STATUS REPORT ON

PHASE II STORM WATER PERMIT

ILLICIT DISCHARGE AND ELIMINATION PROGRAM

OUTFALL INSPECTION AND MONITORING

FOR

LATHRUP VILLAGE

AUGUST 2021

Prepared by:

HRC
HUBBELL, ROTH & CLARK, INC
CONSULTING ENGINEERS SINCE 1915

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Summary of IDEP Activities

This report summarizes the City of Lathrup Village's Illicit Discharge and Elimination Plan (IDEP) outfall inspection activities for the 2020-2021 testing years. The IDEP has been developed to partially fulfill the requirements for the State of Michigan's NPDES permit for Storm Water Discharge from the Municipal Separate Storm Sewer Systems (MS4s).

As a requirement of the IDEP, the City must inspect all its storm sewer outfalls every five (5) years. These include the outfalls identified in the current MS4 permit along with any new outfalls that may be identified subsequently. Lathrup Village is also part of the Alliance of Rouge Communities (ARC) which assists with some of the City's MS4 permit tasks. The ARC has a Collaborative Illicit Discharge Elimination Program (IDEP) for all of its participating communities that presents the watershed-wide approach to effectively and efficiently address IDEP requirements.

Hubbell, Roth & Clark, Inc. (HRC) inspected the City's eight (8) permit identified outfalls. Appendix A of this report contains the outfall map illustrating all known outfalls within Lathrup Village.

I. Illicit Discharge and Elimination Plan – Procedure

Lathrup Village's short-term illicit discharge and elimination program efforts have been focused on the following:

- Inspecting known storm outfalls visually (as identified through review of existing sewer maps)
- Eliminating illicit discharges as they are identified through visual monitoring of known storm outfalls
- Field observation to identify and verify additional storm outfalls that may not have been identified through review of existing sewer maps.

This procedure is consistent with the MS4 permit requirements.

A. Dry Weather Visual Storm Sewer Outfall Inspections

Since dry weather discharges may be indicative of illicit connections, the outfalls were visually inspected during dry weather periods. For this investigation, dry weather was defined as periods when there had not been precipitation (or snow melt) for a minimum of two (2) days or forty-eight (48) hours. If any instances occurred where the storm water outfall was submerged, the upstream manhole/pipe would be inspected.

The indicators of potential illicit connections used in this study were:

- Blockage
- Deposits/Stains
- Dry Weather Flow
- Presence/absence of flow

- Estimated flow Rate
- Floatables
- Odor
- Water Color
- Visible Debris
- Size of Outfall
- Outfall/Pipe Material
- Turbidity
- Structural Condition

Visual observations were documented on tablets under the ArcGIS checklist for each outfall inspected along with pictures. ArcGIS is an online system that provides data-driven mapping and analyses. The work can be shared and integrated across other users who log into ArcGIS. An example of the field checklist/inspection form used is shown in Appendix B.

B. Wet Weather Visual Storm Sewer Outfall Inspections

Per Lathrup Village's MS4 stormwater permit, it requires that if there is a Total Maximum Daily Load (TMDL) established by the Department for the receiving water, which restricts the discharge of any of the identified significant materials or constituents of those materials, then the Stormwater Pollution Prevention Plan (SWPPP) shall identify the level of control for those materials necessary to comply with the TMDL, and an estimate of the current annual load of those materials via storm water discharges to the receiving stream. The City's SWPPP states a TMDL pollutant for Biota, which includes Fish and Macroinvertebrate Communities rated poor who now score acceptable or excellent in Procedure 51 biomonitoring and Sedimentation/Siltation with a target mean annual suspended sediment concentration 80 mg/L during wet weather.

Per the ARC Collaborative IDEP, the biota assessments apply to the entire watershed. Suspended sediment levels were measured at 90 sites across the watershed in 2017. Suspended sediment sampling will be repeated during wet weather at sites where the average wet weather TSS values exceeded 80 mg/l and where single sample values exceeded 120 mg/L in 2017. The TMDL monitoring report should be complete March 30, 2023.

C. Storm Outfall Sampling

Outfalls that had flow during dry weather were sampled for Escherichia coli (E. coli) which is one of the main indicators of an illicit connection.

Parameter	Found In	Potential Source(s)
Escherichia Coli (E. coli)	Sewage	Human or Animal Waste

Escherichia coli (E. coli)

The Michigan water quality standard for E. coli for recreational total body contact is 130 colonies per 100ml of water as a 30-day geometric mean or shall not exceed 300 colonies per 100ml of water at any one time.

D. Sampling Results

Samples during dry weather inspections were taken from one (1) outfall as noted in the following table. The analytical samples for this study were tested at Test America in Brighton. No other flow was present. See Appendix C for the Analytical Reports.

Lab Results Table

Outfall ID	E. Coli Level	State Allowable Limit (cfu per 100ml)
4	4.1	300

E. Outfall Inspection Results

Of the eight (8) outfalls inspected, three (3) were noted to be in good condition, two (2) in fair condition, and two (2) were noted to be in poor condition. One (1) should be removed from the outfall list. Below are the criteria used to determine the outfall condition.

Good: Outfall was noted to be clean, fully operational and with no notable condition deficiencies.

