Watershed Management Ordinance (WMO)
Compliance Training
Fall 2015

Presented by:
Justine Skawski, P.E.
Daniel Feltes, P.E.
Agenda

• Introduction / WMO Background
• Permit Applicability
• Examples of When / How much Permit
• New Details
• How to Credit and Calculate Volume Control
• Case Studies
• Common Questions
• Top 5 Ways to Get a Permit Fast
• Wrap it up
• Work Shop
Regulatory Area

• Demographics
  – 91% of Cook County
  – 883 square miles
  – 126 municipalities
  – 5.25 million people
Watershed Management Ordinance (WMO)

Objective
Establish uniform, minimum, and comprehensive countywide stormwater management regulations.

Enabling Legislation
“Stormwater management in Cook County shall be under the general supervision of the Metropolitan Water Reclamation District of Greater Chicago.” 70 ILCS 2605/7h(a).

“The District may prescribe by ordinance reasonable rules and regulations for floodplain and stormwater management . . . in Cook County.” 70 ILCS 2605/7h(d).
WMO Advisory Committee

- Membership
  - Municipalities
  - Nongovernmental Organizations

- Meetings
  - White papers
  - Draft language
  - Discussions
  - Ongoing
# WMO Timeline

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1972</td>
<td>Sewer Permit Ordinance</td>
</tr>
<tr>
<td>2004</td>
<td>Public Act 093-1049</td>
</tr>
<tr>
<td>2007</td>
<td>WMO Development</td>
</tr>
<tr>
<td>2009</td>
<td>Public Review</td>
</tr>
<tr>
<td>2010</td>
<td>Public Comments</td>
</tr>
<tr>
<td>2012</td>
<td>Economic Impact Study</td>
</tr>
<tr>
<td>2013</td>
<td>WMO Redraft</td>
</tr>
<tr>
<td>October 2013</td>
<td>WMO Adoption</td>
</tr>
<tr>
<td>May 2014</td>
<td>WMO Effective</td>
</tr>
<tr>
<td>July 2014</td>
<td>WMO Revision</td>
</tr>
<tr>
<td>August 2015</td>
<td>TGM Update</td>
</tr>
</tbody>
</table>
Sewer Permit Ordinance

- Sanitary Sewers
- Stormwater Detention
  - TP-40 Rainfall Data
  - Modified Rational Method

Watershed Management Ordinance

- Sanitary Sewers
- Stormwater Detention
  - Bulletin-70 Rainfall Data
  - Flat Release Rate
  - Hydrograph Method
- Volume Control
- Erosion & Sediment
- Flood Protection Areas
  - Floodplain
  - Floodway
  - Isolated Wetlands
  - Riparian Areas
Watershed Management Ordinance
Effective
May 1, 2014
As amended
July 10, 2014


August 2015

- Ordinance
- Technical Guidance Manual
- Permit Forms
- Flow Charts
- Checklists
Permit Applicability
First

Permit Applicability
§201, Table 1

- Development > 0.5 Disturbed Area
- Flood Protection Areas: Floodplain, Wetlands, Riparian etc
- Qualified Sewer Construction
- District Impacts: TARP / Interceptors, Waterway Outfalls, Lake Michigan District Property

Color Code:
- Cook County, Chicago
- District Corporate Limits, Chicago
- Cook County including Chicago

