



STORMWATER MANAGEMENT COMMISSION

We hope to see you at the next (shortened) TAC meeting on **Thursday, November 21, 2019** from 9:00 AM **to 11:00 AM.**

The meeting will be held at:

Lake County Central Permit Facility
500 W. Winchester
Second Floor - Large Conference Room
Libertyville, IL 60048

Meeting Topics:

- WDO amendments
- Fee-In-Lieu of Storage above 50-Year Detention Volume Program



STORMWATER MANAGEMENT COMMISSION

**TECHNICAL ADVISORY COMMITTEE
AGENDA**

November 21, 2019

9:00 AM – 11:00 AM

500 W. Winchester, Libertyville, Illinois



- 1.0 CALL TO ORDER
- 2.0 ADDITIONS TO THE AGENDA
- 3.0 PUBLIC COMMENT
- 4.0 STAFF REPORT
 - 4.1 Special Recognition – Jim Bakk, SMC Legal Counsel (retired)
 - 4.2 ISWS Report #2 Update - WDO Amendment #1b
- 5.0 APPROVAL OF THE MINUTES
 - 5.1 October 17, 2019 Minutes
Action Requested: APPROVAL
- 6.0 OLD BUSINESS
 - 6.1 WDO Amendment #3 – 509.04 Fee-In-Lieu Option For Storage above 50-year, 24-hour Detention Volume [7.5”]
Action Requested: APPROVAL
 - 6.2 WDO Amendment #8 – 401.15 Updated Hydric Soil Classification
Action Requested: APPROVAL
 - 6.3 WDO Amendment #10 – 600.11 Steep Slope Failures
Action Requested: APPROVAL
 - 6.4 WDO Amendment #15 – Appendix J: Watershed Specific Release Rates
Action Requested: APPROVAL
- 7.0 NEW BUSINESS
 - 7.1 Fee-In-Lieu Option For Storage above 50-year, 24-hour Detention Volume Program
Action Requested: APPROVAL
- 8.0 ADJOURNMENT

Technical Advisory Committee

<p>James Anderson <i>(Term Expires May 2020)</i> Director of Natural Resources LC Forest Preserve District 1899 W. Winchester Rd. Libertyville, IL 60048 Phone: 847-968-3282 Fax: 847-367-6649 Email: janderson@lcfpd.org</p>	<p><u>Alternates</u> John Nelson Director of Operations & Infrastructure LC Forest Preserve Dist. 19808 W. Grand Avenue. Lindenhurst, IL 60046 Phone: 847-968-3407 Fax: 847-367-6649 Email: jnelson@lcfpd.org</p> <p>Ken Klick Restoration Ecologist LC Forest Preserve Dist. 1899 W. Winchester Rd. Libertyville, IL 60048 Phone: 847-968-3284 Fax: 847-367-6649 Email: kklick@lcfpd.org</p>	<p>Tom Polzin (Vice Chairman) <i>(Term Expires May 2020)</i> Hey & Assoc., Inc. 26575 W. Commerce Dr., Ste. 601 Volo, IL 60073 Phone: 847-740-0888 Fax: 847-740-2888 Email: tpolzin@heyassoc.com</p>	<p><u>Alternate</u> Vince Mosca Hey & Assoc., Inc. 26575 W. Commerce Dr., Ste. 601 Volo, IL 60073 Phone: 847-740-0888 Fax: 847-740-2888 Email: vmosca@heyassoc.com</p>
<p>Mike Zemaitis <i>(Term Expires May 2020)</i> Engineer of Design LC Division. of Transportation 600 Winchester Rd. Libertyville, IL 60048 Phone: 847-377-7400 Fax: 847-362-5290 Email: mzemaitis@lakecountyil.gov</p>	<p><u>Alternate</u> AI Giertych Assist. County Engineer LC Division of Transportation 600 Winchester Rd. Libertyville, IL 60048 Phone: 847-377-7400 Fax: 847-362-5290 Email: agiertych@lakecountyil.gov</p>	<p>Pat Bleck <i>(Term Expires May 2020)</i> Bleck Engineering Co., Inc. 1375 Western Ave. Lake Forest, IL 60045 Phone: 847-295-5200 Fax: 847-295-7081 Email: pbleck@bleckeng.com</p>	<p><u>Alternate</u> Joy Corona Bleck Engineering Co., Inc. 1375 Western Ave. Lake Forest, IL 60045 Phone: 847-295-5200 Fax: 847-295-7081 Email: jcorona@bleckeng.com</p>
<p>Patrick Glenn <i>(Term Expires May 2020)</i> Senior Engineer Gewalt Hamilton Assoc. Inc. 625 Forest Edge Dr. Vernon Hills, IL 60061 Phone: 847-478-9700 Fax: 847-478-9701 Email: pglenn@gha-engineers.com</p>	<p><u>Alternate</u> Mei Zhu Senior Engineer Gewalt Hamilton Assoc. Inc. 625 Forest Edge Dr. Vernon Hills, IL 60061 Phone: 847-478-9700 Fax: 847-478-9701 Email: mzhu@gha-engineers.com</p>	<p>Bill Heinz <i>(Term Expires May 2020)</i> Village of Grayslake 585 Berry Ave. Grayslake, IL 60030 Phone: 847-223-2323 Fax: 847-223-4821 Email: wheinz@villageofgrayslake.com</p>	<p><u>Alternate</u> Kurt Baumann Baxter & Woodman 442 N. Cedar Lake Rd. Round Lake, IL 60073 Phone: 815-444-3313 Email: baumann@baxterwoodman.com</p>
<p>Kathy Chernich <i>(Term Expires May 2020)</i> U.S. Army Corp. of Engineers 231 LaSalle St., Ste. 1500 Chicago, IL 60604 Phone: 312-846-5531 Fax: 312-353-4110 Email: Kathy.G.Chernich@usace.army.mil</p>	<p><u>Alternate</u> Kaitlyn Pascus U.S. Army Corp. of Engineers 231 LaSalle St., Ste. 1500 Chicago, IL 60604 Phone: 312-846-5533 Fax: 312-353-4110 Email: kaitlyn.a.pascus@usace.army.mil</p>	<p>Peter Manhard <i>(Term Expires May 2020)</i> Manhard Consulting One Overlook Point, Suite 290, Lincolnshire, IL 60069 Phone: 847-634-5550 Fax: 847-634-0095 Email: pmanhard@manhard.com</p>	<p><u>Alternate</u> Bill Hupperich Manhard Consulting, Ltd. One Overlook Point, Suite 290, Lincolnshire, IL 60069 Phone: 847-634-5550 Fax: 847-634-0095 Email: whupperich@manhard.com</p>

