)	Ea	20	\$2,500.00	\$50,000.00
8	16 inch Plug	Ea	1	\$750.00	\$750.00
9	16 inch Sleeve	Ea	1	\$2,500.00	\$2,500.00
10	16 inch Gate Valve and Box, DI	Ea	1	\$5,500.00	\$5,500.00
11	16 inch Gate Valve and Box for HDPE	Ea	29	\$5,500.00	\$159,500.00
12	16 inch x 16 inch x 6 inch Tapping Sleeve for HDPE to Ductile	Ea	55	\$3,500.00	\$192,500.00
13	16 inch x 16 inch x 6 inch Tee, DI	Ea	5	\$1,800.00	\$9,000.00
14	16 inch x 16 inch x 12 inch Tee, DI	Ea	1	\$2,200.00	\$2,200.00
15	5 inch Hydrant	Ea	61	\$3,800.00	\$231,800.00
16	6 inch Gate Valve and Box	Ea	61	\$1,200.00	\$73,200.00
17	Restoration	LSUM	1	\$35,000.00	\$35,000.00
18	Traffic Control	LSUM	1	\$25,000.00	\$25,000.00
				Subtotal Water Main Items:	\$4,828,300.00

Moore & Bruggink, Inc.
 2.00142.01

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March 2020

8.3 Appendix C – NPDES Discharge Monitoring Report for the City of Lowell WWTP November 2017

PERMITTEE NAME/ADDRESS (include Facility Name/Location if Different)

NAME: LOWELL WWTP
ADDRESS: 301 EAST MAIN STREET
LOWELL MI 49331

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

MI0020311	001 A
PERMIT NUMBER	DISCHARGE NUMBER

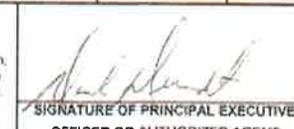
MINOR
(SUBR GG)
E-FINAL
001 MUN.WASTEHD0-FLAT RIVER

FACILITY: LOWELL WWTP
LOCATION: LOWELL MI 49331
ATTN: MARK MUNDT

MONITORING PERIOD					
YEAR	MO	DAY	YEAR	MO	DAY
2017	11	01	2017	11	30

*** NO DISCHARGE ***
NOTE: Read instructions before completing this form.

PARAMETER	SAMPLE MEASUREMENT / PERMIT REQUIREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
FLOW, IN CONDUIT OR THRU TREATMENT PLANT 50050 1 0 0	SAMPLE MEASUREMENT	1.52	1.88	(03)	*****	*****	*****		-	7/7	RECORD FLOW
EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	REPORT MONTHLY AVG	REPORT DAILY MAX	MGD	*****	*****	*****	****		WEEKDAYS	RECORD FLOW
SOLIDS, TOTAL SUSPENDED 00530 B 0 0	SAMPLE MEASUREMENT	92	137	(26)	*****	7.1	9.4	(19)	0	3/7	24 HR COMP
PRIOR TO DISINFECT	PERMIT REQUIREMENT	360	530	lbs/day	*****	30	45	mg/L		WEEKDAYS	24 HR COMP
BOD, CARBONACEOUS 05 DAY, 20C 80082 B 0 0	SAMPLE MEASUREMENT	66	106	(26)	*****	5.1	7.7	(19)	0	3/7	24 HR COMP
PRIOR TO DISINFECT	PERMIT REQUIREMENT	300	470	lbs/day	*****	25	40	mg/L		WEEKDAYS	24 HR COMP
NITROGEN, AMMONIA TOTAL (AS N) 00610 B 1 0	SAMPLE MEASUREMENT	*****	*****	****	*****	*****	0.06	(19)	0	1/7	24 HR COMP
PRIOR TO DISINFECT	PERMIT REQUIREMENT	*****	*****	****	*****	*****	REPORT DAILY MAX	mg/L		WEEKLY	24 HR COMP
PHOSPHORUS, TOTAL (AS P) 00665 B 0 0	SAMPLE MEASUREMENT	6.4	7.66	(26)	*****	0.49	0.57	(19)	0	1/7	24 HR COMP
PRIOR TO DISINFECT	PERMIT REQUIREMENT	12	REPORT DAILY MAX	lbs/day	*****	1.0	REPORT DAILY MAX	mg/L		WEEKLY	24 HR COMP
CHLORINE, TOTAL RESIDUAL 50060 P 0 0	SAMPLE MEASUREMENT	*****	*****	****	*****	*****	0.035	(19)	0	3/7	GRAB
SEE COMMENTS BELOW	PERMIT REQUIREMENT	*****	*****	****	*****	*****	0.038	mg/L		WEEKDAYS	GRAB
MERCURY, TOTAL 71900 B 0 0	SAMPLE MEASUREMENT	*****	*G		*****	*****	*G		0	1/90	GRAB
PRIOR TO DISINFECT	PERMIT REQUIREMENT	*****	Report Max Monthly Avg	lbs/day	*****	*****	Report Max Monthly Avg	ng/L		QUARTERLY	GRAB

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER Mark Mundt, Supt. TYPED OR PRINTED	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	PHONE NUMBER	DATE		
			(616) 897-8135	2017	12	10

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

P=AFTER DISINFECTION

EPA Form 3320-1 (Rev 3/99) Previous editions may be used.

This is an electronic copy

Page 1 of 2

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)
NAME: LOWELL WWTP
ADDRESS: 301 EAST MAIN STREET
 LOWELL MI 49331

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
 DISCHARGE MONITORING REPORT (DMR)

MI0020311 001 A
PERMIT NUMBER **DISCHARGE NUMBER**

MINOR
 (SUBR GC)
 F-FINAL
 001 MUN. WASTEWATER--FLAT RIVER

RECEIVED

DEC 11 2017

FACILITY: LOWELL WWTP
LOCATION: LOWELL MI 49331
ATTN: MARK MUNDT

MONITORING PERIOD
 FROM 2017 11 01 TO 2017 11 30

*** NO DISCHARGE *** DEQ
 WATER RESOURCES DIVISION
 GRAND RAPIDS
 NOTE: Read instructions before completing report

PARAMETER	SAMPLE MEASUREMENT / PERMIT REQUIREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE	
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS				
MERCURY, TOTAL	SAMPLE MEASUREMENT	*****	0.000027		*****	*****	1.4		0	1/90	CALCTD	
71900 X 0 0 PRIOR TO DISINFECT	PERMIT REQUIREMENT	*****	0.000038 12-Mo Rolling Avg	lbs/day	*****	*****	3.0 12-Mo Rolling Avg	ng/L		QUARTERLY	CALCTD	
COLIFORM, FECAL GENERAL	SAMPLE MEASUREMENT	*****	*****		*****	115	223	(19)	0	3/7	GRAB	
74055 P 0 0 SEE COMMENTS BELOW	PERMIT REQUIREMENT	*****	*****	****	*****	200 MONTHLY AVG	400 7 DAY AVG	mg/L		DAILY	GRAB	
BOD, 5-DAY PERCENT REMOVAL	SAMPLE MEASUREMENT	*****	*****		94	*****	91	(23)	0	1/30	CALCTD	
81010 K 0 0 PERCENT REMOVAL	PERMIT REQUIREMENT	*****	*****	****	85 MIN % REMOVAL	*****	Minimum Daily % Removal	PER- CENT		ONCE/MON	CALCTD	
SOLIDS, SUSPENDED PERCENT REMOVAL	SAMPLE MEASUREMENT	*****	*****		90	*****	84	(23)	0	1/30	CALCTD	
81011 K 0 0 PERCENT REMOVAL	PERMIT REQUIREMENT	*****	*****	****	85 MIN % REMOVAL	*****	Minimum Daily % Removal	PER- CENT		ONCE/MON	CALCTD	
pH	SAMPLE MEASUREMENT	*****	*****		7.3	*****	7.6	(12)	0	3/7	GRAB	
00400 P 0 0 SEE COMMENTS BELOW	PERMIT REQUIREMENT	*****	*****	****	6.5 DAILY MINIMUM	*****	9.0 DAILY MAX	S.U		WEEKDAYS	GRAB	
OXYGEN, DISSOLVED (DO)	SAMPLE MEASUREMENT	*****	*****		9.4	*****	*****	(19)	0	3/7	GRAB	
00300 P 0 0 SEE COMMENTS BELOW	PERMIT REQUIREMENT	*****	*****	****	3.0 DAILY MINIMUM	*****	*****	mg/L		WEEKDAYS	GRAB	
	SAMPLE MEASUREMENT											
	PERMIT REQUIREMENT											
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.							PHONE NUMBER	DATE			
Mark Mundt, Supt.								(616) 897-8135	2017	12	10	
TYPED OR PRINTED	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT							AREA CODE	NUMBER	YEAR	MO	DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

P=AFTER DISINFECTION

EPA Form 3320-1 (Rev 3/99) Previous editions may be used.

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8.4 Appendix D – Full Cost Estimate for Proposed Sanitary Sewer Routes from the M-50 Development to Proposed Wastewater Treatment Facility, or to the City of Lowell WWTP

Option 1 - Route from Development to Fulton Site

Item #	PROPOSAL ITEM	ESTIMATED		UNIT	AMOUNT
		UNIT	QUANTITY		
Sanitary Sewer Force Main Items					
1	Mobilization, Max 10%	LSUM	1	\$500,000.00	\$500,000.00
2	SESC Measures	LSUM	1	\$12,500.00	\$12,500.00
3	48 inch Sanitary Sewer Manhole, w/ Cover	Ea	2	\$3,200.00	\$6,400.00
4	8 inch Sanitary Sewer-D2680 PVC Truss Pipe	Pt	0	\$75.00	\$0.00
5	8 inch Sanitary Force Main, Directional Drilled, DR 11 HDPE	Pt	40,700	\$75.00	\$3,052,500.00
6	8 inch Sanitary Force Main, Under River	Pt	600	\$100.00	\$60,000.00
7	Bore pits (approximately every 2000 ft, 20 ft depth)	LSUM	1	\$40,000.00	\$40,000.00
8	8 inch Air Relief Valve & Chamber	Ea	5	\$6,500.00	\$32,500.00
9	6 inch Cleanout	Ea	9	\$2,500.00	\$22,500.00
10	8 inch Gate Valve & Chamber	Ea	6	\$6,500.00	\$39,000.00
11	Restoration	LSUM	1	\$87,500.00	\$87,500.00
12	Traffic Control	LSUM	1	\$62,500.00	\$62,500.00
13	Survey (~1000 ft/day @ \$157 crew rate/hour)	LSUM	1	\$52,000.00	\$52,000.00
14	Contractor OH&P (10%)	LSUM	1	\$391,540.00	\$391,540.00
15	Design Engineering (6.5%)	LSUM	1	\$254,501.00	\$254,501.00
16	Construction Engineering (8.5%)	LSUM	1	\$332,809.00	\$332,809.00
17	Contingency (20%)	LSUM	1	\$783,080.00	\$783,080.00
Option 1 Total Sanitary Sewer Items:					\$5,730,000.00

Option 2 - Route from Development to Grand River Site

Item #	PROPOSAL ITEM	ESTIMATED		UNIT	AMOUNT
		UNIT	QUANTITY		
Sanitary Sewer Force Main Items					
1	Mobilization, Max 10%	LSUM	1	\$250,000.00	\$250,000.00
2	SESC Measures	LSUM	1	\$12,500.00	\$12,500.00
3	48 inch Sanitary Sewer Manhole, w/ Cover	Ea	2	\$3,200.00	\$6,400.00
4	8 inch Sanitary Sewer-D2680 PVC Truss Pipe	Pt	0	\$75.00	\$0.00
5	8 inch Sanitary Force Main, Directional Drilled, DR 11 HDPE	Pt	21,000	\$75.00	\$1,575,000.00
6	Bore pits (approximately every 2000 ft, 20 ft depth)	LSUM	1	\$21,000.00	\$21,000.00
7	8 inch Air Relief Valve & Chamber	Ea	5	\$6,500.00	\$32,500.00
8	6 inch Cleanout	Ea	7	\$2,500.00	\$17,500.00
9	8 inch Gate Valve & Chamber	Ea	6	\$6,500.00	\$39,000.00
10	Restoration	LSUM	1	\$45,500.00	\$45,500.00
11	Traffic Control	LSUM	1	\$32,500.00	\$32,500.00
12	Survey (~1000 ft/day @ \$157 crew rate/hour)	LSUM	1	\$28,000.00	\$28,000.00
13	Contractor OH&P (10%)	LSUM	1	\$209,190.00	\$209,190.00
14	Design Engineering (6.5%)	LSUM	1	\$135,973.50	\$135,973.50
15	Construction Engineering (8.5%)	LSUM	1	\$177,811.50	\$177,811.50
16	Contingency (20%)	LSUM	1	\$418,380.00	\$418,380.00
Option 2 Total Sanitary Sewer Items:					\$3,062,000.00

Option 3 - Route from Development to Town Hall Site

Item #	PROPOSAL ITEM	ESTIMATED		UNIT	AMOUNT
		UNIT	QUANTITY	COST	
Sanitary Sewer Force Main Items					
1	Mobilization, Max 10%	LSUM	1	\$200,000.00	\$200,000.00
2	SESC Measures	LSUM	1	\$12,500.00	\$12,500.00
3	48 inch Sanitary Sewer Manhole, w/ Cover	Ea	2	\$3,200.00	\$6,400.00
4	8 inch Sanitary Sewer-D2680 PVC Truss Pipe	Pt	0	\$75.00	\$0.00
5	8 inch Sanitary Force Main, Directional Drilled, DR 11 HDPE	Pt	16,500	\$75.00	\$1,245,000.00
6	Bore pits (approximately every 2000 ft, 20 ft depth)	LSUM	1	\$16,000.00	\$16,000.00
7	8 inch Air Relief Valve & Chamber	Ea	3	\$6,500.00	\$19,500.00
8	6 inch Cleanout	Ea	3	\$2,500.00	\$7,500.00
9	8 inch Gate Valve & Chamber	Ea	6	\$6,500.00	\$39,000.00
10	Restoration	LSUM	1	\$35,000.00	\$35,000.00
11	Traffic Control	LSUM	1	\$25,000.00	\$25,000.00
12	Survey (~1000 ft/day @ \$157 crew rate/hour)	LSUM	1	\$21,000.00	\$21,000.00
13	Contractor OH&P (10%)	LSUM	1	\$160,590.00	\$160,590.00
14	Design Engineering (6.5%)	LSUM	1	\$104,383.50	\$104,383.50
15	Construction Engineering (8.5%)	LSUM	1	\$136,501.50	\$136,501.50
16	Contingency (20%)	LSUM	1	\$321,180.00	\$321,180.00
Option 3 Total Sanitary Sewer Items:					\$2,350,000.00

Dependent System - Route from Development to City of Lowell WWTP

Item #	PROPOSAL ITEM	ESTIMATED		UNIT	AMOUNT
		UNIT	QUANTITY	COST	
Sanitary Sewer Force Main Items					
1	Mobilization, Max 10%	LSUM	1	\$250,000.00	\$250,000.00
2	SESC Measures	LSUM	1	\$12,500.00	\$12,500.00
3	48 inch Sanitary Sewer Manhole, w/ Cover	Ea	2	\$3,200.00	\$6,400.00
4	8 inch Sanitary Sewer-D2680 PVC Truss Pipe	Pt	0	\$75.00	\$0.00
5	8 inch Sanitary Force Main, Directional Drilled, DR 11 HDPE	Pt	20,400	\$75.00	\$1,530,000.00
6	8 inch Sanitary Force Main, Under River	Pt	500	\$100.00	\$50,000.00
6	Bore pits (approximately every 2000 ft, 20 ft depth)	LSUM	1	\$21,000.00	\$21,000.00
7	8 inch Air Relief Valve & Chamber	Ea	5	\$6,500.00	\$32,500.00
8	6 inch Cleanout	Ea	6	\$2,500.00	\$15,000.00
9	8 inch Gate Valve & Chamber	Ea	5	\$6,500.00	\$32,500.00
10	Restoration	LSUM	1	\$45,500.00	\$45,500.00
11	Traffic Control	LSUM	1	\$32,500.00	\$32,500.00
12	Survey (~1000 ft/day @ \$157 crew rate/hour)	LSUM	1	\$27,000.00	\$27,000.00
13	Contractor OH&P (10%)	LSUM	1	\$203,440.00	\$203,440.00
14	Design Engineering (6.5%)	LSUM	1	\$132,236.00	\$132,236.00
15	Construction Engineering (8.5%)	LSUM	1	\$172,924.00	\$172,924.00
16	Contingency (20%)	LSUM	1	\$406,880.00	\$406,880.00
Total Sanitary Sewer Items:					\$2,977,000.00

8.5 Appendix E – Full Cost Estimate for Proposed Sanitary Sewer Routing from the Lift Station to Proposed Wastewater Treatment Facility

Option 1 - Route from Lift Station to Fulton Site

Item #	PROPOSAL ITEM	ESTIMATED		UNIT	AMOUNT
		UNIT	QUANTITY	COST	
Sanitary Sewer Force Main Items					
1	Mobilization, Max 10%	LSUM	1	\$100,390.00	\$100,390.00
2	SESC Measures	LSUM	1	\$12,500.00	\$12,500.00
3	Existing Lift Station Renovations (pumps/impellers)	LSUM	1	\$40,000.00	\$40,000.00
3	48 inch Sanitary Sewer Manhole, w/ Cover	Ea	2	\$3,200.00	\$6,400.00
4	8 inch Sanitary Sewer-D2680 PVC Truss Pipe	Pt	0	\$75.00	\$0.00
5	8 inch Sanitary Force Main, Directional Drilled, DR 11 HDPE	Pt	12,400	\$75.00	\$930,000.00
7	Bore pits (approximately every 2000 ft, 20 ft depth)	LSUM	1	\$12,000.00	\$12,000.00
6	8 inch Air Relief Valve & Chamber	Ea	2	\$6,500.00	\$13,000.00
7	6 inch Cleanout	Ea	2	\$2,500.00	\$5,000.00
8	8 inch Gate Valve & Chamber	Ea	6	\$6,500.00	\$39,000.00
9	Restoration	LSUM	1	\$24,500.00	\$24,500.00
10	Traffic Control	LSUM	1	\$17,500.00	\$17,500.00
11	Contractor OH&P (10%)	LSUM	1	\$120,029.00	\$120,029.00
12	Design Engineering (6.5%)	LSUM	1	\$78,018.85	\$78,018.85
13	Construction Engineering (8.5%)	LSUM	1	\$102,024.65	\$102,024.65
14	Contingency (20%)	LSUM	1	\$240,058.00	\$240,058.00
Option 1 Total Sanitary Sewer Items:					\$1,740,420.50

Option 2 - Route from Lift Station to Grand River Sites

Item #	PROPOSAL ITEM	ESTIMATED		UNIT	AMOUNT
		UNIT	QUANTITY	COST	
Sanitary Sewer Force Main Items					
1	Mobilization, Max 10%	LSUM	1	\$60,400.00	\$60,400.00
2	SESC Measures	LSUM	1	\$12,500.00	\$12,500.00
3	Existing Lift Station Renovations (pumps/impellers)	LSUM	1	\$40,000.00	\$40,000.00
3	48 inch Sanitary Sewer Manhole, w/ Cover	Ea	2	\$3,200.00	\$6,400.00
4	8 inch Sanitary Sewer-D2680 PVC Truss Pipe	Pt	0	\$75.00	\$0.00
5	8 inch Sanitary Force Main, Directional Drilled, DR 11 HDPE	Pt	5,100	\$75.00	\$457,500.00
5	8 inch Sanitary Force Main, Under River	Pt	600	\$100.00	\$60,000.00
7	Bore pits (approximately every 2000 ft, 20 ft depth)	LSUM	1	\$7,000.00	\$7,000.00
6	8 inch Air Relief Valve & Chamber	Ea	1	\$6,500.00	\$6,500.00
7	6 inch Cleanout	Ea	4	\$2,500.00	\$10,000.00
8	8 inch Gate Valve & Chamber	Ea	3	\$6,500.00	\$19,500.00
9	Restoration	LSUM	1	\$14,000.00	\$14,000.00
10	Traffic Control	LSUM	1	\$10,000.00	\$10,000.00
11	Contractor OH&P (10%)	LSUM	1	\$70,380.00	\$70,380.00
12	Design Engineering (6.5%)	LSUM	1	\$45,747.00	\$45,747.00
13	Construction Engineering (8.5%)	LSUM	1	\$59,823.00	\$59,823.00
14	Contingency (20%)	LSUM	1	\$140,760.00	\$140,760.00
Option 2 - Total Sanitary Sewer Items:					\$1,020,510.00



Option 3 - Route from Lift Station to Town Hall Site

Item #	PROPOSAL ITEM	ESTIMATED		UNIT	AMOUNT
		UNIT	QUANTITY		
Sanitary Sewer Force Main Items					
1	Mobilization, Max 10%	LSUM	1		\$141,740.00
2	SESC Measures	LSUM	1		\$12,500.00
3	Existing Lift Station Renovations (pumps/impellers)	LSUM	1		\$40,000.00
3	48 inch Sanitary Sewer Manhole, w/ Cover	Ea	2		\$3,200.00
4	8 inch Sanitary Sewer-D2680 PVC Truss Pipe	Pt	0		\$75.00
5	8 inch Sanitary Force Main, Directional Drilled, DR 11 HDPE	Pt	17,600		\$75.00
6	8 inch Sanitary Force Main, Under River	Pt	600		\$100.00
7	Bore pits (approximately every 2000 ft, 20 ft depth)	LSUM	1		\$18,000.00
6	8 inch Air Relief Valve & Chamber	Ea	2		\$6,500.00
7	6 inch Cleanout	Ea	5		\$2,500.00
8	8 inch Gate Valve & Chamber	Ea	6		\$6,500.00
9	Restoration	LSUM	1		\$38,500.00
10	Traffic Control	LSUM	1		\$27,500.00
11	Contractor OH&P (10%)	LSUM	1		\$172,914.00
12	Design Engineering (6.5%)	LSUM	1		\$112,394.10
13	Construction Engineering (8.5%)	LSUM	1		\$146,976.90
14	Contingency (20%)	LSUM	1		\$345,828.00
Option 3 Total Sanitary Sewer Items:					\$2,507,253.00

8.6 Appendix F – Full Cost Estimate for Three Wastewater Treatment Plant Designs, and Two Alternative Options

Grand River Park Capital Costs					
Item #	PROPOSAL ITEM	UNIT	ESTIMATED	UNIT	AMOUNT
			QUANTITY	COST	
<u>Grand River Property Items</u>					
1	Grand River Site	Lsum	1	\$1,175,000.00	\$1,175,000.00
2	Lift station at Development	Lsum	1	\$484,000.00	\$484,000.00
3	Force main from Development Force main from Existing service	Lsum	1	\$3,062,000.00	\$3,062,000.00
4	District	Lsum	1	\$1,021,000.00	\$1,021,000.00
5	Lakeside SBR WWTP	Lsum	1	\$13,270,000.00	\$13,270,000.00
				Subtotal	\$19,012,000.00

Township Hall Capital Costs					
Item #	PROPOSAL ITEM	UNIT	ESTIMATED	UNIT	AMOUNT
			QUANTITY	COST	
<u>Town Hall Property Items</u>					
1	Town Hall Site (includes effluent force main to river)	Lsum	1	\$1,622,000.00	\$1,622,000.00
2	Lift station at Development	Lsum	1	\$484,000.00	\$484,000.00
3	Force main from Development Force main from Existing service	Lsum	1	\$2,350,000.00	\$2,350,000.00
4	District	Lsum	1	\$2,508,000.00	\$2,508,000.00
5	Lakeside SBR WWTP	Lsum	1	\$13,270,000.00	\$13,270,000.00
				Subtotal	\$20,234,000.00

North Side of Grand River Property Capital Costs					
Item #	PROPOSAL ITEM	UNIT	ESTIMATED	UNIT	AMOUNT
			QUANTITY	COST	
<u>North Grand River Property Items</u>					
1	Fulton St Site (includes effluent force main to river)	Lsum	1	\$981,000.00	\$981,000.00
2	Lift station at Development	Lsum	1	\$484,000.00	\$484,000.00
3	Force main from Development Force main from Existing service	Lsum	1	\$5,730,000.00	\$5,730,000.00
4	District	Lsum	1	\$1,741,000.00	\$1,741,000.00
5	Lakeside SBR WWTP	Lsum	1	\$13,270,000.00	\$13,270,000.00
				Subtotal	\$22,206,000.00



Item #	PROPOSAL ITEM	UNIT	ESTIMATED	UNIT	AMOUNT
			QUANTITY	COST	
<u>North Grand River Property Items</u>					
	Town Hall Site (includes effluent)				
1	force main to river	Lsum	1	\$1,622,000.00	\$1,622,000.00
2	Lift station at Development	Lsum	1	\$484,000.00	\$484,000.00
3	Force main from Development	Lsum	1	\$2,350,000.00	\$2,350,000.00
4	Lakeside SBR WWTP	Lsum	1	\$9,953,000.00	\$9,953,000.00
				<i>Subtotal</i>	<i>\$14,409,000.00</i>

Send to Lowell WWTP

Item #	PROPOSAL ITEM	UNIT	ESTIMATED	UNIT	AMOUNT
			QUANTITY	COST	
<u>North Grand River Property Items</u>					
1	Force main from Development	Lsum	1	\$2,977,000.00	\$2,977,000.00
2	Lift station at Development	Lsum	1	\$484,000.00	\$484,000.00
3	0.5 MGD purchased capacity	Es	1	\$6,000,000.00	\$6,000,000.00
				<i>Subtotal</i>	<i>\$9,461,000.00</i>

8.7 Appendix G – Full Cost Estimate for WRRF Plant Effluent, Lift Station (if Needed), and Site Construction

Option 1 - Route from Fulton Site to River

Item #	PROPOSAL ITEM	ESTIMATED		UNIT COST	AMOUNT
		UNIT	QUANTITY		
Sanitary Sewer Force Main Items					
1	Mobilization, Max 10%	LSUM	1	\$75,000.00	\$75,000.00
2	SESC Measures	LSUM	1	\$12,500.00	\$12,500.00
3	Land Acquisition	LSUM	1	\$375,000.00	\$375,000.00
4	Administration and Legal (4%)	LSUM	1	\$15,000.00	\$15,000.00
5	Site Demolition	LSUM	1	\$5,000.00	\$5,000.00
6	Building Demolition	Sft	250	\$5.00	\$1,250.00
7	Site Grading	Ac.	7	\$10,000.00	\$70,000.00
8	48 inch Sanitary Sewer Manhole, w/ Cover	Ea	2	\$3,200.00	\$6,400.00
9	8 inch Effluent Main - DI	Pt	900	\$200.00	\$180,000.00
10	8 inch Air Relief Valve & Chamber	Ea	1	\$6,500.00	\$6,500.00
11	6 inch Cleanout	Ea	2	\$2,500.00	\$5,000.00
12	8 inch Gate Valve & Chamber	Ea	2	\$6,500.00	\$13,000.00
13	Restoration	LSUM	1	\$35,000.00	\$35,000.00
14	Traffic Control	LSUM	1	\$25,000.00	\$25,000.00
15	Contractor OH&P (10%)	LSUM	1	\$34,715.00	\$34,715.00
16	Design Engineering (6.5%)	LSUM	1	\$22,564.75	\$22,564.75
17	Construction Engineering (8.5%)	LSUM	1	\$29,507.75	\$29,507.75
18	Contingency (20%)	LSUM	1	\$69,430.00	\$69,430.00
Option 1 Total Sanitary Sewer Items:					\$981,000.00