Stormwater Requirements
Article 5, Table 2
Ownership
<table>
<thead>
<tr>
<th>Development Type</th>
<th>§502</th>
<th>§503</th>
<th>§504</th>
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</thead>
<tbody>
<tr>
<td>(See Appendix A for definitions)</td>
<td>Runoff Requirements</td>
<td>Volume Control Requirements</td>
<td>Detention Requirements</td>
</tr>
<tr>
<td>Single-Family Home</td>
<td>Exempt</td>
<td>Exempt</td>
<td>Exempt</td>
</tr>
<tr>
<td>Residential Subdivision</td>
<td>Parcels ≥ 1 acre</td>
<td>Parcels ≥ 1 acre</td>
<td>Parcels ≥ 5 acres</td>
</tr>
<tr>
<td>Multi-Family Residential</td>
<td>Parcels ≥ 0.5 acre</td>
<td>Parcels ≥ 0.5 acre</td>
<td>Parcels ≥ 3 acres ‡</td>
</tr>
<tr>
<td>Non-Residential</td>
<td>Parcels ≥ 0.5 acre</td>
<td>Parcels ≥ 0.5 acre</td>
<td>Parcels ≥ 3 acres ‡</td>
</tr>
<tr>
<td>Right-of-Way</td>
<td>New Impervious Area ≥ 1 acre</td>
<td>New Impervious Area ≥ 1 acre †</td>
<td>New Impervious Area ≥ 1 acre †</td>
</tr>
<tr>
<td>Open Space</td>
<td>Parcels ≥ 0.5 acre</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

1 Site stormwater management requirements are not required for maintenance activities as defined in Appendix A.

2 Requirements are applicable when a Watershed Management Permit is required under §201 of this Ordinance.

† Where practicable.

‡ Starting the effective date of this Ordinance, any new development on the parcel that totals either individually or in the aggregate to more than one-half (0.5) of an acre.
Watershed Management Permit Required

1) Development is located in a Flood Protection Area (FPA) or causes an indirect wetland impact.

2) Development disturbs 0.5 acres or more

3) Development proposes drainage improvements in combined sewer area or in conjunction with previously permitted detention facility

4) Development involves an outfall to waterway or Lake Michigan

5) Development involves sewer or connection to District interceptor or TARP structure

Permits for 1 & 2 may be issued by District or authorized municipality.
Permits for 3, 4 & 5 can only be issued by District.
Development Exempt from WMO Provisions

1) Agricultural, maintenance, and public utility activities that meet conditions of § 201.1.D of the WMO

2) Development involves the modification of a septic system, potable water service line, or utility that serves an existing structure

3) Development within the City of Chicago, unless it involves:
   - Outfall to waterway or Lake Michigan
   - Stormwater discharges to District property
   - Connections to District sewer, interceptor, or TARP structure

4) Development undertaken solely by state or federal agencies (District, IDOT, Corps, Illinois Tollway Authority, etc.)

5) Public flood control projects
METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO
QUALIFIED SEWER CONTRUCTION* FLOW CHART

START

IS DEVELOPMENT LOCATED IN THE CITY OF CHICAGO?

NO

IS NEW SEWER BEING CONSTRUCTED?

NO

IS NEW SEWER CONNECTION BEING MADE?

NO

IS REPAIR, REPLACEMENT, OR OTHER MAINTENANCE BEING DONE?

YES

IS THERE DIRECT CONNECTION TO DISTRICT SEWERS OR AN OUTFALL?

YES

FACILITY CONNECTION AUTHORIZATION REQUIRED

NO

IS NEW SEWER SOLELY STORM, AND NOT TRIBUTARY TO COMBINED SEWER?

YES

IS LESS THAN 25 LINEAR FEET OF NEW SEWER BEING CONSTRUCTED?

NO

DOES SEWER WORK INCLUDE NEW OUTFALL?

NO

WATERSHED MANAGEMENT PERMIT REQUIRED

YES

NRI (SHORT-FORM) PERMIT REQUIRED

PUBLIC SEWER

PRIVATE SEWER

IS THE SEWER BEING REMOVED AND REPLACED (SAME SIZE ENTIRELY WITHIN THE SAME TRENCH)?

YES

IS THE SEWER BEING CIPP LINED?

NO

IS WORK BEING DONE ON A PUBLIC LIFT STATION?

YES

IS PIPE SIZE OR ROUTE CHANGING?

NO

IS THE BUILDING A SINGLE FAMILY HOME?

