Water Quality Management Plan Amendment and Procedures Manual

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Introduction

Wastewater collection and treatment systems are important components of the public infrastructure that supports growth and development in the Chicago region. Developments in most communities are built with the expectation that they will be supported by wastewater service, which is generally provided by a municipality or a sanitary district. At the same time, adequate investment in wastewater treatment is a key part of protecting the environment and ultimately the quality of life in northeastern Illinois.

Under federal and state law, the Chicago Metropolitan Agency for Planning (CMAP) is charged with reviewing proposed investments in wastewater infrastructure to ensure that they meet regional goals. These proposals require amending the region's long-time strategy for controlling water pollution, the *Areawide Water Quality Management Plan* (AWQMP) and the State's *Illinois Water Quality Management Plan*. More information about these plans can be found in Appendix VI. The investments in question include constructing or modifying wastewater treatment plants or a change in the boundaries that may be provided with wastewater service within a 20 year planning horizon (the "Facility Planning Area"). More background on these responsibilities can be found in Appendix VI.

More broadly, CMAP has worked with an array of partners in local government, business, and other sectors to lay out policies to guide growth and investment in the region in the upcoming decades. The resulting recommendations are contained in the region's long-range plan GO TO 2040.[1] CMAP now makes programming decisions, including its support for wastewater infrastructure investments, consistent with the recommendations in GO TO 2040.

CMAP's reviews are advisory in nature. Although it considers recommendations from CMAP, the Illinois Environmental Protection Agency (IEPA) is ultimately responsible for approval of *Areawide Water Quality Management Plan* amendments.[2] Furthermore, Designated Management Agencies (DMA)[3] have the responsibility to protect natural resources by controlling both point and nonpoint sources of pollution.

This manual describes the process for CMAP's review of plan amendment requests and outlines what is expected of the applicant. It also includes forms for initiating a water quality amendment request and an application checklist. The manual also documents legislative and regulatory authority under which the Chicago Metropolitan Agency for Planning and the Illinois Environmental Protection Agency conduct water quality reviews. Ultimately, the process is meant to help meet essential regional goals for infrastructure investment and water resource management while minimizing the burden for applicants.

Administrative Procedures

Amendment requests must be initiated by a DMA or the IEPA. The procedure for handling amendment requests is as follows:

[1] GO TO 2040, http://www.cmap.illinois.gov/2040/main

[2] As of September 2, 2010, the IEPA concluded that FPA boundaries do not hinder an applicant's ability to secure a sewer extension permit. Applicants requesting an FPA boundary extension now have the option of going directly to the IEPA to receive a sewer extension permit, thereby eliminating the requirement for an FPA review by CMAP.

[3] A DMA is an agency identified by the Illinois or *Areawide Water Quality Management Plan* which has authority for wastewater planning, wastewater treatment and wastewater conveyance rights. Some examples of a DMA include a municipality or a sanitary district.

1. The applicant completes an application package provided on the CMAP website at http://www.cmap.illinois.gov/water-quality/about-fpa-requests. The application includes an accompanying checklist. This application should be made if proposing to do any of the following within the CMAP area:

    a. Construct or modify a wastewater treatment plant;
    b. Change the boundaries of a Facility Planning Area (FPA); or
    c. Create a new FPA boundary.

2. Upon receipt, CMAP staff issues an electronic public notice requesting comments on the requested water quality plan amendment within 30 days. Notice of the meeting and a copy of the application is sent to affected parties, including sanitary districts, environmental groups, state agencies, watershed planning groups, county and municipalities, local governments, and other interested parties.

3. CMAP staff prepares a review based on the criteria described below and on comments submitted. On occasion, staff requests that the applicant submit additional information to respond to issues raised or to fill information gaps. The staff review indicates whether the amendment request is consistent or inconsistent with each of the criteria, or whether the information provided by the applicant is insufficient to determine consistency. The staff review is distributed to the applicant at least two weeks prior the Wastewater Committee Meeting, and is posted on CMAP's website for other affected/ interested parties one week prior to the meeting of the Wastewater Committee. A discussion of the Wastewater Committee is found in Appendix V.

4. The Wastewater Committee considers the requested amendment at its first scheduled monthly meeting following the 30-day processing and public notice period. The Committee's recommendation is to offer support or nonsupport for the requested amendment. If additional supporting material is needed, the Committee may defer consideration for one month or until the next scheduled Wastewater Committee meeting (see Appendix II for guidelines on deferral). Both the Wastewater Committee's recommendation and CMAP staff recommendation formed independent of the Committee are forwarded to the IEPA and the applicant.

5. If the application is approved by the IEPA, the IWQMP plan is updated annually to reflect approval. FPA base maps depicting FPA boundaries are also updated quarterly to reflect approved requests. Maps may be found on CMAP's website at: http://www.cmap.illinois.gov/water-quality/about-fpa-requests.

Potential applicants are encouraged to discuss the criteria and the application with CMAP staff before submission. A pre-application meeting may be arranged by contacting CMAP FPA staff at (312) 454-0400.

FPA amendment requests that do not involve policy changes but only changes or corrections in the factual basis of the plan and its supporting tables will be processed by staff within 15 days of receipt and will not require Wastewater Committee action. These changes usually include 1) redesignation of management agencies; 2) correction of wastewater facility maps; and 3) FPA name changes. These are not considered by the Wastewater Committee, only by CMAP staff.

Amendment Request Processing Fees

FPA amendment requests to the IWQMP are assessed a $10.00 per acre fee[4] to recover the costs of performing boundary amendments only.[5] This fee is in accordance with Section 33.5(b) of the Northeastern Illinois Plan Act, as amended (70 ILCS 1705). The fee does not apply to submittals involving the construction and/or expansion of facilities located within existing FPAs, provided no accompanying change in FPA boundary is involved. No fees are charged for FPA name changes or correction of FPA maps.

Payment of fees must be made by check payable to CMAP for each amendment request affecting facility planning area boundaries and shall be submitted along with the amendment request application.

Facility Planning Area Review Criteria

There are four criteria for FPA Amendments that delineate necessary prerequisites for any amendment. Staff cannot conduct a thorough review of a requested facility planning area amendment nor can the Wastewater Committee engage in meaningful discussion or issue a recommendation of support without the information relevant to these review criteria. The review criteria are as follows:

Review Criteria No. 1 states that "*The households for which the proposed amendment is designed should utilize the long range plan forecasts most recently produced and adopted by CMAP. CMAP staff may agree to harmonize regional and local forecasts as provided in the Water Quality Management Plan Amendment Process and Procedures Manual.*"

CMAP's *2040 Forecast of Population, Households and Employment* ("GO TO 2040 forecast")[6] reflects the implementation of the long-range plan: GO TO 2040. The forecast was developed by first establishing a reference scenario based on current population and land use trends, then employing mathematical modeling techniques to estimate how the distribution of population and employment would change in response to policies that would increase or dampen the amount of urban activity within a given area.

