



**CITY OF NOVI CITY COUNCIL  
SEPTEMBER 14, 2020**

**SUBJECT:** Approval of Change Order No. 7 to DVM Utilities, Inc. for the Nine Mile Road Sanitary Sewer project (Evergreen Court to Kensington) in the amount of \$74,250, and amend the budget.

**SUBMITTING DEPARTMENT:** Department of Public Works, Engineering Division

<b>EXPENDITURE REQUIRED</b>	<b>\$ 74,250</b>
<b>AMOUNT BUDGETED</b>	<b>\$ 2,395,727</b>
<b>APPROPRIATION REQUIRED</b>	<b>\$ 74,250</b>
<b>LINE ITEM NUMBER</b>	<b>592-592.00-976.029</b>

**BACKGROUND INFORMATION:** Following notification from property owners on Garfield Lake that water levels were receding, staff investigated the area. Lower than normal water levels were observed, so staff retained an ecologist from consulting engineer OHM-Advisors to assess the existing conditions. It was determined the lake levels did appear to be lower than normal, possibly caused by the dewatering for the sewer construction coupled with an extremely dry summer.

The decision was made to redirect some of the dewatering discharge from the sewer project to Garfield Lake to help return the lake level closer to normal levels. The administrative memo dated September 3, 2020 is included in the packet for further details regarding this diversion pumping.

Below is a summary of the previous and proposed change orders for this project:

Change Order No.	Date Approved	Amount	Description of Change Order
1	4/15/2019	\$20.00	Balancing of Tree Clearing Items No. 7 & 8
2	7/8/2019	-\$11.32	Xypex Treatment additive and balancing of Erosion Control – Silt Fence item
3	1/10/2020	\$99,000.00	Upsize the dewatering header pipe from 12-inch to 18-inch, material only
4	2/24/2020	\$97,332.34	Additional increases for dewatering header pipe and increases for crew days on Basin “B” Improvements and CMP installation
5	5/4/2020 by City Council	\$536,429.91	Increase Item No. 7 (Tree Removal, 6” - 18”) and Item No. 82 (Emergency Excavation) and addition of dewatering claims from the contractor for additional effort, rental equipment, pumps, drop pipes, etc. along with the correlated inspection crew days and contract time.
6	7/13/2020	\$81,712.51	Materials for larger 18" dewatering header from MH5 to MH1
7	Proposed	\$74,250.00	Additional effort to install piping to divert water to Garfield Lake and operate system for three months.

This change order includes operation pumping costs through September. Based on current progress, the installation of the sanitary sewer main is anticipated to be substantially complete by November.

**RECOMMENDED ACTION:** Approval of Change Order No. 7 to DVM Utilities, Inc. for the Nine Mile Road Sanitary Sewer project (Evergreen Court to Kensington) in the amount of \$74,250, and amend the budget.

# MEMORANDUM



**TO:** PETE AUGER, CITY MANAGER  
**FROM:** JEFFREY HERCZEG, DIRECTOR OF PUBLIC WORKS  
**SUBJECT:** GARFIELD LAKE DIVERSION PUMPING  
**DATE:** SEPTEMBER 3, 2020

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The Nine Mile Sanitary Sewer project, which replaces approximately 6,200 feet of force main sanitary sewer with gravity sewer from Evergreen Court to Kensington, has taken longer than anticipated and provided several challenges. Extreme dewatering in order to construct the project has potentially caused a negative impact to the surrounding area, including the water level in Garfield Lake.

After several residents reported a receding lake level, staff investigated options to return water back into the lake and surrounding wetlands. Since the dewatering for the project was routed towards the new Terra subdivision detention basin, the simplest and most cost effective solution to get water back to Garfield Lake, was to pump from the Terra basin south down Garfield Road. In late June, a temporary 6" pipe line was installed through the ditch line with an outlet in Garfield Lake (see attached map). Staff cooperated with residents to find an appropriate route for the piping along Garfield Road and over to Garfield Lake. One of the residents installed a "gauge" on his dock that has allowed staff to closely monitor the lake levels (see below pictures).

The redirection pumping has been in operation for over two months and instantly made an impact on the water level (raised 2.5 feet). The level has been closely monitored after the initial rise and has fell around 0.5 feet. Over the past month, it has remained relatively constant (2 feet higher). According to an Ecologist on OHM Advisors staff, the lake level is approximately 1.5 feet below the "normal annual low" water level.

Staff will be bringing a change order to the September 14 City Council Meeting to cover the costs for the setup, pumps, and fuel associated with the three months of temporary diversion pumping. To date, the costs are approximately \$70K. Since the water level is fluctuating and the project still has several months of construction remaining, staff recommends continuing the diversion pumping for the duration of the project. Additional costs are ~\$13K/month and can be included in a balancing change order with other items when the project is closer to completion.

Furthermore, staff recommends leaving one or two of the dewatering shafts and the temporary pipe in place after the project is complete. This will provide a security measure to pump more into the impacted lake and surrounding wetlands if necessary.

Based on current progress, the installation of the sanitary sewer main is anticipated to be substantially complete by November. The contractor is currently constructing the deepest portion of the project. Staff is optimistic that good progress will be made over the next few months, provided no further subsurface obstructions are encountered.