Technical Advisory Committee

<p>Don Dressel (Chairman) <i>(Term Expires May 2020)</i> Christopher Burke Engineering 9575 W. Higgins Rd., Ste. 600 Rosemont, IL 60018-4920 Phone: 847-823-0500 Fax: 847-823-0520 Email: Ddressel@cbbel.com</p>	<p><u>Alternates</u> Kay Whitlock Christopher Burke Engineering 9575 W. Higgins Rd., Ste. 600 Rosemont, IL 60018-4920 Phone: 847-823-0500 Fax: 847-823-0520 Email: kwhitlock@cbbel.com</p> <p>Scott Griffith Christopher Burke Engineering 9575 W. Higgins Rd., Ste. 600 Rosemont, IL 60018-4920 Phone: 847-823-0500 Fax: 847-823-0520 Email: sgriffith@cbbel.com</p>	<p>Ramesh Kanapareddy <i>(Term Expires May 2020)</i> City of Highland Park 1150 Half Day Rd. Highland Park, IL 60035 Phone: 847-432-9907 Fax: 847-432-0807 Email: rkanapareddy@cityhpil.com</p>	<p><u>Alternate</u> Manny Gomez City of Highland Park 1150 Half Day Rd. Highland Park, IL 60035 Phone: 847-432-1186 Fax: 847-432-0807 Email: egomez@cityhpil.com</p>
<p>Eric Steffen <i>(Term Expires May 2020)</i> Operations Manager Lake County Planning Building & Development 500 W. Winchester Rd. Libertyville, IL 60048 Phone: 847-377-2109 Fax: 847-984-5853 Email: esteffen@lakecountyil.gov</p>	<p><u>Alternates</u> Brian Frank Principal Engineer Lake County Planning, Building & Development 500 W. Winchester Rd. Libertyville, IL 60048 Phone: 847-377-2086 Fax: 847-984-5853 Email: bfrank@lakecountyil.gov</p> <p>Joel Krause Senior Engineer Lake County Planning, Building & Development 500 W. Winchester Rd. Libertyville, IL 60048 Phone: Fax: 847-984-5853 Email: jkrause@lakecountyil.gov</p>	<p>Heather Galan <i>(Term Expires May 2020)</i> Village Engineer Village of Gurnee 325 N. O'Plaine Rd. Gurnee, IL 60031 Phone: 847-599-7582 Fax: 847-623-9475 Email: hgalan@village.gurnee.il.us</p>	<p><u>Alternates</u> Nicholas Leach Village of Gurnee 325 N. O'Plaine Rd. Gurnee, IL 60031 Phone: 847-599-7586 Fax: 847-623-9475 Email: nleach@village.gurnee.il.us</p> <p>Dave Ziegler Director of Community Development Village of Gurnee 325 N. O'Plaine Rd. Gurnee, IL 60031 Phone: 847-599-7550 Fax: 847-623-9475 Email: davidz@village.gurnee.il.us</p>