YES

SEE SINGLE FAMILY HOME FLOW CHART

NO

QUALIFIED SEWER REQUIREMENTS DO NOT APPLY

VERIFY REQUIREMENTS FOR DEVELOPMENT, FLOOD PROTECTION AREAS, AND DISTRICT IMPACTS DO NOT APPLY

QUALIFIED SEWER REQUIREMENTS DO NOT APPLY

*See definition of qualified sewer construction in Appendix A of the WMO.
Example #1 – Repaving Existing Parking Lot

Is a WMO Permit Required?

Total Ownership Area = 15 Acres
Area of Disturbance (Parking Lot Repaving Area) = 12 Acres
Example #1 – Repaving Existing Parking Lot

- A Watershed Management Permit is not required for this project since repaving an existing parking lot is considered a maintenance activity and therefore is not regulated under WMO.

- Maintenance activities, repair, or at-grade replacement of existing impervious areas (roadways and parking lots) do not require a Watershed Management Permit (regardless of mill grind or full depth).

- There are no land disturbance thresholds for maintenance activities.

- Maintenance activities do not affect stormwater runoff volume and quality, and therefore are not considered development.
Pavement Maintenance
Vs.
Qualified Development

Legend:
- Development area tributary to the underground detention facility
- Development area not tributary to the underground detention facility
- Maintenance or undisturbed area tributary to the underground detention facility
Example #2 – Underground Utility Project

- A Watershed Management Permit is not required for underground utility projects outside of flood protection areas.
- Must consist of installing or maintaining utilities other than qualified sewer construction.
- Area must be restored to existing grade and vegetative cover.
- Soil erosion and sediment control practices are always required, regardless of permitting requirement.
What are the WMO stormwater requirements?

Example #3 – Redevelopment of 2-Acre Outlot

Total Ownership Area = 20 Acres
Area of Disturbance (Redevelopment of Outlot) = 2 Acres

Stormwater detention was originally provided for the entire 20-acre development.
Example #3 – Redevelopment of 2-Acre Outlot

- Disturbs greater than 0.5 acres, therefore Watershed Management Permit is required.

- Follow Table 2 of WMO for runoff, volume control, and detention requirements:
  - Non-residential development with ownership area of 20 acres
    - Runoff required
    - Volume control required
    - Stormwater detention required

- Follow redevelopment/legacy sewerage system permit flowchart to determine methodology for stormwater detention requirements.
What are the WMO stormwater requirements?
Example #4

0.45 Acre Disturbed out of 20 acre Owned

- No qualified sewer, and no work in the flood protection area. Since the improvement disturbs less than 0.5 acres, **no permit is required**
- “… any new development on the parcel that totals either individually or in the aggregate to more than 0.5…” acre since WMO inception
- Compliance options:
  - Detain now obtain permit
  - Defer and detain (more?) later once aggregate development >0.5 ac
- Obtain a permit determination letter
WMO Flexible Compliance

- Phased release rate
  - 0.30 cfs/ac first five years
  - Watershed specific study
- Stormwater detention trading
- Credit volume control towards detention
- Reasonable options for volume control
- Authorized municipalities
- Multi-county municipalities
Recent WMO Developments

• Lessons Learned Since Inception

• WMO Permits Data

• New and Improved:
  – Flow Charts
  – TGM Update
  – Volume Control Details
WMO Volume Control Details
### Appendix C. Standard Details & Notes (29 MB) (Updated July 2015)

#### Volume Control Details
- Bioretention Facility
- Bioswale (Must be used with Check Dam)
- Bioswale Check Dam
- Constructed Wetlands
- Drywell
- Green Roof
- Infiltration Trench
- Lake Michigan Outfall Water Quality Device
- Observation Well
- Permeable Pavers
- Rain Cistern/Water Reuse System
- Removable Hood for Catch Basin and Water Quality Structures
- Sediment Forebay/Pretreatment Basin
- Signage for Permeable Pavement
- Storage Below Outlet of Detention Basin
- Vegetated Filter Strip (Flow-Through)
- Volume Control Pretreatment Measures
- Volume Control Storage Matrix

