

CITY OF WEST CHICAGO

WHERE HISTORY & PROGRESS MEET

Approved June 4, 2015

MINUTES

INFRASTRUCTURE COMMITTEE

May 7, 2015, 7:00 P.M.

1. **Call to Order, Roll Call, and Establishment of a Quorum.** Public Works Director Robert Flatter called the meeting to order at 7:00 P.M. Roll call found Aldermen James Beifuss, Sandra Dimas, Don Earley, Mark Edwalds, Al Hallett and Noreen Ligino-Kubinski present. Alderman John Smith was absent.

Also in attendance were Director of Public Works Robert Flatter and Executive Secretary Michelle Baldino.

2. A. **Selection of a Chairman.** Alderman Edwalds made a motion to elect Alderman James Beifuss as Chairman of the Infrastructure Committee, seconded by Alderman Ligino-Kubinski. Voting Yea: Aldermen Edwalds, Ligino-Kubinski, Beifuss, Dimas, Earley, and Hallett. Voting Nay: 0. Motion carried and Chairman Beifuss resumed the meeting.

B. **Selection of a Vice-Chairman.** Chairman Beifuss made a motion to elect Alderman John Smith as Vice-Chairman of the Infrastructure Committee, seconded by Alderman Dimas. Voting Yea: Aldermen Beifuss, Dimas, Edwalds, Earley, Hallett, and Ligino-Kubinski. Voting Nay: 0. Motion carried.

3. **Approval of Minutes**

A. **Infrastructure Committee Minutes of April 2, 2015.** Alderman Hallett made a motion, seconded by Alderman Edwalds to approve the Meeting Minutes of April 2, 2015. Voting Yea: Aldermen Hallett, Edwalds, Beifuss, Earley, Hallett and Ligino-Kubinski. Voting Nay: 0.

4. **Public Participation / Presentations.** At the request of Mr. Flatter, Executive Secretary Michelle Baldino read a letter from resident Marilyn Kroll addressed to Alderman Beifuss. The letter is attached as Exhibit A.

5. **Items for Consent.** Chairman Beifuss read the items for consent. Alderman Earley asked for discussion on item 5.D., and Chairman Beifuss asked for discussion on Items 5.E., and 5.F. Alderman Dimas made a motion, seconded by Alderman Hallett to approve:

A. **2015 Asphalt Materials Procurement – DuPage County Joint Purchasing Program – Plote Construction, Inc.**

B. Purchase One 2016 Ford F-250 4wd Pick-up Truck with Knapheide Utility Service Body, Tommy Gate Lift Gate, and Western Snow Plow from Zimmerman Ford of St. Charles, Illinois

C. Purchase Two 2016 Ford F-250 4wd Pick-up Trucks with Knapheide Utility Service Body from Zimmerman Ford of St. Charles, Illinois

G. Resolution No. 15-R-0028 – Contract Award – Construction Oversight Services for the Grit Removal System Equipment Replacement Project at the City's Regional Wastewater Treatment Plant

H. Resolution No. 15-R-0029 – Contract Award – Construction Oversight Services for the 2015 Sanitary Sewer Rehabilitation Project – Stage 2

I. Unleaded and Diesel Fuel Delivery – Authorize Purchase from Heritage FS, Inc., Wilmington, Illinois

**Voting Yea: Aldermen Dimas, Hallett, Beifuss, Earley, Edwalds, and Ligino-Kubinski.
Voting Nay: 0.**

6. Items for Discussion. Items for discussion include Consent Items 5.D., 5.E., and 5.F.

A. (5.D.) Rejection of Bids – A. Eugene Rennels Bridge Rehabilitation Project. Alderman Earley made a motion to approve, seconded by Alderman Dimas. Alderman Earley reminded Committee of previous discussion regarding the A. Eugene Rennels Bridge Rehabilitation Project by stating that it had already been decided that this project would take place over a two-year period to minimize the impact on the residents on the south side of the City. He asked staff what would be re-bid next year; the entire project or just part of it. Mr. Flatter stated that it has always been the intention to close the bridge from traffic for no more than thirty days for the deck work with the remaining work to be completed under controlled traffic. The focus was to complete the contract in July when school is not in session. He went on to say that the budget for this project was \$600,000.00 and the lowest bid received was \$1.2 million. Mr. Flatter stated that staff would separate out some of the work (including the railings and painting due to lack of response from bidders) and re-bid next year, similar to the way the Sanitary Sewer Rehabilitation Project was broken into two separate bids. He feels that by separating some of the work, the City will receive better pricing. **Voting Yea: Aldermen Earley, Dimas, Beifuss, Edwalds, Hallett, and Ligino-Kubinski. Voting Nay: 0.**

B. (5.E.) Resolution No. 15-R-0026 – Contract Award – Wood Street Reconstruction Project. Mr. Flatter reviewed the agenda item summary. He stated that this project is the priority for this year. He also explained the project was bid with additional items above what was submitted to DuPage County for funding. These include new street lights and new watermain. The lowest responsible bidder provided a bid that was over budget, but Mr. Flatter reviewed the need to complete the project with all necessary improvements. The amount over budget will be paid for using money from the A. Eugene Rennels Bridge Rehabilitation Project within the Capital Improvement Fund for this budget year.