**TECHNICAL ADVISORY COMMITTEE
MEETING MINUTES
October 17, 2019
Lake County Stormwater Management Commission
500 W. Winchester, Libertyville, IL**

1.0 CALL TO ORDER 9:04 AM

TAC Members & Alternates	Staff Present	General Public
Joel Krause	Mea Blauer	Scott Griffith
Donald Dressel	Ernesto Huaracha	Jacob Wellbank
Kathy Chernich-arrived at 9:06am	Glenn Westman	Joanna Colletti
Mei Zhu	Jacob Jozefowski	Adrian Marquez
Heather Galan	Kelcey Traynoff	
Kurt Baumann		
Tom Polzin		
Joy Corona		
Bill Hupperich		
Mike Zemaitis		

2.0 ADDITIONS TO THE AGENDA – None

3.0 PUBLIC COMMENT- None

4.0 STAFF REPORT-

4.1 Ms. Kelcey Traynoff introduced Mr. Joel Krause, a new employee with Lake County PB&D and a new TAC alternate for Eric Steffen.

4.2 Ms. Kelcey Traynoff addressed the flyer in the TAC packet for the ASCE EWRI Bulletin 70 workshop. The workshop was held on October 23rd and SMC’s Kurt Woolford was a presenter at the workshop.

4.3 Ms. Kelcey Traynoff also addressed the flyer in the packet for the ASCE EWRI permitting workshop. The workshop was held on November 7, 2019 and SMC’s Kurt Woolford was a presenter at this workshop as well.

4.4 Gary Jereb’s retirement was discussed due to there being an overlap in times for both the November TAC meeting and Mr. Jereb’s retirement party. Both are scheduled for the same day (Thursday, November 21st) and there are TAC members and SMC staff who are interested in attending both events.

4.5 The members of TAC agreed that the November 21st meeting can be held from 9-11 am for TAC members and SMC staff to attend Mr. Jereb’s retirement party.

5.0 APPROVAL OF THE MINUTES

Mr. Tom Polzin moved to approve the September 19, 2019 TAC minutes, seconded by Ms. Mei Zhu.
Vote: Approved 7-0-3 (Abstain: Krause, Galan, Zemaitis)

6.0 OLD BUSINESS

6.1 WDO Amendment #5 for WDO Section 302.02: Exempted Developments was discussed. Mr. Kurt Baumann motioned to approve this amendment, seconded by Mr. Tom Polzin. Vote: Approved 8-1-1 (Nay: Corona, Abstain: Chernich)

6.2 WDO Amendment #6 for WDO Section 501.06: Developed Soil HSG was discussed and revised. Mr. Kurt Baumann motioned to approve this amendment (as modified), seconded by Mr. Tom Polzin. Vote: Approved 10-0-0 (unanimous)

6.3 WDO Amendment #7 for WDO Section 501.07: Native Plantings Incentive (New/Clarification) was discussed and revised. Ms. Joy Corona motioned to approve this amendment (as modified), seconded by Mr. Kurt Baumann. Vote: Approved 9-0-0 (Chernich absent for vote)

7.0 NEW BUSINESS

7.1 WDO Amendment #8 for WDO Section 401.05: Updated Hydric Soil Classification was discussed. TAC members made minor revisions but requested additional historical information before approving this amendment. This Amendment has been tabled for November's meeting.

7.2 WDO Amendment #9 for WDO Section 600.09: Permanent Stabilization 90% Requirement was discussed and revised. Mr. Kurt Baumann motioned to approve this amendment (as modified), seconded by Mr. Tom Polzin. Vote: Approved 10-0-0 (unanimous)

7.3 WDO Amendment #10 for WDO Section 600.11: Steep Slope Failures was discussed. TAC members requested additional information on this section. This Amendment has been tabled for November's meeting.