#### Stormwater and Floodplain Details
- Emergency Overflow Weir
- Floodplain Garage
- Outlet Control Structure (Plate)
- Outlet Control Structure (Wall)
- Parking Lot Detention
- Signage for Parking Lot Detention
- Vortex Restrictor
- Window Well

#### Sanitary Sewer Details
- Concrete Cradle
- Concrete Encasement
- Dog House Manhole
- Drop Manhole Connection
- Rigid And Flexible Pipe Installation
- Forecmain Discharge to Gravity Manhole
- Large Grease Basin
- Methods for Connecting to MWRD Manholes

#### General Notes and Exhibits
- MWRD General Notes
- Example Drainage Exhibit
- Example Exhibit R
- Example Routing Exhibit
- Riser for Sanitary Service Lateral
- Sanitary Manhole Type A and B
- Small Grease Basin
- Water Separation Requirements
### Volume Calculation Table

<table>
<thead>
<tr>
<th>Volume Type</th>
<th>Porosity</th>
<th>Media Volume</th>
<th>Storage Volume</th>
<th>Volume Provided</th>
</tr>
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<tbody>
<tr>
<td>Surface Storage</td>
<td>1.00</td>
<td>$V_A$</td>
<td>$1.00 \times V_A$</td>
<td></td>
</tr>
<tr>
<td>Soil Media Mix</td>
<td>0.25</td>
<td>$V_B$</td>
<td>$0.5 \times 0.25 \times V_B$</td>
<td></td>
</tr>
<tr>
<td>Coarse Agg. (Above Invert)</td>
<td>0.36</td>
<td>$V_C$</td>
<td>$0.5 \times 0.36 \times V_C$</td>
<td></td>
</tr>
<tr>
<td>Coarse Agg. (Below Invert)</td>
<td>0.36</td>
<td>$V_D$</td>
<td>$0.36 \times V_D$</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Deep rooted, native plants installed as specified on plans use native vegetation tolerant of wet and dry cycles.

18" surface storage maximum, 6" min

2' setback from end (optional)

Check dams with sediment storage (optional)

2' min. soil media mix, 50% sand, 30% compost, 20% topsoil (or district mix)

Woven geotextile fabric

V_A (above invert of underdrain)

V_B (below invert of underdrain)

Cross section view (bioswale)

Seasonally high groundwater level

Native soil

Table 1

<table>
<thead>
<tr>
<th>Ditch Slope (%)</th>
<th>Spacing L (feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>200</td>
</tr>
<tr>
<td>2</td>
<td>100</td>
</tr>
<tr>
<td>4</td>
<td>50</td>
</tr>
<tr>
<td>6</td>
<td>33</td>
</tr>
</tbody>
</table>

Slopes above 6% are not recommended.
Drywell

**Main Diagram Details:**

- **Manhole Frame and Open Lid Covers, Per Standards**
- **Precast Concrete Adjustment Rings**
- **Where Clearances Do Not Permit Offset Cone, Use Flat Slab Top**
- **Outlet Pipe (Optional)**
  \[ Q_{\text{out}} = \_\_\_\_\_\_\_\_\_ CFS \]

**Dimensions and Notes:**

- **Inlet Pipe**
  - Varies

- **Outlet Pipe**
  - Varies 4' (Typ.)

