

## Meeting

**Brown Deer Water Commission**  
**Thursday, November 5, 2015**  
Village Hall, Room 101 **5:00 P.M.**



**PLEASE TAKE NOTICE** that a meeting of the Brown Deer Water Commission will be held at the Village Hall of the Village of Brown Deer, 4800 West Green Brook Drive, Brown Deer, Wisconsin at which time and place the following items of business will be discussed and possibly acted upon:

- I. Roll Call
- II. Persons Desiring To Be Heard
- III. Consideration of minutes:
  - A) Ratify September 24, 2015 Minutes
- IV. Public Hearing: 2016 Operating Budget
- V. Old Business
  - A) Approve 2016 Operating Budget
- VI. New Business
  - A) None
- VII. Staff Report
  - A) 2015 DNR Sanitary Survey
- VIII. Treasurer's Report
  - A) Ratify Vouchers for September, 2015 through October, 2015
  - B) Review Balance Sheet and Income Statement ending Sept. 30, 2015
- IX. Adjournment

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Jill Kenda-Lubetski, Village Clerk  
November 4, 2015

**PERSONS REQUIRING SPECIAL ACCOMMODATIONS FOR ATTENDANCE AT THE MEETING SHOULD CONTACT THE VILLAGE CLERK AT LEAST ONE BUSINESS DAY PRIOR TO THE MEETING.**

**MINUTES OF THE MEETING OF THE BROWN DEER WATER UTILITY  
HELD AT THE BROWN DEER VILLAGE HALL- 4800 WEST GREEN BROOK DRIVE**

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The meeting was called to order at 5:00 p.m.

<b><u>I.</u></b>	<b><u>Roll Call</u></b>	<b><u>Present</u></b>	<b><u>Absent</u></b>
	Tim Schilz, President	X	
	Erin Schmitz, Secretary	X	
	Ken Harmon	X	
	Gerald Anderson	X	
	Zach Beanland		X
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**Also Present:**

Don Esche, Utility Accountant  
Mike Rau, Water Utility Manager  
Tom Nennig, Water Utility Superintendent

**II.** **Persons Desiring To Be Heard**

None

Superintendent Nennig discussed Mr. Perry's request to be partially reimbursed for expenses related to clean up of the area around his meter due to a leak at the meter coupling. The Utility has not reimbursed in the past for this. Commissioners concluded this should be handled through the homeowners insurance.

**III.** **Consideration of Minutes:**

**A) March 15, 2015 Meeting**

*Commissioner Schmitz moved to ratify the minutes from the March 15, 2015 meeting as previously distributed. Commissioner Harmon seconded the motion. **Motion passed.***

**IV.** **Old Business: None**

**V.** **New Business:**

**A) Discussion of proposed 2016 Budget**

Commissioners and staff discussed the following items related to the proposed budget for 2016.

- Water main relay projects were discussed and decided on relaying N. 52<sup>nd</sup> St (between Dean and Churchill) N. 54<sup>th</sup> St (between Bradley and 53<sup>rd</sup> St) and Goodrich (between 54<sup>th</sup> St and 51<sup>st</sup> St).
- Discussed the potential for filing a simplified rate case in early 2016.

*Commissioner Anderson moved to approve publishing the draft budget for public notification. Commissioner Harmon seconded the motion. **Motion passed.***

VI.STAFF REPORT**A) 2014 Milwaukee Rate Case Follow-up**

Discussed the progression of the demand study that PSC ordered Milwaukee Water Works to modify based on comments from the wholesaler group in the last rate case. PSC wants Milwaukee and the wholesaler group to come to a consensus before Milwaukee attempts to file another rate case. As part of the 2014 Milwaukee Rate Case decision, Brown Deer has once again joined the wholesaler group to hire a consultant to review and formulate an official response to PSC regarding the proposed changes to the demand study

**B) DNR Sanitary Sewer**

On September 15, the local DNR representative conducted the 3 year sanitary review of the water department. Brown Deer passed with only a two minor issues that will be corrected before the end of 2015.

**C) AT&T Cell Antenna Update**

Manager Rau updated the Commissioners on the request from AT&T to renegotiate their long term lease for antennas on the water storage facility. No action has been requested to date. This was for information purposes only.

VII.TREASURER'S REPORT**A) Ratify Vouchers for March 2015 through August 2015**

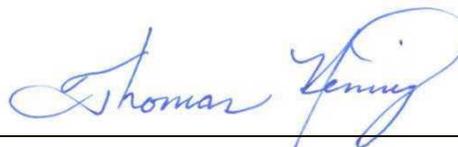
*Commissioner Harmon made a motion to ratify the vouchers for March 2015 through August 2015 as previously distributed. The motion was seconded by Commissioner Anderson. **Motion passed.***

**B) 2015 Balance Sheet and Income Statement**

Income statement for the second quarter was reviewed and the water accountability statement through the third quarter was presented to Commissioners for review.

VIII.ADJOURNMENT

**Motion:** *Commissioner Schmitz moved and Commissioner Anderson seconded to adjourn the meeting 6:07 p.m. **Motion Passed.***



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Tom Nennig, Water Superintendent

BROWN DEER WATER PUBLIC UTILITY

PLEASE TAKE NOTICE that on November 5, 2015 at 5:00 P.M., or as soon thereafter as the matter can be heard, the statutory public hearing on the proposed 2015 Brown Deer Water Public Utility budget as prepared by the Brown Deer Water Commission will be held in the Village Hall at 4800 W. Green Brook Drive, Brown Deer, Wisconsin.

PLEASE TAKE FURTHER NOTICE that the following is a true and correct copy of the proposed budget for the Brown Deer Water Public Utility for 2016.

	2014 BUDGET	2014 ACTUAL	2015 BUDGET	2015 ESTIMATED	2016 PROPOSED
TOTAL OPERATING REVENUE	\$1,693,603.15	\$1,660,800.22	\$1,687,521.51	\$1,746,312.55	\$1,688,000.00
TOTAL OPERATING EXPENSES	\$1,608,320.00	\$1,552,205.17	\$1,597,800.00	\$1,546,379.83	\$1,580,200.00
OPERATING PROFIT (LOSS)	\$85,283.15	\$108,595.05	\$89,721.51	\$199,932.72	\$107,800.00
ADD BACK NONCASH ITEMS	\$155,000.00	\$128,648.07	\$153,000.00	\$129,169.47	\$143,000.00
FUNDS FROM OTHER SOURCES	\$142,500.00	\$452,961.29	\$455,585.75	\$140,132.04	\$147,000.00
TRANSFER FROM /(TO) RESERVES	\$466,446.93	(\$246,566.94)	\$107,234.74	\$369,689.59	\$471,168.00
FUNDS AVAILABLE	\$849,230.08	\$443,637.47	\$805,542.00	\$838,923.82	\$868,968.00
LESS - DEBT SERVICE	\$190,730.08	\$192,026.25	\$147,042.00	\$168,920.17	\$166,468.00
- CAPITAL EXPENDITURES	\$658,500.00	\$251,611.22	\$658,500.00	\$670,003.65	\$702,500.00
CASH EXCESS (DEFICIENCY)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

for publication on October 29, 2015. Dated at Brown Deer, Wisconsin this 21st day of October, 2015 Jill Kenda-Lubetski , Village Clerk.

