



## WATER QUALITY-HEALTH

How well does this utility eliminate harmful contaminants from drinking water, and keep drinking water safe?



## INFRASTRUCTURE & OPERATIONS

Are the utility's transmission and distribution pipes sound, with few leaks or water main breaks? Is the utility investing adequately in replacement of aging pipes? Is the utility energy efficient?



## FINANCE

Is the utility financially sound and sustainable?  
Are service prices fair and affordable?



## COMMUNICATIONS

Is the utility transparent and interactive with its customers?

### GRADING SCALE

A: 90-100 B: 80-89 C: 70-79 D: 60-69 F: <60



## WHAT DO THESE GRADES MEAN?

### QUALITY - HEALTH

Delivering safe, healthy drinking water is the primary objective of any water utility, and grades are based on regulated contaminant levels for both acute and chronic contaminants. Our grades view complying with federal and state rules as a minimum. Utilities that violate Treatment Technique (TT) or whose water exceeds Mandatory Contaminant Levels (MCLs) under the Safe Drinking Water Act automatically fail, but the higher the grade the healthier the drinking water. Grades in the A range indicate very safe drinking water.

### INFRASTRUCTURE & OPERATIONS

Physical integrity and operational effectiveness are both essential to water system excellence and sustainability. Infrastructure focuses on transmission and distribution of water, measuring things like main breaks. Operations includes several measures of operating efficiency.

### FINANCE

Financial strength is crucial for a utility's sustainability, affordability is critical to the public health mission, and progressive pricing is important for equity. Utilities receive strong marks for showing ample financial capacity and liquidity, and for distributing costs fairly based on the amount of water that customers use.

### COMMUNICATIONS

This grade is based on transparency and interactivity. Transparency reflects opportunities for the public to interact with utility leaders and personnel, while Interactivity gauges opportunities for the public to interact with them. High grades are given to utilities with websites, use of social media, as well as communicating by telephone, email, and/or public meetings.



# 2024 WATER UTILITY REPORT CARD BIRCHWOOD MUNICIPAL WATER UTILITY

## QUALITY-HEALTH VALUES & SCORES FOR ACUTE CONTAMINANTS

| Contaminant              | Value  | Score |
|--------------------------|--------|-------|
| Cadmium                  | 0.0    | 100.0 |
| Coliform, total          | 0.0000 | 100.0 |
| Dalapon                  | 0      | 100.0 |
| O-dichlorobenzene        | 0      | 100.0 |
| P-dichlorobenzene        | 0      | 100.0 |
| Di(2-ethylhexyl) adipate | 0      | 100.0 |
| Nitrate (no3-n)          | 0.000  | 100.0 |
| Nitrite (no2-n)          | 0.000  | 100.0 |
| Oxamyl (vydate)          | 0      | 100.0 |
| Violations?              | Yes    |       |



QUALITY-HEALTH VALUES & SCORES FOR CHRONIC CONTAMINANTS

| Contaminate                    | Value | Score | Contaminate               | Value | Score |
|--------------------------------|-------|-------|---------------------------|-------|-------|
| Arsenic                        | 0.00  | 100.0 | Fluoride                  | 0.074 | 80.0  |
| Alachlor (Lasso)               | 0.00  | 100.0 | Glyphosate                | 0     | 100.0 |
| Antimony, Total                | 0.00  | 100.0 | Heptachlor                | 0     | 100.0 |
| Atrazine                       | 0.00  | 100.0 | Heptachlor Epoxide        | 0     | 100.0 |
| Barium                         | 0.00  | 100.0 | Hexachlorobenzene (HCB)   | 0     | 100.0 |
| Benzene                        | 0.00  | 100.0 | Hexachlorocyclopentadiene | 0.000 | 100.0 |
| Benzo(a)pyrene                 | 0.00  | 100.0 | Lead                      | 2.00  | 97.4  |
| Beryllium, Total               | 0.00  | 100.0 | Mercury                   | 0.000 | 100.0 |
| Bromate                        | 0.00  | 100.0 | Methoxychlor              | 0     | 100.0 |
| Carbofuran                     | 0.00  | 100.0 | PCB, Total                | 0     | 100.0 |
| Carbon Tetrachloride           | 0.00  | 100.0 | Pentachlorophenol         | 0     | 100.0 |
| Chloramine                     | 0.00  | 100.0 | Picloram                  | 0.0   | 100.0 |
| Chlordane                      | 0.00  | 100.0 | Radium (226 + 228)        | 0.00  | 100.0 |
| Chromium                       | 0.00  | 100.0 | Selenium                  | 0.000 | 100.0 |
| Copper                         | 1480  | 34.3  | 2,4,5-TP (Silvex)         | 0     | 100.0 |
| Cyanide                        | 0.00  | 100.0 | Simazine                  | 0     | 100.0 |
| 2,4-D                          | 0.00  | 100.0 | Styrene                   | 0.000 | 100.0 |
| 1,2-Dibromo-3-Chloropro (DBCP) | 0.00  | 100.0 | Tetrachloroethylene       | 0.000 | 100.0 |
| 1,2-Dichloroethane             | 0.000 | 100.0 | Thallium total            | 0.000 | 100.0 |
| cis-1,2-dichloroethylene       | 0.000 | 100.0 | Toluene                   | 0.00  | 100.0 |
| trans-1,2-dichloroethylene     | 0.00  | 100.0 | Toxaphene                 | 0     | 100.0 |
| Dichloromethane                | 0.00  | 100.0 | 1,2,4-Trichlorobenzene    | 0     | 100.0 |
| 1,2-Dichloropropane            | 0.00  | 100.0 | 1,1,1-Trichloroethane     | 0     | 100.0 |
| Di(2-ethylhexyl) adipate       | 0     | 100   | 1,1,2-Trichloroethane     | 0     | 100.0 |
| Di(2-ethylhexyl) phthalate     | 0.00  | 100.0 | Trichloroethylene         | 0     | 100.0 |
| Dinoseb                        | 0.00  | 100.0 | TTHM                      | 0.00  | 100.0 |
| Diquat                         | 0.00  | 100.0 | Combined Uranium          | 0.00  | 100.0 |
| Endothall                      | 0     | 100.0 | Vinyl Chloride            | 0.00  | 100.0 |
| Endrin                         | 0     | 100.0 | Xylenes, Total            | 0.00  | 100.0 |
| Ethylbenzene                   | 0     | 100.0 | Violations?               | Yes   | Yes   |
| Ethylene Dibromide (EDB)       | 0     | 100   | Chronic Average           | 98.5  | 98.5  |



# 2024 WATER UTILITY REPORT CARD BIRCHWOOD MUNICIPAL WATER UTILITY

## FINANCE VALUES & SCORES

| Indicator                             | Value | Score       | Weight (%) |
|---------------------------------------|-------|-------------|------------|
| Debt to assets ratio                  | 0.00  | 100.0       | 20         |
| Monthly bill in Hours of Minimum Wage | 5.1   | 82.5        | 25         |
| Days of Operating Reserve             | 535   | 100.0       | 20         |
| Poehler Index                         | 0.6   | 64.0        | 5          |
| Return on Equity                      | 0.0   | 6.0         | 20         |
| PILOT/Property Tax Equivalent         | 1.4   | 43.1        | 10         |
| <b>Weighted Average</b>               |       | <b>69.3</b> |            |

## INFRASTRUCTURE & OPERATIONS VALUES AND SCORES

| INFRASTRUCTURE                                       |          |             |            |
|--|----------|-------------|------------|
| Indicator  | Value    | Score       | Weight (%) |
| Main & Service Breaks per 100 miles                  | 27.8     | 63.0        | 25         |
| Water Loss per 100 miles (gallons)                   | 172506.2 | 35.7        | 12.5       |
| Weighted Average Age of Main (years)                 | 46.5     | 69.3        | 6.25       |
| Weighted Replacement Rate (years)                    | 1000.0   | 0.0         | 6.25       |
| <b>Infrastructure Weighted Average (50% overall)</b> |          | <b>49.1</b> |            |
| OPERATIONS   |          |             |            |
| Indicator  | Value    | Score       | Weight (%) |
| kWh per Million Gallons per Year                     | 7684     | 49.3        | 10         |
| Operating Expenses per Thousand Gallons (\$)         | 11       | 63.1        | 7.5        |
| Operating Expenses per Mile of Pipe (\$)             | 12540    | 90.0        | 7.5        |
| Operating Expenses per Customer (\$)                 | 319      | 86.0        | 7.5        |
| Operating Expenses per Capita (\$)                   | 204      | 70.0        | 7.5        |
| SDWA Management compliance (violations)              | 0        | 100.0       | 10         |
| <b>Operations Weighted Average (50% overall)</b>     |          | <b>76.2</b> |            |
| <b>Total Infrastructure &amp; Operations grade</b>   |          | <b>62.7</b> |            |

The Wisconsin Waterworks Excellence Project (WWEP) at UW-Madison seeks to make the performance and conditions of these critical but often invisible systems more visible to the people of Wisconsin.



# 2024 WATER UTILITY REPORT CARD

## BIRCHWOOD MUNICIPAL WATER UTILITY

### COMMUNICATIONS VALUES & SCORES

| Indicator                  | Points Earned* | Weight (%) |
|----------------------------|----------------|------------|
| Website Present            | 100            | 5          |
| Mobile-friendly            | 100            | 5          |
| Accessibility              | 100            | 5          |
| Non-English                | 0              | 10         |
| Consumer Confidence Report | 0              | 20         |
| Rates                      | 0              | 20         |
| Source Water Information   | 0              | 4          |
| Facilities Information     | No             | 3          |
| Operations Information     | 0              | 3          |
| Phone Number               | 100            | 5          |
| Webform/Email              | 0              | 5          |
| Online Bill Pay            | 100            | 5          |
| Past Meetings              | 100            | 2.5        |
| Future Meetings            | 100            | 2.5        |
| Utility Social Media       | 0              | 2.5        |
| Municipal Social Media     | 0              | 2.5        |
| <b>TOTAL</b>               | <b>30.0</b>    | <b>100</b> |

\*See full WWEP report for scoring methodology for individual communication indicators.