- **Area of Infiltration**
  - \[ V_B \]
  - \[ V_A \]

- **Precast Reinforced Concrete Ring**

- **Open Bottom**

- **Seasonal High Groundwater Level**

- **Woven Geotextile Fabric, Double Wrap Around Outer Diameter of Structure to Protect Weep Holes**

- **4'' Weep Holes, Evenly Spaced**
  - (Optional Min. 16'' Center to Center)

- **Coarse Aggregate**
  - CA-7 Stone (See Note 4)
NOTES:
1) ONE OBSERVATION WELL SHALL BE INSTALLED PER 40,000 SQ. FT. OF SURFACE AREA.
2) PERFORATIONS SHALL BE 3/8" CIRCULAR HOLES, 4" ON CENTER, 90° AROUND PIPE.
3) OBSERVATION WELL FOR BIORETENTION FACILITIES SHALL EXTEND 6"-12" ABOVE GRADE AND CONTAIN AN OVERFLOW GRATE INSTEAD OF LOCKING CAP.
4) PIPES/FITTINGS SHALL BE SCHEDULE 40 PVC OR HIGHER QUALITY, 6" DIAMETER MINIMUM.
Vegetated Filter Strip

NOTES:
1. MULCH LAYER SHALL BE HARDWOOD MULCH OR OTHER NON-FLOATING GROUND COVER.
2. AVOID INSTALLATION ON SLOPES GREATER THAN 15 TO 1 AND ABOVE COMPACTED FILL.
3. LONGEST FLOW PATH OF CONTRIBUTING DRAINAGE AREA MUST NOT EXCEED 75 FEET.
4. WOVEN GEOTEXTILE FABRIC SHALL MEET REQUIREMENTS OF IUM MATERIAL SPECIFICATION 592 GEOTEXTILE, TABLE 1, CLASS 1, WITH AN APPARENT OPENING SIZE OF 50.
5. COARSE AGGREGATE OPTIONS ARE CA-7, DISTRICT VULCAN MIX, OR APPROVED ALTERNATE. NO RECYCLED MATERIALS ARE ALLOWED.
6. FOLLOW THE REQUIRED PRETREATMENT MEASURES LISTED ON THE VOLUME CONTROL PRETREATMENT MEASURES DETAIL.
<table>
<thead>
<tr>
<th>Media Depth* (inches)</th>
<th>Void Ratio</th>
<th>Reduced CN</th>
<th>Reduced Runoff Coefficient, C</th>
<th>Volume Control Storage (ft³/ft² of Green Roof)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>---</td>
<td>98</td>
<td>0.90</td>
<td>---</td>
</tr>
<tr>
<td>2</td>
<td>0.25</td>
<td>94</td>
<td>0.83</td>
<td>0.042</td>
</tr>
<tr>
<td>4</td>
<td>0.25</td>
<td>90</td>
<td>0.74</td>
<td>0.083</td>
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<tr>
<td>6</td>
<td>0.25</td>
<td>85</td>
<td>0.66</td>
<td>0.125</td>
</tr>
<tr>
<td>9</td>
<td>0.25</td>
<td>79</td>
<td>0.54</td>
<td>0.188</td>
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<tr>
<td>12</td>
<td>0.25</td>
<td>72</td>
<td>0.40</td>
<td>0.25</td>
</tr>
<tr>
<td>&gt;12</td>
<td>0.25</td>
<td>63</td>
<td>0.10</td>
<td>&gt;0.25</td>
</tr>
</tbody>
</table>

*Media Depth includes growing medium layer and drainage layer

**Notes:**
1. Woven geotextile fabric shall meet requirements of Specification IUM 592 Geotextile, Table 1, Class I, with an apparent opening size of 50.
2. Plantings shall be selected according to ASTM E2400–06, Guide for Selection, Installation and Maintenance of Plants for Green (Vegetated) Roof Systems.
3. Growth media shall consist of 80% lightweight inorganic materials and 20% organic matter.
4. There shall be a minimum setback of 2-feet from roof perimeter and roof penetrations.

**Technical Guidance Manual**

**Green Roof Typical Detail**
Issued Permits -- Case Studies
PERVIOUS CONCRETE PAVEMENT SECTION

4000 PSI COMPRESSIVE STRENGTH
PERVIOUS CONCRETE MIX PER SPECIFICATION.

GEOTEXTILE FABRIC
(MIRAFL 140 OR EQUAL)

7-1/2” AGGREGATE BASE COURSE,
TYPE B, CA-7.