Fair: Outfall had minimal to moderate erosion and/or sediment accumulation but is not impacting capacity or functionality.

Poor: Outfall had moderate to severe erosion, sediment accumulation, and/or was buried impacting capacity and/or functionality.

Outfall ID	Condition
4	Good
7	Good
8	Good
1	Fair
5	Fair
2	Poor
3	Poor
6	Remove

Outfalls 4, 7 and 8 were categorized as Good as no issues were found. Outfalls 1 and 5 were categorized as Fair since they had structural issues. Outfalls 2 and 3 were categorized as Poor. Outfall 2 had stagnant water and dirt in pipe. A size could not be measured accurately. Outfall 3 was buried and an inspection had to be taken at the upstream manhole. Outfall 6 is only a curb catch basin that accepts road flow and should be eliminated from the outfall list.

The following pages contain the inspection summary of each outfall including the outfall material, size, condition assessment, and picture.

Outfall ID: 1	**Outfall Material:** RCP
Size: 24”	**Condition:** Fair – Crack on top of structure and wing wall is separating. Exposed on top.
	

Outfall ID: 2	**Outfall Material:** RCP
Size: 30”	**Condition:** Poor – Stagnant water and dirt in outfall. Recommend cleaning out or grading section.
	

Outfall ID: 3	**Outfall Material:** Unknown
Size: 42”	**Condition:** Poor – Original outfall was buried. Upstream manhole did not have enough water to sample.
	

Outfall ID: 4	**Outfall Material:** RCP
Size: 30”	**Condition:** Good
	

Outfall ID: 5	**Outfall Material:** RCP
Size: 36”	**Condition:** Fair – Could not open crate over manhole.
	

Outfall ID: 6 – Remove	**Outfall Material:**
Size: 12”	**Condition:** Road catch basin
	

Outfall ID: 7	**Outfall Material:** RCP
Size: 84”	**Condition:** Good
	

Outfall ID: 8	**Outfall Material:** Unknown
Size: 54”	**Condition:** Good
	

II. Short-Term Illicit Discharge and Elimination Plan Program

The sample taken at Outfall 4 did not result in high levels of E. coli so no further action is required there. Lathrup Village should eliminate Outfall 6 and update any documents to reflect this change. This should be added to the number of catch basins the City has. During the next permit reissuance cycle, EGLE should be notified of this change.

It is recommended that the City should inspect Outfall 1 due to the deterioration of the crack on top of the structure and the exposed wing wall that has been separated to determine next steps to fixing the structure. The City should clean out or grade the section around Outfall 2 to remove the stagnant water and dirt in outfall.

III. Long-Term Illicit Discharge Elimination Plan Program

The long-term IDEP efforts will focus on maintaining compliance with the Illicit Discharge Elimination Plan, including inspecting all storm drain outfalls every five (5) years. The inspections shall include the outfalls from this report along with any new outfalls that may be identified and/or constructed subsequently.

Lathrup Village should continue public education of reporting dumping in the storm drain and encourage all residents and staff to contact the City should any suspicious discharges be witnessed at an outfall.

The City should continue the training of its Department of Public Works staff. DPW personnel are the best source for discovering illicit discharges and dumping since they are frequently in the field. Training should consist of how to identify an illicit connection or dumping and the steps that need to be taken upon discovery.

IV. Summary and Recommendation

In order to maintain compliance with its MS4 Permit, Lathrup Village completed the IDEP activities as outlined herein. HRC inspected the City's 8 outfalls, with 1 eliminated which comes to a new total of 7 outfalls for the City. Appendix A of this report contains the outfall map illustrating all known outfalls in the City.

A total of 8 outfalls were inspected throughout the City. Samples during dry weather inspections were taken from one (1) outfall: outfall 4. The sample result came to only 4.1 which is lower than the state allowable limit of 300 per 100ml.

During the IDEP inspections, Outfall 2 and 3 were categorized as poor. Outfall 2 had stagnant water and dirt in pipe. A size could not be measured accurately. Outfall 3 was buried and an inspection had to be taken at the upstream manhole. In addition, Outfall 6 should be removed from the City's map and list and is no longer a City outfall. This outfall is located on Evergreen Rd just north of 11 Mile on the east side. This outfall is actually a curb

