

NPDES Permit No. IL0028347

Notice No. GY:13091801.bah

Public Notice Beginning Date: **September 11, 2014**

Public Notice Ending Date: **October 13, 2014**

National Pollutant Discharge Elimination System (NPDES)  
Permit Program

PUBLIC NOTICE/FACT SHEET  
of  
Draft Modified NPDES Permit to Discharge into Waters of the State

Public Notice/Fact Sheet Issued By:

Illinois EPA  
Division of Water Pollution Control  
Permit Section  
1021 North Grand Avenue East  
Post Office Box 19276  
Springfield, Illinois 62794-9276  
217/782-0610

Name and Address of Permittee:

Village of Deerfield  
850 Waukegan Road  
Deerfield, Illinois 60015

Name and Address of Facility:

Deerfield Wastewater Reclamation Facility  
1045 Hackberry Road  
Deerfield, Illinois  
(Lake County)

The Illinois Environmental Protection Agency (IEPA) has made a tentative determination to issue a NPDES Permit to discharge into the waters of the state and has prepared a draft Permit and associated fact sheet for the above named Permittee. The Public Notice period will begin and end on the dates indicated in the heading of this Public Notice/Fact Sheet. All comments on the draft Permit and requests for hearing must be received by the IEPA by U.S. Mail, carrier mail or hand delivered by the Public Notice Ending Date. Interested persons are invited to submit written comments on the draft Permit to the IEPA at the above address. Commentors shall provide his or her name and address and the nature of the issues proposed to be raised and the evidence proposed to be presented with regards to those issues. Commentors may include a request for public hearing. Persons submitting comments and/or requests for public hearing shall also send a copy of such comments or requests to the Permit applicant. The NPDES Permit and notice numbers must appear on each comment page.

The application, engineer's review notes including load limit calculations, Public Notice/Fact Sheet, draft Permit, comments received, and other documents are available for inspection and may be copied at the IEPA between 9:30 a.m. and 3:30 p.m. Monday through Friday when scheduled by the interested person.

If written comments or requests indicate a significant degree of public interest in the draft Permit, the permitting authority may, at its discretion, hold a public hearing. Public notice will be given 45 days before any public hearing. Response to comments will be provided when the final Permit is issued. For further information, please call Getie Yilma at 217/782-0610.

The following water quality and effluent standards and limitations were applied to the discharge:

Title 35: Environmental Protection, Subtitle C: Water Pollution, Chapter I: Pollution Control Board and the Clean Water Act were applied in determining the applicable standards, limitations and conditions contained in the draft Permit.

The applicant is engaged in treating domestic wastewater for the Village of Deerfield.

The length of the Permit is approximately 5 years.

The main discharge number is 001. The seven day once in ten year low flow (7Q10) of the receiving stream, West Fork of the North Branch of the Chicago River is 0 cfs.

The design average flow (DAF) for the facility is 3.5 million gallons per day (MGD) and the design maximum flow (DMF) for the facility is 8.0 MGD. Treatment consists of screens, comminutor, aerated grit tank, primary clarifiers, trickling filters, activated sludge, final clarifiers and UV disinfection.

This Modified Permit does not increase the facility's DAF, DMF, concentration limits, and/or load limits.

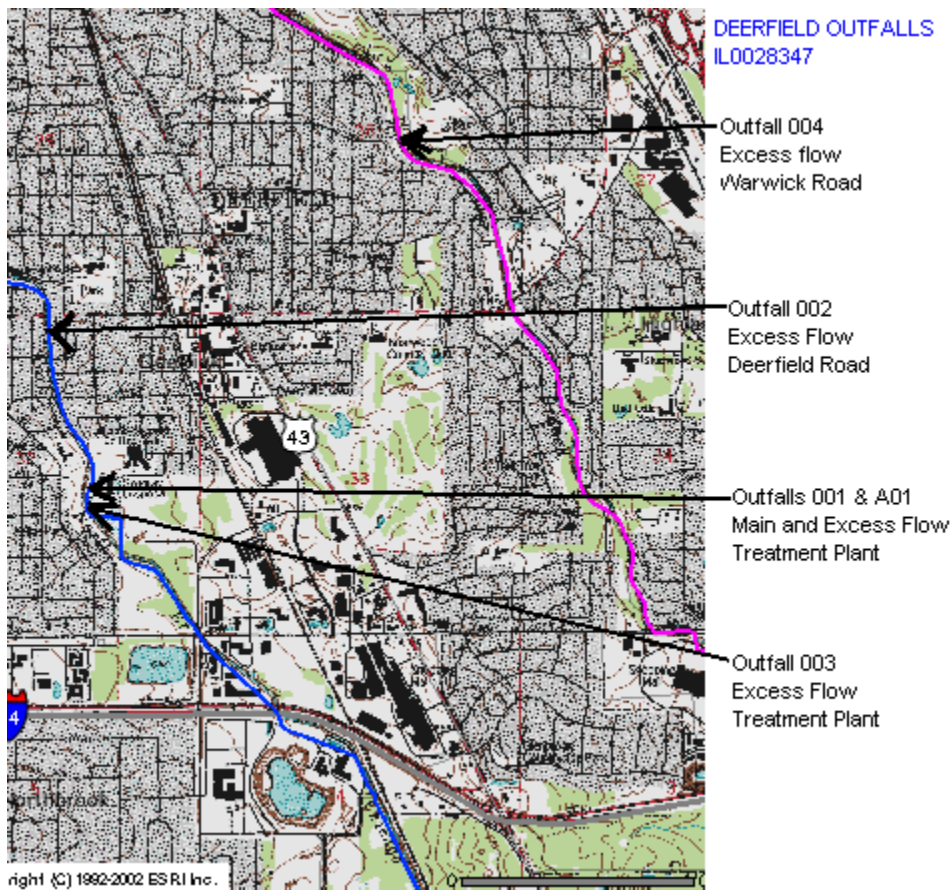
The IEPA will accept comments on the following draft modifications to the Permit:

1. The copper effluent limit was removed based on the results of the metals translator. Special Condition 15 was also deleted.
2. The mercury effluent limit was removed based on the results of additional sampling. Special Condition 19 was also deleted.
3. Special Condition 18 (Ammonia Schedule) has been completed. Therefore, it has been removed from the permit.
4. The sampling requirement for chlorine residual has been revised to indicate it is applicable only when chlorine is used. The facility installed an ultraviolet disinfection system.
5. A minimum 85% removal requirement for CBOD<sub>5</sub> and suspended solids has been included and weekly average limits have been added for Outfalls A01 and 003.
6. Monitoring for ammonia nitrogen, total phosphorus and dissolved oxygen has been included for the excess flow outfalls.

Application is made for the existing discharge(s) which are located in Lake County, Illinois. The following information identifies the discharge point, receiving stream and stream classifications:

| Discharge Number | Receiving Stream                                     | Latitude          | Longitude        | Stream Classification | Integrity Rating |
|------------------|------------------------------------------------------|-------------------|------------------|-----------------------|------------------|
| 001              | West Fork of the North Branch of the Chicago River   | 42° 09' 34" North | 87° 51' 17" West | General Use           | E                |
| A01              | West Fork of the North Branch of the Chicago River   | 42° 10' 01" North | 87° 51' 17" West | General Use           | E                |
| 002              | West Fork of the North Branch of the Chicago River   | 42° 10' 01" North | 87° 51' 25" West | General Use           | E                |
| 003              | West Fork of the North Branch of the Chicago River   | 42° 09' 34" North | 87° 51' 17" West | General Use           | E                |
| 004              | Middle Fork of the North Branch of the Chicago River | 42° 10' 30" North | 87° 50' 08" West | General Use           | D                |

To assist you further in identifying the location of the discharge(s) please see the attached map.



The stream segment(s), Waterbody Segment HCCB-05, receiving the discharge from outfall(s) 001 is on the 303(d) list of impaired waters.

The following parameters have been identified as the pollutants causing impairment:

| <u>Potential Causes</u>                                                                                           | <u>Uses Impaired</u> |
|-------------------------------------------------------------------------------------------------------------------|----------------------|
| Aldrin, chloride, DDT, endrin, hexochlorobenzene, phosphorus (total), dissolved oxygen and total suspended solids | Aquatic life         |
| Fecal coliform                                                                                                    | Primary contact      |

The discharge(s) from the facility is (are) proposed to be monitored and limited at all times as follows:

Discharge Number(s) and Name(s): 001 STP Outfall

Load limits computed based on a design average flow (DAF) of 3.5 MGD (design maximum flow (DMF) of 8.0 MGD).

The effluent of the above discharge(s) shall be monitored and limited at all times as follows:

| Parameter                      | LOAD LIMITS lbs/day<br><u>DAF (DMF)*</u>                               |                   |                  | CONCENTRATION<br><u>LIMITS mg/L</u> |                                 |                  | Regulation                       |
|--------------------------------|------------------------------------------------------------------------|-------------------|------------------|-------------------------------------|---------------------------------|------------------|----------------------------------|
|                                | Monthly<br>Average                                                     | Weekly<br>Average | Daily<br>Maximum | Monthly<br>Average                  | Weekly<br>Average               | Daily<br>Maximum |                                  |
| CBOD <sub>5</sub> **           | 292 (667)                                                              |                   | 584 (1334)       | 10                                  |                                 | 20               | 35 IAC 304.120<br>40 CFR 133.102 |
| Suspended Solids **            | 350 (801)                                                              |                   | 701 (1601)       | 12                                  |                                 | 24               | 35 IAC 304.120<br>40 CFR 133.102 |
| pH                             | Shall be in the range of 6 to 9 Standard Units                         |                   |                  |                                     |                                 |                  | 35 IAC 304.125                   |
| Fecal Coliform                 | Daily Maximum shall not exceed 400 per 100 mL<br>(May through October) |                   |                  |                                     |                                 |                  | 35 IAC 304.121                   |
| Chlorine Residual              |                                                                        |                   |                  |                                     |                                 | 0.05             | 35 IAC 302.208                   |
| Ammonia Nitrogen:<br>March     | 79 (180)                                                               | 155 (354)         | 234 (534)        | 2.7                                 | 5.3                             | 8.0              | 35 IAC 355                       |
| April-October                  | 44 (100)                                                               |                   | 88 (200)         | 1.5                                 |                                 | 3.0              | and                              |
| Nov.-Feb.                      | 117 (267)                                                              |                   | 234 (534)        | 4.0                                 |                                 | 8.0              | 35 IAC 302                       |
| Phosphorus                     | Monitor Only                                                           |                   |                  |                                     |                                 |                  | 35 IAC 304.123                   |
| Total Nitrogen                 | Monitor Only                                                           |                   |                  |                                     |                                 |                  | 35 IAC 309.146                   |
| Fluoride                       |                                                                        |                   | 41 (93)          |                                     |                                 | 1.4              | 35 IAC 302.208                   |
| Phenols                        |                                                                        |                   | 2.9 (6.7)        |                                     |                                 | 0.1              | 35 IAC 302.208                   |
| Silver                         |                                                                        |                   | 0.15 (0.33)      |                                     |                                 | 0.005            | 35 IAC 302.208                   |
|                                |                                                                        |                   |                  | Monthly<br>Avg. not<br>less than    | Weekly<br>Avg. not<br>less than | Daily<br>Minimum |                                  |
| Dissolved Oxygen<br>March-July |                                                                        |                   |                  | N/A                                 | 6.0                             | 5.0              | 35 IAC 302.206                   |
| August-February                |                                                                        |                   |                  | 5.5                                 | 4.0                             | 3.5              |                                  |