Unless unforeseen local conditions warrant, the number of households for which the proposed amendment is designed should fall within a threshold of the forecasts most recently produced by CMAP for the relevant area as follows. The applicant should provide its service population forecast and compare it to the GO TO 2040 forecast for the same area. If the applicant's forecast exceeds the GO TO 2040 forecast by 15% or more, then the applicant will need to show that its alternative forecast adheres to CMAP's Forecast Principles.[7] These principles include articulating the reasoning and the mathematics behind the alternative forecast. Staff will review the alternative forecast. If CMAP staff determines it is reasonable for the area, it may accept the alternative and recommend a finding of consistency. However, approved household estimates are not considered revisions to the GO TO 2040 forecasts. Revisions to the official GO TO 2040 forecast will be addressed in the next update of the regional plan.

Review Criteria No. 2 states that "*The proposed amendment should not reduce the effectiveness of the water quality improvement strategy contained in the original plan, either for point source or nonpoint source control.*"

[4] This fee was established on June 9, 1994 and has not been increased since that time.
[5] Section 33.5(a) and (b) of the Northeastern Illinois Planning Act, as amended (70IlCS 1705) http://www.ipcb.state.il.us/SLR/IPCBandIEPAEnvironmentalRegulations-Title35.asp also http://www.ilga.gov/commission/jcar/admincode/035/03500399sections.html
[6] Please note that the GIS files for the GO TO 2040 forecasts are available online at http://www.cmap.illinois.gov/population-forecast.
[7] Chicago Metropolitan Agency for Planning's Forecasting Principles, (accessed February 20, 2013)

Nonpoint Source Control Ordinances

Both the AWQMP and the IWQMP indicate that the control of nonpoint source pollution is necessary to prevent impairment of surface waters and includes specific recommendations for construction site runoff, urban runoff, and other potential pollution sources. The Plans indicate that DMAs, including municipal and county governments, are responsible for the control of nonpoint sources and that areawide planning agencies, such as CMAP, are responsible for providing technical assistance.

In previous versions of this manual, applicants were asked to show that they enforced ordinances consistent with CMAP's *Model Soil Erosion and Sediment Control Ordinance, Model Stormwater Drainage and Detention Ordinance, Model Flood Plain Ordinance,* and the *Model Stream and Wetland Protection Ordinance* as a condition for the approval of a new FPA or an FPA modification. Through their countywide ordinances, however, all counties within northeastern Illinois have adopted standards that are generally consistent with CMAP's model ordinances.[8] The major exception is Will County, whose ordinance has no provisions for stream and wetland protection.

For amendment areas within Will County, the applicant should fill out the checklist of nonpoint source, drainage, and other standards found in the amendment application. For any standards that are not met, the applicant should provide a village board or city council resolution indicating its intention to pass within six months ordinance requirements that meet these standards. CMAP staff will request a status of this resolution following the six-month time frame. Applicants that are sanitary districts should provide such resolutions from the local government units that have land use and building permitting authority within the amendment area. Applicants who decline to provide such a resolution must clearly state their reason for refusal which will be inserted into the public record.

It will not be necessary for the applicant to adopt verbatim the CMAP model ordinance and all relevant technical criteria; rather the local ordinances and/or regulations should be generally consistent with the checklist of nonpoint source standards contained in the CMAP amendment application to receive a recommendation of support for this criterion.

Water Conservation

An objective of the *Areawide Water Quality Management Plan* is the "reduction, by all practical means, of wastewater volumes in the region."[9] One way to reduce wastewater volumes includes reducing the use and disposal of drinking water. Furthermore, CMAP's regional plans GO TO 2040 and Water 2050 indicate that water conservation is a major need in the region. While consideration of a model water conservation ordinance as part of the FPA amendment process is relatively new, some local governments have already adopted protections comparable to CMAP's Model Conservation Ordinance.

Applicants should demonstrate that they are taking steps to reduce water consumption by residents and businesses within their service areas. An applicant can demonstrate this by:

1. Adopting standards comparable to CMAP's *Model Water Conservation Ordinance*,[10] which describes a number of strategies for achieving greater water-use efficiency and conservation (See Appendix IV for a listing of these strategies); or

[8] Facility Planning Area Requests http://www.cmap.illinois.gov/water-quality/about-fpa-requests (accessed June 3, 2014).

[9] Areawide Water Quality Management Plan, Section 20.02.i

[10] The need for *Model Water Use Conservation Ordinance* resulted from various federal acts, advances in water efficiencies as well as from the findings of ***Water 2050: Northeastern Illinois Regional Water Supply/Demand Plan*** adopted on January 26, 2010. *Water 2050* was the result of a three-year planning effort undertaken by CMAP and the Regional Water Supply Planning Group (RWSPG) in response to Executive Order 2006-1 issued in January 2006 by

2. Showing that water conservation programs with water savings similar to the CMAP *Model Water Conservation Ordinance* are being undertaken by the water utility serving the area.

An applicant choosing the first option should provide a copy of its water conservation ordinance language for review, along with any commentary needed. An applicant under the second option should summarize the conservation measures the relevant water utility is undertaking.

It should be noted that water conservation ordinances may need to be updated as local situations change and water efficient technologies continue to advance. Governing bodies in the region may benefit from using the model ordinance as a marketing tool to educate their residents and businesses on the various aspects of water conservation and to form partnerships for addressing sustainable water use.

Water Reuse

Wastewater reuse is the practice of reusing "treated wastewater for beneficial purposes such as agricultural and landscape irrigation, industrial processes, toilet flushing, and replenishing a ground water basin (referred to as ground water recharge)" (USEPA, Region 9 Water Program). Wastewater reuse falls under two categories: direct non-potable reuse and indirect reuse. Direct reuse, in the context of wastewater treatment, refers to the reuse of wastewater from an existing or new centralized plant for uses including power plant cooling and agricultural irrigation. Indirect non-potable reuse includes using reclaimed water, which has first been discharged to a stream or lake before it is withdrawn and reused, for landscape irrigation purposes.

Wastewater reuse has many benefits. It can replenish aquifers, reduce energy consumption related to production, and reduce nutrient loads to receiving waterbodies. Near future changes in water quality standards, namely more stringent nutrient standards and efforts to resolve nutrient-related impairments of streams and rivers, will likely require wastewater treatment facilities to reduce effluent nutrient loads. Some examples of wastewater reuse applications in northeastern Illinois include the Village of Richmond and the Elk Grove Village Park District. The Village of Richmond developed adopted a water reuse ordinance which requires applicable users (e.g. new developments defined by category) to use municipal treated wastewater. The Elk Grove Park District's reuse efforts have occurred since 1982 and include using treated effluent, which is provided using an existing forcemain, for spray irrigation on a local golf course.[11]

Though not required for FPA approval, applicants are encouraged to provide a description of water reuse opportunities that they have evaluated, and to consider the application of a no-discharge system such as land application or partial reuse as alternatives to conventional wastewater treatment where feasible. These may include partial reuse or full land application[12] of wastewater. Applicants considering land application should submit a summary describing the reuse alternative that will be used, a map depicting the area where reuse will be applied, an evaluation of soils in the application area, and summary of costs

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the Governor of Illinois. For more information, visit http://www.cmap.illinois.gov/moving-forward-in-detail/-/asset_publisher/Q4En/content/model-water-conservation-ordinance?isMovingForward=1

[11] Anderson, P. and Y. Meng (2011). Assessing opportunities for municipal wastewater reuse in the metropolitan Chicago area. Illinois Sustainable Technology Center Report. http://www.istc.illinois.edu/info/library_docs/TR/TR047.pdf (accessed June 2, 2014)

[12] Land application of treated wastewater is not applicable on all sites and must meet certain criteria (depth to ground water, location to surface water, etc.) Illinois Pollution Control Board. Title 35: Environmental Protection, Part 372. http://www.ipcb.state.il.us/documents/dsweb/Get/Document-12046/ (accessed June 3, 2014).

for the alternative. For additional information on wastewater reuse including case studies and guidance documents, please see Appendix V.

Maintaining Water Quality

An objective of the *Areawide Water Quality Management Plan* is the "maintenance of present levels of quality in all waterways in which water quality is better than state standards."[13] In addition to Nonpoint Source Control Ordinances, Water Conservation and Water Reuse, communities and sanitary districts can help maintain water quality by limiting the levels of pollutants in wastewater point source discharges.

Applicants should demonstrate that they are taking steps to maintain water quality within their service areas. An applicant can demonstrate this by providing details on 1) the treatment practices they plan to employ at wastewater plants to minimize any increases in pollutant discharges including BOD, TSS, ammonia, nutrients (P and N), metals and toxins known to be present in their waste stream, as well as personal care and pharmaceutical products and their breakdown products known to be present in domestic water; and 2) an evaluation of the impact which an expansion of or new point source discharge of wastewater will have on the levels of pollutants in the receiving water body.

Regional Green Infrastructure Protection

It is a goal of GO TO 2040 to ensure that the expansion of wastewater and other "gray infrastructure" [14] minimizes impact on the regional green infrastructure network.[15] This network is an important, strategically planned, interconnected network of natural areas and open spaces that follows waterway corridors, conserves ecosystem-service functions, and expands and connects existing natural and recreational areas. For background information, please visit: www.cmap.illinois.gov/green-infrastructure.

Using an overlay analysis, the applicant should indicate the extent to which the regional green infrastructure network falls within the proposed amendment area (regional green infrastructure data are available at http://www.cmap.illinois.gov/green-infrastructure/download). If a minimum of 10% of the amendment area is part of a regional, county or city green infrastructure network, then the applicant should describe the local government strategy for ensuring that the regional green infrastructure network is protected from future disturbance or that disturbances are mitigated. Protection and mitigation strategies can include such measures as an overlay ordinance for green infrastructure protection, a local open space acquisition fund, a conservation design ordinance that permits higher densities in exchange for protecting sensitive areas, among many options. The applicant should provide a city council or village board resolution indicating the strategies it will adopt (or has already adopted) to conserve the regional green infrastructure network.

Upon request, CMAP staff will provide technical assistance for identification of green infrastructure within an amendment area and to help inform the development of protective measures. In the instance where a county or city green infrastructure plan exists, an applicant should describe protection strategies and/or adopt the local green infrastructure plan or vision in place of the regional green infrastructure vision.

[13] Areawide Water Quality Management Plan, Section 2.03.a

[14] Gray Infrastructure often refers to infrastructure built (water tanks, pipes) to transport wastewater: USEPA Green and Gray Infrastructure Research http://www.epa.gov/nrmrl/wswrd/wq/stormwater/green.html (accessed 5/7/2014)

[15] Chicago Metropolitan Agency for Planning's Green Infrastructure Vision, http://www.cmap.illinois.gov/green-infrastructure (accessed June 6, 2014)

Review Criteria No. 3 states that "The proposed amendment should not adversely affect adjoining units of government."

This review criterion takes into consideration impacts on adjacent communities. Applicants should provide a map indicating the proposed FPA as well as the location of boundary agreements with neighboring communities if the FPA has not been annexed. The FPA should be wholly within the boundary agreements. If no boundary agreement exists, then the applicant should produce a letter from the neighboring community indicating the community does not object to the proposed amendment. Staff encourages applicants to meet with adjacent communities as well as county officials and other interested parties to present and discuss their proposals prior to submittal of their amendment application.

If the amendment is not consistent with existing boundary agreements, it is not likely that the amendment request will be granted. The position of both CMAP and IEPA is that such boundary agreements should be recognized by the agencies and that the FPA amendment process is not the proper way in which to invalidate a boundary agreement.

Review Criteria No. 4 states that "The proposed amendment should be consistent with other county and regional plans or state policies."

A decision to invest in a major community facility such as a wastewater treatment plant should be the outcome of a deliberative, participatory local planning process that broadly considers community needs. In evaluating compliance with this criterion, the staff considers all applicable resource protection plans and land use plans from the local, county, regional and state level. The applicant should show that the amendment is directly recommended by, or is at least consistent with, the GO TO 2040 regional plan[16] and a recent local comprehensive plan published within the past five years. Consistency among these plans often indicates good planning.

Livable Communities

A central theme of GO TO 2040 is to encourage livable communities. Public investments should support this goal. Nonetheless, livability takes different forms depending on the community. Though not required for FPA approval, CMAP encourages applicants to consider how the proposed investment promotes the livability principles of GO TO 2040. As part of the FPA review, an applicant is encouraged to provide a statement describing how the proposed investment in wastewater service promotes livability over the alternative of not making the investment. For example, new wastewater treatment capacity could be needed to support denser redevelopment of a town center. Upfront investment could be needed to improve energy efficiency at a treatment plant. The applicant should consult the Livable Communities section of GO TO 2040,[17] which recommends a variety of ways that local governments can improve livability through landuse and housing, managing and conserving water and energy resources, expanding and improving parks and open space, and promoting sustainable local food.

Energy Efficiency and Wastewater

It is a goal of GO TO 2040 to "manage and conserve water and energy resources." One way to support this goal is by increasing energy efficiency in water treatment and wastewater utilities. These facilities

[16] Chicago Metropolitan Agency for Planning's GO TO 2040 Plan, http://www.cmap.illinois.gov/2040/main (assessed June 3, 2014)

[17] Chicago Metropolitan Agency for Planning's GO TO 2040 Plan, http://www.cmap.illinois.gov/2040/livable-communities (assessed June 3, 2014)

include pumps and other equipment that consume significant amounts of energy and water. Aeration systems are often the highest energy consumers at wastewater facilities. Reduced energy and water use by these facilities decreases their demand and consumption.