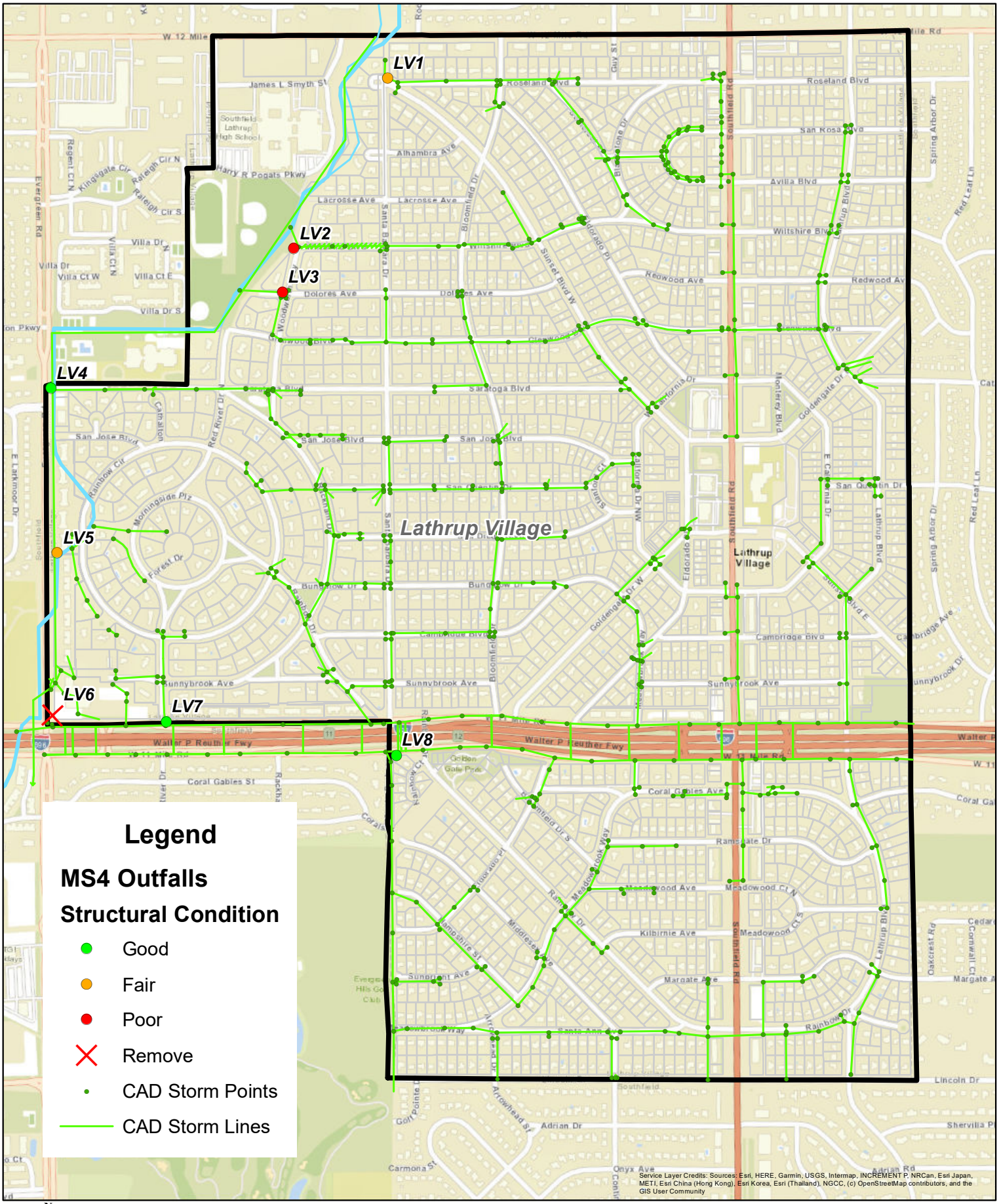
catch basin that only accepts road flow and does not connect to any other storm structure. No other flow was present. This point should be added to the catch basin list. Outfall 7 is located in the busy intersection of 11 Mile and Evergreen so the catch basin upstream was inspected. The curb catch basin located on 11 Mile just south of Red River Rd was inspected, but a sample could not be taken. Flow was not present enough to grab enough water.

Next Steps:

- Inspect Outfall 1 for maintenance needs
- Inspect Outfall 2 for maintenance needs
- Update outfall map and list – remove Outfall 6. Add to catch basin list
- Continue public education and training of staff

Appendix A - Outfall Map

Lathrup Village MS4 2019-2021 Inspections



N
W E
S

0 0.125 0.25 0.5

Miles

HUBBELL, ROTH & CLARK, INC
CONSULTING ENGINEERS SINCE 1915

Document Path: T:\Depts\EED\Stormwater Permits\Lathrup Village\IDEP\2020_Inspections\GIS\LathrupVillageMap.mxd

Appendix B - Outfall List and Field Checklist

Outfall_ID	Location	Date	Crew	Blockage	Size_IN	Material	Dry Flow	Presence/Absence of Flow	Flow Comments	Temperatu	Water Color	Water Turbidity	Flow Rate	Odor	Floatables
LV1	Lathrup Village	10/29/2020 12:39	A. Allen	Clean	24"	RCP	No	No - Absense		0					
LV2	Lathrup Village	10/29/2020 13:10	A. Allen	25%	Other	RCP	No			0					
LV3	Lathrup Village	10/29/2020 13:39	A. Allen		Other		Yes		Not enough water flow to sample.	0					
LV4	Lathrup Village	10/29/2020 14:40	A. Allen	Clean	Other	RCP	Yes	Yes - Presence		0	Clear	Clear	Slow	None	None
LV5	Lathrup Village	2/11/2021 15:05	A. Allen		36"	RCP	No	No - Absense	<Null>	0					
LV6	Lathrup Village	3/9/2021 19:11	A. Allen				No	No - Absense		0					
LV7	Lathrup Village	3/9/2021 19:41	A. Allen		12"	RCP	No	No - Absense		0			Slow		
LV8	Lathrup Village	10/29/2020 16:41	A. Allen	Clean	54"		Yes		Minimal flow. Cannot capture.	0			Moderate		