7.4 WDO Amendment #11 for WDO Section 100: Introduction was discussed, and minor revisions were made. Mr. Tom Polzin motioned to approve this amendment (as modified), seconded by Mr. Joel Krause. Vote: Approved 10-0-0 (unanimous)

7.5 WDO Amendment #12 for WDO Section 504.02: Water Quality Treatment was discussed. Mr. Kurt Baumann motioned to approve this amendment, seconded by Mr. Tom Polzin. Vote: Approved 10-0-0 (unanimous)

7.6 WDO Amendment #13 for WDO Section 1008.02: Detention in Isolated Waters of Lake County was discussed. Mr. Kurt Baumann motioned to approve this amendment, seconded by Mr. Tom Polzin. Vote: Approved 10-0-0 (unanimous)

7.7 WDO Amendment #14 for WDO Appendix A: Definitions was discussed. Mr. Kurt Baumann motioned to approve this amendment, seconded by Ms. Heather Galan. Vote: Approved: 9-0-1 (Abstain: Chernich)

7.8 WDO Amendment #15 for WDO Appendix J: Watershed Specific Release Rates was discussed. TAC members requested clarification on the amendment. This Amendment has been tabled for November's meeting.

8.0 ADJOURNMENT

Motion to adjourn by Mr. Kurt Baumann, seconded by Mr. Tom Polzin. Meeting adjourned at 10:51 AM
Vote: Approved 10-0-0 (unanimous).

WDO AMENDMENTS FOR TAC – November 21, 2019

WDO Amendment #3 - NEW

§ 509.04 Fee-In-Lieu Option For Storage above 50-year, 24-hour Detention Volume [7.5”]

509.04 *The following fee-in-lieu of on-site stormwater storage procedures shall be authorized for all developments permitted after [NEW WDO DATE].*

- A. *The **Enforcement Officer** may require, or the **applicant** may submit, a written request for the payment of a **fee-in-lieu of on-site stormwater storage** to fulfill all or part of the on-site detention requirement above the 50-year, 24-hour detention volume using Appendix I: Rainfall Depth Duration Frequency Tables for Lake County. A request for fee-in-lieu of on-site stormwater storage shall be either rejected or approved within forty-five (45) days of the written request unless additional engineering studies are required.*
- B. *Approval of a request for **fee-in-lieu of on-site stormwater storage** on a **development** site above the 50-year, 24-hour detention volume shall be determined by the **Enforcement Officer**.*
- C. ***Fee-in-lieu of on-site stormwater storage** shall be the fee computed for each acre-foot or cubic yard or part thereof of stormwater storage approved in accordance with the procedures and schedules as approved by the SMC.*
- D. *A fund will be maintained by the SMC for each of the four major Lake County **watersheds** for the purpose of identifying and controlling all revenues and expenditures resulting from fee-in-lieu of on-site stormwater storage approvals. All **fee-in-lieu of on-site stormwater storage** revenues received from each **watershed** shall be deposited in these funds for use within that watershed.*
- E. *The following requirements must be met before a **fee-in-lieu of on-site stormwater storage** will be approved:*
 - 1. *The downstream **stormwater management system** has “**adequate downstream stormwater capacity**” (see Appendix A: Definitions); and*
 - 2. *The SMC has an adopted fee-in-lieu of on-site stormwater storage program.*
- F. ***Fee-in-lieu of on-site stormwater storage** revenues may be used to plan, design, or construct an upgrade to existing or future **stormwater management systems** if the upgrade is consistent with a **basin plan**, **floodplain study**, or stormwater system improvement that has been approved by the SMC.*

Purpose: Provide fee-in-lieu option, as determined by the Enforcement Officer. Communities may be more restrictive and omit this option during Community Ordinance adoption.

TAC Vote: 9/19 unanimous consent to draft Program for TAC review.

WDO Amendment #8
§ 401.15 Updated Hydric Soil Classification

If the soil mapping submitted for the development indicates the presence of **soils classified as a hydric soil (USDA/NRCS Soil Classification) in its very poorly drained condition** ~~the soils listed in this subsection~~, then the applicant shall provide site-specific soil mapping performed by a certified soil classifier **or geotechnical investigation** for the development. No buildings shall be constructed on these soils unless appropriate building methods, such as pilings, caissons, or removal and replacement of unsuitable soils, as approved by the Enforcement Officer, are used to provide and protect a suitable building foundation.

~~Soils classified as a hydric soil (USDA/NRCS Soil Classification) in its very poorly drained condition or the following three soil classification in any condition:~~

~~A. Houghton Muck (W103)~~

~~B. Houghton Peat (W97)~~

~~C. Peotone Silty Clay Loam (W330)~~

Development that is exempted from this requirement is any development activity not resulting in the construction of a building.

