Source Water Protection Plan

July 2023

Public Works Department

Village of New Lenox

2401 Ellis Road

New Lenox, Illinois 60451

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1. Background

The Village of New Lenox currently covers approximately 15.7 square miles. The Village owns and operates a public water supply that provides potable water to the Village's population of over 27,200. The Village's primary water supply is Lake Michigan water purchased from the Village of Tinley Park. The Village owns and maintains three (3) backup wells for emergency purposes only. All three emergency backup wells are shallow limestone wells.

Additional background information on capacity and flow of the New Lenox water system is included below.

Primary Source: Lake Michigan Water

Primary Supply: Village of Tinley Park

Primary Connection Point: New Lenox owned Tinley Park Pump Station and Clear Well

Well Summary:

	Well No.5	**Well No.10**	**Well No.11**
Year	1973	1993	1997
Location	1902 Nelson Road New Lenox	821 Sojourn Road New Lenox	2531 Bluestone Parkway New Lenox
Depth (Feet)	303	332	301
Aquifer	Shallow limestone	Shallow limestone	Shallow limestone
Diameter (in)	16" cased: 0-68' 15" open: to 303'	16" cased: 0-81' 15" open: 81-212' 12" liner: 212-263' 15" open: 263-332'	16" cased: 0-104' 12" liner: 0-281' 15" open: 281-301'
Static WL	34'	59'	52'
Motor Hp	25	60	75
Capacity (gpm)	300	490	970
Standby Power	None	Yes Natural Gas	Yes Natural Gas
Total Capacity (gpm)			**1,760**
Total Capacity (MGD) at 24 hr/day			**2.5**

Storage Summary:

Tank Name	**Capacity (MG)**	**Overflow Elevation (ft)**	**Height to Overflow (ft)**
Tinley Park PS Clear Well	0.15	695 +/-	15 +/-
Spencer Road PS Ground Storage	5.0	840.0	35.0
Joliet Highway Standpipe	2.5	845.0	131.0
Ferro Tower	0.5	845.0	38.0
Nelson Tower	0.3	813.0	32.5
Total Capacity	**8.55**		

Average Daily Flow (ADF)	2.05 MGD
Maximum Daily Flow (MDF)	4.15 MGD
Peak Hour Demand (PH)	6.15 MGD or 4,300 GPM (Estimated at 3x the ADF)

2. Vision Statement (Section 604.310)

Village Misson Statement
To enhance the quality of life and community pride through progressive municipal service and active leadership.

Public Works Mission Statement
To provide the residents of New Lenox with the highest quality, most efficient, service through communication and teamwork between departments.

Source Water Protection Plan Vision Statement
The Village of New Lenox is committed to providing and maintaining a potable water system which meets all regulatory requirements for all of its customers from a reliable source and well-functioning distribution system which is regularly reviewed for system improvements.

The Village directly employs operations staff in the Public Works Department including a certified water operator, and a dedicated position directly responsible for regulatory compliance of the potable water system. Additionally, the Village engages a 3rd party consulting engineering firm with water system expertise to assist / lead the Village as appropriate with planning, budgeting, maintenance, and capital improvements related to the water system and source water.

The Village's current primary water source is treated Lake Michigan Water purchased from the Village of Tinley Park. The Village will maintain its wells for its future emergency backup water source.

The aquifers that feed the Village's wells may span geographic areas beyond the Village's incorporated boundaries. There is potential for unknown sources of contamination to reach the aquifers from areas outside of the control of the Village. The Village Source Water Protection Plan places priorities on minimizing the potential for contamination within the Village's regulatory control, and maintaining the functionality of the well system. These are achieved through dedication to the operational reliability and redundancy of the system, and diligent monitoring and regular maintenance of the Village's potable water supply system.

This Vision Statement and Source Water Protection Plan was developed by Village Staff and the Village's Engineering Consultant:

Mark Brow, CPWP-M, CPII – Superintendent Public Works
Chris Skiniotes – Superintendent Water Department
Christopher B. Burke Engineering, LTD. – Village Engineering Consultant

3.0 Source Water Assessment (Section 604.315)

In 1996 the Safe Drinking Water Act was amended to require state Environmental Protection Agencies to develop and implement Source Water Assessment Programs. Source water protection begins with the awareness that source water is subject to a variety of sources of pollution. Because the prevention of this pollution is preferable to remediation, Source Water Protection Plans play an important role in limiting pollution, and providing economic benefit to utilities and the public alike.

Source Water and Source Water Protection is important for many reasons, including that the protection of source water reduces risks by preventing exposures to contaminated water. Drinking water utilities are responsible for meeting the requirements of Safe Drinking Water Act (SDWA) and regulations of the United States Environmental Protection Agency. In Illinois, these requirements and enforcement responsibilities are delegated to the state drinking water regulating agency, Illinois Environmental Protection Agency (IEPA).

The Village's well identification and related information is included in the chart below from the IEPA Fact Sheet found at: http://dataservices.epa.illinois.gov/swap/factsheet.aspx. The 3 shallow Wells 5, 10, and 11 utilize the Silurian System and Ordovician/Maquoketa Group (aquifer code 5656). An aerial photograph showing the minimum setback zone of 200 feet for each active location is included in the attached Exhibits A1 – A3. Other wells listed on IEPA's Fact Sheet for New Lenox are either abandoned or have been returned to the prior owner and are no longer under Village control or jurisdiction.

Well Data For This Facility:

Well ID	Well Description	Status	Depth	Minimum Setback	Pumpage	Aquifer Code	Aquifer Description	Max Zone
WL00557	WELL 6 (00557) ABANDONED	I	325.00	200	63145000	5656	Shallow Bedrock	0
WL00596	WELL 7 (00596) ABANDONDED	I	357.00	200	105120000	5656	Shallow Bedrock	0
WL00597	WELL 8 (00597) RETURNED TO PRIOR OWNER	I	280.00	200	107675000	5656	Shallow Bedrock	0
WL00598	WELL 9 (00598) RETURNED TO PRIOR OWNER	I	178.00	400	97090000	5656	Shallow Bedrock	0
WL00907	WELL 10 (00907) EMER	A	325.00	200	-1	5656	Shallow Bedrock	0
WL01107	WELL 11 (01107) EMER	A	301.00	200	0	5656	Shallow Bedrock	0
WL20407	WELL 5 (20407) EMER	A	303.00	200	147095000	5656	Shallow Bedrock	0
WL20408	WELL 2 (20408) ABANDONED	I	334.00	200	0	5656	Shallow Bedrock	0
WL20409	WELL 3 (20409) ABANDONED	I	325.00	0	113150000	5050	Shallow Bedrock	0
WL20410	WELL 4 (20410) ABANDONED	I	300.00	400	157680000	5656	Shallow Bedrock	0

Potential Sources Of Contamination:

The sites labeled on the Wellhead Protection Planning Map and included in the following tables are considered "potential" sources of contamination. (Maps and tables are not available in the Visually Impaired Accessible version. However, the information presented in the maps and tables is summarized within the following text sections of this fact sheet.) The Illinois EPA performed a detailed Well Site Survey in 1990 to identify potential sources of contamination to the village's wells. These sources are identified based on the nature of their activity, the availability of data in electronic databases, and their geographic proximity to the source water protection area. In addition, the Illinois EPA made use of information from its leaking underground storage tank database (http://epadata.epa.state.il.us/land/ust/search.asp) and site remediation program database (http://epadata.epa.state.il.us/land/srp/search.asp) to further assess potential sources of contamination to the community's source water. These databases include information from the Illinois EPA Division of Land Pollution Control (LPC) and the Illinois Emergency Management Agency (IEMA). The following is a list of facilities contained within these databases.

