



STORMWATER MANAGEMENT COMMISSION

We hope to see [hear] you at the next TAC meeting on **Thursday, April 16, 2020** at 9:00 AM.

Meeting Topics:

- WDO amendments

Meeting Information:

To comply with social distancing requirements and Governor Pritzker's stay-at-home order, this meeting will be shared on the internet with the following connection information.

Join Zoom Meeting
<https://zoom.us/j/150114788>

Meeting ID: 150 114 788
Password: 804924

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Public comments are welcomed and encouraged. Public comments received by 8:30 a.m., Thursday, April 16, 2020 will be read at the beginning of the meeting under Public Comment. Any comments received during the meeting will be held until the end of the meeting. Public comment is limited to three minutes per person. This meeting will be recorded.

PUBLIC COMMENTS should be emailed to stormwater@lakecountyil.gov and contain the following information:

- * Name
- * Street Address (Optional)
- * City, State
- * Phone (Optional)
- * Organization, agency, etc. being represented. (If representing yourself, put "Self")
- * Topic or Agenda Item Number followed by Public Comment.

Public with no access to email may leave a message with Stormwater Management at 847-377-7700.



STORMWATER MANAGEMENT COMMISSION
TECHNICAL ADVISORY COMMITTEE
AGENDA
April 16, 2020
9:00 AM – 12:00 PM

<https://zoom.us/j/150114788>



- 1.0 CALL TO ORDER
- 2.0 ADDITIONS TO THE AGENDA
- 3.0 PUBLIC COMMENT
- 4.0 STAFF REPORT
- 5.0 APPROVAL OF THE MINUTES
 - 5.1 March 19, 2020 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 – 401.05 Updated Hydric Soil Classification
Action Requested: Approval
- 7.0 NEW BUSINESS
 - 7.1 WDO Amendment #20 – Appendix A: DECI Definition
Action Requested: Approval
 - 7.2 WDO Amendment #21 – 1000.02.C.2. Lake County Wetland Inventory Map
Action Requested: Approval
 - 7.3 WDO Amendment #22 – 1000.02.C.5. Hydrologic Atlas
Action Requested: Approval
 - 7.4 WDO Amendment #23 – 1000.02.D. USACE Data Sheets
Action Requested: Approval
 - 7.5 WDO Amendment #24 – 1000.02.E. Methodology for Floristic Quality Assessment Determination
Action Requested: Approval
 - 7.6 WDO Amendment #25 – Appendix L, Section L: High-Quality Aquatic Resources
Action Requested: Approval

- 7.7 WDO Amendment #26 – Appendix M, Section S: Species Composition
Action Requested: Approval
- 7.8 WDO Amendment #27 – Appendix N, Section H.2.a.: Floristic Quality
Action Requested: Approval
- 7.9 WDO Amendment #28 – Appendix N, Section H.2.b.: Mean Wetness Coefficient
Action Requested: Approval
- 7.10 WDO Amendment #29 – Appendix N, Section H.3.a: Floristic Quality
Action Requested: Approval
- 7.11 WDO Amendment #30 – Appendix A: Isolated Waters of Lake County Definition
Action Requested: Approval
- 7.12 WDO Amendment #31 – 1005.01.E. HQAR Documentation
Action Requested: Approval
- 7.13 WDO Amendment #32 – 1006.01 Wetland Hydrology for Isolated Waters of Lake County
Action Requested: Approval

8 ADJOURNMENT

Technical Advisory Committee

<p>James Anderson (Term Expires May 2020) 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) (Term Expires May 2020) 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 (Term Expires May 2020) 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 (Term Expires May 2020) 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 (Term Expires May 2020) 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 (Term Expires May 2020) 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 (Term Expires May 2020) 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 (Term Expires May 2020) 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>
<p>Steve Zimmerman <i>(Term Expires 2024)</i> Senior Ecologist Applied Ecological Service, Inc. 120 West Main St. West Dundee, IL 60118 Phone: 847-844-9385 Email: stevez@appliedeco.com</p>			