Deposits Stains	Visible Debris	Structural Condition	Comments	Address	Drain Name	Last Rainfall	Complete	CreationDate *
	None	Fair	Crack on top of structure and wing wall is separating. Exposed on top.	19030 Roseland	Rummell Drain	10/27/2020	Yes	1/6/2021 19:34
	Natural	Fair	Stagnant water and dirt in outfall. Recommend cleaning out or grading section.	19120 Wiltshire	Rummell Drain	10/27/2020	Yes	1/6/2021 19:34
	None		Upstream manhole. Original outfall cannot access as it’s buried.	28425 Woodworth Way	Rummell Drain	10/27/2020	Yes	1/6/2021 19:34
Other	None	Good	At intersection. Manhole on South side of Saratoga as you turn from Evergreen.	Saratoga and Evergreen	Rummell Drain	10/27/2020	Yes	1/6/2021 19:34
		Fair	Could not open crate over manhole. Pipe connecting to the north and to the east.	27456 Evergreen	Rummell Drain	2/9/2021	Yes	1/6/2021 19:34
		Good	Road catch basin located here off of Evergreen. Intake of flow from road and nothing else.	Evergreen	Rummell	2/28/2021	Yes	3/10/2021 19:20
		Good	Catch basin on curb off of 11 Mile. Very slow flow coming from northeast pipe. Could not catch enough water. Could not capture water on very bottom of pipe as stick was not long enough. Water was flowing west.	Red Run Dr and 11 Mile	Rummell	2/28/2021	Yes	3/10/2021 19:45
	None		Cannot see structure.	18951 Rainbow Ct	Rummell Drain	10/27/2020	Yes	1/6/2021 19:34

Appendix C - Analytical Sample Laboratory Results/Reports

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Michigan
10448 Citation Drive
Suite 200
Brighton, MI 48116
Tel: (810)229-2763

Laboratory Job ID: 190-24500-1
Client Project/Site: Lathrup Village

For:
Hubbell, Roth & Clark Inc
PO BOX 824
Bloomfield Hills, Michigan 48303

Attn: Kyle Anderson

Sue Schafer

Authorized for release by:
11/20/2020 12:33:20 PM

Sue Schafer, Project Manager II
(810)229-2763
Sue.Schafer@Eurofinset.com

Table of Contents

Sample Summary

Client: Hubbell, Roth & Clark Inc
Project/Site: Lathrup Village

Job ID: 190-24500-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
190-24500-1	LV4	Water	10/29/20 11:05	10/29/20 13:45	

Job ID: 190-24500-1

Laboratory: Eurofins TestAmerica, Michigan

Narrative

Job Narrative
190-24500-1

Comments
No additional comments.

Receipt
The sample was received on 10/29/2020 1:45 PM; the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.0º C.

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Brighton Analytical L.L.C. TM

2105 Pless Drive Brighton, Michigan 48114 Phone (810)229-7575 Fax (810)229-8650 E-mail bai-brighton@sbcglobal.net

October 30, 2020

Eurofins/TA
10448 Citation Dr.
Brighton, MI 48116

Subject: HRC-Lathrup Village
COC#190-24500

Dear Ms. Schafer :

Thank you for making Brighton Analytical, L.L.C. your laboratory of choice. Attached are the results for the samples submitted on 10/29/2020 for the above mentioned project. NELAP/TNI Accredited Analysis and EGLE Drinking Water Certified Analysis will be identified in their respective reporting formats. Hard copies can be supplied at your request for a fee of $20.00 per copy.

The invoice for this project will be emailed separately. If you have any questions concerning the data or invoice, please don't hesitate to contact our office. We welcome your comments and suggestions to improve our quality systems. Please reference Brighton Analytical, L.L.C. Project ID 71364 when calling or emailing. We thank you for this opportunity to partner with you on this project and hope to work with you again in the future.

Sincerely,
Brighton Analytical, L.L.C.

Brighton Analytical LLC
2105 Pless Drive
Brighton, Michigan 48114
Phone: (810)229-7575 (810)229-8650
e-mail:bai-brighton@sbcglobal.net
EGLE Certified #9404
NELAC Accredited #176507

Sample Date/Time:	10/29/2020	11:05
Submit Date/Time:	10/29/2020	16:10
Report Date:	10/30/2020	

Eurofins/TA
10448 Citation Dr.
Brighton, MI 48116

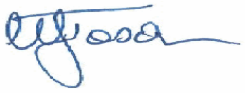
BA Project # **71364**
BA Sample ID **CN05916**

Project Name: **HRC-Lathrup Village**
Project Number: **COC#190-24500**
Sample ID: **190-24500-1 LV4**

Analyte Name	Result	Units	RL	MCL	Method Reference	Analysis Time	Analysis Date
Drinking Water Microbiological Analysis							
E. coli(Drinking Water)	4.1	CFU/100 ml	1	0	SM9223B M Well	17:00	10/29/2020
Total Coliform(Drinking Water)	149.7	CFU/100 ml	1	0	SM9223B M Well	17:00	10/29/2020

RL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve EGLE designated target detection limits (TDL).

MCL = Maximum contaminant Levels.
Analysis not specifically identified as drinking water are for non-regulatory compliance purposes.