IEMA #	LPC #	Site Name	Address	City	ZIP Code
20001422	1970705016	Speedway SuperAmerica	800 West Maple	New Lenox	60451
900280	1970705019	Frito-Lay	1036 South Cedar Rd.	New Lenox	60451
910590	1970700002	OXO Welding Inc.	114 Oak St.	New Lenox	60451
920014	1970705015	Emro Marketing	301 West Maple	New Lenox	60451
920331	1970705016	Emro Marketing	800 Maple	New Lenox	60451
922865	1970705024	Michael Oil Co.	1230 North Cedar Rd.	New Lenox	60451
930836	1970705010	Illinois Bell Telephone	300 North Gougar Rd.	New Lenox	60451
931611	1970705029	New Lenox, Village of	901 Country Creek Dr.	New Lenox	60451
932049	1970705003	Zielke, Duane	3321 West Maple	New Lenox	60451
940245	1970705010	Illinois Bell Telephone	300 North Gougar Rd.	New Lenox	60451
942362	1970705022	Amoco Oil #18737	Rt. 30 & Cedar	New Lenox	60451
951712	1970705036	Lincoln-Way C.U.S.D.	1801 East Lincoln Hwy.	New Lenox	60451
951814	1970705034	New Lenox Township Rd. Dist.	1080 South Cedar Rd.	New Lenox	60451
952304	1970705010	Ameritech	300 North Gougar Rd.	New Lenox	60451
960022	1970705039	Pelley Gas-O-Teria	939 South Cedar	New Lenox	60451
961686	1970705041	Brandolino, Barbara Trust of	1301 North Cedar Rd.	New Lenox	60451
961983	1970705036	Lincoln-Way Community High School	1801 East Lincoln Hwy.	New Lenox	60451
962118	1970705043	New Lenox School Dist.	1070 Industry Dr.	New Lenox	60451
972012	1970705036	Lincoln-Way Community High School	1801 East Lincoln Hwy.	New Lenox	60451
981454	1970705055	Interstate Oil Co.	101 American Pride Ln.	New Lenox	60451
982394	1970705056	Diocese of Joliet St. Jude Parish/241	West 2nd St.	New Lenox	60451
982957	1970705016	Speedway SuperAmerica	800 West Maple	New Lenox	60451

Susceptibility To Contamination:

Based on information obtained in a Well Site Survey, published in 1990 by the Illinois EPA, four potential sources or possible problem sites were identified within the survey area of New Lenox wells. Furthermore, information provided by the Leaking Underground Storage Tank Section of the Illinois EPA indicated several additional sites with ongoing remediation which may be of concern. The Illinois EPA has determined that the New Lenox Community Water Supply's source water is not susceptible to contamination. This determination is based on a number of criteria including: monitoring conducted at the wells; monitoring conducted at the entry point to the distribution system; and the available hydrogeologic data on the wells. Furthermore, in anticipation of the U.S. EPA's proposed Ground Water Rule, the Illinois EPA has determined that the New Lenox Community Water Supply is not vulnerable to viral contamination. This determination is based upon the evaluation of the following criteria during the Vulnerability Waiver Process: the village's wells are properly constructed with sound integrity and proper site conditions; a hydrogeologic barrier exists which should prevent pathogen movement; all potential routes and sanitary defects have been mitigated such that the source water is adequately protected; monitoring data did not indicate a history of disease outbreak; and the sanitary survey of the water supply did not indicate a viral contamination threat. Because the village's wells are constructed in a confined aquifer, which should prevent the movement of pathogens into the wells, well hydraulics were not considered to be a significant factor in this vulnerability determination. Hence, well hydraulics were not evaluated for this groundwater supply.

3.1 Source Water Monitoring

Samples are taken from each active well site. The sample type and schedule is based on timing prescribed by the IEPA.

Each well is tested at least monthly for operational readiness, total coliform bacteria, and fecal presence. Any positive tests for coliform or fecal matter require immediate retesting and potential chlorine disinfection if positive samples persist. A well may not be placed into service until consecutive negative samples are received. The table below is an example of the well coliform testing data for New Lenox's three (3) wells copied from IEPA's website: https://water.epa.state.il.us/dww/.

Type	Lab Sample No.	Collection Date & Time	Sampling Point	Sample Location	Presence/ Absence Indicator	Analyte Code	Analyte Name	Monitoring Period Begin Date	Monitoring Period End Date	Laboratory
RT	4181440	06-12-2023 09:20:00	WL20407	W5 OFF OF NELSON RD	A	3014	E. COLI	06-01-2023	06-30-2023	WILL COUNTY HEALTH DEPARTMENT
RT	4181439	06-12-2023 09:00:00	WL00907	WELL 10 8700 FT SW O	A	3014	E. COLI	06-01-2023	06-30-2023	WILL COUNTY HEALTH DEPARTMENT
RT	4181438	06-12-2023 14:32:00 8:15:00	WL01107	WELL 11 S OF JOLIET	A	3014	E. COLI	06-01-2023	06-30-2023	WILL COUNTY HEALTH DEPARTMENT
RT	4169065	05-23-2023 09:45:00 9:15:00	WL20407	W5 OFF OF NELSON RD	A	3014	E. COLI	05-01-2023	05-31-2023	WILL COUNTY HEALTH DEPARTMENT
RT	4169064	05-23-2023 09:25:00 6:00:00	WL00907	WELL 10 8700 FT SW O	A	3014	E. COLI	05-01-2023	05-31-2023	WILL COUNTY HEALTH DEPARTMENT
RT	4169063	05-23-2023 09:05:00 6:40:00	WL01107	WELL 11 S OF JOLIET	A	3014	E. COLI	05-01-2023	05-31-2023	WILL COUNTY HEALTH DEPARTMENT

The Village's wells are tested on additional time specific cycles as directed by the IEPA for multiple groups of compounds and components. The sampling schedules from IEPA's Website are shown on the table below.