PERFORATED UNDERDRAIN PVC, 4”
W/ GEOTEXTILE WRAP INSTALLED
A MINIMUM OF 2” ABOVE SUBGRADE

SCARIFIED SUBGRADE
MAX PAVEMENT ELEV = 757.0 (SUBGRADE = 756.0)
MIN PAVEMENT ELEV = 752.75 (SUBGRADE = 751.75)
PROTECT BED WITH GEOTEXTILE FABRIC AND MIN 3" CA-7

UNDERDRAIN (PERFORATED PIPE)
4" PVC SDR 26
ST-15B

18" HDPE PERFORATED PIPE
ST-15A

GROUNDWATER ELEV <740.0

WRAP BED IN CLASS C GEOTEXTILE FABRIC

INfiltration Bed Detail
POROUS H.M.A. PAVEMENT DETAIL

- 4" POROUS PAVEMENT
  OPEN GRADED - 20% Voids
- 8" CA-7 OPEN GRADED BASE COURSE
- 4" POROUS PAVEMENT
- DEPTH AS SPECIFIED
ON PLANS
(30" IN EAST LOT)
(30" IN WEST LOT)

WOVEN GEOTEXTILE
FABRIC (ON SIDES ONLY,
NO TOP OR BOTTOM
GEOTEXTILE FABRIC)

CA-1 OPEN GRADED STONE
DEPTH VARIES AS SPECIFIED

UN-COMPACTED
SUBSOIL

4" or
6" PERFORATED UNDERDRAIN PIPE

NO SEASONAL GROUND WATER OBSERVED DURING
SOIL BORINGS AT 20 FEET
BORING DEPTH BELOW
EXISTING GRADE.

7

3 6
**DETAIL - RAIN GARDEN**

**SCALE:** 1"=1' VERTICAL, 1"=4' HORIZONTAL

**NOTE:** NO GROUND WATER TABLE ENCOUNTERED DOWN TO 5'9.60' DURING GEOTECHNICAL INVESTIGATION
Does an existing conventional wet pond satisfy Volume Control for new Development?

Short answer: No

- Is there a new stormwater benefit created?
- Existing systems can be retrofitted, permitted, and improved
Volume Control
Detention Retrofit

Figure 8: Schematic showing conversion of a dry pond to a shallow marsh

Figure 1: Five strategies to retrofit a pond
Volume Control
Detention Retrofit

http://www.hazenandsawyer.com/work/projects/lemon-creek-watershed/
Maintenance

Which flow through practice would you want to clean?

Swale

Vs.

Snout
Maintenance

• Underground Detention Systems

Adequate Access and Steps
  – Each inflow connection, where debris accumulates
  – At Outlet, where debris clogs

• Maintenance Plan / Schedule R
  – Required for Volume Control or Sole Permittee
  – Not Required for ‘Sanitary Only’ Permit
  – Municipal Projects:
    • Maintenance Plan must be a part plan set
    • Schedule R is not required
Maintenance

- Proactive vs. Reactive
  - More costly without a plan (grey or green)
  - How do you want to pay?: Capital or O&M / Replace
  - Inspection, Inspection, Inspection…
  - Scheduled (Pre & Post Winter)

- Short Term
  - Establishment and break-in
  - More time and inspection to adjust

- Long Term
  - Regular Schedule
  - Still deal with big storms

- Consider Winter (cold and snow removal)
- Consider loading rates and “run-on”
Common Questions
How do you meet the volume control requirements for sites with contaminated soils?

There are many sites, such as those with contaminated soils or fueling stations, where it would be impractical to use infiltration practices. For these sites, the WMO volume control requirements can be met by providing flow-through practices or a reduction in impervious area.
I am working on a redevelopment and the original detention facility was permitted using a lower pervious runoff coefficient than what is currently required. Will I be penalized for this when I calculate the detention for the redevelopment?