Alderman Dimas made a motion, seconded by Alderman Edwalds to approve Resolution No. 15-R-0026 authorizing a contract for the Wood Street Reconstruction Project. Voting

Yea: Aldermen Dimas, Edwalds, Beifuss, Earley, Hallett and Ligino-Kubinski. Voting Nay: 0.

C. (5.F.) Resolution No. 15-R-0027 – Contract Award – Grit System Equipment Replacement Project at the City’s Regional Wastewater Treatment Plant. Alderman Dimas made a motion, seconded by Alderman Edwalds to approve Resolution No. 15-R-0027 authorizing a contract for the Grit System Equipment Replacement Project. Mr. Flatter explained that grit removal is the first treatment process at the City’s Wastewater Treatment Plant. The original equipment dates back to 1986 and is in desperate need of repair. The City hired Clark Dietz, Inc. for design engineering and preparation of bid documents. The bid documents included five alternative bid items for consideration. Mr. Flatter reviewed the agenda item summary, including the alternatives that were bid and staff’s recommendation to move forward with the project to include bid alternate number 5 consisting of furnish and applying a structural coating on top of the portion of the grit tanks only. Mr. Flatter also explained why the lowest responsible contractor was able to lower his pricing by approximately \$110,000.00 after the bid opening. Chairman Beifuss stated that it makes sense to include the alternative, especially since the overall cost of the bid results was reduced by approximately \$110,000.00. Mr. Flatter stated that CH2M Hill/OMI will perform the other non-critical maintenance items over the next few years. **Voting Yea: Aldermen Dimas, Edwalds, Beifuss, Earley, Hallett and Ligino-Kubinski. Voting Nay: 0.**

7. Unfinished Business.

A. Mr. Flatter stated that at the April Infrastructure Committee meeting, staff was requested to supply information regarding the annual electricity charges for the City’s Wells, Lift Stations and Water Treatment Plant and a list of properties that are covered under the ComEd Franchise Agreement. Mr. Flatter handed out Exhibit B and reviewed the spreadsheet with Committee.

8. New Business.

A. Mr. Flatter presented the Committee with an April 3, 2014 Infrastructure Committee Agenda Item (An Engineering Services Study Related to a Nutrient Removal and Energy Savings Evaluation – Clark Dietz, Inc. (CDI)), (Exhibit C) and reminded them about the discussion regarding phosphorous limits that could be set by the Illinois Environmental Protection Agency (IEPA) on wastewater discharge into the Illinois waterways. He explained that every five years, the City must apply for a National Pollutant Discharge Elimination System (NPDES) permit which governs discharge limits. Mr. Flatter went on to explain that at this time, the City of West Chicago, along with all other agencies in DuPage County, is operating under an “expired” permit because the IEPA is in the process of changing the guidelines regarding nutrient limits.

Mr. Flatter said that the City of West Chicago is a member of the DuPage River Salt Creek Workgroup (DRSCW), which is a coalition of thirty-seven agencies, nineteen of which have wastewater treatment plants, environmental groups, consultants, and municipalities. Their focus is on water quality and cleanup of rivers and streams. The DRSCW approached and worked with the IEPA (instead of proposing phosphate limits) to create a list of special conditions as part of the NPDES permit process that must be completed over the next eight years

(Exhibit D) at a cost to each participant based upon flow (Exhibit E). The total portion of program expense for West Chicago is estimated at \$933,945.00. Based upon the study performed by CDI, without extensive capital improvements to the City's Wastewater Treatment Plant, the best option is to chemically treat the discharge at a probable cost of approximately \$285,000 per year (Exhibit F). Therefore, Mr. Flatter stated that it would be in the City's best interest to participate with the DRSCW. At the end of the eight year period, it would cost the City \$933,945 to participate, or over \$2 million in chemical treatment.

Alderman Earley asked staff what gives them the right to demand this money and has the State set the limits yet on phosphorous and nitrogen? Mr. Flatter said that the City does not want to be considered "not environmentally friendly" by the IEPA, and the limits have not been set yet. Setting the limits is what they have been trying to do and will do when the next NPDES Permits are issued (expected in June 2015).

Mr. Flatter stated that there is money in the budget, and he would like to ask for permission to bring to City Council a Letter of Commitment, or a Memo of Understanding. The deadline for participation is June 15, 2015. He further stated that if all of the agencies listed on Exhibit E do not participate, West Chicago's portion could increase, but it is still the right thing to do.