Water System Facility State Asgn ID	Water System Facility Name	Analyte Group Code	Analyte Group Name	Sample Count	Sample Type	Sample Frequency	Effective Begin Date	Effective End Date	Seasonal Start MM/DD	Seasonal End MM/DD
WL00907	WELL 10 (00907) EMER	IOC	IOC	1	RT	3Y	1/1/2008		0/0	0/0
WL00907	WELL 10 (00907) EMER	RDS	RAD_WO_U	1	RT	3Y	1/1/2008		0/0	0/0
WL00907	WELL 10 (00907) EMER	SOCG	SOC_W_GLPHOS	1	RT	3Y	1/1/2017		0/0	0/0
WL00907	WELL 10 (00907) EMER	VOC	VOC	1	RT	3Y	1/1/2017		0/0	0/0
WL01107	WELL 11 (01107) EMER	IOC	IOC	1	RT	3Y	1/1/2008		0/0	0/0
WL01107	WELL 11 (01107) EMER	RDS	RAD_WO_U	1	RT	3Y	1/1/2008		0/0	0/0
WL01107	WELL 11 (01107) EMER	SOCG	SOC_W_GLPHOS	1	RT	3Y	1/1/2017		0/0	0/0
WL01107	WELL 11 (01107) EMER	VOC	VOC	1	RT	3Y	1/1/2017		0/0	0/0
WL20407	WELL 5 (20407) EMER	IOC	IOC	1	RT	3Y	1/1/2008		0/0	0/0

WL20407	WELL 5 (20407) EMER	RDS	RAD_WO_U	1	RT	3Y	1/1/2008		0/0	0/0
WL20407	WELL 5 (20407) EMER	SOCG	SOC_W_GLPHOS	1	RT	3Y	1/1/2017		0/0	0/0
WL20407	WELL 5 (20407) EMER	VOC	VOC	1	RT	YR	1/1/2010		0/0	0/0

The Analyte Groups for the Village's wells samples include:

- Inorganic Compounds (IOC)

Analyte Code	Analyte Name
1005	ARSENIC
1010	BARIUM
1015	CADMIUM
1020	CHROMIUM
1024	CYANIDE
1025	FLUORIDE
1028	IRON
1032	MANGANESE
1035	MERCURY
1036	NICKEL
1045	SELENIUM
1052	SODIUM
1055	SULFATE
1074	ANTIMONY, TOTAL
1075	BERYLLIUM, TOTAL
1085	THALLIUM, TOTAL
1095	ZINC

- Synthetic Organic Compounds (SOCG)

Analyte Code	Analyte Name
2005	ENDRIN
2010	BHC-GAMMA
2015	METHOXYCHLOR
2020	TOXAPHENE
2031	DALAPON

2032	DIQUAT
2033	ENDOTHALL
2034	GLYPHOSATE
2035	DI(2-ETHYLHEXYL) ADIPATE
2036	OXAMYL
2037	SIMAZINE
2039	DI(2-ETHYLHEXYL) PHTHALATE
2040	PICLORAM
2041	DINOSEB
2042	HEXACHLOROCYCLOPENTADIENE
2043	ALDICARB SULFOXIDE
2044	ALDICARB SULFONE
2046	CARBOFURAN
2047	ALDICARB
2050	ATRAZINE
2051	LASSO
2065	HEPTACHLOR
2067	HEPTACHLOR EPOXIDE
2070	DIELDRIN
2105	2,4-D
2110	2,4,5-TP
2274	HEXACHLOROBENZENE
2306	BENZO(A)PYRENE
2326	PENTACHLOROPHENOL
2356	ALDRIN
2383	TOTAL POLYCHLORINATED BIPHENYLS (PCB)
2775	TOTAL DDT
2931	1,2-DIBROMO-3-CHLOROPROPANE
2946	ETHYLENE DIBROMIDE
2959	CHLORDANE

- Volatile Organic Compounds (VOC)

Analyte Code	Analyte Name
2378	1,2,4-TRICHLOROBENZENE
2380	CIS-1,2-DICHLOROETHYLENE
2955	XYLENES, TOTAL
2964	DICHLOROMETHANE
2968	O-DICHLOROBENZENE
2969	P-DICHLOROBENZENE
2977	1,1-DICHLOROETHYLENE
2979	TRANS-1,2-DICHLOROETHYLENE
2980	1,2-DICHLOROETHANE
2981	1,1,1-TRICHLOROETHANE
2982	CARBON TETRACHLORIDE

2983	1,2-DICHLOROPROPANE
2984	TRICHLOROETHYLENE
2985	1,1,2-TRICHLOROETHANE
2987	TETRACHLOROETHYLENE
2989	CHLOROBENZENE
2990	BENZENE
2991	TOLUENE
2992	ETHYLBENZENE
2996	STYRENE

- Radium and Gross Alpha (RDS)

Analyte Code	Analyte Name
4010	COMBINED RADIUM (-226 & -228)
4020	RADIUM-226
4030	RADIUM-228
4109	GROSS ALPHA PARTICLE ACTIVITY

The sampling tests and results can be found on the IEPA Drinking Water Watch website https://water.epa.state.il.us/dww/.

The Village utilizes various certified laboratories for testing and analysis including Will County Health Department for total coliform bacteria, and fecal presence. Suburban Laboratories, Inc., Eurofins Eaton Analytical, Inc. and American Water Central Laboratory were used for the non-microbial testing. The laboratories utilized for specific analysis are indicated on the IEPA website.

3.2 Considerations for Source Water Sampling and Monitoring

The quality of groundwater contained in aquifers throughout northern Illinois is variable and subject to multiple different contaminants, which can cross municipal and other governmental boundaries based on movement underground in the aquifer. These contaminants occur both naturally and/or from man-made sources. Sources of potential contamination include:

- herbicides and fertilizers applied to commercial, recreational, and residential properties;
- accidental spills or releases of hazardous contaminates from truck accidents or rail derailments, as well as catastrophic events such as fires, tornadoes or other natural disasters;
- leaking underground storage tanks;
- improper and/or illegal storage and/or dumping of chemicals;
- chlorides from road salt applications and/or improper storage of rock salt.

As urbanization and industrialization in the Southern Greater Chicago Region has continued, stress on aquifers' ability to provide for increasing demand has increased. New Lenox, along with many of its neighboring communities have converted to using Lake Michigan Water for the primary water source.

3.3 Well Setbacks

IEPA has provided guidance for the minimum setbacks for each of New Lenox's wells as shown in the Well Data Table on page 4. These well setbacks are shown for each active well location in Exhibits A1 through A3. IEPA's

most current Source Water Assessment Program Factsheets also indicate that none of the active shallow wells are susceptible to contamination (see Heading – “Susceptibility to Contamination” on page 5).

In addition to IEPA’s determination, the following comments are offered from a review of the geographic and topographic locations of the wells regarding the reduced potential for contamination due to site specific factors.

Exhibit A1 - Active Well # 5

- adjacent streets are paved with curb and gutter, and drain away from the well which limits the potential for contamination
- the Village owns and has control over the large lot where well is located providing the Village will control in the immediate area of the wellhead
- there is no generator, thus no gasoline or diesel fuel storage on the property

Exhibit A2 - Active Well # 10

- this location is in a predominately residential area or open field right-of-way which limits the potential for contamination
- adjacent streets are drained by curb and gutter
- the generator at this site is natural gas, thus no diesel or gasoline stored on the property

Exhibit A3 Active Well # 11

- this location is surrounded by residential homes and a park/playground which limits the potential for contamination
- adjacent streets are drained by curb and gutter
- the generator at this site is natural gas, thus no diesel or gasoline stored on the property

4. Source Water Protection Plan Objectives (Section 604.320)

The vision statement in Section 2 reinforces the Village's commitment to provide and maintain a potable water system which meets all regulatory requirements for all of its customers from a reliable source and well-functioning distribution system which is regularly being evaluated for system improvements.