\*Load Limits are calculated by using the formula:  $8.34 \times (\text{Design Average and/or Maximum Flow in MGD}) \times (\text{Applicable Concentration in mg/L})$ .

\*\* BOD<sub>5</sub> and Suspended Solids (85% removal required): In accordance with 40 CFR 133, the 30-day average percent removal shall not be less than 85 percent except as provided in Sections 133.103 and 133.105.

This Permit contains an authorization to treat and discharge excess flow as follows:

Discharge Number(s) and Name(s): A01 - Excess Flow Discharge  
003 - Excess Flow Discharge

| Parameter                  |                                                |  | CONCENTRATION<br>LIMITS mg/L |                   | Regulation                   |
|----------------------------|------------------------------------------------|--|------------------------------|-------------------|------------------------------|
|                            |                                                |  | Monthly<br>Average           | Weekly<br>Average |                              |
| BOD <sub>5</sub> *         |                                                |  | 30                           | 40                | 40 CFR 133.102               |
| Suspended Solids*          |                                                |  | 30                           | 45                | 40 CFR 133.102               |
| Fecal Coliform             | Daily Maximum Shall Not Exceed 400 per 100 mL  |  |                              |                   | 35 IAC 304.121               |
| pH                         | Shall be in the range of 6 to 9 Standard Units |  |                              |                   | 35 IAC 304.125               |
| Chlorine Residual          |                                                |  | 0.75                         |                   | 35 IAC 302.208               |
| Ammonia Nitrogen<br>(as N) | Monitor Only                                   |  |                              |                   | 35 IAC 355 and<br>35 IAC 302 |
| Total Phosphorus<br>(as P) | Monitor Only                                   |  |                              |                   | 35 IAC 309.146               |
| Dissolved Oxygen           | Monitor Only                                   |  |                              |                   | 35 IAC 302.206               |

\*The 30-day average percent removal shall not be less than 85 percent.

This Permit contains an authorization to treat and discharge excess flow as follows:

Discharge Number(s) and Name(s): 002 - Deerfield Road Excess Flow Discharge  
004 - Warwick Road Excess Flow Discharge

| Parameter                  |                                                |  | CONCENTRATION<br>LIMITS mg/L |  | Regulation                   |
|----------------------------|------------------------------------------------|--|------------------------------|--|------------------------------|
|                            |                                                |  | Monthly<br>Average           |  |                              |
| BOD <sub>5</sub>           |                                                |  | *                            |  | 40 CFR 133.102               |
| Suspended Solids           |                                                |  | *                            |  | 40 CFR 133.102               |
| Fecal Coliform             | Daily Maximum Shall Not Exceed 400 per 100 mL  |  |                              |  | 35 IAC 304.121               |
| pH                         | Shall be in the range of 6 to 9 Standard Units |  |                              |  | 35 IAC 304.125               |
| Chlorine Residual          |                                                |  | 0.75                         |  | 35 IAC 302.208               |
| Ammonia Nitrogen<br>(as N) | Monitor Only                                   |  |                              |  | 35 IAC 355 and<br>35 IAC 302 |
| Total Phosphorus<br>(as P) | Monitor Only                                   |  |                              |  | 35 IAC 309.146               |
| Dissolved Oxygen           | Monitor Only                                   |  |                              |  | 35 IAC 302.206               |

\*Concentration Limits (L) shall be determined by the following equation:

$$L = -15/23 (D) + 49.565$$

Where D = number of days of discharge per month

L = monthly average effluent limitations for BOD<sub>5</sub> and Suspended Solids in mg/L

This draft Permit also contains the following requirements as special conditions:

1. Reopening of this Permit to include different final effluent limitations.
2. Operation of the facility by or under the supervision of a certified operator.
3. Submission of the operational data in a specified form and at a required frequency at any time during the effective term of this Permit.
4. More frequent monitoring requirement without Public Notice in the event of operational, maintenance or other problems resulting in possible effluent deterioration.
5. Prohibition against causing or contributing to violations of water quality standards.
6. Recording the monitoring results on Discharge Monitoring Report Forms using one such form for each outfall each month and submitting the forms to IEPA each month.
7. The provisions of 40 CFR Section 122.41(m) & (n) are incorporated herein by reference.
8. Effluent sampling point location.
9. Controlling the sources of infiltration and inflow into the sewer system.
10. Seasonal fecal coliform limits.
11. A requirement to monitor and a limit of 0.05 mg/L for residual chlorine when it is used
12. Monitoring for arsenic, barium, cadmium, hexavalent chromium, total chromium, copper, weak acid dissociable cyanide, total cyanide, fluoride, dissolved iron, total iron, lead, manganese, mercury, nickel, oil, phenols, selenium, silver and zinc is required to be conducted semi-annually beginning 3 months from the effective date.
13. Submission of annual fiscal data.
14. A requirement for biomonitoring of the effluent.
15. Submission of semi annual reports indicating the quantities of sludge generated and disposed.
16. Total Nitrogen and Phosphorus Monitoring.
17. Reopening of this Permit to include revised effluent limitations based on a Total Maximum Daily Load (TMDL) or other water quality study.

NPDES Permit No. IL0028347

Illinois Environmental Protection Agency

Division of Water Pollution Control

1021 North Grand Avenue East

Post Office Box 19276

Springfield, Illinois 62794-9276

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

Modified (NPDES) Permit

Expiration Date: **November 30, 2015**

Issue Date: **November 8, 2010**

Effective Date: **December 1, 2010**

Modification Date:

Name and Address of Permittee:

Village of Deerfield  
850 Waukegan Road  
Deerfield, Illinois 60015

Facility Name and Address:

Deerfield Wastewater Reclamation Facility  
1045 Hackberry Road  
Deerfield, Illinois  
(Lake County)

Receiving Waters: West Fork of the North Branch of the Chicago River

In compliance with the provisions of the Illinois Environmental Protection Act, Title 35 of the Ill. Adm. Code, Subtitle C, Chapter I, and the Clean Water Act (CWA), the above-named Permittee is hereby authorized to discharge at the above location to the above-named receiving stream in accordance with the standard conditions and attachments herein.

Permittee is not authorized to discharge after the above expiration date. In order to receive authorization to discharge beyond the expiration date, the Permittee shall submit the proper application as required by the Illinois Environmental Protection Agency (IEPA) not later than 180 days prior to the expiration date.

Alan Keller, P.E.  
Manager, Permit Section  
Division of Water Pollution Control

SAK:GY:13091801.bah

NPDES Permit No. IL0028347

Effluent Limitations, Monitoring, and Reporting

FINAL

Discharge Number(s) and Name(s): 001 STP Outfall

Load limits computed based on a design average flow (DAF) of 3.5 MGD (design maximum flow (DMF) of 8.0 MGD).

From the modification date of this Permit until the expiration date, the effluent of the above discharge(s) shall be monitored and limited at all times as follows:

| Parameter                         | LOAD LIMITS lbs/day<br>DAF (DMF)*                                      |                   |                  | CONCENTRATION<br>LIMITS mg/L           |                                       |                  | Sample<br>Frequency | Sample<br>Type |
|-----------------------------------|------------------------------------------------------------------------|-------------------|------------------|----------------------------------------|---------------------------------------|------------------|---------------------|----------------|
|                                   | Monthly<br>Average                                                     | Weekly<br>Average | Daily<br>Maximum | Monthly<br>Average                     | Weekly<br>Average                     | Daily<br>Maximum |                     |                |
| Flow (MGD)                        |                                                                        |                   |                  |                                        |                                       |                  | Continuous          |                |
| CBOD <sub>5</sub> ** <sup>1</sup> | 292 (667)                                                              |                   | 584 (1334)       | 10                                     |                                       | 20               | 1 Day/Week          | Composite      |
| Suspended Solids <sup>1</sup>     | 350 (801)                                                              |                   | 701 (1601)       | 12                                     |                                       | 24               | 1 Day/Week          | Composite      |
| pH                                | Shall be in the range of 6 to 9 Standard Units                         |                   |                  |                                        |                                       |                  | 1 Day/Week          | Grab           |
| Fecal Coliform***                 | Daily Maximum shall not exceed 400 per 100 mL<br>(May through October) |                   |                  |                                        |                                       |                  | 1 Day/Week          | Grab           |
| Chlorine Residual                 |                                                                        |                   |                  |                                        |                                       | 0.05             | ****                | Grab           |
| Ammonia Nitrogen:<br>As (N)       |                                                                        |                   |                  |                                        |                                       |                  |                     |                |
| March                             | 79 (180)                                                               | 155 (354)         | 234 (534)        | 2.7                                    | 5.3                                   | 8.0              | 1 Day/Week          | Composite      |
| April-October                     | 44 (100)                                                               |                   | 88 (200)         | 1.5                                    |                                       | 3.0              | 1 Day/Week          | Composite      |
| Nov.-Feb.                         | 117 (267)                                                              |                   | 234 (534)        | 4.0                                    |                                       | 8.0              | 1 Day/Week          | Composite      |
| Total Phosphorus*****             | Monitor Only                                                           |                   |                  |                                        |                                       |                  | 1 Day/Month         | Composite      |
| Total Nitrogen*****               | Monitor Only                                                           |                   |                  |                                        |                                       |                  | 1 Day/Month         | Composite      |
| Fluoride                          |                                                                        |                   | 41 (93)          |                                        |                                       | 1.4              | 1 Day/Week          | Composite      |
| Phenols                           |                                                                        |                   | 2.9 (6.7)        |                                        |                                       | 0.1              | 1 Day/Week          | Composite      |
| Silver                            |                                                                        |                   | 0.15 (0.33)      |                                        |                                       | 0.005            | 1 Day/Week          | Composite      |
|                                   |                                                                        |                   |                  | Monthly<br>Average<br>not less<br>than | Weekly<br>Average<br>not less<br>than | Daily<br>Minimum |                     |                |
| Dissolved Oxygen<br>March-July    |                                                                        |                   |                  | N/A                                    | 6.0                                   | 5.0              | 1 Day/Week          | Grab           |
| August-February                   |                                                                        |                   |                  | 5.5                                    | 4.0                                   | 3.5              | 1 Day/Week          | Grab           |

\*Load limits based on design maximum flow shall apply only when flow exceeds design average flow.

\*\*Carbonaceous BOD<sub>5</sub> (CBOD<sub>5</sub>) testing shall be in accordance with 40 CFR 136.

\*\*\*See Special Condition 10.

\*\*\*\*See Special Condition 11.

\*\*\*\*\*See Special Condition 16.

<sup>1</sup> BOD<sub>5</sub> and Suspended Solids (85% removal required): In accordance with 40 CFR 133, the 30-day average percent removal shall not be less than 85 percent except as provided in Sections 133.103 and 133.105. The percent removal need not be reported to the IEPA on DMRs but influent and effluent data must be available, as required elsewhere in this Permit, for IEPA inspection and review. For measuring compliance with this requirement, 5 mg/L shall be added to the effluent CBOD<sub>5</sub> concentration to determine the effluent BOD<sub>5</sub> concentration.

Flow shall be reported on the Discharge Monitoring Report (DMR) as monthly average and daily maximum.

Fecal Coliform shall be reported on the DMR as a daily maximum value.

pH shall be reported on the DMR as minimum and maximum value.

Chlorine Residual shall be reported on DMR as daily maximum value.

Dissolved oxygen shall be reported on the DMR as a minimum value.

Phosphorus and Total Nitrogen shall be reported on the DMR as a daily maximum value.

NPDES Permit No. IL0028347

Effluent Limitations, Monitoring, and Reporting

FINAL

Discharge Number(s) and Name(s): A01 Excess Flow Discharge  
003 Excess Flow Discharge

These flow facilities shall not be utilized until the main treatment facility is receiving its design maximum flow \* (flow in excess of 8.0 MGD).

From the modification date of this Permit until the expiration date, the effluent of the above discharge(s) shall be monitored and limited at all times as follows:

| Parameter               |                                                | CONCENTRATION LIMITS mg/L |                | Sample Frequency       | Sample Type |
|-------------------------|------------------------------------------------|---------------------------|----------------|------------------------|-------------|
|                         |                                                | Monthly Average           | Weekly Average |                        |             |
| Total Flow (MG)         | See Below                                      |                           |                | Daily When Discharging | Continuous  |
| BOD <sub>5</sub> **     |                                                | 30                        | 40             | Daily When Discharging | Grab        |
| Suspended Solids **     |                                                | 30                        | 45             | Daily When Discharging | Grab        |
| Fecal Coliform          | Daily Maximum Shall Not Exceed 400 per 100 mL  |                           |                | Daily When Discharging | Grab        |
| pH                      | Shall be in the range of 6 to 9 Standard Units |                           |                | Daily When Discharging | Grab        |
| Chlorine Residual       |                                                | 0.75                      |                | Daily When Discharging | Grab        |
| Ammonia Nitrogen as (N) | Monitor Only                                   |                           |                | Daily When Discharging | Grab        |
| Total Phosphorus (as P) | Monitor Only                                   |                           |                | Daily When Discharging | Grab        |
| Dissolved Oxygen        | Monitor Only                                   |                           |                | Daily When Discharging | Grab        |

\* An explanation shall be provided in the comment section of the DMR should these facilities be used when the main treatment facility is not receiving Design Maximum Flow (DMF). The explanation shall identify the reasons the main facility is at a diminished treatment capacity. Additionally, the Permittee shall comply with the provisions of Special Condition 7.

\*\*The 30-day average percent removal shall not be less than 85 percent.

Total flow in million gallons shall be reported on the Discharge Monitoring Report (DMR) in the quantity maximum column.

Report the number of days of discharge in the comments section of the DMR.

Fecal Coliform shall be reported on the DMR as daily maximum.

Chlorine Residual shall be reported on the DMR as a monthly average concentration.

pH shall be reported on the DMR as a minimum and a maximum.

BOD<sub>5</sub> and Suspended Solids shall be reported on the DMR as a monthly average concentration.

Ammonia Nitrogen shall be reported on the DMR as a daily maximum value.

Dissolved Oxygen shall be reported on the DMR as a minimum value.

Total Phosphorus shall be reported on the DMR as a daily maximum value.

All indicated grab samples of effluent for any particular day shall be taken within the initial one hour period of discharge.



NPDES Permit No. IL0028347

Effluent Limitations, Monitoring, and Reporting

FINAL

Discharge Number(s) and Name(s): 002 Deerfield Road Excess Flow Discharge  
004 Warwick Road Excess Flow Discharge

These flow facilities shall not be utilized until the main treatment facility is receiving its design maximum flow.

From the modification date of this Permit until the expiration date, the effluent of the above discharge(s) shall be monitored and limited at all times as follows:

| Parameter               |                                                |  | CONCENTRATION<br>LIMITS mg/L | Sample Frequency       | Sample Type |
|-------------------------|------------------------------------------------|--|------------------------------|------------------------|-------------|
|                         |                                                |  | Monthly Average              |                        |             |
| Total Flow (MG)         | See Below                                      |  |                              | Daily When Discharging | Continuous  |
| BOD <sub>5</sub>        |                                                |  | *                            | Daily When Discharging | Grab        |
| Suspended Solids        |                                                |  | *                            | Daily When Discharging | Grab        |
| Fecal Coliform          | Daily Maximum Shall Not Exceed 400 per 100 mL  |  |                              | Daily When Discharging | Grab        |
| pH                      | Shall be in the range of 6 to 9 Standard Units |  |                              | Daily When Discharging | Grab        |
| Chlorine Residual       |                                                |  | 0.75                         | Daily When Discharging | Grab        |
| Ammonia Nitrogen as (N) | Monitor Only                                   |  |                              | Daily When Discharging | Grab        |
| Total Phosphorus (as P) | Monitor Only                                   |  |                              | Daily When Discharging | Grab        |
| Dissolved Oxygen        | Monitor Only                                   |  |                              | Daily When Discharging | Grab        |

\*Concentration Limits (L) shall be determined by the following equation:

$$L = -15/23 (D) + 49.565$$

Where D = number of days of discharge per month

L = monthly average effluent limitations for BOD<sub>5</sub> and Suspended Solids in mg/L

Total flow in million gallons shall be reported on the Discharge Monitoring Report (DMR) in the quantity maximum column.

Report the number of days of discharge in the comments section of the DMR.

Fecal Coliform shall be reported on the DMR as daily maximum.

Chlorine Residual shall be reported on the DMR as a monthly average concentration.

pH shall be reported on the DMR as a minimum and a maximum.

BOD<sub>5</sub> and Suspended Solids shall be reported on the DMR as a monthly average concentration.

Ammonia Nitrogen shall be reported on the DMR as a daily maximum value.

Dissolved Oxygen shall be reported on the DMR as a minimum value.

Total Phosphorus shall be reported on the DMR as a daily maximum value.

NPDES Permit No. IL0028347

Influent Monitoring, and Reporting

The influent to the plant shall be monitored as follows:

| <u>Parameter</u> | <u>Sample Frequency</u> | <u>Sample Type</u> |
|------------------|-------------------------|--------------------|
| Flow (MGD)       | Continuous              |                    |
| BOD <sub>5</sub> | 1 Day/Week              | Composite          |
| Suspended Solids | 1 Day/Week              | Composite          |

Influent samples shall be taken at a point representative of the influent.

Flow (MGD) shall be reported on the Discharge Monitoring Report (DMR) as monthly average and daily maximum.

BOD<sub>5</sub> and Suspended Solids shall be reported on the DMR as a monthly average concentration.

Special Conditions

SPECIAL CONDITION 1. This Permit may be modified to include different final effluent limitations or requirements which are consistent with applicable laws and regulations. The IEPA will public notice the permit modification.

SPECIAL CONDITION 2. The use or operation of this facility shall be by or under the supervision of a Certified Class 1 Operator.

SPECIAL CONDITION 3. The IEPA may request in writing submittal of operational information in a specified form and at a required frequency at any time during the effective period of this Permit.

SPECIAL CONDITION 4. The IEPA may request more frequent monitoring by permit modification pursuant to 40 CFR § 122.63 and Without Public Notice.

SPECIAL CONDITION 5. The effluent, alone or in combination with other sources, shall not cause a violation of any applicable water quality standard outlined in 35 Ill. Adm. Code 302.

SPECIAL CONDITION 6. The Permittee shall record monitoring results on Discharge Monitoring Report (DMR) Forms using one such form for each outfall each month.

In the event that an outfall does not discharge during a monthly reporting period, the DMR Form shall be submitted with no discharge indicated.

The Permittee may choose to submit electronic DMRs (NetDMRs) instead of mailing paper DMRs to the IEPA. More information, including registration information for the NetDMR program, can be obtained on the IEPA website, <http://www.epa.state.il.us/water/net-dmr/index.html>.

The completed Discharge Monitoring Report forms shall be submitted to IEPA no later than the 25th day of the following month, unless otherwise specified by the permitting authority.

Permittees not using NetDMRs shall mail Discharge Monitoring Reports with an original signature to the IEPA at the following address:

Illinois Environmental Protection Agency  
Division of Water Pollution Control  
Attention: Compliance Assurance Section, Mail Code # 19  
1021 North Grand Avenue East  
Post Office Box 19276  
Springfield, Illinois 62794-9276

SPECIAL CONDITION 7. The provisions of 40 CFR Section 122.41(m) & (n) are hereby incorporated by reference.