Chairman Beifuss agreed that there is a definite cost savings by participating and Winfield has also agreed. The City cannot operate without an NPDES. He stated that it makes sense. **Alderman Dimas made a motion, seconded by Alderman Edwalds to direct staff to bring the Letter of Commitment, or Memo of Understanding to the City Council for approval. Voting Yea: Aldermen Dimas, Edwalds, Beifuss, Earley, Hallett, and Liginokubinski. Voting Nay: 0.**

9. Reports from Staff. None.

10. Adjournment. At 7:52 P.M., Alderman Dimas made a motion to adjourn, seconded by Alderman Hallett. Motion was unanimously approved by voice vote.

Respectfully submitted,

Michelle Baldino
Executive Secretary

There should be a variety
of jobs to choose from
not just strict stupidity.
Thanks in advance

Nailyn Kroll

Exhibit A.

Hi Ald. Beyliss,

May 6, 2015
PM

Please read this
note to the committee
members tomorrow night.
Keep in mind I'm still
interested in changing the
venue to the council chambers.
Also, please let us know
if there are any summer cleanup
positions. ↑

Annual Electricity Charges for Well Stations, Sanitary Lift Stations, and Water Treatment Plant

| | <u>2010</u> | <u>2011</u> | <u>2012</u> | <u>2013</u> | <u>2014</u> |
|-------------------------|--------------|--------------|--------------|--------------|--------------|
| Well Stations: | \$368,238.69 | \$359,942.07 | \$308,147.56 | \$261,668.19 | \$267,008.50 |
| Sanitary Lift Stations: | \$66,517.15 | \$68,690.10 | \$45,708.29 | \$47,580.20 | \$50,261.07 |
| Water Treatment Plant: | \$180,620.36 | \$189,762.32 | \$151,508.42 | \$131,311.50 | \$131,378.84 |
| Annual Total: | \$615,376.20 | \$618,394.49 | \$505,364.27 | \$440,559.89 | \$448,648.41 |

Contract Terms and Rates:

May 2009 thru May 2012 - Exelon Energy Company - varied between \$0.0667/kWh & \$0.0864/kWh (price varied at each facility)
 June 2012 thru May 2015 - Exelon Energy Company - \$0.04374/kWh.
 June 2015 thru May 2017 - Dynegy Energy Services, LLC - \$0.05244/kWh.

Well Stations:

Well #3 - 320 Fremont St.
 Well #4 - 320 E. Forest Ave.
 Well #5 & #6 - 525 Industrial Dr.
 Well #7 - 627 W. Hawthorne Ln.
 Well #8 & #9 - 1255 Helena Dr.
 Well #10 & #11 - 2290 Smith Rd.

Sanitary Lift Stations:

Lift Station #1 - 1450 S. Neltnor Blvd.
 Lift Station #2 - 2551 Meadowlark Dr.
 Lift Station #3 - 1435 W. Roosevelt Rd.
 Lift Station #4 - 1689 Joliet St.
 Lift Station #5 - 244 S. Neltnor Blvd.
 Lift Station #6 - 1415 Prairie Ct.
 Lift Station #7 - 410 Coolidge Ave.
 Lift Station #8 - 1522 W. Hawthorne Ln.
 Lift Station #9 - 1900 Powis Rd.
 Lift Station #11 - 811 E. Hawthorne Ln.
 Lift Station #12 - 842 Main St.
 Lift Station #14 - 2201 Tower Rd.
 Lift Station #15 - 699 Shingle Oak Dr.

Water Treatment Plant:

1400 W. Hawthorne Ln.

City Properties Covered by ComEd Franchise Agreement

City Hall - 475 Main St.
 Police Station - 325 Spencer St.
 Street Division - 135 W. Grandlake Blvd. (excluding heating)
 Facilities Management - 509 Church St.
 Fleet Maintenance - 412 Blakely St.
 Sanitary Equipment Storage - 1300 W. Hawthorne Ln.
 ESDA - 321 Main St.
 Street Equipment Storage - 119 W. Washington St.
 City Museum - 132 Main St.
 Museum Storage - 128 W. McConnel Ave.
 Cable Communications - 411 Main St. - Unit 1
 Warning Siren - 4N230 Klein Rd.
 Warning Siren - 811 W. Hawthorne Ln.
 Warning Siren - 750 Ingaltion Ave.
 Gallery 200 - 200 Main St. (all units)
 Social Services - 461 Main St.
 103 W. Washington St.
 109 Chicago St.
 328 High St.

CITY OF WEST CHICAGO

Exhibit C

INFRASTRUCTURE COMMITTEE
AGENDA ITEM SUMMARY

ITEM TITLE:

Resolution No. 14-R-0019 – Contract Award – Clark Dietz, Inc. For Professional Engineering Services Related To A Nutrient Removal And Energy Savings Evaluation Study

AGENDA ITEM NUMBER: 4.C.COMMITTEE AGENDA DATE: April 3, 2014
COUNCIL AGENDA DATE: April 7, 2014

STAFF REVIEW: Robert E. Flatter, P.E., Director of Public Works

SIGNATURE 

APPROVED BY CITY ADMINISTRATOR: Michael L. Guttman

SIGNATURE _____

ITEM SUMMARY:

In January of 2011, the City of West Chicago submitted to the Illinois Environmental Protection Agency (IEPA) its National Pollutant Discharge Elimination System (NPDES) renewal application for the City of West Chicago's Regional Wastewater Treatment Plant (WWTP); Permit No. IL0024369. As authorized by the Clean Water Act, the NPDES permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. Water pollution degrades surface waters making them unsafe for drinking, fishing, swimming, and other activities. Industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters and must renew its permit every five years.

As of the date of this writing, the IEPA has not issued the City a renewed NPDES permit and the City is currently operating under its 2006 NPDES permit. The City is not alone in this matter, as it is our understanding that the IEPA has elected to hold the renewal of all WWTP NPDES operating permits pending decisions on future nutrient limits to be imposed. Environmental organizations are continually pressuring the IEPA to impose new and stricter nutrient removal limitations on wastewater treatment plants.

One local environmental group, the DuPage River Salt Creek Workgroup (DRSCW), formed in 2005 in response to concerns about Total Maximum Daily Loads (TMDLs) being set for the East & West Branches of the DuPage River and Salt Creek, is made up of local communities, Publically Owned Treatment Works (POTWs) or WWTPs, and private environmental organizations. The DRSCW has been working to produce comprehensive data sets for local watersheds in order to determine and resolve priority stressors to local aquatic systems. The organization seeks to implement targeted watershed activities that resolve priority water way problems efficiently and cost effectively. DRSCW has proposed and plans on submitting draft special permit conditions and nutrient removal facility planning projects to the IEPA for approval. It is DRSCW's hope that implementation of its nutrient removal facility planning projects would eliminate or reduce the need for local communities or sanitary districts to upgrade its POTWs or WWTPs to comply with strict nitrogen and phosphorus limits likely to be imposed by the IEPA. DRSCW is asking DuPage County POTWs or WWTPs to annually fund its facility planning projects. West Chicago is being asked to pay in excess of \$60,000.00 annually for DRSCW's planning projects...many of which are not in the West Branch of the DuPage River, West Chicago's watershed.

As discussed at the March 6, 2014 Infrastructure Committee meeting, in anticipation of the pending nitrogen and phosphorus limits likely to be imposed on future NPDES permits, the City needs to gain an

CITY OF WEST CHICAGO

understanding of improvements and costs that will be required at its WWTP. As a result, City staff approached Clark Dietz, Inc. (CDI) and requested a cost proposal to review and evaluate the WWTP current facilities and operations to determine potential improvements required for nitrogen and phosphorus removal. In addition, City staff also asked for CDI for a proposal to perform an energy savings and potential grant evaluation, concurrent with the nutrient removal evaluation. If nutrient removal alternatives are to be considered, energy savings, lifecycle cost, and payback periods should also be considered. The State of Illinois has many energy saving grant opportunities available to municipalities.

CDI's nutrient removal and energy savings evaluation proposal is for a not to exceed amount of \$39,805.00.

Although the Fiscal Year 2014 Sewer Fund budget (i.e., Sewer Plant Equipment Replacement Program), does not have money specifically budgeted for said study, adequate funds are available in the Sewer Fund to cover this expenditure.

ACTIONS PROPOSED:

Approve Resolution No. 14-R-0019 authorizing the Mayor to execute a Contract with Clark Dietz, Inc. of Champaign, Illinois, for an amount not to exceed \$39,805.00, for professional engineering services related to a nutrient removal and energy savings evaluation study at the City's Regional Wastewater Treatment Plant.

COMMITTEE RECOMMENDATION:

RESOLUTION NO. 14-R-0019

**A RESOLUTION AUTHORIZING THE MAYOR TO EXECUTE A CONTRACT
WITH CLARK DIETZ, INC., FOR PROFESSIONAL ENGINEERING
SERVICES RELATED TO A NUTRIENT REMOVAL AND ENERGY SAVINGS
EVALUATION STUDY AT THE CITY'S REGIONAL WASTEWATER
TREATMENT PLANT**

BE IT RESOLVED by the City Council of the City of West Chicago, in regular session assembled, that the Mayor is hereby authorized to execute a Contract for Professional Engineering Services related to a nutrient removal and energy savings evaluation study at the City's Regional Wastewater Treatment Plant, between the City of West Chicago and Clark Dietz, Inc., for an amount not to exceed \$39,805.00, in substantially the form attached hereto and incorporated herein as Exhibit "A".

APPROVED this 7th day of April, 2014.

AYES: _____

NAYES: _____

ABSTAIN: _____

ABSENT: _____

Mayor Ruben Pineda

ATTEST:

City Clerk Nancy M. Smith

Draft DuPage/Salt Creek Special Condition XX.

1. The Permittee shall participate in the DuPage River Salt Creek Workgroup (DRSCW). The Permittee shall work with other watershed members of the DRSCW to determine the most cost effective means to remove dissolved oxygen (DO) and offensive condition impairments in the DRSCW watersheds.
2. The Permittee shall ensure that the following projects and activities set out in the DRSCW Implementation Plan (April 16, 2015), are completed (either by the permittee or through the DRSCW) by the schedule dates set forth below; and that the short term objectives are achieved for each by the time frames identified below:

| Project Name | Completion Date | Short Term Objectives | Long Term Objectives |
|---|------------------------|---|---|
| Oak Meadows Golf Course dam removal | December 31, 2016 | Improve DO | Improve fish passage |
| Oak Meadows Golf Course stream restoration | December 31, 2017 | Improve aquatic habitat (QHEI), reduce inputs of nutrients and sediment | Raise miBi |
| Fawell Dam Modification | December 31, 2018 | Modify dam to allow fish passage | Raise fiBi upstream of structure |
| Spring Brook Restoration and dam removal | December 31, 2019 | Improve aquatic habitat (QHEI), reduce inputs of nutrients and sediment | Raise miBi and fiBi |
| Fullersburg Woods dam modification concept plan development | December 31, 2016 | Identify conceptual plan for dam modification and stream restoration | Build consensus among plan stakeholders |
| Fullersburg Woods dam modification | December 31, 2021 | Improve DO, improve aquatic habitat (QHEI) | Raise miBi and fiBi |
| Fullersburg Woods dam modification area stream restoration | December 31, 2022 | Improve aquatic habitat (QHEI), reduce inputs of nutrients and sediment | Raise miBi and fiBi |
| Southern West Branch Physical Enhancement | December 31, 2022 | Improve aquatic habitat (QHEI) | Raise miBi and fiBi |
| Southern East Branch Stream Enhancement | December 31, 2023 | Improve aquatic habitat (QHEI), reduce inputs of nutrients and sediment | Raise miBi and fiBi |

| | | | |
|-------------------------------------|-------------------|--|--|
| QUAL 2K East Branch and Salt Creek | December 31, 2023 | Collect new baseline data and update model | Quantify improvements in watershed. Identify next round of projects for years beyond 2024. |
| NPS Phosphorus Feasibility Analysis | December 31, 2021 | Assess NPS performance from reductions leaf litter and street sweeping | Reduce NPS contributions to lowest practical levels |

3. The Permittee shall participate in implementation of a watershed Chloride Reduction Program, either directly or through the DRSCW. The program shall work to decrease DRSCW watershed public agency chloride application rates used for winter road safety, with the objective of decreasing watershed chloride loading. The Permittee shall submit an annual report on the annual implementation of the program identifying the practices deployed, chloride application rates, estimated reductions achieved, analyses of watershed chloride loads, precipitation, air temperature conditions and relative performance compared to a baseline condition. The report shall be provided to the Agency by March 31 of each year reflecting the Chloride Abatement Program performance for the preceding year (example: 2015-16 winter season report shall be submitted no later than March 31, 2017). The Permittee may work cooperatively with the DRSCW to prepare a single annual progress report that is common among DRSCW permittees.
4. The Permittee shall submit an annual progress report on the projects listed in the table of paragraph 2 above to the Agency by March 31 of each year. The report shall include project implementation progress. The Permittee may work cooperatively with the DRSCW to prepare a single annual progress report that is common among DRSCW permittees.
5. The Permittee shall develop a written Phosphorus Discharge Optimization Plan. In developing the plan, the Permittee shall evaluate a range of measures for reducing phosphorus discharges from the treatment plant, including possible source reduction measures, operational improvements, and minor low cost facility modifications that will optimize reductions in phosphorus discharges from the wastewater treatment facility. The permittee's evaluation shall include, but not necessarily be limited to, an evaluation of the following optimization measures:
 - a. WWTF influent reduction measures.
 - i. Evaluate the phosphorus reduction potential of users.
 - ii. Determine which sources have the greatest opportunity for reducing phosphorus (e.g., industrial, commercial, institutional, municipal, and others).
 1. Determine whether known sources (e.g., restaurant and food preparation) can adopt phosphorus minimization and water conservation plans.
 2. Evaluate implementation of local limits on influent sources of excessive phosphorus.

b. WWTF effluent reduction measures.