The Village's goals are summarized in two over-arching objectives:

1) minimizing the potential for contamination, for issues within the Village's regulatory control; and
2) maintaining the functionality and operational reliability of the well system through planning, monitoring, maintenance/replacements and providing strategic redundancy.

5. Action Plan (Section 604.325)

The Action Plan information listed here is focused on the primary objectives noted in the preceding section and further information and next steps are noted below for each of the two objectives.

1) Minimizing the potential for contamination, for issues within the Village's regulatory control.
    a. Create Communication/Education Information to Share with Adjacent Property Owners
        i. Projects/Programs/Activities – The Village will create an educational notice to send to the adjacent property owners reminding them generally there is a well near their property and to be sure not to store or dump potential contaminants on their property. The notice will also provide contact information and instructions should a contaminate spill be observed in the area.
        ii. Schedule – The educational letter will be created by the end of the 4th quarter (December 2023) to be sent out then and in the future as a reminder to adjacent property owners.
        iii. Resources Needed – Staff time and consultant assistance (as needed).
        iv. Potential Obstacles – Lack of interest by adjacent property owners in the notification, thereby the need to send out the information in the future to them as well. Staff will need to be vigilant in watching for potential hazards as well, which will be integrated into the updated checklist referenced below.

Exhibit A1 – Well 5

- *communication with property owners and tenants on potential impact and contact information if there should be a spill or issue*
- *communication with property owners and tenants regarding application of fertilizers and herbicides for golf course operations in min 200' zone*
    - *PIN 1508289020000000*
    - *PIN 1508294000180000*
    - *PIN 1508283020010000 (Village owned well site)*
    - *PIN 1508283020020000*
    - *PIN 1508283020030000*
    - *PIN 1508283020220000*
    - *PIN 1508283020210000*
    - *PIN 1508283020230000*
    - *PIN 1508283020110000*
    - *PIN 1508283020120000*

Exhibit A2 - Well 10

- *communication with property owners and tenants on potential impact and contact information if there should be a spill or issue*
- *communication with property owners and tenants regarding application of fertilizers and herbicides for golf course operations in min 200' zone*
    - *PIN 1508231100060000*
    - *PIN 1508222060220020 (Open field ROW)*
    - *PIN 1508224280201001*
    - *PIN 1508224280201002*
    - *PIN 1508224280201003*
    - *PIN 1508224280201004*
    - *PIN 1508233000240000 (Village owned well site)*
    - *PIN 1508233060080000*
    - *PIN 1508233060091002*
    - *PIN 1508233060091003*
    - *PIN 1508233060091001*
    - *PIN 1508233060091004*
    - *PIN 1508233100281002*
    - *PIN 1508233100281004*

- *PIN 1508233100281003*
- *PIN 1508233100281001*
- *PIN 1508233100281002*
- *PIN 1508224040050000 (Open field ROW)*

Exhibit A3 - Well 11

- *communication with property owners and tenants on potential impact and contact information if there should be a spill or issue*
- *communication with property owners and tenants regarding application of fertilizers and herbicides for golf course operations in min 200' zone*
  - *PIN 1508243570160000*
  - *PIN 1508244010150000*
  - *PIN 1508244010160000*
  - *PIN 1508243510600000*
  - *PIN 1508243510610000*
  - *PIN 1508243510560000*
  - *PIN 1508244050020000 (Park Site)*
  - *PIN 1508244050010000 (Village owned well site)*

b. Maintain the Village's Cross Control Program

i. Projects/Programs/Activities – Periodically review the Village's Cross-Connection Control Ordinance for regulatory compliance and enforcement provisions
ii. Schedule – Every two (2) years conduct a review of the ordinance
iii. Resources Needed – Staff time, consultant and legal assistance (as needed).
iv. Potential Obstacles – Assuring that Staffing planning and budgeting is sufficient to perform the review.

2) Maintaining the functionality of the wells for operational reliability and strategic redundancy of the potable water supply. The Village's water plant operator, and other qualified public works staff conduct regular inspection and maintenance of the well facilities including the fencing, heater, furnace, lighting, buildings, chlorination system and related components. Each well is run for at least three (3) hours each month. This operational testing coincides with sampling for bacterial testing, regulatory testing, and operational analysis of the system. At the conclusion of the pumping operation the electrical readings are documented and compared to past readings for possible indications of electrical system issues that are developing. Additionally, the Village has completed capital repairs and improvements on the wells as noted below which will be continued into the future.

a. Recent Well Enhancement Projects

i. 2022 – Wells 5, 10, & 11 - Village hired Layne Christensen Company to perform Preventive Well Maintenance Testing on all three (3) emergency backup wells
   - *Logged well physical conditions and history*
   - *Reported historical changes in static water levels*
   - *Reported historical changes in specific capacity*
   - *Reported historical chemical treatments and repairs*
   - *Reported current pump data and maintenance history*
   - *Provided current pump curve*
   - *Took ampere readings for pump and reported history*
   - *Gauged current verses new condition of well pump performance*
   - *Pump tested well*
   - *Provided recommendations*

ii. 2023 – Well # 10 Rehabilitation

- *pull and inspect pump*
- *service hp motor*
- *repair bowl assembly*
- *replace column pipe as warranted by condition*
- *Hypot tested pump power cables*
- *reinstall pump, test and return to service*
- *Pump regain significant capacity after work (140 gpm to 490 gpm)*