SPECIAL CONDITION 8. Samples taken in compliance with the effluent monitoring requirements shall be taken:

- A. For Discharge Number 001 - During dry weather flows (no excess flow discharge), samples shall be taken at a point representative of the flows but prior to entry into the receiving stream. During periods of excess flow discharge, CBOD<sub>5</sub>, Suspended Solids, and Ammonia Nitrogen, if Ammonia Nitrogen monitoring and sampling is required on the Effluent Limitations, Monitoring, and Reporting Page of this Permit, shall be monitored at a point representative of the discharge but prior to admixture with the excess flow. If Fecal Coliform limits are different for Discharge Numbers 001 and A01, sampling shall occur at a point representative of the discharge and prior to admixture, if hardware allows. Other parameters may be sampled after admixture but prior to entry into the receiving stream.
- B. For Discharge Number A01 - Samples for all parameters shall be taken at a point representative of the discharge but prior to entry into the receiving stream. If Fecal Coliform limits are different for Discharge Numbers 001 and A01, sampling shall occur at a point representative of the discharge and prior to admixture, if hardware allows. The sampling point for other parameters may be at a point after admixture with the dry weather flows.
- C. For Discharge Numbers 002, 003 and 004 – Samples taken in compliance with the effluent monitoring requirements shall be taken at a point representative of the discharge, but prior to entry into the receiving stream.

SPECIAL CONDITION 9. This Permit may be modified to include requirements for the Permittee on a continuing basis to evaluate and detail its efforts to effectively control sources of infiltration and inflow into the sewer system and to submit reports to the IEPA if necessary.

SPECIAL CONDITION 10. Fecal Coliform limits for Discharge Number 001 are effective May thru October. Sampling of Fecal Coliform is only required during this time period.

Special Conditions

**SPECIAL CONDITION 11.** For Discharge No. 001, any use of chlorine to control slime growths, odors or as an operational control, etc. shall not exceed the limit of 0.05 mg/L (daily maximum) total residual chlorine in the effluent. Sampling is required on a daily grab basis during the chlorination process. Reporting shall be submitted on the DMR's on a monthly basis.

**SPECIAL CONDITION 12.** The Permittee shall conduct semi-annual monitoring of the effluent and report concentrations (in mg/l) of the following listed parameters. Monitoring shall begin three (3) months from the effective date of this permit. The sample shall be a 24-hour effluent composite except as otherwise specifically provided below and the results shall be submitted on Discharge Monitoring Report Forms to IEPA unless otherwise specified by the IEPA. The parameters to be sampled and the minimum reporting limits to be attained are as follows:

| <u>STORET CODE</u> | <u>PARAMETER</u>                                         | <u>Minimum reporting limit</u> |
|--------------------|----------------------------------------------------------|--------------------------------|
| 01002              | Arsenic                                                  | 0.05 mg/L                      |
| 01007              | Barium                                                   | 0.5 mg/L                       |
| 01027              | Cadmium                                                  | 0.001 mg/L                     |
| 01032              | Chromium (hexavalent) (grab)                             | 0.01 mg/L                      |
| 01034              | Chromium (total)                                         | 0.05 mg/L                      |
| 01042              | Copper                                                   | 0.005 mg/L                     |
| 00718              | Cyanide (grab)(available*** or amenable to chlorination) | 5.0 ug/L                       |
| 00720              | Cyanide (total) (grab not to exceed 24 hours)            | 5.0 ug/L                       |
| 00951              | Fluoride                                                 | 0.1 mg/L                       |
| 01045              | Iron (total)                                             | 0.5 mg/L                       |
| 01046              | Iron (Dissolved)                                         | 0.5 mg/L                       |
| 01051              | Lead                                                     | 0.05 mg/L                      |
| 01055              | Manganese                                                | 0.5 mg/L                       |
| 71900              | Mercury (grab)**                                         | 1.0 ng/L*                      |
| 01067              | Nickel                                                   | 0.005 mg/L                     |
| 00556              | Oil (hexane soluble or equivalent) (Grab Sample only)    | 5.0 mg/L                       |
| 32730              | Phenols (grab)                                           | 0.005 mg/L                     |
| 01147              | Selenium                                                 | 0.005 mg/L                     |
| 01077              | Silver (total)                                           | 0.003 mg/L                     |
| 01092              | Zinc                                                     | 0.025 mg/L                     |

Minimum reporting limits are defined as - (1) The minimum value below which data are documented as non-detects. (2) Three to ten times the method detection limit. (3) The minimum value of the calibration range.

All sample containers, preservatives, holding times, analyses, method detection limit determinations and quality assurance/quality control requirements shall be in accordance with 40 CFR 136.

Unless otherwise indicated, concentrations refer to the total amount of the constituent present in all phases, whether solid, suspended or dissolved, elemental or combined, including all oxidation states.

\*1.0 ng/L = 1 part per trillion.

\*\*Utilize USEPA Method 1631E and the digestion procedure described in Section 11.1.1.2 of 1631E.

\*\*\*USEPA Method OIA-1677.

**SPECIAL CONDITION 13.** During January of each year the Permittee shall submit annual fiscal data regarding sewerage system operations to the Illinois Environmental Protection Agency/Division of Water Pollution Control/Compliance Assurance Section. The Permittee may use any fiscal year period provided the period ends within twelve (12) months of the submission date.

Submission shall be on forms provided by IEPA titled "Fiscal Report Form For NPDES Permittees".

