Poughkeepsies' Joint Water Board

May 7, 2013 4:30 PM

Poughkeepsies' Water Treatment Facility

Agenda

- 1. Approval of April 2, 2013 and April 23, 2013 Minutes
- 2. Public Participation
- 3. Plant Status Report
- 4. Update on Capital Budget Progress
- 5. Results of Chemical and Electric Bids
- 6. Report on Spare Parts for Transmission Main
- 7. Old Business
- 8. New Business

Next meeting: May 7, 2013: 4:30 PM Poughkeepsies' Water Treatment Facility

PWTF 2013 Chemical Budget

SUPPLIER	CHEMICAL	2012 GALS USED	\$ PER GALLON	COSTS
HOLLAND	Polyaluminum Chloride	144,290	\$1.64	\$236,635.60
JONES	Sodium Hydroxide	24,497	\$0.70	\$17,147.90
JONES	Sodium Hypochlorite	84,043	\$0.62	\$52,106.66
CARUS	Orthophosphate	14,426	\$3.10	\$44,720.60
Total				\$350,610.76

SUPPLIER	CHEMICAL	2012 GALS USED	\$/GAL 2013	COSTS
HOLLAND	Polyaluminum Chloride	144,290	\$1.55	\$223,649.50
JONES	Sodium Hydroxide	24,497	\$0.81	\$19,842.57
SURPASS	Sodium Hypochlorite	84,043	\$0.64	\$53,619.43
COYNE	Orthophosphate	14,426	\$2.73	\$39,325.28
Total				\$336,436.78

2013 Savings

\$14,173.98

Results of 2013 Electric Bid

PWTF 2013 Electric Budget

Month	kWhr	\$/kWhr	Liberty	Ce	Central		tal
				Hu	dson		
January	630,000	0.048523	\$30,569	\$	12,600	\$	43,169.49
February	640,000	0.048523	\$31,055	\$	12,800	\$	43,854.72
March	640,000	0.048523	\$31,055	\$	12,800	\$	43,854.72
April	640,000	0.048523	\$31,055	\$	12,800	\$	43,854.72
May	640,000	0.048523	\$31,055	\$	12,800	\$	43,854.72
June	670,000	0.048523	\$32,510	\$	13,400	\$	45,910.41
July	665,000	0.048523	\$32,268	\$	13,300	\$	45,567.80
August	660,000	0.048523	\$32,025	\$	13,200	\$	45,225.18
September	610,000	0.048523	\$29,599	\$	12,200	\$	41,799.03
October	610,000	0.048523	\$29,599	\$	12,200	\$	41,799.03
November	620,000	0.048523	\$30,084	\$	12,400	\$	42,484.26
December	635,000	0.048523	\$30,812	\$	12,700	\$	43,512.11
Total	7,660,000		\$371,686		\$153,200		\$524,886

PWTF 2013 Revised Electric Budget

Month	kWhr	\$/kWhr Li	berty	Cei	Central		tal
				Hu	dson		
January	630,000	0.048523	\$30,569	\$	17,288	\$	47,857.49
February	640,000	0.048523	\$31,055	\$	17,344	\$	48,398.72
March	640,000	0.048523	\$31,055	\$	17,344	\$	48,398.72
April	640,000	0.048523	\$31,055	\$	17,344	\$	48,398.72
May	640,000	0.048523	\$31,055	\$	17,344	\$	48,398.72
June	670,000	0.05908	\$39,584	\$	17,512	\$	57,095.60
July	665,000	0.05908	\$39,288	\$	17,484	\$	56,772.20
August	660,000	0.05908	\$38,993	\$	17,456	\$	56,448.80
September	610,000	0.05908	\$36,039	\$	17,176	\$	53,214.80
October	610,000	0.05908	\$36,039	\$	17,176	\$	53,214.80
November	620,000	0.05908	\$36,630	\$	17,232	\$	53,861.60
December	635,000	0.05908	\$37,516	\$	17,316	\$	54,831.80
Total	7,660,000		\$418,876		\$208,016		\$626,892

\$0.01056

22%

Unit Cost Increase (\$0.05908 -\$.048523)

Estimated Increase \$102,006 2013 Budget \$ 525,000.00

2013 Budget \$ 525,000.00 Percent increase 19%

Poughkeepsies' Water Treatment Facility

MEMORANDUM

April 1, 2013

To: Joint Water Board

From: Randy J. Alstadt. P.E.