- i. Reduce phosphorus discharges by optimizing existing treatment processes without causing non-compliance with permit effluent limitations or adversely impacting stream health.

1. Adjust the solids retention time for biological phosphorus removal.
2. Adjust aeration rates to reduce DO and promote biological phosphorus removal.
3. Change aeration settings in plug flow basins by turning off air or mixers at the inlet side of the basin system.
4. Minimize impact on recycle streams by improving aeration within holding tanks.
5. Adjust flow through existing basins to enhance biological nutrient removal.
6. Increase volatile fatty acids for biological phosphorus removal.

6. Within 24 months of the effective date of this permit, the Permittee shall finalize the written Phosphorus Discharge Optimization Evaluation Plan and submit it to IEPA. The plan shall include a schedule for implementing all of the evaluated optimization measures that can practically be implemented and include a report that explains the basis for rejecting any measure that was deemed impractical. The schedule for implementing all practical measures shall be no longer than 36 months after the effective date of this permit. The Permittee shall implement the measures set forth in the Phosphorus Discharge Optimization Plan in accordance with the schedule set forth in that Plan. The Permittee shall modify the Plan to address any comments that it receives from IEPA and shall implement the modified plan in accordance with the schedule therein.

Annual progress reports on the optimization of the existing treatment facilities shall be submitted to the Agency by March 31 of each year beginning 24 months from the effective date of the permit.

7. The Permittee shall, within 24 months of the effective date of this permit, complete a feasibility study that evaluates the timeframe, and construction and O & M costs of reducing phosphorus levels in its discharge to a level consistently meeting a limit of 1 mg/L, 0.5 mg/L and 0.1 mg/L utilizing a range of treatment technologies including, but not necessarily limited to, biological phosphorus removal, chemical precipitation, or a combination of the two. The study shall evaluate the construction and O & M costs of the different treatment technologies for these limits on a monthly, seasonal, and annual average basis. For each technology and each phosphorus discharge level evaluated, the study shall also evaluate the amount by which the Permittee's typical household annual sewer rates would increase if the Permittee constructed and operated the specific type of technology to achieve the specific phosphorus discharge level. Within 24 months of the effective date of this Permit, the Permittee shall submit to the Agency and the DRSCW a written report summarizing the results of the study.

8. Total phosphorus in the effluent shall be limited as follows:

- a. If the Permittee will use chemical precipitation to achieve the limit, the effluent limitation shall be 1.0 mg/L on a monthly average basis, effective 10 years after the effective date of this permit unless the Agency approves and reissues or modifies the permit to include an alternate phosphorus reduction program pursuant to paragraph c or d below that is fully implemented within 10 years of the effective date of this permit.
- b. If the Permittee will primarily use biological phosphorus removal to achieve the limit, the effluent limitation shall be 1.0 mg/L monthly average to be effective 11 years after the effective date of this permit unless the Agency approves and reissues or modifies the permit to include an alternate phosphorus reduction program pursuant to paragraph c or d below that is fully implemented within 11 years of the effective date of this permit.
- c. The Agency may modify this permit if the DRSCW has developed and implemented a trading program for POTWs in the DRSCW watersheds, providing for reallocation of allowed phosphorus loadings between two or more POTWs in the DRSCW watersheds, that delivers the same results of overall watershed phosphorus point-source reduction and loading anticipated from the uniform application of the applicable 1.0 mg/L monthly average effluent limitation among the POTW permits in the DRSCW watersheds and removes DO and offensive condition impairments and meet the applicable dissolved oxygen criteria in 35 IL Adm. Code 302.206 and the narrative offensive aquatic algae criteria in 35 IL Adm. Code 302.203.
- d. The Agency may modify this permit if the DRSCW has demonstrated and implemented an alternate means of reducing watershed phosphorus loading to a comparable result within the timeframe of the schedule of this condition and removes DO and offensive condition impairments and meet the applicable dissolved oxygen criteria in 35 IL Adm. Code 302.206 and the narrative offensive aquatic algae criteria in 35 IL Adm. Code 302.203.

9. The Permittee shall monitor the wastewater effluent, consistent with the monitoring requirements on Page 2 of this permit, for total phosphorus, dissolved phosphorus, nitrate/nitrite, total Kjeldahl nitrogen (TKN), ammonia, total nitrogen (calculated), alkalinity and temperature at least once a month. The Permittee shall monitor the wastewater influent for total phosphorus and total nitrogen at least once a month. The results shall be submitted on NetDMRs to the Agency unless otherwise specified by the Agency.