**SPECIAL CONDITION 14.** The Permittee shall conduct biomonitoring of the effluent from Discharge Number(s) 001.

Biomonitoring

1. Acute Toxicity - Standard definitive acute toxicity tests shall be run on at least two trophic levels of aquatic species (fish, invertebrate) representative of the aquatic community of the receiving stream. Testing must be consistent with Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms (Fifth Ed.) EPA/821-R-02-012. Unless substitute tests are pre-approved; the following tests are required:
  - a. Fish - 96 hour static LC<sub>50</sub> Bioassay using fathead minnows (*Pimephales promelas*).

Special Conditions

- b. Invertebrate 48-hour static LC<sub>50</sub> Bioassay using Ceriodaphnia.
2. Testing Frequency - The above tests shall be conducted using 24-hour composite samples unless otherwise authorized by the IEPA. Samples must be collected in the 18th, 15th, 12th, and 9th month prior to the expiration date of this Permit.
  3. Reporting - Results shall be reported according to EPA/821-R-02-012, Section 12, Report Preparation, and shall be submitted to IEPA, Bureau of Water, Compliance Assurance Section within one week of receipt from the laboratory. Reports are due to the IEPA no later than the 16th, 13th, 10th, and 7th month prior to the expiration date of this Permit.
  4. Toxicity - Should a bioassay result in toxicity to >20% of organisms test in the 100% effluent treatment, the IEPA may require, upon notification, six (6) additional rounds of monthly testing on the affected organism(s) to be initiated within 30 days of the toxic bioassay. Results shall be submitted to IEPA within (1) week of becoming available to the Permittee. Should any of the additional bioassays result in toxicity to  $\geq$ 50% of organisms tested in the 100% effluent treatments, the Permittee shall immediately notify IEPA in writing of the test results.
  5. Toxicity Reduction Evaluation and Identification - Should the biomonitoring program identify toxicity and result in notification by IEPA, the permittee shall develop a plan for toxicity reduction evaluation and identification. The plan shall be developed and implemented in accordance with Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants, EPA/833B-99/002, and shall include an evaluation to determine which chemicals have a potential for being discharged in the plant wastewater, a monitoring program to determine their presence or absence and to identify other compounds which are not being removed by treatment, and other measures as appropriate. The Permittee shall submit to the IEPA its plan within ninety (90) days following notification by the IEPA. The Permittee shall implement the plan within ninety (90) days of notification of the permittee above or other such date as is received by letter from IEPA.

The IEPA may modify this Permit during its term to incorporate additional requirements or limitations based on the results of the biomonitoring. In addition, after review of the monitoring results and toxicity reduction evaluation, the IEPA may modify this Permit to include numerical limitations for specific toxic pollutants and additional whole effluent toxicity monitoring to confirm the results of the evaluation. Modifications under this condition shall follow public notice and opportunity for hearing.

SPECIAL CONDITION 15. For the duration of this Permit, the Permittee shall determine the quantity of sludge produced by the treatment facility in dry tons or gallons with average percent total solids analysis. The Permittee shall maintain adequate records of the quantities of sludge produced and have said records available for IEPA inspection. The Permittee shall submit to the IEPA, at a minimum, a semi-annual summary report of the quantities of sludge generated and disposed of, in units of dry tons or gallons (average total percent solids) by different disposal methods including but not limited to application on farmland, application on reclamation land, landfilling, public distribution, dedicated land disposal, sod farms, storage lagoons or any other specified disposal method. Said reports shall be submitted to the IEPA by January 31 and July 31 of each year reporting the preceding January thru June and July thru December interval of sludge disposal operations.

Duty to Mitigate. The Permittee shall take all reasonable steps to minimize any sludge use or disposal in violation of this Permit.

Sludge monitoring must be conducted according to test procedures approved under 40 CFR 136 unless otherwise specified in 40 CFR 503, unless other test procedures have been specified in this Permit.

Planned Changes. The Permittee shall give notice to the IEPA on the semi-annual report of any changes in sludge use and disposal.

The Permittee shall retain records of all sludge monitoring, and reports required by the Sludge Permit as referenced in Standard Condition 23 for a period of at least five (5) years from the date of this Permit.

If the Permittee monitors any pollutant more frequently than required by the Sludge Permit, the results of this monitoring shall be included in the reporting of data submitted to the IEPA.

The Permittee shall comply with existing federal regulations governing sewage sludge use or disposal and shall comply with all existing applicable regulations in any jurisdiction in which the sewage sludge is actually used or disposed.

The Permittee shall comply with standards for sewage sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish the standards for sewage sludge use or disposal even if the permit has not been modified to incorporate the requirement.

The Permittee shall ensure that the applicable requirements in 40 CFR Part 503 are met when the sewage sludge is applied to the land, placed on a surface disposal site, or fired in a sewage sludge incinerator.

Special Conditions

Monitoring reports for sludge shall be reported on the form titled "Sludge Management Reports" to the following address:

Illinois Environmental Protection Agency  
Bureau of Water  
Compliance Assurance Section  
Mail Code #19  
1021 North Grand Avenue East  
Post Office Box 19276  
Springfield, Illinois 62794-9276

SPECIAL CONDITION 16. Monitoring for Total Nitrogen and Phosphorus shall be as described on page 2 of the permit. The Agency will evaluate the data collected and modify the permit if necessary in accordance with Special Condition 1 of the NPDES Permit.

SPECIAL CONDITION 17. This Permit may be modified to include alternative or additional final effluent limitations pursuant to an approved Total Maximum Daily Load (TMDL) Study or upon completion of an alternate Water Quality Study.