Released by 

Date 10/30/2020

Chain of Custody Record

460598

#71364

eurofins | Environment Testing TestAmerica

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact	Project Manager: Sue Schafer	Site Contact:	Date: 10/29/20	COC No:
Company Name: Eurofins TestAmerica	Tel/Email: Sue.Schafer@eurofinset.com	Lab Contact:	Carrier:	1 of 1 COCs
Address: 10448 Citation Dr, Ste 200	**Analysis Turnaround Time**			Sampler:
City/State/Zip: Brighton, MI 48116	☐ CALENDAR DAYS ☐ WORKING DAYS			**For Lab Use Only:**
Phone: 810-229-2763	TAT if different from Below _____			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: HRC-Lathrup Village	☐ 1 week			
Site:	☐ 2 days			Job / SDG No.:
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Coliforms Total+Ecoli (need count)	Sample Specific Notes:
190-24500-1 LV4	10/29/20	11:05am	G	W	1		X		CN=5946

190-24500 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H_2SO_4; 4=HNO_3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ | Therm ID No.:_____

	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	ETA	10/29/20 1550		BA	10.29.20 1610
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Eurofins TestAmerica, Michigan
10448 Citation Drive Suite 200
Brighton, MI 48116
Phone: 810-229-2763 Fax: 810-229-0000

Chain of Custody Record

eurofins Environment Testing TestAmerica

Client Information	Sampler: AA	Lab PM: Schafer, Sue	Carrier Tracking No(s):	COC No: 190-24830-1219.1
Client Contact: ~~Barb Matthews~~ Ashley Allen	Phone: 248-464-7834	E-Mail: sue.schafer@testamericainc.com		Page: Page 1 of 3
Company: Hubbell, Roth & Clark Inc				Job #:

Address: 555 Hulet Dr.	Due Date Requested:	Analysis Requested	Preservation Codes:
City: Bloomfield Hills	TAT Requested (days):		A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify)
State, Zip: MI, 48303			
Phone:	PO #: Purchase Order not required		
Email: ~~bmatthews@hrcengr.com~~ EED@hrcengr.com	WO #:		Other:
Project Name: Hubbell Roth&Clark Storm Drain Sampling	Project #: 19001441		
Site: Lathrup Village	SSOW#:		

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM4500_H+ - pH - Short Holding Time	10029 - Coliforms, Total and E. coli (m-Colilblue	4500_P_E - Total Phosphorus as P	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	R	S		
LV4	10/29/20	11:05A	G	Water			✓	✓			
				Water							
				Water							
				Water							
				Water							
				Water							
				Water							
				Water							
				Water							
				Water							
				Water							

190-24500 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by: Ashley Allen	Date/Time: 10-29-20 1:45	Company HRC	Received by: Yael Cain	Date/Time: 10/29/20 1:45	Company EEA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

eurofins

☐ SDS or Known Hazard Information Supplied by Client

☐ Discrepancies

☐ Short Hold

Client ID: _____

Work Oder #: _____

☐ Rush ☐ 24 Hr ☐ 2-Day ☐ 3-Day ☐ 5-Day ☐ Other: _____

Receipt Evaluation Performed by: Initials: ____ Date: _____ Time: _____

Cooler / Sample Receipt

After hours receipt: complete gray areas. Place cooler in walk-in, place form in Receiving box. Date: 10/29/20 Time: 1543

Method of Shipment:

Walk-In Client Eurofins TA Field/Courier

Other Client / 3rd Party Courier: _____

Fed Ex Tracking #: _____

UPS Tracking #: _____

Other: _____

Shipping Container Type:

☒ Cooler ☐ Box

☐ None ☐ Other: _____

Custody Seals Intact:

☒ Yes ☐ No

☐ NA (not used or required)

Packing Materials:

☐ Plastic Bags ☐ Foam

☐ Bubble Wrap ☐ Paper

☐ Packing Peanuts ☒ None

☐ Other: _____

Cooling Materials:

☒ Ice (Solid) ☐ Ice (Melted)

☐ Blue Ice ☐ None

☐ Other: _____

Bacteriological Samples	Temp Corrected (°C)	Frozen? Yes	Frozen? No	Rec'd Within 2 Hrs? Yes	Rec'd Within 2 Hrs? No	Sample Flagged? Yes	Sample Flagged? No

Received on same day sampled? Yes No

Additional Sheets Required? Yes No

Receipt Temperatures

F. 2.0

Thermometer ID	Observed (°C)	Corrected (°C)	Temp Blank	Sample Temp	Acceptable	Cooler ID	Affected Samples
cP 31320 7	6.7	0.0	n/a	6.7	✓Y __N		
					__Y __N		
					__Y __N		

