233 South Wacker Drive Suite 800 Chicago, Illinois 60606

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Wastewater Committee

Agenda Item No 4.2

Date: June 13, 2012

CMAP Water Quality Review #: 12-WQ-003

Applicant: Lakes Region Sanitary District

Re: The Lakes Region Sanitary District (LRSD) has submitted a request to transfer 28.41 acres of land currently within the Lakemoor Sub-FPA (Facility Planning Area) of the Northern Moraine Water Reclamation District (NMWRD) FPA into the LRSD Sub-FPA of the Northwest Lake (NW) FPA.

Based on the policies and recommendations of the *Areavide Water Quality Management Plan for Northeastern Illinois*, the *Illinois Water Quality Management Plan*, local government and agency comments, comments received from various interested and affected parties, and staff's analysis, staff recommends a recommendation of *"Support"* for the proposed amendment request.

Important Note: CMAP is the designated areawide water quality planning agency and the advisory comprehensive regional planning agency for northeastern Illinois. Therefore, CMAP needs to act as a consensus builder by promoting sound planning principles and practices. Though not specifically required by the Illinois Environmental Protection Agency (IEPA), Criteria Nos. 6 – 9 specifically address CMAP's regional role and promote sound planning.

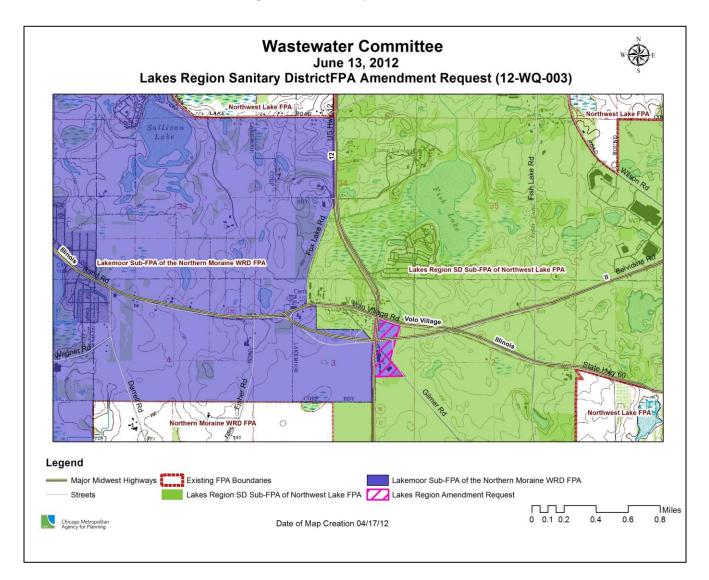
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A. REQUEST SUMMARY

The LRSD has submitted a request to transfer 28.41 acres of land currently within the Lakemoor Sub-FPA of the NMWRD FPA into the LRSD Sub-FPA of the NW FPA. The proposed area is located in the vicinity of the intersection of U.S. Route 12 and Illinois Highway 120, Lake County, Wauconda Township, Sections 2 and 3.

Map of FPA Boundary Amendment Site





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RELATIONSHIP TO RECOMMENDED CRITEIRA FOR FACLITY PLAN AMENDMENTS

In the mid 1970's, the NW Lake Facilities Planning Area (FPA) was located in the northwest corner of Lake County and included in the Chain of Lakes recreational area. It encompassed approximately 1—square mile. The Northwest Lake FPA is a prime recreational area where regional citizens come for water-based recreation which the Chain of Lakes offers. As of 1970, the principal wastewater treatment agencies in the FPA were: the Village of Antioch, Lake Villa and Fox Lake, and the Round Lake Sanitary District.

The Northeastern Illinois Planning Commission's Regional Wastewater Plan called for the construction of an interceptor sewer system designed to phase out the Antioch, Lake Villa, and Round Lake Sanitary District existing treatment plants and to provide service to unsewered areas. Also, the plan called for the Village of Fox Lake to construct a new plant where all FPA wastes would be treated.

Today, the NW Lake FPA is located in northwest Lake County and encompasses approximately 75 square miles. The County of Lake contracts directly with various municipalities and sanitary districts, including the Village of Lakemoor and the Lakes Region Sanitary District, to accept and convey waste water for ultimate treatment at the regional facility owned and operated by the Village of Fox Lake.



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Review Criteria and Staff	Analysis		Results		
1. "The proposed facility and standards for the receiving variance from the Illinois." The LRSD is requesting and amendment is in accordance with NMWRD, the Village of Volca several designated management will primarily serve three designates systems.	osed , the ne of quest				
The subject parcel would be immediately north of the amendment area south of the amendment area Gilmer Road.	e the ately				
Wastewater flows will be tree (NRWRF) in the Village of F tributary to NRWRF. The faci 0.5 MGD. Recent flow data from facility is approximately 7.74 mMGD. The facility's treatment treatment, tertiary filtration, L and sludge dewatering and state that will increase the rated cap the Fox River Watershed. The Company of the NRWRF operates under Name of the Name of th	Il be ty of ty of the 1.26 dary tion, ssion ng to				
The NRWRF operates under N Based on the flow and effluent NRWRF meets and exceeds permit. Until the start of opera	r the DES				
Load Limits lbs/day DA	Load Limits lbs/day DAF (DMF)				
	Monthly Average	Daily Maximum			
CBOD ₅	751 (1,877)	1,501 (3,753)			
Suspended Solids	901 (2,252)	1,801 (4,504)			