Water Plant Administrator

Subject: March 2013 Status Report

Water Quality/Production Issues

Process data for February 2013 and March 2013 are presented in the following tables. Average Daily Flow was down 0.29 MGD (-3.2 percent) in March 2013 compared to February 2013. Quality was excellent. Plant effluent turbidity averaged 0.05 NTU while influent turbidity averaged 52 NTU (99.9% reduction).

Treatment Process Comparison February 2013 vs. March 2013

Parameter		February-13		March-13				
	Average	Maximum	Minimum	Average	Maximum	Minimum		
Raw Flow, MGD	8.93	11.29	5.92	8.64	11.34	5.99		
Raw Turbidity, NTU	44	97	19	52	116	14		
Effluent Turbidity, NTU	0.05	0.1	0.03	0.05	0.11	0.05		

Sludge Process Comparison February 2013 vs. March 2013

Parameter	February-13	March-13	Char	ige
			Quantity	Percent
Residual Solids, gallons	362,266	708,176	345,910	95%
Backwash, gallons	1,547,000	1,333,000	(214,000)	-14%
Thickener, gallons	223,429	232,479	9,050	4%
Plate Settler, gallons	14,412	24,700	10,288	71%
Centrifuge #1 gallons	118,743	120,980	2,237	2%
Centrifuge #2 gallons	115,434	140,003	24,569	21%
Centrifuge Total	234,177	260,983	26,806	11%
Centrifuge #1 gpm	6.5	6.5	5.2	80%
Centrifuge #2 gpm	6.3	6.3	6.0	95%
Solids Hauled, tons	266.18	298.40	32.22	12%

Plant Update

Plant operated well. Filter runs continue to be reduced due to cold water conditions which occurs annually. Centrifuge operating hours was down 175 hours, even though 148 hours of overtime were worked. This was required due to retirement of operator which typically works 168 hours per month, funeral leave of 40 hours and vacation and 192 hours of operator vacation.

As of March 31st the solids thickener solids level was 10.0 feet, down the same as the end of February 2013. We continue to closely monitor levels and encourage overtime when level exceeds 10 feet.

> telephone (845) 451-4173 x 2003 e-mail: ralstadt@pokwater.com

We have issued a Purchase Order to Seaway Diver to conduct annual intake inspection.

Number 3 filter effluent turbidity is higher the other filters. The filter backwash procedure will be tested and the filter will be drained for inspection.

Mixer in the Sludge Plant Equalization Basin was repaired and replaced. Mixer was removed and sent to repair shop. Mixer will be reinstalled the week of March 4th.

Staffing

Head Maintenance Mechanic, Joseph Marcinelli continues to haul our solids and perform these duties until a new driver can be hired. We advertised and received applicants for our truck driver position. Applicants that have adequate experience and proper license will be interviewed in early April.

We offered the operator position to Matthew Manning. He has the Grade A1 license, accepted the offer and started work April 1, 2013.

Maintenance staff performed operating duties running centrifuges in order to keep sludge quantities under control.

Poughkeepsies' Water Treatment Facility Operating Budget Status

May 1, 2013

33% Expended

Account Number	Description	Amended Budget	Encumbrances	Expenses	Remaining Balance	Percent Dedicated	Percent Expended
			90-19-8310				
7102	Salaries-Management	\$111,001.00	\$0.00	\$35,861.96	\$75,139.04	32%	32%
7202	Computer Equipment	\$15,000.00	\$0.00	\$660.04	\$14,339.96	4%	4%
7401	Office-General	\$4,000.00	\$0.00	\$403.77	\$3,596.23	10%	10%
7405	Office-Printing	\$3,296.00	\$0.00	\$0.00	\$3,296.00	0%	0%
7406	Office-Postage	\$1,750.00	\$0.00	\$3.60	\$1,746.40	0%	0%
7407	Office-Fees/Permits	\$3,309.00	\$0.00	\$0.00	\$3,309.00	0%	0%
7408	Office-Telephones	\$6,840.00	\$3,015.46	\$2,061.09	\$4,778.91	74%	30%
7410	Employees-Travel	\$855.00	\$0.00	\$80.00	\$775.00	9%	9%
7411	Employees-Training/Devel.	\$300.00	\$0.00	\$571.00	(\$271.00)	190%	190%
7435	Rent/Lease-Equipment	\$1,560.00	\$3,040.00	\$0.00	\$1,560.00	195%	0%
7460	Contracted Services-Legal	\$9,000.00	\$0.00	\$1,671.25	\$7,328.75	19%	19%
7461	Contract Ser-Engineering	\$88,866.00	\$64,603.50	\$6,642.00	\$82,224.00	80%	7%
7463	Contract Ser-Accounting	\$7,500.00	\$0.00	\$3,500.00	\$4,000.00	47%	47%
7803	Social Security Tax	\$6,882.00	\$0.00	\$2,389.12	\$4,492.88	35%	35%
7803.M	Medicare Tax	\$1,610.00	\$0.00	\$558.75	\$1,051.25	35%	35%
7805	Life Insurance	\$1.00	\$0.00	\$0.09	\$0.91	9%	9%
TOTAL		\$261,770.00	\$70,658.96	\$54,402.67	\$207,367.33	48%	21%
			90-19-8320				
7107	Sal-UFOPJtWat	\$374,756.00					_0,0
7117	Overtime-UFOP	\$16,423.00		\$8,620.15	\$7,802.85	52%	52%
7140	Allowances-Meals	\$400.00	\$0.00	\$56.00	\$344.00	14%	14%
7166	Reimburse-Health Ins.	\$4,000.00	\$0.00	\$0.00	\$4,000.00	0%	0%
7177	AccumPay - Compensatory	\$0.00	\$0.00	\$2,084.44	(\$2,084.44)		
7178	Accumulated Pay-Sick	\$0.00	\$0.00	\$10,371.36	(\$10,371.36)		
7179	Accumulated Pay-Vacation	\$0.00	\$0.00	\$6,874.56	(\$6,874.56)		
7215	Water Equipment	\$27,000.00	\$0.00	\$0.00	\$27,000.00	0%	0%
7217	Building Equipment	\$30,000.00	\$0.00	\$363.59	\$29,636.41	1%	1%
7410	Employees-Travel	\$100.00	\$0.00	\$65.10	\$34.90	65%	65%
7411	Employees-Training/Devel.	\$4,600.00	\$0.00	\$305.00	\$4,295.00	7%	7%
7412	Employees-Wearing Apparel	\$2,700.00	\$0.00	\$809.28	\$1,890.72	30%	30%
7420	Mat & Supplies-Buildings	\$10,000.00	\$0.00	\$1.70	\$9,998.30	0%	0%

Poughkeepsies' Water Treatment Facility Operating Budget Status

May 1, 2013

33% Expended

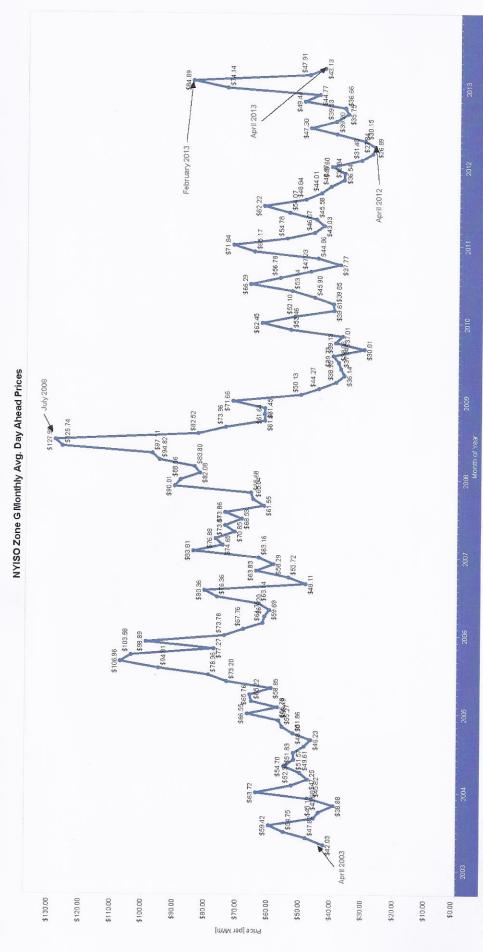
Account	Description	Amended	Encumbrances	Expenses	Remaining	Percent	Percent
Number	•	Budget		-	Balance	Dedicated	Expended
7423	Mat & Supplies-General	\$40,000.00	\$0.00	\$6,241.06	\$33,758.94	16%	16%
7424	Mat & Supplies-Vehicles	\$2,000.00	\$0.00	\$762.42	\$1,237.58	38%	38%
7434	Rent/Lease-Uniforms	\$8,300.00	\$6,520.00	\$1,580.00	\$6,720.00	98%	19%
7435	Rent/Lease-Equipment	\$3,000.00	\$0.00	\$0.00	\$3,000.00	0%	0%
7440	Repair/Maint-Buildings	\$32,000.00	\$0.00	\$1,598.12	\$30,401.88	5%	5%
7443	Repair/Maint-Equipment	\$91,000.00	\$37,435.00	\$7,059.91	\$83,940.09	49%	8%
7444	Repair/Maint-Vehicles	\$10,000.00	\$0.00	\$1,566.56	\$8,433.44	16%	16%
7446	Repair/Maint-WaterSystems	\$71,000.00	\$0.00	\$8,092.80	\$62,907.20	11%	11%
7448	Repair/Maint-Gasoline	\$10,000.00	\$0.00	\$902.14	\$9,097.86	9%	9%
7449	Rpr/Maint-ServiceContract	\$54,756.00	\$18,323.79	\$24,318.77	\$30,437.23	78%	44%
7468	Contract Ser-Refuse Disp.	\$5,200.00	\$3,378.81	\$1,121.19	\$4,078.81	87%	22%
7469	Contract Ser-Other	\$53,000.00	\$0.00	\$0.00	\$53,000.00	0%	0%
7470	Utilities-Electric-Power	\$525,000.00	\$240,085.77	\$94,914.23	\$430,085.77	64%	18%
7477	Utilities-Fuel Oil/Gas	\$50,000.00	\$16,740.02	\$2,173.71	\$47,826.29	38%	4%
7479	Refuse Disposal	\$500.00	\$0.00	\$0.00	\$500.00	0%	0%
7801	State Retirement	\$0.00	\$0.00	\$0.00	\$0.00		
7803	Social Security Tax	\$24,526.00	\$0.00	\$8,911.07	\$15,614.93	36%	36%
7803.M	Medicare Tax	\$5,736.00	\$0.00	\$2,084.04	\$3,651.96	36%	36%
7805	Life Insurance	\$0.00	\$0.00	\$0.00	\$0.00		
7807	Disability Insurance	\$0.00	\$0.00	\$0.00	\$0.00		
7808	Health Insurance	\$0.00	\$0.00	\$0.00	\$0.00		
TOTAL		\$1,455,997.00		\$293,971.98	\$1,162,025.02	42%	20%
			90-19-8330				
7107	Sal-UFOPJtWat	\$463,247.00	\$0.00		\$335,857.71	27%	=,,,
7117	Overtime-UFOP	\$100,000.00	\$0.00		\$60,027.87		.070
7140	Allowances-Meals	\$1,152.00		\$136.00	\$1,016.00		12/0
7166	Reimburse-Health Ins.	\$4,000.00		\$0.00	\$4,000.00		0%
7177	AccumPay - Compensatory	\$0.00	\$0.00	\$430.25	(\$430.25)		
7178	Accumulated Pay-Sick	\$0.00	\$0.00	\$1,975.37	(\$1,975.37)		
7179	Accumulated Pay-Vacation	\$0.00	\$0.00	\$6,660.91	(\$6,660.91)		
7215	Water Equipment	\$25,900.00	\$0.00	\$0.00	\$25,900.00	0%	0%
7410	Employees-Travel	\$425.00	\$0.00	\$0.00	\$425.00		0%
7411	Employees-Training/Devel.	\$1,500.00	\$0.00	\$22.95	\$1,477.05	2%	2%

Poughkeepsies' Water Treatment Facility Operating Budget Status

May 1, 2013

33% Expended

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Account Number	Description	Amended Budget	Encumbrances	Expenses	Remaining Balance	Percent Dedicated	Percent Expended
7412	Employees-Wearing Apparel	\$1,800.00	\$0.00	\$0.00	\$1,800.00	0%	0%
7426	Mat & Supplies-Water	\$14,542.00	\$0.00	\$1,032.65	\$13,509.35	7%	7%
7428	Mat & Supplies-Chemicals	\$420,000.00	\$332,053.52	\$87,946.48	\$332,053.52	100%	21%
7443	Repair/Maint-Equipment	\$30,000.00	\$28,412.16	\$1,824.12	\$28,175.88	101%	6%
7449	Rpr/Maint-ServiceContract	\$2,340.00	\$0.00	\$0.00	\$2,340.00	0%	0%
7469	Contract Ser-Other	\$46,100.00	\$3,539.00	\$1,080.00	\$45,020.00	10%	2%
7478	Sludge Disposal	\$75,000.00	\$56,880.40	\$18,964.34	\$56,035.66	101%	25%
7482	Lab Analsis & Chemicals	\$10,000.00	\$0.00	\$2,910.20	\$7,089.80	29%	29%
7803	Social Security Tax	\$35,300.00	\$0.00	\$12,514.50	\$22,785.50	35%	35%
7803.M	Medicare Tax	\$8,300.00	\$0.00	\$2,926.77	\$5,373.23	35%	35%
7805	Life Insurance	\$0.00	\$0.00	\$0.00	\$0.00		
7807	Disability Insurance	\$0.00	\$0.00	\$0.00	\$0.00		
7808	Health Insurance	\$0.00	\$0.00	\$0.00	\$0.00		
TOTAL		\$1,239,606.00	\$420,885.08	\$305,785.96	\$933,820.04	59%	25%
GRAND TOTAL		\$2,957,373.00	\$814,027.43	\$654,160.61	\$2,303,212.39	50%	22%



