Racine Water and Wastewater Utilities

Keith E. Haas, P.E. General Manager



Michael L. Gitter, P.E. Chief of Operations Kenneth M. Scolaro, C.P.A. Administrative Manager

Chad W. Regalia, P.E. Chief Engineer

November 13, 2018

Mr. Tom Christensen Administrator Village of Caledonia 5043 Chester Lane Racine, WI 53402

SUBJECT: Revisions to Exhibits F1(a) and Exhibit E of the Sewer Service Agreement as a Result of a Transfer of 1 MG of capacity from Caledonia to Mount Pleasant

Dear Mr. Christensen:

The Racine Wastewater Commission, at its July 31, 2018, Commission meeting, approved the transfer of 1 MG of average day capacity from Caledonia to Mt. Pleasant. In doing so, modifications to Exhibit F1(a) and Exhibit E of the Racine Area Intergovernmental Sanitary Sewer Service, Revenue Sharing, Cooperation and Settlement Agreement dated April 25, 2002 were necessary. The item for certification of this transfer was on the agenda for July 31, 2018 and passed with an affirmative vote with representatives from Racine, Caledonia and Mt. Pleasant present, all voting in the affirmative.

A copy of the revisions to Exhibits F1(a) and Exhibit E are included with this letter and should be placed into your original copy of the sewer agreement for future use and reference. A few additional copies are provided in case your engineers or attorneys need them.

If any Party has any questions, please do not hesitate to call or contact your designated representative on the Wastewater Commission.

Sincerely,

Keith E. Haas General Manager

Enclosures

c: P. Kent (Stafford Rosenbaum) W. Mielke (Ruekert-Mielke)

Exhibit F1(a)

Conveyance Capacity Allocation

2020 Facilities Plan Model Values

Entry Point Location ¹	Peak Hourly Flow Allocation ² (MGD)	Flow Allocation 2020 Facilities Plan MIKE URBAN Simulated Flow ³ (MGD)
Caledonia West ⁸	10.542	14.182
Caledonia East ⁸	13.074	16.265
Caledonia I-94 Area	1.100	1.100
Caledonia Total	24.716	31.547
MP 11	3.128	3.129
MP 12	1.561	1.562
MP 13 ⁴	3.070	3.070
MP 14 ⁵	1.730	1.730
MP 16	0.648	0.649
Colonial Heights Meter	0.290	0.290
Downstream of MP 11 (unmetered)	0.259	0.259
Downstream of MP 12 (unmetered)	0.030	0.030
Downstream of MP 13 (unmetered) ⁴	0.446	0.446
Downstream of MP 14 (unmetered) ⁵	0.270	0.270
M04107-Z0055 (MP 15) (unmetered)	0.246	0.246
Enters at U0050 (unmetered)	0.160	0.160
M08006-M08005 (MP 17) (unmetered)	0.852	0.852
M08003 (MP 18) (unmetered)	0.061	0.061
Bryn Mawr (minus Sturtevant, Caledonia and Racine)	74.679	74.690
MP Allocation to Wastewater Treatment Plant ⁽⁸⁾	6.694	
Mount Pleasant Total	94.124	87.444
Sturtevant Total	10,180	10.182
RA Echo Lane ^{5,6,7}	2.200	2.200
Racine Total	111.320	111.320