**BROWN DEER WATER PUBLIC UTILITY  
BROWN DEER WATER PUBLIC UTILITY**

2016 OPERATING BUDGET

			2014 BUDGET	2014 ACTUAL	2015 BUDGET	ACTUAL JAN. 1 TO JUNE 30,2015	ESTIMATED JULY 1 TO DEC. 31 2015	ESTIMATED 2015 TOTALS	PROPOSED 2016 BUDGET
<u>OPERATING REVENUE</u>									
000- 64-4-50-10	METERED SALES -	RESIDENTIAL	\$683,727.35	\$639,667.62	\$644,164.05	\$315,768.05	\$352,170.00	\$667,938.05	\$650,000.00
000-64-4-50-11		COMMERCIAL	\$200,946.89	\$207,001.13	\$201,239.49	\$102,209.52	\$122,500.00	\$224,709.52	\$205,000.00
000- 64-4-50-12		BULK SALES	\$4,981.62	\$8,173.71	\$4,599.51	\$1,000.00	\$3,000.00	\$4,000.00	\$4,500.00
		MULTIFAMILY RESIDENTIAL	\$220,000.00	\$226,364.68	\$217,290.53	\$116,714.16	\$127,300.00	\$244,014.16	\$228,000.00
000- 64-4-50-13		INDUSTRIAL	\$69,742.68	\$99,627.34	\$92,709.00	\$44,161.92	\$54,300.00	\$98,461.92	\$90,000.00
	TOTAL METERED SALES		\$1,179,398.54	\$1,180,834.48	\$1,160,002.58	\$579,853.65	\$659,270.00	\$1,239,123.65	\$1,177,500.00
000- 64-4-50-20	PRIVATE FIRE PROTECTION SALES		\$49,450.80	\$49,327.20	\$51,465.96	\$24,946.84	\$25,400.00	\$50,346.84	\$49,000.00
000- 64-4-50-30	PUBLIC FIRE PROTECTION SALES		\$295,365.00	\$267,553.50	\$295,099.17	\$132,347.19	\$132,800.00	\$265,147.19	\$290,000.00
000- 64-4-50-40	SALES TO PUBLIC AUTHORITIES		\$21,000.00	\$23,209.47	\$24,393.33	\$14,811.71	\$13,700.00	\$28,511.71	\$23,000.00
	TOTAL SALES OF WATER		\$1,545,214.34	\$1,520,924.65	\$1,530,961.04	\$751,959.39	\$831,170.00	\$1,583,129.39	\$1,539,500.00
<u>OTHER OPERATING REVENUE</u>									
000-81-4-00-30	FORFEITED DISCOUNTS AND PENALTIES		\$15,000.00	\$10,226.75	\$20,000.00	\$5,454.09	\$15,000.00	\$20,454.09	\$16,000.00
000-82-4-00-10	RENTS FROM WATER PROPERTY		\$122,388.81	\$125,147.85	\$126,060.47	\$63,260.14	\$65,588.00	\$128,848.14	\$126,000.00
000-82-4-00-50	MISC.SERVICES REV.RECORD CERTIF. CR.,ETC.		\$5,000.00	\$875.03	\$5,000.00	\$290.00	\$4,500.00	\$4,790.00	\$1,000.00
	STORM WATER FUND REIMBURSEMENT		\$1,000.00	\$200.41	\$500.00	\$24.87	\$50.00	\$74.87	\$500.00
	SEWER FUND REIMBURSEMENT		\$5,000.00	\$3,425.53	\$5,000.00	\$3,416.06	\$5,600.00	\$9,016.06	\$5,000.00
	TOTAL OPERATING REVENUE		\$1,693,603.15	\$1,660,800.22	\$1,687,521.51	\$824,404.55	\$921,908.00	\$1,746,312.55	\$1,688,000.00
<u>THOUSANDS OF GALLONS SOLD</u>									
	RESIDENTIAL		200,000	174,322	180,000	80,550	92,400	172,950	
	COMMERCIAL		112,000	81,448	90,000	37,129	46,000	83,129	
	BULK SALES		4,000	4,235	4,000	300	3,000	3,300	
	MULTIFAMILY		70,000	97,365	92,000	46,661	50,700	97,361	
	INDUSTRIAL		42,000	45,971	45,000	18,512	23,100	41,612	
	PUBLIC AUTHORITY		6,800	8,487	10,000	4,113	4,500	8,613	
	TOTAL GALLONS SOLD (THOUSANDS)		434,800	411,828	421,000	187,265	219,700	406,965	0

BROWN DEER WATER PUBLIC UTILITY  
**BROWN DEER WATER PUBLIC UTILITY**

**2016 OPERATING BUDGET**

	2014 BUDGET	2014 ACTUAL	2015 BUDGET	ACTUAL JAN. 1 TO JUNE 30,2015	ESTIMATED JULY 1 TO DEC. 31 2015	ESTIMATED 2015 TOTALS	PROPOSED 2016 BUDGET	
<b>OPERATING EXPENSES</b>								
<b>SOURCE OF SUPPLY EXPENSE</b>								
611-37-5-22-50	PURCHASES OF WATER	\$735,420.00	\$663,835.83	\$676,000.00	\$338,999.89	\$357,000.00	\$695,999.89	\$670,000.000
611-37-5-35-60	MAINTENANCE OF STRUCTURES & IMPROVEMENTS	\$1,000.00	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$1,000.00	1,000.00
611-37-5-35-70	MAINTENANCE OF SUPPLY MAIN	\$10,000.00	\$14,821.90	\$11,000.00	\$6,039.71	\$5,000.00	\$11,039.71	11,000.00
	<b>TOTAL SOURCE OF SUPPLY EXPENSE</b>	<b>\$746,420.00</b>	<b>\$678,657.73</b>	<b>\$688,000.00</b>	<b>\$345,039.60</b>	<b>\$363,000.00</b>	<b>\$708,039.60</b>	<b>682,000.00</b>
<b>PUMPING EXPENSE</b>								
612-37-5-22-10	POWER PURCHASED FOR PUMPING	\$6,500.00	\$6,512.00	\$7,000.00	\$3,647.99	\$3,000.00	\$6,647.99	6,500.00
612-37-5-30-90	MISCELLANEOUS PUMPING EXPENSE	\$1,000.00	\$0.00	\$1,000.00	\$163.00	\$800.00	\$963.00	200.00
612-37-5-35-60	MAINTENANCE OF STRUCTURES & IMPROVEMENTS	\$1,000.00	\$1,527.92	\$2,000.00	\$98.98	\$1,000.00	\$1,098.98	2,000.00
612-37-5-35-65	MAINTENANCE OF PUMPING EQUIPMENT	\$5,000.00	\$395.00	\$2,000.00	\$0.00	\$1,500.00	\$1,500.00	2,000.00
	<b>TOTAL PUMPING EXPENSE</b>	<b>\$13,500.00</b>	<b>\$8,434.92</b>	<b>\$12,000.00</b>	<b>\$3,909.97</b>	<b>\$6,300.00</b>	<b>\$10,209.97</b>	<b>\$10,700.00</b>
<b>TREATMENT EXPENSE</b>								
613-37-5-36-11	OPERATIONS SUPERVISION	\$4,000.00	\$1,505.11	\$4,000.00	\$0.00	\$600.00	\$600.00	\$2,000.00
613-37-5-36-40	CHEMICALS	\$4,500.00	\$2,346.60	\$4,500.00	\$1,771.25	\$2,500.00	\$4,271.25	\$4,000.00
613-37-5-36-15	OPERATIONS LABOR AND EXPENSE	\$6,000.00	\$695.02	\$5,000.00	\$284.14	\$1,000.00	\$1,284.14	\$4,000.00
613-37-5-36-90	MISCELLANEOUS EXPENSES	\$1,000.00	\$359.33	\$1,000.00	\$153.71	\$500.00	\$653.71	\$1,000.00
	<b>TOTAL TREATMENT EXPENSE</b>	<b>\$15,500.00</b>	<b>\$4,906.06</b>	<b>\$14,500.00</b>	<b>\$2,209.10</b>	<b>\$4,600.00</b>	<b>\$6,809.10</b>	<b>\$11,000.00</b>
<b>TRANSMISSION AND DISTRIBUTION EXPENSE</b>								
614-37-5-36-10	OPERATIONS SUPERVISION	\$13,000.00	\$22,977.67	\$14,000.00	\$12,512.77	\$12,800.00	\$25,312.77	\$20,000.00
614-37-5-36-61	STORAGE FACILITIES EXPENSE	\$2,000.00	\$0.00	\$2,000.00	\$0.00	\$1,000.00	\$1,000.00	\$1,000.00
614-37-5-36-62	TRANSMISSION AND DISTRIBUTION LINE EXPENSE	\$34,000.00	\$47,903.35	\$40,000.00	\$22,719.97	\$26,000.00	\$48,719.97	\$46,000.00
614- 37-5-36-20	METER EXPENSE	\$10,500.00	\$5,672.45	\$10,500.00	\$2,074.11	\$1,800.00	\$3,874.11	\$7,000.00
614-37-5-36-90	MISCELLANEOUS EXPENSE	\$5,000.00	\$3,594.98	\$5,000.00	\$2,423.68	\$1,800.00	\$4,223.68	\$4,000.00
614-37-5-36-25	DIGGER'S HOTLINE EXPENSE	\$15,000.00	\$11,999.69	\$15,000.00	\$6,375.87	\$7,500.00	\$13,875.87	\$14,000.00
614-37-5-36-11	MAINTENANCE SUPERVISION	\$11,000.00	\$14,396.63	\$11,000.00	\$8,865.17	\$9,000.00	\$17,865.17	\$12,000.00
614-37-5-35-60	MAINTENANCE-STRUCTURES AND IMPROVEMENTS	\$1,000.00	\$0.00	\$1,000.00	\$0.00	\$500.00	\$500.00	\$1,000.00
614-37-5-35-61	MAINTENANCE-RESERVOIRS AND STANDPIPES	\$1,500.00	\$670.00	\$1,000.00	\$0.00	\$500.00	\$500.00	\$1,000.00
614-37-5-35-62	MAINTENANCE-MAINS	\$80,000.00	\$129,553.92	\$80,000.00	\$39,708.27	\$36,000.00	\$75,708.27	\$95,000.00
614-37-5-35-63	MAINTENANCE-SERVICES	\$10,000.00	\$11,989.43	\$15,000.00	\$15,716.31	\$3,000.00	\$18,716.31	\$15,000.00
616-37-5-35-64	MAINTENANCE-METERS	\$2,000.00	\$1,902.07	\$2,300.00	\$35.56	\$1,000.00	\$1,035.56	\$2,000.00
614-37-5-35-66	MAINTENANCE-HYDRANTS	\$14,000.00	\$6,590.95	\$14,000.00	\$6,213.27	\$13,000.00	\$19,213.27	\$12,000.00
614-37-5-35-67	MAINTENANCE-MISCELLANEOUS PLANT	\$11,000.00	\$24,605.65	\$18,000.00	\$6,460.37	\$10,000.00	\$16,460.37	\$18,000.00
	<b>TOTAL TRANS. AND DISTRIBUTION EXPENSE</b>	<b>\$210,000.00</b>	<b>\$281,856.79</b>	<b>\$228,800.00</b>	<b>\$123,105.35</b>	<b>\$123,900.00</b>	<b>\$247,005.35</b>	<b>\$248,000.00</b>

BROWN DEER WATER PUBLIC UTILITY  
**BROWN DEER WATER PUBLIC UTILITY**

2016 OPERATING BUDGET

	2014 BUDGET	2014 ACTUAL	2015 BUDGET	ACTUAL JAN. 1 TO JUNE 30,2015	ESTIMATED JULY 1 TO DEC. 31 2015	ESTIMATED 2015 TOTALS	PROPOSED 2016 BUDGET
<b>CUSTOMER ACCOUNT EXPENSES</b>							
616-37-5-36-10							
SUPERVISION-CUSTOMER ACCOUNTS	\$4,400.00	\$3,771.46	\$4,500.00	\$1,936.29	\$3,500.00	\$5,436.29	\$4,000.00
616-37-5-36-20							
METER READING EXPENSE	\$9,000.00	\$4,430.35	\$9,000.00	\$2,722.04	\$2,900.00	\$5,622.04	\$6,000.00
616-37-5-36-30							
CUSTOMER RECORDS AND COLLECTION EXPENSE	\$13,000.00	\$4,589.70	\$12,500.00	\$7,445.80	\$7,700.00	\$15,145.80	\$14,000.00
616-37-5-36-40							
UNCOLLECTIBLE ACCOUNTS	\$2,000.00	\$10,387.06	\$5,000.00	\$512.26	\$6,500.00	\$7,012.26	\$4,000.00
616-37-5-36-50							
MISCELLANEOUS CUSTOMER ACCOUNT EXPENSE	\$4,000.00	\$1,075.84	\$4,000.00	\$2,273.37	\$2,500.00	\$4,773.37	\$4,000.00
<b>TOTAL CUSTOMER ACCOUNT EXPENSE</b>	<b>\$32,400.00</b>	<b>\$24,254.41</b>	<b>\$35,000.00</b>	<b>\$14,889.76</b>	<b>\$23,100.00</b>	<b>\$37,989.76</b>	<b>\$32,000.00</b>
<b>ADMINISTRATION AND GENERAL EXPENSES</b>							
620-37-5-10-10							
ADMINISTRATION AND GENERAL SALARIES	\$27,500.00	\$17,615.03	\$27,000.00	\$9,389.74	\$9,100.00	\$18,489.74	\$21,000.00
620-37-5-30-10							
OFFICE SUPPLIES AND EXPENSE	\$14,000.00	\$9,984.17	\$12,000.00	\$4,645.48	\$6,000.00	\$10,645.48	\$11,000.00
620-37-5-20-20							
OUTSIDE SERVICES EMPLOYED	\$28,000.00	\$22,889.52	\$27,000.00	\$11,444.76	\$11,500.00	\$22,944.76	\$25,000.00
620-37-5-51-10							
PROPERTY INSURANCE	\$12,000.00	\$11,055.84	\$12,500.00	\$5,527.92	\$5,600.00	\$11,127.92	\$12,000.00
620-37-5-51-45							
INJURIES AND DAMAGES	\$10,000.00	\$10,146.83	\$11,000.00	\$4,781.38	\$4,800.00	\$9,581.38	\$10,000.00
620-37-5-15-10							
EMPLOYEE PENSIONS AND BENEFITS	\$30,000.00	\$25,407.43	\$25,000.00	\$11,006.02	\$12,200.00	\$23,206.02	\$25,500.00
620-37-5-39-60							
REGULATORY COMMISSION EXPENSE	\$5,000.00	\$16,197.08	\$6,000.00	\$2,600.69	\$500.00	\$3,100.69	\$6,000.00
620-37-5-30-90							
MISCELLANEOUS GENERAL EXPENSE	\$5,000.00	\$4,932.80	\$5,000.00	\$3,884.20	\$3,600.00	\$7,484.20	\$5,000.00
620-37-5-53-20							
RENT	\$14,000.00	\$12,192.12	\$13,000.00	\$6,096.06	\$6,100.00	\$12,196.06	\$13,000.00
620-37-5-35-55							
MAINTENANCE OF GENERAL PLANT	\$1,000.00	\$250.00	\$1,000.00	\$860.44	\$500.00	\$1,360.44	\$1,000.00
620-37-5-36-75							
TRANSPORTATION EXPENSE	\$11,000.00	\$9,089.47	\$11,000.00	\$5,866.95	\$5,400.00	\$11,266.95	\$10,000.00
<b>TOTAL ADMINISTRATION &amp; GENERAL EXPENSE</b>	<b>\$157,500.00</b>	<b>\$139,760.29</b>	<b>\$150,500.00</b>	<b>\$66,103.64</b>	<b>\$65,300.00</b>	<b>\$131,403.64</b>	<b>\$139,500.00</b>

BROWN DEER WATER PUBLIC UTILITY  
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2016 OPERATING BUDGET

		2014 BUDGET	2014 ACTUAL	2015 BUDGET	ACTUAL JAN. 1 TO JUNE 30,2015	ESTIMATED JULY 1 TO DEC. 31 2015	ESTIMATED 2015 TOTALS	PROPOSED 2016 BUDGET
621-37-5-54-10	DEPRECIATION EXPENSE	\$145,000.00	\$128,859.95	\$145,000.00	\$60,157.88	\$60,200.00	\$120,357.88	\$135,000.00
623-37-5-36-80	TAXES - SOCIAL SECURITY	\$11,000.00	\$7,372.21	\$10,000.00	\$2,802.03	\$3,000.00	\$5,802.03	\$10,000.00
	PAYMENT IN LIEU OF TAXES	\$275,000.00	\$276,632.23	\$312,000.00	\$138,362.50	\$138,400.00	\$276,762.50	\$310,000.00
	P.S.C. REMAINDER ASSESSMENT	\$2,000.00	\$1,470.58	\$2,000.00	\$0.00	\$2,000.00	\$2,000.00	\$2,000.00
<b>TOTAL OPERATING EXPENSES</b>		<b>\$1,608,320.00</b>	<b>\$1,552,205.17</b>	<b>\$1,597,800.00</b>	<b>\$756,579.83</b>	<b>\$789,800.00</b>	<b>\$1,546,379.83</b>	<b>\$1,580,200.00</b>
<b>TOTAL OPERATING PROFIT (LOSS)</b>		<b>\$85,283.15</b>	<b>\$108,595.05</b>	<b>\$89,721.51</b>	<b>\$67,824.72</b>	<b>\$132,108.00</b>	<b>\$199,932.72</b>	<b>\$107,800.00</b>
<b>ADD BACK ITEMS NOT REQUIRING CASH</b>								
	DEPRECIATION	\$145,000.00	\$128,859.95	\$145,000.00	\$60,157.88	\$60,200.00	\$120,357.88	135,000.00
	PENSION AND BENEFITS RESERVE	\$10,000.00	(\$211.88)	\$8,000.00	\$8,311.59	\$500.00	\$8,811.59	8,000.00
<b>TOTAL FUNDS FROM OPERATIONS</b>		<b>\$240,283.15</b>	<b>\$237,243.12</b>	<b>\$242,721.51</b>	<b>\$136,294.19</b>	<b>\$192,808.00</b>	<b>\$329,102.19</b>	<b>\$250,800.00</b>
<b>OTHER SOURCES OF FUNDS</b>								
	MAIN REPLACEMENT FUND	\$100,000.00	\$100,000.00	\$100,000.00	\$50,000.00	\$50,000.00	\$100,000.00	\$100,000.00
	INTEREST INCOME	\$500.00	\$12,489.88	\$4,000.00	(\$157.20)	\$1,500.00	\$1,342.80	\$5,000.00
	PROCEEDS OF BOND ISSUE	\$0.00	\$302,771.25	\$309,585.75	\$0.00	\$0.00	\$0.00	\$0.00
	DEPREC.REIMBURSE FROM SEWER & STORM WATER	\$42,000.00	\$37,700.16	\$42,000.00	\$19,789.24	\$19,000.00	\$38,789.24	\$42,000.00
<b>TOTAL FUNDS AVAILABLE</b>		<b>\$382,783.15</b>	<b>\$690,204.41</b>	<b>\$698,307.26</b>	<b>\$205,926.23</b>	<b>\$263,308.00</b>	<b>\$469,234.23</b>	<b>\$397,800.00</b>
<b>OTHER USES OF FUNDS</b>								
	DEBT SERVICE- PRINCIPAL	\$144,500.00	\$144,500.00	\$103,100.00	\$118,100.00	\$0.00	\$118,100.00	\$118,100.00
	INTEREST	\$46,230.08	\$47,526.25	\$43,942.00	\$25,886.67	\$24,933.50	\$50,820.17	\$48,368.00
	CAPITAL ADDITIONS - SEE SCHEDULE 1	\$658,500.00	\$251,611.22	\$658,500.00	\$554,265.58	\$115,738.07	\$670,003.65	\$702,500.00
<b>TOTAL OTHER USES OF FUNDS</b>		<b>\$849,230.08</b>	<b>\$443,637.47</b>	<b>\$805,542.00</b>	<b>\$698,252.25</b>	<b>\$140,671.57</b>	<b>\$838,923.82</b>	<b>\$868,968.00</b>
<b>CASH EXCESS (DEFICIENCY)</b>		<b>(\$466,446.93)</b>	<b>\$246,566.94</b>	<b>(\$107,234.74)</b>	<b>(\$492,326.02)</b>	<b>\$122,636.43</b>	<b>(\$369,689.59)</b>	<b>(\$471,168.00)</b>
<b>TRANSFER (TO)/FROM RESERVES</b>		<b>\$466,446.93</b>	<b>(\$246,566.94)</b>	<b>\$107,234.74</b>	<b>\$492,326.02</b>	<b>(\$122,636.43)</b>	<b>\$369,689.59</b>	<b>\$471,168.00</b>

BROWN DEER WATER PUBLIC UTILITY  
**BROWN DEER WATER PUBLIC UTILITY**

2016 OPERATING BUDGET

	2014 BUDGET	2014 ACTUAL	2015 BUDGET	ACTUAL JAN. 1 TO JUNE 30,2015	ESTIMATED JULY 1 TO DEC. 31 2015	ESTIMATED 2015 TOTALS	PROPOSED 2016 BUDGET
UTILITY PLANT IN SERVICE-BEG. OF PERIOD	\$6,275,952.87	\$6,421,947.59	\$6,473,836.55	\$6,727,492.98	\$7,158,319.18	\$6,727,492.98	\$7,158,469.18
-END OF PERIOD	\$6,717,066.98	\$6,727,492.98	\$6,902,336.55	\$7,158,319.18	\$7,158,469.18	\$7,158,469.18	\$7,630,969.18
AVERAGE -A-	\$6,496,509.93	\$6,574,720.29	\$6,688,086.55	\$6,942,906.08	\$7,158,394.18	\$6,942,981.08	\$7,394,719.18
ACCUMULATED DEPRECIATION-BEG. OF PERIOD	\$2,817,889.32	\$2,499,817.92	\$2,842,021.65	\$2,649,245.11	\$2,720,600.69	\$2,649,245.11	\$2,939,947.81
-END OF PERIOD	\$3,004,889.32	\$2,649,245.11	\$3,029,021.65	\$2,720,600.69	\$2,780,800.69	\$2,939,947.81	\$3,116,947.81
AVERAGE -B-	\$2,911,389.32	\$2,574,531.52	\$2,935,521.65	\$2,684,922.90	\$2,750,700.69	\$2,794,596.46	\$3,028,447.81
MATERIAL & SUP. INVENTORY-BEG. OF PERIOD	\$26,643.40	\$22,430.27	\$26,643.40	\$20,225.34	\$22,430.27	\$20,225.34	\$26,643.40
-END OF PERIOD	\$26,643.40	\$20,225.34	\$26,643.40	\$22,430.27	\$26,643.40	\$26,643.40	\$26,643.40
AVERAGE -C-	\$26,643.40	\$21,327.81	\$26,643.40	\$21,327.81	\$24,536.84	\$23,434.37	\$26,643.40
REGULATORY LIABILITY (CIAC)-BEG. OF PERIOD	\$537,126.12	\$537,126.12	\$537,126.12	\$483,413.48	\$456,557.16	\$483,413.48	\$429,700.84
-END OF PERIOD	\$483,413.48	\$483,413.48	\$483,413.48	\$456,557.16	\$429,700.84	\$429,700.84	\$375,988.20
AVERAGE -D-	\$510,269.80	\$510,269.80	\$510,269.80	\$469,985.32	\$443,129.00	\$456,557.16	\$402,844.52
AVERAGE RATE BASE (A-B+C-D)	\$3,101,494.21	\$3,511,246.78	\$3,268,938.50	\$3,809,325.67	\$3,989,101.33	\$3,715,261.83	\$3,990,070.25
<b>OPERATING NET PROFIT</b>	\$85,283.15	\$108,595.05	\$89,721.51	\$67,824.72	\$132,108.00	\$199,932.72	\$107,800.00
<b>RATE OF RETURN</b>	2.75%	3.09%	2.74%	1.78%	3.31%	5.38%	2.70%

BROWN DEER WATER PUBLIC UTILITY  
**BROWN DEER WATER PUBLIC UTILITY**

2016 OPERATING BUDGET

SCHEDULE 1

	2014 BUDGET	2014 ACTUAL	2015 BUDGET	ACTUAL JAN. 1 TO JUNE 30,2015	ESTIMATED JULY 1 TO DEC. 31 2015	ESTIMATED 2015 TOTALS	PROPOSED 2016 BUDGET
<b>CAPITAL ADDITIONS</b>							
DISINFECTION BOOSTER STATION	\$10,000.00		\$5,000.00			\$0.00	\$5,000.00
BOOSTER STATION ALTERNATIVES			\$10,000.00			\$0.00	\$10,000.00
DUMP TRUCK MAINTENANCE			\$3,000.00	\$2,410.21		\$2,410.21	\$3,000.00
VALVE TURNING EQUIP	\$0.00	\$0.00	\$0.00			\$0.00	
METERS NEW 5/8	\$5,000.00	\$4,193.37	\$10,000.00	\$4,099.67	\$150.00	\$4,249.67	\$8,000.00
OVERSIZED	\$23,000.00	\$15,806.20	\$10,000.00	\$919.36		\$919.36	\$10,000.00
SUPPLIES TO INSTALL	\$1,500.00		\$1,500.00			\$0.00	\$1,500.00
LABOR TO INSTALL	\$12,000.00	\$6,064.65	\$12,000.00	\$3,419.12		\$3,419.12	\$12,000.00
A.M.R.MODULES	\$7,000.00	\$0.00	\$8,000.00	\$8,926.75		\$8,926.75	\$12,000.00
OFFICE EQUIPMENT	\$1,000.00		\$1,000.00			\$0.00	\$1,000.00
COMPUTER EQUIPMENT & SOFTWARE	\$6,000.00	\$1,500.00	\$0.00			\$0.00	\$6,000.00
TOOLS,SHOP AND GARAGE EQUIP.-GENERAL	\$4,000.00		\$4,000.00			\$0.00	\$4,000.00
MAIN REPLACEMENT SPECIAL FUND	\$50,000.00	\$100,000.00	\$100,000.00	\$50,000.00	\$50,000.00	\$100,000.00	\$100,000.00
STANDPIPE MAINTENANCE SPECIAL FUND	\$126,783.48	\$124,047.00	\$130,000.00	\$63,260.14	\$65,588.07	\$128,848.21	\$130,000.00
HYDRANTS, VALVE, SERVICES	\$40,000.00	\$0.00	\$30,000.00			\$0.00	\$30,000.00
SCADA IMPROVEMENTS	\$2,000.00	\$0.00	\$4,000.00			\$0.00	\$0.00
2016 MAIN REPLACEMENT						\$0.00	\$370,000.00
2015 MAIN REPLACEMENT			\$330,000.00	\$421,230.33	\$0.00	\$421,230.33	
<b>TOTAL CAPITAL ADDITIONS</b>	<b>\$288,283.48</b>	<b>\$251,611.22</b>	<b>\$658,500.00</b>	<b>\$554,265.58</b>	<b>\$115,738.07</b>	<b>\$670,003.65</b>	<b>\$702,500.00</b>



October 27, 2015

Mr. Tom Nennig  
4800 W GREEN BROOK DR  
Milwaukee, WI 53223-2406

Subject: Sanitary Survey and Notice of Noncompliance PWS ID#: 24105950 Brown Deer Waterworks Milwaukee County

Dear Mr. Nennig:

On October 21, 2015, Jason Chappelle of the Department of Natural Resources (Department) completed a sanitary survey of the Brown Deer Water Utility (Utility) with the assistance of Tom Nennig and Hank Wallenkamp, representing the Utility. Thank you for your assistance conducting this survey, your commitment to the Utility is commended.

The purpose of a sanitary survey is to evaluate the system's source, facilities, equipment, operation, maintenance, and management as they relate to providing safe drinking water. The sanitary survey is also an opportunity to update the Department's records, provide technical assistance, and identify potential risks that may adversely affect drinking water quality. At the completion of the survey, you were briefed on the preliminary findings. This report outlines the final findings, discusses problems that need to be addressed, and timelines for corrective action where appropriate. A water system summary is attached. Please review for accuracy. If there are changes that need to be made, please contact me.

A plan for corrective action, including a work schedule or completion of corrective action for all deficiencies identified below, must be completed within 45 days of the receipt of this letter or by December 4, 2015. Failure to submit the corrective action plan or complete the corrective action within 45 days will result in enforcement action. Depending on the type of corrective action you employ, you may need to obtain prior approval and submit plans to the Department.

The next sanitary survey of your system is scheduled to take place in 2018. You will be contacted prior to the survey to schedule a date that is convenient for you. Thank you for your assistance conducting this survey. If you have any questions, please contact me at the below address, by phone at (414) 263-8579 or by email at [jason.chappelle@wisconsin.gov](mailto:jason.chappelle@wisconsin.gov).

Sincerely,

Jason Chappelle, P.E.  
Water Supply Engineer – DNR  
2300 N. Dr. Martin Luther King Jr. Dr,  
Milwaukee, WI 53212

cc: Karen Paulson Bureau of Drinking Water/Groundwater - DG/2  
Jesse Jensen, Water Supply Supervisor – Southeast Region

## **Significant Deficiencies**

During the course of the sanitary survey, no significant deficiencies were identified.

## **Deficiencies**

During the course of the sanitary survey, two deficiencies were identified. Deficiencies are problems in the drinking water system with the potential to cause serious health risks or represent long-term health risks to consumers. These deficiencies may indicate noncompliance with one or more Wisconsin Administrative Codes. Corrective action should be completed or a schedule for completion of these deficiencies must be given by the dates given below:

1. The Utility is not maintaining and practicing a comprehensive Emergency Operations Plan (EOP). Per s. NR 810.23(2), Wis. Adm. Code: Water suppliers for each community water system shall develop a plan to prepare for, respond to, mitigate and recover from all types of emergency situations, including terrorism, sabotage, natural disasters such as floods and tornadoes, loss of system-wide pressure, and overfeed of chemicals. (a) Municipal water systems shall have an emergency operation plan including, at a minimum:

- A list of local and state emergency contacts.
- A system for establishing emergency communications.
- Any mutual aid agreements the water utility has with other communities for sharing personnel, equipment and other resources during an emergency.
- Standard procedures for emergency water production.
- A means for sharing information with customers.

It is also a good idea to include the date which the EOP was last updated on the cover page. The due date is March 31, 2016.

2. The Utility is not implementing a comprehensive Cross-Connection Control Program per s. NR 810.15(1), Wis. Adm. Code. The rate of inspections does not follow the requirements of s. NR 810.15(1), Wis. Adm. Code which is shown in the Requirements section below. On the annual form submitted for the last two years, the industrial inspections have been reported as 1 out of 5 total and 4 out of 16 total. Please review the Utility cross connection ordinance and cross connection plan for all inspections and begin at the appropriate rate to return to compliance. The due date is March 1, 2016.

### **Deficiencies corrected**

A gasket for the overflow on the standpipe was replaced immediately after my inspection of the grounds to keep a tight seal around the flapper.

## **Recommendations**

During the course of the sanitary survey, three recommendations were identified. Recommendations are potential problems in the water system that can hinder your public water system from consistently providing safe drinking water to consumers. The recommendations are as follows:

- The Department recommends that screens covering air vents and overflows continue to be periodically inspected throughout the year.
- The Department recommends that operators review their licensure status.

- The Department recommends information regarding testing of the generator be obtained and a log book is kept to ensure that the generator owned by AT&T located on the property has been run at least once per month.

## **Non-conforming Features**

No features that met code requirements at the time of the Utility's construction but would not be allowed by any current code, referred to as a non-conforming feature, were identified during the course of the sanitary survey.

## **Requirements**

The requirements shown below are for your reference. These requirements do not indicate any problems identified and are not all-inclusive requirements for your system.

### **Pressure**

As per s. NR 810.10, Wis. Adm. Code, the distribution system and related storage facilities shall be operated to maintain a minimum of 35 pounds per square inch at ground level at all locations in the distribution system under normal operating conditions including maximum day demand averaged over a 24 hour period. As per s. NR 811.70(5), Wis. Adm. Code, the minimum diameter of water mains to provide water for fire protection and to serve fire hydrants shall be 6 inches. Larger mains shall be required, if necessary, to allow the required fire flow while maintaining a minimum residual pressure of 20 psi within the main. When road construction is planned within the City, please make sure that water mains that serve fire hydrants meet the requirements of s. NR 811.70(5), Wis. Adm. Code. Section NR 810.11, Wis. Adm. Code, states that fire pumpers may not be connected to fire hydrants if 20 psi cannot be maintained during operation of the pumpers. In addition, notify the fire chief in writing of the location of all fire hydrants that cannot be used by fire pumpers and color code or tag the affected hydrants.

### **Maintenance**

Each supplier of water shall perform routine maintenance to ensure proper operation of the water system:

- A schedule shall be established for flushing dead-end mains or mains in other areas to remove sediment or water of poor quality per s. NR 810.13(2), Wis. Adm. Code.
- All hydrants shall be exercised at least once every 2 years. Hydrants shall be maintained in proper working condition, consistent with the manufacturer's recommendations, per s. NR 810.13(2), Wis. Adm. Code.
- All distribution system valves shall be exercised a minimum of every 2 to 5 years. The department recommends 5 to 7 years for hydrant lead auxiliary valves per s. NR 810.13(2), Wis. Adm. Code.
- The Department requires, according to s. NR 811.72, Wis. Adm. Code, chambers and pits shall be drained to absorption pits underground or to the ground surface where they are not subject to flooding by surface water. Meter pits and all other pits must be drained whenever water settles at a level high enough to reach the valves or water mains.
- For water utilities serving public water systems, master water meters in well houses, high lift pumping stations, booster pumping stations and metering stations shall be tested and calibrated at a minimum frequency of every 2 years or as required by s. PSC 185.83 (2), Wis. Adm. Code. Calibration results shall be documented and be within acceptable levels for the particular meter being calibrated per s. NR 810.13(2), Wis. Adm. Code.

- Chemical feed pumps, if used, shall be provided with anti-siphon devices per s. NR 811.39 (2) (e), Wis. Adm. Code.

### **Storage**

Water storage facilities shall be inspected at least once every 5 years and emptied & inspected at least once every 10 years and maintenance provided as necessary as per s. NR 810.14(2) (a), Wis. Adm. Code. Dive inspections are permitted. Please inform the Department before a dive inspection is performed. Interior and exterior paint coatings for steel elevated water storage tanks or treatment structures shall be inspected by a person trained to evaluate the integrity of the paint system at least once every 5 years and repainted as necessary to maintain structural integrity. Please ensure that elevated storage overflows are provided with a sufficient 4 mesh corrosion resistant screen that terminates 12” to 24” from the ground and the vents are covered with a 4- to 24-mesh corrosion resistant screen installed with an opening at least 4 inches above the roof per s. 811.64(4), Wis. Adm. Code. Please ensure that ground level storage overflows are provided with a 24-mesh corrosion resistant screen installed within the pipe terminating a minimum of 12” to 24” above the final graded ground surface in a manner to prevent the backflow of water into the reservoir and the vents are covered with 24-mesh corrosion resistant screen with the opening 24 to 36 inches above the roof or sod per s. 811.64(8), Wis. Adm. Code.

### **Cross-Connection Control**

Unprotected cross-connections are prohibited as per s. NR 810.15, Wis. Adm. Code. The water supplier is required to implement a cross-connection control program. Each supplier of water shall inspect every residential service a minimum of once every 10 years or on a schedule matching meter replacement and conducted once every 2 years for every industrial, commercial and public authority according to s. NR 810.15(c), Wis. Adm. Code, unless otherwise authorized by the department. The program may include providing public education materials in lieu of inspections of low hazard, normal kitchen and bathroom fixtures, portions of residential or commercial facilities provided the materials are given no less than every three years and with every survey. Records shall include the dates and outcome of each inspection. The review should analyze the procedures that would be used in an enforcement action should the owner decide not to make a voluntary effort to correct the cross-connection. Finally, please submit to the department an annual report including a total number of all service connections by category and the number of surveys completed in each category for that year by March 1<sup>st</sup> for the preceding year of inspections.

### **Well Abandonment**

Please note that s. NR 810.16, Wis. Adm. Code, requires that water suppliers for municipal water systems shall implement a program for the regulation of wells located on premises served by the municipal water system that are:

- not permitted,
- not routinely used,
- not in compliance with ch. NR 812, Wis. Adm. Code,
- not testing bacteriologically safe

requiring these wells, if not permitted, to be abandoned in accordance with ch. NR 812, Wis. Adm. Code, by an established date which may not extend beyond one year from the date of connection to the public system, or the date of discovery or construction. Unapproved cross-connections between any private well and pump installations and the municipal water system are not allowed.

## **CCR Report**

The Consumer Confidence Report (CCR) is due to the Department by July 1 of every year and the Certification form is due October 1<sup>st</sup> of every year per s. 809.83, Wis. Adm. Code. The Utility must report the Utility distribution sampling data along with the wholesaler sampling data to be complete. See below for the CCR information required.

### **Begin at the DNR's Drinking Water and Groundwater website:**

[http://prodoasext.dnr.wi.gov/inter1/pws2\\$.startup](http://prodoasext.dnr.wi.gov/inter1/pws2$.startup)

- Enter the Public Water Supply ID# for the facility. Select the Enter or Return key.
- Then click on the facility name within the table. On the right side of the table select CCR.
- Fill out the necessary highlighted portions including unregulated monitoring requirement detects for the last 3 years.
- At this point everything that is required for the CCR is finished. This is the minimum requirement for the information to place on the CCR.

Note: When using electronic delivery, check for the information needed to be provided on the certification form and take the appropriate measures. If the Utility chooses to post their CCR on the web, the Utility must post their completed CCR on their own website with a direct link to the CCR. Direct link means the web address goes to the CCR without further selection required and not to the Department's website. The Utility must also include the wholesaler CCR, if applicable.

## **Pumping Reports - Electric Monitoring**

The Utility must report pumping reports on a monthly basis. Section NR 810.07, Wis. Adm. Code states reports shall include daily quantities of water pumped, daily quantities of chemicals added to the water, and weekly static and pumping groundwater depth measurements by the tenth of the month following the reporting month.

## **System Summary Information**

The Utility is located in the northwest portion of Milwaukee County, is owned by the Village of Brown Deer, and is operated City Water, a private company. The population served is 12,075 and 3731 metered customers that purchased 457 million gallons (MG) in 2014. In the last three years the average water loss was 8 % and the average rate of return was 5 %. Meters are replaced on a twenty year rotation.

The Utility consists of two meter pits with booster pumping stations, one standpipe, and approximately 67.8 miles of water distribution main. Total storage is two million gallons. SCADA is utilized for control. The facilities are located within one pressure zone.

## **Treatment Processes/ Chemical Addition**

The Utility has no treatment processes and purchases water from the Milwaukee Water Works (MWW) which obtains water from Lake Michigan. MWW is a conventional treatment plant whereby treatment includes flocculation, coagulation, sedimentation and filtration. Chemical addition at the filtration plants are as follows:

- Sodium Hypochlorite for zebra mussel control and for disinfection
- Ozone for disinfection and taste/ odor control
- Calcium thiosulfate (captor) - ozone quenching

- Aluminum Sulfate (alum) for flocculation and coagulation
- Polymer filtration aid for return to service after backwashing
- Fluorosilicic Acid for the prevention of dental decay
- Anhydrous ammonia to create chloramines for longer lasting disinfectant residuals
- Orthophosphate- phosphoric acid for corrosion control

When the temperature is above 55°F, 100% of the water is diverted to the 60<sup>th</sup> Street and Bradley Road entry point whereby additional sodium hypochlorite and ammonia can be fed to boost chloramine levels. During the winter months, however, water also enters the distribution system through the 43<sup>rd</sup> and Calumet meter pit.

### **Storage Facilities**

The system has a total storage capacity of 2 MG in a gravity elevated storage standpipe located on North 43<sup>rd</sup> and Calumet. The standpipe is constructed out of welded steel and was built in 1965. The vents were screened and the access was locked. The overflow needed a gasket to help the flapper sit properly. The last inspection was in 2012 but the type is unknown. The tank was thought to be last painted in 2002 whereby the tower was sanded, primed, and painted outside and inside. Booster pumps and meters are located underground at this site.

### **Distribution System**

The water distribution system contains a total of 358,108' of water main ranging from 4" (370') to 16" (25,945') of metal (77%) and plastic (23%) distribution main. The static pressure range in the system was reported to be 40-80 psi and all hydrants maintain were reported to have 500-gpm @ 20 psi residual pressure based on a fire flow computer modeling study conducted in 2010 and will be updated in 2016. Maintenance records are well kept on computer. Hydrant flushing was 40 %, 54 %, and 51 % the last three years. A unidirectional flush of hydrants are reported to be performed annually whereby half of the hydrants are flushed one year and the other half is flushed the next. Every third year all the hydrants will be flushed – starting in 2016. Dead ends are reported to be flushed twice a year or as needed. Valve operation was 28%, 24%, and 50% the last three years.

### **Meters**

Water is acquired from the City of Milwaukee, which tests the station meters, through two meter pits located at:

- North 43<sup>rd</sup> and Calumet Meter Pit: The meter pit is located below grade on the northeast corner of the intersection, within the grassy area inside of the locked fence. The entrance is through a raised locked doorway. The pit contains one 16-inch line and a bullhead T with a gate valve on both sides. The east side of the T goes to the standpipe while the west side goes to the system directly or through the booster station. This meter pit has no drain but did not have a problem with standing water. Nonetheless, a float device alarm was installed and is monitored by the SCADA system to prevent flooding or sewer back up in the pit. Typically in the summer, water is sent to the treated flow at the North 60<sup>th</sup> and Bradley connection.
- North 60<sup>th</sup> and Bradley Meter Pit: The meter pit is located below grade on the edge of the roadway in the sidewalk on the northeast corner of the intersection. The entrance is through a locked doorway which is flush with the ground. The pit connects the 12-inch transmission line from Milwaukee to the 16-inch Brown Deer main. The water coming through this pit can either flow directly into the distribution system or to the booster station 50' to the north. This meter pit has no drain but did not have a problem with standing water. Nonetheless, a float device alarm was installed and is controlled by the SCADA system to prevent flooding or sewer back up in the pit.

### **Booster Stations**

- **The North 43<sup>rd</sup> and Calumet Booster Station:** The booster station is located below grade in the pit that drains to grade. The entrance is through a raised locked entrance about 50' to the north of the meter. There are three Aurora centrifugal pumps each with a rated capacity of 1,500-gpm. Each pump is powered by a 50 HP electric motor. The utility rotates to a different pump (three pumps total) every Monday in order to exercise the pumps.
- **The North 60<sup>th</sup> and Bradley Booster Station:** The booster station is located below grade in a pit that drains to a catch basin (holding tank). There are three Aurora centrifugal pumps each with a rated capacity of 1,900-gpm. Each pump is powered by a 25 HP electric motor. The utility rotates to a different pump (three pumps total) every Monday in order to exercise the pumps. The Utility began disinfecting at this location in 2004 to improve total chlorine residuals in the distribution system. The chloramine building is constructed with two separate chemical rooms and a motor control/ electrical room above grade next to the pit. Each chemical room is provided with heating, lighting and mechanical ventilations systems. Since there is no sanitary sewer in the immediate area near the proposed facility, the floor drains discharge to a 500 gallon containment manhole. An overflow alarm is installed inside the containment manhole.

### **Emergency Power**

Emergency power for the booster pumps located at 43<sup>th</sup> St. and Calumet Ave. can be supplied by an emergency diesel generator located inside of the fence that is owned by and permitted by AT&T for use. The generator is run under load once a month. There is no backup power at 60<sup>th</sup> and Bradley but the pressure in the system ranges from 40-80 psi. Hence, the Utility feels that the pressure supplied by the MWW is enough to maintain pressure in the event power outage in Brown Deer.

### **Cross-Connection Control**

The Utility has had a cross connection ordinance since 1984 (updated in December 1995) and the plan is implemented by the utility upon the meter change. Cross connections should be evaluated per code.

### **Well Abandonment**

The Utility has had a well abandonment ordinance since December 1996. There are currently 48 wells subject to this ordinance that are permitted. Implementation and inspection is reviewed by the Utility. It was reported that abandoned wells and the permitted wells are kept on file by the City.

## **Certified Operators**

If you see an operator on file who is no longer with the Utility or a new operator has been added please let me know. Operators with a T plus experience should apply for the upgrade to a grade 1. Information on file is provided below:

- #17176 Mike Rau, DG(1), ISZ(T) license good through 06/ 01/2017 – operator in charge
- #34828 Tom Nennig, D (1) license good through 11/ 01/2015
- #21936 Hank Wallenkamp, D1,G(T) license good through 11/ 01/2017
- #35624 Martel Gladney, D (T) license currently expired
- #35229 Dan Singer, D (1) license good through 05/01/2017
- #36610 Jeremy Dandy DG(T) license good through 05/01/2018
- #36281 Andy Krueger DG(T) license good through 05/01/2017

Operator Certification information is available at:

[http://prodoasext.dnr.wi.gov/inter1/pws2\\$.startup](http://prodoasext.dnr.wi.gov/inter1/pws2$.startup)

- Enter the Public Water Supply ID# for the facility. Press the Enter or Return key.
- Then click on the facility name within the table. On the next screen, scroll down to see the operators on file for the Utility.

Some continuing education class schedules can be obtained from the WRWA website [www.wrwa.org](http://www.wrwa.org)

The contact for exam, certification and licensing questions is Lisa Bushby at (608) 266-0498 or email [Lisa.Bushby@wi.gov](mailto:Lisa.Bushby@wi.gov). For operator certification requirements contact Beth Goldowitz at (608) 266-3484 or email [Beth.Goldowitz@wi.gov](mailto:Beth.Goldowitz@wi.gov).

## **Water System Security**

The Waterworks utilize locks at the booster pumps and standpipe grounds and everything is hooked in by SCADA with notifications to the operators. For more information on water system security, see the Wisconsin Rural Water Association website [www.wrwa.org](http://www.wrwa.org).

## **Water Quality Monitoring and Reporting**

The Utility has a good record of compliance with monitoring and reporting requirements. The Department appreciates your sampler's continued efforts to comply with the Safe Drinking Water Act requirements. See below for data since the last survey. **Sampling requirements are subject to change**; please check your monitoring requirements regularly (see below).

### Bacteriological

#sites: 16

Missed / unsafe = 0 / 0

### Chlorination – total residual

Not added, residual only

Maximum = 1.48 mg/L

Minimum = 0.20 mg/L

### Lead/copper

#sites = 30 [23 tier 3 sites, 5 tier 2 sites, 2 tier 1 sites]

90 %: Lead = 0 ug/L (Action Level 15 ug/L)

Copper = 76 ug/L (Action Level 1300 ug/L)

Last/next: 2014 / 2017

### Disinfection Byproducts (DBP's)

LRAA: Trihalomethanes (TTHM) = 11.2 mg/L Max [LRAA MCL = 80 mg/L]

Haloacetic Acids (HAA5) = 19.4 mg/L Max [LRAA MCL = 60 mg/L]

**The Department sends the annual reporting requirements and lab forms to your facility at the beginning of the year. These forms can also be found on the internet at:**

[http://prodoasext.dnr.wi.gov/inter1/pws2\\$.startup](http://prodoasext.dnr.wi.gov/inter1/pws2$.startup)

- On the screen, enter the Public Water Supply ID# for the facility which is seen on the first page of this link. Press the Enter or Return key.
- Then click on the facility name within the table and scroll down to see the selections. Some of these are:
  - ✓ Bacteriological Samples – Lets you see bacteriological sample results.
  - ✓ Other (non-bacteriological) Samples – Lets you see chemical sample results.
  - ✓ Sampling Requirements – Monitoring requirements for current, past, and sometimes preliminary future requirements. **To Print Lab Forms for Your Facility** – Select **Sampling Requirements then** select a “Sample Group” (Coliform Bacteria, Nitrate, etc.) for the required date/month/year. On next page, scroll down and click “Print sampling form” button.
  - ✓ The current annual monitoring schedule can be found by scrolling to the bottom.

In addition, lists of certified labs are available at the link:

<http://dnr.wi.gov/topic/DrinkingWater/laboratories.html>

A monitoring site plan was given to you during the survey. Please contact me if changes are necessary. **In the case of Disinfection Byproducts It is important to use the exact address with the exact wording of the location description to avoid unnecessary missed reporting or other violation which could require a public notice and additional future sampling.**

### **Capacity Development Evaluation**

This sanitary survey serves as an evaluation of the capabilities of your water system. This system appears to have adequate managerial and financial capacity to provide safe drinking water. The ability to plan for, achieve, and maintain compliance with applicable drinking water standards appears to be demonstrated.

### **Required Action**

Please respond by December 4, 2015 with notification that all deficiencies have been corrected, the Utility agrees to correct the deficiencies identified in this letter by the due dates, or with alternative dates for correcting these deficiencies. Failure to respond to this letter by December 4, 2015 may result in enforcement activities. Please:

- Consider implementing the recommendations above.
- Please inform the Department of the type of the standpipe inspection that occurred in 2012 in your response to this letter.
- Submit the reservoir inspection form after every inspection.
- Please update the information below as identified below in the water system summary tables.

For state code requirements, go to the Drinking Water and Groundwater Home Page, <http://dnr.wi.gov/topic/DrinkingWater/code.html>, and select the appropriate code heading:

- Chapter NR 809 Safe Drinking Water (sampling requirements)
- Chapter NR 810 Requirements for the Operation and Maintenance of Public Water Systems
- Chapter NR 811 Operation and Design of Community Water Systems
- Chapter NR 812 Well Construction and Pump Installation (Non-Community Wells & Private Wells)

## Water System Summary Information

System ID: 24105565

System Name: BROWN DEER WATERWORKS

County: Milwaukee

Type: Municipal Community

Basin: Milwaukee River

Population: 12741

Service Connections: 0

Owner: MIKE RAU

4800 W GREEN BROOK DR

Milwaukee, WI 53223-2406

(414) 371-3081 Cell: (414) 559-8739 Fax: (414) 371-8739 mike.rau@citywaterusa.com

Date Security VA Complete: NA

Date ERP Complete:

Date ERP Last Exercised/Updated:

Emergency Phone: (414) 371-3081

Emergency Fax: (414) 371-8739

Emergency E-mail: mike.rau@citywaterusa.com

### Certified Operators

Name	Lic. #	Expires	Phone/Fax/E-mail	Address 1	Address 2	City, State, Zip
RANDAL BERSCH	31451	05/01/2012	(414) 617-1325	N71 W25100 HIGHWAY 164		SUSSEX, WI 53089
MARTELL GLADNEY	35624	05/01/2015	(414) 559-8656gladney_mj@yahoo.com	11333 N CEDARBURG RD		MEQUON, WI 53092
RICHARD HALFMAN	00577	11/01/2002	() -	6417 W FAIRLANE AVENUE		BROWN DEER, WI 53223
THOMAS NENNIG	34828	11/01/2015	(414) 559-6883tom.nennig@citywaterusa.com	N70W15299 TERRACE DR		MENOMONEE FALLS, WI 53051
MICHAEL RAU	17176	06/01/2014	(414) 559-8739mike.rau@citywaterusa.com	431 N 49TH ST		MILWAUKEE, WI 53208
DANIEL SINGER	35229	05/01/2014	(414) 559-8656dangul4@aol.com	4960 N 132 ST		BUTLER, WI 53007
HENRY WALLENKAMP	21936	11/01/2014	(262) 628-1784	1128 PINE MEADOW CT		HUBERTUS, WI 53033

### Affiliations

Name	Affiliation	Start Date	End Date	Primary?	Phone
MIKE RAU	SAMPLER	09/16/2004		Y	414-371-3081
MIKE RAU	OWNER	03/02/2004		Y	414-371-3081
MIKE RAU	EMERGENCY	09/12/2012		Y	414-371-3081
JASON CHAPPELLE	DNR_REP	04/16/2012		Y	414-263-

Name	Affiliation	Start Date	End Date	Primary?	Phone
					8579
MIKE RAU	PLAN_CON	01/29/2007		N	414-371-3081
VAN GOMPEL, MIKE - VILLAGE OF BROWN DEER, CLERK	PLAN_CON	07/11/2008		N	414-371-3050
MR. THANINTR RATARASARN	DNR_REP	11/21/2011		N	262-574-2134

#### Entry Points and Sources of Water (Basic Data)

Source ID	Name	WUWN	Status	Type	Source
1	MILWAUKEE WATERWORKS		Active	ENTRY PT/SOURCE	Purchased Surface Water Source

#### Storage

ID/Location	Type	Vol. (gal)	Firm Pumping Capacity (gpm)	Height to Overflow (ft.)	Overflow Elev. (sea-level, ft.)	Aux. Power?	Mfg.	Model
43rd and Calumet	ELEVATED TANK	2000000				Unknown		

#### Booster Stations

ID/Location	Type	Firm Pumping Capacity (gpm)	Aux. Power?
43rd and Calumet	BURIED	1500	No
60th and Bradley	BURIED	1900	No

#### System Interconnects

ID/Location	Type	Capacity (gpm)	Metered?	Chemical Injection Capable?
Milwaukee			yes	yes

#### Treatment Summary Data

Source ID	Type	Description	Begin	End	Objective(s)	Pump Model	Cap.	Stroke %	Speed %	Sol. Tank Cap.	Dil. Ratio	Comments
1	996	Treatment Applied at Seller	03/01/2000		No Treatment at Source							

#### Bacteriological Sampling History

Year	Distribution Safe	Distribution Unsafe	Confirmed Unsafe	Missed Samples	Raw Safe	Raw Unsafe	Fecal Positive?
2012	110			0			N
2011	123	3	1	0			N
2010	121			0			N
2009	120			0			N

Year	Distribution Safe	Distribution Unsafe	Confirmed Unsafe	Missed Samples	Raw Safe	Raw Unsafe	Fecal Positive?
2008	120			0			N
2007	120	1		0			N
2006	119	1		0			N

**Chemical Sampling History**

Year	Sample Group	Source ID	Samples Taken	Missed Samples	MCL Violations
2012	DBP		8	2	0
2011	PBCU		30	0	0
2008	PBCU		30	0	0
2007	TTHM		4	0	0
2007	HAA5		4	0	0
2006	TTHM		12	0	0
2006	HAA5		12	0	0

Sample Group	Last Sampled
BACTI	2012
HAA5	2007
IOC	1989
PBCU	2011
DBP	2012
TTHM	2007

**MCL Violations**

Source ID		Contaminant	Concentration	MCL	Units	Viol. Start	Viol. End	Continuing Operation?
	3100	Coliform (TCR)				09/14/2011	09/17/2011	N
	3100	Coliform (TCR)				08/17/2011	08/20/2011	N

**Definitions**

MCL = Maximum Contaminant Limit (as set by the Environmental Protection Agency (EPA))

BACTI = Bacteriological Sample

IOC = Sample for Inorganic Compounds

NITRATE = Nitrate Sample

PBCU = Lead and Copper Sample

RAD = Sample for Radioactivity

SOC = Sample for Synthetic Organic Compounds

VOC = Sample for Volatile Organic Compounds

FLUORIDE = Fluoride from Fluoridation

TTHM = Total Trihalomethane Sample