The trend of NYISO Zone G Monthly Average Day Ahead Prices from April 1, 2003 through April 39, 2013.

Poughkeepsies' Joint Water Board

April 2, 2013 Minutes

Board Members

Mayor, John Tkazyik Mark Newton Paul Herman Todd Tancredi Rich DuPilka Sean Eagleton

Others

Randy Alstadt, Administrator
Don Beer, Morris Associates
Scott Volkman, Stenger, Roberts, Davis & Diamond, LLP
Milo Bunyi, City Administer
Doreen Tignanelli, Customer
Russell Ford, CH2M Hill
Jessie Purcell, City of Poughkeepsie
John Ferro, Poughkeepsie Journal
Mark Grady, EJ Prescott

1. Approval of March 5, 2013 Minutes

Todd Tancredi moved minutes be approved as written. Paul Herman seconded. Board approved 5-0.

2. Public Participation

Doreen Tignanelli stated that she is concerned that sulfuric acid is more corrosive and that she is against any alternative that uses that chemical.

3. Plant Status Report

Randy Alstadt reviewed his written report.

Mayor Tkazyik questioned when Truck Driver would be hired. Randy replied that they are currently conducting interviews. Randy expressed hope that Driver position will be filled by May 1, 2013.

4. Reconciliation

Item was eliminated from agenda.

5. Distribution Model Report

Russell Ford provided Board summary of work. Russell stated that City and Town now have one model that has been calibrated with field data. Russell stated that model can be used to estimate average and maximum conditions. Russell then went through a PowerPoint slide presentation on their work.

Russell pointed out that under current operating conditions Spackenkill tank is drained over two days then refilled. Russell stated that model shows that average detention is 4 to 6 days with maximum of 13 days.

Todd Tancredi questioned what causes the maximum day. Russell replied that this is due to operation of Spackenkill tank. Todd question that if we don't drain tank for two days does that cause worst day. Russell affirmed.

Mark Newton questioned if model has been reliably compared to actual data. Russell stated model was calibrated for hydraulics and compares well to actual data.

Russell recommended that Spackenkill tank be filled then drained as standard operation rather than once weekly. Based upon this change average can be reduced to 5 days and maximum down to 6 to 8 days.

Russell presented chart that showed if wholesale water stops using water, detention in system will increase 1 day.

Russell recommended that upgrade provide confidence that disinfection byproduct compliance will occur now and into the future. Russell reviewed projected results of alternative treatment scenarios. Russell pointed out that chlorine dioxide works for trihalomethanes with 5 days detention and is questionable at 7 days detention. Russell then showed that for haloacetic acids 5 days detention is borderline and given system water age can approach 10 days this alternative will fail.

Russell stated they recommend College Hill reservoir be operated between 19.5 and 10.0 feet, Route 44 Tank be operated between 29 to 14 feet and Spackenkill Tank be filled then drained repeatedly.

Milo Bunyi questioned how Spackenkill is controlled. Randy Alstadt replied that this is ground level tank that fill under pressure then must be pumped out.

Todd Tancredi questioned if enhanced coagulation could be completed quickly to prevent violation. Russell stated all alternatives include enhanced coagulation, however is not needed with ozone alternative.

Milo Bunyi questioned if model was used to verify all transmission alternatives have been evaluated. Russell stated that moving tank levels is the most effective way to reduce water age and that they have not identified a flushing plan alternative that would be effective.

Todd Tancredi questioned if pH adjustment is needed. Don Beer stated that ozone option is the safest in terms of compliance. Russell Ford stated the real issue is ozone versus chlorine dioxide. Russell stated ozone will carry a chlorine residual into distribution system and that with ozone and biological activated chlorine (BAC) the safety factor is significantly improved. Mark Newton questioned if falling within the red bar (safety factor) is based upon worst condition. Russell stated it is.