10. The Permittee shall submit a Nutrient Implementation Plan (NIP) for the DRSCW watersheds that identifies phosphorus input reductions by point source discharges, non-point source discharges and other measures necessary to remove DO and offensive condition impairments and meet the applicable dissolved oxygen criteria in 35 IL Adm. Code 302.206 and the narrative offensive aquatic algae criteria in 35 IL Adm. Code 302.203. The NIP shall also include a schedule for implementation of the phosphorus input reductions and other measures. The Permittee may work cooperatively with the DRSCW to prepare a single NIP that is common among DRSCW permittees. The NIP shall be submitted to the Agency by December 31, 2023.

| DuPage River Salt Creek Workgroup | | | TABLE 1 | | |
|-----------------------------------|-----------|-----------|---------------------------|--------------|--------------|
| Proposed Dues and Assessments | | | EIGHT YEAR PROGRAM TOTALS | | |
| Summary by Eight Year Period | | | FY 15-16 THROUGH FY 22-23 | | |
| February 16, 2015 | | | | | |
| | Total | Total | | Project | |
| | Tributary | Tributary | | Funding | |
| | POTW | POTW | Annual | Assessment | Total |
| | Acreage | MGD | Dues | Amounts | Amount |
| Current Agency members | | | | | |
| Addison | 6,053 | 8.50 | \$169,297 | \$852,591 | \$1,021,888 |
| Arlington Heights | 895 | | 6,949 | 0 | 6,949 |
| Bartlett | 3,765 | 3.68 | 80,756 | 369,122 | 449,878 |
| Bensenville | 1,575 | 4.70 | 84,712 | 471,432 | 556,144 |
| Bloomington | 4,413 | 3.45 | 80,714 | 346,051 | 426,765 |
| Bolingbrook | 130 | 5.04 | 82,076 | 505,536 | 587,612 |
| Carol Stream | 5,908 | 5.40 | 119,681 | 541,646 | 661,327 |
| Clarendon Hills | 446 | | 4,466 | 0 | 4,466 |
| Downers Grove | 9,162 | | 52,641 | 0 | 52,641 |
| Downers Grove SD | | 11.00 | 175,203 | 1,103,353 | 1,278,556 |
| DuPage County | 46,189 | 12.50 | 454,115 | 1,253,810 | 1,707,925 |
| Elmhurst | 6,504 | 8.00 | 163,915 | 802,439 | 966,354 |
| Glen Ellyn | 4,274 | | 25,626 | 0 | 25,626 |
| Glenbard WW Authority | | 16.02 | 254,245 | 1,606,883 | 1,861,128 |
| Glendale Heights | 3,450 | 5.26 | 103,892 | 527,604 | 631,496 |
| Hanover Park | 4,251 | 2.42 | 63,602 | 242,739 | 306,341 |
| Hinsdale | 537 | | 4,970 | 0 | 4,970 |
| Hoffman Estates | 3,581 | | 21,797 | 0 | 21,797 |
| Itasca | 3,187 | 2.60 | 60,556 | 260,792 | 321,348 |
| Lisle | 4,303 | | 25,785 | 0 | 25,785 |
| Lombard | 6,318 | | 36,923 | 0 | 36,923 |
| MWRDGC | 16,251 | 42.00 | 753,131 | 4,212,805 | 4,965,936 |
| Naperville | 12,882 | | 73,204 | 0 | 73,204 |
| Northlake | 1,728 | | 11,551 | 0 | 11,551 |
| Oakbrook Terrace | 923 | | 7,104 | 0 | 7,104 |
| Roselle | 3,385 | 3.40 | 74,249 | 341,037 | 415,286 |
| Salt Creek SD | | 3.30 | 53,960 | 331,006 | 384,966 |
| Schaumburg | 10,532 | | 60,217 | 0 | 60,217 |
| Villa Park | 3,039 | | 18,799 | 0 | 18,799 |
| Warrenville | 3,571 | | 21,739 | 0 | 21,739 |
| West Chicago | 8,199 | 7.64 | 167,617 | 766,328 | 933,945 |
| Westmont | 2,465 | | 15,625 | 0 | 15,625 |
| Wheaton | 7,276 | | 42,218 | 0 | 42,218 |
| Wheaton SD | | 8.90 | 142,138 | 892,713 | 1,034,851 |
| Winfield | 1,645 | | 11,093 | 0 | 11,093 |
| Wood Dale | 2,095 | 3.10 | 62,391 | 310,944 | 373,335 |
| Woodridge | 3,426 | | 20,939 | 0 | 20,939 |
| Subtotals | 192,358 | 156.91 | \$3,607,896 | \$15,738,831 | \$19,346,727 |
| Potential Agency members | | | | | |
| Subtotals | 31,136 | 0 | \$220,154 | \$0 | \$220,154 |
| Grand Totals | 223,494 | 156.91 | \$3,828,050 | \$15,738,831 | \$19,566,881 |
| Proposed Project Funding | | | | | |
| Assessments | | | | \$15,738,831 | |
| Local matches | | | | \$10,492,557 | |
| Total Project Funding | | | | \$26,231,388 | |