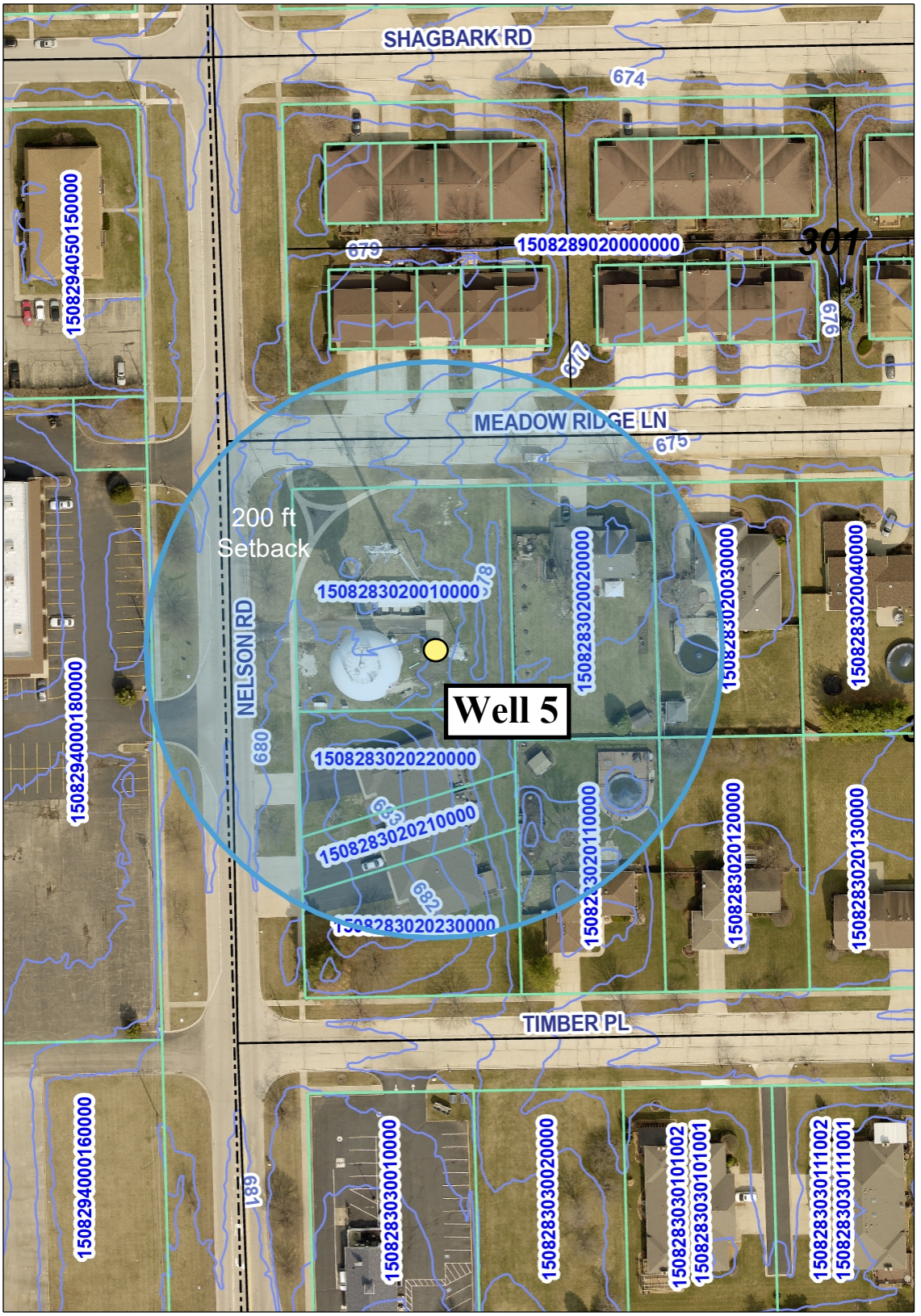
b. Update and Refine the Well Facility Checklist
   i. Projects/Programs/Activities – The Village's water operator, water foreman, and other staff will review and update the inspection checklist that is used for well maintenance and operation, including the need to monitor adjacent properties for storage of materials.
   ii. Schedule – The checklist will be updated in 2023.
   iii. Resources Needed – Staff time and consultant assistance (as needed).
   iv. Potential Obstacles – The checklist will need to be reviewed for potential enhancements or modifications related to current operations and practices.

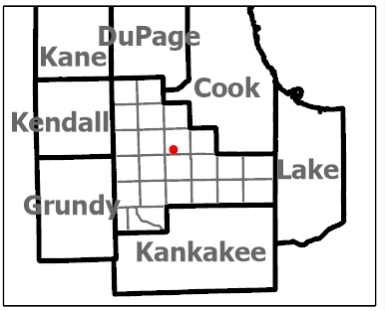
c. Schedule and Plan for Well System Capital Improvements
   i. Projects/Programs/Activities – Historical repair and rehabilitation work has included pulling and inspecting pumping equipment, repair and replacement of various components including the column, pitless adapter, instrumentation, motors, pumps, discharge piping, MCC/motor control center, and chemical/chlorination systems.
   ii. Schedule - This work is planned to continue as regular interval well maintenance into the future.
   iii. Resources Needed – Staff time and consultant assistance to create the bid specifications and to procure the contractor for the construction.
   iv. Potential Obstacles – Current inflationary rates and extended equipment delivery schedules can impact project budgets and schedules.

Exhibit B1

(All Wells – Most Recent Sampling Examples)

Exhibit A1 - Well 5





Legend

Roadways
- Federal
- State
- County
- Local and Private

Parcels

Townships

Contour 2021 (1 Ft)

Notes

Date: 7/20/2023

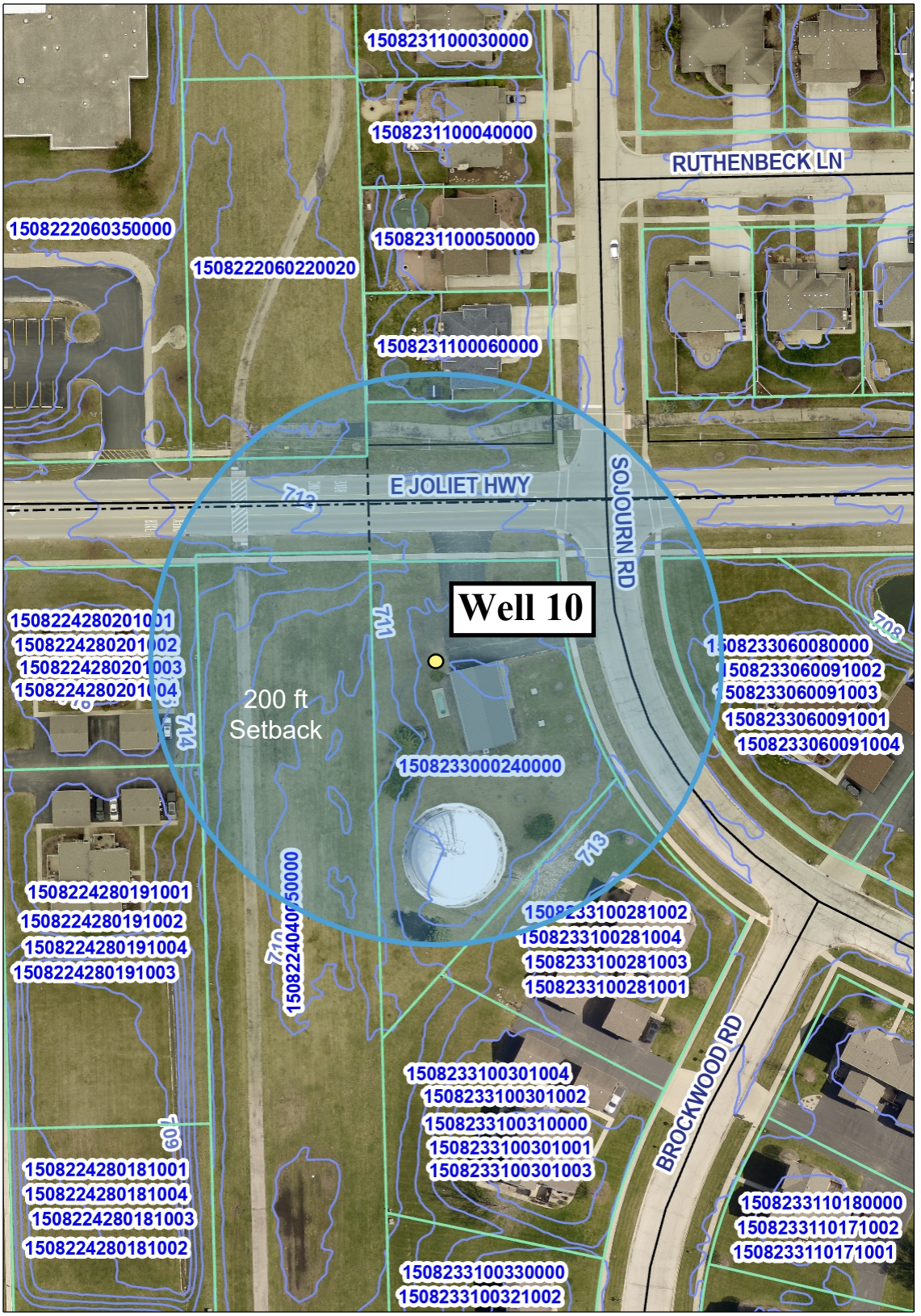
1: 1,721

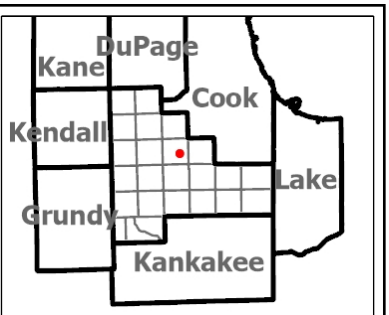
0 0.03 0.05 Miles

Projection

WGS_1984_Web_Mercator_Auxiliary_Sphere

Exhibit A2 - Well 10





Legend

Roadways
- Federal
- State
- County
- Local and Private

Parcels

Townships

Contour 2021 (1 Ft)

Notes

Date: 7/20/2023

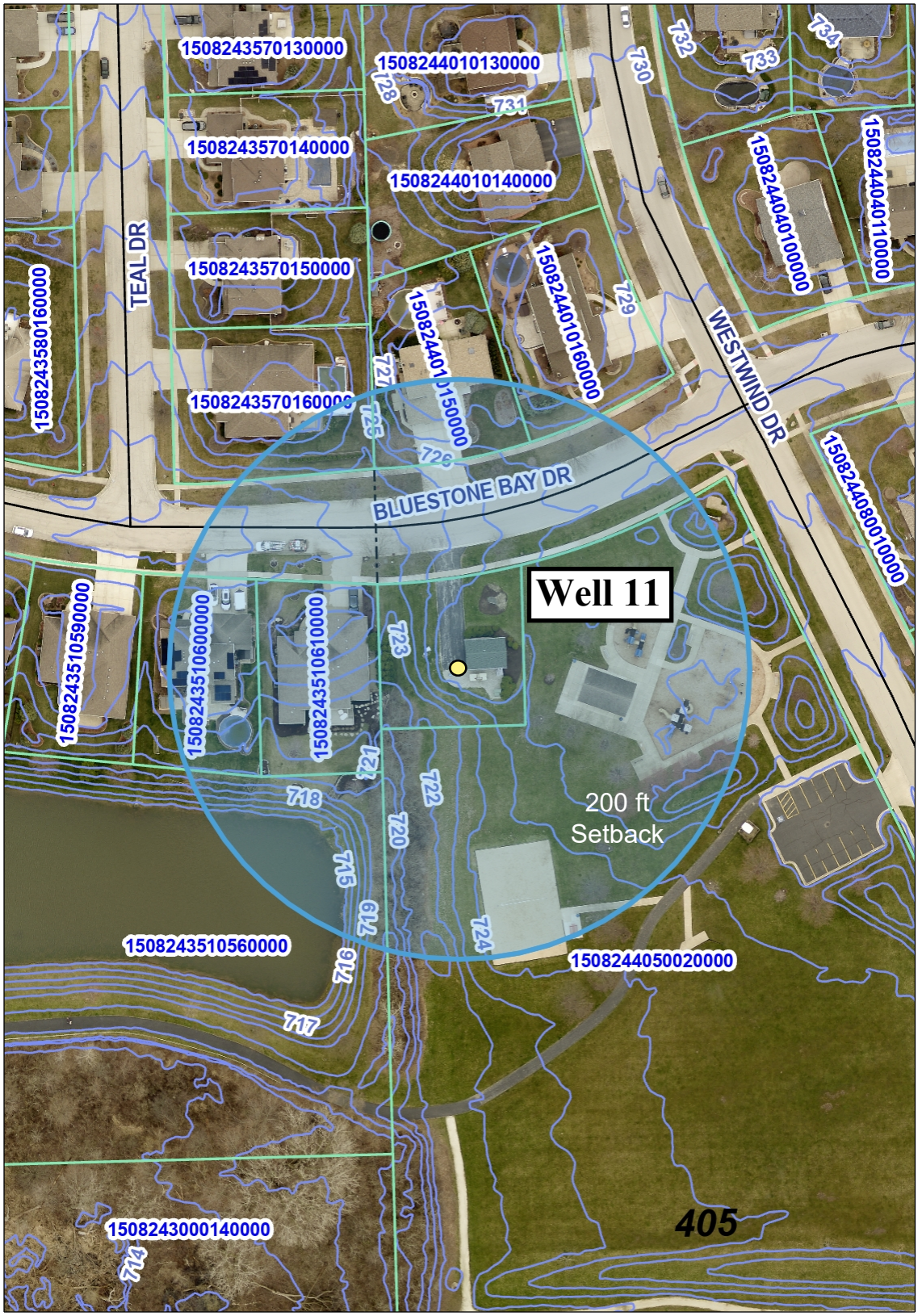
1: 1,721

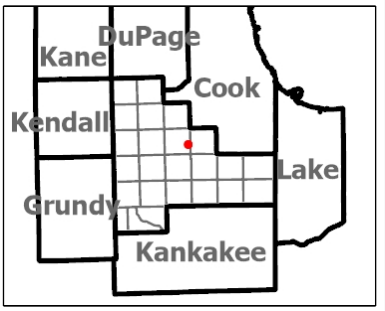
0 0.03 0.05 Miles

Projection

WGS_1984_Web_Mercator_Auxiliary_Sphere

Exhibit A3 - Well 11





Legend

Roadways
- Federal
- State
- County
- Local and Private

Parcels

Townships

Contour 2021 (1 Ft)

Notes

Date: 7/20/2023

1: 1,721

0 0.03 0.05 Miles

Projection

WGS_1984_Web_Mercator_Auxiliary_Sphere

Exhibit B1

(All Wells – Most Recent Sampling Examples)

Will County Health Department Environmental Laboratory Coliform Analysis Report Form

Village of New Lenox Water System # – IL1970700 Will County Certified Env. Health Lab # - 17524

Chlorine Exempt Supply: ☐ Yes ☐ No

Date Received: 7-19-23 Time Received: 1205 Received by: [signature]

Date Analyzed: 7-19-23 Time Analyzed: 1542 Analyzed by: [initials]

Samples must reach laboratory within 24 hours after collection.

1. Mail Water Supply Copy to: Village of New Lenox Attn: Chris Skiniotes 2401 Ellis Rd. New Lenox, IL 60451	2. Contact for Unsatisfactory Results: Name: Chris Skiniotes Phone #: (708)548-2475
3. Date Collected: 7-19	4. Sample Collector: Jim Saluski
5. Sample Purpose: ☒Routine ☐Replacement ☐Repeat ☐Other Reason:____	*For Repeats Only* Original Sample # ____ Original Collection Date: ____

6. Coliform Sampling:

Sample Site #	Sample Address	Sample Type	Time Collected	Res Chlorine Free/Total	7. Total Coliform	8. E.coli	9. Lab Sample#
00107	Well 11	R	11:05am	Ø	0.0	0.0	4181481
00907	Well 10	R	10:55am	Ø	0.0	0.0	4181482
20407	Well 5	R	10:40am	Ø	0.0	0.0	4181483

EDT'd 7/20/23 on @ 1057. TL

Laboratory Method: SM 21st ed. 9223B Colilert

Reported by: [signature] Date: 7-20-23

Person Notified:____ Date:____

Reason for Replacement:____

Will County Health Department
Environmental Laboratory Test Results
Report Date: 7/20/2023

501 Ella Avenue
Joliet, IL 60433
(815) 727-8517

I.D.P.H. Certificate #17524

Sample ID: 2307191424
Cust. Sample: 4181481

Type: Potable
Project: Routine Bacterial Screen - Count
Source: Public
Chlorination: None

VILLAGE OF NEW LENOX 1970700/ MICHAEL MADIGAN
2401 ELLIS RD
NEW LENOX, IL 60451

Sample Address: WELL 11 NEW LENOX, IL 60451
Sampler: Customer, Sampler
Location: sample tap
Purpose: Routine
Collected: 7/19/2023 11:05
Received: 7/19/2023 12:05
Completed: 7/20/2023

Analysis	Date Time	Result	Units	Results Indicate
Routine Bacterial Screen - Count				
Coliform/ Total -Quantitative	7/19/2023 15:42	0	MPN	This test shows no evidence of bacterial pollution occuring at this time. We recommend re-sampling every 6 to 12 months. SM 21st ed. 9223B was used to analyze 100mL of the sample.
Escherichia coli - Quantitative	7/19/2023 15:42	0	MPN	This test shows no evidence of Escherichia coli bacterial pollution occuring at this time. We recommend re-sampling every 6 to 12 months. SM 21st ed. 9223B was used to analyze 100mL of the sample.

Conclusions:

Notes: 00107

Trisha Kautz
Laboratory Coordinator

Chemistry Analyst

Microbiology Analyst

Will County Health Department
Environmental Laboratory Test Results
Report Date: 7/20/2023

501 Ella Avenue
Joliet, IL 60433
(815) 727-8517

I.D.P.H. Certificate #17524

Sample ID: 2307191423
Cust. Sample: 4181482

Type: Potable
Project: Routine Bacterial Screen - Count
Source: Public
Chlorination: None

VILLAGE OF NEW LENOX 1970700/ MICHAEL MADIGAN
2401 ELLIS RD
NEW LENOX, IL 60451

Sample Address: WELL 10 NEW LENOX, IL 60451
Sampler: Customer, Sampler
Location: sample tap
Purpose: Routine
Collected: 7/19/2023 10:55
Received: 7/19/2023 12:05
Completed: 7/20/2023

Analysis	Date Time	Result Units	Results Indicate
Routine Bacterial Screen - Count			
Coliform/ Total -Quantitative	7/19/2023 15:42	0 MPN	This test shows no evidence of bacterial pollution occuring at this time. We recommend re-sampling every 6 to 12 months. SM 21st ed. 9223B was used to analyze 100mL of the sample.
Escherichia coli - Quantitative	7/19/2023 15:42	0 MPN	This test shows no evidence of Escherichia coli bacterial pollution occuring at this time. We recommend re-sampling every 6 to 12 months. SM 21st ed. 9223B was used to analyze 100mL of the sample.

Conclusions:

Notes: 00907

Trisha Kautz
Laboratory Coordinator

Chemistry Analyst

Microbiology Analyst

Will County Health Department
Environmental Laboratory Test Results
Report Date: 7/20/2023

501 Ella Avenue
Joliet, IL 60433
(815) 727-8517

I.D.P.H. Certificate #17524

Sample ID:	2307191422	**Type:**	Potable	**Sample**	**WELL 6**	
Cust. Sample:	4181483	**Project:**	Routine Bacterial Screen - Count	**Address:**	**NEW LENOX, IL 60451**	
		Source:	Public	**Sampler:**	Customer, Sampler	
		Chlorination:	None	**Location:**	sample tap	
	VILLAGE OF NEW LENOX 1970700/ MICHAEL MADIGAN			**Purpose:**	Routine	
	2401 ELLIS RD			**Collected:**	7/19/2023	10:40
	NEW LENOX, IL 60451			**Received:**	7/19/2023	12:05
				Completed:	7/20/2023	

Analysis	Date Time	Result Units	Results Indicate
Routine Bacterial Screen - Count			
Coliform/ Total -Quantitative	7/19/2023 15:42	0 MPN	This test shows no evidence of bacterial pollution occuring at this time. We recommend re-sampling every 6 to 12 months. SM 21st ed. 9223B was used to analyze 100mL of the sample.
Escherichia coli - Quantitative	7/19/2023 15:42	0 MPN	This test shows no evidence of Escherichia coli bacterial pollution occuring at this time. We recommend re-sampling every 6 to 12 months. SM 21st ed. 9223B was used to analyze 100mL of the sample.

Conclusions:

Notes: 20407

Trisha Kautz
Laboratory Coordinator

Chemistry Analyst

Microbiology Analyst

Will County
Health Department & Community Health Center
Environmental Health Laboratory

501 Ella Avenue
Joliet, Illinois 60433
(815) 727-8517
IDPH Certificate Registry #17524
NELAC Accreditation #100322

LABORATORY NUMBER
4181483

Office Use Only

FA	Billable
Data Entry	☑ yes ☐ no
Envision	

Environmental Laboratory Requisition Form

Read sample instructions and sample acceptance policy on back of form before proceeding.

DATE COLLECTED	TIME COLLECTED	PURPOSE	CHLORINATION	SOURCE
7-19	10:40 AM (PM)	1. ✓ routine 5. ___ repeat orig. lab # & date ___ 2. ___ replacement 6. ___ Clearance #1 3. ___ W & S survey 7. ___ Clearance #2 4. ___ new constr. 8. ___ complaint 9. ___ service request 10. ___ other	1. ___ continuous 2. ___ shocked 3. ✗ none 4. ___ UV light 5. ___ H_2O_2 system	1. ✓ public 4. ___ NCPWS 2. ___ private 5. ___ IMS 3. ___ semi-private

COLLECTED BY, PHONE & EMAIL

Jim Salski

8154099573 (Phone) JSalski@newlenox.net (Email)

Water Supply Operators Only

Facility Name	Chlorine Original
New Lenox	0
Facility Number	**Sample Type**
1970700	1. Raw ☑ 2. Distribution ☐

SAMPLE ADDRESS	SAMPLING POINT	MAILING ADDRESS
Name: Well 5	Sample Tap 20407	Name: V.O.N.L
Street Address:	DOCUMENT	Street Address: 1 Veterans Pkwy
City: New Lenox / State: IL / Zip: 60451	IMS Permit Number / EH DOC #	City: New Lenox / State: IL / Zip: 60451

POTABLE WATER ANALYSIS

✔	TEST REQUESTED	FEE
	Routine Bacterial Screen	
✓	Bacterial Screen w/ Count	
	Nitrate	
	Fluoride	
	Hardness	
	Chlorine Check	
	Nitrite (not for public)	
	Other	

Comments

NONPOTABLE ANALYSIS

✔	TEST REQUESTED	FEE
	Sewage Effluent with CBOD	
	Sewage Effluent no CBOD	
	STP/Fecal coliform only	
	Stream	
	Bathing Beach	
	Pool	
	Other	