6. 2013 Updated Proposed Capital Budget- Business Plan

Todd Tancredi questioned if previous laboratory study tested for urea removal. Russell Ford explained that target was organic removal and that although urea is in Page 2 of 3

that group it was not targeted. Todd asked if urea concentration will increase with detention time. Russell stated that urea is in raw water and that it is not affected by detention time.

Todd questioned what assurance CH2M Hill will provide once urea testing is complete. Russell stated that cannot be determined until urea testing is completed. Mark Newton recommended that deal be reached with IBM then testing be conducted. Mark suggested that if we can reach an over all deal with IBM then maybe IBM should hire CH2M Hill.

Sean Eagleton asked if urea is special to our water supply. Russell Ford stated that urea is in the Hudson River. Russell stated that previous meeting with IBM reached concurrence that ozone with BAC should remove urea, however testing will be needed.

Todd Tancredi proposed that work be started now on centrifuge and enhanced coagulation. Mayor Tkazyik questioned what costs would be. Todd expressed concern that Board move forward to avoid violation.

Board requested CH2M Hill and Morris provide design estimate to move forward with centrifuge and enhanced coagulation. Russell Ford stated that proposal will be submitted quickly.

7. Spare Parts for Transmission Main

Rich DuPilka stated that he is working with Jessie Purcell and Keith Ballard. His current cost estimate is \$14,000. Mark Newton expressed thanks to Rich and team for taking this project on.

8. Report on Screening at Low Lift Pump Station

Randy Alstadt stated that he has been discussing options with staff. Randy provided Board memo from Brian Morris detailing past effort.

9. Old Business

Board went into Executive Session to discuss IBM contract negotiations. Executive Session was completed.

10. New Business

None.

Board set the next regular scheduled meeting to be May 7, 2013 at 4:30 PM.

Poughkeepsies' Joint Water Board

April 23, 2013 Minutes

Board Members

Mayor, John Tkazyik Mark Newton Paul Herman Todd Tancredi Rich DuPilka Sean Eagleton

Others

Randy Alstadt, Administrator
Keith Ballard Town of Poughkeepsie
Scott Volkman, Stenger, Roberts, Davis & Diamond, LLP
Milo Bunyi, City Administer
Doreen Tignanelli, Customer
Jim Wojtowicz, Town Comptroller
Jessie Purcell, City of Poughkeepsie
John Ferro, Poughkeepsie Journal

1. Public Participation

Doreen Tignanelli stated that decision made by Water Board should be for the benefit of everyone, not just IBM.

2. 2013 Updated Proposed Capital Budget

Randy Alstadt provided Board summary of activities.

Mayor Tancredi asked Randy to discuss what occurred at meeting with County Health. Randy stated that meeting was called by County Health to encourage resolution on Disinfection Byproduct failure at Greenbush and Fishkill. Randy stated that County encouraged a regional solution. Randy stated that County Executive, Marc Molinaro stated that Board needs to identify solution and that he would support a regional finance plan.

Mayor Tancredi stated he told group that Board would identify recommended project within 60 days.

Todd Tancredi proposed that Board formally ratify decision to have CH2M Hill complete urea study and that County be contacted to participate in costs. Mayor Tkazyik seconded and Board approved 6-0.

Milo Bunyi pointed out that the biggest concern is to go to EFC and increase points for funding due to failures in wholesale customers. Milo stated as far as financing, City can finance 30 years and acquire short term loans through 2013-2016.

Mark Newton stated that it is not the function of the Water Board to determine how City and Town should finance upgrade. It is the Water Board's responsibility to recommend a plan.

Milo stated he brought up financing because interest could be 2.5% to 3.5% and could get below 2.0 % if financed through SRF.

Mark stated Water Board needs to focus on policy. Mark recommended Board

proceed with ozone upgrade.

Mayor Tkazyik recommended Board discuss wholesale contracts in executive session. Board approved.

Executive Session completed.

Todd Tancredi moved that Board open negotiations with County. Mark Newton seconded. Board approved 6-0.

Mark Newton proposed that Board move forward with ozone project. Todd Tancredi stated that this is the proper way to go.

Mayor Tkazyik moved that Board move forward on ozone project as identified in Capital Improvement Plan. Sean Eagleton seconded. Board approved 6-0.

3. Old Business

None.

4. New Business

None.

Next regular scheduled meeting to be May 7, 2013 at 4:30 PM.