### *Temporary Diversion Pumping System to Garfield Lake*



*Piping along Garfield Road*



*Piping along resident's yard*



*Water Level "gauge"*



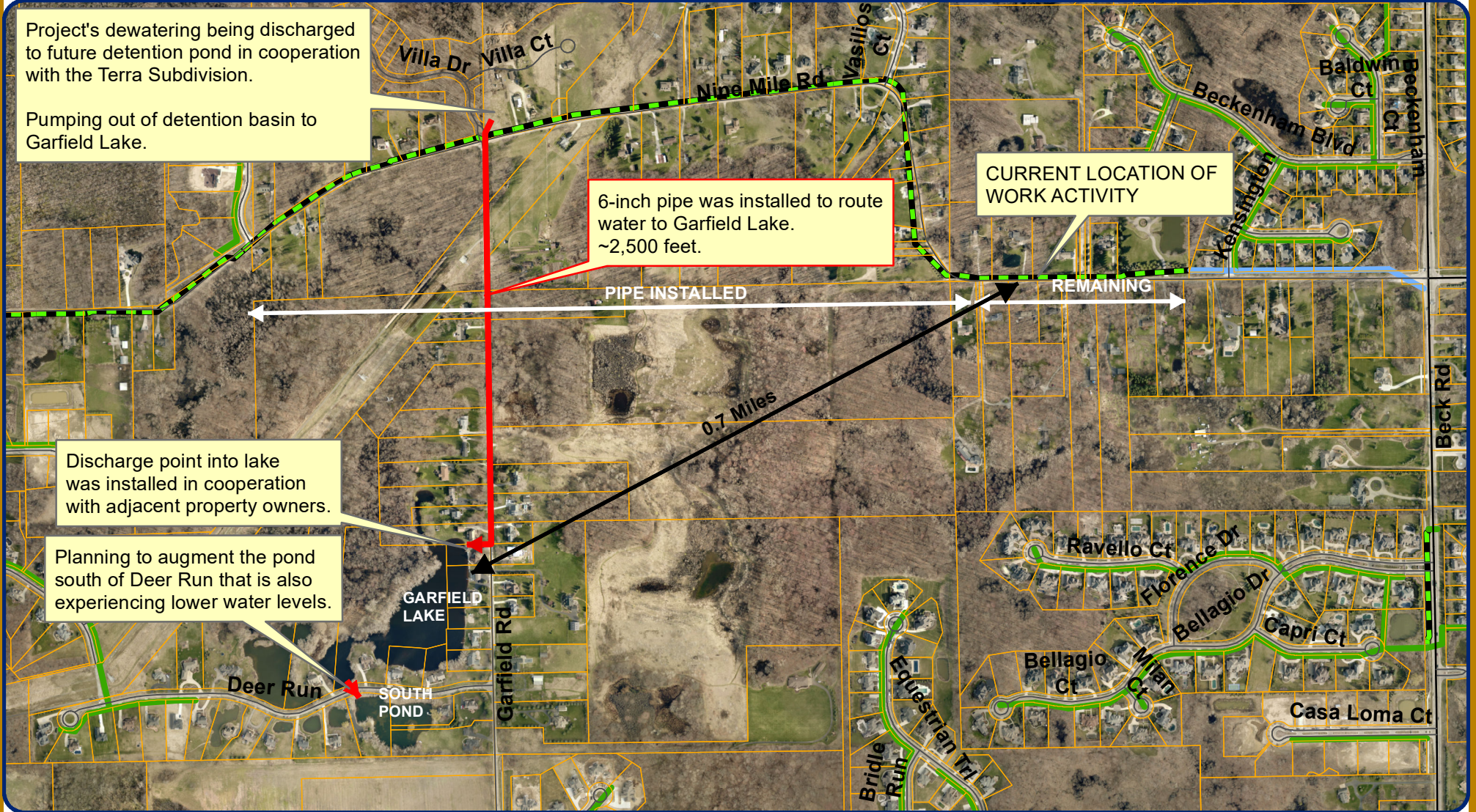
*Pump used to direct water*



*Discharge point*

# NINE MILE GRAVITY SEWER PROJECT

## Location Map



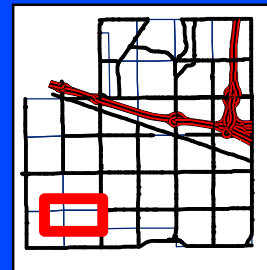
Map Author: Croy  
 Date: 9/1/2020  
 Project: Nine Mile Gravity Sewer  
 Version #: v1.0

### MAP INTERPRETATION NOTICE

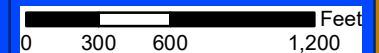
Map information depicted is not intended to replace or substitute for any official or primary source. This map was intended to meet National Map Accuracy Standards and use the most recent, accurate sources available to the people of the City of Novi. Boundary measurements and area calculations are approximate and should not be construed as survey measurements performed by a licensed Michigan Surveyor as defined in Michigan Public Act 132 of 1970 as amended. Please contact the City GIS Manager to confirm source and accuracy information related to this map.

### Map Legend

-  6" Sanitary Force Main
-  8" Sanitary Gravity Sewer
-  12" Sanitary Gravity Sewer



**City of Novi**  
 Engineering Division  
 Department of Public Works  
 26300 Lee BeGole Drive  
 Novi, MI 48375  
[cityofnovi.org](http://cityofnovi.org)



**RESOLUTION**

NOW, THEREFORE BE IT RESOLVED that the following  
Budget Amendment for Nine Mile Road Sanitary Sewer Project is  
authorized:

	INCREASE (DECREASE)
<b>Water and Sewer Fund</b>	
<b>APPROPRIATIONS</b>	
Capital Outlay	74,250
<b>TOTAL APPROPRIATIONS</b>	<u>\$ 74,250</u>
<b>Net Increase (Decrease) to Fund Balance</b>	<u><u>\$ (74,250)</u></u>

I hereby certify that the foregoing is a true and complete copy of a  
resolution adopted by the City Council of the City of Novi  
at a regular meeting held on September 14, 2020

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Cortney Hanson  
City Clerk