Receipt Questions**	Y	N	NA	"No" answers require additional comment
CoC present and ETA receipt signature, date, and time properly documented?	✓			
Containers and Labels in good condition? *(unbroken, not leaking, appropriately filled, labels legible & attached)*	✓			
Appropriate containers used and adequate volume provided?	✓			Preserved bottles checked for pH?* Yes No
Number of sample containers match CoC?	✓			pH strip lot # _____
Samples received within hold?	✓			
Samples submitted for GRO and Volatiles analysis (8260 624, 524) received without headspace?			✓	
Was a Trip Blank received with VOA samples?			✓	
Were the samples free of any questionable physical conformities? (i.e ; field duplicates or multiple bottles of the same sample do not significantly vary in appearance – color, solid proportions, etc.)	✓			
Were the CoC bottle labels and all other items free of all other discrepancies or issues that would need to be addressed with the Project Manager and/or Client?	✓			
**May not be applicable if samples are not for compliance testing				*Excludes FOG, VOAs, TOC Vials, HEM

Client Contact Record

Contact Via: ☐ Phone ☐ Email ☐ Other: _____ Person Contacted: _____ Date/Time: _____

☐ Discrepancy allowance agreement is on record in the client project file

Discussion / Resolution

No appropriate bottle rec'd for pH. pH not analyzed. JMR 11/3/20

Any additional documentation and clarification from the client must be noted in the narrative and/or scanned into the CoC directory.

Reviewed by _____ Date: _____

WI-MI-010_020720

Chain of Custody Record

eurofins | Environment Testing TestAmerica

11/20/2020

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact	Project Manager:	Site Contact:	Date:	COC No:
Company Name:	Tel/Email:	Lab Contact:	Carrier:	_____ of _____ COCs
Address:	Analysis Turnaround Time			Sampler:
City/State/Zip:	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone:	TAT if different from Below _____			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name:	☐ 1 week			
Site:	☐ 2 days			Job / SDG No.:
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)														Sample Specific Notes:

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

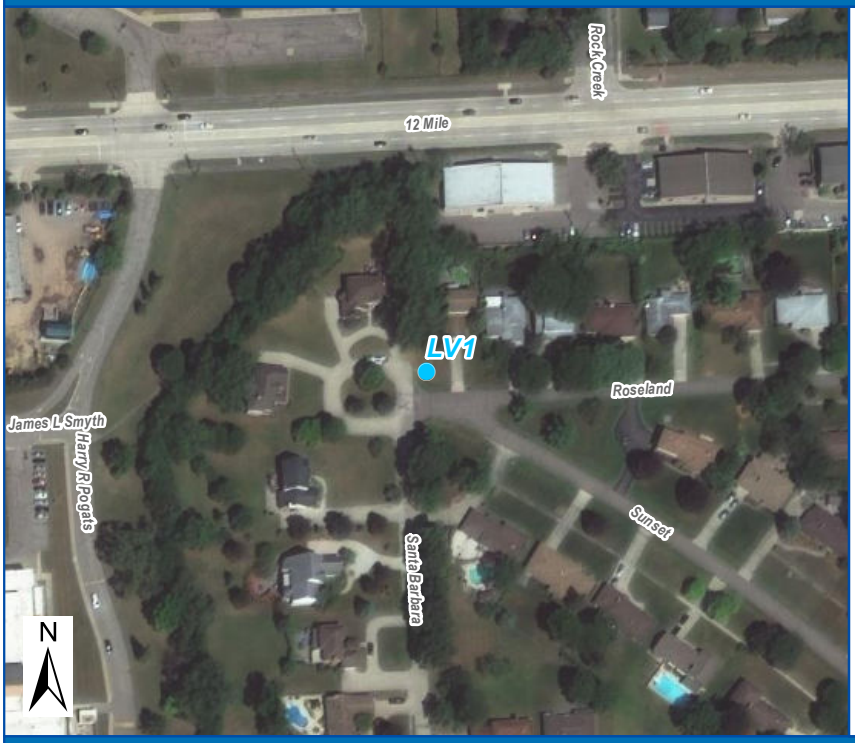
Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ Therm ID No.: _____		
Relinquished by:	Company: ETA	Date/Time: 10/2 [illegible]	Received by:	Company:	Date/Time: 10/29/20 1610
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

MS4 Inspection Report

Outfall ID: LV1

IDEP Location and Photos



Inspection Details

Location:	Lathrup Village	**Flow Comments:**	N/A
Date Inspected:	10/29/2020 12:39:26 PM	**WaterTurbidity:**	N/A
Investigator:	A. Allen	**Water Color:**	N/A
Address:	19030 Roseland	**Other Color:**	N/A
Drain Name:	Rummell Drain	**Temperature:**	0
Last Rainfall:	10/27/2020	**Odor:**	N/A
Blockage:	Clean	**Floatables:**	N/A
Size Inches:	24"	**Other Floatables:**	N/A
Comments:	Crack on top of structure and wing wall is separating. Exposed on top.		
Material:	RCP	**Deposits Stains:**	N/A
Other Material:	N/A	**Other Deposits Stains:**	N/A
Dry Flow:	No	**Visible Debris:**	None
Flow Rate:	N/A	**Structural Condition:**	Fair
Presence/Absence of Flow:	No - Absense	**Complete:**	Yes