Often, the best time to implement energy efficient upgrades is during expansion, upgrade, or major maintenance or modification of a wastewater facility. Though not required for FPA approval, an applicant requesting an expansion of an existing wastewater facility is encouraged to perform an energy assessment. Energy assessments lay the groundwork for improved efficiency at wastewater facilities and may significantly reduce operating costs. As such, an applicant is encouraged to provide a summary of the highest energy use components at their wastewater facility, and describe approaches that will be used to improve energy efficiency. The audit should, at minimum, include a desktop analysis.

The EPA's energy-strategy guide for wastewater facilities indicates that energy efficient upgrades may fall into one of three basic categories: operational modifications, upgrading equipment, and facility modifications. Operational changes might include reducing peak demand to decrease the amount of energy needed to operate specific functions. Upgrading equipment can include replacing items including pumps and blowers with more efficient equipment. Facility modification may include installing energy efficient lighting, sealing leaks, and installing efficient windows. It may also include using biogas flow from anaerobic digesters in a combined heat and power (CHP) system as fuel to generate electricity and heat for the facility. [18] Currently, 139 CHP units exist in Illinois. Some recent examples of large wastewater facilities currently utilizing CHP include the Fox Lake WWTP[19] and the Downers Grove Sanitary District WWTP. [20]

Free assessments through the Department of Commerce and Economic Opportunity and other state incentives can help reduce energy consumption and defray the cost of energy upgrades. Potential funding sources, accessibility to free energy audits, case studies and energy audit guidance documents are included in Appendix V.

Agricultural Preservation Areas

As part of the Farmland Preservation Act (505 ILCS 75/1 et seq), Illinois Department of Agriculture review of an FPA amendment is included in the FPA review process. When an FPA is proposed to be extended into agricultural land, the applicant must demonstrate that the proposed FPA, which includes the agricultural land, has been planned in a manner that will minimize adverse impacts on agricultural resources. A recommendation by the Wastewater Committee will be based on the degree to which the proposal satisfies the Illinois Department of Agriculture's guidelines for FPA requests which may be found by visiting:
http://www.agriculture.illinois.gov/Environment/LandWater/FPAboundarychangerequest.pdf

[18] USEPA's Municipal Wastewater Treatment Facilities: http://www.epa.gov/chp/markets/wastewater.html (accessed June 3, 2014).
[19] Combined Heat and Power Units located in Illinois, http://www.eea-inc.com/chpdata/States/IL.html (accessed June 19, 2014).
[20] Illinois Government News Network, http://www3.illinois.gov/PressReleases/ShowPressRelease.cfm?SubjectID=29&RecNum=10557 (accessed June 19, 2014).

Appendices

The appendices included in the Water Quality Management Plan Amendment Process and Procedures assists applicants in understanding and responding to the review criteria. The appendices also guide CMAP staff and Committee members and the evaluation of the applicant's fulfillment of the review criteria and in issuing recommendations to the IEPA.

Appendix I: Water Quality Management Plan Amendment Application's General Information and Documentation Checklist

The FPA amendment checklist was developed to assist an applicant with submitting a complete application for review. Applicants should enclose the completed checklist(s) with the application submittal**.** The checklist is divided into "required" and "recommended" items. Though "recommended" items do not preclude approval, they are important elements to consider in determining benefits, impacts, and quality of life issues in surrounding communities and the region overall, and CMAP requests that these items be submitted in the spirit of promoting comprehensive planning.

REQUIRED ITEMS FOR CMAP REVIEW

Items required for submittal help achieve the principal goal of the Clean Water Act to "restore and maintain the chemical, physical, and biological integrity of the Nations' waters."[21] They are also identified in meeting regional and State and Areawide water quality planning objectives.

Checklist Items

1.	Type of Amendment Requested
2.	Map of Existing FPA *and Requested Amendment Area:* (scale 1:24,000 or larger).
3.	Identify all Facility Planning Areas within 1.5 miles
4.	*Legal Descriptions of Existing FPA or List of Parcel PIN Numbers*
5.	GO TO 2040 Forecast for Amendment Area
6.	Facility Plan Including Components Required for CMAP review (See Appendix III)
7.	*Existing Land Uses and Zoning within and Adjacent to the Amendment Area.*
8.	Most Recent Local Comprehensive Plan, Including Section of Plan Recommending Wastewater Infrastructure Expansion
9.	Documentation of Notification to and Comments from all Municipalities and the County within the Existing FPA and Requested Amendment Area
10.	Nonpoint Source Control Ordinances Checklist (applicable for amendment requests within Will County)
11.	Water Conservation Codes Enforced within Amendment Area or Description of Conservation Program
12.	Applicable Resolutions Including Intent to Adopt Comparable Standards within Six Months
13.	Water Quality Fee for Requested FPA Modification (at $10 per acre of expansion)
14.	Completed Applicant's Signature Page with Signature
15.	Contact Information

[21] Clean Water Act & 101(a) 33 U.S.C. & 1251(a)).

RECOMMENDED ITEMS FOR CMAP REVIEW

When municipalities plan for wastewater treatment services, they are planning for growth and development over a 20-year period that will inevitably result in impacts to communities and quality of life. Infrastructure investments, the loss of open space and agricultural land, and the pattern and density of new residential and commercial development will directly and indirectly affect not only the quality of surface waters but also other natural and community resources throughout a much broader area. It is essential, therefore, that the regional agency work with local communities to ensure the best possible outcome for affected communities and the region overall.

The items in the checklist below represent elements vital to regional and local planning and to protecting a high quality of life for the region's communities. Growth that does not consider the impact on water supply can be short sighted and result in long term fiscal challenges. Considering water reuse is an important option to help protect the finite water supply that many communities rely on to serve new development. The regional green infrastructure network provides valuable benefits and services, including waterway protection, habitat, water quality improvement, flood control, and recreation, that are highly expensive if not impossible to replicate once lost. Livability, which includes many factors such as access to daily necessities, safe and secure communities, and adequate housing and employment opportunities, must remain a top priority considered during development decisions. Understanding energy demands of wastewater treatment and opportunities to reduce it have both financial and environmental benefits, including reducing greenhouse gas emissions.

These are local and regional issues that demand attention and consideration in development decisions, and applicants are encouraged to submit the following items as part of their amendment submittal. Upon request, CMAP will provide technical support to assist applicants in meeting these guidelines.

Checklist Items

1.	**Summary of Water Reuse Opportunities**
2.	*Map Indicating the Location of Green Infrastructure (Contact CMAP staff with assistance identifying these areas)*
3.	*List of Protection Strategies Proposed for Amendment Requests Impacting Green Infrastructure*
4.	*Resolution Indicating Protection Strategies that Have Been or Will Be Adopted for Amendment Requests Impacting Green Infrastructure*
5.	Summary Indicating How the Proposed Amendment Promotes Livability
6.	Energy assessment produced using , at minimum, a desktop analysis (See Appendix V. for a sample energy audit and resources to conduct free assessments)

Appendix II: Deferral Guidelines

Initial deferrals can be given at the discretion of the Wastewater Committee for one meeting cycle (approximately 30 days). Deferrals may be based upon, but not limited to, the following situations:

- Absence of Illinois Department of Agriculture's statutorily required review.
- Request of Applicant.
- If further information is required to ascertain amendment's consistency with prerequisite criteria.
- Request of the designated management agency for the affected facility planning area.
- Request of an adjoining unit of government.

Further deferrals for one additional meeting cycle to accomplish specific tasks will be considered if:

- There is a need for IEPA clarification of a particular point, policy, etc.; and

- Major "new or clarifying" information is submitted that addresses one of the criteria.

Appendix III. Comprehensive Facility Planning Components

Facility plans should address a *20-year* planning horizon. The applicant should show that the location to be served by the proposed amendment is generally consistent with the future land use and infrastructure investment recommendations in the relevant municipal comprehensive plan. For the purposes of CMAP's review, a comprehensive facility plan should include the following components:

- Description and maps of the existing FPA, including boundaries, discussion of any necessary modifications, existing and future population, land use, a summary of wastewater treatment practices, and an assessment of consistency with regional forecasts;
- Coordination with adopted land use/comprehensive plans
- Description of existing receiving stream water quality and use impairments;
- Boundaries for present and future wastewater service
- Watershed considerations, including nonpoint source control strategies;
- Analysis describing how wastewater volumes will be reduced
- Analysis of water quality impacts
- Description of financial, legal, institutional, and management arrangements of the applicant to implement the plan
- Documented public participation process
- Documented intergovernmental coordination process

Appendix IV: Model Water Conservation Ordinance Components

Municipalities should adopt the entire CMAP Model Water Use Conservation Ordinance and insert it as a chapter in their codes, adopt portions of it, modify existing ordinances to include relevant items, or demonstrate that water conservation and protection measures are being undertaken in at least one of the following ways.

- Availability of water use efficiency goals for various classes/categories of users either through a community-wide water conservation plan or through the use of water budgeting processes.
- Implementation of universal metering for all new and existing services.
- Implementation of irrigation water audits to detect leaks for private water lines.
- Rainwater harvesting for either landscape irrigation or indoor nonpotable use (e.g., toilet flushing).
- Adoption of irrigation landscape ordinances that limit irrigation on areas that causes substantial water to fall on impervious areas.
- Adoption of irrigation ordinances that limit landscape irrigation (using automatic sprinkler systems) to twice a week and two hours per irrigation day.[1]
- Implement conservation pricing that encourages suitable water management practices.
- Adoption of landscape ordinances that limit turf area or that recommend low-water-using plants (e.g., native plants).

[1] More information on this requirement, as well as on Variances, can be found in the Model Water Use Conservation Ordinance, CMAP, 2010. http://www.cmap.illinois.gov/plans-and-guides

- Implementation of an annual water audit by the utility that follows the American Water Works Association protocol.[2]
- Implementation of public information programs that increase awareness of the benefits of water use conservation including the use of native plants or low-water-use plants.[3] Examples of such programs include development of indoor and outdoor water conservation literature and employing various means of dissemination such as utility bill inserts, distribution by governing body to customers applying for a building permit and those initiating new service, distribution by retail plant nurseries, or via landscape contractors and architects.
- Implementation of water budgeting for large users.[4]
- Collaborations with landscape contractors, retailers and other relevant bodies to promote water efficiencies.

Appendix V. Helpful Planning Resources

LAND APPLICATION

- Water 2050: Northeastern Illinois Regional Water Supply/Demand Plan: http://www.cmap.illinois.gov/documents/10180/14452/NE+IL+Regional+Water+Supply+Demand+Plan.pdf/26911cec-866e-4253-8d99-ef39c5653757
- Illinois Sea Grant: http://www.iisgcp.org/water_supply/WastewaterReclamationReuse.pdf

WATER QUALITY

- Illinois EPA's Illinois Integrated Water Quality Report and Section 303(d) List provides a list of impaired waters and Total Maximum Daily Load information for waterbodies within northeastern Illinois: http://www.epa.state.il.us/water/tmdl/303d-list.html (accessed July 2, 2014).
- USEPA's Surf Your Watershed – provides access to watershed maps, watershed plans, and contact information for local planning watershed groups: http://cfpub.epa.gov/surf/locate/index.cfm (accessed July 3, 2014).
- CMAP's Watershed Planning webpage – gives an overview of CMAP's role in watershed planning and provides a map and links to watershed plans developed by CMAP.

WASTEWATER REUSE

- 2012 Guidelines for Water Reuse: http://nepis.epa.gov/Adobe/PDF/P100FS7K.pdf (Includes guidelines that influence water reuse in northeastern Illinois.)

ENERGY EFFICIENCY

FUNDING SOURCES

[2] http://www.awwa.org/Resources/WaterLossControl.cfm?ItemNumber=48055&navItemNumber=48162

[3] Plants that, generally, once established can survive on 2 irrigations per month during the summer months. See EPA, Green Landscaping, Green Acres, Plant List, Midwest: http://www.epa.gov/greenacres/nativeplants/plants.html#plant lists

[4] *Ibid 1.*

- U.S. Department of Energy's Save Energy Now Program - provides industrial companies with a no-cost assessment of their energy supplies: http://energy.gov/eere/amo/technical-assistance-activities.
- U.S. Department of Agriculture's Rural Development Rural Energy for America Program Grants/Energy Audit and Renewable Energy Development Assist (REAP/EA/REDA). The program provides financing for energy audits: http://www.rurdev.usda.gov/Energy.html
- Rural Assistance Center (RAC) RAC offers funding to help rural communities: http://www.raconline.org/funding/
- EPA's Clean Water and Drinking Water State Revolving Funds (SRF). SRF funds may be used to conduct an energy audit: http://www.epa.gov/region09//water/grants/srf-loan-prog.html#cwa
- Clean Water State Revolving Fund: http://water.epa.gov/grants_funding/cwsrf/cwsrf_index.cfm
- SEDAC – Smart Energy Design Assistance Center: http://smartenergy.illinois.edu/energy-incentives.html
- Illinois Clean Energy: http://www.illinoiscleanenergy.org/waste-water/

CONDUCTING AN ENERGY AUDIT

- Free Energy Audits sponsored by the Department of Commerce and Economic Opportunity: http://smartenergy.illinois.edu/documents/SEDAC-Application_Energy-Assessment.pdf
- Performing an Energy Audit available at USEPA: http://www.epa.gov/region9/waterinfrastructure/audit.html
- Determining Energy Usage: http://water.epa.gov/infrastructure/sustain/energy_use.cfm
- Case Study: Ohio Wastewater Facility Energy Audit: http://www.rcac.org/assets/green_infra/Salineville%20WWTF%20Report%20case%20study%20WSOS%20energy%20audit.pdf
- Municipal Wastewater Treatment Facilities: http://www.epa.gov/chp/markets/wastewater.html (listed twice).
- Combined Heat and Power Case Study – USEPA: http://files.harc.edu/Sites/GulfCoastCHP/CaseStudies/TucsonAZMillionHour.pdf
- Illinois Department of Agriculture Farmland Preservation checklist and review procedures: http://www.agr.state.il.us/Environment/LandWater/FPAboundarychangerequest.pdf

AVAILABLE FROM THE U.S. ENVIRONMENTAL PROTECTION AGENCY

- Clean Water State Revolving Loan Fund, http://water.epa.gov/grants_funding/cwsrf/cwsrf_index.cfm

AVAILABLE FROM THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

- *Illinois Water Quality Management Plan,* revised annually
- *Illinois Water Quality Report,* http://www.epa.state.il.us/water/water-quality/
- *Procedures and Requirements for Conflict Resolution in Revising Water Quality Management Plans (35 Ill. Administrative Code, Title 35, Ch. II, Part 351)*
- *Procedures and Requirements for Contested Case Hearings (35 Ill. Administrative Code, Title 35, Ch. II, Part 168)*

AVAILABLE FROM THE CHICAGO METROPOLITAN AGENCY FOR PLANNING

- *Areawide Water Quality Management Plan for Northeastern Illinois,* January 1979 (Available for examination in CMAP library and on CMAP's website at http://www.cmap.illinois.gov/water-quality/about-fpa-requests.

- Facility Planning Area (FPA) boundary Maps for northeastern Illinois (updated quarterly) with accompanying tabular listings show permitted wastewater facilities and facility planning area boundaries as contained in the Illinois Water Quality Management Plan. Tabular tables also delineate designated management agencies by FPA with current and planned public and private treatment facilities and discharge points (updated annually).
- *Population, Households and Employment in Northeastern Illinois for 2010,* http://www.cmap.illinois.gov/population-forecast
- *Model Floodplain Ordinance,* 1989; *Model Soil Erosion and Sediment Control Ordinance,* 1991; *Model Stormwater Drainage and Detention Ordinance,* updated 1994; *Model Stream and Wetland Protection Ordinance,* 1988
- *Regional Septage Disposal Plan, An Element of the Areawide Water Quality Management Plan for Northeastern Illinois,* September 1981
- *Stormwater Detention for Water Quality Benefits,* 1986
- *Strategic Plan for Land Resource Management,* June 1992
- *Urban Stormwater Best Management Practices for Northeastern Illinois, A Course Notebook,* 1993
- *Water Quality Management Plan – Amendment Application of the Chicago Metropolitan Agency for Planning,* revised 1996, http://www.cmap.illinois.gov/water-quality/about-fpa-requests

Appendix VI: State and Regional Responsibilities

Illinois Environmental Protection Agency

The IEPA is the state's lead agency for federal and state environmental protection programs and initiatives. The Illinois Environmental Protection Act designated the Illinois Environmental Protection Agency as the pollution control agency for the State of Illinois for all purposes of the federal Clean Water Act. In addition, the Act specifically authorized the Agency "to engage in planning processes and activities to develop plans in cooperation with units of local government, other state agencies and persons, and to promulgate procedural regulations for the holding of public hearings on the planning process."

IEPA works with a variety of state agencies, local governments, and the United States Environmental Protection Agency (USEPA) to monitor pollutant discharges and to assist in the enforcement and formulation of environmental standards and policies. IEPA has the authority to issue National Pollutant Discharge Elimination Systems (NPDES) permits for pollution sources and ensure compliance with permit requirements.

Chicago Metropolitan Agency for Planning

The Chicago Metropolitan Agency for Planning (CMAP) is the official areawide regional planning organization for the northeastern Illinois counties of Cook, DuPage, Kane, Kendall Lake, McHenry, and Will.

The responsibility of water quality management planning is shared between the Illinois EPA and CMAP as the areawide planning agency while plan implementation is the responsibility of DMAs such as municipalities or sanitary districts. As such, subsequent to the completion of the IWQMP, the Governor designated the areawide planning agencies as the continuing planning agencies to undertake the planning and coordination process and areawide review of the IWQMP and to oversee revisions to the plan. CMAP's predecessor, NIPC was designated as the areawide water quality planning agency for the six- county northeastern Illinois Metropolitan area by an Executive Order by Governor Walker on May 13, 1975. CMAP now assumes this role for the seven-county northeastern Illinois region.

CMAP maintains and provides IEPA with annual updates of facility planning area boundaries, designated management agency status, and the current and planned treatment capacity for permitted discharges located in the seven county northeastern Illinois area. CMAP also develops and issues consistency reviews and recommendations to IEPA, "without constraint or obligation the counsel of the Wastewater Committee." (IEPA/CMAP Financial Assistance Agreement No. FAA604121).

CMAP Wastewater Committee

CMAP's enabling legislation[22] requires that the CMAP Board create a Wastewater Committee. The Wastewater Committee has the responsibility of recommending directly to the Illinois Environmental Protection Agency (IEPA) the appropriateness of the following:

- Requests for modifications and amendments to the established boundaries of FPAs;
- Requests for the creation of new FPAs;
- Requests for the elimination of existing FPAs;
- Requests for new or expanded sewage treatment facilities; and,
- Any other amendments to the State of Illinois Water Quality Management plan required under the federal Clean Water Act

[22] Regional Planning Act, 70 ILCS 1707
http://www.ilga.gov/legislation/ilcs/ilcs3.asp?ActID=2731&ChapAct=70%26nbsp%3BILCS%26nbsp%3B1707%2F&ChapterID=15&ChapterName=SPECIAL+DISTRICTS&ActName=Regional+Planning+Act

The CMAP Wastewater Committee shall consist of the following:

- One CMAP Board Member appointed by either DuPage, Kane/Kendall, Lake, McHenry or Will Counties;
- One CMAP Board Member appointed from the City of Chicago;
- One CMAP Board Member appointed by Cook County, outside of the City of Chicago;
- One Person appointed by the President of Metropolitan Water Reclamation District of Greater Chicago (MWRDGC); and,
- One person appointed by the president of the largest statewide association of wastewater agencies.

Chairmanship of the Wastewater Committee rotates every 24 months between the appointees of MWRDGC and the largest statewide association of wastewater agency.

Appendix VII. Legal Background

Clean Water Act and the Environmental Protection Act

The Federal Water Pollution Control Act Amendments of 1972 (33 U.S.C. 1251 *et seq.*), also known as the Clean Water Act, and subsequent amendments set forth the framework for establishing water quality management programs in each state. The goal of Clean Water Act is "to restore and maintain the chemical, physical and biological integrity of the Nation's waters." (Clean Water Act, Section 101(a)) State programs to implement the Clean Water Act address both point source discharges (such as wastewater treatment plants) and nonpoint source runoff from land (such as urban stormwater runoff from streets and parking lots). Section 208 of the Clean Water Act required that states develop comprehensive areawide water quality management plans that address all sources of pollution generated within an urban-industrial area such as the Chicago metropolitan area. These 208 plans also were required to include alternatives for waste treatment management. It is under these requirements and other sections of the Clean Water Act that both the Areawide Water Quality Management Plan and the Illinois Water Quality Management Plan are rooted (an overview of both plans is in sections below).

The Illinois Environmental Protection Act addresses all aspects of environmental protection in the State of Illinois, including water pollution. This Act states that "air, water, and other resource pollution, public water supply, solid waste disposal, noise, and other environmental problems are closely interrelated and must be dealt with as a unified whole in order to safeguard the environment". (Environmental Protection Act, Section 2(a) (3)) Section 2(b) of the Environmental Protection Act further states that

> It is the purpose of this Act … to establish a unified, state-wide program supplemented by private remedies, to restore, protect and enhance the quality of the environment, and to assure that adverse effects upon the environment are fully considered and borne by those who cause them.

The Illinois Environmental Protection Act designates the Illinois Environmental Protection Agency (Illinois EPA) as the pollution control agency for the State for all purposes of the federal Clean Water Act. While federal laws and regulations set forth the minimum requirements for Illinois EPA's programs and activities, State laws and regulations are, in some instances, more stringent than federal requirements and are, in all cases, designed to coordinate with and implement all federal requirements.

Areawide Water Quality Management Plan

In accordance with the provisions of Title II of the Clean Water Act, the former Northeastern Illinois Planning Commission (NIPC) assumed certain responsibilities under the Clean Water Act. Section 208(b)(1)(A) of the Clean Water Act states that "[n]ot later than one year after the date of designation … [NIPC] shall have in operation a continuing areawide waste treatment management planning process consistent with section 201 of this Act."[23] Section 208 further states that all areawide waste treatment plans "prepared in accordance with this process shall contain alternatives for waste treatment management, and be applicable to all wastes generated within the area involved." As such, NIPC developed the *Areawide Water Quality Management Plan for Northeastern Illinois* (AWQMP), which was approved on May 1, 1980. While having been written over 30 years ago, the plan's goals are aimed at

[23] Section 201(a) states that it "is the purpose of this title to require and to assist the development and implementation of waste treatment management plans and practices which will achieve the goals of this Act." Subsections (b) through (f) further specify those waste treatment management practices that are to be encouraged: (b) application of best practicable waste treatment technology, including reclaiming and recycling of wastewater; (c) "To the extent practicable, waste treatment management shall be on an areawide basis and provide control or treatment of all point and nonpoint sources of pollution"; (d) waste treatment management that results in the construction of revenue producing facilities that recycle potential pollutants through agricultural production, reclamation of wastewater and ultimate disposal of sludge; and (f) "waste treatment management which combines "open space" and recreational considerations with such management."

reducing water pollution in northeastern Illinois including restoring and maintaining the quality of the regions waters, eliminating pollutant discharges, improving and/or protecting water quality habitat, and eliminating waste discharges into the region's waters.. The goals of the plan remain valid for northeastern Illinois today.

The AWQMP contains river-basin-specific water quality management plans for the river basins wholly or partially within northeastern Illinois. The basin plans all contain similar information, including: description of the basin (physical and socio-economic characteristics), impacts of projects (such as dams), water quality (applicable state standards and designations, existing conditions and results of modeling), existing point sources (including dischargers and local facilities planning), existing nonpoint sources, disposal of residuals, existing management programs, modeling processes (future conditions), problem assessment, recommendations (for point sources, nonpoint sources, residuals, groundwater and mining), costs of the recommended plan and anticipated water quality conditions in 1983. These elements are specified in 40 CFR Part 130, Water Quality Planning and Management. [24]

Objectives of the AWQMP aimed at addressing water quality issues in the region are specified in Section 2.03 of the plan and include:

A) maintenance of present levels of quality in all waterways in which water quality is better than state standards;
B) elimination of all discharges of toxic pollutants in toxic amounts;
C) compliance with appropriate effluent standards established by the USEPA and the State of Illinois, as soon as it is technologically and financially possible to achieve compliance until recommendations for changes are developed in the course of 208 planning efforts;
D) compliance, with in-stream water quality standards oxygen, a temporary standards be authorized accepting 5.0 mg/l for 95 of the time in water bodies classified for General Use;
E) compliance, in all underground waters, with Illinois Standards for General Use and Public Food Processing Water Supplies, except with standards are violated as a result of natural conditions;
F) reduction of urban and rural stormwater runoff, and pollution carried into waterways by runoff, by all practical means;
G) provision of Best Management Practices for all nonpoint sources of pollution according to the implementation schedules recommended in the Plan;
H) introduction of wastes into wastewater systems only when such wastes can be adequately treated without adversely affecting the systems;
I) reduction, by all practical means, of wastewater volumes in the region;
J) cost-effective operation of all technical and management components of the region's wastewater system;
K) regionalization of wastewater treatment systems wherever economies of scale can be achieved and benefits of regionalization outweigh negative impacts;
L) assignment of costs for wastewater collection and treatment primarily to those generating the need for such service;
M) assessment of management and implantation responsibilities to general purpose units of local government, whenever possible, in order to insure maximum accountability to the electorate;
N) participation of all implementing agencies, directly or by representative, in the continuing development of areawide polices for water quality management;

[24] Section 130.1(a) states that 40 CFR Part 130 "applies to all State…areawide and regional and local CWA water quality management planning and management activities. Including all updates and continuing certifications for approved Water Quality Management (WQM) plans developed under section 208 and 303 of the {Clean Water Act."

O) reliance on local governments to implement the plan, with state or federal sanctions to be imposed only when local governments fail to meet their responsibility as primary management agencies;
P) equitable assignment of all costs for water pollution control;
Q) basinwide consistency in: regulatory and performance standards for water quality; performance under these standards; and enforcement of these standards;
R) consideration, in all decisions on water quality planning and implementation, of environmental impacts of proposed actions;
S) reduction, to a minimum, of adverse environmental impacts that cannot be avoided as a result of the implantation of this areawide plan;
T) compatibility among local, county, areawide and state plans for air, water, land and other resources;
U) incorporation of uniform forecasts of pollution, employment and land use, based on the GCP, into areawide clean water planning and all other elements of the regional planning program;
V) consistency, in areawide planning and implementation with the CGP and supporting functional plans of the Northeastern Illinois Planning Commission (NIPC) ;
W) flexibility in the water quality management system sufficient to respond to changing conditions, problems and opportunities;
X) adequate funding for implementation for the areawide plan and for the continuing planning program established by the plan; and,
Y) citizen involvement in continuing planning for water quality management.

The objectives of the AWQMP remain valid for northeastern Illinois today.