DATE COLLECTED	TIME COLLECTED	DATE COLLECTED	TIME COLLECTED
DATE COLLECTED	TIME COLLECTED	DATE COLLECTED	TIME COLLECTED

FOR OFFICE USE ONLY

Received by	Date	Time	Relinquished by	Date	Time
	__/__/__	__:__		__/__/__	__:__
ME	7/19/23	12:05		__/__/__	__:__
	__/__/__	__:__		__/__/__	__:__
	__/__/__	__:__		__/__/__	__:__

Received on ice ___ YES ___ NO ___ PLAIN BOTTLES ___ DECHLOR BOTTLES

___ CASH ___ CHECK #
___ CREDIT CARD
TOTAL CHARGES ___
PAYMENTS ___
BALANCE ___
RECEIPT # ___

Will County
Health Department &
Community Health Center
Environmental Health Laboratory

501 Ella Avenue
Joliet, Illinois 60433
(815) 727-8517
IDPH Certificate Registry #17524
NELAC Accreditation #100322

LABORATORY NUMBER: 4181482

Office Use Only

FA	Billable
Data Entry	☑ yes ☐ no
Envision	

Environmental Laboratory Requisition Form

Read sample instructions and sample acceptance policy on back of form before proceeding.

DATE COLLECTED	TIME COLLECTED	PURPOSE	CHLORINATION	SOURCE
7-19	10:55 AM (PM)	1. X routine 5. ___ repeat orig. lab # & date ___ 2. ___ replacement 6. ___ Clearance #1 3. ___ W & S survey 7. ___ Clearance #2 4. ___ new constr. 8. ___ complaint 9. ___ service request 10. ___ other	1. ___ continuous 2. ___ shocked 3. X none 4. ___ UV light 5. ___ H_2O_2 system	1. X public 4. ___ NCPWS 2. ___ private 5. ___ IMS 3. ___ semi-private

COLLECTED BY, PHONE & EMAIL

Jim Salusk
815 409 9573 (Phone) JSalusk@newlenox.net (Email)

Water Supply Operators Only

Facility Name	Chlorine Original
New Lenox	0
Facility Number	**Sample Type**
1970700	1. Raw ☑ 2. Distribution ☐

SAMPLE ADDRESS	SAMPLING POINT	MAILING ADDRESS
Name: Well 10	Sample Tap 00907	Name: V.O.N.L
Street Address:	DOCUMENT	Street Address: 1 Veterans Pkwy
City: New Lenox / State: IL / Zip: 60451	IMS Permit Number: / EH DOC #:	City: New Lenox / State: IL / Zip: 60451

POTABLE WATER ANALYSIS

✔	TEST REQUESTED	FEE
	Routine Bacterial Screen	
✓	Bacterial Screen w/ Count	
	Nitrate	
	Fluoride	
	Hardness	
	Chlorine Check	
	Nitrite (not for public)	
	Other	

Comments

NONPOTABLE ANALYSIS

✔	TEST REQUESTED	FEE
	Sewage Effluent with CBOD	
	Sewage Effluent no CBOD	
	STP/Fecal coliform only	
	Stream	
	Bathing Beach	
	Pool	
	Other	

DATE COLLECTED	TIME COLLECTED	DATE COLLECTED	TIME COLLECTED
DATE COLLECTED	TIME COLLECTED	DATE COLLECTED	TIME COLLECTED

FOR OFFICE USE ONLY

Received by	Date	Time	Relinquished by	Date	Time
	__/__/__	__:__		__/__/__	__:__
MB	7/19/23	12:05		__/__/__	__:__
	__/__/__	__:__		__/__/__	__:__
	__/__/__	__:__		__/__/__	__:__

Received on ice 5 YES ___ NO ___ PLAIN BOTTLES 5 DECHLOR BOTTLES

___ CASH ___ CHECK #
___ CREDIT CARD
TOTAL CHARGES ___
PAYMENTS ___
BALANCE ___
RECEIPT # ___

Will County Health Department & Community Health Center
Environmental Health Laboratory

501 Ella Avenue
Joliet, Illinois 60433
(815) 727-8517
IDPH Certificate Registry #17524
NELAC Accreditation #100322

LABORATORY NUMBER: 4181481

Office Use Only

FA	Billable
Data Entry	☑ yes ☐ no
Envision	

Environmental Laboratory Requisition Form

Read sample instructions and sample acceptance policy on back of form before proceeding.

DATE COLLECTED	TIME COLLECTED	PURPOSE	CHLORINATION	SOURCE
7-19	11:05 AM PM	1. ✓ routine; 2. ___ replacement; 3. ___ W & S survey; 4. ___ new constr.; 5. ___ repeat orig. lab # & date ___; 6. ___ Clearance #1; 7. ___ Clearance #2; 8. ___ complaint; 9. ___ service request; 10. ___ other	1. ___ continuous; 2. ___ shocked; 3. ✓ none; 4. ___ UV light; 5. ___ H_2O_2 system	1. ✓ public; 2. ___ private; 3. ___ semi-private; 4. ___ NCPWS; 5. ___ IMS

COLLECTED BY, PHONE & EMAIL

Jim Salski
815 409 9573 (Phone) JSalski@newlenox.net (Email)

Water Supply Operators Only

Facility Name	Chlorine Original
New Lenox	☑
Facility Number	**Sample Type**
1970707	1. Raw ☑ 2. Distribution ☐

SAMPLE ADDRESS	SAMPLING POINT	MAILING ADDRESS
Name: Well 11	Sample Tap 0067	Name: [illegible] V. of N.L.
Street Address:	DOCUMENT	Street Address: 1 Veterans Pkwy
City: New Lenox; State: IL; Zip: 60451	IMS Permit Number; EH DOC #	City: New Lenox; State: IL; Zip: 60451

POTABLE WATER ANALYSIS

✔	TEST REQUESTED	FEE
	Routine Bacterial Screen	
✓	Bacterial Screen w/ Count	
	Nitrate	
	Fluoride	
	Hardness	
	Chlorine Check	
	Nitrite (not for public)	
	Other	

Comments

NONPOTABLE ANALYSIS

✔	TEST REQUESTED	FEE
	Sewage Effluent with CBOD	
	Sewage Effluent no CBOD	
	STP/Fecal coliform only	
	Stream	
	Bathing Beach	
	Pool	
	Other	

DATE COLLECTED	TIME COLLECTED	DATE COLLECTED	TIME COLLECTED
DATE COLLECTED	TIME COLLECTED	DATE COLLECTED	TIME COLLECTED

FOR OFFICE USE ONLY

Received by	Date	Time	Relinquished by	Date	Time
	__/__/__	__:__		__/__/__	__:__
WB	7/19/23	12:05		__/__/__	__:__
	__/__/__	__:__		__/__/__	__:__
	__/__/__	__:__		__/__/__	__:__

Received on ice 2 YES ___ NO ___ PLAIN BOTTLES ___ DECHLOR BOTTLES

___ CASH ___ CHECK #
___ CREDIT CARD
TOTAL CHARGES ___
PAYMENTS ___
BALANCE ___
RECEIPT # ___