MS4 Inspection Report

Outfall ID: LV2

MS4 Location and Photos

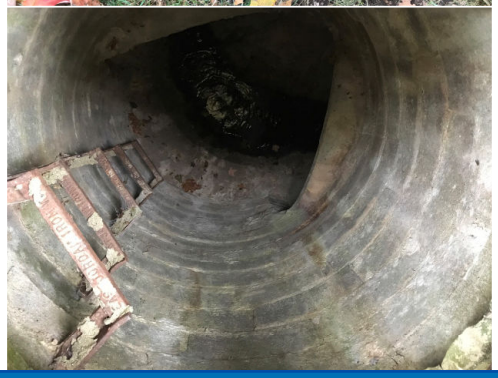
Inspection Details

Location:	Lathrup Village	**Flow Comments:**	N/A
Date Inspected:	10/29/2020	**WaterTurbidity:**	N/A
Investigator:	A. Allen	**Water Color:**	N/A
Address:	19120 Wiltshire	**Other Color:**	N/A
Drain Name:	Rummell Drain	**Temperature:**	N/A
Last Rainfall:	10/27/2020	**Odor:**	N/A
Blockage:	25%	**Floatables:**	N/A
Size Inches:	Other	**Other Floatables:**	N/A
Comments:	Stagnant water and dirt in outfall. Recommend cleaning out or grading section.		
Material:	RCP	**Deposits Stains:**	N/A
Other Material:	N/A	**Other Deposits Stains:**	N/A
Dry Flow:	No	**Visible Debris:**	Natural
Flow Rate:	N/A	**Structural Condition:**	Poor
Presence/Absence of Flow:	No - Absence	**Complete:**	Yes

MS4 Inspection Report

Outfall ID: LV3

MS4 Location and Photos



Inspection Details

Location:	Lathrup Village	**Flow Comments:**	Not enough water flow to sample.
Date Inspected:	10/29/2020	**WaterTurbidity:**	N/A
Investigator:	A. Allen	**Water Color:**	N/A
Address:	28425 Woodworth Way	**Other Color:**	N/A
Drain Name:	Rummell Drain	**Temperature:**	N/A
Last Rainfall:	10/27/2020	**Odor:**	N/A
Blockage:	N/A	**Floatables:**	N/A
Size Inches:	Other	**Other Floatables:**	N/A
Comments:	Upstream manhole. Original outfall cannot access as it's buried.		
Material:	N/A	**Deposits Stains:**	N/A
Other Material:	N/A	**Other Deposits Stains:**	N/A
Dry Flow:	Yes	**Visible Debris:**	None
Flow Rate:	N/A	**Structural Condition:**	Poor
Presence/Absence of Flow:	No - Absence	**Complete:**	Yes

MS4 Inspection Report

Outfall ID: LV4

IDEP Location and Photos

Inspection Details

Location:	Lathrup Village	**Flow Comments:**	N/A
Date Inspected:	10/29/2020 2:40:41 PM	**WaterTurbidity:**	Clear
Investigator:	A. Allen	**Water Color:**	Clear
Address:	Saratoga and Evergreen	**Other Color:**	N/A
Drain Name:	Rummell Drain	**Temperature:**	0
Last Rainfall:	10/27/2020	**Odor:**	None
Blockage:	Clean	**Floatables:**	None
Size Inches:	Other	**Other Floatables:**	N/A
Comments:	At intersection. Manhole on South side of Saratoga as you turn from Evergreen.		
Material:	RCP	**Deposits Stains:**	Other
Other Material:	N/A	**Other Deposits Stains:**	N/A
Dry Flow:	Yes	**Visible Debris:**	None
Flow Rate:	Slow	**Structural Condition:**	Good
Presence/Absence of Flow:	Yes - Presence	**Complete:**	Yes

MS4 Inspection Report

Outfall ID: LV5

IDEP Location and Photos

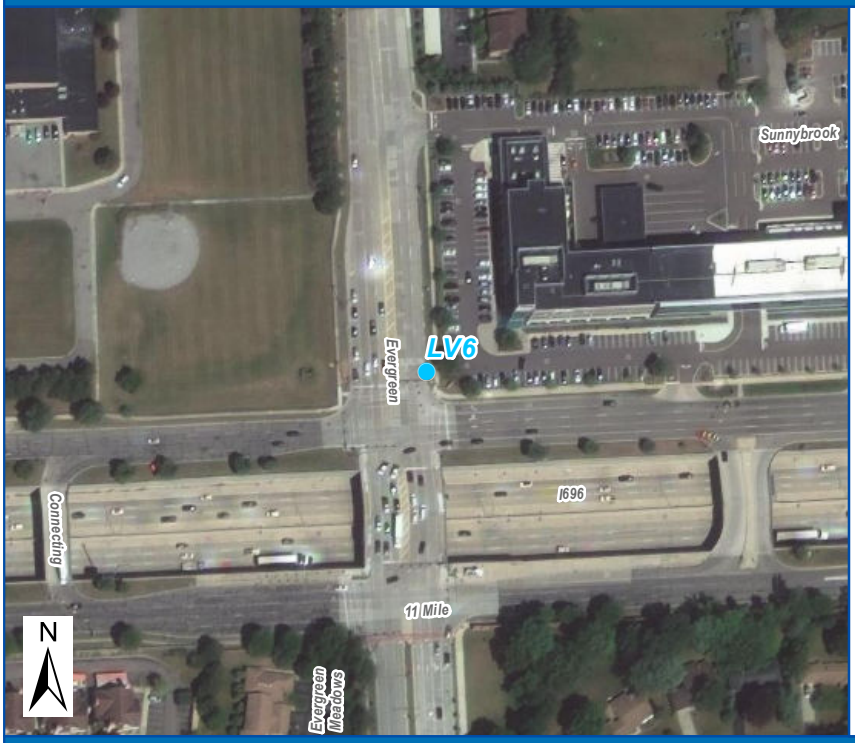
Inspection Details

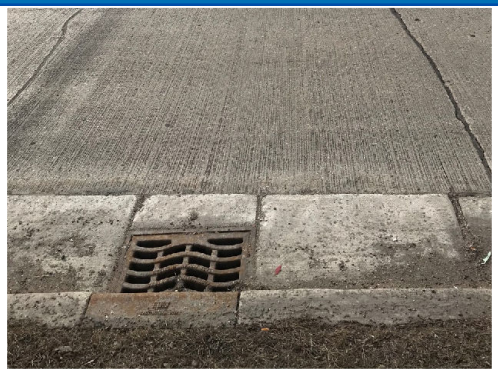
Location:	Lathrup Village	**Flow Comments:**	N/A
Date Inspected:	2/11/2021 3:05:52 PM	**WaterTurbidity:**	N/A
Investigator:	A. Allen	**Water Color:**	N/A
Address:	27456 Evergreen	**Other Color:**	N/A
Drain Name:	Rummell Drain	**Temperature:**	0
Last Rainfall:	2/9/2021	**Odor:**	N/A
Blockage:	N/A	**Floatables:**	N/A
Size Inches:	36"	**Other Floatables:**	N/A
Comments:	Could not open crate over manhole. Pipe connecting to the north and to the east.		
Material:	RCP	**Deposits Stains:**	N/A
Other Material:	N/A	**Other Deposits Stains:**	N/A
Dry Flow:	No	**Visible Debris:**	N/A
Flow Rate:	N/A	**Structural Condition:**	Fair
Presence/Absence of Flow:	No - Absense	**Complete:**	Yes

MS4 Inspection Report

Outfall ID: LV6

MS4 Location and Photos





Inspection Details

Location:	Lathrup Village	**Flow Comments:**	N/A
Date Inspected:	3/9/2021	**WaterTurbidity:**	N/A
Investigator:	A. Allen	**Water Color:**	N/A
Address:	Evergreen	**Other Color:**	N/A
Drain Name:	Rummell	**Temperature:**	N/A
Last Rainfall:	2/28/2021	**Odor:**	N/A
Blockage:	N/A	**Floatables:**	N/A
Size Inches:	N/A	**Other Floatables:**	N/A
Comments:	Road catch basin located here off of Evergreen. Intake of flow from road and nothing else.		
Material:	N/A	**Deposits Stains:**	N/A
Other Material:	N/A	**Other Deposits Stains:**	N/A
Dry Flow:	No	**Visible Debris:**	N/A
Flow Rate:	N/A	**Structural Condition:**	N/A
Presence/Absence of Flow:	No - Absence	**Complete:**	Yes

MS4 Inspection Report

Outfall ID: LV7

IDEP Location and Photos

Inspection Details

Location:	Lathrup Village	**Flow Comments:**	N/A
Date Inspected:	3/9/2021 7:41:53 PM	**WaterTurbidity:**	N/A
Investigator:	A. Allen	**Water Color:**	N/A
Address:	Red Run Dr and 11 Mile	**Other Color:**	N/A
Drain Name:	Rummell	**Temperature:**	0
Last Rainfall:	2/28/2021	**Odor:**	N/A
Blockage:	N/A	**Floatables:**	N/A
Size Inches:	12"	**Other Floatables:**	N/A

Comments: Catch basin on curb off of 11 Mile. Very slow flow coming from northeast pipe. Could not catch enough water. Could not capture water on very bottom of pipe as stick was not long enough. Water was flowing west.

Material:	RCP	**Deposits Stains:**	N/A
Other Material:	N/A	**Other Deposits Stains:**	N/A
Dry Flow:	No	**Visible Debris:**	N/A
Flow Rate:	Slow	**Structural Condition:**	Good
Presence/Absence of Flow:	No - Absense	**Complete:**	Yes

MS4 Inspection Report

Outfall ID: LV8

MS4 Location and Photos

Inspection Details

Location:	Lathrup Village	**Flow Comments:**	Minimal flow. Cannot capture.
Date Inspected:	10/29/2020	**WaterTurbidity:**	N/A
Investigator:	A. Allen	**Water Color:**	N/A
Address:	18951 Rainbow Ct	**Other Color:**	N/A
Drain Name:	Rummell Drain	**Temperature:**	N/A
Last Rainfall:	10/27/2020	**Odor:**	N/A
Blockage:	Clean	**Floatables:**	N/A
Size Inches:	54"	**Other Floatables:**	N/A
Comments:	Cannot see structure.		
Material:	N/A	**Deposits Stains:**	N/A
Other Material:	N/A	**Other Deposits Stains:**	N/A
Dry Flow:	Yes	**Visible Debris:**	None
Flow Rate:	Moderate	**Structural Condition:**	Good
Presence/Absence of Flow:	No - Absence	**Complete:**	Yes