Illinois Water Quality Management Plan

The Illinois Environmental Protection Agency (IEPA) is the pollution control agency for the State, as specified in Section 208(a) (6) of the Clean Water Act. As such, IEPA developed the water quality management plan for all non-designated areas of the State. After IEPA and the three designated areawide planning agencies in Illinois (including NIPC) completed their respective areawide water quality management plans, IEPA determined that the four plans should be combined into one statewide plan, simplifying administration and implementation of these plans. The four areawide planning agencies (IEPA, NIPC, Greater Egypt Regional Planning and Development Commission and the Southwestern Illinois Metropolitan and Regional Planning Commission) as well as other governmental entities and interested parties engaged in a lengthy process that resulted in the *Illinois Water Quality Management Plan* (IWQMP), which was certified by the Governor in May 1983 and submitted to the U.S. EPA for approval. The statewide IWQMP was approved in May 1984.

The IWQMP is to be used to direct implementation of water quality management activities, which includes identifying priority point and nonpoint source water quality problems, considering alternative solutions for those problems and recommending control solutions. (40 CFR 130.6(b)).

The IWQMP "addresses the control of pollution sources, maintenance of stream uses and water quality standards, protection of groundwater resources, and control of hydrographic modifications." (Illinois EPA, IWQMP Amendment Application Package, page 1) It is also intended to assure "sound economical and environmental decision making." (Illinois EPA, IWQMP Amendment Application Package, page 1). The plan identifies the following items as base data for water quality consistency reviews that will ensure effective implementation of the IWQMP:

- Geographic location of wastewater facility planning areas (FPA) boundaries;

- Designated management agencies for collection, treatment and transport within each facility planning area; and
- Current and planned facility treatment capacity, including the identification of all facility locations and discharge points.

IEPA conducts annual updates and amendments to the IWQMP and publishes these in its Division of Water Pollution Control Program Plan. The Facility Planning Area process and amendments to FPA boundaries serve as a vehicle to implement amendments to this plan.

Legislative and Regulatory Authority Resources

1. *The population and employment for which the proposed amendment is designed must fall within the long range forecasts most recently produced by CMAP for the facility planning area. CMAP staff may agree to adjustments as provided in the Process and Procedures Manual.*

   Supporting Legislation, Regulations and Relevant Plans and Policies

   - ***Illinois Water Quality Management Plan,*** Used to direct implementation of water quality management activities, which includes identifying priority point and nonpoint source water quality problems, considering alternative solutions for those problems and recommending control solutions.
   - **Ill. Administrative Code**, *Title 35, Subtitle C, Chap. II, Part 351, Subpart A, Section 351.103(i)*
   - **Demographic Forecasts Reflecting Regional Planning Efforts: CMAP GO TO 2040,** The CMAP *2040 Forecast of Population, Households and Employment*, which was developed in support of the GO TO 2040 comprehensive regional plan adopted on October 13, 2010. These forecasts will be updated to reflect plan updates, the availability of more recent data, etc.

2. *The proposed amendment should not reduce the effectiveness of the water quality improvement strategy contained in the original plan, either for point source or nonpoint source control.*

   Supporting Legislation, Regulations and Relevant Plans and Policies

   - **Illinois Water Quality Management Plan** *(Revised July 1991),* CMAP policies and procedures for determining consistency with point and nonpoint management policies is delineated in Appendices IV and V.)
   - **Clean Water Act**, *Section 402(p), Construction Site Runoff, Urban Runoff,*
   - **Illinois Water Quality Management Plan,** (Stormwater/Nonpoint Source Management)
   - **Illinois Administrative Code** (Floodplain Management), *An Act Related to the Regulation of the Rivers, Lakes and Streams of the State of Illinois (615 ICLS 5/5), Ill. Admin. Code, Title 92, Chap. I, Subchap. i, Pt. 706*
   - **Illinois Water Quality Management Plan and the U.S. Clean Water Act,** These documents provide guidelines to ensure Stream and Wetland Protection, *U.S. Clean Water Act - § 401 & 404, Illinois Interagency Wetland Protection Act and the Illinois Water Quality Management Plan*
   - **CMAP's Water 2050 and Water Conservation Model Ordinance,** The documents include a compilation of the best available information for consistent groundwater protection, CMAP's *Water 2050: Northeastern Illinois Regional Water Supply/Demand Plan*. http://www.cmap.illinois.gov/water-2050 and CMAP's Model Water Use Conservation Ordinance. http://www.cmap.illinois.gov/regional-water-supply-planning
   - **Local Watershed Plans,** These documents assess watershed conditions and outline a course of action to protect both the quality and quantity of water resources within a specific geographic area, *IEPA Watershed Management http://www.epa.state.il.us/water/watershed/index.html*

3. *The proposed amendment should not adversely affect adjoining units of government and should be consistent with local boundary agreements.*

Supporting Legislation, Regulations and Relevant Plans and Policies

- **Illinois Water Quality Management Plan and Ill. Admin. Code:** Provides procedures and requirements for conflict resolution in revising water quality management plans, Ill. Adm. Code Title 35, Subtitle C, Chap. II, Part 351, Subpart B, Section 351.202, 5. http://www.ipcb.state.il.us/SLR/IPCBandIEPAEnvironmentalRegulations-Title35.asp

4. *The proposed amendment should be consistent with other county and regional plans or state policies.*

Supporting Legislation, Regulations and Relevant Plans and Policies

- **Agricultural/Farmland Protection** – Farmland Protection Policy Act (7 USC 4201 et seq.), the Illinois Farm Land Preservation Act (Public Act 82-945) (505 ILCS 75/1), and 8 Illinois Administrative Code 700.10 et seq. (CMAP Procedures and Criteria for Proposed FPA. **Regional Planning:** The Chicago Wilderness Green Infrastructure Vision (GIV) was the basis of the open space recommendations in GO TO 2040. GO TO 2040 recommends that "sewer service should not be permitted in especially sensitive areas of the green infrastructure network. These especially sensitive areas should be precisely defined and identified in a refined version of the GIV, after which they should be specifically excluded from the incremental new area added to expanding facility planning areas" (p. 134).
- **Water Supply Planning,** CMAP's Water 2050 and CMAP's Model Water Use Conservation Ordinance: The documents provide guidance on the best available information for consistent groundwater protection, provides numerous studies on water demand and supplies, and provides over 240 recommendations for water efficiency. http://www.cmap.illinois.gov/water-2050.
- **CMAP's GO TO 2040 Regional Comprehensive Plan,** A comprehensive regional plan to help the region and its communities plan for sustainable region http://www.cmap.illinois.gov/2040/main.

Appendix. VIII. Commonly Used Acronyms

AWQMP	Areawide Water Quality Management Plan
CMAP	Chicago Metropolitan Agency for Planning
CHP	Combined Heat and Power
DMA	Designated Management Agency
FPA	Facility Planning Area
IDOA	Illinois Department of Agriculture
IEPA	Illinois Environmental Protection Agency
IWQMP	Illinois Water Quality Management Plan
NIPC	Northeastern Illinois Planning Commission
NPDES	National Pollution Discharge Elimination System
USEPA	United States Environmental Protection Agency
WWTP	Wastewater Treatment Plant