TAC Membership Representation

Member Name/Alternate Name	Member Term Date	Position/Company	County	Development	Environmental	Municipal
James Anderson/Ken Klick/John Nelson	2020	Lake County Forest Preserve District			X	
Mike Zemaitis/Al Giertych	2020	Lake County Division of Transportation	X			
Patrick Glenn/Mei Zhu	2020	Gewalt Hamilton/ Village of Riverwoods				X
Steve Zimmerman/	2024	Applied Ecological Services			X	
Kathy Chernich/Kaitlyn Pascus	2020	U.S. Army Corps of Engineers - Regulatory Branch			X	
Eric Steffen/Brian Frank/Joel Krause	2020	Lake County Planning, Building and Development Department	X			
Don Dressel/Kay Whitlock/Scott Griffith	2020	Christopher B. Burke Engineering		X		
Ramesh Kanapareddy/Manny Gomez	2020	City of Highland Park				X
Pete Manhard/Bill Hupperich	2020	Manhard Consulting		X		
Pat Bleck/Joy Corona	2020	Bleck Engineering/ Round Lake Heights				X
Heather Galan/Nicholas Leach/Dave Ziegler	2020	Village of Gurnee				X
Tom Polzin/Vince Mosca	2020	Hey and Associates		X		
Bill Heinz/Kurt Baumann	2020	Village of Grayslake/ Baxter & Woodman				X
TOTALS			2	3	3	5

**TECHNICAL ADVISORY COMMITTEE
MEETING MINUTES
March 19, 2020
Lake County Stormwater Management Commission
MEETING HELD VIRTUALLY [ZOOM]**

1.0 CALL TO ORDER 9:07 AM

TAC Members & Alternates	Staff Present	General Public
Steve Zimmerman	Glenn Westman	Edgar Joves
Tom Polzin	Kurt Woolford	Jacob Wellbank
Brian Frank	Kelcey Traynoff	Minal Hahm
Heather Galan		Ron Milanesio
Don Dressel		Scott Griffith
Kathy Chernich – arrived at ~10am		
Kurt Baumann		
Joy Corona		
Jim Anderson		

2.0 ADDITIONS TO THE AGENDA

2.1 TAC member Kurt Baumann requested to add an item to the agenda regarding the continuing education credits for the Designated Erosion Control Inspector (DECI) program.

3.0 PUBLIC COMMENT- None

4.0 STAFF REPORT

4.1 Kurt Woolford discussed the current situation with COVID-19 and what the County is doing to adjust. Mr. Woolford explained that SMC is operating normally but under modified conditions. He showed the TAC the County’s website and where COVID-19 updates can be found. In addition to the COVID-19 update, Mr. Woolford also informed the TAC that starting on March 30th, SMC would be going all-digital, and only accepting electronic submittals. TAC member Jim Anderson also gave a brief update on how the Lake County Forest Preserve is handling the COVID-19 situation.

5.0 APPROVAL OF THE MINUTES

5.1 Mr. Kurt Baumann moved to approve the February 20, 2020 TAC minutes, seconded by Ms. Joy Corona.
Vote: Approved 6-0-2 (abstain: Polzin and Galan).

6.0 OLD BUSINESS

6.1 The changes and additions to WDO Amendment #3 – 509.04 Fee-In-Lieu Option for Storage above 50-year, 24-hour Detention Volume made during February’s meeting will be cross-checked for consistency with the FIL50 program’s Policies and Procedures. TAC requested the cleaned-up version be brought to April’s meeting. Ms. Joy Corona moved to table this amendment, seconded by Mr. Tom Polzin.
Vote: Approved 9-0-0 (unanimous)

7.0 NEW BUSINESS

7.1 The DECI definition, WDO Appendix A: 24-hour PDH requirement was discussed as an addition to the agenda. Mr. Kurt Baumann explained the challenge in finding relevant courses to meet the required credit hours within the 3-year relisting period and believed that attending the yearly DECI workshop should be sufficient in maintaining the designation. SMC staff was asked to provide a draft amendment at the next TAC meeting in April.

7.2 WDO Amendment #16 – 201.02 FIL50 Community Certification was discussed. Item J was modified to remove the FIL50 term. Ms. Heather Galan moved to approve this amendment as modified, seconded by Mr. Jim Anderson. Vote: Approved 9-0-0 (unanimous).

7.3 WDO Amendment #17 – 1300 Administration was discussed. It was agreed that this section in the WDO could remain as-is for Standard and IWLC Certified Communities. Ms. Joy Corona moved to strike the amendment, seconded by Mr. Jim Anderson. Vote: Approved 9-0-0 (unanimous).

7.4 WDO Amendment #18 – Appendix A: Enforcement Officer Definition was discussed. It was agreed that the FIL50 Certification could be removed from the Enforcement Officer definition as a stand-alone certification. Mr. Jim Anderson moved to strike the amendment, seconded by Ms. Joy Corona. Vote: Approved 9-0-0 (unanimous).