No, the applicant will not be penalized for this. The applicant must redo the existing detention volume calculations using the current runoff coefficients, so that an “apples to apples” comparison of existing and proposed conditions can be made to determine if any additional detention volume is required.
The soils on my site have infiltration rates greater than 0.5 in/hr. Do I still have to install underdrains in the volume control practice?

Underdrains are not required if it can be demonstrated that the native soils have an infiltration rate of 0.5 in/hr or greater. The infiltration rate must be measured with an infiltrometer test and meet the requirements of ASTM D3385. Calculations will need to show that the retention-based system will dewater in approximately 72 hrs.
Is credit given to developments that provide more than the one inch of required volume control storage?

For regular developments, the additional volume control storage provided in excess of the required one inch is credited in the form of an even more reduced curve number. For redevelopments, the provided volume control storage is credited toward the required detention volume.
What are the impact fees?

Impact fees are rarely required. Generally, they are applicable only to those areas annexed into the District on or after July 9, 1998, which have not already paid the full connection impact fee.

These fees recoup District capacity expansion cost for our WRPs and collection systems.
Top 5 Tips: For Super Fast Permit Approval!!!

1. 
2. 
3. 
4. 
5. 

CAUTION
WATER ON ROAD
DURING RAIN

CAPTAIN OBVIOUS
Has struck again
Top 5 Tips:
For Super Fast Permit Approval !!!

1.

2.

3.

4.

5. Read and Review: WMO, TGM, and Examples
Top 5 Tips: 
For Super Fast Permit Approval!!!

1. 
2. 
3. 
4. Ask for Help 
5. Read and Review: WMO, TGM, and Examples
Top 5 Tips: 
*For Super Fast Permit Approval!!!*

1. 

2. 

3. Sign the Permit 

4. Ask for Help 

5. Read and Review: WMO, TGM, and Examples
Top 5 Tips:
For Super Fast Permit Approval!!!
WMO Checklist

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO
WATERSHED MANAGEMENT (WMO) PERMIT APPLICATION MINIMUM SUBMITTAL REQUIREMENTS CHECKLIST

Before the MWRD can accept a Watershed Management Permit application submittal, assign it a permit application number, and initiate engineering review; the submittal must include all the items listed below. Incomplete applications will be returned, unreviewed, to the applicant.

General Submittal Requirements:

1. ☐ One (1) copy of this form, checked as appropriate

2. ☐ Four (4) copies of the Watershed Management Permit application (Cover, Schedule A, Schedule B, Schedule C, General Conditions, and Engineering Certifications, original signatures with seals)
   ☐ Municipality’s (Permittee’s) signature on permit form (page 9)
   ☐ Owner/developer’s (Co-permittee’s) signature on permit form (page 9)
   ☐ Design Engineer’s signature and seal on permit form (page 8)
   ☐ Municipal/Systems Engineer’s signature and seal on permit form (page 8)
   ☐ Inspection Engineer’s signature and seal on permit form (page 8)

3. ☐ Two (2) copies of plan set (signed and sealed), as required to initiate review
   Note that four (4) copies of the plans will be required as part of final permit approval (2 copies + 2 original)

4. ☐ One (1) copy of Fee Payment Voucher form & a check for appropriate fees (no personal checks accepted)

5. ☐ One (1) copy of all completed detailed submittal checklists (as specific to the site and development type)

6. ☐ One (1) copy of all supporting calculations, exhibits, etc., as required by the applicable submittal checklists

If the application submittal is for a project that is on the existing development plans list, check the box below; and refer to Legacy Sewerage System Permit application information and provide appropriate legacy permit forms and checklist.

☐ Project is on existing development plans list

If you have any questions, please contact MWRD Engineering Department Permit Section at (312) 751-3255.

For reference, a typical permit schedule package might include the following specific permit schedules, in addition to the base permit application. Circle the example package used as a guide and check the applicable schedule boxes for this application:
Top 5 Tips: For Super Fast Permit Approval!!!