- ${\bf 1.}\ Locations\ include\ both\ metered\ and\ unmetered\ areas\ within\ the\ service\ area.$
- 2. Based on 2020 Facilities Plan MIKE URBAN flows with adjustments for unmetered areas within Racine.
- 3. MIKE URBAN hydraulic model results.
- 4. Flow allocations revised based upon modeled data to reflect additional conveyance capacity due to the downstream Ohio Street and Grove Avenue Storage projects.
- 5. Flow allocations revised based upon modeled data to reflect additional conveyance capacity due to the relay of sewers in Kinzie Avenue from Ostergaard Avenue to Echo Lane and Echo Lane from Kinzie Avenue to Lindermann Avenue. Mount Pleasant allocations were negotiated with the Commission (see note 6). A Racine flow meter (RA Echo Lane) was added at the downstream end of the interceptor sewer upgrade project, near the intersection of Echo Lane and Lindermann Avenue.
- 6. The City of Racine purchased 1.28 MGD of remaining excess capacity in the Kinzie-Edho sewer system that the Commission was holding. The motion to purchase this capacity was approved at the 9/26/17 Commission Meeting. See not 7 for additional details on the purchased capacity.
- 7. Commission modeling showed a need for 3.218 MGD of capacity in the Kinzie-Echo interceptor sewer. The Commission purchased 0.298 MGD of excess capacity through negotiations with Mount Pleasant, who did not believe they were in need of this much capacity. Additionally, the originally recommended 18-inch Kinze-Echo sewer upgrade, which was sized to convey a flow of 3.218 MGD, was upsized during construction to a 21-inch pipe with a flow capacity of 4.2 MGD. The Commission picked up the cost of the interceptor sewer oversizing, increasing their allocated capacity by 0.982 MGD (4.2 MGD minus 3.218 MGD), for a total purchased capacity of 1.28 MGD (0.298 MGD plus 0.982 MGD).
- 8. Caledonia has transferred 1.0 MGD of Average Day Flow to Mount Pleasant. The resulting Peak Hourly Flow using Standard Transfer Units (6.694 MGD) has been removed from Caledonia West and Caledonia East. The flow transferred to Mount Pleasant will be conveyed directly to the Wastewater Treatment Plant. Therefore, additional Peak Hourly Flow will not be allocated to Mount Pleasant within the existing system.

Exhibit E

Average Peak Average Peak Daily TKN Monthly TKN Daily P Monthly P	(lbs.) (lbs.)	2,253 3,019 425 54							901 1,208 170 213
Peak Aver Monthly TSS Daily			18,194			•	1700		1+7-6
Average Daily TSS	(100.)	17,796	13,888		•	•	7.054		100,1
Peak Monthly BOD (lbs.)	17 400	17,400	12,208	1		•	6826		
Average Daily BOD (lbs.)	14 555		10,173	•			5.716		
Peak Monthly Flow (mgd)	23.20		15.63	•		•	6.97	:	
Peak Hour Flow (mgd)					٠		•	10.10	
Average Peak Day Flow Day Flow (mgd) (mgd)	90.59	17.13	17:10	•			18.32	6.04	
Average Day Flow (mgd)	17.06	11.49		•			5.13	1 78	

Includes Villages of North Bay and Elmwood Park, excludes Colonial Heights.
 Includes Colonial Heights.
 includes Wind Point (from North Park).
 Includes Wand Point (from North Park).
 Includes transfer of I. 0 MGD of Average Day Flow from Caledonia to Mount Pleasant.

Racine

Exhibit E1

Capacity Allocations

Revision #8 - Transfer of 1.0 MGD of Average Day Flow from Caledonia to Mount Pleasant

Classifications: SSP, SSR, OAE, RSP

Average Day Flow (mgd)	17.06
Peak Day Flow (mgd)	90.59
Peak Hour Flow (mgd)	109.12
Peak Monthly Flow (mgd)	23.20
Average Daily BOD (lbs.)	14,555
Peak Monthly BOD (lbs.)	17,466
Average Daily TSS (lbs.)	17,796
Peak Monthly TSS (lbs.)	23,313
Average Daily TKN (lbs.)	2,253
Peak Monthly TKN (lbs.)	3,019
Average Daily P (lbs.)	425
Peak Monthly P (lbs.)	543

Allocated Conveyance Capacity

See Exhibit F

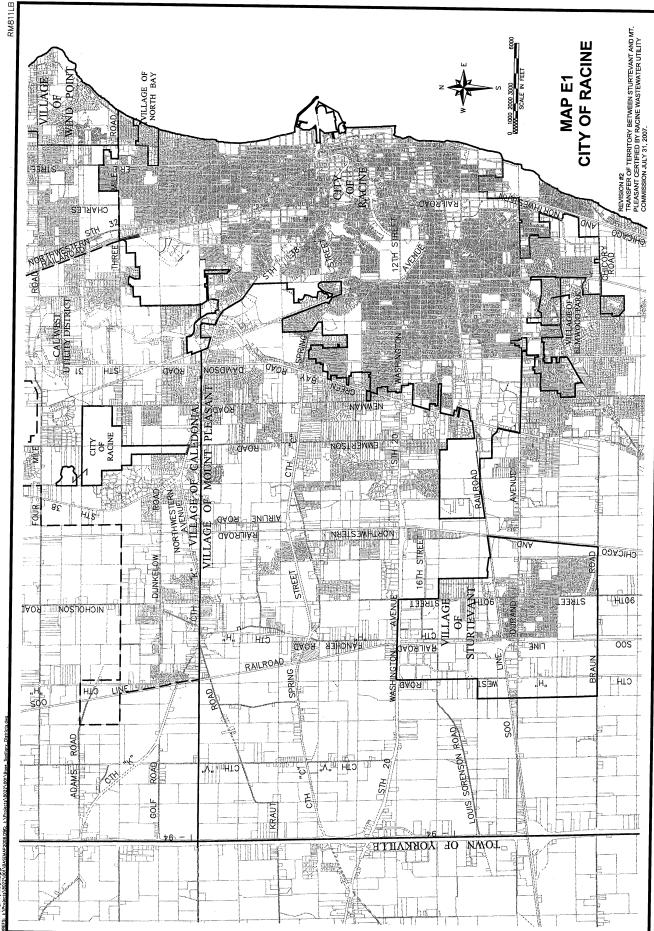
Notice Addressee

City Clerk Room 102 730 Washington Ave. Racine, Wl. 53403

City Attorney 730 Washington Ave. Racine, WI. 53403

Note:

1. Includes the Village of North Bay and Elmwood Park



Layout

THE DESIGNATED SSR, OAE AND RSP TERRITORIES OF RACINE EACH INCLUDES THE ENTIRE TERRITORY OF RACINE, EXCEPT THAT THE TWO CITY ISLANDS WITHIN CALEDONIA ARE NOT INCLUDED IN RACINE'S SSR TERRITORY. ADDITIONALLY, RACINE'S DESIGNATED SSR TERRITORY WILL INCLUDE NORTH BAY AND ELMWOOD PARK WHEN THEY BECOME A PARTY.

Mount Pleasant Capacity Allocations

Exhibit E2

Revision #8 - Transfer of 1.0 MGD of Average Day Flow from Caledonia to Mount Pleasant

Classifications: SSR, OAE, RSP

Allocated Treatment Capacity (1)	
Average Day Flow (mgd)	11.49
Peak Day Flow (mgd)	51.71
Peak Hour Flow (mgd)	91.04
Peak Monthly Flow (mgd)	15.63
Average Daily BOD (lbs.)	10,173
Peak Monthly BOD (lbs.)	12,208
Average Daily TSS (lbs.)	13,888
Peak Monthly TSS (lbs.)	18,194
Average Daily TKN (lbs.)	1,396
Peak Monthly TKN (lbs.)	1,870
Average Daily P (lbs.)	290
Peak Monthly P (lbs.)	371

Allocated Conveyance Capacity

See Exhibit F

Notice Addressee

Town Administrator 6126 Durand Ave. Racine, WI. 53406

- 1. Includes Somers KR Sanitary District & Colonial Heights
- 2. Includes transfer of 1.0 MGD of Average Day Flow from Caledonia to Mount Pleasant.

TOWN OF YORKVILLES TOWN

THE DESIGNATED SSR, OAE AND RSP TERRITORIES OF MT. PLEASANT EACH INCLUDE THE ENTIRE TERRITORY OF MT. PLEASANT AS SHOWN. ADDITIONALLY, MT. PLEASANT'S SSR TERRITORY WILL INCLUDE THE SOMERS KR DISTRICT WHEN SOMERS BECOMES A PARTY.



Yorkville

Exhibit E3

Capacity Allocations

Revision #8 - Transfer of 1.0 MGD of Average Day Flow from Caledonia to Mount Pleasant

Classifications: SSR, OAE, RSP

Allocated Treatment Capacity

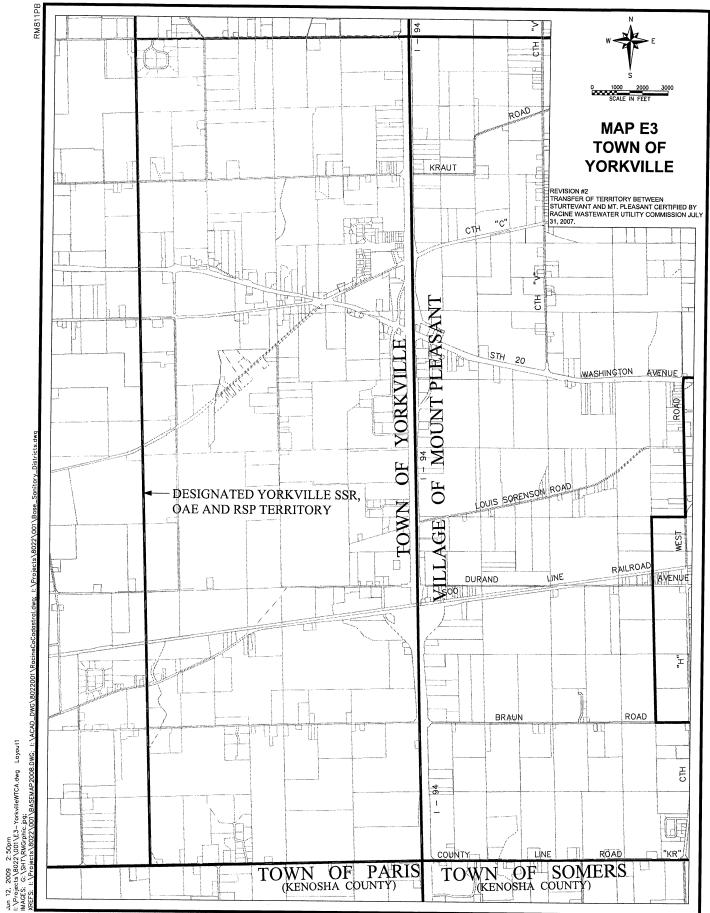
Average Day Flow (mgd)	0
Peak Day Flow (mgd)	0
Peak Hour Flow (mgd)	0
Peak Monthly Flow (mgd)	0
Average Daily BOD (lbs.)	0
Peak Monthly BOD (lbs.)	0
Average Daily TSS (lbs.)	0
Peak Monthly TSS (lbs.)	0
Average Daily TKN (lbs.)	0
Peak Monthly TKN (lbs.)	0
Average Daily P (lbs.)	0
Peak Monthly P (lbs.)	0

Allocated Conveyance Capacity

Not Applicable

Notice Addressee

Town Clerk 720 Main Street P.O. Box 15 Union Grove, WI. 53182



[WHEN YORKVILLE BECOMES A PARTY]

Ruekert · Mielke engineering solutions for a working world

Raymond

Exhibit E4

Capacity Allocations

Revision #8 - Transfer of 1.0 MGD of Average Day Flow from Caledonia to Mount Pleasant

Classifications: SSR, OAE, RSP

Allocated Treatment Capacity

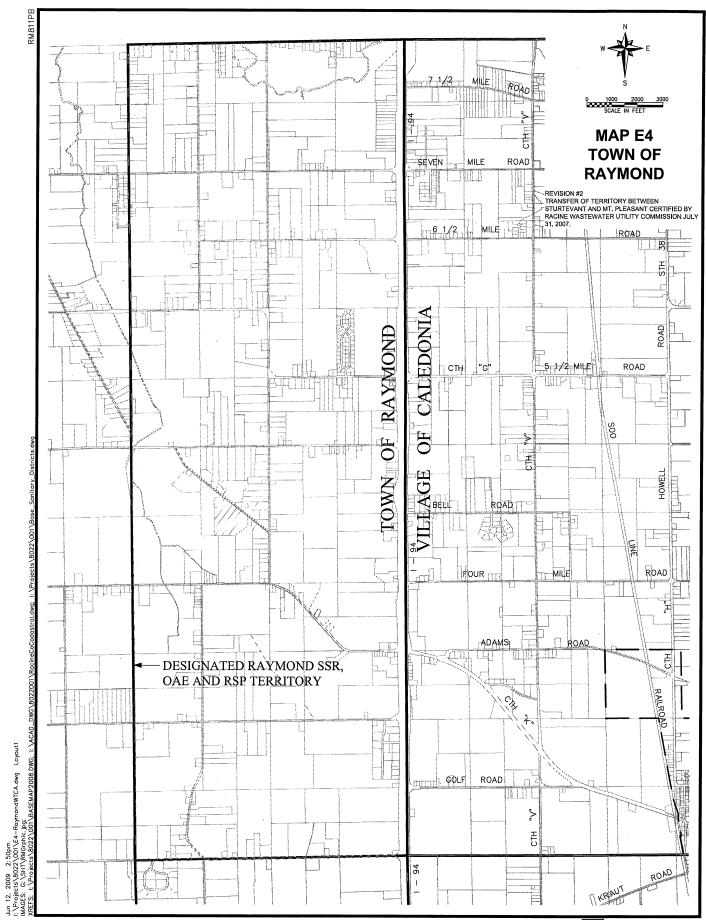
Average Day Flow (mgd)	0
Peak Day Flow (mgd)	0
Peak Hour Flow (mgd)	0
Peak Monthly Flow (mgd)	0
Average Daily BOD (lbs.)	0
Peak Monthly BOD (lbs.)	0
Average Daily TSS (lbs.)	0
Peak Monthly TSS (lbs.)	0
Average Daily TKN (lbs.)	0
Peak Monthly TKN (lbs.)	0
Average Daily P (lbs.)	0
Peak Monthly P (lbs.)	0

Allocated Conveyance Capacity

Not Applicable

Notice Addressee

Town Clerk 2255 South 76th Street Franksville, WI. 53126-9539



[WHEN RAYMOND BECOMES A PARTY]

Ruekert · Mielke
engineering solutions for a working world

Caledonia

Exhibit E5

Capacity Allocations

Revision #8 - Transfer of 1.0 MGD of Average Day Flow from Caledonia to Mount Pleasant

Classifications: SSR, OAE, RSP

Allocated Treatment Capacity

and a second compared by	
Average Day Flow (mgd)	5.13
Peak Day Flow (mgd)	18.32
Peak Hour Flow (mgd)	24.72
Peak Monthly Flow (mgd)	6.97
Average Daily BOD (lbs.)	5,716
Peak Monthly BOD (lbs.)	6,859
Average Daily TSS (lbs.)	7,054
Peak Monthly TSS (lbs.)	9,241
Average Daily TKN (lbs.)	901
Peak Monthly TKN (lbs.)	1,208
Average Daily P (lbs.)	170
Peak Monthly P (lbs.)	218

Allocated Conveyance Capacity

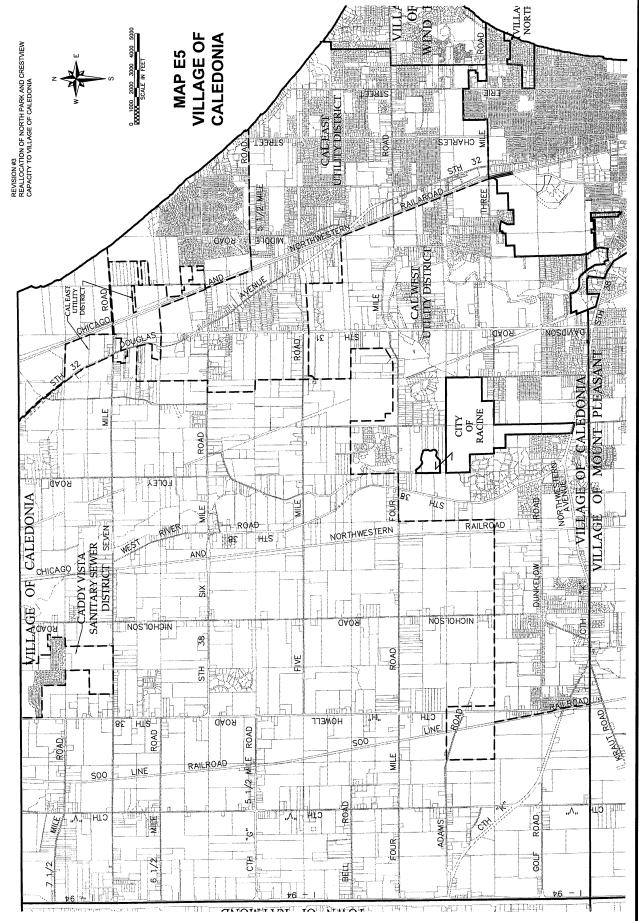
See Exhibit F

Notice Addressee

Town Administrator 6922 Nicholson Road Caledonia, WI. 53108 Caledonia Water & Sewer Utility No. 1 8225 Nicholson Road Caledonia, WI. 53108

Note:

1. Includes transfer of 1.0 MGD of Average Day Flow from Caledonia to Mount Pleasant.



THE CALIDONIA DESIGNATED SSR TERRITORY INCLUDES THE ENTIRE TERRITORY OF CALEDONIA AS SHOWN, INCLUDING THE FORMER NORTH PARK AND CRESTVIEW DISTRICTS, BUT EXCLUDING THE CADDY VISTA DISTRICT, AND ALSO INCLUDES THE TWO RACINE ISLANDS IN CALEDONIA. THE CALEDONIA OAE AND RSP TERRITORIES EACH INCLUDES THE ENTIRE TERRITORY OF CALEDONIA.

Ruekert-Mielke

Sturtevant

Exhibit E6

Capacity Allocations

Revision #8 - Transfer of 1.0 MGD of Average Day Flow from Caledonia to Mount Pleasant

Classifications: SSR, OAE, RSP

Allocated Treatment Capacity

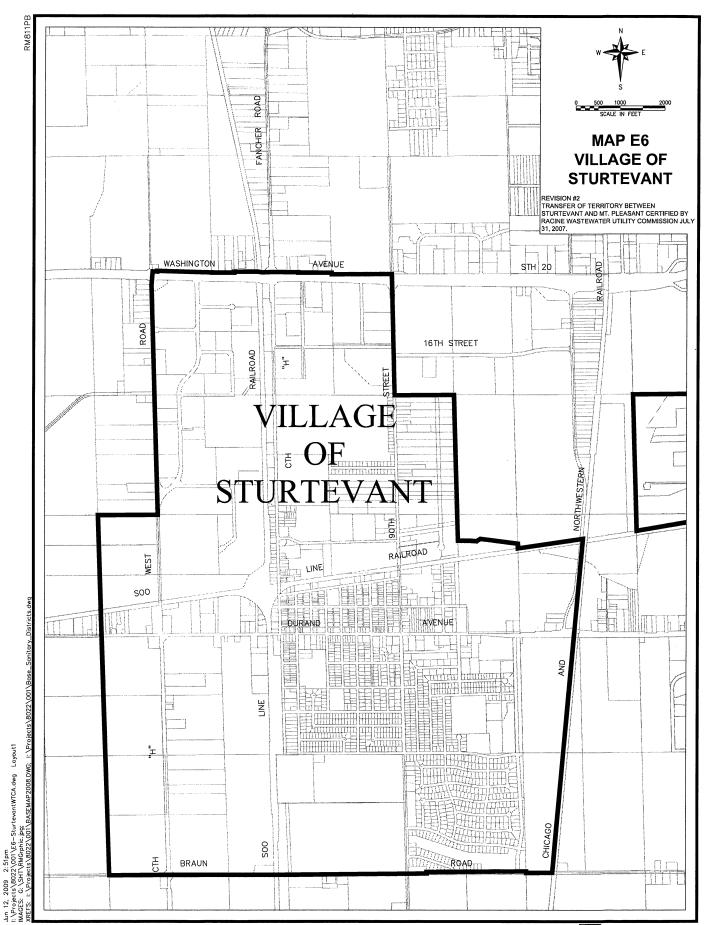
Average Day Flow (mgd)	1.78
Peak Day Flow (mgd)	6.04
Peak Hour Flow (mgd)	10.18
Peak Monthly Flow (mgd)	2.42
Average Daily BOD (lbs.)	1,606
Peak Monthly BOD (lbs.)	1,927
Average Daily TSS (lbs.)	1,981
Peak Monthly TSS (lbs.)	2,596
Average Daily TKN (lbs.)	253
Peak Monthly TKN (lbs.)	340
Average Daily P (lbs.)	48
Peak Monthly P (lbs.)	61

Allocated Conveyance Capacity

Not Applicable

Notice Addressee

Village Administrator 2801 89th Street Sturtevant, WI. 53177





North Park

Exhibit E7

Capacity Allocations

Revision #8 - Transfer of 1.0 MGD of Average Day Flow from Caledonia to Mount Pleasant

Classifications: SSR, OAE

Allocated Treatment Capacity (1) Average Day Flow (mgd) 0 Peak Day Flow (mgd) 0 Peak Hour Flow (mgd) 0 Peak Monthly Flow (mgd) Average Daily BOD (lbs.) 0 Peak Monthly BOD (lbs.) Average Daily TSS (lbs.) Peak Monthly TSS (lbs.) Average Daily TKN (lbs.) Peak Monthly TKN (lbs.) Average Daily P (lbs.) Peak Monthly P (lbs.)

Allocated Conveyance Capacity

See Exhibit F

Notice Addressee

North Park Sanitary District 333 4 1/2 Mile Road Racine, WI. 53402

Note:

1. Includes Wind Point

HTZ

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ROAD

MIE

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THE ENTIRE CAPACITY OF THE NORTH PARK DISTRICT DESIGNATED SSR AND OAE TERRITORY WAS REALLOCATED TO THE VILLAGE OF CALEDONIA ALONG WITH THE CRESTVIEW DISTRICT AS THE CALEDONIA EAST UTILITY DISTRICT.

RACINE

CITY OF Ruekert-Mielke

Crestview

Exhibit E8

Capacity Allocations

Revision #8 - Transfer of 1.0 MGD of Average Day Flow from Caledonia to Mount Pleasant

Classifications: SSR, OAE

Allocated Treatment Capacity

Average Day Flow (mgd)	0
Peak Day Flow (mgd)	0
Peak Hour Flow (mgd)	0
Peak Monthly Flow (mgd)	0
Average Daily BOD (lbs.)	0
Peak Monthly BOD (lbs.)	0
Average Daily TSS (lbs.)	0
Peak Monthly TSS (lbs.)	0
Average Daily TKN (lbs.)	0
Peak Monthly TKN (lbs.)	0
Average Daily P (lbs.)	0
Peak Monthly P (lbs.)	0

Allocated Conveyance Capacity

See Exhibit F

Notice Addressee

Crestview Sanitary District 3120 Indian Trail Racine, WI. 53402

THE ENTIRE CAPACITY OF THE CRESTVIEW DISTRICT DESIGNATED SSR AND OAE TERRITORY WAS REALLOCATED TO THE VILLAGE OF CALEDONIA ALONG WITH THE NORTH PARK DISTRICT AS THE CALEDONIA EAST UTILITY DISTRICT AND INCLUDES THE ENTIRE TERRITORY OF THE FORMER DISTRICT.



Wind Point

Exhibit E9

Capacity Allocations

Revision #8 - Transfer of 1.0 MGD of Average Day Flow from Caledonia to Mount Pleasant

Classifications: OAE, RSP

Allocated Treatment Capacity (1)

Not Applicable

Allocated Conveyance CapacityNot Applicable

Notice Addressee Village Clerk 215 East Four Mile Road Racine, WI. 53402

Note

1. Wind Point's Allocation is included in North Park's Allocation

E9-WindPointWTCA.d#g Layout1

THE DESIGNATED OAE AND RSP TERRITORIES OF WIND POINT EACH INCLUDES THE ENTIRE TERRITORY OF WIND POINT AS SHOWN. [WHEN WIND POINT BECOMES A PARTY]



Town Of Somers

Exhibit E10

Capacity Allocations

Revision #8 - Transfer of 1.0 MGD of Average Day Flow from Caledonia to Mount Pleasant

Classifications: SSR, OAE, RSP

Allocated Treatment Capacity (1)

Not Applicable

Allocated Conveyance Capacity Not Applicable

Notice Addressee Town Clerk P.O. Box 197

Somers, WI. 53171

Somers KR Sanitary District P.O. Box 197 Somers, WI. 53171

Note:

1. Town of Somers KR Sanitary District Capacity allocation is included in Mt. Pleasant's Allocation

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THE DESIGNATED OAE AND RSP TERRITORIES OF SOMERS EACH INCLUDES THE ENTIRE TERRITORY OF THE SOMERS KR DISTRICT AS SHOWN. [WHEN SOMERS BECOMES A PARTY]

Racine Wastewater Commission Capacity Allocations

Exhibit E11

Revision #8 - Transfer of 1.0 MGD of Average Day Flow from Caledonia to Mount Pleasant

Classifications: SSP

Allocated Treatment Capacity

Not Applicable

Allocated Conveyance Capacity Not Applicable

Notice Addressee Manager Racine Utilities City Hall Annex 800 Center Street Room 227 Racine, WI. 53403

