

RICHMOND
DARIEN

TURTLE CREEK
WILDLIFE AREA

AMENDMENT TO THE

REGIONAL WATER QUALITY MANAGEMENT PLAN

WALWORTH COUNTY METROPOLITAN SEWERAGE DISTRICT/VILLAGE OF DARIEN/ TOWN OF DARIEN

DARIEN
SHARON

COUNTY
PARK

DELBROOK
GOLF
COURSE

DELAN

DELAN
LAKE

AS ADOPTED BY THE

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

SEPTEMBER 1994

**SOUTHEASTERN WISCONSIN
REGIONAL PLANNING COMMISSION**

KENOSHA COUNTY

Leon T. Dreger
Thomas J. Gorkinski
Sheila M. Siegler

RACINE COUNTY

David B. Falstad, Chairman
Martin J. Itzin
Jean M. Jacobson,
Secretary

MILWAUKEE COUNTY

Daniel J. Diliberti
William Ryan Drew
Patrick Marchese

WALWORTH COUNTY

John D. Ames
Anthony F. Balestrieri
Allen L. Morrison,
Vice-Chairman

OZAUKEE COUNTY

Leroy A. Bley
Thomas H. Buestrin,
Treasurer
Elroy J. Schreiner

WASHINGTON COUNTY

Daniel S. Schmidt
Patricia A. Strachota
Frank F. Uttech

WAUKESHA COUNTY

Duane H. Bluemke
Robert F. Hamilton
Paul G. Vrakas

**SOUTHEASTERN WISCONSIN REGIONAL
PLANNING COMMISSION STAFF**

Kurt W. Bauer, PE, AICP, RLS Executive Director
Philip C. Evenson, AICP Assistant Director
Kenneth R. Yunker, PE Assistant Director
Robert P. Biebel, PE Chief Environmental Engineer
Leland H. Kreblin, RLS Chief Planning Illustrator
Elizabeth A. Larsen Administrative Officer
Donald R. Martinson, PE Chief Transportation Engineer
John R. Meland Chief Economic Development Planner
Thomas D. Patterson Geographic Information Systems Manager
Bruce P. Rubin Chief Land Use Planner
Roland O. Tonn, AICP Chief Community Assistance Planner

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

916 N. EAST AVENUE • P.O. BOX 1607 • WAUKESHA, WISCONSIN 53187-1607 • TELEPHONE (414) 547-6721
TELECOPIER (414) 547-1103

Serving the Counties of
KENOSHA
MILWAUKEE
OZAUKEE
RAVINE
WALWORTH
WASHINGTON
WAUKESHA

SUBJECT: Certification of Amendment to the Adopted Regional Water Quality Management Plan (Walworth County Metropolitan Sewerage District/Village of Darien/Town of Darien)

TO: The Legislative Bodies of Concerned Local Units of Government within the Southeastern Wisconsin Region, namely: the County of Walworth, the Village of Darien, the Town of Darien, and the Walworth County Metropolitan Sewerage District

This is to certify that at the quarterly meeting of the Southeastern Wisconsin Regional Planning Commission, held at the Ozaukee County Courthouse, Port Washington, Wisconsin, on the 7th day of September 1994, the Commission did by unanimous vote by all Commissioners present, being 16 ayes and 0 nays, and by appropriate Resolution, a copy of which is made a part hereof and incorporated by reference to the same force and effect as if it had been specifically set forth herein in detail, adopt an amendment to the regional water quality management plan, which plan was originally adopted by the Commission on the 12th day of July 1979 as part of the master plan for the physical development of the Region. Said amendment to the regional water quality management plan pertains to the Village of Darien, the Town of Darien, and the Walworth County Metropolitan Sewerage District, and consists of the documents attached hereto and made a part hereof. Such action taken by the Commission is recorded on, and is a part of, said plan, and the plan as amended is hereby transmitted to the constituent local units of government for consideration, adoption, and implementation.

IN TESTIMONY WHEREOF, I have hereunto set my hand and seal and cause the Seal of the Southeastern Wisconsin Regional Planning Commission to be hereto affixed. Dated at the City of Waukesha, Wisconsin, this 8th day of September 1994.



David B. Falstad, Chairman
Southeastern Wisconsin
Regional Planning Commission

ATTEST:



Kurt W. Bauer, Deputy Secretary

(This page intentionally left blank)

RESOLUTION NO. 94-15

RESOLUTION OF THE SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION AMENDING THE ADOPTED REGIONAL WATER QUALITY MANAGEMENT PLAN, THAT PLAN BEING A PART OF THE MASTER PLAN FOR THE PHYSICAL DEVELOPMENT OF THE REGION COMPRISED OF THE COUNTIES OF KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WALWORTH, WASHINGTON, AND WAUKESHA IN THE STATE OF WISCONSIN (WALWORTH COUNTY METROPOLITAN SEWERAGE DISTRICT/ VILLAGE OF DARIEN/TOWN OF DARIEN)

WHEREAS, pursuant to Section 66.945(10) of the Wisconsin Statutes, the Southeastern Wisconsin Regional Planning Commission, at a meeting held on the 12th day of July 1979, duly adopted a regional water quality management plan as documented in the three-volume SEWRPC Planning Report No. 30, A Regional Water Quality Management Plan for Southeastern Wisconsin: 2000; and

WHEREAS, the adopted regional water quality management plan recommends that the Village of Darien expand its sewage treatment plant and provide an advanced level of waste treatment to serve the Darien sanitary sewer service area; and

WHEREAS, the Village of Darien has conducted detailed facility planning studies relative to expansion of its sewage treatment plant and, based upon those studies, has concluded that it would be more cost-effective and environmentally sound to abandon its sewage treatment plant and convey sewage to the Walworth County Metropolitan Sewerage District system for treatment and disposal; and

WHEREAS, the Walworth County Metropolitan Sewerage District and the Village of Darien, by letters dated August 5, 1994, and August 18, 1994, respectively, have requested the Commission to amend the regional water quality management plan to recommend that the Walworth County Metropolitan Sewerage District provide service to the Village of Darien; and

WHEREAS, the proposed change to the regional water quality management plan has been reviewed in a Commission staff memorandum entitled, "Response to Request by Village of Darien and Walworth County Metropolitan Sewerage District to Amend the Regional Water Quality Management Plan," dated September 2, 1994, attached hereto and made a part hereof, which memorandum concludes that the plan amendment sought is sound and in the public interest; and

WHEREAS, Section 66.945(9) of the Wisconsin Statutes authorizes and empowers the Regional Planning Commission, as the work of making the whole master plan progresses, to amend, extend, or add to the master plan, or carry any part or subject matter thereof into greater detail;

NOW, THEREFORE, BE IT HEREBY RESOLVED:

FIRST: That the regional water quality management plan for the Southeastern Wisconsin Region, being a part of the master plan for the physical development of the Region and comprised of SEWRPC Planning Report No. 30, Volumes One, Two, and Three, which was adopted by the Commission as part of the master plan on the 12th day of July 1979, be and the same hereby is amended as follows:

1. The current designation of the Darien sewage treatment facility as a permanent facility is removed from the plan and replaced with a designation recommending plant abandonment.
2. A trunk sewer providing for the connection of the Village of Darien to the sanitary sewerage system operated by the Walworth County Metropolitan Sewerage District substantially in the manner identified on Map 1 of the aforementioned memorandum dated September 2, 1994, is added to the plan.

3. The sewage treatment facility owned and operated by the Walworth County Metropolitan Sewerage District is designated as the receiving facility for sewage from the Darien sewer service area.

SECOND: That a true, correct, and exact copy of this resolution and its attachments shall be forthwith distributed to each of the local legislative bodies of the governmental units within the Region entitled thereto and to such other bodies, agencies, or individuals as the law may require, or as the Commission, its Executive Committee, or its Executive Director, at their discretion, shall determine and direct.

The foregoing resolution, upon motion duly made and seconded, was regularly adopted at the meeting of the Southeastern Wisconsin Regional Planning Commission held on the 7th day of September 1994, the votes being: Ayes 16, Nays 0.



David B. Falstad, Chairman

ATTEST:



Kurt W. Bauer, Deputy Secretary

SEWRPC STAFF MEMORANDUM

RESPONSE TO REQUEST BY THE VILLAGE OF DARIEN AND THE WALWORTH COUNTY METROPOLITAN SEWERAGE DISTRICT TO AMEND THE REGIONAL WATER QUALITY MANAGEMENT PLAN

INTRODUCTION

By letters dated August 4, 1994, from the Walworth County Metropolitan Sewerage District (WalCoMet), and August 18, 1994, from the Village of Darien, the District and the Village have requested that the Southeastern Wisconsin Regional Planning Commission amend the regional water quality management plan to provide for connection of the Village of Darien sewer service area to the WalCoMet sewerage system for sewage treatment purposes. The current sanitary sewer service area for the Village of Darien is documented in SEWRPC Community Assistance Planning Report No. 123 (2nd Edition), Sanitary Sewer Service Area for the Village of Darien, Walworth County, Wisconsin, July 1992. The currently planned sewer service area of the District is documented in SEWRPC Community Assistance Planning Report No. 56 (2nd Edition), Sanitary Sewer Service Areas for the Walworth County Metropolitan Sewerage District, Walworth County, Wisconsin, November 1991. The purpose of this memorandum is to respond to the Village and District requests and recommend an appropriate course of action.

The basic purpose of the amendment, as requested by both the Village and the District, would be to: 1) add an intercommunity trunk sewer to connect the Village of Darien sewer service area to the WalCoMet sewerage system and 2) to delete the Village of Darien sewage treatment plant as a permanent facility.

BACKGROUND

In 1979 the Commission adopted the regional water quality management plan to meet the planning requirements established by Section 208 of the Federal Clean Water Act and corresponding State legislation.¹ In that plan, evaluations were made of an alternative which maintained the Village of Darien sewage treatment plant as a permanent facility through the year 2000 and of an alternative which would provide for connection of the Darien service area to the WalCoMet sewerage system for treatment purposes. The analysis conducted at that time indicated the two alternatives to be essentially equal in cost. Based upon considerations other than cost, the alternative providing for separate treatment facilities was selected as the recommended plan.

The plan thus recommended that the Village of Darien sewage treatment plant be upgraded and expanded. To date that recommended upgrading and expansion has not occurred. The facilities planning conducted in recent months by the Village has reconsidered the alternative of connecting the Village sewer service area to WalCoMet. In addition, WalCoMet has recently completed facility planning of its sewerage system and has initiated a sewage treatment plant upgrading and expansion to increase its capacity from 3.6 million gallons per day (mgd) to 5.6 mgd on an average annual basis.

¹ See SEWRPC Planning Report No. 30, A Regional Water Quality Management Plan for Southeastern Wisconsin: 2000, Volume Three, Recommended Plan, June 1979.

Table 1

SUMMARY OF ECONOMIC-ANALYSIS COST ESTIMATES OF ALTERNATIVE SEWERAGE SYSTEM PLAN FOR THE VILLAGE OF DARIEN SEWERAGE SYSTEM

Alternatives	Initial Capital Cost	20-Year Operation and Maintenance Cost	20-Year Present Worth ^a
Alternative A: Construct New Parallel Compact Sewage Treatment Plant at Current Darien Site	\$1,132,400	\$116,700	\$2,268,200
Alternative C: Convey Sewage from Darien to WalCoMet	\$ 979,700	\$ 22,200	\$1,489,400

^aThe economic analysis was conducted assuming a 20-year analysis period and an 8.75 percent interest rate.

Source: Crispell-Snyder, Inc.

SEWERAGE FACILITIES PLAN

In support of its request to amend the regional water quality management plan, the Village of Darien has prepared and submitted to the Commission several sewerage facilities planning documents.² These sewerage facilities planning documents examined three basic alternatives. Two of those alternatives would expand and upgrade the existing sewage treatment plant serving the Village of Darien. The third alternative would provide for abandonment of that plant and connection of the Village of Darien sewer service area to the Walworth County Metropolitan Sewerage District sewerage system. The lowest cost local plant alternative and the alternative providing for connection to WalCoMet were used to refine the cost-effectiveness analysis as part of the 1993 supplemental evaluation. The point of connection to the WalCoMet system is located about two and one-half miles northeast of the Village. The cost-effectiveness analysis prepared in 1993 indicates that the alternative providing for a connection to WalCoMet has an estimated present worth cost of \$1,489,000, which is 34 percent less than the estimated present worth cost of Alternative A, which provides for a new local sewage treatment plant (see Table 1).

On the basis of that cost-effectiveness analysis, the Village of Darien and WalCoMet recommended selection of the alternative providing for connection of the Village sewer service area to WalCoMet (see Map 1). The Commission staff concurs in that recommendation on the basis of an independent review of the cost-effectiveness analysis. The proposed abandonment of the Darien sewage treatment plant is sound and would be in the public interest.

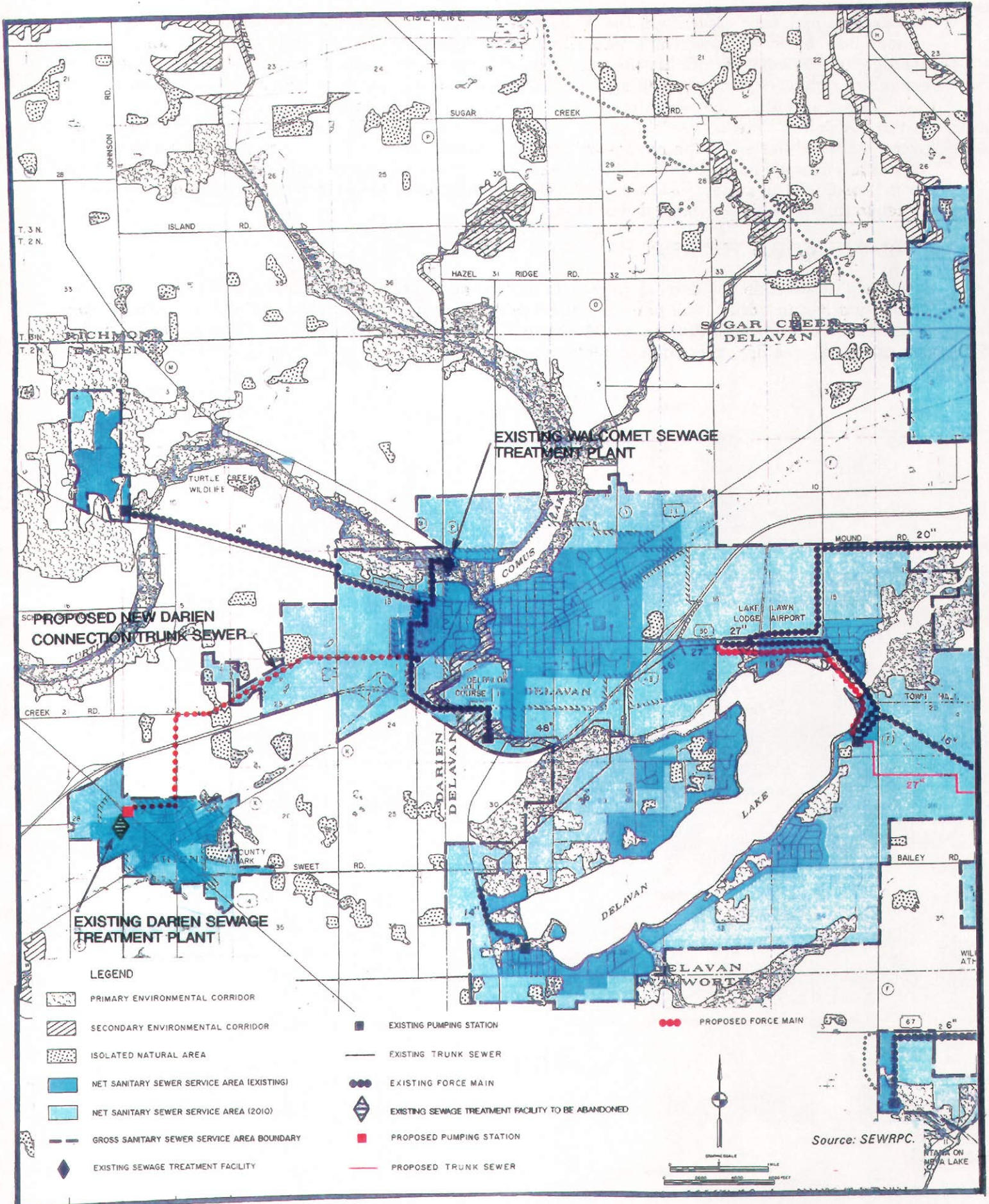
PROPOSED AMENDMENT TO REGIONAL WATER QUALITY MANAGEMENT PLAN

Given the foregoing, it is proposed that the regional water quality management plan be amended to: 1) recommend the abandonment of the existing Darien sewage treatment plant, 2) recommend the construction of a trunk sewer to convey wastes from the Village of Darien to the WalCoMet system, and 3) designate the WalCoMet treatment plant as the receiving facility for wastes from the Village of Darien.

²Crispell-Snyder, Inc., *Facilities Plan for the Village of Darien*, January 1979; Crispell-Snyder, Inc., *Facilities Plan Amendment, Village of Darien*, February 20, 1992; and Crispell-Snyder, Inc., *Supplemental Facilities Planning Cost-Effective Analysis Data*, April 21, 1993.

Map 1

PROPOSED AMENDMENT TO THE REGIONAL WATER QUALITY MANAGEMENT PLAN PROVIDING FOR CONNECTION OF THE VILLAGE OF DARIEN TO THE WALCOMET SEWERAGE SYSTEM



SEWAGE TREATMENT PLANT CAPACITY IMPACT ANALYSIS

The present hydraulic capacity of the WalCoMet sewage treatment plant is 3.86 mgd on an average annual flow basis. The current average hydraulic loading on the plant is about 3.10 mgd on an average annual basis. WalCoMet has recently initiated an expansion and upgrading of its plant to expand the plant capacity to 5.60 mgd as the first of two phases to provide a total capacity of 7.60 mgd. The WalCoMet expansions proposals assumed the future connection of the Village of Darien to the WalCoMet system. The Village of Darien sewage loading is currently about 0.10 mgd on an average annual basis. The planned year 2010 flow rate from the Village is expected to be about 0.23 mgd on an average daily flow basis. Thus, adequate sewage treatment plant capacity currently exists on the basis of the current loadings and will be available in the long term through the expansion of the plant, which will be completed in 1996.

PUBLIC REACTION TO THE PLAN

Because this amendment derived from a local sewerage facilities plan prepared by the Village of Darien and because that local planning effort included an adequate public participation process, the Commission did not hold its own public hearing on this matter. The Village of Darien held a public informational meeting concerning the plant abandonment proposal on August 15, 1994.