Purpose: Capture all current poorly drained hydric soils per 2005 Lake County Soil Survey e.g., Houghton Peat (W97) does not exist, while many others are included.

TAC Vote: 10/17 Tabled

WDO Amendment #10
§ 600.11 Steep Slope Failures

Earthen embankments shall be constructed with side slopes no steeper than 3H:1V. Steeper slopes may be constructed with appropriate **analysis, design, specification, and** stabilization as approved by the Enforcement Officer.

Purpose: Recent issues concerning large embankment safety, slope stability, and localized slide failures.

TAC Vote: 10/17 Tabled

WDO Amendment #15
§ Appendix J: Watershed Specific Release Rates

WATERSHED		Release Rates (cfs/acre)		
	MAJOR TRIBUTARIES	100 Year	2 Year	
	MINOR TRIBUTARIES	Storm Event	Storm Event	Comments ^{1/}

...

LAKE MICHIGAN ^{2/}				
	Bluff/Ravine	0.150	0.040	WDO Maximum Allowable
	Dead River	0.150	0.040	WDO Maximum Allowable
	Bull Creek	0.150	0.040	WDO Maximum Allowable
	Kellogg Creek	0.150	0.040	WDO Maximum Allowable
	Pettibone Creek	0.150	0.040	WDO Maximum Allowable
	Waukegan River	0.150	0.040	WDO Maximum Allowable

...

1/ Individual Communities within these watershed boundaries may have more restrictive release rates.

2/ Development adjacent to the Lake Michigan shoreline is not required to meet the release rate requirements of §502.01 if all of the following conditions are met:

A. The development discharges stormwater to a maintainable outlet with adequate downstream stormwater capacity (as defined in Appendix A: Definitions) and will not result in increased flood and drainage hazard;

B. The development complies with the water quality treatment requirements of §504.

Purpose: Provide reasonable detention requirements for developments adjacent to Lake Michigan. Consistent with MWRD WMO.

TAC Vote: 10/17 Tabled



STORMWATER MANAGEMENT COMMISSION

DRAFT 11/15/2019

Fee-In-Lieu of On-Site Stormwater Storage Above 50-Year, 24-Hour Detention Volume (FIL50) Program

The Watershed Development Ordinance (WDO) 509.04 [proposed amendment] sets countywide minimum requirements for Fee-In-Lieu of On-Site Stormwater Storage Above 50-Year, 24-Hour Detention Volume (FIL50) program. The FIL50 program is administered and implemented as an option for development permitted after [NEW WDO DATE] in accordance with the WDO.

1. **Purpose and Applicability:** The purpose of the FIL50 is to collect development fees and disperse funds to resolve local, inter-jurisdictional, and regional drainage and flooding related problems. The program's goal is to protect existing buildings from flood damage to the greatest extent possible. The FIL50 program is optional and may only be used in communities that have adopted WDO 509.04.
2. **Storage Requirement:** The required detention volume shall be calculated for the 100-year, 24-hour storm event. The FIL50 program may only be used for the required volume above the 50-year, 24-hour storm event.
3. **Calculation of FIL50 Fees:** The fee will be set by SMC as a fee per acre-foot or part thereof for the volume difference between the required and approved design storage. The fee will be included on SMC's fee schedule and will be valid until the fee schedule is modified or changed by SMC. The fee will be calculated using estimated administrative, planning, engineering, construction, monitoring and maintenance costs and watershed land values.
4. **WDO Review Process:**
 - A. **For Non-Certified Communities:** Upon written request by the applicant, as part of the review process, the SMC Chief Engineer will verify the volume difference between the required and approved design storage and inform the applicant of the required fee-in-lieu volume. All required fees, including applicable permit review fees and fee in-lieu payment, will be due to SMC prior to final authorization.
 - B. **For Certified Communities:** Upon written request by the applicant, as part of the review process, the Enforcement Officer will verify the volume difference between the required and approved design storage and inform the applicant of the required fee-in-lieu volume. The Enforcement Officer will then provide SMC with the approved fee-in-lieu volume and applicant contact information. SMC will inform the Certified Community with written acceptance once SMC receives the fee-in-lieu payment. The Certified Community can then issue the required Watershed Development Permit.

5. Establishment of FIL50 Fund Accounts: Separate accounts will be established for each watershed and will be formatted to track payment deposits and disbursements. Fee-in-lieu payments shall be collected and deposited by SMC into the applicable account for the watershed where the impact occurs.
6. Use of Funds: Fee-in-lieu payments shall be expended to resolve local, inter-jurisdictional, and regional drainage and flooding related problems in the same watershed where the impacts occurred. Appropriate expenditures include costs to administer, plan, design, construct, improve, acquire property, maintain and monitor drainage improvement sites. SMC staff will make project recommendations to the Commission for their final approval in accordance with the Project Prioritization Criteria. Funds shall not be used to reimburse project expenses incurred prior to Commission approval. Upon project approval, SMC will deduct a 10% administrative and project management fee from the watershed-specific account balance.
7. Fund Tracking and Accountability: An annual report prepared by SMC staff summarizing fee-in-lieu payments received, projects status and benefits, categorized by watershed and municipality, will be provided to SMC. Projects shall comply with or be consistent with all applicable watershed plans and stormwater management ordinances, regulations, laws and statutes. Contract and procurement decisions shall comply with the Lake County Purchasing Ordinance and Vendor Disclosure/Conflict of Interest Policy.
8. Project Schedule and Timing: SMC shall expend monies in the account on applicable projects, per watershed, no more than three years from first receiving fee-in-lieu money, unless the account has less than the \$75,000. Once the account exceeds \$75,000, SMC shall initiate a request for project proposals in order to seek and consider additional priority projects. Once SMC approves a project or encumbers all available funds per watershed, the three year time period expires and then re-starts with the next receipt of an account deposit.

PROJECT PRIORITIZATION CRITERIA

The following shall be considered by SMC staff in the development of the staff recommendation for SMC approval. The project by itself or as a component of a candidate project shall to the extent possible:

- A. Benefit multiple jurisdictions, including communities where FIL50 projects were approved.
- B. Have beneficial results during flood events at a minimum of the 10-year storm level with higher protection levels being preferred.
- C. Enhance surface water quality utilizing best management practices.
- D. Alleviate flood damages with consideration of the type and quantity of damages occurring as follows in priority order:

Evaluation Process

Individual parcels within a project area will be assigned a damage type(s) and the rating for the project area is determined by totaling the rating(s) for each parcel, and adding frequency of occurrence and additional funding credit beyond minimum required.

<u>Damage Priority</u>	<u>Flood Damage Type</u>	<u>Number of Occurrences</u>	<u>Frequency of Occurrences</u> (e.g., every year, every 2 years)
1	Structural Damage		
2	Flooded Building		
3	Health and Safety		
4	Road Flooding		
5	Disruption of Revenue		
6	Parking Lot Flooding		
7	Nuisance Flooding		

Frequency of Occurrence – the proposed project area is considered when evaluating the frequency of flooding over a fifty (50) year period of time.

Quantifiable value of economic disruption and the cost to repair damaged structures, properties and roads shall be used, when available, to augment the evaluation and recommendation process.

1. Structural Damage – parcels with buildings that receive structural damage. Structural damage is defined as flood damaged materials which are permanently attached to the building (i.e., carpet, drywall, beams, foundation, electrical, etc.)
2. Flooded Building – parcels with buildings that are flooded and no structural damage results (i.e., crawl spaces, unfinished basement flooding, storage sheds, etc.)
3. Health and Safety – parcels with health and safety hazards resulting from the flooding (e.g., well and septic field flooding, high channel velocities, deep yard ponding). Health and Safety concerns also relate to disruption of emergency services caused by the problem that the project would alleviate.
4. Road Flooding – roads flooded that result in traffic disruption. Road classification priorities are assigned as follows:
 - 4.1. Principal Arterial Roads (i.e., 4 lanes)
 - 4.2. Minor Arterial Roads (i.e., 2 lanes)
 - 4.3. Local Neighborhood Roads (i.e., 2 lanes)
5. Disruption of Revenue – Recognizes the detrimental affect to business and tax revenues.
6. Parking Lot Flooding – Properties that have operational inconveniences due to flooded parking facilities.
7. Nuisance Flooding – parcels that are flooded and affect the aesthetics or results in minor ponding.

Additional credit and consideration will be given when evaluating projects that:

- a. Provide flood protection or mitigation of a critical facility (e.g., hospitals, fire stations, police station, storage of critical records, etc.)
- b. Address site-specific recommendations identified in a SMC-adopted watershed management plan.
- c. Have a greater than 50% non-County cost-share in the form of additional leveraged funds, in-kind services or volunteer time for the project.
- d. Are located within Environmental Justice (EJ) areas of the County. EJ areas are defined on the ['Lake County Enhanced EJ Mapping Resource'](#) and utilizes: IEPA EJ Base Data; IEPA EJ 1-mile buffer (Refined with Census Tract level analysis of IEPA eligible Low-Mod Income and Minority Census Data); HUD-CDBG Low-Mod Income Layer; and IL Solar for All EJ Data.

- (c) Utility maintenance, **construction of stormwater facilities** and maintenance of **stormwater** drainage facilities and ~~drainage easements~~ shall be allowed.
- (9) Amendment approved as presented by TAC 12/18/98, Aye 7, Nay 4
- (d) ~~Anchoring and placement of Boat docks, boat houses and piers shall be allowed and the provisions of (10)(b) above shall not apply.~~
- (9) Amendment approved as presented by TAC 12/18/98, Aye 6, Nay 5
- (e) **Buffer areas hydrologically disturbed by allowed construction or as part of a revegetation plan shall be revegetated using the Native Plant Guide for Streams and Stormwater Facilities in Northeastern Illinois, NRCS, et al., (as amended) as a minimum standard.**
- (11) Amendment approved by TAC 12/11/98 Unanimously
- (11) **A buffer shall be established between design normal and high water levels around constructed water quality treatment basins to enhance treatment effectiveness.**
- (12) Amendment approved by TAC 12/11/98 Vote Aye 11, Nay 1
- (12) **Buffer Averaging: The buffer width for a development site may be varied to a minimum of ½ of the buffer width required, upon approval of the Enforcement Officer, provided that the total buffer area required is achieved adjacent to the Waters of the United States being buffered. The consultation process of the IDNR or U.S. F&W Service may override the ability to average buffer areas.**
- (13) **Preservation of buffer areas shall be provided by deed or plat restriction.**

AMENDMENT # 44.

Reason for change: Item (13) was discussed earlier in the amendment process. This clarification gives ordinance required buffers the same protection status as all of the other stormwater management system components.

Amendment Status: Approved by TAC on 5/1/98

AMENDMENT # 43.

Reason for change: The rest of the "Buffers" section was discussed as shown above. Clarification to the buffers section is necessary to properly implement its intent. There have been many problems interpreting the existing language and it must be simplified. The concept of buffers should be more uniformly applied.

Amendment Status: Buffers section discussion has been completed by TAC, See items above.

Article IV.B.2.b.(15) Pg. 28

- ~~(15) The applicant shall provide site specific soil mapping performed by a certified soil classifier for the development. No buildings shall be constructed on areas classified as a hydric soil (USDA/NRCS Soil Classification) in its very poorly drained condition or the following three soil classifications in any condition; Houghton Muck (W103), Houghton Peat (W97), Peatone Silty Clay Loam (W330).~~

~~Development that is exempted from this requirement is any development activity not resulting in the construction of a building~~

AMENDMENT # 56.

Reason for change: This is a response from several community and agency requests to identify and provide standards on how to avoid hydric soil safety problems for new buildings.

Amendment Status: TAC approved removing this item from consideration. 1/8/99

- (15) **The applicant shall provide site specific soil mapping performed by a certified soil classifier for the development. No buildings shall be constructed on areas classified as a hydric soil (USDA/NRCS Soil Classification) in its very poorly drained condition or the following three soil classifications in any condition; Houghton Muck (W103), Houghton Peat (W97), Peatone Silty Clay Loam (W330).**

Development that is exempted from this requirement is any development activity not resulting in the construction of a building

AMENDMENT # 56A.

Reason for change: There have been numerous requests to reinstate this provision from commenting individuals and agencies.

Article IV.B.2.b.1. Pg. 28

Application Requirements for Major Developments

- (17) ***Subsurface Drainage (Drain Tiles): The applicant shall submit a subsurface drainage inventory. The inventory shall locate existing farm and storm drainage tiles by means of slit trenching and other appropriate methods performed by a qualified subsurface drainage consultant. All existing drain tile lines damaged during the investigation shall be repaired to their existing condition.***
- (a) ***The applicant shall provide a topographical boundary map locating these lines showing:***
- (i) ***Location of each slit trench and identified to correspond with the tile investigation report and field staked at no less than 50 foot intervals;***
- (ii) ***Location of each drain tile with a flow direction arrow, tile size and any connection to adjoining properties;***
- (iii) ***A summary of the tile investigation report showing trench identification number, tile size, material and quality, percentage of the tile filled with water, percentage of restrictions caused by silting, depth of ground cover, and soil texture at grade;***
- (iv) ***Name, address and phone number of person or firm conducting tile location investigation.***
- (b) ***Information collected during the drainage investigation shall be used to design and develop a subsurface drainage system that will provide drainage that is appropriate for the development and connecting tile lines on adjoining properties.***

AMENDMENT # 58.

Reason for change: This modification will address the problem occurring with new home development that exists when home foundations are excavated in the vicinity of drain tiles. Many Lake County communities have reported problems with homes that have flooded foundations and basements or that have as many as four sump pumps running constantly to keep up with the inflow of water from a drain tile.

Amendment Status: Approved by TAC on 1/8/99

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- (4) When no base flood elevation information exists, the base flood elevation shall be determined by a Registered Professional Engineer using an appropriate model or technique as approved by the SMC or ~~IDOT/DWR~~ **IDNR/OWR**. ~~In the case of riverine Regulatory Floodplains,~~ **For riverine floodprone areas with greater than 100 acres of tributary drainage area and non-riverine areas with greater than 20 acres of tributary drainage area**, the base flood elevation determination shall be submitted to SMC for approval prior to issuance of a watershed development permit. **The base flood elevation determination for non-riverine depressional floodplains with less than 20 acres of tributary drainage area shall be reviewed and approved by the Enforcement Officer.** ~~Once approved, it must be submitted by SMC to the Illinois State Water Survey Floodplain Information Repository for filing.~~

and the TAC recommended language will remain as Amendment Number 29. Staff recommend enhancements will be shown as Amendment 29A. There are several items of enhancement, none which staff feels are substantive modifications but believe that based on comments and the technical information we've received, warrant that this Amendment needs some enhancement.

6.H. Stormwater Quality Credits:

WDO Revision Recommended – Staff is in agreement with the recommendations for the center for watershed protection for stormwater quality credits. We recommend change in the WDO or in addition to the WDO in the buffer area section that would simply say the buffer area on a development site may be subtracted from the computation of area performed to determine water quality volume requirements. Additionally another way to achieve similar credit concept is to increase density allowances (to achieve the site capacity allowance of units) while at the same time, providing for the resource protection measures necessary. Unfortunately, the WDO does not have the function as acting as a zoning ordinance in this respect, however, SMC staff will be continuing to sponsor open dialog in this issue and presenting it to the Communities within the County.

6.I. 1 year Runoff Design:

No WDO Revision Recommended – Staff recommendation is to not include this recommendation from the Center for Watershed Protection due to the problems associated from maintenance of small outlet pipes. Staff believes that the 4" minimum diameter restriction size will supercede the one year runoff design rate in almost all circumstances, therefore, this runoff rate design will not be met on most sites due to this conflict in WDO recommended enhancements.

6.J. Technical Reference Manual Guidance Enhancements:

No WDO Revision Recommended – (See 6C above)

Commentor 7 - Des Plaines Watershed Team Responses

7.A. Runoff Volume Reduction Hierarchy Enhancements

WDO Revision Recommended – The TAC has discussed this section during the amendment process and SMC staff recommendations are slightly different based on the number of comments we received in the Public Comment period and throughout the process. This is Amendment number 29 in the original packet, and the TAC recommended language will remain as Amendment Number 29. Staff recommend enhancements will be shown as Amendment 29A. There are several items of enhancement, none which staff feels are substantive modifications but believe that based on comments and the technical information we've received, warrant that this Amendment needs some enhancement.

7.B. Hydric Soils Provisions:

WDO Revision Recommended – The staff recommended language to put into the Watershed Development Ordinance with regard to this provision was recommended to be removed by the Technical Advisory Committee. Due to large number of comments regarding this provision and the request to insert it back into the WDO, it is being presented in the discussion agenda and bringing it to the level of the Stormwater Management Commission for consideration of reinsertion into the WDO language. This is Amendment #56 and #56A in the Public Comment document.

7.C. Exemption Provisions (Grandfathering):

WDO Revision Recommended – Staff has requested specific review of this provision by the State's Attorney's office with regard to proper verbiage and format. There may be additional recommendations forthcoming based on those discussions at a later date. They may not constitute a modification to the TAC recommendations but rather additional language with regard to this provision. One suggestion that has been discussed is the insertion of a sunset clause which may have been an over site in the original ordinance creation. This may put in a 5-year time frame which after that no additional exemptions are allowed except by variance. This establishes a time provision in which people can reasonably expect to complete their development projects that are exempted.

7.D. Erosion Control Provisions Addressed:

Comment already addressed in the WDO or TAC Recommended WDO Amendments – This response is with regard to the large amount of time and input spent in creating the erosion control section of the WDO (Amendment #44). TAC and SMC staff has already had significant discussion with regard to erosion control