1. Start **before** your deadline
2. Forms: Complete & Consistent
3. Sign The Permit
4. Ask for Help
5. Read and Review: WMO, TGM, and Examples
Permit Timeline

1. **Design Project**
2. **Apply for MWRD Permit**
3. **Obtain Permit**
   - MWRD Erosion Inspection
4. **Mobilize**
   - MWRD Inspect
5. **Sewer Work**
   - MWRD Inspect
6. **Substantial Completion**
   - MWRD Inspect
7. **Occupancy**
   - $$
WMO Article 8
Infiltration / Inflow Control Program (IICP)

What is an I/I Program?
An ongoing maintenance, operation, and rehabilitation effort to identify and remove groundwater infiltration and stormwater inflow sources from the sanitary sewer system
• Adopted: July 10, 2014
• Applicability:
  All satellite entities that own/operate separate sanitary sewer systems tributary to MWRD
• Short Term Requirements (2014 – 2019)
• Private Sector Program
• Long Term Operation & Maintenance Program
• Annual Reporting
• Non-Compliance
Authorized Municipalities

• Definition
  – *A Cook County municipality authorized by the District to issue Watershed Management Permits within its corporate boundaries.*

• Applicable WMO Provisions
  – Section 100.3 allows municipalities to become authorized.
  – Article 14 defines roles and responsibilities of Authorized Municipalities.

• Legal Relationship of Authorized Municipality.
  – Adopts WMO by reference under own municipal powers.
  – Enters IGA with MWRD.
Managing Stormwater
The WMO aims to protect public health, safety, and welfare, and Cook County homes and businesses from flood damage by managing and mitigating the effects of development and redevelopment on stormwater drainage. It provides uniform minimum stormwater management regulations for Cook County that are consistent with the region. The WMO replaces the MWItd’s repealed Sewer Permit Ordinance (SPO). WMO permit requirements are more comprehensive than those of the SPO.

How it Works
The WMO establishes rules and guidelines for development to ensure that flooding problems are not exacerbated. Permits are required prior to start of construction for new projects as described inside.

Single Family Homes
The WMO was not intended to regulate most single family homes. When a new development is located in or near a Flood Protection Area, a permit may be required. See “WMO: A Quick Guide for Homeowners” and the WMO.

WMO: A Quick Guide for Developers
This pamphlet is an introduction for developers to the requirements and permit compliance process of the Metropolitan Water Reclamation District of Greater Chicago’s Watershed Management Ordinance.

For More Information
please visit wmo.mwrd.org
or contact the MWItd at 312.751.3255
or WMOinbox@mwrd.org

WMO Informational Brochure
Managing Stormwater
The WMO aims to protect public health, safety, and welfare, and Cook County homes and businesses from flood damage by managing and mitigating the effects of urbanization on stormwater drainage. It provides uniform minimum stormwater management regulations for Cook County that are consistent with the region.

The WMO replaces the MWRD’s repealed Sewer Permit Ordinance (SPO). WMO permit requirements are more comprehensive than those of the SPO. Please see inside or visit wmo.mwrd.org for more details.

Single Family Homes
The WMO is not intended to regulate most single family homes. A permit is generally only required for single family home development that involves a Flood Protection Area or requires an extension of a public sewer to serve the parcel. These types of development are regulated under the WMO because they can have a significant potential for loss of property from flood drainage. Unlike residential subdivisions, single family home developments are exempt from the stormwater provisions of the WMO.

The WMO defines a “single family home” as a residential parcel containing less than 3 dwelling units. This does not include single family home parcels subdivided after May 1, 2014.

For More Information
please visit wmo.mwrd.org
or contact the MWRD at 312.751.3255
or WMOinbbox@mwrd.org

WMO Informational Brochure
WORKSHOP
Thank You
Questions?

Metropolitan Water Reclamation District of Greater Chicago
100 E. Erie Street
Chicago, Illinois