- 7.5 WDO Amendment #19 – Appendix E: Enforcement Officer Duties was discussed. Item M was modified to include communities with FIL50 Certification and remove the categorization by municipality. Ms. Heather Galan moved to approve this amendment as modified, seconded by Mr. Kurt Baumann. Vote: Approved 9-0-0 (unanimous).
- 7.6 WDO Amendment #1a – Appendix I: Updated Rainfall Depth Duration Frequency Table was discussed. This item was originally brought to TAC on 09/19/2019 and voted on. TAC agreed to open Amendment #1a. Mr. Kurt Baumann moved to approve the reopening of the amendment, seconded by Mr. Jim Anderson. Ms. Joy Corona moved to approve this amendment as modified, seconded by Mr. Kurt Baumann. Vote: Approved 9-0-0 (unanimous).
- 7.7 WDO Amendment #1b – Appendix I: Updated Huff Rainfall Distributions was discussed. It was agreed that the data in the distribution tables could be left as-is and no modification was necessary. Mr. Tom Polzin moved to approve the amendment, seconded by Mr. Kurt Baumann. Vote: Approved 9-0-0 (unanimous).

8.0 ADJOURNMENT

Motion to end discussion and adjourn by Ms. Joy Corona, seconded by Mr. Jim Anderson. Meeting adjourned at 11:06 AM. Vote: Approved 9-0-0 (unanimous).

WDO Amendment #3 - NEW

§ 509.04 Fee-In-Lieu Storage above 50-year, 24-hour Detention Volume

- 509.04 The following fee-in-lieu of Storage above 50-year, 24-hour Detention Volume (FIL50) procedures apply to all developments permitted after [NEW WDO DATE].
- A. 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.
 - B. A written request for [fee-in-lieu of on-site stormwater storage](#) on a [development](#) site above the 50-year, 24-hour detention volume shall be approved or denied by the [Enforcement Officer](#) within forty-five (45) days of the request unless additional information is required.
 - C. The 50-year, 24-hour detention volume shall be calculated using a rating curve with a maximum release rate not exceeding the 100 Year value listed in Appendix J: Watershed Specific Release Rates. For tributary drainage areas less than one hundred (100) acres, Appendix K: Detention Volume Versus Curve Number, may also be used when appropriate and upon approval of the Enforcement Officer for determination of detention storage requirements.
 - D. [Fee-in-lieu of on-site stormwater storage](#) shall be the fee computed for each acre-foot of stormwater storage approved in accordance with the Policies and Procedures as approved by the SMC.
 - E. A FIL50 fund account shall 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 storage approvals. All [fee-in-lieu of on-site stormwater storage](#) revenues received from each [watershed](#) shall be deposited in the account for use within that watershed. FIL50 Certified Communities will collect revenues and manage funds for projects under its respective permit authority in accordance with its Community ordinance and procedures, as approved by SMC [WDO 201.02.J].

- F. 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 or the FIL50 Certified Community has an adopted SMC approved fee-in-lieu of on-site stormwater storage program.
- G. [Fee-in-lieu of on-site stormwater storage](#) funds may be used for planning, engineering, capital construction, and property acquisition in accordance with the approved Policies and Procedures.

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. 11/19 discussion to specify which release rate to use to determine 50-year volume. 12/19 discussion to allow 3rd certification option for communities to administer this program. 2/20 additional working edits. 3/19 tabled and requested to bring back clean version for final approval.

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 - TAC members made minor revisions but requested additional historical information before approving this amendment. This Amendment was tabled.

WDO Amendment #20

§ Appendix A: Definitions

Designated Erosion Control Inspector: A person responsible for, at a minimum, verifying compliance and on-going maintenance of the approved soil erosion and sediment control plan measures of a development and who is recommended to meet the minimum qualification requirements of A., B., C., and D., as follows:

- A. Provide a one (1) page statement of qualifications in the areas noted below and a request to be included on the SMC Designated Erosion Control Inspector qualified listing. The signed statement will be considered as evidence of qualifications.
- B. Pass the [Designated Erosion Control Inspector Exam](#) that is administered by the SMC.
- C. Complete a SMC-approved soil erosion and sediment control course and meet the requirements of one (1) of the following:
 1. Have an official designation as a Certified Professional in Erosion and Sediment Control (CPESC) or Certified Erosion, Sediment and Stormwater Inspector (CESSWI); or
 2. Two (2) years cumulative experience in the Upper Midwest Region on soil erosion and sediment control inspections.
- D. The listing of Designated Erosion Control Inspectors shall be officially updated every three (3) years by the SMC. ~~A minimum of twenty-four (24) work-related professional development hours including SMC mandatory training for this designation shall be obtained within the three-year period in order to qualify for re-listing.~~ ***Continuing education requirements shall be as follows:***
 1. ***Attendance at the annual DECI training seminars shall be sufficient for the three-year listing period.***
 2. ***Alternatively, DECI must attend twenty-four (24) hours of work-related professional development hours within the three-year period for relisting.***
- E. ***Documentation shall be self-monitoring and shall be provided to SMC upon application for listing.***

TAC Vote:

WDO PROPOSED WETLAND AMENDMENTS

WDO Amendment #21 § 1000.02 Wetland Determination Report

C.2. Lake County Wetland Inventory map **(including ADID sites)**

Purpose: Important to show ADID sites for regulatory purposes (possible HQARs, stricter requirements).

TAC Vote:

WDO Amendment #22 § 1000.02 Wetland Determination Report

C.5. Hydrologic Atlas **(U.S.G.S. Flood of Record map)**

Purpose: Clarify that these are one and the same source – Lake County online maps identify this layer under *Drainage* menu as “USGS Flood of Record”.

TAC Vote:

WDO Amendment #23 § 1000.02 Wetland Determination Report

D. Army Corps of Engineers data sheets ~~(March 1992 or most recent version)~~ **(Midwest Region, most recent version)** with color photographs provided for representative upland and wetland data points;

Purpose: Update to make sure delineators are using the most current Corps-approved data sheet for our region.

TAC Vote:

WDO Amendment #24 § 1000.02 Wetland Determination Report

E. A written description of the wetland(s) that includes a Floristic Quality Assessment as determined **using the Chicago Region Floristic Quality Assessment Calculator (U.S. Army Corps of Engineers, Chicago District, most recent version)**. ~~by methodology contained in Swink, F. and G. Wilhelm's Plants of the Chicago Region (1994, 4th Edition, Wilhelm, G. and L. Reicher's Flora of the Chicago Region, 2017, Indianapolis: Indiana Academy of Science).~~ Floristic quality assessments shall generally be conducted between May 15 and October 1, which approximates the growing season. Non-growing season assessments may require additional sampling during the growing season to satisfy this requirement;

Purpose: Update to current methodology for floristic quality assessment determinations.

TAC Vote:

WDO Amendment #25

§ Appendix L, Section. L: High-Quality Aquatic Resources

- L. Wetlands with a Floristic Quality Index of 20 or greater or a mean C-value of 3.5 or greater: Reference ~~Plants of the Chicago Region (F. Swink and G. Wilhelm, 4th Edition, Indianapolis: Indiana Academy of Science, 1994)~~ **Wilhelm, G. and L. Rericha's Flora of the Chicago Region, 2017, Indianapolis: Indiana Academy of Science. Mean C-Values, and the total number of species used to calculate the FQI, should be calculated for native plants only, as described in Plants of the Chicago Region (F. Swink and G. Wilhelm, 4th Edition, Indianapolis: Indiana Academy of Science, 1994). In Swink and Wilhelm, introduced plants have no C-value, rather than a C-value of 0.**

Purpose: Update for new reference for plant classification (native vs. adventive) and consistency with definition in Corps-Chicago District Regional Permit Program Appendix A – High Quality Aquatic Resources (as revised 1-10-2020).

TAC Vote:

WDO Amendment #26

§ Appendix M: SMC-Approved Wetland Mitigation Banking Requirements

- S. Species Composition: Species selected for the planting shall be native to Lake County (ref. ~~Swink and Wilhelm, Plants of the Chicago Region, 4th Edition, 1994~~ **Wilhelm, G. and L. Rericha's Flora of the Chicago Region, 2017, Indianapolis: Indiana Academy of Science**) and shall be appropriate for the hydrologic zone to be planted. A minimum number of native perennial species proposed for establishment must be present within each plant community to meet certification standards, as follows:

Purpose: Update to the new reference for plant classification (native vs. adventive).