Option 2 - Route from Grand River Site to River

Item #	PROPOSAL ITEM	ESTIMATED		UNIT COST	AMOUNT
		UNIT	QUANTITY		
Sanitary Sewer Force Main Items					
1	Mobilization, Max 10%	LSUM	1	\$80,000.00	\$80,000.00
2	SESC Measures	LSUM	1	\$12,500.00	\$12,500.00
3	Land Acquisition	LSUM	1	\$375,000.00	\$375,000.00
4	Administration and Legal (4%)	LSUM	1	\$15,000.00	\$15,000.00
5	Site Demolition	LSUM	1	\$5,000.00	\$5,000.00
6	Site Grading	Ac.	7	\$10,000.00	\$70,000.00
7	Building Demolition	Sft	250	\$5.00	\$1,250.00
8	48 inch Sanitary Sewer Manhole, w/ Cover	Ea	2	\$3,200.00	\$6,400.00
9	8 inch Effluent Main - DI	Pt	1,700	\$200.00	\$340,000.00
10	8 inch Air Relief Valve & Chamber	Ea	1	\$6,500.00	\$6,500.00
11	6 inch Cleanout	Ea	2	\$2,500.00	\$5,000.00
12	8 inch Gate Valve & Chamber	Ea	2	\$6,500.00	\$13,000.00
13	Restoration	LSUM	1	\$10,000.00	\$10,000.00
14	Traffic Control	LSUM	1	\$20,000.00	\$20,000.00
15	Contractor OH&P (10%)	LSUM	1	\$47,715.00	\$47,715.00
16	Design Engineering (6.5%)	LSUM	1	\$31,014.75	\$31,014.75
17	Construction Engineering (8.5%)	LSUM	1	\$40,557.75	\$40,557.75
18	Contingency (20%)	LSUM	1	\$95,430.00	\$95,430.00
Option 2 Total Sanitary Sewer Items:					\$1,175,000.00



Option 3 - Route from Town Hall Site to River

Item #	PROPOSAL ITEM	ESTIMATED		UNIT	AMOUNT
		UNIT	QUANTITY	COST	
Sanitary Sewer Force Main Items					
1	Mobilization, Max 10%	LSUM	1	\$125,000.00	\$125,000.00
2	SESC Measures	LSUM	1	\$12,500.00	\$12,500.00
3	Land Acquisition	LSUM	0	\$375,000.00	\$375,000.00
4	Administration and Legal (4%)	LSUM	1	\$15,000.00	\$15,000.00
5	Site Demolition	LSUM	1	\$5,000.00	\$5,000.00
6	Site Grading	Ac.	7	\$10,000.00	\$70,000.00
7	Building Demolition	Sft	250	\$5.00	\$1,250.00
8	48 inch Sanitary Sewer Manhole, w/ Cover	Ea	2	\$3,200.00	\$6,400.00
9	8 inch Sanitary Force Main, Directional Drilled, DR 11 HDPE	Pt	5,250	\$70.00	\$367,500.00
10	8 inch Air Relief Valve & Chamber	Ea	1	\$6,500.00	\$6,500.00
11	6 inch Cleanout	Ea	2	\$2,500.00	\$5,000.00
12	8 inch Gate Valve & Chamber	Ea	2	\$6,500.00	\$13,000.00
13	Restoration	LSUM	1	\$10,000.00	\$10,000.00
14	Traffic Control	LSUM	1	\$20,000.00	\$20,000.00
15	Lift Station	Ea	1	\$250,000.00	\$250,000.00
15	Contractor OH&P (10%)	LSUM	1	\$75,465.00	\$75,465.00
16	Design Engineering (6.5%)	LSUM	1	\$49,052.25	\$49,052.25
17	Construction Engineering (8.5%)	LSUM	1	\$64,145.25	\$64,145.25
18	Contingency (20%)	LSUM	1	\$150,930.00	\$150,930.00
Option 2 Total Sanitary Sewer Items:					\$1,622,000.00

8.8 Appendix H – Wastewater Treatment Plant Alternative Options Capital Costs

SBR					
Item #	PROPOSAL ITEM	ESTIMATED		LIMIT	AMOUNT
		UNIT	QUANTITY	COST	
1	Ltd/Control Building	Ea	1	\$510,000.00	\$510,000.00
2	Screens	Ea	1	\$170,000.00	\$170,000.00
3	Grit	Ea	1	\$250,000.00	\$250,000.00
4	Screen/Grit Install	Ea	1	\$200,000.00	\$200,000.00
5	Headworks Building	Ea	1	\$150,000.00	\$150,000.00
6	Lakeside SBR	Ea	1	\$750,000.00	\$750,000.00
7	SBR Install	Ea	1	\$200,000.00	\$200,000.00
8	Chemical Systems	Ea	1	\$50,000.00	\$50,000.00
9	Concrete Tankage	cyd	3300	\$700.00	\$2,310,000.00
10	Clarifiers	Ea	0	\$400,000.00	\$0.00
11	UV Disinfection	Ea	1	\$200,000.00	\$200,000.00
12	UV Install	Ea	1	\$50,000.00	\$50,000.00
13	UV Building	Ea	1	\$300,000.00	\$300,000.00
14	Plant Recycle Station	Ea	1	\$200,000.00	\$200,000.00
15	NFW system	Ea	1	\$150,000.00	\$150,000.00
16	Solids Handling	Ea	2	\$350,000.00	\$700,000.00
17	Solids Handling Install	Ea	1	\$200,000.00	\$200,000.00
18	Aerobic Digester	Ea	1	\$800,000.00	\$800,000.00
19	Site Electrical	Ea	1	\$250,000.00	\$250,000.00
20	Generator	Ea	1	\$150,000.00	\$150,000.00
21	Site Mechanical	Ea	1	\$250,000.00	\$250,000.00
22	Odor Control	Ea	1	\$200,000.00	\$200,000.00
23	Cloth Dink Filter	Ea	0	\$400,000.00	\$0.00
24	Sitework and Utilities	Ea	1	\$370,000.00	\$370,000.00
25	Site Access and Parking	Ea	1	\$250,000.00	\$250,000.00
26	Contractor O&P (10%)	Lsum	1	\$872,000.00	\$872,000.00
27	Bonding, Legal, RD Admin (2%)	Lsum	1	\$174,400.00	\$174,400.00
28	Survey	Lsum	1	\$35,000.00	\$35,000.00
29	Geotechnical Work	Lsum	1	\$15,000.00	\$15,000.00
30	Design Engineering (7.5%)	Lsum	1	\$719,400.00	\$719,400.00
31	Construction Engineering (8.5%)	Lsum	1	\$815,320.00	\$815,320.00
32	Contingency (20%)	Lsum	1	\$1,918,400.00	\$1,918,400.00
				Subtotal	\$13,270,000.00



MBBR and DAF

Item #	PROPOSAL ITEM	UNIT	ESTIMATED		AMOUNT
			QUANTITY	COST	
1	Lab/Control Building	Ea	1	\$510,000.00	\$510,000.00
2	Screens	Ea	1	\$170,000.00	\$170,000.00
3	Grit	Ea	1	\$250,000.00	\$250,000.00
4	Screen/Grit Install	Ea	1	\$200,000.00	\$200,000.00
5	Headworks Building	Ea	1	\$150,000.00	\$150,000.00
6	MBBR + DAF	Ea	1	\$3,200,000.00	\$3,200,000.00
7	MBBR Install	Ea	1	\$200,000.00	\$200,000.00
8	Chemical Systems	Ea	1	\$50,000.00	\$50,000.00
9	Concrete Tankage	cuyd	3300	\$700.00	\$2,310,000.00
10	Clarifiers	Ea	1	\$400,000.00	\$400,000.00
11	UV Disinfection	Ea	1	\$260,000.00	\$260,000.00
12	UV Install	Ea	1	\$50,000.00	\$50,000.00
13	UV Building	Ea	1	\$300,000.00	\$300,000.00
14	Plant Recycle Station	Ea	1	\$200,000.00	\$200,000.00
15	NPW system	Ea	1	\$150,000.00	\$150,000.00
16	Solids Handling	Ea	2	\$350,000.00	\$700,000.00
17	Solids Handling Install	Ea	1	\$200,000.00	\$200,000.00
18	Aerobic Digester	Ea	1	\$800,000.00	\$800,000.00
19	Site Electrical	Ea	1	\$250,000.00	\$250,000.00
20	Generator	Ea	1	\$150,000.00	\$150,000.00
21	Site Mechanical	Ea	1	\$250,000.00	\$250,000.00
22	Cloth Disk Filter	Ea	0	\$500,000.00	\$0.00
23	Odor Control	Ea	1	\$130,000.00	\$130,000.00
24	Sitework and Utilities	Ea	1	\$370,000.00	\$370,000.00
25	Site Access and Parking	Ea	1	\$250,000.00	\$250,000.00
26	Contractor OHS&P (10%)	Lsum	1	\$1,150,000.00	\$1,150,000.00
27	Bonding, Legal, RD Admin (2%)	Lsum	1	\$253,000.00	\$253,000.00
28	Survey	Lsum	1	\$35,000.00	\$35,000.00
29	Geotechnical Work	Lsum	1	\$15,000.00	\$15,000.00
30	Design Engineering (7.5%)	Lsum	1	\$948,750.00	\$948,750.00
31	Construction Engineering (8.5%)	Lsum	1	\$1,075,250.00	\$1,075,250.00
32	Contingency (20%)	Lsum	1	\$2,530,000.00	\$2,530,000.00
Subtotal					\$17,507,000.00



CLR

Item #	PROPOSAL ITEM	UNIT	ESTIMATED		AMOUNT
			QUANTITY	COST	
1	Laby/Control Building	Ea	1	\$510,000.00	\$510,000.00
2	Screens	Ea	1	\$170,000.00	\$170,000.00
3	Grit	Ea	1	\$250,000.00	\$250,000.00
4	Screeny/Grit install	Ea	1	\$200,000.00	\$200,000.00
5	Headworks Building	Ea	1	\$150,000.00	\$150,000.00
6	CLR Equipment	Ea	1	\$890,000.00	\$890,000.00
7	CLR install	Ea	1	\$200,000.00	\$200,000.00
8	Chemical Systems	Ea	1	\$50,000.00	\$50,000.00
9	Concrete Tankage	cyd	4300	\$700.00	\$3,010,000.00
10	Clarifiers	Ea	1	\$400,000.00	\$400,000.00
11	Clarifier install	Ea	1	\$150,000.00	\$150,000.00
12	UV Disinfection	Ea	1	\$260,000.00	\$260,000.00
13	UV install	Ea	1	\$50,000.00	\$50,000.00
14	UV Building	Ea	1	\$300,000.00	\$300,000.00
14	Plant Recycle Station	Ea	1	\$200,000.00	\$200,000.00
16	NPW system	Ea	1	\$150,000.00	\$150,000.00
17	Solids Handling	Ea	2	\$350,000.00	\$700,000.00
18	Solids Handling install	Ea	1	\$200,000.00	\$200,000.00
19	Aerobic Digester	Ea	1	\$800,000.00	\$800,000.00
20	Site Electrical	Ea	1	\$250,000.00	\$250,000.00
21	Generator	Ea	1	\$150,000.00	\$150,000.00
22	Site Mechanical	Ea	1	\$250,000.00	\$250,000.00
23	Clash Disk Filter	Ea	0	\$500,000.00	\$0.00
24	Odor Control	Ea	1	\$130,000.00	\$130,000.00
25	Site work and Utilities	Ea	1	\$370,000.00	\$370,000.00
26	Site Access and Parking	Ea	1	\$250,000.00	\$250,000.00
27	Contractor O&M (10%)	Lsum	1	\$1,004,000.00	\$1,004,000.00
28	Bonding, Legal, RD Admin (2%)	Lsum	1	\$220,880.00	\$220,880.00
29	Survey	Lsum	1	\$35,000.00	\$35,000.00
30	Geotechnical Work	Lsum	1	\$15,000.00	\$15,000.00
31	Design Engineering (7.5%)	Lsum	1	\$828,300.00	\$828,300.00
32	Construction Engineering (8.5%)	Lsum	1	\$938,740.00	\$938,740.00
33	Contingency (20%)	Lsum	1	\$2,208,800.00	\$2,208,800.00
				Subtotal	\$15,291,000.00



MBR

Item #	PROPOSAL ITEM	UNIT	ESTIMATED		UNIT	
			QUANTITY	COST	COST	AMOUNT
1	Lab/Control Building	Ea	1	\$510,000.00		\$510,000.00
2	Screens/Influent pumps	Ea	1	\$170,000.00		\$170,000.00
3	Grit	Ea	1	\$250,000.00		\$250,000.00
4	Screens/Grit install	Ea	1	\$200,000.00		\$200,000.00
5	Headworks Building	Ea	1	\$150,000.00		\$150,000.00
6	MBR Equipment	Ea	1	\$2,000,000.00		\$2,000,000.00
7	MBR install	Ea	1	\$200,000.00		\$200,000.00
8	Chemical Systems	Ea	1	\$50,000.00		\$50,000.00
9	Concrete Tankage	cyd	2500	\$700.00		\$1,750,000.00
10	Clarifiers	Ea	0	\$400,000.00		\$0.00
11	UV Disinfection	Ea	1	\$200,000.00		\$200,000.00
12	UV install	Ea	1	\$50,000.00		\$50,000.00
13	UV Building	Ea	1	\$300,000.00		\$300,000.00
14	Plant Recycle Station	Ea	1	\$200,000.00		\$200,000.00
15	NPW system	Ea	1	\$150,000.00		\$150,000.00
16	Solids Handling	Ea	2	\$350,000.00		\$700,000.00
17	Solids Handling install	Ea	1	\$200,000.00		\$200,000.00
18	Aerobic Digester	Ea	1	\$800,000.00		\$800,000.00
19	Site Electrical	Ea	1	\$250,000.00		\$250,000.00
20	Generator	Ea	1	\$150,000.00		\$150,000.00
21	Site Mechanical	Ea	1	\$250,000.00		\$250,000.00
22	Clack Disk Filter	Ea	0	\$500,000.00		\$0.00
23	Odor Control	Ea	1	\$130,000.00		\$130,000.00
24	Sitework and Utilities	Ea	1	\$370,000.00		\$370,000.00
25	Site Access and Parking	Ea	1	\$250,000.00		\$250,000.00
26	Contractor O&P (10%)	Lsum	1	\$934,000.00		\$934,000.00
27	Bonding, Legal, RD Admin (2%)	Lsum	1	\$205,400.00		\$205,400.00
28	Survey	Lsum	1	\$35,000.00		\$35,000.00
29	Geotechnical Work	Lsum	1	\$15,000.00		\$15,000.00
30	Design Engineering (7.5%)	Lsum	1	\$770,550.00		\$770,550.00
31	Construction Engineering (8.5%)	Lsum	1	\$873,290.00		\$873,290.00
32	Contingency (20%)	Lsum	1	\$2,054,800.00		\$2,054,800.00
					Subtotal	\$14,229,000.00

8.9 Appendix I – Lowell Township Schedule of Rates and Fees

Lowell Charter Township Water & Sewer Rate Increase History

Sewer

Current rate: \$21.00/REU per month

<u>Date of Increase</u>	<u>Previous Rate</u>	<u>Rate Increase</u>	<u>New Rate</u>
12/1/2015	\$16.48/REU	\$4.52	\$21.00/REU
9/15/1987	\$ 9.00/REU	\$7.48	\$16.48/REU
5/25/1985	\$ 7.50/REU	\$1.50	\$ 9.00/REU
4/25/1981	\$ 6.00/REU	\$1.50	\$ 7.50/REU
7/15/1980	\$ 6.00/REU		

Sewer Connection Fee

1/16/2012	\$1,500/REU	\$1,250.00	\$2,750.00
4/2/1998	\$1,500/Reu		

Sewer Frontage Charge

4/2/1998	\$50.00/frontage foot		
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Water

**Current rate: Readiness to Serve Charge per month - \$20.00 per month
 Commodity Charge - \$4.00/1000 gallons of usage**

<u>Date of Increase</u>	<u>Previous Rate</u>	<u>Rate Increase</u>	<u>New Rate</u>
11/16/2015	\$3.50/1000 gallons	\$0.50	\$4.00/1000 gallons
9/9/2011	\$3.30/1000 gallons	\$0.20	\$3.50/1000 gallons
9/10/1998	\$3.05/1000 gallons	\$0.25	\$3.30/1000 gallons
7/21/1997	Readiness to Serve Charge changed from \$15.00 to \$20.00/month		
2/19/1996	\$2.50/1000 gallons	\$0.55	\$3.05/1000 gallons
5/16/1994	\$2.50/1000 gallons		

Kathy Fremer
 Lowell Charter Township Water Dept.
 February 3, 2020

8.10 Appendix J – Water Treatment Plant Alternative Options Capital Costs

OPTION A - MULTICELL PRESSURE FILTER

Item #	PROPOSAL ITEM	UNIT	ESTIMATED		UNIT		
			QUANTITY	COST	AMOUNT	SIZE (CUFT)	(YR)
1	Option A - MULTICELL Pressure Filter System	Ea	1.00	\$520,000.00	\$520,000.00	2042	20
2	Chemical oxidation	Ea	1.00	\$100,000.00	\$100,000.00	500	20
3	Delivery, install	Ea	1.00	\$20,000.00	\$20,000.00	-	0
4	All piping, fitting, supports	Ea	1.00	\$20,000.00	\$20,000.00	-	30
5	Walkways, stairs	Ea	1.00	\$20,000.00	\$20,000.00	2000	50
6	Paint and cathodic protection systems	Ea	1.00	\$20,000.00	\$20,000.00	-	10
7	Chemicals, feeders and lines	Ea	1.00	\$ 75,000.00	\$75,000.00	200	10
8	Structural design, concrete pads, foundations, rebar	Ea	1.00	\$ 50,000.00	\$50,000.00	450	50
9	All pumps, operating, and start-up lubricants	Ea	1.00	\$ 100,000.00	\$100,000.00	100	20
10	Chlorination (Hesco, Kip)	Ea	1.00	\$ 20,000.00	\$20,000.00	4000	30
11	High service pumps	Ea	1.00	\$ 150,000.00	\$150,000.00	500	20
12	Site Electrical (MCC, disconnects, electrical/conduit	Ea	1.00	\$250,000.00	\$250,000.00	-	30
13	Site Mechanical	Ea	1.00	\$250,000.00	\$250,000.00	-	30
14	Sitework and Utilities	Ea	1.00	\$370,000.00	\$370,000.00	-	30
15	Treatment Plant Building	sft	3000.00	\$250.00	\$750,000.00	60000	50
16	Site Access and Parking	Ea	1.00	\$250,000.00	\$250,000.00	-	50
17	Contractor OH&P (10%)	-	1.00	\$296,500.00	\$296,500.00		
18	Legal (2%)	-	1.00	\$59,300.00	\$59,300.00		
19	Design Engineering (6.5%)	-	1.00	\$192,725.00	\$192,725.00		
20	Construction Engineering (8.5%)	-	1.00	\$252,025.00	\$252,025.00		
21	Contingency (20%)	-	1.00	\$593,000.00	\$593,000.00		
				<i>Subtotal</i>		\$4,359,000.00	

OPTION A2 - MULTICELL PRESSURE FILTER for 0.5 MGD

#	PROPOSAL ITEM	UNIT	ESTIMATED		UNIT		
			QUANTITY	COST	AMOUNT	(CUFT)	E (YR)
1	Option A2 - MULTICELL Pressure	Ea	1.00	\$505,000.00	\$505,000.00	1571	20
2	Chemical oxidation	Ea	1.00	\$100,000.00	\$100,000.00	500	20
3	Delivery, install	Ea	1.00	\$20,000.00	\$20,000.00	-	0
4	All piping, fitting, supports	Ea	1.00	\$20,000.00	\$20,000.00	-	30
5	Walkways, stairs	Ea	1.00	\$20,000.00	\$20,000.00	2000	50
6	Paint and cathodic protection sy	Ea	1.00	\$20,000.00	\$20,000.00	-	10
7	Chemicals, feeders and lines	Ea	1.00	\$ 75,000.00	\$75,000.00	200	10
8	Structural design, concrete pads,	Ea	1.00	\$ 50,000.00	\$50,000.00	450	50
9	All pumps, operating, and start-u	Ea	1.00	\$ 100,000.00	\$100,000.00	100	20
10	Chlorination (Hesco, Kip)	Ea	1.00	\$ 20,000.00	\$20,000.00	4000	30
11	High service pumps	Ea	1.00	\$ 150,000.00	\$150,000.00	500	20
12	Site Electrical (MCC, disconnects	Ea	1.00	\$250,000.00	\$250,000.00	-	30
13	Site Mechanical	Ea	1.00	\$250,000.00	\$250,000.00	-	30
14	Sitework and Utilities	Ea	1.00	\$370,000.00	\$370,000.00	-	30
15	Treatment Plant Building	sft	3000.00	\$250.00	\$750,000.00	60000	50
16	Site Access and Parking	Ea	1.00	\$250,000.00	\$250,000.00	-	50
17	Contractor OH&P (10%)	-	1.00	\$296,500.00	\$296,500.00		
18	Legal (2%)	-	1.00	\$59,000.00	\$59,000.00		
19	Design Engineering (6.5%)	-	1.00	\$192,725.00	\$192,725.00		
20	Construction Engineering (8.5%)	-	1.00	\$252,025.00	\$252,025.00		
21	Contingency (20%)	-	1.00	\$593,000.00	\$593,000.00		
				<i>Subtotal</i>		\$4,344,000.00	

OPTION B - PACKAGED TREATMENT

Item #	PROPOSAL ITEM	UNIT	ESTIMATED		AMOUNT	SIZE (CUFT)	(YR)	
			QUANTITY	COST				
1	Option B-1 Type II AERIALATE	Ea	1.00	\$460,000.00	\$460,000.00	612	20	
2	Delivery, install	Ea	1.00	\$20,000.00	\$20,000.00	-	0	
3	All piping, fitting, supports	Ea	1.00	\$20,000.00	\$20,000.00	-	30	
4	Walkways, stairs	Ea	1.00	\$20,000.00	\$20,000.00	2000	50	
5	Paint and cathodic protection	Ea	1.00	\$20,000.00	\$20,000.00	-	10	
6	Chemicals, feeders and lines	Ea	1.00	\$75,000.00	\$75,000.00	200	10	
7	Structural design, concrete p.	Ea	1.00	\$50,000.00	\$50,000.00	450	50	
8	All pumps, operating, and sta	Ea	1.00	\$100,000.00	\$100,000.00	100	20	
9	Chlorination (Hesco, Kip)	Ea	1.00	\$20,000.00	\$20,000.00	4000	30	
10	High service pumps	Ea	1.00	\$150,000.00	\$150,000.00	500	20	
11	Site Electrical (MCC, disconn	Ea	1.00	\$250,000.00	\$250,000.00	-	30	
12	Site Mechanical	Ea	1.00	\$250,000.00	\$250,000.00	-	30	
13	Sitework and Utilities	Ea	1.00	\$370,000.00	\$370,000.00	-	30	
14	Treatment Plant Building	sft	3000.00	\$250.00	\$750,000.00	60000	50	
15	Site Access and Parking	Ea	1.00	\$250,000.00	\$250,000.00	-	50	
16	Contractor OH&P (10%)	-	1.00	\$280,500.00	\$280,500.00	-	-	
17	Legal (2%)	-	1.00	\$56,100.00	\$56,100.00	-	-	
18	Design Engineering (6.5%)	-	1.00	\$182,325.00	\$182,325.00	-	-	
19	Construction Engineering (8.5	-	1.00	\$238,425.00	\$238,425.00	-	-	
20	Contingency (20%)	-	1.00	\$280,500.00	\$280,500.00	-	-	
					<i>Subtotal</i>	<i>\$3,843,000.00</i>		

OPTION C - CONVENTIONAL TREATMENT

Item #	PROPOSAL ITEM	UNIT	ESTIMATED		AMOUNT	SIZE (CUFT)	(YR)	
			QUANTITY	COST				
1	Option C - AIDA aerator	Ea	1.00	\$50,000.00	\$50,000.00	110	20	
2	Option C - 4 cell MULTICELL Pressure Filter	Ea	1.00	\$520,000.00	\$520,000.00	2042	20	
3	Concrete detention tank	Ea	1.00	\$192,000.00	\$192,000.00	13368	30	
4	Delivery, install	Ea	1.00	\$20,000.00	\$20,000.00	-	0	
5	All piping, fitting, supports	Ea	1.00	\$20,000.00	\$20,000.00	-	30	
6	Walkways, stairs	Ea	1.00	\$20,000.00	\$20,000.00	2000	50	
7	Paint and cathodic protection systems	Ea	1.00	\$20,000.00	\$20,000.00	-	10	
8	Chemicals, feeders and lines	Ea	1.00	\$75,000.00	\$75,000.00	200	10	
9	Structural design, concrete pads, foundations, rebar	Ea	1.00	\$50,000.00	\$50,000.00	450	50	
10	All pumps, operating, and start-up lubricants	Ea	1.00	\$100,000.00	\$100,000.00	100	20	
11	Chlorination (Hesco, Kip)	Ea	1.00	\$20,000.00	\$20,000.00	4000	30	
12	High service pumps	Ea	1.00	\$150,000.00	\$150,000.00	500	20	
13	Site Electrical (MCC, disconnects, electrical/conduit	Ea	1.00	\$250,000.00	\$250,000.00	-	30	
14	Site Mechanical	Ea	1.00	\$250,000.00	\$250,000.00	-	30	
15	Sitework and Utilities	Ea	1.00	\$370,000.00	\$370,000.00	-	30	
16	Treatment Plant Building	sft	3000.00	\$250.00	\$750,000.00	60000	50	
17	Site Access and Parking	Ea	1.00	\$250,000.00	\$250,000.00	-	50	
18	Contractor OH&P (10%)	-	1.00	\$310,700.00	\$310,700.00	-	-	
19	Legal (2%)	-	1.00	\$62,140.00	\$62,140.00	-	-	
20	Design Engineering (6.5%)	-	1.00	\$201,955.00	\$201,955.00	-	-	
21	Construction Engineering (8.5%)	-	1.00	\$264,095.00	\$264,095.00	-	-	
22	Contingency (20%)	-	1.00	\$621,400.00	\$621,400.00	-	-	
					<i>Subtotal</i>	<i>\$4,568,000.00</i>		

OPTION E - LIME SOFTENING

Item #	PROPOSAL ITEM	UNIT	ESTIMATED		AMOUNT	SIZE (CUFT)	(YR)	
			QUANTITY	COST				
1	Option D - AIDA aerator	Ea	1.00	\$ 50,000.00	\$50,000.00	110	20	
2	Option D - 2 CONTRAFLO cla	Ea	1.00	\$ 385,000.00	\$385,000.00	10602.9	20	
3	Option D - 3 Gravity Filters	Ea	1.00	\$ 115,000.00	\$115,000.00	3000	20	
4	Recarbonation (tank and carl	Ea	1.00	\$ 400,000.00	\$400,000.00	1413	25	
5	2000 cuft. Lime Storage and	LSUM	1.00	\$ 350,000.00	\$350,000.00	4615.8	20	
6	Delivery, install	Ea	1.00	\$20,000.00	\$20,000.00	-	0	
7	All piping, fitting, supports	Ea	1.00	\$20,000.00	\$20,000.00	-	30	
8	Walkways, stairs	Ea	1.00	\$20,000.00	\$20,000.00	2000	50	
9	Paint and cathodic protectioi	Ea	1.00	\$20,000.00	\$20,000.00	-	10	
10	Chemicals, feeders and lines	Ea	1.00	\$75,000.00	\$75,000.00	200	10	
11	Structural design, concrete p:	Ea	1.00	\$50,000.00	\$50,000.00	450	50	
12	All pumps, operating, and sta	Ea	1.00	\$100,000.00	\$100,000.00	100	20	
13	Chlorination (Hesco, Kip)	Ea	1.00	\$20,000.00	\$20,000.00	4000	30	
14	High service pumps	Ea	1.00	\$150,000.00	\$150,000.00	500	20	
15	Site Electrical (MCC, disconni	Ea	1.00	\$250,000.00	\$250,000.00	-	30	
16	Site Mechanical	Ea	1.00	\$250,000.00	\$250,000.00	-	30	
17	Sitework and Utilities	Ea	1.00	\$370,000.00	\$370,000.00	-	30	
18	Treatment Plant Building	sft	4000.00	\$250.00	\$1,000,000.00	80000	50	
19	Site Access and Parking	Ea	1.00	\$250,000.00	\$250,000.00	-	50	
20	Contractor OH&P (10%)	-	1.00	\$389,500.00	\$389,500.00	-	-	
21	Legal (2%)	-	1.00	\$77,900.00	\$77,900.00	-	-	
22	Design Engineering (6.5%)	-	1.00	\$253,175.00	\$253,175.00	-	-	
23	Construction Engineering (8.5	-	1.00	\$331,075.00	\$331,075.00	-	-	
24	Contingency (20%)	-	1.00	\$779,000.00	\$779,000.00	-	-	
					<i>Subtotal</i>	<i>\$5,726,000.00</i>		

OPTION D - RO SOFTENING

Item #	PROPOSAL ITEM	UNIT	ESTIMATED		AMOUNT	SIZE (CUFT)	(YR)	
			QUANTITY	COST				
1	Option E - 1.25 MGD MULTICELL Pressure Filter	Ea	1.00	\$580,000.00	\$580,000.00	2513	20	
2	Option E - 250gpm RO	Ea	1.00	\$642,000.00	\$642,000.00	2156	20	
4	Delivery, install	Ea	1.00	\$20,000.00	\$20,000.00	-	0	
5	All piping, fitting, supports	Ea	1.00	\$20,000.00	\$20,000.00	-	30	
6	Walkways, stairs	Ea	1.00	\$20,000.00	\$20,000.00	2000	50	
7	Paint and cathodic protection systems	Ea	1.00	\$20,000.00	\$20,000.00	-	10	
8	Chemicals, feeders and lines	Ea	1.00	\$75,000.00	\$75,000.00	200	10	
9	Structural design, concrete pads, foundations, rebar	Ea	1.00	\$50,000.00	\$50,000.00	450	50	
10	All pumps, operating, and start-up lubricants	Ea	1.00	\$100,000.00	\$100,000.00	100	20	
11	Chlorination (Hesco, Kip)	Ea	1.00	\$20,000.00	\$20,000.00	4000	30	
12	High service pumps	Ea	1.00	\$150,000.00	\$150,000.00	500	20	
13	Site Electrical (MCC, disconnects, electrical/conduit	Ea	1.00	\$250,000.00	\$250,000.00	-	30	
14	Site Mechanical	Ea	1.00	\$250,000.00	\$250,000.00	-	30	
15	Sitework and Utilities	Ea	1.00	\$370,000.00	\$370,000.00	-	30	
16	Treatment Plant Building	sft	3000.00	\$250.00	\$750,000.00	60000	50	
17	Site Access and Parking	Ea	1.00	\$250,000.00	\$250,000.00	-	50	
18	Contractor OH&P (10%)	-	1.00	\$356,700.00	\$356,700.00	-	-	
19	Legal (2%)	-	1.00	\$71,340.00	\$71,340.00	-	-	
20	Design Engineering (6.5%)	-	1.00	\$231,855.00	\$231,855.00	-	-	
21	Construction Engineering (8.5%)	-	1.00	\$303,195.00	\$303,195.00	-	-	
22	Contingency (20%)	-	1.00	\$713,400.00	\$713,400.00	-	-	
					<i>Subtotal</i>	<i>\$5,244,000.00</i>		

Memorandum



To: Lowell City Council

From: Steve Donkersloot

Date: July 17, 2020

Re: LL&P Board Recommendation for the City Council to Adopt Bond Authorizing Ordinance

At the July LL&P Board Meeting, the LL&P Board unanimously voted to move forward with a recommendation for the City Council to adopt a Bond Authorizing Ordinance for LL&P with a principal amount of \$995,000 at a 2.20% interest rate over a 7-year term. I have included the Ordinance and Huntington Bank Term Sheet in your packet.

For a review and prior to the Council making a decision, I would like to recap what has taken place over the past several months:

- During February's LL&P Strategic Planning Session and March's LL&P Board Meeting, the LL&P staff the Board discussed the numerous, long overdue facility upgrades that need to take place at LL&P's Energy Center.
- At April's LL&P Board Meeting, there was discussion about moving forward with all of the projects, rather than only a handful, in the next fiscal year by issuing revenue bonds.
 - o The reasons for this were as follows:
 - Debt is extremely cheap right now due to the COVID-19 pandemic;
 - Moving forward with projects now could be a potential benefit to the local economy;
 - From a logistics and convenience standpoint for LL&P's employees who work at the Energy Center, it would be much easier for everything to happen over a short, specified time window (12 months for example) rather than dragging these projects out over several years;
 - Knowing all of our projects need to eventually happen, why kick the can down the curb when things will only cost more in the future?
 - o After discussion, the LL&P Board was receptive of this approach.
- At May's LL&P Board Meeting, the LL&P Board started the process by adopting a Resolution Recommending the Adopting of a Resolution of Intent and the Publication of a Notice of Intent to Issue Revenue Bonds to the City Council.
- At the May 18, 2020 City Council Meeting, the City Council adopted a Resolution of Intent and the Publication of a Notice of Intent to Issue Revenue Bonds.

- Since May 18th, the 45-day period in which the public can petition that the sale of the revenue bonds (assuming LL&P and the Council moves forward) is decided by a vote of the people rather than a vote of the LL&P Board and City Council has passed; this had to be done per Act 94 of the Public Acts of Michigan of 1933.
- Because the 45-day waiting period passed with no public petition, the LL&P Board reviewed six different bond options (that can be seen on the Huntington Bank Term Sheet that is included in your packet) at their July 16th Board Meeting and made the decision to recommend that the City Council adopt a Bond Authorizing Ordinance with a principal amount of \$995,000 at a 2.20% interest rate over a 7-year term.
 - o If approved by Council, LL&P will be responsible for all debt (principal and interest payments).
 - o If approved, the bond issuance will not impact the City's general obligation debt issuance limits.

During the meeting and prior to the Council's decision, I would also like to review the graphs and tables that I have included in your packet. The graphs and tables provide a great overview – both historical and futuristic -- of LL&P's debt picture. I believe they will ultimately provide context, comfort, and confidence in regards to the LL&P Board's recommendation, as well as be an eye-opener to the City Council and community.

It is the LL&P Board's recommendation for the City Council to adopt the Bond Authorizing Ordinance included in your packet.

**CITY COUNCIL
CITY OF LOWELL
KENT COUNTY, MICHIGAN**

Ordinance No. 20-03

At a regular meeting of the City Council of the City of Lowell, Kent County, Michigan, held in the City Hall in said City on Monday, July 20, 2020, at 7:00 p.m., local time.

PRESENT: Councilmembers _____

ABSENT: Councilmembers _____

Councilmember _____, supported by Councilmember _____, moved the adoption of the following ordinance:

**CITY COUNCIL
CITY OF LOWELL
KENT COUNTY, MICHIGAN**

Ordinance No. 20-03

ORDINANCE TO AUTHORIZE THE ISSUANCE OF ELECTRIC SUPPLY SYSTEM REVENUE BONDS, SERIES 2020 BY THE CITY OF LOWELL PURSUANT TO THE PROVISIONS OF ACT 94 OF THE PUBLIC ACTS OF MICHIGAN OF 1933, AS AMENDED, FOR THE PURPOSE OF UNDERTAKING IMPROVEMENTS TO THE CITY'S ELECTRIC SUPPLY SYSTEM; TO PRESCRIBE THE FORM OF BONDS; TO PROVIDE FOR THE COLLECTION OF REVENUES FOR THE PURPOSE OF PAYING THE BONDS; TO PROVIDE FOR THE PAYMENT AND SECURITY OF SAID BONDS; TO PROVIDE FOR THE RIGHTS OF THE HOLDER OF SAID BONDS IN ENFORCEMENT THEREOF AND OTHER MATTERS RELATIVE TO SAID BONDS

WHEREAS, the City of Lowell (the "City") through its Department of Light and Power (the "DL&P") deems it necessary to undertake improvements (the "Improvements") to the Electric Supply System (the "Electric System") as generally described in Section 2 of this Ordinance and to finance the cost thereof by the issuance of revenue bonds as specified by this Ordinance; and

WHEREAS, the City proposes, in accordance with the authorization contained in the Revenue Bond Act, Act 94 of the Public Acts of Michigan of 1933, as amended ("Act 94"), to provide at this time for the issuance of revenue bonds in the aggregate principal amount of not to exceed Nine Hundred Ninety-Five Thousand Dollars (\$995,000) (the "Bonds"), the proceeds of which will be used to pay for the cost of the Improvements including the costs of issuance of the Bonds; and

WHEREAS, the City sought a request for proposal for the private placement of the Bonds from Huntington Public Capital Corporation (the "Purchaser") and the proposal received from the Purchaser is determined to be in the best interest of the City; and

WHEREAS, all things necessary to the authorization and issuance of the Bonds under the provisions of the Constitution and laws of the State of Michigan, including Act 94, have been done, and the City is now empowered and desires to authorize the issuance of such Bonds.

THE CITY OF LOWELL ORDAINS:

Section 1. Definitions. Whenever used in this Ordinance or in the bonds to be issued hereunder, except when otherwise indicated by context, the following definitions shall apply:

"Act 94" means the Revenue Bond Act, Act 94 of the Public Acts of Michigan of 1933, as amended.

"Board" means the Board of Light and Power of the City.

"Bonds" mean the City of Lowell, Electric Supply System Revenue Bonds, Series 2020 authorized and issued pursuant to Act 94 and this Ordinance.

"City" means the City of Lowell, Kent County, Michigan.

"City Council" means the Council of the City, the legislative and governing body thereof.

"City Manager" means the duly appointed and serving city manager of the City.

"City Treasurer" means the duly appointed and serving treasurer of the City.

"Code" means the Internal Revenue Code of 1986, as amended.

"DL&P" means the Department of Light and Power of the City.

"Electric System" means the complete electric supply system of the City, including generators, substations, transformers, metering devices, transmission lines, distribution lines and all appurtenances thereto now owned by the City, and all extensions and improvements thereto hereafter made, including the Improvements.

"Improvements" means the improvements to the System described in Section 2 hereof.

"Purchaser" means Huntington Public Capital Corporation.

"Revenues" and "Net Revenues" shall have the same meanings as defined in Act 94.

"State" means the State of Michigan.

Section 2. Necessity; Description of Improvements. It is hereby determined to be necessary for the public health, safety and welfare of the City for its DL&P to undertake improvements to the City's Electric System consisting of improvements and renovations to the DL&P building at 625 Chatham Street in the City and improvements to an adjacent parking lot (the "Improvements").

Section 3. Estimated Cost; Period of Usefulness. The cost of the Improvements has been estimated to be Nine Hundred Ninety-Five Thousand Dollars (\$995,000) including the payment of costs and incidental expenses as specified in Section 4 hereof, which estimate of cost is hereby approved and confirmed; and the period of usefulness of the Improvements is estimated to be not less than eight (8) years.

Section 4. Issuance of Bonds. To defray the costs of the Improvements and the payment of engineering, legal and other expenses incidental thereto and incident to the issuance of the Bonds, it is hereby determined that the City borrow the sum of not to exceed Nine Hundred Ninety-Five Thousand Dollars (\$995,000) and that the Bonds be issued therefor pursuant to the provisions of Act 94.

Section 5. Designation of Bonds. The Bonds shall be designated the "Electric Supply System Revenue Bonds, Series 2020."

Section 6. Bond Terms. The Bonds shall be issued to the Purchaser in fully registered form without coupons as a single bond in the form set forth in Section 12 hereof. The interest rate on the Bonds shall be two and two tenths percent (2.20%) per annum. The Bonds shall finally mature on June 1, 2028, and the principal installments thereof shall be subject to optional

redemption as set forth in the form of bond set forth in Section 12 hereof. Principal of the Bonds shall be payable annually on June 1 commencing June 1, 2022 and accrued interest on the Bonds shall be payable semi-annually on June 1 and December 1, commencing on December 1, 2020, until the principal of the Bonds has been paid in full as set forth in the form of bond in Section 12 hereof. The City Manager or his designee is hereby authorized to approve the date and place of delivery of the Bonds and other matters and procedures necessary to complete the issuance of the Bonds to the Purchaser as permitted by law.

Section 7. Notice of Optional Redemption. Notice of the call of the principal installments of the Bonds for optional redemption shall be given by first-class mail by the City Treasurer or other paying agent designated by the City Manager or his designee not less than thirty (30) days prior to the date fixed for redemption, to the registered owner of the Bonds, at the address shown on the registration books of the City kept by the City Treasurer (the "Bond Register"). The notice of redemption shall specify the amount of the principal installment of the Bonds to be redeemed, the redemption date and the place where the amount due upon such redemption will be payable. The principal amount of the Bonds so called for redemption shall not bear interest after the date fixed for redemption, whether presented for redemption or not, provided funds are on hand with the City Treasurer or other paying agent designated by the City Manager or his designee to redeem said principal amount.

Section 8. Payment of Bonds. The principal of and accrued interest on the Bonds shall be payable by the City when due to the Purchaser in lawful money of the United States of America by check or draft by the City Treasurer or other paying agent designated by the City Manager or his designee by first class mail to the Purchaser thereof at the addresses shown on the Bond Register or

by other means mutually acceptable to the City and Purchaser or other registered owner of the Bonds.

Section 9. Denomination and Numbering. The Bonds shall be issued as a single bond in the full principal amount of the Bonds and numbered R-1.

Section 10. Registration, Execution, Authentication, Delivery and Transfer of Bonds. The Bonds shall be registered as to both principal and interest on the Bond Register kept for that purpose by the City Treasurer or other register designated by the City Manager or his designee. The Bonds shall be signed by original or facsimile signature of the Mayor of the City and the City Clerk, and they are hereby authorized and directed to execute said Bonds for and on behalf of the City and to affix or have printed the seal of the City thereon. Upon the execution of said Bonds, the same shall be delivered to the City Treasurer who is hereby authorized to authenticate and deliver said Bonds to the Purchaser, as directed by the City through the written instructions of the Mayor or City Manager or his designee.

The Mayor, City Clerk, City Manager and City Treasurer are hereby authorized to execute such certificates, affidavits or other documents or instruments as may be required in connection with the issuance and delivery of the Bonds.

The Bonds shall be transferable on the Bond Register upon the surrender of the individual bond together with an assignment executed by the Purchaser or other registered owner or its duly authorized attorney in form satisfactory to the City Treasurer or other register designated by the City Manager or his designee. Upon receipt of a properly assigned bond, the City Treasurer or other register designated by the City Manager or his designee shall authenticate and deliver a new bond in equal principal amount and like interest rate and maturity to the designated transferee. Such exchange shall be effected by surrender of the individual bond to be exchanged to the City

Treasurer or other register designated by the City Manager or his designee with written instructions signed by the registered owner or its attorney in form satisfactory to the City Treasurer or other register designated by the City Manager or his designee. Upon receipt of an individual bond with proper written instructions the City Treasurer or other register designated by the City Manager or his designee shall authenticate and deliver a new bond to the registered owner of the bond or its properly designated transferee or attorney.

Section 11. Bond Registrar and Paying Agent. If required, the City Manager or his designee is authorized to designate a financial institution capable of undertaking such duties to act on behalf of the City as registrar, paying agent and transfer agent (the “Bond Registrar/Paying Agent”) with respect to the Bonds. The City Manager or his designee is hereby authorized to enter into an agreement on behalf of the City with the Bond Registrar/Paying Agent on behalf of the City with the Bond Registrar/Paying Agent upon such terms and conditions as are consistent with the terms of this ordinance. All reasonable fees and expenses of the Bond Registrar/Paying Agent shall be paid by the City. The City Manager or his designee from time to time may designate and enter into an agreement with a new registrar, paying agent and/or transfer agent that is qualified to act in such capacity under the laws of the United State of America or the State.

Section 12. Bond Form. The form of the Bonds shall be substantially as follows:

**UNITED STATES OF AMERICA
STATE OF MICHIGAN
COUNTY OF KENT
CITY OF LOWELL
ELECTRIC SUPPLY SYSTEM
REVENUE BOND, SERIES 2020**

INTEREST RATE	MATURITY	ISSUE DATE
2.20%	Exhibit A	_____, 2020

REGISTERED OWNER: Huntington Public Capital Corporation

PRINCIPAL AMOUNT: Nine Hundred Ninety-Five Thousand Dollars (\$995,000)

KNOW ALL MEN BY THESE PRESENTS that the City of Lowell, Kent County, Michigan (the "City"), acknowledges itself indebted and, for value received, hereby promises to pay, solely from the sources and as hereinafter provided, to the Registered Owner identified above or registered assigns, the Principal Amount specified above or so much thereof as shall have been advanced to the City on the principal payment dates and in the amounts set forth in Exhibit A attached hereto commencing June 1, 2022, unless the principal installments of this Bond be subject to redemption and shall have been redeemed prior thereto as hereinafter provided, the final payment being made upon presentation and surrender of this Bond at the office of the City Treasurer, Lowell, Michigan, or such paying agent as may be designated pursuant to the Bond Authorizing Ordinance identified below, and to pay interest on such Principal Amount to the extent advanced to the City from each date so advanced until the City's obligation with respect to the payment of such Principal Amount is discharged at the annual Interest Rate stated above calculated on the basis of a 360-day year of twelve (12) 30-day months.

Interest on this Bond is payable on June 1 and December 1 of each year beginning December 1, 2020. The interest so payable on any June 1 or December 1 will be paid by check or draft mailed by first-class mail to the Registered Owner or registered assigns or by other method mutually agreed to by the City and the Registered Owner or its registered assign.

The principal of and interest on this Bond are payable in any coin or currency of the United States of America which at the time of payment is legal tender for the payment of public or private debts.

The revenues of the Electric Supply System of the City, less reasonable expenses of operation, administration and maintenance, are hereby irrevocable pledged and a statutory first lien thereon is hereby created for the payment of principal of and interest hereon of their due dates.

This Bond is a self-liquidating bond issued pursuant to Ordinance No. 20-___ (the "Bond Authorizing Ordinance") duly adopted by the City Council on July 20, 2020, and under and in substantial compliance with the constitution and laws of the State of Michigan, including specifically the Revenue Bond Act, Act 94 of the Public Acts of Michigan of 1933, as amended

("Act 94"), for the purpose of paying the costs of certain improvements to the City's Electric Supply System, paying certain other costs including engineering and legal costs related thereto, and paying certain costs related to the issuance of the Bonds. For a complete statement of the revenues from which, and the conditions under which, this Bond is payable, a statement of the conditions under which additional bonds of equal standing may hereafter be issued, and the general covenants and provisions pursuant to which this Bond is issued, reference is made to the Bond Authorizing Ordinance.

During the time funds are being drawn down by the City under this Bond, the Registered Owner will periodically provide the City a statement showing the amount of principal that has been advanced and the date of each advance, which statement shall constitute prima facie evidence of the reported information; provided that no failure on the part of the Register Owner to provide such a statement or to reflect a disbursement or the correct amount of a disbursement shall relieve the City of its obligation to repay the outstanding principal amount actually advanced, all accrued interest thereon and any amount payable with respect thereto in accordance with terms of this bond.

Principal installments of this Bond payable in the years 2022 through 2026, both inclusive, shall not be subject to redemption prior to their due dates. Principal installments of this Bond payable in the years 2027 and 2028, shall be subject to redemption prior to their due date at the option of the City, in whole or in part, in \$5,000 increments of a principal installment in such order as the City shall determine on any date on or after June 1, 2026, at par plus accrued interest to the date fixed for redemption:

Notice of the call of this Bond for redemption shall be given by first-class mail by the City Treasurer or other registrar designated by the City Manager or his designee not less than thirty (30) days prior to the date fixed for redemption to the Registered Owner of this Bond at the address shown on the registration books of the City kept by the City Treasurer or other registrar designated by the City Manager or his designee. Bond principal installments so called for redemption shall not bear interest after the date fixed for redemption, whether presented for redemption or not, provided funds are on hand with the City Treasurer or other registrar designated by the City Manager or his designee to redeem said principal installments.

This Bond is transferrable on the bond registration books of the City kept by the City Treasurer or other registrar designated by the City Manager or his designee upon surrender of this Bond together with an assignment executed by the Registered Owner or its duly authorized attorney in form satisfactory to the City Treasurer or other registrar designated by the City Manager or his designee. Upon such transfer, a fully registered bond in the same principal amount and the same principal installments and interest rate, will be issued to the designated transferee or transferees.

The City hereby covenants and agrees to fix and maintain, at all times while any of such Bonds shall be outstanding, such rates for service furnished by the City's Electric Supply System as shall be sufficient to provide for payment of the principal of and interest on all bonds payable therefrom as and when the same become due and payable and as required by the Bond Authorizing Ordinance, to provide for the payment of expenses of administration and operation and of such expenses for maintenance of said Electric Supply System as are necessary to preserve the same in

good repair and working order, and to provide for such other expenditures and funds for said Electric Supply System as are required by the Bond Authorizing Ordinance and Act 94.

It is hereby certified and recited that all acts, conditions and things required by law precedent to and in the issuance of this Bond have been done and performed in regular and due time and form as required by law.

IN WITNESS WHEREOF, the City, by its City Council, has caused this Bond to be signed in the name of said City by facsimile signature of its Mayor and City Clerk, and its seal to be hereunto printed by facsimile.

CITY OF LOWELL

Michael DeVore, Mayor

(SEAL)

Susan Ullery, City Clerk

CERTIFICATE OF AUTHENTICATION

This Bond is the bond described in the within mentioned Bond Authorizing Ordinance.

Dated: _____, 2020

By: _____
Susanne Olin, City Treasurer

Due Date	Principal Installment Due
June 1, 2022	\$135,000
June 1, 2023	\$135,000
June 1, 2024	\$140,000
June 1, 2025	\$140,000
June 1, 2026	\$145,000
June 1, 2027	\$150,000
June 1, 2028	\$150,000

Section 13. Revenue as Security; No General Obligation of City. The Bonds, including both principal of and interest thereon, shall not be a general obligation of the City and shall not constitute an indebtedness of the City for purposes of any debt limitations imposed by the charter of the City, any constitutional provision or any statutory limitation. The principal of and interest on said Bonds shall be payable solely from the Net Revenues derived from the operation of the Electric System, including future improvements, enlargements and extensions thereof. The Net Revenues from the Electric System, including future enlargements, improvements and extensions thereto, are hereby pledged to the payment of the principal of and interest on the Bonds. To secure the payment of the principal of and interest on the Bonds issued hereunder and on any additional bonds of equal standing which may be issued as provided by the terms of this Ordinance and Act 94 there is hereby created to and in favor of the holders of the Bonds a statutory first lien upon the Net Revenues of the Electric System, including future enlargements, improvements and extensions thereof on a parity with any additional bonds which may be issued pursuant to this Ordinance and Act 94.

Section 14. Establishment of Funds. The following funds of the Electric System are established into which the revenues and income from the Electric System shall be deposited, which funds shall be established and maintained, except as otherwise provided, so long as any of the Bonds remain outstanding.

A. **Receiving Fund.** The gross income and Revenue of the Electric System shall be set aside in a fund designated the Electric System Receiving Fund (the "Receiving Fund") and moneys so deposited therein shall be expended and used only in the manner and order as follows:

1. **Operation and Maintenance Fund.** The City shall maintain a fund known as the "Electric System Operation and Maintenance Fund" (the "O & M Fund"). Prior to the beginning of each fiscal year, the City Council shall approve an annual budget of the Electric

System for the ensuing fiscal year. Out of the moneys in the Receiving Fund, there shall be periodically set aside and deposited into the O & M Fund a sum sufficient to pay the reasonable and necessary current expenses of administering, operating and maintaining said Electric System.

2. **Bond and Interest Redemption Fund.** There is hereby established a fund known as the "Electric Supply System Revenue Bonds, Series 2020 – Bond and Interest Redemption Fund" (the "Bond and Interest Redemption Fund"). After transfer to the O & M Fund required in 1. above, there shall be transferred from the Receiving Fund and deposited in the Bond and Interest Redemption Fund, for payment of principal of and interest on the Bonds, just prior to the date a payment is due, a sum equal to the principal installment and interest due on the Bonds during the then current fiscal year. The moneys on deposit in the Bond and Interest Redemption Fund shall be used solely and only for the purpose of paying the principal of and interest on the Bonds. The moneys in the Bond and Interest Redemption Fund shall be invested in accordance with law and any balance remaining in said Fund after the semi-annual payment on the Bonds shall be applied as a credit against the next semi-annual payment on the Bonds.

3. **Improvement and Repair Fund.** There is hereby established an Electric System Improvement and Repair Fund (the "Improvement and Repair Fund"), into which there shall be placed, after meeting the foregoing requirements, such sums as the City shall determine to be used for the purpose of acquiring and constructing improvements, additions and extensions to the Electric System and for the purpose of making repairs and replacements to the Electric System.

4. **Surplus Moneys.** All moneys remaining in the Receiving Fund at the end of any fiscal year after satisfying the above requirements may be transferred to the Bond and Interest Redemption Fund and used as authorized in this Ordinance or at the option of the City

transferred to the Improvement and Repair Fund and used for the purposes for which said Fund was established. *Provided, however,* that if there should be a deficit in the O & M Fund or Bond and Interest Redemption Fund, on account of defaults in setting aside therein the amounts hereinbefore required, then transfers shall be made from the moneys remaining in the Receiving Fund at the end of any fiscal year to such Funds in the priority and order named, to the extent of such deficit. Provided it is permitted by law, available surplus moneys may be used to retire any outstanding obligations of the City incurred for the construction, expansion or addition to the Electric System including additional bonds, the issuance of which is authorized by this Ordinance, or if no other disposition has been provided for, such moneys may be used for such other purpose or purposes as is deemed to be for the best interest of the City.

Section 15. Rates and Charges Coverage. The City covenants and agrees that it will, at all times, prescribe and maintain and thereafter collect rates and charges for the services and facilities furnished by the Electric System, which, together with other income, are reasonably expected to yield Net Revenues in the current fiscal year of the City at least one hundred and ten percent (110%) of the annual principal and interest payments in such fiscal year of all bonds outstanding which pledge as security therefor the revenues of the Electric System. Promptly upon any material change in the circumstances which were not contemplated at the time such rates and charges were most recently reviewed, but not less frequently than once each fiscal year, the City shall review the rates and charges and shall promptly revise such rates and charges as necessary to comply with the foregoing requirement.

Section 16. Additional Bonds Test. Additional bonds may be issued after the issuance of the Bonds for repair, replacement or extension of the Electric System only if Net Revenues of the Electric System during the fiscal year of the City immediately preceding the fiscal year in which the

additional bonds are to be issued, adjusted to reflect any rate increases currently adopted and to be in effect prior to or coincident with the issuance of such additional bonds, and determined *pro forma* as though such rate increases had been in continuous effect during such preceding fiscal year, shall not be less than one hundred and twenty-five percent (125%) of the annual principal and interest payments in such fiscal year of all bonds outstanding which pledge as security therefore the revenues of the Electric System.

Section 17. Rights of Bondholders. The holder of said Bonds may, either at law or in equity, by suit, action, mandamus, or other proceedings, protect and enforce the statutory lien set forth in Section 13 hereof and enforce and compel the performance of all duties of the officers of the City, including the fixing of sufficient rates, the collection of Revenues, the proper segregation of Revenues and the proper application thereof. *Provided, however,* that said statutory lien shall not be construed to give any holder of the Bonds authority to compel the sale of the Electric System, including the Improvements, the revenues of which are pledged thereto.

If there be any default in the payment of the principal of or interest on the Bonds, any court having jurisdiction in any proper action may appoint a receiver to administer and operate the Electric System on behalf of the City and under the direction of said court, and by and with the approval of said court, to fix and charge rates and collect revenues sufficient to provide for the payment of the Bonds or other obligations outstanding against the revenues of the Electric System and for the payment of the expenses of administering, operating and maintaining the Electric System and to apply the income and revenues of the Electric System in conformity with Act 94 and this Ordinance.

The holder of the Bonds shall have all the rights and remedies given by law including particularly Act 94 for the enforcement of the City's obligations under this Ordinance and in the Bonds.

Section 18. Management of System. The management and operation of the System shall be under the control of the Board. The Board in accordance with the provisions of the charter of the City may employ such persons in such capacities as it deems advisable to carry on the efficient management and operation of the Electric System. The Board in accordance with the provisions of the charter of the City may make such rules and regulations as it deems advisable and necessary to assure the efficient management and operation of the Electric System.

Section 19. Creation of Improvement Fund. Prior to delivery of the Bonds, there shall be established and maintained on the books of the City's DL&P a separate account designated the "Electric Supply System Revenue Bonds, Series 2020 - Improvement Fund" (the "Improvement Fund").

Section 20. Proceeds of Bond Sale. The proceeds of the Bonds to the extent advanced to the City shall be deposited in the Improvement Fund. Said moneys shall be used solely for the purpose for which the Bonds were issued.

Upon completion of the Improvements and disposition of any remaining proceeds of the Bonds, the Improvement Fund shall be closed.

Section 21. Replacement of Bonds. Upon receipt by the City Treasurer or other paying agent designated by the City Manager or his designee of proof of ownership of the Bond the principal of which has not been fully paid and of satisfactory evidence that the Bond has been lost, apparently destroyed or wrongfully taken and of security or indemnity which complies with applicable law and is satisfactory to the City Treasurer or other paying agent designated by the

City Manager or his designee, the City Treasurer or other paying agent designated by the City Manager or his designee may authorize the delivery of a new executed bond to replace the Bond lost, apparently destroyed or wrongfully taken in compliance with applicable law. In the event the Bond is lost, apparently destroyed or wrongfully taken, the City Treasurer or other paying agent designated by the City Manager or his designee may authorize payment of the Bond without presentation upon the receipt of the same documentation required for the delivery of a replacement bond. The City Treasurer or other paying agent designated by the City Manager or his designee, for each new bond delivered or paid without presentation as provided above, shall require the payment of expenses, including counsel fees, which may be incurred by City Treasurer or other paying agent designated by the City Manager or his designee and the City in the premises. Any bond delivered pursuant to the provisions of this Section 21 in lieu of any bond lost, apparently destroyed or wrongfully taken shall be of the same form and tenor and be secured in the same manner as the Bond in substitution for which such bond was delivered.

Section 22. Investment of Funds. Moneys in the funds and accounts established herein, and moneys derived from the proceeds of the sale of the Bonds may be invested in investments permitted by Section 24 of Act 94. Investment of moneys in the Bond and Interest Redemption Fund, if any, being accumulated for payment of the next maturing principal or interest payment on the Bonds shall be limited to direct obligations of (including obligations issued or held in book entry form on the books of) the United States of America bearing maturity dates prior to the date of the next maturity, principal or interest payments respectively on the Bonds. Investment of moneys in any other funds or accounts, including moneys derived from the proceeds of the sale of the Bonds, shall be limited to obligations bearing maturity dates or subject to redemption, at the option of the holder thereof, not later than the time estimated by the

City when the moneys from such investments will be required. All investments shall be subject to applicable limitations imposed by arbitrage regulations, including proposed and temporary regulations, issued pursuant to Section 103(c) of the Internal Revenue Code of 1986, as amended (the "Code"), and Section 148 of the Code. Any securities representing investments shall be kept on deposit with the bank or trust company having on deposit the fund or funds or account from which such purchase was made. Earnings or profits on any investment of funds in any fund or account established in this ordinance shall be deposited in or credited to the fund or account to which the investment belongs unless otherwise provided in this ordinance.

Section 23. Rates and Charges. The City shall establish and maintain rates and charges for the services of the Electric System in an amount sufficient to pay (1) the expenses of administration and the costs of operation and maintenance of the Electric System; (ii) principal of and interest on the Bonds and any such additional bonds issued pursuant to this Ordinance and Act 94; and (iii) the cost of replacement, repairs and improvements to the Electric System and the cost of all other requirements provided herein, and otherwise comply with the covenants herein provided including specifically the covenant contained in Section 15 hereof. The rates and charges for all services and facilities rendered by the Electric System shall be reasonable and just, taking into consideration the costs and value of the Electric System and the cost of administering, operating and maintaining the same and the amounts necessary for the retirement of all the bonds and accrued interest on all the bonds, and there shall be charged such rates and charges as shall be adequate to meet the requirements of this Ordinance.

Section 24. Lien. By Section 21 of Act 94 and this Ordinance, the rates and charges for services furnished by the Electric System are made liens thereon, and those rates and charges delinquent for six months or more shall be certified by the City annually on March 1 of each year to

the City tax assessing officer who shall enter the same upon the next tax roll against the premises to which the service shall have been rendered, and the rates and charges shall be collected and the lien shall be enforced in the same manner as provided for the collection of taxes assessed upon such roll and the enforcement of the lien therefor. However, in all cases where a tenant is responsible for the payment of the charges and the City is so notified in writing (including a true copy of any lease), then the charges shall not become a lien against the premises from and after the date of the notice. From and after such notice, no further service shall be rendered to the premises until a cash deposit of not less than three months' service shall have been made as security for payment of the charges.

Section 25. No Free Service. No free service shall be furnished by the Electric System to the City or to any individual, firm or corporation, public or private, or to any agency or instrumentality.

Section 26. Covenants. The City covenants and agrees, so long as any of the Bonds remain outstanding, as follows:

A. That, with reference to the Electric System, it will punctually perform or cause to be performed all duties and comply with applicable State laws, rules and regulations and continually operate and maintain the Electric System in good condition.

B. That it will not sell, lease, mortgage or in any manner dispose of the Electric System, including the Improvements, or any substantial part thereof until all bonds payable from the revenues thereof shall have been paid in full or provision has been made for the payment of such bonds.

C. That it will maintain or cause to be maintained complete books and records relating to the operation of the Electric System and its financial affairs and will cause such books and

records to be audited annually at the end of each fiscal year and an audit report prepared and furnish any holder of any bonds a copy of such report upon written request.

D. That it will prepare, keep and file such records, statements and accounts as may be required by law and that it will file with the Michigan Department of Treasury each year, as soon as is possible, but not later than one hundred eighty (180) days after the close of the fiscal year, a report, made in accordance with the accounting methods of the City, completely setting forth the financial operation of such fiscal year.

E. That it will maintain and carry insurance on all physical properties of the Electric System, of the kinds and in the amounts normally carried by municipalities engaged in the operation of similar systems. All moneys received for losses under any such insurance policies shall be applied first to the repair, replacement and restoration of the property damaged or destroyed.

Section 27. Refunding Bonds. The City shall have the power to issue refunding bonds pursuant to Act 94 and other applicable law to refund all or part of the Bonds if otherwise permitted by law.

Section 28. Ordinance Shall Constitute Contract. The provisions of this Ordinance shall constitute a contract between the City and the holder of the Bonds and after the issuance of such Bonds this Ordinance shall not be repealed or amended in any respect which will adversely affect the rights and interests of the holders of the Bonds, nor shall the City adopt any law, ordinance or resolution which in any way adversely affects the rights of the holder of the Bonds so long as the Bonds or interest thereon remains outstanding.

Section 29. Default of City. If there shall be a default in this Ordinance or in the payment of principal of or interest on any of the Bonds, upon the filing of a suit by the holder of the Bonds, any court having jurisdiction of the action may appoint a receiver to administer the Electric System

on behalf of the City with power to charge and collect rates and charges sufficient to provide for the payment of principal of and interest on the Bonds and for payment of the expenses of administering, operating and maintaining the Electric System and to apply income and revenues in accordance with this Ordinance and the laws of the State.

The City hereby agrees to transfer to any bona fide receiver or other subsequent operator of the Electric System, pursuant to any valid court order in a proceeding brought to enforce collection or payment of City obligations, all contracts or other rights of the City conditionally, for such time only as such receiver or operator shall operate by authority of the court.

The holder of the Bonds in the event of default may require by mandatory injunction the raising of rates and charges in a reasonable amount.

Section 30. Exemption from Tax. The Bonds are authorized by the Constitution of the State and the statutes of the State, in particular Act 94, and are exempt from any and all taxation whatsoever by the State or by any taxing authority within the State except as to estate and gift taxes and taxes on gains realized from the sale, payment or other disposition thereof.

Section 31. Internal Revenue Code. The City has consulted with its attorneys and understands that the Code contains certain requirements on (i) the expenditure of proceeds from the sale of the Bonds, (ii) investment of the proceeds from the issuance of the Bonds and (iii) the rebate of interest earned on the investment of the proceeds of the Bonds under certain circumstances. The City hereby covenants to comply with all such applicable requirements.

Section 32. Authorization for Execution and Delivery of Documents. The Mayor, City Manager, City Clerk, City Treasurer or General Manager of City's DL&P are hereby authorized to execute and deliver such documents, certificates, agreements, instruments and other papers as may be necessary to effect the sale and delivery of the Bonds and to apply for such orders and approvals

and file such documents with any governmental agency as may be required in connection with the sale and delivery of the Bonds.

Section 33. No Recourse on the Bonds. All covenants, stipulations, promises, agreements and obligations of the City contained in this Ordinance shall be deemed to be the covenants, stipulations, promises, agreements and obligations of the City and not those of any councilmember, boardmember, officer or employee of the City in her or his individual capacity, and no recourse shall be had for the payment of the principal of or interest on the Bonds or for any claim based thereon or in this Ordinance, either jointly or severally, against any councilmember, boardmember, officer or employee of the City or any person executing the Bonds.

Section 34. Ordinance Subject to Michigan Law. The provisions of this ordinance are subject to the laws of the State.

Section 35. Operating Year of System. The operating year of the Electric System shall coincide with the fiscal year of the City which currently begins July 1 and ends June 30.

Section 36. Effect of Defeasance. Upon defeasance of the Bonds, the provisions of the Bonds with respect to redemption may remain in effect.

Section 37. Paragraph Headings. The paragraph headings in this Ordinance are furnished for convenience of reference only and shall not be considered to be a part of this Ordinance.

Section 38. Publication and Recordation. This Ordinance shall be published, promptly after its adoption, once in full in the *Lowell Ledger*, a newspaper of general circulation in the City qualified under State law to publish legal notices, and the same shall be recorded in the Ordinance Book of the City and such recording authenticated by the signatures of the Mayor and City Clerk.

Section 39. Severability. If any section, paragraph, sentence, clause or phrase of this Ordinance shall be held invalid, the same shall not affect any other part of this Ordinance.

Section 40. Conflict. All ordinances, resolutions or orders or parts thereof insofar as the same may be in conflict herewith, are hereby repealed; provided that the foregoing shall not operate to repeal any provision thereof, the repeal of which would impair the obligation on the Bonds.

Section 41. Effective Date. This Ordinance is effective immediately upon its adoption.

Michael DeVore, Mayor

ATTEST:

Susan Ullery, City Clerk

YEAS: Councilmembers _____

NAYS: Councilmembers _____

ABSTAIN: Councilmembers _____

ABSENT: Councilmembers _____

ORDINANCE DECLARED ADOPTED.

CERTIFICATION

I, the undersigned duly qualified and acting Clerk of the City, do hereby certify that the foregoing is a true and complete copy of an ordinance adopted by the City Council of the City at a regular meeting held on July 20, 2020, and that public notice of said meeting was given pursuant to Act 267 of the Public Acts of Michigan of 1976, as amended.

I further certify that said Ordinance has been recorded in the Ordinance Book of the City and such recording has been authenticated by the signatures of the Mayor and City Clerk.

Dated: July 20, 2020

Susan Ullery, City Clerk



TERM SHEET

Date:	July 6, 2020
Issue:	Draw Down Facility Electric System Utility Revenue Bonds, Series 2020 (the "Bonds")
Issuer/Borrower:	City of Lowell, County of Kent, State of Michigan ("Issuer")
Purchaser/Lender:	Huntington Public Capital Corporation ("Huntington")
Security:	Revenues of the Electric Utility System
Principal Amount:	\$995,000
Use of Proceeds:	Proceeds will be used for the purpose of constructing improvements and renovations to the Department of Light & Power building and parking lot and to pay expenses relating to the issuance of the Bonds.
Bond Counsel:	Dickinson Wright PLLC
Purchaser's Counsel:	TBD
Closing Date:	August 10, 2020 (Estimated)
Tax Status:	Qualified Tax-Exempt (Bank Qualified)
10 Year Final Maturity:	June 1, 2030
10 Year Interest Rate:	2.35%
10 Year Optional Prepayment:	Bonds maturing in the years 2021 through 2027, inclusive, shall not be subject to optional redemption prior to maturity. The Bonds, or portions of Bonds in multiples of \$5,000 maturing or subject to sinking fund redemption in the years 2028 through 2030, inclusive, shall be subject to optional redemption prior to maturity, in such order of maturity as the City shall determine and within a single maturity by lot, on any date on or after June 1, 2027, at par plus accrued interest to the date fixed for redemption.
10 Year Interest Rate with Prepayment at Any Time Without Penalty:	2.65%
10 Year Optional Prepayment At Any Time Without Penalty:	Bonds maturing in the years 2021 through 2030, inclusive, shall be subject to optional redemption prior to maturity, in such order of maturity as the City shall determine and within a single maturity by lot, on any date, at par plus accrued interest to the date fixed for redemption.
7 Year Final Maturity:	June 1, 2027
7 Year Interest Rate:	2.20%
7 Year Optional Prepayment:	Bonds maturing in the years 2021 through 2025, inclusive, shall not be subject to optional redemption prior to maturity. The Bonds, or portions of Bonds in multiples of \$5,000 maturing or subject to sinking fund redemption in the years 2026 through 2027, inclusive, shall be subject to optional redemption prior to maturity, in such order of maturity as the City shall determine and within a single maturity by lot, on any date on or after June 1, 2025, at par plus accrued interest to the date fixed for redemption.

7 Year Interest Rate with Prepayment at Any Time Without Penalty:	2.45%
7 Year Optional Prepayment At Any Time Without Penalty:	Bonds maturing in the years 2021 through 2027, inclusive, shall be subject to optional redemption prior to maturity, in such order of maturity as the City shall determine and within a single maturity by lot, on any date, at par plus accrued interest to the date fixed for redemption.
5 Year Final Maturity:	June 1, 2025
5 Year Interest Rate:	2.05%
5 Year Optional Prepayment:	Bonds maturing in the years 2021 through 2025, inclusive, shall not be subject to optional redemption prior to maturity.
5 Year Interest Rate with Prepayment at Any Time Without Penalty:	2.30%
5 Year Optional Prepayment At Any Time Without Penalty:	Bonds maturing in the years 2021 through 2025, inclusive, shall be subject to optional redemption prior to maturity, in such order of maturity as the City shall determine and within a single maturity by lot, on any date, at par plus accrued interest to the date fixed for redemption.
Rate Adjustment:	If the funding of the Bonds has not occurred by August 12, 2020, then the Interest Rate and payment will be adjusted to maintain Huntington's economics as of the date of issuing this Term Sheet.
Fee to Huntington:	None
Draw Down:	The City will be able to draw down on the Bonds as needed. The Bonds are non-revolving. The draw-downs can be requested at any time, not to exceed three draw requests per month.
Transaction Fees:	All transaction fees, including those of Bond Counsel, shall be the responsibility of the Issuer.
Interest Payments:	Due and payable semi-annually on June 1 and December 1, commencing on December 1, 2020.
Principal Payments:	Due and payable as provided in the attached estimated debt service schedule.
Direct Placement:	Huntington is extending credit as a lender in the usual course of its loan business through the purchase of the Bonds for its own account in its normal and customary business practice, with no current intention on the resale, distribution or transfer thereof.
Documentation:	Transaction documents shall be prepared by Bond Counsel, subject to review and approval by Huntington and its Purchaser's Counsel.
Paying Agent:	Not required by Huntington
Rating:	Not required by Huntington
POS/Official Statement:	Not required by Huntington
CUSIP:	Not required by Huntington

DTC Closing: Not required by Huntington

Proposal Expiration: This proposal shall expire at Huntington's option if (a) Huntington has not received the Issuer's written acceptance by August 5, 2020; and (b) if the closing date of the Bonds has not occurred by August 12, 2020.

Thank you for the opportunity to offer a proposal on this request. We appreciate your consideration and look forward to your favorable response. Should you have any questions regarding this term sheet, please do not hesitate to contact me.

Respectfully Submitted,

Meredith A. Shanle

Meredith A. Shanle, Vice President
Huntington Public Capital
Phone: 313-410-8771
Email: Meredith.A.Shanle@Huntington.com

Eric Meulenberg, Senior Vice President,
Government Banking, Huntington National Bank
Phone: 616-242-4507
Email: Eric.Meulenberg@Huntington.com

Accepted By:
City of Lowell

By

Name

Title

Date

Huntington Public Capital® ("HPC"), a division of The Huntington National Bank (the "Bank"), is providing the information contained in this document for discussion purposes only in connection with an arm's-length transaction under discussion between you and HPC. If you are a "municipal entity" or "obligated person" within the meaning of the municipal advisor rules (the "Rules") of the Securities and Exchange Commission, Rule 15Ba1-1 et seq. this information is provided to you pursuant to and in reliance upon the "bank exemption," and/or other exemptions and/or the "general information" exclusion provided under the Rules. HPC is acting for its own interest and has financial and other interests that differ from yours. HPC is not acting as a municipal advisor or financial advisor, and has no fiduciary duty, to you or any other person pursuant to the Rules. The information provided in this document is not intended to be and should not be construed as "advice" within the meaning of the Rules. HPC is not recommending that you take or refrain from taking any action with respect to the information contained in this document. Before acting on this information, you should discuss it with your own financial and/or municipal, legal, accounting, tax and other advisors as you deem appropriate. As used in this notice, the "Rules" means Section 15B of the Securities Exchange Act of 1934, the Securities and Exchange Commission's Rule 15Ba1-1, et seq., and any related municipal advisor rules of the Municipal Securities Rulemaking Board, all as they may be amended from time to time.

10 Year Estimated Debt Service Schedule

	Date	Days	Interest Rate	Total Payment	Interest Portion	Principal Portion	Outstanding Balance
Dated Date	8/10/2020						995,000.00
1	12/1/2020	111	2.35%	7,209.60	7,209.60	0.00	995,000.00
2	6/1/2021	180	2.35%	101,691.25	11,691.25	90,000.00	905,000.00
3	12/1/2021	180	2.35%	10,633.75	10,633.75	0.00	905,000.00
4	6/1/2022	180	2.35%	100,633.75	10,633.75	90,000.00	815,000.00
5	12/1/2022	180	2.35%	9,576.25	9,576.25	0.00	815,000.00
6	6/1/2023	180	2.35%	104,576.25	9,576.25	95,000.00	720,000.00
7	12/1/2023	180	2.35%	8,460.00	8,460.00	0.00	720,000.00
8	6/1/2024	180	2.35%	103,460.00	8,460.00	95,000.00	625,000.00
9	12/1/2024	180	2.35%	7,343.75	7,343.75	0.00	625,000.00
10	6/1/2025	180	2.35%	107,343.75	7,343.75	100,000.00	525,000.00
11	12/1/2025	180	2.35%	6,168.75	6,168.75	0.00	525,000.00
12	6/1/2026	180	2.35%	106,168.75	6,168.75	100,000.00	425,000.00
13	12/1/2026	180	2.35%	4,993.75	4,993.75	0.00	425,000.00
14	6/1/2027	180	2.35%	104,993.75	4,993.75	100,000.00	325,000.00
15	12/1/2027	180	2.35%	3,818.75	3,818.75	0.00	325,000.00
16	6/1/2028	180	2.35%	108,818.75	3,818.75	105,000.00	220,000.00
17	12/1/2028	180	2.35%	2,585.00	2,585.00	0.00	220,000.00
18	6/1/2029	180	2.35%	112,585.00	2,585.00	110,000.00	110,000.00
19	12/1/2029	180	2.35%	1,292.50	1,292.50	0.00	110,000.00
20	6/1/2030	180	2.35%	111,292.50	1,292.50	110,000.00	0.00
Grand Totals				1,123,645.85	128,645.85	995,000.00	

7 Year Estimated Debt Service Schedule

	Date	Days	Interest Rate	Total Payment	Interest Portion	Principal Portion	Outstanding Balance
Dated Date	8/10/2020						995,000.00
1	12/1/2020	111	2.20%	6,749.42	6,749.42	0.00	995,000.00
2	6/1/2021	180	2.20%	145,945.00	10,945.00	135,000.00	860,000.00
3	12/1/2021	180	2.20%	9,460.00	9,460.00	0.00	860,000.00
4	6/1/2022	180	2.20%	144,460.00	9,460.00	135,000.00	725,000.00
5	12/1/2022	180	2.20%	7,975.00	7,975.00	0.00	725,000.00
6	6/1/2023	180	2.20%	147,975.00	7,975.00	140,000.00	585,000.00
7	12/1/2023	180	2.20%	6,435.00	6,435.00	0.00	585,000.00
8	6/1/2024	180	2.20%	146,435.00	6,435.00	140,000.00	445,000.00
9	12/1/2024	180	2.20%	4,895.00	4,895.00	0.00	445,000.00
10	6/1/2025	180	2.20%	149,895.00	4,895.00	145,000.00	300,000.00
11	12/1/2025	180	2.20%	3,300.00	3,300.00	0.00	300,000.00
12	6/1/2026	180	2.20%	153,300.00	3,300.00	150,000.00	150,000.00
13	12/1/2026	180	2.20%	1,650.00	1,650.00	0.00	150,000.00
14	6/1/2027	180	2.20%	151,650.00	1,650.00	150,000.00	0.00
Grand Totals				1,080,124.42	85,124.42	995,000.00	

5 Year Estimated Debt Service Schedule

	Date	Days	Interest Rate	Total Payment	Interest Portion	Principal Portion	Outstanding Balance
Dated Date	8/10/2020						995,000.00
1	12/1/2020	111	2.05%	6,289.23	6,289.23	0.00	995,000.00
2	6/1/2021	180	2.05%	200,198.75	10,198.75	190,000.00	805,000.00
3	12/1/2021	180	2.05%	8,251.25	8,251.25	0.00	805,000.00
4	6/1/2022	180	2.05%	203,251.25	8,251.25	195,000.00	610,000.00
5	12/1/2022	180	2.05%	6,252.50	6,252.50	0.00	610,000.00
6	6/1/2023	180	2.05%	206,252.50	6,252.50	200,000.00	410,000.00
7	12/1/2023	180	2.05%	4,202.50	4,202.50	0.00	410,000.00
8	6/1/2024	180	2.05%	209,202.50	4,202.50	205,000.00	205,000.00
9	12/1/2024	180	2.05%	2,101.25	2,101.25	0.00	205,000.00
10	6/1/2025	180	2.05%	207,101.25	2,101.25	205,000.00	0.00
Grand Totals				1,053,102.98	58,102.98	995,000.00	

10 Year Estimated Debt Service Schedule with Prepayment at Any Time Without Penalty

	Date	Days	Interest Rate	Total Payment	Interest Portion	Principal Portion	Outstanding Balance
Dated Date	8/10/2020						995,000.00
1	12/1/2020	111	2.65%	8,129.98	8,129.98	0.00	995,000.00
2	6/1/2021	180	2.65%	103,183.75	13,183.75	90,000.00	905,000.00
3	12/1/2021	180	2.65%	11,991.25	11,991.25	0.00	905,000.00
4	6/1/2022	180	2.65%	101,991.25	11,991.25	90,000.00	815,000.00
5	12/1/2022	180	2.65%	10,798.75	10,798.75	0.00	815,000.00
6	6/1/2023	180	2.65%	105,798.75	10,798.75	95,000.00	720,000.00
7	12/1/2023	180	2.65%	9,540.00	9,540.00	0.00	720,000.00
8	6/1/2024	180	2.65%	104,540.00	9,540.00	95,000.00	625,000.00
9	12/1/2024	180	2.65%	8,281.25	8,281.25	0.00	625,000.00
10	6/1/2025	180	2.65%	108,281.25	8,281.25	100,000.00	525,000.00
11	12/1/2025	180	2.65%	6,956.25	6,956.25	0.00	525,000.00
12	6/1/2026	180	2.65%	106,956.25	6,956.25	100,000.00	425,000.00
13	12/1/2026	180	2.65%	5,631.25	5,631.25	0.00	425,000.00
14	6/1/2027	180	2.65%	105,631.25	5,631.25	100,000.00	325,000.00
15	12/1/2027	180	2.65%	4,306.25	4,306.25	0.00	325,000.00
16	6/1/2028	180	2.65%	109,306.25	4,306.25	105,000.00	220,000.00
17	12/1/2028	180	2.65%	2,915.00	2,915.00	0.00	220,000.00
18	6/1/2029	180	2.65%	112,915.00	2,915.00	110,000.00	110,000.00
19	12/1/2029	180	2.65%	1,457.50	1,457.50	0.00	110,000.00
20	6/1/2030	180	2.65%	111,457.50	1,457.50	110,000.00	0.00
Grand Totals				1,140,068.73	145,068.73	995,000.00	

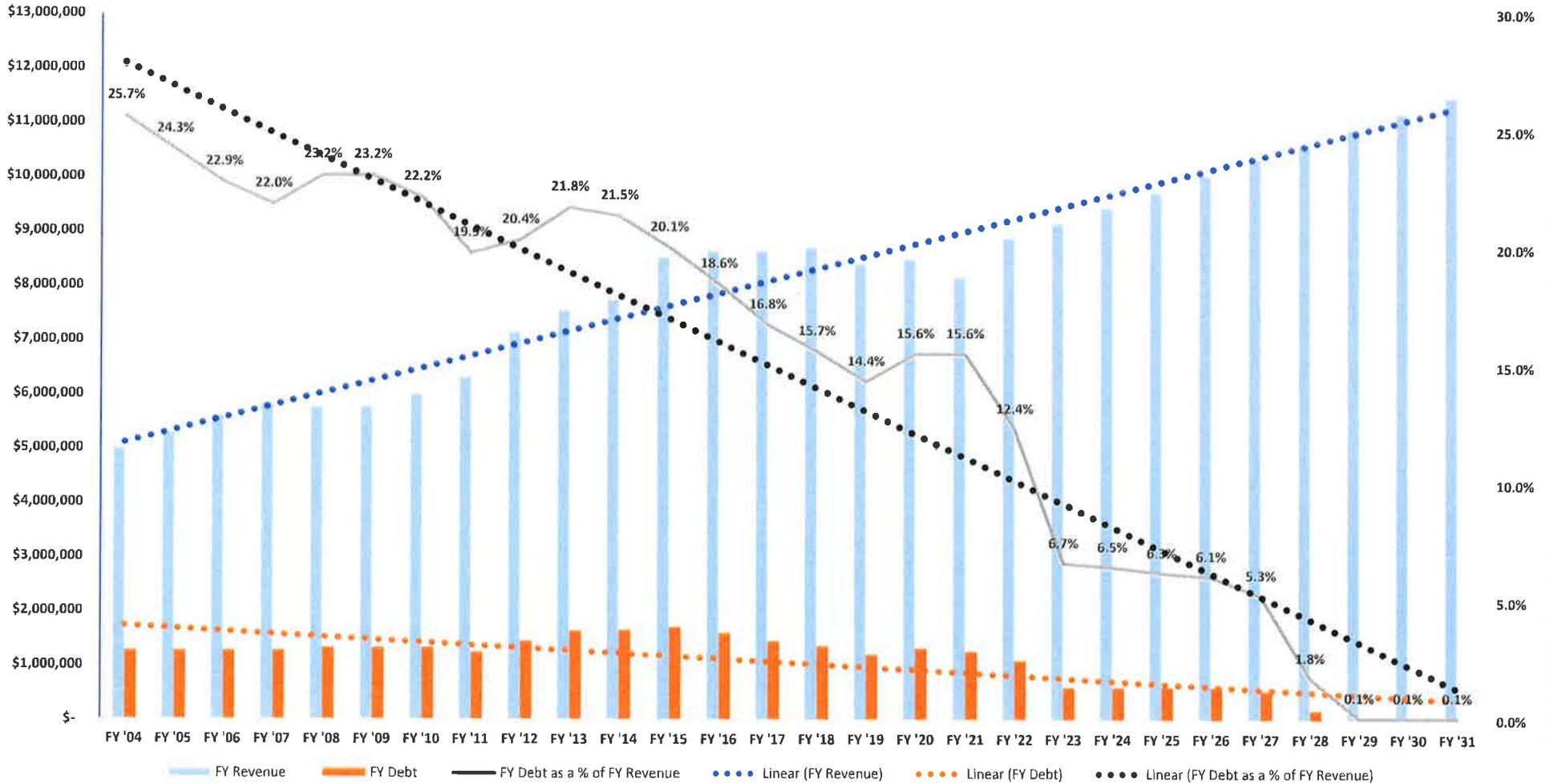
7 Year Estimated Debt Service Schedule with Prepayment at Any Time Without Penalty

	Date	Days	Interest Rate	Total Payment	Interest Portion	Principal Portion	Outstanding Balance
Dated Date	8/10/2020						995,000.00
1	12/1/2020	111	2.45%	7,516.40	7,516.40	0.00	995,000.00
2	6/1/2021	180	2.45%	147,188.75	12,188.75	135,000.00	860,000.00
3	12/1/2021	180	2.45%	10,535.00	10,535.00	0.00	860,000.00
4	6/1/2022	180	2.45%	145,535.00	10,535.00	135,000.00	725,000.00
5	12/1/2022	180	2.45%	8,881.25	8,881.25	0.00	725,000.00
6	6/1/2023	180	2.45%	148,881.25	8,881.25	140,000.00	585,000.00
7	12/1/2023	180	2.45%	7,166.25	7,166.25	0.00	585,000.00
8	6/1/2024	180	2.45%	147,166.25	7,166.25	140,000.00	445,000.00
9	12/1/2024	180	2.45%	5,451.25	5,451.25	0.00	445,000.00
10	6/1/2025	180	2.45%	150,451.25	5,451.25	145,000.00	300,000.00
11	12/1/2025	180	2.45%	3,675.00	3,675.00	0.00	300,000.00
12	6/1/2026	180	2.45%	153,675.00	3,675.00	150,000.00	150,000.00
13	12/1/2026	180	2.45%	1,837.50	1,837.50	0.00	150,000.00
14	6/1/2027	180	2.45%	151,837.50	1,837.50	150,000.00	0.00
Grand Totals				1,089,797.65	94,797.65	995,000.00	

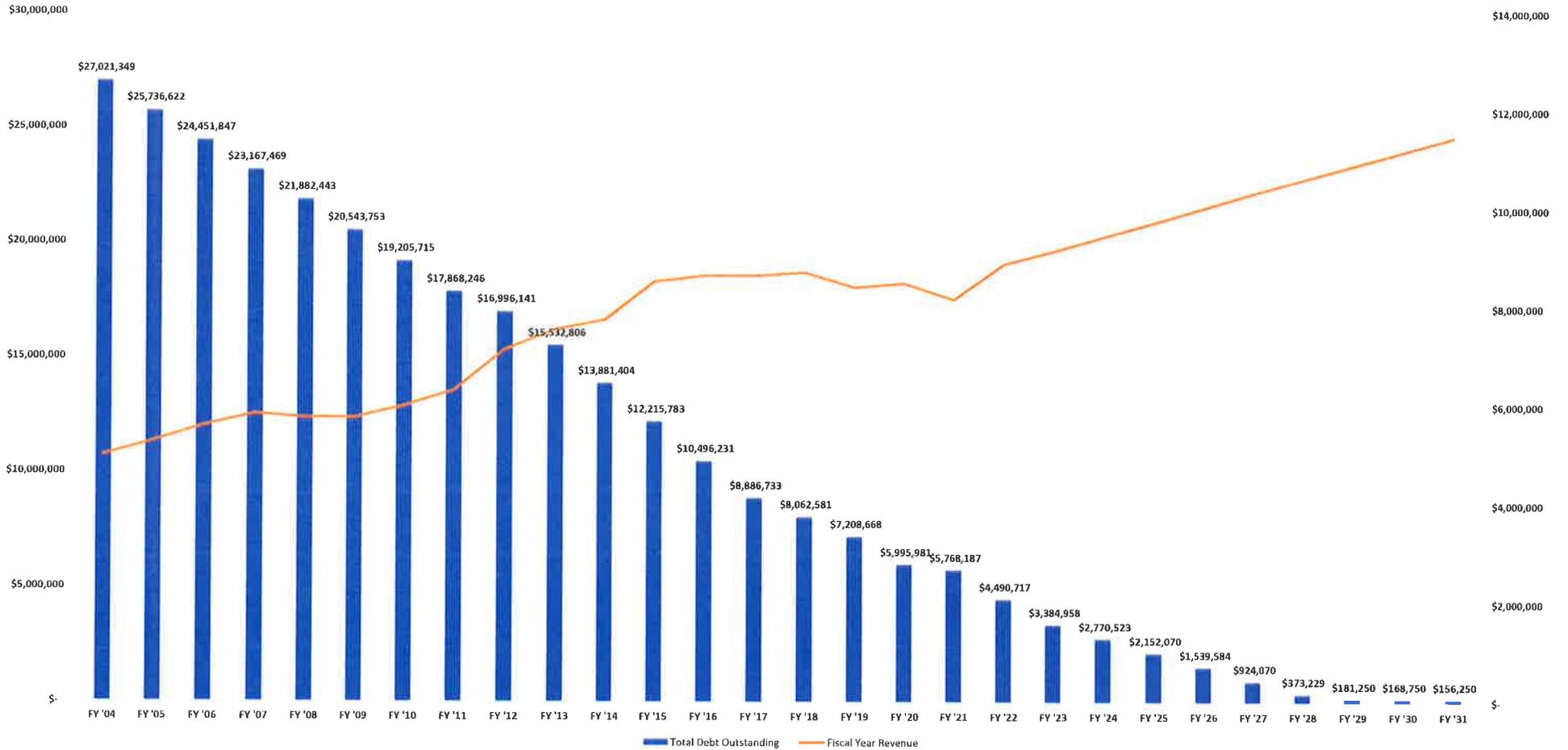
5 Year Estimated Debt Service Schedule with Prepayment at Any Time Without Penalty

	Date	Days	Interest Rate	Total Payment	Interest Portion	Principal Portion	Outstanding Balance
Dated Date	8/10/2020						995,000.00
1	12/1/2020	111	2.30%	7,056.21	7,056.21	0.00	995,000.00
2	6/1/2021	180	2.30%	201,442.50	11,442.50	190,000.00	805,000.00
3	12/1/2021	180	2.30%	9,257.50	9,257.50	0.00	805,000.00
4	6/1/2022	180	2.30%	204,257.50	9,257.50	195,000.00	610,000.00
5	12/1/2022	180	2.30%	7,015.00	7,015.00	0.00	610,000.00
6	6/1/2023	180	2.30%	207,015.00	7,015.00	200,000.00	410,000.00
7	12/1/2023	180	2.30%	4,715.00	4,715.00	0.00	410,000.00
8	6/1/2024	180	2.30%	209,715.00	4,715.00	205,000.00	205,000.00
9	12/1/2024	180	2.30%	2,357.50	2,357.50	0.00	205,000.00
10	6/1/2025	180	2.30%	207,357.50	2,357.50	205,000.00	0.00
Grand Totals				1,060,188.71	65,188.71	995,000.00	

LL&P FY Debt Payment vs. FY Revenue w/ 7 Yr Bond



LL&P Total Debt Outstanding w/ 7 Yr Bond vs. FY Revenue



LL&P Debt Schedule FY 2004-2020

	FY '04	FY '05	FY '06	FY '07	FY '08	FY '09	FY '10	FY '11	FY '12	FY '13	FY '14	FY '15	FY '16	FY '17	FY '18	FY '19	FY '20
Revenue	\$ 5,005,799	\$ 5,293,392	\$ 5,611,958	\$ 5,853,273	\$ 5,774,796	\$ 5,774,468	\$ 6,014,359	\$ 6,334,716	\$ 7,158,794	\$ 7,569,404	\$ 7,762,689	\$ 8,543,952	\$ 8,663,714	\$ 8,663,744	\$ 8,732,669	\$ 8,426,610	\$ 8,514,984
Debt																	
2012 Revenue Bonds	\$ 361,000	\$ 361,000	\$ 361,000	\$ 361,000	\$ 360,783	\$ 360,419	\$ 359,846	\$ 363,093	\$ 361,804	\$ 334,535	\$ 313,054	\$ 313,663	\$ 314,171	\$ 314,579	\$ 314,888	\$ 315,096	\$ 309,498
Compressor IPA	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 127,122	\$ 127,122	\$ 127,122
Control Panel IPA	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 58,850	\$ 175,360
Belle River Project	\$ 340,947	\$ 340,960	\$ 340,964	\$ 340,901	\$ 340,948	\$ 340,905	\$ 340,911	\$ 340,962	\$ 327,172	\$ 359,967	\$ 419,328	\$ 471,433	\$ 472,678	\$ 440,460	\$ 215,896	\$ -	\$ 3,100
Campbell 3 Project	\$ 438,942	\$ 438,998	\$ 438,799	\$ 439,499	\$ 493,183	\$ 493,080	\$ 493,079	\$ 411,877	\$ 622,292	\$ 792,648	\$ 768,802	\$ 769,432	\$ 657,640	\$ 540,064	\$ 550,436	\$ 550,054	\$ 550,027
AFEC Project	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,250	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500
Kalkaska C.T. Project	\$ 143,838	\$ 143,817	\$ 143,615	\$ 143,626	\$ 143,776	\$ 143,634	\$ 143,634	\$ 143,672	\$ 145,817	\$ 151,752	\$ 151,937	\$ 152,524	\$ 152,510	\$ 152,172	\$ 152,200	\$ 152,165	\$ 152,200
Total Debt Service Due in FY	\$ 1,284,727	\$ 1,284,775	\$ 1,284,378	\$ 1,285,026	\$ 1,338,690	\$ 1,338,038	\$ 1,337,470	\$ 1,259,604	\$ 1,463,335	\$ 1,651,402	\$ 1,665,621	\$ 1,719,552	\$ 1,609,499	\$ 1,459,775	\$ 1,373,042	\$ 1,215,787	\$ 1,329,808
Debt as % of Revenue	25.7%	24.3%	22.9%	22.0%	23.2%	23.2%	22.2%	19.9%	20.4%	21.8%	21.5%	20.1%	18.6%	16.8%	15.7%	14.4%	15.6%
Total Debt Outstanding	\$ 27,021,349	\$ 25,736,622	\$ 24,451,847	\$ 23,167,469	\$ 21,882,443	\$ 20,543,753	\$ 19,205,715	\$ 17,868,246	\$ 16,996,141	\$ 15,532,806	\$ 13,881,404	\$ 12,215,783	\$ 10,496,231	\$ 8,886,733	\$ 8,062,581	\$ 7,208,668	\$ 5,995,981

Projected LL&P Debt Schedule FY 2021-2043

	FY '21	FY '22	FY '23	FY '24	FY '25	FY '26	FY '27	FY '28	FY '29	FY '30	FY '31	FY 2032-2043
Revenue	\$ 8,185,010	\$ 8,907,587	\$ 9,175,436	\$ 9,464,271	\$ 9,756,770	\$ 10,054,265	\$ 10,357,213	\$ 10,632,559	\$ 10,912,659	\$ 11,198,678	\$ 11,490,134	N/A
Debt												
2012 Revenue Bonds	\$ 312,540	\$ 311,018	\$ 312,867	\$ 314,792	\$ 311,833	\$ 312,879	\$ 314,054	\$ 26,179	\$ -	\$ -	\$ -	\$ -
Compressor IPA	\$ 127,122	\$ 127,134	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Control Panel IPA	\$ 171,974	\$ 112,945	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Belle River Project	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Campbell 3 Project	\$ 500,238	\$ 250,020	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
AFEC Project	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 143,750
Kalkaska C.T. Project	\$ 135,402	\$ 135,254	\$ 135,148	\$ 135,211	\$ 135,282	\$ 135,345	\$ 67,687	\$ -	\$ -	\$ -	\$ -	\$ -
10 Yr Revenue Bond	\$ 18,901	\$ 113,383	\$ 111,268	\$ 114,153	\$ 111,920	\$ 114,688	\$ 112,338	\$ 109,988	\$ 112,638	\$ 115,170	\$ 112,585	\$ -
7 Yr Revenue Bond	\$ 17,694	\$ 156,890	\$ 153,920	\$ 155,950	\$ 152,870	\$ 154,790	\$ 156,600	\$ 153,300	\$ -	\$ -	\$ -	\$ -
5 Yr Revenue Bond	\$ 16,488	\$ 210,398	\$ 211,503	\$ 212,505	\$ 213,405	\$ 209,203	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Debt Service Due In FY w/ 10 Yr Bond	\$ 1,278,677	\$ 1,062,252	\$ 571,782	\$ 576,656	\$ 571,535	\$ 575,412	\$ 506,578	\$ 148,667	\$ 125,138	\$ 127,670	\$ 125,085	\$ 143,750
Total Debt Service Due in FY w/ 7 Yr Bond	\$ 1,277,470	\$ 1,105,760	\$ 614,435	\$ 618,453	\$ 612,485	\$ 615,514	\$ 550,841	\$ 191,979	\$ 12,500	\$ 12,500	\$ 12,500	\$ 143,750
Total Debt Service Due in FY w/ 5 Yr Bond	\$ 1,276,264	\$ 1,159,267	\$ 672,017	\$ 675,008	\$ 673,020	\$ 669,927	\$ 394,241	\$ 38,679	\$ 12,500	\$ 12,500	\$ 12,500	\$ 143,750
Total Debt Outstanding w/ 10 Yr Bond	\$ 5,813,201	\$ 4,534,525	\$ 3,472,273	\$ 2,900,490	\$ 2,323,835	\$ 1,752,299	\$ 1,176,888	\$ 670,309	\$ 521,643	\$ 396,505	\$ 268,835	\$ 143,750
Total Debt Outstanding w/ 7 Yr Bond	\$ 5,768,187	\$ 4,490,717	\$ 3,384,958	\$ 2,770,523	\$ 2,152,070	\$ 1,539,584	\$ 924,070	\$ 373,229	\$ 181,250	\$ 168,750	\$ 156,250	\$ 143,750
Total Debt Outstanding w/ 5 Yr Bond	\$ 5,739,674	\$ 4,463,410	\$ 3,304,143	\$ 2,632,125	\$ 1,957,117	\$ 1,284,097	\$ 614,170	\$ 219,929	\$ 181,250	\$ 168,750	\$ 156,250	\$ 143,750
Debt as % of Revenue w/ 10 Yr	15.6%	11.9%	6.2%	6.1%	5.9%	5.7%	4.9%	1.4%	1.1%	1.1%	1.1%	N/A
Debt as % of Revenue w/ 7 Yr	15.6%	12.4%	6.7%	6.5%	6.3%	6.1%	5.3%	1.8%	0.1%	0.1%	0.1%	N/A
Debt as % of Revenue w/ 5 Yr	15.6%	13.0%	7.3%	7.1%	6.9%	6.7%	3.8%	0.4%	0.1%	0.1%	0.1%	N/A

LOWELL CITY ADMINISTRATION
INTER OFFICE MEMORANDUM



DATE: July 16, 2020
TO: Mayor DeVore and the Lowell City Council
FROM: Michael T. Burns, City Manager *MB*
RE: Vacation Days Accrued

During May, the Classification and Compensation study was presented for your review. One of the items suggested to consider was the amount of vacation time accrued for the longer serving non-union and department directors. For many years, once you reached your twelfth year of service, an individual received 20 days of vacation. However, it did not increase beyond that amount if you had additional years of service.

In the reopener to the recently expired IBEW collective bargaining agreement and the Lowell Police Officers collective bargaining agreement, the City agreed to the additional amount of days as follows:

20 years of service – 21 days
21 years of service – 22 days
22 years of service – 23 days
23 years of service – 24 days
24 years of service – 25 days

I am requesting this same benefit be provided to the non-union and department director staff. This would in no way change the amount of vacation time employees can cash out once they sever employment with the City of Lowell. The City of Lowell allows employees to cash out no greater than 20 days vacation time when they leave the City. I am not recommending any changes to this procedure.

I recommend the Lowell City Council approve the above listed increase to vacation days based on years of service for non-union and department director employees.

LOWELL CITY ADMINISTRATION
INTER OFFICE MEMORANDUM



DATE: July 16, 2020
TO: Mayor DeVore and the Lowell City Council
FROM: Michael T. Burns, City Manager MB
RE: CARES ACT – Hazard Pay

The City of Lowell is eligible to seek reimbursement for Hazard Pay for our Police Officers if we so choose. This would allow for each full time and part time officer to receive \$1,000 in hazard pay from the City who would thereby be reimbursed from the State of Michigan through a \$100,000,000 allocation from the CARES Act. There are some issues which would need to be addressed if we were to proceed with this.

The first issue is, the City must actually provide the Hazard Pay prior to filing for reimbursement. At this time, there is no contractual obligation to provide this in our collective bargaining agreement with our full time police officers. Also, there is not a budget allocation for this. If we were to proceed with this, it would be an \$11,000 expenditure to account for eleven officers who worked since March 1, 2020 during the pandemic.

The second issue is this Cares Act reimbursement is first come first serve. I was informed of this program on July 3rd and participated in the webinar on July 9th. The first application period began on July 7, 2020 and expired on Friday July 17, 2020 for April and May payments. Since I did not have authority to participate I did not apply before the July 17th deadline. There is supposed to be a second wave of applications before the program deadline expires on September 30, 2020.

What I would like to do if given authority to do so, is wait until the second application period begins and immediately provide the bonus. The next day, I would file the application with the Michigan Department of Treasury seeking reimbursement. Now there is always a risk of not receiving the funds because they were depleted.

Since these funds are something we are eligible to participate in, I would like to move forward and obtain these funds for our officers.

I am recommending the City of Lowell apply for the Hazard Pay reimbursement in the matter I described.



Lowell Area Fire and
Emergency Services Authority
Lowell Area Fire Department
315 S. Hudson St. Lowell, MI 49331
616-897-7354

Tuesday, July 07, 2020

Fire Authority Board:

We responded to 78 total incidents for the month of June.

We are training with the new boat and hope to have it in service shortly.

We are continuing to follow county, state and CDC guidelines for COVID-19.

We will be meeting with the county in July to start specking the new truck.

The three members we have taking the medical training are doing well and should be wrapping things up very soon.

Shannon, Corey and I are reviewing all reports.

Please feel free to contact me at (616) 648-1478 with any questions or concerns.

Respectfully, Ron van Overbeek

Fire Chief, Lowell Area Fire Dept.

CITY OF LOWELL
REPORT FOR: JUNE
FOR: Michael Burns

DRINKING WATER TREATMENT AND FILTRATION PLANT

A TOTAL OF: 28.3632 MILLION GALLONS OF RAW WATER WAS TREATED FOR THE
MONTH OF: JUNE TOTAL PUMPING TIME, TREATMENT AND THE DISTRIBUTION
OF THE FINISHED WATER TO THE SYSTEM REQUIRED 413.5 HOURS, WHICH RESULTED IN
519.75 MAN HOURS FOR THE OPERATION.

CHEMICAL COST PER MILLION GALLONS: \$ 125.75

ELECTRICAL COST PER MILLION GALLONS: \$ 198.34

TOTAL COST PER MILLION GALLONS: \$ 324.09

WATER PRODUCTION

DAILY AVERAGE: 0.945 MILLION GALLONS

DAILY MAXIMUM: 1.208 MILLION GALLONS

DAILY MINIMUM: 0.648 MILLION GALLONS

THE AVERAGE PLANT OPERATION TIME WAS 13.339 HOURS PER DAY.

Lowell Area Fire Dept.

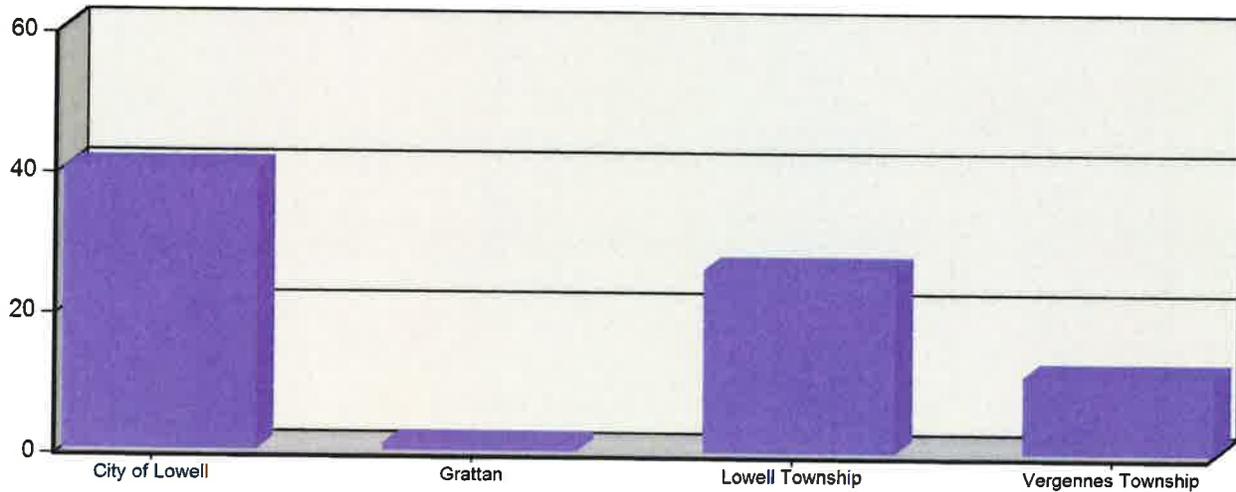
Lowell, MI

This report was generated on 7/1/2020 10:55:34 AM



Incident Count per Zone for Date Range

Start Date: 06/01/2020 | End Date: 06/30/2020



ZONE	# INCIDENTS
City of Lowell - City	40
Grattan - Grattan Township	1
Lowell Township - Lowell Township	26
Vergennes Township - Vergennes Township	11
TOTAL:	78

Zone information is defined on the Basic Info 3 screen of an incident. Only REVIEWED incidents included. Archived Zones cannot be unarchived.

Lowell Area Fire Dept.



Lowell, MI

This report was generated on 7/1/2020 10:53:46 AM

Incident Count with Man-Hours per Zone for Date Range

Start Date: 06/01/2020 | End Date: 06/30/2020

ZONE	INCIDENT COUNT	MAN-HOURS
City of Lowell - City	40	38:27
Grattan - Grattan Township	1	0:50
Lowell Township - Lowell Township	26	26:49
Vergennes Township - Vergennes Township	11	20:24
TOTAL	78	86:30

NOTE that this report takes into consideration ONLY those Personnel that are associated with an Apparatus, and that only Reviewed incidents are included in the counts.

Lowell Area Fire Dept.

Lowell, MI

This report was generated on 7/1/2020 10:54:34 AM



Incident Count per User-Defined Fields for Date Range

Start Date: 06/01/2020 | End Date: 06/30/2020

ANSWERS	# INCIDENTS
USER-DEFINED FIELD: SCBA (Required)	
0	77
6	1

USER-DEFINED FIELD: Hose 1.5 inch Feet used (Required)	
0	77
100	1

USER-DEFINED FIELD: Hose 3 inch Feet used (Required)	
0	78

USER-DEFINED FIELD: Hose 5 inch feet used (Required)	
0	77
200	1

USER-DEFINED FIELD: Hand Tools Used (Required)	
0	74
gas monitor, tic	1
gas monitors, 2	1
Haligan,bolt cutter and Thermal Imaging camera	1
TIC,Flashlight,	1

USER-DEFINED FIELD: Rescue Tools Used (Required)	
0	77
rescue thow rope and rescue boat	1

USER-DEFINED FIELD: Water used (gal) (Required)	
0	76
1000	1
265	1

USER-DEFINED FIELD: LUCAS (Required)	
NO	77
Yes	1

Only User-Defined values selected in the CUSTOM field of an incident Included. Only REVIEWED incidents included in count.

Lowell Area Fire Dept.

Lowell, MI

This report was generated on 7/1/2020 10:56:05 AM



Basic Incident Info with Number of Responding Apparatus and Personnel for Date Range

Start Date: 06/01/2020 | End Date: 06/30/2020

DATE	INCIDENT #	ADDRESS	INCIDENT TYPE	SHIFT	ZONE	# APP.	# PERS.
06/01/2020	2020-322		600 - Good intent call, other		Lowell Township - Lowell Township	1	7
06/01/2020	2020-323		321 - EMS call, excluding vehicle accident with injury		City of Lowell - City	1	8
06/02/2020	2020-324		321 - EMS call, excluding vehicle accident with injury		City of Lowell - City	1	4
06/02/2020	2020-325		321 - EMS call, excluding vehicle accident with injury		Lowell Township - Lowell Township	1	6
06/03/2020	2020-326		321 - EMS call, excluding vehicle accident with injury		City of Lowell - City	3	6
06/04/2020	2020-327		321 - EMS call, excluding vehicle accident with injury		City of Lowell - City	1	3
06/04/2020	2020-328		321 - EMS call, excluding vehicle accident with injury		Lowell Township - Lowell Township	1	7
06/04/2020	2020-329		600 - Good intent call, other		City of Lowell - City	1	3
06/04/2020	2020-330		321 - EMS call, excluding vehicle accident with injury		Vergennes Township - Vergennes Township	1	4
06/04/2020	2020-331		321 - EMS call, excluding vehicle accident with injury		Lowell Township - Lowell Township	1	4
06/05/2020	2020-332		321 - EMS call, excluding vehicle accident with injury		City of Lowell - City	1	4
06/05/2020	2020-333		424 - Carbon monoxide incident		Vergennes Township - Vergennes Township	1	2
06/05/2020	2020-334		321 - EMS call, excluding vehicle accident with injury		Lowell Township - Lowell Township	1	4
06/05/2020	2020-335		611 - Dispatched & cancelled en route		City of Lowell - City	1	3

Only REVIEWED incidents included.

DATE	INCIDENT #	ADDRESS	INCIDENT TYPE	SHIFT	ZONE	# APP.	# PERS.
06/06/2020	2020-336		611 - Dispatched & cancelled en route		City of Lowell - City	2	5
06/06/2020	2020-337		444 - Power line down		Lowell Township - Lowell Township	2	8
06/07/2020	2020-338		321 - EMS call, excluding vehicle accident with injury		City of Lowell - City	1	8
06/08/2020	2020-339		321 - EMS call, excluding vehicle accident with injury		City of Lowell - City	1	5
06/08/2020	2020-340		444 - Power line down		Lowell Township - Lowell Township	3	7
06/09/2020	2020-341		321 - EMS call, excluding vehicle accident with injury		Lowell Township - Lowell Township	1	3
06/09/2020	2020-342		360 - Water & ice-related rescue, other		City of Lowell - City	5	8
06/09/2020	2020-343		321 - EMS call, excluding vehicle accident with injury		Lowell Township - Lowell Township	2	6
06/10/2020	2020-344		444 - Power line down		City of Lowell - City	1	4
06/10/2020	2020-345		321 - EMS call, excluding vehicle accident with injury		Lowell Township - Lowell Township	1	4
06/10/2020	2020-346		522 - Water or steam leak		Lowell Township - Lowell Township	2	4
06/10/2020	2020-347		444 - Power line down		Lowell Township - Lowell Township	1	3
06/10/2020	2020-348		321 - EMS call, excluding vehicle accident with injury		City of Lowell - City	2	4
06/10/2020	2020-349		440 - Electrical wiring/equipment problem, other		Vergennes Township - Vergennes Township	3	8
06/11/2020	2020-350		321 - EMS call, excluding vehicle accident with injury		Lowell Township - Lowell Township	1	3
06/11/2020	2020-351		611 - Dispatched & cancelled en route		City of Lowell - City	1	5
06/12/2020	2020-352		321 - EMS call, excluding vehicle accident with injury		City of Lowell - City	1	2
06/12/2020	2020-353		611 - Dispatched & cancelled en route		Vergennes Township - Vergennes Township	1	2

Only REVIEWED incidents included.

DATE	INCIDENT #	ADDRESS	INCIDENT TYPE	SHIFT	ZONE	# APP.	# PERS.
06/14/2020	2020-354		600 - Good intent call, other		City of Lowell - City	1	5
06/14/2020	2020-355		611 - Dispatched & cancelled en route		City of Lowell - City	1	4
06/14/2020	2020-356		321 - EMS call, excluding vehicle accident with injury		City of Lowell - City	1	6
06/15/2020	2020-357		321 - EMS call, excluding vehicle accident with injury		Lowell Township - Lowell Township	3	6
06/16/2020	2020-358		321 - EMS call, excluding vehicle accident with injury		City of Lowell - City	1	1
06/16/2020	2020-359		611 - Dispatched & cancelled en route		City of Lowell - City	2	4
06/16/2020	2020-360		321 - EMS call, excluding vehicle accident with injury		Lowell Township - Lowell Township	1	5
06/16/2020	2020-361		611 - Dispatched & cancelled en route		City of Lowell - City	1	4
06/17/2020	2020-362		321 - EMS call, excluding vehicle accident with injury		Lowell Township - Lowell Township	1	3
06/17/2020	2020-363		733 - Smoke detector activation due to malfunction		Lowell Township - Lowell Township	1	4
06/17/2020	2020-364		600 - Good intent call, other		City of Lowell - City	1	4
06/17/2020	2020-365		131 - Passenger vehicle fire		City of Lowell - City	4	8
06/18/2020	2020-366		321 - EMS call, excluding vehicle accident with injury		City of Lowell - City	1	3
06/18/2020	2020-367		611 - Dispatched & cancelled en route		Lowell Township - Lowell Township	1	1
06/18/2020	2020-368		611 - Dispatched & cancelled en route		City of Lowell - City	1	3
06/19/2020	2020-369		611 - Dispatched & cancelled en route		Lowell Township - Lowell Township	1	8
06/19/2020	2020-370		711 - Municipal alarm system, malicious false alarm		City of Lowell - City	1	2
06/19/2020	2020-371		611 - Dispatched & cancelled en route		City of Lowell - City	1	5

Only REVIEWED incidents included.

DATE	INCIDENT #	ADDRESS	INCIDENT TYPE	SHIFT	ZONE	# APP.	# PERS.
06/19/2020	2020-372		321 - EMS call, excluding vehicle accident with injury		Lowell Township - Lowell Township	1	2
06/19/2020	2020-373		321 - EMS call, excluding vehicle accident with injury		City of Lowell - City	2	6
06/20/2020	2020-374		321 - EMS call, excluding vehicle accident with injury		Lowell Township - Lowell Township	1	7
06/20/2020	2020-375		444 - Power line down		City of Lowell - City	3	4
06/20/2020	2020-376		611 - Dispatched & cancelled en route		Vergennes Township - Vergennes Township	2	7
06/21/2020	2020-377		321 - EMS call, excluding vehicle accident with injury		Lowell Township - Lowell Township	1	5
06/21/2020	2020-378		321 - EMS call, excluding vehicle accident with injury		Vergennes Township - Vergennes Township	2	4
06/21/2020	2020-379		321 - EMS call, excluding vehicle accident with injury		Vergennes Township - Vergennes Township	2	2
06/21/2020	2020-380		631 - Authorized controlled burning		City of Lowell - City	1	5
06/22/2020	2020-381		321 - EMS call, excluding vehicle accident with injury		City of Lowell - City	1	2
06/22/2020	2020-382		321 - EMS call, excluding vehicle accident with injury		Vergennes Township - Vergennes Township	1	2
06/22/2020	2020-383		321 - EMS call, excluding vehicle accident with injury		Lowell Township - Lowell Township	1	6
06/24/2020	2020-384		444 - Power line down		Lowell Township - Lowell Township	3	5
06/25/2020	2020-385		611 - Dispatched & cancelled en route		Grattan - Grattan Township	2	11
06/26/2020	2020-386		611 - Dispatched & cancelled en route		Lowell Township - Lowell Township	1	2
06/26/2020	2020-387		611 - Dispatched & cancelled en route		City of Lowell - City	1	2
06/26/2020	2020-388		321 - EMS call, excluding vehicle accident with injury		City of Lowell - City	1	3
06/26/2020	2020-389		321 - EMS call, excluding vehicle accident with injury		City of Lowell - City	1	5

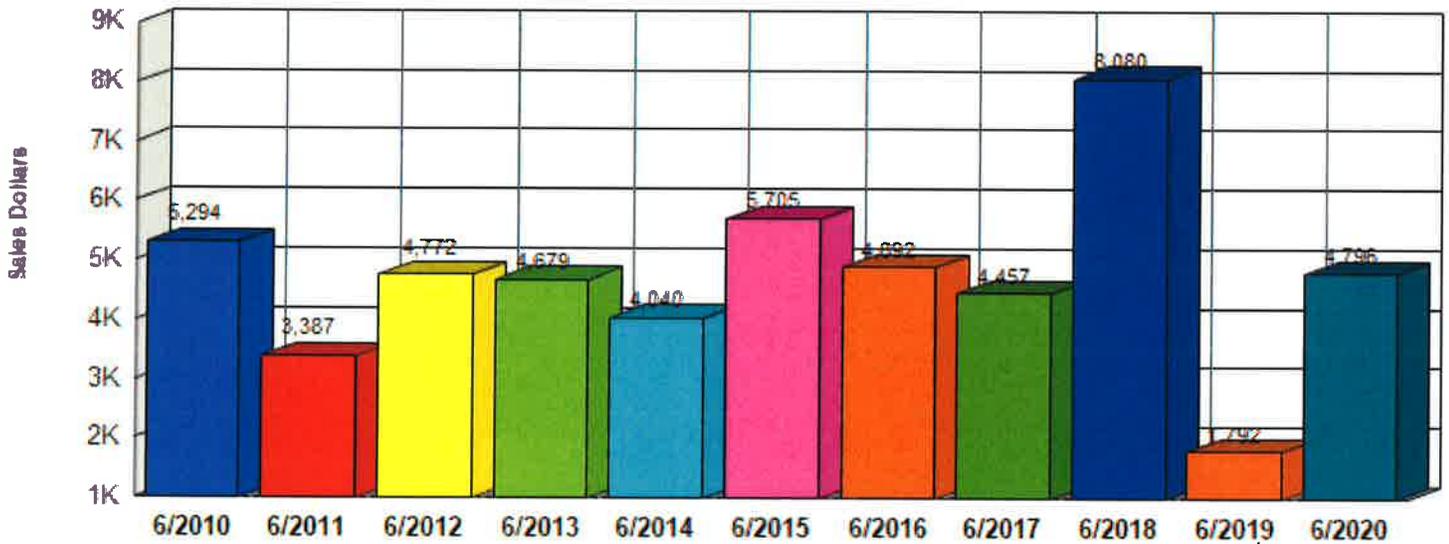
Only REVIEWED incidents included.

DATE	INCIDENT #	ADDRESS	INCIDENT TYPE	SHIFT	ZONE	# APP.	# PERS.
06/27/2020	2020-390		745 - Alarm system activation, no fire - unintentional		City of Lowell - City	1	3
06/27/2020	2020-391		321 - EMS call, excluding vehicle accident with injury		City of Lowell - City	1	5
06/27/2020	2020-392		321 - EMS call, excluding vehicle accident with injury		Lowell Township - Lowell Township	1	3
06/28/2020	2020-393		740 - Unintentional transmission of alarm, other		City of Lowell - City	1	3
06/28/2020	2020-394		321 - EMS call, excluding vehicle accident with injury		Vergennes Township - Vergennes Township	1	8
06/28/2020	2020-395		321 - EMS call, excluding vehicle accident with injury		Vergennes Township - Vergennes Township	3	11
06/29/2020	2020-396		611 - Dispatched & cancelled en route		City of Lowell - City	1	4
06/29/2020	2020-397		321 - EMS call, excluding vehicle accident with injury		City of Lowell - City	1	2
06/30/2020	2020-398		611 - Dispatched & cancelled en route		City of Lowell - City	1	4
06/30/2020	2020-399		321 - EMS call, excluding vehicle accident with injury		Vergennes Township - Vergennes Township	2	4

TOTAL # INCIDENTS: 78

Only REVIEWED incidents included.

<u>Month & Year</u>	<u>Avg. RO</u>	<u>Car Count</u>	<u>Sales Amount</u>	<u>Avg. Labor</u>	<u>Total Labor</u>	<u>Avg. Parts</u>	<u>Total Parts</u>
6/2010	529.39	10	5,293.90	414.64	4,146.40	109.10	1,090.95
6/2011	338.75	10	3,387.49	158.32	1,583.18	173.49	1,734.90
6/2012	367.09	13	4,772.14	323.08	4,200.00	38.13	495.64
6/2013	425.35	11	4,678.81	250.30	2,753.31	165.45	1,819.95
6/2014	310.80	13	4,040.38	156.31	2,032.00	147.83	1,921.78
6/2015	475.40	12	5,704.84	262.91	3,154.95	204.93	2,459.14
6/2016	444.73	11	4,892.02	233.26	2,565.85	206.53	2,271.87
6/2017	371.38	12	4,456.56	255.58	3,067.00	107.75	1,292.96
6/2018	384.76	21	8,079.87	150.33	3,156.96	228.35	4,795.41
6/2019	223.95	8	1,791.58	215.80	1,726.42	0.00	0.00
6/2020	685.14	7	4,795.98	615.14	4,305.98	62.42	436.91
Totals:		128	51,893.57		\$32,692.05		\$18,319.51



Note: Labor and Part columns do not include Shop Supplies or Hazmat

Dept. of Public Works, City of Lowell

217 S. Hudson

Lowell, MI 49331

Phone: 616-897-5929 Fax: 616- -

Posted Totals by Invoice Number

Report Date: 07/14/2020

Period From: 06/01/2020 To: 06/30/2020

Invoice Number	Date	Name	Tax	Total	Balance Due
001562	06/18/2020	Equipment	0.00	291.09	157.50
001563	06/29/2020	Water Distribution	0.00	30.60	338.14
001564	06/09/2020	Equipment	0.00	500.93	157.50
001565	06/22/2020	Equipment	0.00	61.98	157.50
001567	06/16/2020	Equipment	0.00	1,293.42	157.50
001568	06/18/2020	Equipment	0.00	2,580.71	157.50
001569	06/20/2020	Water Plant	0.00	37.25	
Grand Totals:			0.00	4,795.98	1,125.64
Number of Invoices:	7	* - Indicates a Counter Sale			
Averages:				\$685.14	160.81

**LOWELL PD ASSISTING OTHER AGENCIES
JUNE 2020**

20-0760	6/1/2020	DOMESTIC	KENT COUNTY	ASSIST	VERGENNES
20-0795	6/5/2020	SUSPICIOUS	KENT COUNTY	ASSIST	LOWELL TWP
20-0819	6/9/2020	CPS INVESTIGATION	CPS	ASSIST	CITY OF LOWELL
20-0832	6/12/2020	ATTEMPT TO LOCATE SUB	KENT COUNTY	ASSIST	LOWELL TWP
20-0834	6/13/2020	WELFARE CHECK	KENT COUNTY	ASSIST	LOWELL TWP
20-0853	6/16/2020	WARRANT ARREST	KENT COUNTY	BACK-UP	LOWELL TWP
20-0859	6/17/2020	CAR FIRE	LOWELL FIRE	ASSIST	CITY OF LOWELL
20-0870	6/19/2020	PI ACCIDENT	KENT COUNTY	ASSIST	LOWELL TWP
20-0882	6/20/2020	WELFARE CHECK	KENT COUNTY	ASSIST	LOWELL TWP
20-0901	6/23/2020	NOISE COMPLAINT	KENT COUNTY	ASSIST	LOWELL TWP
20-0902	6/23/2020	ALARM	KENT COUNTY	BACK-UP	VERGENNES
20-0906	6/24/2020	SUICIDE THREATS	KENT COUNTY	ASSIST	LOWELL TWP
20-0921	6/27/2020	SUSPICIOUS	KENT COUNTY	ASSIST	LOWELL TWP
20-0927	6/27/2020	SUSPICIOUS	KENT COUNTY	ASSIST	VERGENNES
20-0929	6/28/2020	PI ACCIDENT	KENT COUNTY	ASSIST	VERGENNES
20-0934	6/29/2020	ALARM	KENT COUNTY	ASSIST	LOWELL TWP
20-0944	6/30/2020	RECKLESS DRIVING	KENT COUNTY	BACK-UP	LOWELL TWP

**AGENCIES ASSISTING LOWELL PD
JUNE 2020**

20-0781	6/3/2020	INTOXICATED SUBJECT	ROCKFORD AMBULANCE	ASSISTED
20-0784	6/4/2020	PI ACCIDENT	LOWELL AMBULANCE	ASSISTED
20-0797	6/6/2020	B&E	KENT COUNTY	BACK-UP
20-0801	6/7/2020	SUICIDAL THREATS	KENT COUNTY	DISREGARDED
20-0818	6/9/2020	DISORDERLY	LOWELL FIRE	ASSISTED
20-0835	6/13/2020	DOMESTIC ASSLT	KENT COUNTY	BACK-UP
20-0844	6/14/2020	WELFARE CHECK	ROCKFORD AMBULANCE	ASSISTED
20-0845	6/14/2020	DOMESTIC ASSLT	KENT COUNTY	BACK-UP
20-0877	6/19/2020	ASSIST OTC	KENT COUNTY	BACK-UP
20-0894	6/23/2020	FAMILY TROUBLE	KENT COUNTY	BACK-UP
20-0918	6/26/2020	SUICIDE	ROCKFORD AMBULANCE	ASSISTED
20-0924	6/27/2020	WARRANT ARREST	KENT COUNTY	ASSISTED
20-0930	6/29/2020	SUICIDAL	KENT COUNTY	ASSISTED

**MONTHLY COMPARISON TOTALS
FOR THE YEARS 2019 AND 2020**

ACTIVITY	June	2019 YEAR-TO-DATE	June	2020 YEAR-TO-DATE
Total Arrests	10	86	5	47
Alcohol (MIP/Open Intox)	0	3	1	3
Drug Law Violations	0	5	0	0
Drunk Driving	1	9	2	8
Suspended License	1	8	0	8
Warrant Arrest	4	35	1	13
Other Arrests	4	26	1	15
Assault	0	7	0	6
Assault (Verbal)	6	20	4	21
Assault (Domestic)	1	6	4	18
Assist from Other Agency	18	59	7	45
Assist to Other Agency	13	73	17	110
Assist to Citizen	21	198	26	109
Breaking & Entering	3	9	2	5
Disorderly Conduct	3	19	1	16
Dog Complaints	4	19	1	16
Larceny	9	41	6	23
Malicious Destruction	2	13	0	5
Motorist Assist	5	61	7	32
Ordinance Violations	8	20	9	37
Accident Total	6	50	3	35
{Property Damage}	6	47	2	31
{Personal Injury}	0	3	1	4
Citations Issued	17	160	6	136
Traffic Stops: Warned	77	516	36	314
# of Traffic Stops Made	88	619	40	419
TOTAL COMPLAINTS	188	1073	191	943

GL NUMBER	DESCRIPTION	2019-20 AMENDED BUDGET	YTD BALANCE 06/30/2020	ACTIVITY FOR MONTH 06/30/2020	AVAILABLE BALANCE	% BDGT USED
Fund 101 - GENERAL FUND						
Revenues						
TAXES	TAXES	2,082,750.79	2,036,722.61	72,292.72	46,028.18	97.79
STATE	STATE GRANTS	415,009.00	340,072.06	58,825.00	74,936.94	81.94
LICPER	LICENSES AND PERMITS	42,300.00	42,902.58	375.00	(602.58)	101.42
CHARGES	CHARGES FOR SERVICES	374,008.00	49,121.94	4,277.51	324,886.06	13.13
INT	INTEREST AND RENTS	15,200.00	19,272.69	4,238.52	(4,072.69)	126.79
OTHER	OTHER REVENUE	13,700.00	19,739.43	5,712.88	(6,039.43)	144.08
TRANSIN	TRANSFERS IN	351,766.00	351,766.00	0.00	0.00	100.00
FINES	FINES AND FORFEITURES	12,800.00	7,502.90	65.50	5,297.10	58.62
LOCAL	LOCAL CONTRIBUTIONS	15,108.00	15,522.21	0.00	(414.21)	102.74
TOTAL REVENUES		3,322,641.79	2,882,622.42	145,787.13	440,019.37	86.76
Expenditures						
000		0.00	0.00	0.00	0.00	0.00
101	COUNCIL	21,675.00	15,678.43	(162.71)	5,996.57	72.33
172	MANAGER	220,807.79	209,624.87	17,000.25	11,182.92	94.94
191	ELECTIONS	15,525.00	5,768.73	120.00	9,756.27	37.16
209	ASSESSOR	60,600.00	51,827.02	4,323.07	8,772.98	85.52
210	ATTORNEY	95,000.00	68,376.85	718.50	26,623.15	71.98
215	CLERK	130,930.47	112,354.48	8,690.94	18,575.99	85.81
253	TREASURER	225,789.26	203,329.91	15,477.40	22,459.35	90.05
265	CITY HALL	149,163.83	123,050.68	7,267.32	26,113.15	82.49
276	CEMETERY	128,196.54	94,247.18	9,531.51	33,949.36	73.52
294	UNALLOCATED MISCELLANEOUS	5,443.00	5,443.17	0.00	(0.17)	100.00
301	POLICE DEPARTMENT	750,687.81	735,868.40	78,187.70	14,819.41	98.03
305	CODE ENFORCEMENT	113,016.55	84,470.94	8,591.69	28,545.61	74.74
336	FIRE	118,155.00	118,045.55	28,963.98	109.45	99.91
371	BUILDING INSPECTION DEPARTMENT	0.00	0.00	0.00	0.00	0.00
400	PLANNING & ZONING	68,161.35	63,746.74	6,668.16	4,414.61	93.52
426	EMERGENCY MANAGEMENT	3,200.00	79,532.94	3,947.42	(76,332.94)	2,485.40
441	DEPARTMENT OF PUBLIC WORKS	281,640.96	201,614.11	16,670.91	80,026.85	71.59
442	SIDEWALK	3,788.58	1,924.50	23.50	1,864.08	50.80
443	ARBOR BOARD	0.00	0.00	0.00	0.00	0.00
523	TRASH	0.00	0.00	0.00	0.00	0.00
651	AMBULANCE	0.00	0.00	0.00	0.00	0.00
672	SENIOR CITIZEN CONTRIBUTION	0.00	0.00	0.00	0.00	0.00
728	ECONOMIC DEVELOPMENT	1,100.00	0.00	0.00	1,100.00	0.00
747	CHAMBER/RIVERWALK	4,000.00	3,347.80	224.43	652.20	83.70
751	PARKS	157,832.42	128,499.29	18,278.59	29,333.13	81.42
757	SHOWBOAT	550.00	549.80	48.72	0.20	99.96
758	DOG PARK	0.00	0.00	0.00	0.00	0.00
774	RECREATION CONTRIBUTIONS	5,000.00	5,000.00	0.00	0.00	100.00
790	LIBRARY	78,874.24	60,216.56	3,166.79	18,657.68	76.35
803	HISTORICAL DISTRICT COMMISSION	180.00	181.24	0.00	(1.24)	100.69
804	MUSEUM	49,166.45	40,391.08	455.36	8,775.37	82.15
906	DEBT SERVICE	0.00	0.00	0.00	0.00	0.00
965	TRANSFERS OUT	538,382.00	483,382.00	0.00	55,000.00	89.78
TOTAL EXPENDITURES		3,226,866.25	2,896,472.27	228,193.53	330,393.98	89.76
TOTAL REVENUES		3,322,641.79	2,882,622.42	145,787.13	440,019.37	86.76
TOTAL EXPENDITURES		3,226,866.25	2,896,472.27	228,193.53	330,393.98	89.76
NET OF REVENUES & EXPENDITURES		95,775.54	(13,849.85)	(82,406.40)	109,625.39	14.46

GL NUMBER	DESCRIPTION	2019-20 AMENDED BUDGET	YTD BALANCE 06/30/2020	ACTIVITY FOR MONTH 06/30/2020	AVAILABLE BALANCE	% BDGT USED
Fund 202 - MAJOR STREET FUND						
Revenues						
STATE	STATE GRANTS	0.00	0.00	0.00	0.00	0.00
INT	INTEREST AND RENTS	1,500.00	5,014.05	1,976.92	(3,514.05)	334.27
OTHER	OTHER REVENUE	345,284.00	274,741.14	28,085.37	70,542.86	79.57
TRANSIN	TRANSFERS IN	0.00	0.00	0.00	0.00	0.00
FED	FEDERAL GRANTS	0.00	0.00	0.00	0.00	0.00
TOTAL REVENUES		346,784.00	279,755.19	30,062.29	67,028.81	80.67
Expenditures						
000		0.00	0.00	0.00	0.00	0.00
450	CAPITAL OUTLAY	32,500.00	88,777.68	68,551.63	(56,277.68)	273.16
463	MAINTENANCE	55,811.76	32,677.52	2,336.71	23,134.24	58.55
474	TRAFFIC	11,359.29	10,138.89	3,156.28	1,220.40	89.26
478	WINTER MAINTENANCE	59,941.61	38,872.07	478.49	21,069.54	64.85
483	ADMINISTRATION	18,444.00	5,170.43	0.00	13,273.57	28.03
906	DEBT SERVICE	0.00	0.00	0.00	0.00	0.00
965	TRANSFERS OUT	0.00	0.00	0.00	0.00	0.00
999	TRANSFERS IN	0.00	0.00	0.00	0.00	0.00
TOTAL EXPENDITURES		178,056.66	175,636.59	74,523.11	2,420.07	98.64
TOTAL REVENUES		346,784.00	279,755.19	30,062.29	67,028.81	80.67
TOTAL EXPENDITURES		178,056.66	175,636.59	74,523.11	2,420.07	98.64
NET OF REVENUES & EXPENDITURES		168,727.34	104,118.60	(44,460.82)	64,608.74	61.71

REVENUE AND EXPENDITURE REPORT FOR CITY OF LOWELL
 PERIOD ENDING 06/30/2020

GL NUMBER	DESCRIPTION	2019-20 AMENDED BUDGET	YTD BALANCE 06/30/2020	ACTIVITY FOR MONTH 06/30/2020	AVAILABLE BALANCE	% BDGT USED
Fund 203 - LOCAL STREET FUND						
Revenues						
STATE	STATE GRANTS	0.00	0.00	0.00	0.00	0.00
CHARGES	CHARGES FOR SERVICES	0.00	0.00	0.00	0.00	0.00
INT	INTEREST AND RENTS	700.00	2,373.67	1,258.83	(1,673.67)	339.10
OTHER	OTHER REVENUE	148,602.00	119,048.29	15,344.66	29,553.71	80.11
TRANSIN	TRANSFERS IN	175,000.00	180,000.00	0.00	(5,000.00)	102.86
LOCAL	LOCAL CONTRIBUTIONS	0.00	0.00	0.00	0.00	0.00
TOTAL REVENUES		324,302.00	301,421.96	16,603.49	22,880.04	92.94
Expenditures						
000		0.00	0.00	0.00	0.00	0.00
450	CAPITAL OUTLAY	125,500.00	28,862.70	18,438.75	96,637.30	23.00
463	MAINTENANCE	84,685.22	76,042.17	2,943.18	8,643.05	89.79
474	TRAFFIC	15,409.31	14,291.36	1,200.62	1,117.95	92.74
478	WINTER MAINTENANCE	80,830.73	55,911.45	785.45	24,919.28	69.17
483	ADMINISTRATION	22,162.00	6,088.43	0.00	16,073.57	27.47
906	DEBT SERVICE	25,531.00	25,531.25	0.00	(0.25)	100.00
965	TRANSFERS OUT	0.00	0.00	0.00	0.00	0.00
999	TRANSFERS IN	0.00	0.00	0.00	0.00	0.00
TOTAL EXPENDITURES		354,118.26	206,727.36	23,368.00	147,390.90	58.38
TOTAL REVENUES		324,302.00	301,421.96	16,603.49	22,880.04	92.94
TOTAL EXPENDITURES		354,118.26	206,727.36	23,368.00	147,390.90	58.38
NET OF REVENUES & EXPENDITURES		(29,816.26)	94,694.60	(6,764.51)	(124,510.86)	317.59

REVENUE AND EXPENDITURE REPORT FOR CITY OF LOWELL
 PERIOD ENDING 06/30/2020

GL NUMBER	DESCRIPTION	2019-20 AMENDED BUDGET	YTD BALANCE 06/30/2020	ACTIVITY FOR MONTH 06/30/2020	AVAILABLE BALANCE	% BDGT USED
Fund 238 - HISTORICAL DISTRICT FUND						
Revenues						
INT	INTEREST AND RENTS	0.00	475.95	323.86	(475.95)	100.00
OTHER	OTHER REVENUE	75,000.00	75,000.00	0.00	0.00	100.00
TOTAL REVENUES		75,000.00	75,475.95	323.86	(475.95)	100.63
Expenditures						
000		10,000.00	5,058.00	0.00	4,942.00	50.58
999	TRANSFERS IN	0.00	0.00	0.00	0.00	0.00
TOTAL EXPENDITURES		10,000.00	5,058.00	0.00	4,942.00	50.58
TOTAL REVENUES		75,000.00	75,475.95	323.86	(475.95)	100.63
TOTAL EXPENDITURES		10,000.00	5,058.00	0.00	4,942.00	50.58
NET OF REVENUES & EXPENDITURES		65,000.00	70,417.95	323.86	(5,417.95)	108.34

GL NUMBER	DESCRIPTION	2019-20 AMENDED BUDGET	YTD BALANCE 06/30/2020	ACTIVITY FOR MONTH 06/30/2020	AVAILABLE BALANCE	% BDGT USED
Fund 248 - DOWNTOWN DEVELOPMENT AUTHORITY						
Revenues						
TAXES	TAXES	545,794.00	549,128.68	0.00	(3,334.68)	100.61
STATE	STATE GRANTS	0.00	0.00	0.00	0.00	0.00
INT	INTEREST AND RENTS	2,700.00	7,268.45	1,767.11	(4,568.45)	269.20
OTHER	OTHER REVENUE	165,000.00	165,000.00	0.00	0.00	100.00
TRANSIN	TRANSFERS IN	0.00	0.00	0.00	0.00	0.00
TOTAL REVENUES		713,494.00	721,397.13	1,767.11	(7,903.13)	101.11
Expenditures						
000		0.00	0.00	0.00	0.00	0.00
450	CAPITAL OUTLAY	251,250.00	258,367.08	0.00	(7,117.08)	102.83
463	MAINTENANCE	112,304.09	57,468.92	6,195.90	54,835.17	51.17
483	ADMINISTRATION	61,761.10	43,249.15	4,061.67	18,511.95	70.03
740	COMMUNITY PROMOTIONS	85,000.00	52,245.68	0.00	32,754.32	61.47
906	DEBT SERVICE	0.00	0.00	0.00	0.00	0.00
965	TRANSFERS OUT	320,722.00	303,382.00	0.00	17,340.00	94.59
999	TRANSFERS IN	0.00	0.00	0.00	0.00	0.00
TOTAL EXPENDITURES		831,037.19	714,712.83	10,257.57	116,324.36	86.00
TOTAL REVENUES		713,494.00	721,397.13	1,767.11	(7,903.13)	101.11
TOTAL EXPENDITURES		831,037.19	714,712.83	10,257.57	116,324.36	86.00
NET OF REVENUES & EXPENDITURES		(117,543.19)	6,684.30	(8,490.46)	(124,227.49)	5.69

GL NUMBER	DESCRIPTION	2019-20 AMENDED BUDGET	YTD BALANCE 06/30/2020	ACTIVITY FOR MONTH 06/30/2020	AVAILABLE BALANCE	% BDGT USED
Fund 249 - BUILDING INSPECTION FUND						
Revenues						
CHARGES	CHARGES FOR SERVICES	90,000.00	31,992.00	8,365.00	58,008.00	35.55
INT	INTEREST AND RENTS	0.00	0.00	0.00	0.00	0.00
TRANSIN	TRANSFERS IN	0.00	0.00	0.00	0.00	0.00
TOTAL REVENUES		90,000.00	31,992.00	8,365.00	58,008.00	35.55
Expenditures						
371	BUILDING INSPECTION DEPARTMENT	90,000.00	25,136.10	7,528.50	64,863.90	27.93
TOTAL EXPENDITURES		90,000.00	25,136.10	7,528.50	64,863.90	27.93
TOTAL REVENUES		90,000.00	31,992.00	8,365.00	58,008.00	35.55
TOTAL EXPENDITURES		90,000.00	25,136.10	7,528.50	64,863.90	27.93
NET OF REVENUES & EXPENDITURES		0.00	6,855.90	836.50	(6,855.90)	100.00

REVENUE AND EXPENDITURE REPORT FOR CITY OF LOWELL
 PERIOD ENDING 06/30/2020

GL NUMBER	DESCRIPTION	2019-20 AMENDED BUDGET	YTD BALANCE 06/30/2020	ACTIVITY FOR MONTH 06/30/2020	AVAILABLE BALANCE	% BDGT USED
Fund 260 - DESIGNATED CONTRIBUTIONS						
Revenues						
STATE	STATE GRANTS	582,000.00	500,000.00	300,000.00	82,000.00	85.91
CHARGES	CHARGES FOR SERVICES	0.00	0.00	0.00	0.00	0.00
INT	INTEREST AND RENTS	1,500.00	22,041.96	17,355.43	(20,541.96)	1,469.46
OTHER	OTHER REVENUE	5,793.00	205,793.00	200,000.00	(200,000.00)	3,552.44
TRANSIN	TRANSFERS IN	0.00	0.00	0.00	0.00	0.00
LOCAL	LOCAL CONTRIBUTIONS	0.00	0.00	0.00	0.00	0.00
TOTAL REVENUES		589,293.00	727,834.96	517,355.43	(138,541.96)	123.51
Expenditures						
000		0.00	0.00	0.00	0.00	0.00
265	CITY HALL	0.00	0.00	0.00	0.00	0.00
276	CEMETERY	0.00	179.91	0.00	(179.91)	100.00
301	POLICE DEPARTMENT	0.00	0.00	0.00	0.00	0.00
442	SIDEWALK	27,600.00	27,600.00	0.00	0.00	100.00
443	ARBOR BOARD	0.00	0.00	0.00	0.00	0.00
474	TRAFFIC	23,257.30	23,257.30	0.00	0.00	100.00
751	PARKS	582,000.00	609,849.73	81,041.40	(27,849.73)	104.79
758	DOG PARK	1,500.00	777.75	225.23	722.25	51.85
759	COMMUNITY GARDEN	0.00	409.40	0.00	(409.40)	100.00
790	LIBRARY	15,300.00	15,300.00	0.00	0.00	100.00
TOTAL EXPENDITURES		649,657.30	677,374.09	81,266.63	(27,716.79)	104.27
TOTAL REVENUES		589,293.00	727,834.96	517,355.43	(138,541.96)	123.51
TOTAL EXPENDITURES		649,657.30	677,374.09	81,266.63	(27,716.79)	104.27
NET OF REVENUES & EXPENDITURES		(60,364.30)	50,460.87	436,088.80	(110,825.17)	83.59

REVENUE AND EXPENDITURE REPORT FOR CITY OF LOWELL
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GL NUMBER	DESCRIPTION	2019-20 AMENDED BUDGET	YTD BALANCE 06/30/2020	ACTIVITY FOR MONTH 06/30/2020	AVAILABLE BALANCE	% BDGT USED
Fund 581 - AIRPORT FUND						
Revenues						
CHARGES	CHARGES FOR SERVICES	19,216.00	24,415.50	4,332.74	(5,199.50)	127.06
INT	INTEREST AND RENTS	55,200.00	50,270.54	2,179.52	4,929.46	91.07
OTHER	OTHER REVENUE	0.00	100.00	25.00	(100.00)	100.00
TRANSIN	TRANSFERS IN	0.00	0.00	0.00	0.00	0.00
TOTAL REVENUES		74,416.00	74,786.04	6,537.26	(370.04)	100.50
Expenditures						
000		73,000.00	56,161.21	8,345.53	16,838.79	76.93
999	TRANSFERS IN	0.00	0.00	0.00	0.00	0.00
TOTAL EXPENDITURES		73,000.00	56,161.21	8,345.53	16,838.79	76.93
TOTAL REVENUES		74,416.00	74,786.04	6,537.26	(370.04)	100.50
TOTAL EXPENDITURES		73,000.00	56,161.21	8,345.53	16,838.79	76.93
NET OF REVENUES & EXPENDITURES		1,416.00	18,624.83	(1,808.27)	(17,208.83)	1,315.31

REVENUE AND EXPENDITURE REPORT FOR CITY OF LOWELL
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GL NUMBER	DESCRIPTION	2019-20 AMENDED BUDGET	YTD BALANCE 06/30/2020	ACTIVITY FOR MONTH 06/30/2020	AVAILABLE BALANCE	% BDGT USED
Fund 590 - WASTEWATER FUND						
Revenues						
STATE	STATE GRANTS	0.00	0.00	0.00	0.00	0.00
CHARGES	CHARGES FOR SERVICES	1,212,483.00	1,127,657.90	82,222.46	84,825.10	93.00
INT	INTEREST AND RENTS	7,000.00	(10,255.45)	8,204.87	17,255.45	(146.51)
OTHER	OTHER REVENUE	57,810.00	3,281.05	0.00	54,528.95	5.68
TRANSIN	TRANSFERS IN	0.00	0.00	0.00	0.00	0.00
LOCAL	LOCAL CONTRIBUTIONS	0.00	0.00	0.00	0.00	0.00
FED	FEDERAL GRANTS	0.00	0.00	0.00	0.00	0.00
TOTAL REVENUES		1,277,293.00	1,120,683.50	90,427.33	156,609.50	87.74
Expenditures						
000		0.00	0.00	0.00	0.00	0.00
550	TREATMENT	815,895.50	718,395.71	43,034.24	97,499.79	88.05
551	COLLECTION	266,323.78	108,363.62	23,468.41	157,960.16	40.69
552	CUSTOMER ACCOUNTS	82,700.25	76,021.78	5,278.45	6,678.47	91.92
553	ADMINISTRATION	392,291.50	161,482.63	0.00	230,808.87	41.16
999	TRANSFERS IN	0.00	0.00	0.00	0.00	0.00
TOTAL EXPENDITURES		1,557,211.03	1,064,263.74	71,781.10	492,947.29	68.34
TOTAL REVENUES		1,277,293.00	1,120,683.50	90,427.33	156,609.50	87.74
TOTAL EXPENDITURES		1,557,211.03	1,064,263.74	71,781.10	492,947.29	68.34
NET OF REVENUES & EXPENDITURES		(279,918.03)	56,419.76	18,646.23	(336,337.79)	20.16

GL NUMBER	DESCRIPTION	2019-20 AMENDED BUDGET	YTD BALANCE 06/30/2020	ACTIVITY FOR MONTH 06/30/2020	AVAILABLE BALANCE	% BDGT USED
Fund 591 - WATER FUND						
Revenues						
CHARGES	CHARGES FOR SERVICES	1,204,211.00	1,116,224.16	108,835.52	87,986.84	92.69
INT	INTEREST AND RENTS	17,040.00	21,758.82	6,512.62	(4,718.82)	127.69
OTHER	OTHER REVENUE	10,000.00	5,363.80	75.00	4,636.20	53.64
TRANSIN	TRANSFERS IN	0.00	0.00	0.00	0.00	0.00
TOTAL REVENUES		1,231,251.00	1,143,346.78	115,423.14	87,904.22	92.86
Expenditures						
000		0.00	0.00	0.00	0.00	0.00
552	CUSTOMER ACCOUNTS	0.00	0.00	0.00	0.00	0.00
570	TREATMENT	451,124.10	398,527.29	40,159.77	52,596.81	88.34
571	DISTRIBUTION	489,996.27	277,962.28	26,042.82	212,033.99	56.73
572	CUSTOMER ACCOUNTS	88,668.25	79,284.83	5,109.67	9,383.42	89.42
573	ADMINISTRATION	351,056.50	102,559.31	6,640.06	248,497.19	29.21
906	DEBT SERVICE	0.00	0.00	0.00	0.00	0.00
965	TRANSFERS OUT	0.00	0.00	0.00	0.00	0.00
999	TRANSFERS IN	0.00	0.00	0.00	0.00	0.00
TOTAL EXPENDITURES		1,380,845.12	858,333.71	77,952.32	522,511.41	62.16
TOTAL REVENUES		1,231,251.00	1,143,346.78	115,423.14	87,904.22	92.86
TOTAL EXPENDITURES		1,380,845.12	858,333.71	77,952.32	522,511.41	62.16
NET OF REVENUES & EXPENDITURES		(149,594.12)	285,013.07	37,470.82	(434,607.19)	190.52

REVENUE AND EXPENDITURE REPORT FOR CITY OF LOWELL
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GL NUMBER	DESCRIPTION	2019-20 AMENDED BUDGET	YTD BALANCE 06/30/2020	ACTIVITY FOR MONTH 06/30/2020	AVAILABLE BALANCE	% BDGT USED
Fund 636 - DATA PROCESSING FUND						
Revenues						
INT	INTEREST AND RENTS	80,274.00	80,325.33	42.73	(51.33)	100.06
OTHER	OTHER REVENUE	0.00	2,019.48	1,674.50	(2,019.48)	100.00
TRANSIN	TRANSFERS IN	0.00	0.00	0.00	0.00	0.00
TOTAL REVENUES		80,274.00	82,344.81	1,717.23	(2,070.81)	102.58
Expenditures						
000		96,000.00	101,223.04	31,430.55	(5,223.04)	105.44
965	TRANSFERS OUT	0.00	0.00	0.00	0.00	0.00
999	TRANSFERS IN	0.00	0.00	0.00	0.00	0.00
TOTAL EXPENDITURES		96,000.00	101,223.04	31,430.55	(5,223.04)	105.44
TOTAL REVENUES		80,274.00	82,344.81	1,717.23	(2,070.81)	102.58
TOTAL EXPENDITURES		96,000.00	101,223.04	31,430.55	(5,223.04)	105.44
NET OF REVENUES & EXPENDITURES		(15,726.00)	(18,878.23)	(29,713.32)	3,152.23	120.04

REVENUE AND EXPENDITURE REPORT FOR CITY OF LOWELL
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GL NUMBER	DESCRIPTION	2019-20 AMENDED BUDGET	YTD BALANCE 06/30/2020	ACTIVITY FOR MONTH 06/30/2020	AVAILABLE BALANCE	% BDGT USED
Fund 661 - EQUIPMENT FUND						
Revenues						
CHARGES	CHARGES FOR SERVICES	215,625.00	183,923.49	17,991.83	31,701.51	85.30
INT	INTEREST AND RENTS	500.00	889.73	73.25	(389.73)	177.95
OTHER	OTHER REVENUE	3,592.00	3,592.61	0.00	(0.61)	100.02
TRANSIN	TRANSFERS IN	71,878.46	0.00	0.00	71,878.46	0.00
TOTAL REVENUES		291,595.46	188,405.83	18,065.08	103,189.63	64.61
Expenditures						
000		0.00	0.00	0.00	0.00	0.00
895	FLEET MAINT. & REPLACEMENT	441,426.85	262,913.54	7,626.42	178,513.31	59.56
965	TRANSFERS OUT	0.00	0.00	0.00	0.00	0.00
999	TRANSFERS IN	0.00	0.00	0.00	0.00	0.00
TOTAL EXPENDITURES		441,426.85	262,913.54	7,626.42	178,513.31	59.56
TOTAL REVENUES		291,595.46	188,405.83	18,065.08	103,189.63	64.61
TOTAL EXPENDITURES		441,426.85	262,913.54	7,626.42	178,513.31	59.56
NET OF REVENUES & EXPENDITURES		(149,831.39)	(74,507.71)	10,438.66	(75,323.68)	49.73

REVENUE AND EXPENDITURE REPORT FOR CITY OF LOWELL
 PERIOD ENDING 06/30/2020

GL NUMBER	DESCRIPTION	2019-20 AMENDED BUDGET	YTD BALANCE 06/30/2020	ACTIVITY FOR MONTH 06/30/2020	AVAILABLE BALANCE	% BDGT USED
Fund 711 - CEMETERY FUND						
Revenues						
CHARGES	CHARGES FOR SERVICES	0.00	6,000.00	0.00	(6,000.00)	100.00
INT	INTEREST AND RENTS	0.00	140.17	56.55	(140.17)	100.00
TOTAL REVENUES		0.00	6,140.17	56.55	(6,140.17)	100.00
Expenditures						
000		0.00	0.00	0.00	0.00	0.00
965	TRANSFERS OUT	0.00	0.00	0.00	0.00	0.00
999	TRANSFERS IN	0.00	0.00	0.00	0.00	0.00
TOTAL EXPENDITURES		0.00	0.00	0.00	0.00	0.00
TOTAL REVENUES		0.00	6,140.17	56.55	(6,140.17)	100.00
TOTAL EXPENDITURES		0.00	0.00	0.00	0.00	0.00
NET OF REVENUES & EXPENDITURES		0.00	6,140.17	56.55	(6,140.17)	100.00

REVENUE AND EXPENDITURE REPORT FOR CITY OF LOWELL
 PERIOD ENDING 06/30/2020

GL NUMBER	DESCRIPTION	2019-20 AMENDED BUDGET	YTD BALANCE 06/30/2020	ACTIVITY FOR MONTH 06/30/2020	AVAILABLE BALANCE	% BDGT USED
Fund 714 - LEE FUND						
Revenues						
INT	INTEREST AND RENTS	5,000.00	2,719.87	13.66	2,280.13	54.40
OTHER	OTHER REVENUE	0.00	0.00	0.00	0.00	0.00
TOTAL REVENUES		5,000.00	2,719.87	13.66	2,280.13	54.40
Expenditures						
000		5,000.00	0.00	0.00	5,000.00	0.00
965	TRANSFERS OUT	0.00	0.00	0.00	0.00	0.00
999	TRANSFERS IN	0.00	0.00	0.00	0.00	0.00
TOTAL EXPENDITURES		5,000.00	0.00	0.00	5,000.00	0.00
TOTAL REVENUES		5,000.00	2,719.87	13.66	2,280.13	54.40
TOTAL EXPENDITURES		5,000.00	0.00	0.00	5,000.00	0.00
NET OF REVENUES & EXPENDITURES		0.00	2,719.87	13.66	(2,719.87)	100.00

REVENUE AND EXPENDITURE REPORT FOR CITY OF LOWELL
 PERIOD ENDING 06/30/2020

GL NUMBER	DESCRIPTION	2019-20 AMENDED BUDGET	YTD BALANCE 06/30/2020	ACTIVITY FOR MONTH 06/30/2020	AVAILABLE BALANCE	% BDGT USED
Fund 715 - LOOK FUND						
Revenues						
INT	INTEREST AND RENTS	10,000.00	10,734.13	413.44	(734.13)	107.34
OTHER	OTHER REVENUE	52,386.00	52,386.00	0.00	0.00	100.00
TOTAL REVENUES		62,386.00	63,120.13	413.44	(734.13)	101.18
Expenditures						
000		52,386.00	46,686.00	0.00	5,700.00	89.12
965	TRANSFERS OUT	0.00	0.00	0.00	0.00	0.00
999	TRANSFERS IN	0.00	0.00	0.00	0.00	0.00
TOTAL EXPENDITURES		52,386.00	46,686.00	0.00	5,700.00	89.12
TOTAL REVENUES		62,386.00	63,120.13	413.44	(734.13)	101.18
TOTAL EXPENDITURES		52,386.00	46,686.00	0.00	5,700.00	89.12
NET OF REVENUES & EXPENDITURES		10,000.00	16,434.13	413.44	(6,434.13)	164.34

GL NUMBER	DESCRIPTION	2019-20 AMENDED BUDGET	YTD BALANCE 06/30/2020	ACTIVITY FOR MONTH 06/30/2020	AVAILABLE BALANCE	% BDGT USED
Fund 716 - CARR FUND						
Revenues						
INT	INTEREST AND RENTS	0.00	221.33	82.25	(221.33)	100.00
OTHER	OTHER REVENUE	0.00	0.00	0.00	0.00	0.00
TOTAL REVENUES		0.00	221.33	82.25	(221.33)	100.00
Expenditures						
000		0.00	0.00	0.00	0.00	0.00
999	TRANSFERS IN	0.00	0.00	0.00	0.00	0.00
TOTAL EXPENDITURES		0.00	0.00	0.00	0.00	0.00
TOTAL REVENUES		0.00	221.33	82.25	(221.33)	100.00
TOTAL EXPENDITURES		0.00	0.00	0.00	0.00	0.00
NET OF REVENUES & EXPENDITURES		0.00	221.33	82.25	(221.33)	100.00

REVENUE AND EXPENDITURE REPORT FOR CITY OF LOWELL
 PERIOD ENDING 06/30/2020

GL NUMBER	DESCRIPTION	2019-20 AMENDED BUDGET	YTD BALANCE 06/30/2020	ACTIVITY FOR MONTH 06/30/2020	AVAILABLE BALANCE	% BDGT USED
Fund 717 - PENSION TRUST FUND						
Revenues						
INT	INTEREST AND RENTS	0.00	0.00	0.00	0.00	0.00
OTHER	OTHER REVENUE	0.00	0.00	0.00	0.00	0.00
TOTAL REVENUES		0.00	0.00	0.00	0.00	0.00
Expenditures						
000		0.00	0.00	0.00	0.00	0.00
999	TRANSFERS IN	0.00	0.00	0.00	0.00	0.00
TOTAL EXPENDITURES		0.00	0.00	0.00	0.00	0.00
TOTAL REVENUES		0.00	0.00	0.00	0.00	0.00
TOTAL EXPENDITURES		0.00	0.00	0.00	0.00	0.00
NET OF REVENUES & EXPENDITURES		0.00	0.00	0.00	0.00	0.00

REVENUE AND EXPENDITURE REPORT FOR CITY OF LOWELL
 PERIOD ENDING 06/30/2020

GL NUMBER	DESCRIPTION	2019-20 AMENDED BUDGET	YTD BALANCE 06/30/2020	ACTIVITY FOR MONTH 06/30/2020	AVAILABLE BALANCE	% BDGT USED
Fund 718 - CARR FUND II						
Revenues						
INT	INTEREST AND RENTS	0.00	18.14	6.75	(18.14)	100.00
OTHER	OTHER REVENUE	0.00	0.00	0.00	0.00	0.00
TOTAL REVENUES		0.00	18.14	6.75	(18.14)	100.00
Expenditures						
000		0.00	0.00	0.00	0.00	0.00
965	TRANSFERS OUT	0.00	0.00	0.00	0.00	0.00
999	TRANSFERS IN	0.00	0.00	0.00	0.00	0.00
TOTAL EXPENDITURES		0.00	0.00	0.00	0.00	0.00
TOTAL REVENUES		0.00	18.14	6.75	(18.14)	100.00
TOTAL EXPENDITURES		0.00	0.00	0.00	0.00	0.00
NET OF REVENUES & EXPENDITURES		0.00	18.14	6.75	(18.14)	100.00
TOTAL REVENUES - ALL FUNDS		8,483,730.25	7,702,286.21	953,007.00	781,444.04	90.79
TOTAL EXPENDITURES - ALL FUNDS		8,945,604.66	7,090,698.48	622,273.26	1,854,906.18	79.26
NET OF REVENUES & EXPENDITURES		(461,874.41)	611,587.73	330,733.74	(1,073,462.14)	132.41

Monthly Operating Report

for the . . .

Contract Operation

of the . . .



Wastewater Treatment Plant

June 2020





July 16, 2020

Mr. Mike Burns
City Manager
City of Lowell
301 East Main Street
Lowell, MI 49331

Dear Mr. Burns:

On behalf of Suez I am pleased to submit the June Monthly Operating Report for the Lowell Wastewater Treatment Plant. During the month 39.03 million gallons of wastewater were treated, down significantly from 60.07 million gallons the month before.

All NPDES Permit requirements were satisfied. Copies of the Discharge Monitoring Report for the month can be seen in Appendix A. Appendix B contains graphs representing how the actual lab results compared to the limits in the NPDES Permit and how the actual plant flows compared to the design flow.

A draft of our new NPDES permit was received from EGLE on June 25. A public notice will be posted at City Hall in July allowing for public comment. It has been reviewed internally as well as a copy sent to the City Manager and DPW Director. A few minor changes will be included in the new permit most notably the requirement to test annually for PFOS and PFOA.

INDUSTRIAL PRETREATMENT PROGRAM

The Fullers Septic June surcharges were \$100.73. No operational problems were experienced at the plant from this discharge.

The Litehouse June surcharges were \$1468.45 for the month. One fine was assessed for exceeding Phosphorus upper limit. No operational problems were experienced at the plant from their discharge.

MAINTENANCE COST REPORT

Date	Vendor	Cost
6/3	Showboat Auto (1)	\$ 42.38
6/3	Showboat Auto (2)	65.29
6/11	Tractor Supply (3)	253.29
6/11	Showboat Auto (4)	169.11
6/11	Amazon (5)	105.95
6/16	Menards (6)	254.89
Beginning Balance of the Annual Maintenance Allowance (Including carryover \$\$ from FY 18-19)*		\$ 12,089.01*

Maintenance Allowance Spent YTD	\$ 12,076.81
Balance of Maintenance Allowance	\$ 12.20

*The maintenance spending for FY 18-19 was under the annual allotment by \$89.01. That amount will be added to the beginning balance on July 1st. That makes the beginning balance \$12,089.01 (\$12,000+89.01).

In addition to the preventive maintenance the following corrective maintenance activities occurred:

- Replaced grit blower belts (1)
- Replaced lawn mower fuel can (2)
- Applied weed killer and lawn fertilizer (3)
- Replaced bearings on RDT (4)
- Replaced light bulbs in entrance channel (5)
- Replaced boards on plant utility trailer (6)

PROJECTS FOR THE FUTURE

- Continue miscellaneous painting projects
- Annual calibration for Lab balances

If you have any questions or would like additional information, please feel free to call me at your convenience.

Respectfully submitted,

SUEZ



Brian Vander Meulen
Project Manager

JUNE EFFLUENT ANALYSIS OVERVIEW

The daily average for CBOD was 5 mg/l, 80% under the NPDES limit of 25 mg/l. The worst 7-day average was 7 mg/l, 83% under the NPDES limit of 40 mg/l.

The daily average for Suspended Solids was 3.3 mg/l, 89% under the NPDES limit of 30 mg/l. The worst 7-day average was 4.2 mg/l, 91% under the NPDES limit of 45 mg/l.

The monthly average for Phosphorus was 0.45 mg/l, the limit is 1.0 mg/l.

The average removal rate for BOD was 95%; a minimum of 85% is required. The average removal rate for Suspended Solids was 95%; a minimum of 85% is required.

The geometric average for fecal coliform bacteria was 32 colonies/100 mls, the limit is 200 colonies/100 mls. The worst 7-day average was 52 colonies/100 mls, the limit is 400 colonies/100 mls.

The highest chlorine residual was 0.037 mg/l; the limit is 0.038 mg/l. The monthly average was 0.027 mg/l.

Appendix A



State of Michigan
Department of Environmental Quality

Plant Influent Sheet

Lowell, Michigan

R4607 4/74
4833-6040

Weather Code	
1. Clear	6. Warm
2. Partly Cloudy	7. Cold
3. Cloudy	8. Windy
4. Rain	9. Melting Snow
5. Snow	

Plant No. 410049 Month June Year 2020

Superintendent's Signature Brian Vander Meulen, Supt.

D A Y PN SF	WEATHER		FLOW		RAW SEWAGE QUALITY											D A Y PN SF
	Type Code	Precip Inches	Total MGD	Peak MGD	Temp F	pH SU	BOD		SS		Total-P		VSS mg/l	NH3-N mg/l	Mercury ng/l	
	0033	0045	50050	50051	00011	00400	00310	85001	00530	85002	00665	85004	00535	00610	71900	
1	26	0.00	1.67	2.20	57	7.4	103	1435	62	864			60		*G	1
2	2468	0.29	1.65	2.10												2
3	26	0.00	1.58	2.00	58	7.4	71	936	52	685	1.7	22.4	48	6.2		3
4	26	0.00	1.51	2.00												4
5	26	0.00	1.40	2.00	59	7.4	118	1378	68	794			64			5
6	26	0.00	1.36	1.80												6
7	26	0.00	1.40	1.80												7
8	26	0.00	1.38	1.80	54	7.4	95	1093	88	1013			86			8
9	2468	0.79	1.38	2.20												9
10	3468	1.10	1.40	2.40	59	7.4	193	2253	96	1121	3.2	37.4	88	8.4		10
11	2468	0.10	1.41	1.80												11
12	268	0.00	1.30	1.80	58	7.4	86	932	62	672			60			12
13	268	0.00	1.30	1.70												13
14	16	0.00	1.36	1.70												14
15	16	0.00	1.31	1.70	59	7.5	95	1038	68	743			60			15
16	16	0.00	1.28	1.70												16
17	16	0.00	1.28	1.70	59	7.4	114	1217	58	619	1.9	20.3	54	7.3		17
18	26	0.00	1.23	1.60												18
19	26	0.00	1.19	1.70	61	7.5	117	1161	90	893			82			19
20	246	0.02	1.22	1.70												20
21	26	0.00	1.20	1.60												21
22	246	0.08	1.17	1.60	62	7.5	125	1220	70	683			62			22
23	268	0.00	1.19	1.70												23
24	16	0.00	1.15	1.70	64	7.4	147	1410	76	729	2.6	24.9	64	9.7		24
25	16	0.00	1.15	1.70												25
26	2468	0.65	1.13	1.60	63	7.3	132	1244	74	697			70			26
27	16	0.00	1.12	1.60												27
28	16	0.00	1.11	1.60												28
29	26	0.00	1.10	1.60	63	7.3	108	991	66	605			64			29
30	16	0.00	1.10	1.50												30
31																31
TL	XXXX	3.03	39.03	XXXX	XXXX	XXXX	XXXX	37633	XXXX	23351	XXXX	787	XXXX	XXXX	XXXX	TL
ME	XXXX	XXXX	1.30	XXXX	60	7.4	116	1254	72	778	2.4	26.2	66	7.9	XXXX	ME
MAX	XXXX	1.10	1.67	2.40	64	7.5	193	2253	96	1121	3.2	37.4	88	9.7	XXXX	MAX
MIN	XXXX	XXXX	1.10	1.50	54	7.3	71	932	52	605	1.7	20.3	48	6.2	XXXX	MIN

Activated Sludge Sheet

State of Michigan
Department of Environmental Quality

Lowell, Michigan

- PM Code
 1. Coventional
 2. Step Feed
 3. Complete Mix
 4. Extended Aeration
 5. Contact Stabilization
 6. Other

Plant No. Month Year
 410049 June 2020

Superintendent's Signature _____
 Brian Vander Meulen, Supt.

AERATION SYSTEM					MIXED LIQUOR						SECONDARY SLUDGE			Process Modification see code 80889	D A Y P N S F	REMARKS
D A Y P N S F	Aeration Volume KCF 80993	Detention Time Hours 81001	Sludge Age Days 80990	Organic Loading F/M 80992	MLSS mg/l 70323	MLVSS mg/l 70324	Settle % 81004	SDI % 81007	DO mg/l 00300	SVI % 8100	SS % 81006	VSS % 70325	Waste Kgal 80991			
1	192	20.6	28.9	0.07	2083	1636	19	1.10	3.6	91	0.42	0.33	0.0	4	1	
2		20.9											0.0		2	
3		21.8	37.7	0.05	2157	1722	18	1.20	3.3	83	0.43	0.34	0.0		3	
4		22.8											0.0		4	
5		24.6	34.6	0.06	2295	1833	20	1.15	2.1	87	0.51	0.40	0.0		5	
6		25.3											0.0		6	
7		24.6											0.0		7	
8		25.0	31.3	0.04	2644	2079	27	0.98	1.7	102	0.49	0.38	0.0		8	
9		25.0											18.5		9	
10		24.6	27.4	0.09	2562	2024	22	1.16	1.0	86	0.51	0.40	0.0		10	
11		24.4											69.5		11	
12		26.5	47.4	0.04	2660	2093	22	1.21	2.4	83	0.49	0.38	18.9		12	
13		26.5											0.0		13	
14		25.3											0.0		14	
15		26.3	41.1	0.04	2549	1981	21	1.21	5.9	82	0.40	0.31	0.0		15	
16		26.9											16.8		16	
17		26.9	47.7	0.05	2466	1916	21	1.17	6.2	85	0.48	0.37	23.2		17	
18		28.0											70.6		18	
19		29.0	26.7	0.06	1991	1547	20	1.00	4.7	100	0.32	0.25	17.6		19	
20		28.2											0.0		20	
21		28.7											0.0		21	
22		29.5	39.3	0.06	2240	1755	24	0.93	5.2	107	0.42	0.33	0.0		22	
23		29.0											73.4		23	
24		30.0	27.8	0.09	1694	1250	20	0.85	4.8	118	0.37	0.28	19.3		24	
25		30.0											0.0		25	
26		30.5	33.8	0.07	1967	1515	21	0.94	3.1	107	0.38	0.29	0.0		26	
27		30.8											0.0		27	
28		31.0											0.0		28	
29		31.3	45.7	0.05	2308	1793	25	0.92	4.6	108	0.47	0.36	0.0		29	
30		31.3											64.9		30	
31															31	
TL	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	392.7	XXXX	TL	
ME	192	26.9	36.1	0.06	2278	1780	22	1.06	3.7	95	0.44	0.34	13.1	XXXX	ME	
MAX	XXXX	31.3	47.7	0.09	2660	2093	27	1.21	6.2	118	0.51	0.40	73.4	XXXX	MAX	
MIN	XXXX	20.6	26.7	0.04	1694	1250	18	0.85	1.0	82	0.32	0.25	XXXX	XXXX	MIN	

4833-5034
R4609 4/74

Remarks:

Final Effluent Sheet

State of Michigan
Department of Environmental Quality

Lowell, Michigan

	Fecal	Total
MF	31616	31504
MPW	31615	31505

Plant No. 410049 Month June Year 2020 Sampling Point Code 001

Superintendent's Signature Brian Vander Meulen, Supt.

R 4610 4/74
4833-5468

DAY PN SF	CBOD			SS			Total - P			VSS	pH	DO	F.Coli	NH3	Cl2	Mercury	DAY PN SF
	mg/l	LBS.	% Rem	mg/l	LBS.	% Rem	mg/l	LBS.	% Rem	mg/l	SU	mg/l	#/100ml	mg/l	mg/l	ng/l	
	80082	85001	80091	00530	85002	81011	00665	85004	81012	00535	00400	00300	31616	00610	50060	71900	
1	10	139	90	2.4	33	96				1.6	7.3	9.7	28		0.027	*G	1
2																	2
3	4	53	94	8.4	111	84	0.27	3.56	84	2.8	7.4	9.1	40	0.05	0.025		3
4																	4
5	3	40	97	1.2	14	98				0.8	7.2	9.2	28		0.032		5
6																	6
7																	7
8	11	127	88	3.0	35	97				2.8	7.6	9.5	22		0.037		8
9																	9
10	4	47	98	3.6	42	96	0.44	5.14	86	2.0	7.3	8.8	224	0.06	0.009		10
11																	11
12	2	22	98	2.4	26	96				1.6	7.7	9.3	15		0.036		12
13																	13
14																	14
15	5	55	95	3.2	35	95				2.8	7.4	9.9	8		0.023		15
16																	16
17	6	64	95	3.2	34	94	0.61	6.51	68	1.2	7.3	9.4	40	0.05	0.025		17
18																	18
19	5	50	96	2.6	26	97				2.4	7.2	8.3	52		0.006		19
20																	20
21																	21
22	10	98	92	2.0	20	97				1.6	7.3	8.1	21		0.027		22
23																	23
24	4	38	97	3.6	35	95	0.49	4.70	81	2.8	7.4	9.0	31	0.03	0.036		24
25																	25
26	3	28	98	1.2	11	98				0.8	7.3	9.3	40		0.032		26
27																	27
28																	28
29	4	37	96	6.0	55	91				5.6	7.4	8.9	37		0.031		29
30																	30
31																	31
TL	XXXX	1837	XXXX	XXXX	1099	XXXX	XXXX	149.3	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	TL
ME	5	61	95	3.3	37	95	0.45	4.98	80	2.2	7.4	9.1	32	0.05	0.027	XXXX	ME
WA	7	77	93	4.2	53	93	XXXX	XXXX	XXXX	3.2	7.5	8.5	52	0.06	0.033	XXXX	WA
MAX	11	139	98	8.4	111	98	0.61	6.51	86	5.6	7.7	9.9	224	0.06	0.037	XXXX	MAX
MIN	2	22	88	1.2	11	84	0.27	3.56	68	0.8	7.2	8.1	8	0.03	0.006	XXXX	MIN

Remarks: Fecal Coli for June are actually "Greater Than"
Cl2 Residuals for June are actually "Less Than"

Miscellaneous Sheet

State of Michigan
Department of Environmental Quality

Lowell, Michigan

21

R 4607 4/74
4833-6040

Plant No. 410049 Month June Year 2020

Superintendent's Signature Brian Vander Meulen, Supt.

DAY	Grit	Aux Fuel	Power Consumption	Chemicals Applied		
		Nat. Gas	KWH	Cl ₂	FeCL ₂	
	CF	CF		LBS	GAL	
		2	3			
1	1	0	2.0	8	30	
2	1	0	1.8	7	25	
3	1	0	1.8	10	20	
4	1	0	2.0	10	25	
5	1	0	1.8	5	20	
6	1	0	1.8	10	25	
7	1	0	1.8	10	20	
8	1	1	1.8	10	25	
9	1	0	2.0	8	20	
10	1	0	2.0	7	20	
11	1	0	2.6	10	25	
12	1	0	2.0	13	20	
13	1	1	2.0	12	25	
14	1	0	2.2	10	20	
15	1	0	2.0	8	20	
16	1	0	2.2	7	25	
17	1	0	2.0	7	20	
18	1	0	2.4	8	25	
19	1	1	2.0	8	25	
20	1	0	1.8	8	25	
21	1	0	2.2	8	25	
22	1	0	1.8	6	30	
23	1	0	2.4	5	25	
24	1	0	2.0	7	25	
25	1	0	2.0	8	25	
26	1	0	1.8	6	25	
27	1	0	2.0	6	25	
28	1	0	2.0	8	25	
29	1	1	2.0	7	25	
30	1	0	2.2	3	25	
31						
TL	30	4	60.4	240	715	0
ME	1	0	2.0	8	24	0
MAX	1	1	2.6	13	30	0
MIN	1	0	1.8	3	20	0

Manpower						
Position Title	Full Time	Part Time	Total Hours	No. of Vac.	No. of Separations	No. of New Hires
Superintendent	1	0	176	0	0	0
Shift Operator	1	1	196	0	0	0
Total	2	1	372	0	0	0
Weekday Hrs.	9					
Saturday Hrs.	4					
Sunday Hrs.	4					
Holiday Hrs.	4					

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)

NAME: LOWELL WWTP
ADDRESS: 301 EAST MAIN STREET
 LOWELL MI 49331

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

MI0020311	001 A
PERMIT NUMBER	DISCHARGE NUMBER

MINOR
 (SUBR GG)
 F-FINAL
 001 MUN.WASTE#20--FLAT RIVER

FACILITY: LOWELL WWTP
LOCATION: LOWELL MI 49331
ATTN: BRIAN VANDER MEULEN

MONITORING PERIOD						
YEAR	MO	DAY	YEAR	MO	DAY	
2020	6	01	TO	2020	6	30

*** NO DISCHARGE ***
 NOTE: Read instructions before completing this form.

PARAMETER	SAMPLE MEASUREMENT / PERMIT REQUIREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
FLOW, IN CONDUIT OR THRU TREATMENT PLANT 50050 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	1.30	1.67	(03)	*****	*****	*****	****	-	7/7	RECORD FLOW
	PERMIT REQUIREMENT	REPORT MONTHLY AVG	REPORT DAILY MAX	MGD	*****	*****	*****		****		WEEKDAYS
SOLIDS, TOTAL SUSPENDED 00530 B 0 0 PRIOR TO DISINFECT	SAMPLE MEASUREMENT	37	53	(26)	*****	3.3	4.2	(19)	0	3/7	24 HR COMP
	PERMIT REQUIREMENT	360 MONTHLY AVG	530 7 DAY AVG	lbs/day	*****	30 MONTHLY AVG	45 7 DAY AVG	mg/L		WEEKDAYS	24 HR COMP
BOD, CARBONACEOUS 05 DAY, 20C 80082 B 0 0 PRIOR TO DISINFECT	SAMPLE MEASUREMENT	61	77	(26)	*****	5	7	(19)	0	3/7	24 HR COMP
	PERMIT REQUIREMENT	300 MONTHLY AVG	470 7 DAY AVG	lbs/day	*****	25 MONTHLY AVG	40 7 DAY AVG	mg/L		WEEKDAYS	24 HR COMP
NITROGEN, AMMONIA TOTAL (AS N) 00610 B 1 0 PRIOR TO DISINFECT	SAMPLE MEASUREMENT	*****	*****	****	*****	*****	0.06	(19)	0	1/7	24 HR COMP
	PERMIT REQUIREMENT	*****	*****	****	*****	*****	REPORT DAILY MAX	mg/L		WEEKLY	24 HR COMP
PHOSPHORUS, TOTAL (AS P) 00665 B 0 0 PRIOR TO DISINFECT	SAMPLE MEASUREMENT	5.0	6.5	(26)	*****	0.45	0.61	(19)	0	1/7	24 HR COMP
	PERMIT REQUIREMENT	12 MONTHLY AVG	REPORT DAILY MAX	lbs/day	*****	1.0 MONTHLY AVG	REPORT DAILY MAX	mg/L		WEEKLY	24 HR COMP
CHLORINE, TOTAL RESIDUAL 50060 P 0 0 SEE COMMENTS BELOW	SAMPLE MEASUREMENT	*****	*****	****	*****	*****	0.037	(19)	0	3/7	GRAB
	PERMIT REQUIREMENT	*****	*****	****	*****	*****	0.038 DAILY MAX	mg/L		WEEKDAYS	GRAB
MERCURY, TOTAL 71900 B 0 0 PRIOR TO DISINFECT	SAMPLE MEASUREMENT	*****	*G	****	*****	*****	*G		0	1/90	GRAB
	PERMIT REQUIREMENT	*****	Report Max Monthly Avg	lbs/day	*****	*****	Report Max Monthly Avg	ng/L		QUARTERLY	GRAB

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	PHONE NUMBER		DATE			
		(616) 897-8135	2020	7	10		
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

P=AFTER DISINFECTION

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)

NAME: LOWELL WWTP
ADDRESS: 301 EAST MAIN STREET
 LOWELL MI 49331

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

MI0020311	001 A
PERMIT NUMBER	DISCHARGE NUMBER

MINOR
 (SUBR GG)
 F-FINAL
 001 MUN. WASTE H2O--FLAT RIVER

FACILITY: LOWELL WWTP
LOCATION: LOWELL MI 49331
ATTN: BRIAN VANDER MEULEN

MONITORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY
2020	6	01		2020	6	30

*** NO DISCHARGE ***

NOTE: Read instructions before completing this form.

PARAMETER	SAMPLE MEASUREMENT PERMIT REQUIREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
MERCURY, TOTAL	*****	0.000008			*****	*****	0.48		0	1/90	CALCTD
71900 X 0 0 PRIOR TO DISINFECT	*****	0.000036	12-Mo Rolling Avg	lbs/day	*****	*****	3.0			QUARTERLY	CALCTD
COLIFORM, FECAL GENERAL	*****	*****			*****	32	52	(19)	0	3/7	GRAB
74055 P 0 0 SEE COMMENTS BELOW	*****	*****	*****	*****	*****	200	400	MONTHLY AVG 7 DAY AVG		DAILY	GRAB
BOD, 5-DAY PERCENT REMOVAL	*****	*****			95	*****	88	(23)	0	1/30	CALCTD
81010 K 0 0 PERCENT REMOVAL	*****	*****	*****	*****	85	*****	Minimum Daily % Removal	PERCENT		ONCE/MON	CALCTD
SOLIDS, SUSPENDED PERCENT REMOVAL	*****	*****			95	*****	84	(23)	0	1/30	CALCTD
81011 K 0 0 PERCENT REMOVAL	*****	*****	*****	*****	85	*****	Minimum Daily % Removal	PERCENT		ONCE/MON	CALCTD
pH	*****	*****			7.2	*****	7.7	(12)	0	3/7	GRAB
00400 P 0 0 SEE COMMENTS BELOW	*****	*****	*****	*****	6.5	*****	9.0	DAILY MINIMUM DAILY MAX	S.U.	WEEKDAYS	GRAB
OXYGEN, DISSOLVED (DO)	*****	*****			8.1	*****	*****	(19)	0	3/7	GRAB
00300 P 0 0 SEE COMMENTS BELOW	*****	*****	*****	*****	3.0	*****	*****	DAILY MINIMUM	mg/L	WEEKDAYS	GRAB
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	PHONE NUMBER		DATE			
		(616) 897-8135	2020	7	10		
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

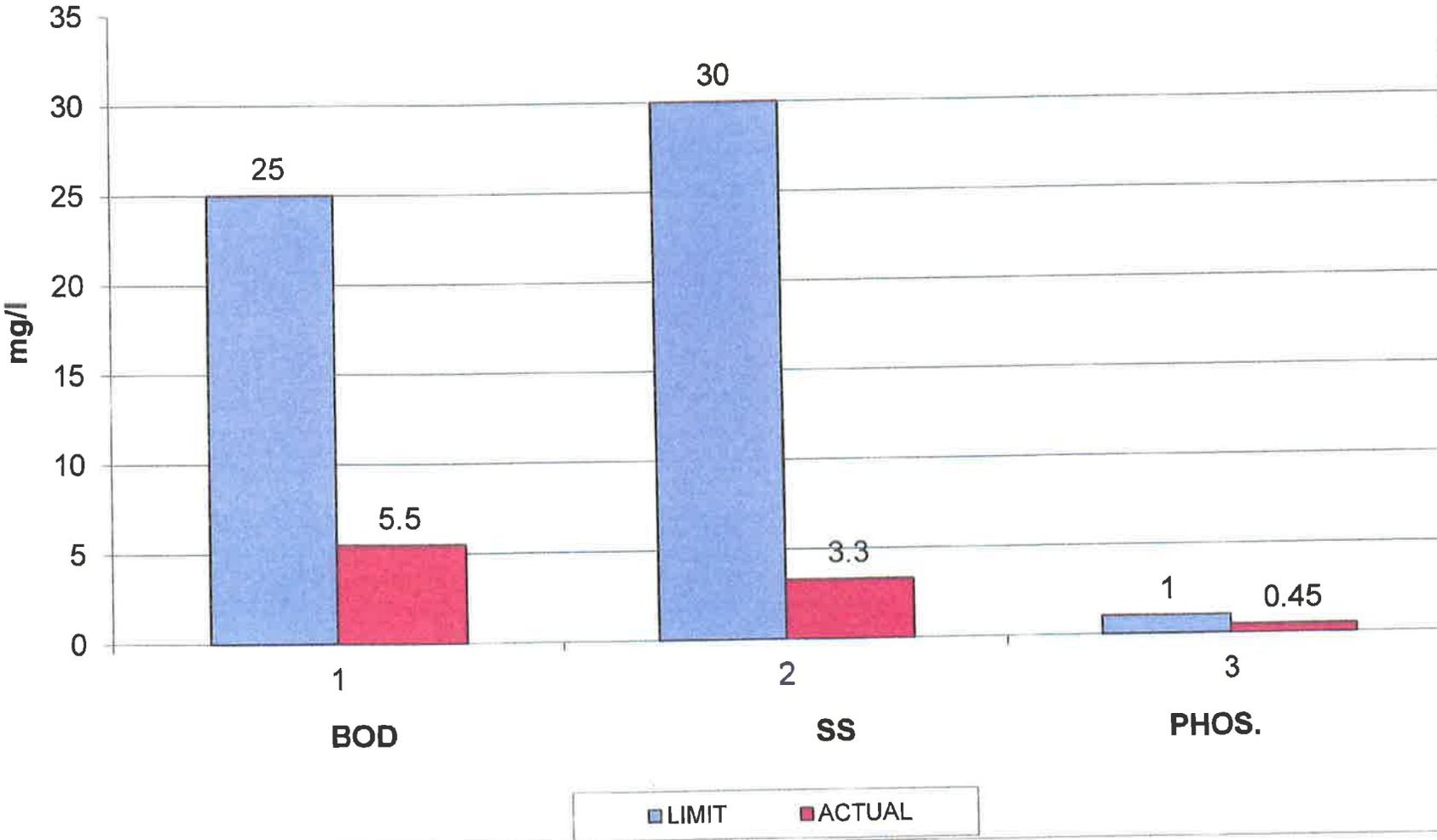
COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

P=AFTER DISINFECTION

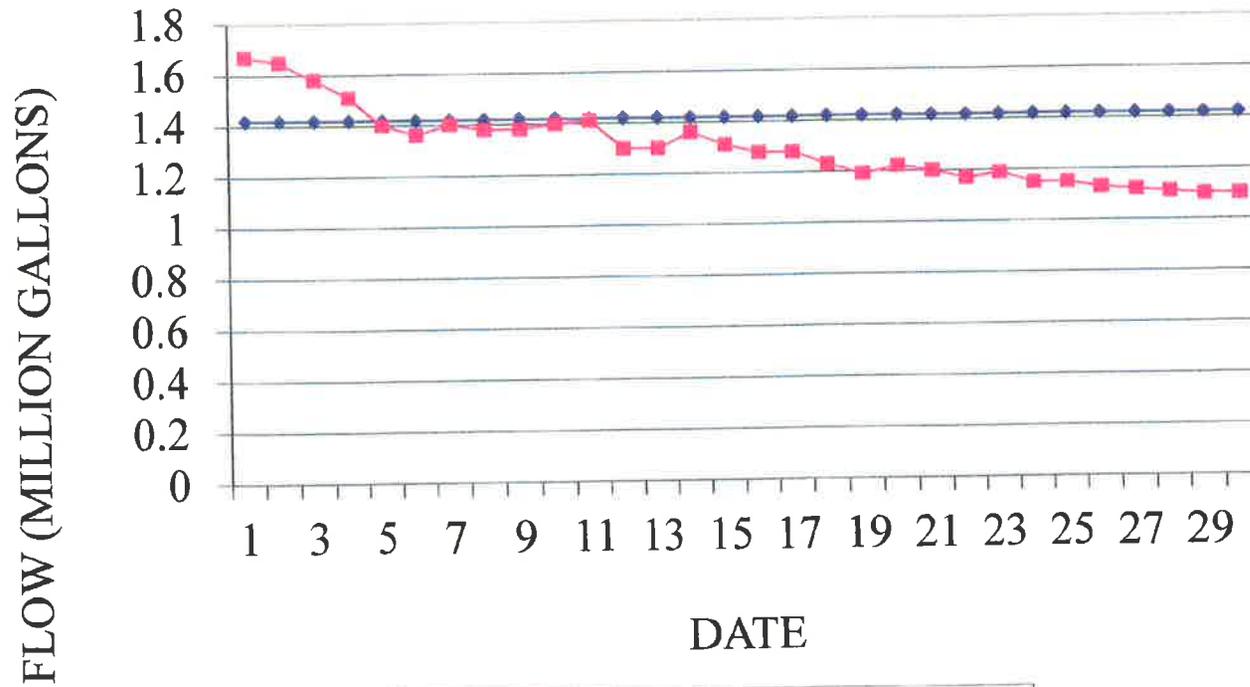
Appendix B



EFFLUENT LIMIT vs ACTUAL



DESIGN FLOW vs ACTUAL FLOW



◆ DESIGN FLOW ■ ACTUAL FLOW

APPOINTMENTS

	Expires
Arbor Board	
Vacancy (Diane LaWarre – Resigned)	06/30/2020
Vacancy (Melissa Spino – Currently Serving)	06/30/2020
Construction Board of Appeals	
Vacancy	01/01/2021
Downtown Development Authority	
Vacancy (Eric Wakeman – Currently Serving)	01/01/2020
Local Officers Compensation Commission	
Vacancy (Roger LaWarre – Currently Serving)	06/30/2020
Lowell Area Fire and Emergency Services Authority	
Vacancy (Dave Pasquale – Currently Serving)	01/01/2020
Planning Commission	
Vacancy (David Cadwallader – Currently Serving)	06/30/2020
Vacancy (Colin Plank – Currently Serving)	06/30/2020