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	Phosphorus	Monitor Only			
	Total Nitrogen	Monitor Only			
	рН	Shall be in the rang	e of 6 to 9 Standard Units		
	Fecal Coliform	Daily Maximum Sh	all not exceed 400 per 100 mL		
	Ammonia Nitrogen				
	AprOct	75 (188)	188 (469)		
	Nov. – Feb.	233 (582)	353 (882)		
	March	133 (281)	293 (732)		
the N cfs. T class: 303(c cause aqua aesth susper biphe	e are etion ntial the and total				
2.	within the twenty year	forecast most recently	ne proposed amendment is designed must adopted by the Commission for the fac djustments within the regional forecast to	cility	Consistent
The applicant projects an employment population of 74 in the requested area by the year 2030 which will generate a wastewater flow of 7,400 gpd. The area is located within the existing corporate limits of the Village of Lakemoor. CMAP's 2040 household population equivalent forecast for the Village of Lakemoor's municipal limits is 2,743. The Village's population projections fall well within CMAP's forecasts. As such, Staff issues a finding of consistent with this criterion based on CMAP's 2040 population forecasts.					
3.	"The applicant must den project formally accept j	nonstrate that the uni financial responsibility action or failure. Such a	t of local government granting zoning to for the wastewater treatment system in acceptance must be in the form of a resolu	ı the	Not Applicable
	requested amendment docutely-owned treatment faci		nstruction, operation or modification	of a	
4.	· ·		uce the effectiveness of the water qu al plan, either for point or nonpoint so		Consistent



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control."	
Point Source Impacts (See analysis under Criterion #1)	
Nonpoint Source Impacts The amendment request is subject to the Lake County Watershed Development Ordinance. The ordinance has provisions for storm water management, soil erosion and sediment control, floodplain management, and stream and wetland protections. The ordinance is consistent with CMAP's model ordinances.	
There are no wetlands or floodplains within the amendment area.	
The applicant requested an Illinois Department of Natural Resources (IDNR) Endangered Species Protection and Natural Areas Preservation Review for the project site. IDNR's Ecocat Ecological Compliance Assessment Tool suggests that three protected resources may be present in the vicinity of the amendment area including the Black Tern, the Common Moorhen, and the Least Bittern. The applicant suggested that the likelihood of any endangered species in the area is unlikely since the amendment area is already developed. However, Staff recommends that the applicant receive signoff from IDNR to ensure negative impacts to endangered species will not occur.	
The Illinois Historical Preservation Society determined that there are no significant known historical or cultural resources in the area.	
STAFF RECOMMENTATION : The LRSD should obtain a signoff letter from the IDNR as part of the IDNR Endangered Species consultation.	
5. "The proposed amendment should not adversely affect the cost-effectiveness of the Areawide Water Quality Management Plan for meeting water quality standards in the facility planning areas as a whole."	Consistent
The applicant provided two treatment alternatives including the following:	
 <u>Alternative No. 1:</u> Connection to the Northern Moraine Wastewater Reclamation District (NMWRD) Sewer System <u>Alternative No. 2</u>: Land Treatment 	
As part of Alternative No. 1, wastewater treatment service from the NMWRD would require the extension of a new sewer along Darrell Road and Fisher Road. Local sanitary sewer in the existing FPA would then covey sewage to an 8-inch sewer crossing at Illinois Route 120. Sewage flows would be serviced by a new lift station. New forcemain would need to be	



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constructed to connect to the NMWRD interceptor. The estimated total costs to provide service for this alternative totaled \$200,100.	
Alternative No. 2 evaluated the use of a land application system. According to the USDA Soil Survey for Lake County, soils in the area are classified as "very limited" and not conducive to an on-site sanitary treatment facility. As such, the applicant dismissed this alternative. Cost estimates to implement this alternative were not provided.	
The applicant's selective alternative includes connection to the LRSD sewer system. This alternative was selected due to the close proximity of existing LRSD sewers to the request. The amendment is also in accordance with a Memorandum of Understanding between LRSD, NMWRD, Lake County, and the Villages of Lakemoor and Volo.	
Costs associated with this alternative include \$48,100 for collection sewers and a \$207,420 connection fee. The total estimated cost to provide service to the amendment area is \$255,520. There are no proposed residential units within the amendment area. Therefore, no monthly estimated per household monthly cost will be assessed.	
6. "The proposed amendment should have the endorsement of the designated management agency for wastewater treatment and substantial support by the municipalities within the affected facility planning area."	Consistent
On March 8, 2012, the Lakes Region Sanitary Board endorsed submittal of the amendment application.	
7. "The proposed amendment should not adversely affect adjoining units of government."	Consistent
The amendment request is part of an Intergovernmental Agreement between the Village of Lakemoor, Lake County, the Village of Volo, the LRSD, and the NMWRD. Staff received letters in support of the amendment from the NMWRD and the Village of Lakemoor.	
8. "The proposed amendment should be consistent with other county and regional or state policies, such as the Governor's Executive Order #4 on the preservation of agricultural land."	Consistent
The Illinois Department of Agriculture did not submit a letter in support or in opposition to the amendment request prior to completion of staff's review. The agency indicated however, that a letter voicing no comments for the request was forthcoming.	
9. "Consideration will be given to evidence of municipal or county zoning approval and commencement of development activity prior to Areawide Water Quality Management Plan adoption in January 1979."	Not Applicable