Robert Flatter

From: Terrence K. Boyer <Terrence.Boyer@clarkdietz.com>
Sent: Friday, February 13, 2015 9:46 AM
To: Robert Flatter
Subject: Fwd: West Chicago DRSCW fees

Sent from my iPhone

Begin forwarded message:

From: "Andrea W. Bretl" <Andrea.Bretl@clarkdietz.com>
Date: February 13, 2015 at 9:42:58 AM CST
To: "Terrence K. Boyer" <Terrence.Boyer@clarkdietz.com>
Subject: RE: West Chicago DRSCW fees

Terry – Here is the new Table based on the Feb 11, 2015 memo. I've also corrected the table in the original email below. Note: they've switched the way they calculate "Dues Total" to include the "New Staffing Assessment", which was not the case in the previous case. Values for each year through FY 21-22 are the same in both.

| | | Dues Fixed Component | Dues Acreage Component | Dues WTP Component | New Staffing Assessment | Dues Total | New Project Assessment | Total Dues and Assessments |
|----------|----------|-------------------------|---------------------------|-----------------------|----------------------------|------------|---------------------------|----------------------------------|
| Table 3 | FY 15-16 | \$225 | \$4,129 | \$10,960 | \$3,535 | \$18,849 | \$43,821 | \$62,670 |
| Table 4 | FY 16-17 | \$232 | \$4,253 | \$11,289 | \$3,641 | \$19,415 | \$45,136 | \$64,551 |
| Table 5 | FY 17-18 | \$239 | \$4,381 | \$11,628 | \$3,750 | \$19,998 | \$73,840 | \$93,838 |
| Table 6 | FY 18-19 | \$246 | \$4,512 | \$11,977 | \$3,863 | \$20,598 | \$76,056 | \$96,654 |
| Table 7 | FY 19-20 | \$253 | \$4,647 | \$12,336 | \$3,979 | \$21,215 | \$126,081 | \$147,296 |
| Table 8 | FY 20-21 | \$261 | \$4,787 | \$12,706 | \$4,098 | \$21,852 | \$129,863 | \$151,715 |
| Table 9 | FY 21-22 | \$269 | \$4,930 | \$13,087 | \$4,221 | \$22,507 | \$133,759 | \$156,266 |
| Table 10 | FY 21-23 | \$277 | \$5,078 | \$13,480 | \$4,348 | \$23,183 | \$137,772 | \$160,955 |
| Total | | | | | \$31,435 | \$167,617 | \$766,328 | \$933,945 |

Andrea W. Bretl, P.E.

From: Terrence K. Boyer <Terrence.Boyer@clarkdietz.com>
Sent: Friday, February 13, 2015 9:23 AM
To: Robert Flatter
Subject: Fwd: West Chicago Chemical

Sent from my iPhone

Begin forwarded message:

From: "Andrea W. Bretl" <Andrea.Bretl@clarkdietz.com>
Date: February 13, 2015 at 9:22:10 AM CST
To: "Terrence K. Boyer" <Terrence.Boyer@clarkdietz.com>
Subject: West Chicago Chemical

Terry:

This is the table from the report for chemical use:

| | | Likely Effluent Requirement | Lower Limit | Strictest Limit |
|-----------------------------|-------------|-----------------------------------|-------------------|--------------------|
| Target Effluent TP | mg/l | 1.0 | 0.5 | 0.1 |
| Current average flow rate | mgd | 5.31 | 5.31 | 5.31 |
| Required Effluent Soluble P | mg/l | 0.9 | 0.4 | 0 |
| Chemical TP Removal | mg/l | 2.6 | 3.1 | 3.5 |
| Molar Fe/P Dose | mol/mol | 4 | 6 | 7 |
| Ferric Dose | mg/l | 10.4 | 18.6 | 24.5 |
| Ferric Chloride Dose | lb/day | 461 | 824 | 1085 |
| Ferric Chloride Dose | lb/day | 1,338 | 2,394 | 3,153 |
| Ferric Chloride Demand | gpd | 314 | 562 | 741 |
| Annual Demand | gal/year | 114,800 | 205,300 | 270,400 |
| Storage Volume | gallons | 3,000 | 6,000 | 7,000 |
| Annual Costs | | \$ 285,439 | \$ 510,458 | \$ 672,323 |

Capital costs would be around \$100,000 – assuming that a new building or significant modifications for an existing building would not be required.

Assuming 3% annual increases in costs – for a 7 year term, the present worth is \$2,290,000; for an 8 year term, the present value is \$2,640,000.

-Andrea

Andrea W. Bretl, P.E.
 Clark Dietz, Inc. - Engineers