TAC Vote:

WDO Amendment #27

§ Appendix N: WDO Mitigation Requirements and Guidelines for Isolated Waters of Lake County Impacts

- H.2.a. Floristic Quality: By the end of the performance period, a native mean coefficient of conservatism value (native mean C value) of greater than or equal to 3.5 and a native floristic quality index value (FQI) of greater than or equal to 20 shall be achieved for each wetland community **as determined using the Chicago Region Floristic Quality Assessment Calculator (U.S. Army Corps of Engineers, Chicago District, most recent version)**. ~~Native plant species coefficients of conservatism and the methods for calculating the native mean C value and FQI are included in Swink, Floyd and Gerould Wilhelm, Plants of the Chicago Region (Indianapolis: Indiana Academy of Science, 4th Edition, 1994).~~

Purpose: Update to current reference for floristic quality assessment determinations.

TAC Vote:

WDO Amendment #28**§ Appendix N: WDO Mitigation Requirements and Guidelines for Isolated Waters of Lake County Impacts**

H.2.b. Mean Wetness Coefficient: By the end of the performance period, the mean wetness coefficient (mean W) shall be less than or equal to 0 in each wetland community. Wetness coefficients are listed below, based on the ~~National Wetland~~ **Category** of each plant species designated in **the National Wetland Plant List - Midwest Regional Plant List (U.S. Army Corps of Engineers, most recent version)**. ~~Reed, Porter B., National List of Plant Species that Occur in Wetlands: North Central (Region 3), U.S. Fish Wildlife Service, Rep. 88(26.3, 1988).~~ The mean W for each wetland community is calculated by the following equation: Sum of wetness coefficients for all species/number of species.

Wetness Coefficients

<i>National Wetland Category</i>	<i>Wetness Coefficient</i>
Obligate (OBL)	-5 -2
Facultative Wetland + (FACW+)	-4
Facultative Wetland (FACW)	-3 -1
Facultative Wetland - (FACW-)	-2
Facultative + (FAC+)	-1
Facultative (FAC)	0
Facultative - (FAC-)	1
Facultative Upland - (FACU-)	2
Facultative Upland (FACU)	3
Facultative Upland + (FACU+)	4
Upland (UPL)	5

WDO Amendment #29**§ Appendix N: WDO Mitigation Requirements and Guidelines for Isolated Waters of Lake County Impacts**

H.3.a. Floristic Quality: By the end of the performance period, a native mean coefficient of conservatism value (native mean C value) of greater than or equal to 2.5 and a native floristic quality index value (FQI) of greater than or equal to 15 shall be achieved for the buffer **as determined using the Chicago Region Floristic Quality Assessment Calculator (U.S. Army Corps of Engineers, Chicago District, version)**. ~~Native plant species coefficients of conservatism and the methods for calculating the native mean C value and FQI are included in Swink, Floyd and Gerould Wilhelm, Plants of the Chicago Region (Indianapolis: Indiana Academy of Science, 4th Edition, 1994).~~

Purpose: Update to current reference for floristic quality assessment determinations.

TAC Vote:

WDO Amendment #30

§ Appendix A: Definitions

Isolated Waters of Lake County: All waters such as wetlands, ponds, streams (including intermittent streams), farmed wetlands, and wetlands that are not under U.S. Army Corps of Engineers jurisdiction. The limits of the Isolated Waters of Lake County extend to the ordinary high water mark or the delineated wetland boundary.

Purpose: Clarify that all stream classifications not regulated by the Corps as waters of the United States would be IWLC: perennial, intermittent and ephemeral.

TAC Vote:

WDO Amendment #31

§ 1005.01.E. Isolated Waters of Lake County Impacts (HQAR Documentation)

~~A statement~~ **Current documentation** on the occurrence of any high quality aquatic resources on or adjoining the development.

Purpose: Require submittals with valid information on T&E species and wetland floristic quality for potential HQAR designation (i.e., EcoCat <2 years old; wetland delineations with FQA <3 years old).

TAC Vote:

WDO Amendment #32

§ 1006.01 Wetland Hydrology for Isolated Waters of Lake County (lead-in paragraph)

The development design shall maintain between 80% and 150% of the existing condition, 2-year, 24-hour storm event runoff volume from the on-site tributary drainage area to the **delineated boundary of** preserved Isolated Waters of Lake County. The following minimum information shall be submitted to address this provision:

Purpose: Clarify that existing wetland area is excluded from the on-site tributary drainage area for runoff volume calculations.

TAC Vote: