

Water Conservation Report Summaries for Public Water Suppliers North and East Metro Groundwater Management Area

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Additional Details at [DNR Water Conservation Reporting System webpage](#)

Bayport, City Of Summary of Water Conservation Report

2023 Report based on 2022 Water Use

Water Conservation Goals

Unaccounted Water Loss.....	17.6 percent
Residential gallons per capita per day	73
Non-residential: Annual percent Reduction	206
Trend in total per capita demand	23.91
Total Peaking Factor	2.58

Water Accounting

Total water to Treatment.....	117,644,000 gallons
Total water to Distribution	117,644,000 gallons
Number of Residential connections	1,060
Number of Non-Residential connections	83
Residential versus Non-Residential Use	73.8 million gallons versus 23.2 million gallons
Date of Highest Use	7/19/2022

Water Conservation - Direct

Water Supply System Infrastructure Efficiency (leaks, meters, etc.)

- System leak fixing (before the meter): 100,000 gallons -- \$12,000
- Meter Repair/Replace: 500,000 gallons -- \$5,000
- Hydrant repair: 100,000 gallons -- \$50,000
- Meter testing: 250,000 gallons -- \$1,000

Date of last Audit/Percent done: No data reported

Direct Conservation Single Family (SF) and Multi-Family (MF) and Commercial, Industrial, Institutional (CII) Efforts: SF ET Irrigation Controllers; Quantity: 60; Gallons saved: 540,000

Reuse or other Customer conservation projects: None listed

Water Conservation Indirect

Ordinances

- Critical/Emergency Water Deficiency Ordinance
- Irrigation restrictions regulations
- Soil preparation requirements (Inches of topsoil)
- Allow native plants and low water use turf/plants
- Wellhead protection ordinance and zoning

Education and Outreach

- Billing inserts or tips printed on the actual bill – 4
- Consumer Confidence Reports – 1
- Social media distribution – 4
- Staff training -- 2
- Community newsletters – 4
- Demonstration projects (landscaping or plumbing) – 1

Collaboration

- Collaborated with watershed group(s)
- Collaborated with MDH on wellhead protection project

Rate structure

- Increasing Block

Blaine, City of Summary of Water Conservation Report

2023 Report based on 2022 Water Use

Water Conservation Goals

Unaccounted Water Loss..... No data reported
Residential gallons per capita per day No data reported
Non-residential: Annual percent Reduction No data reported
Trend in total per capita demand No data reported
Total Peaking Factor No data reported

Water Accounting

Total water to Treatment 2,877,298,700 gallons
Total water to Distribution No data reported
Number of Residential connections No data reported
Number of Non-Residential connections No data reported
Residential vs. Non-Residential Use No data reported
Date of Highest Use No data reported

Water Conservation - Direct

Water Supply System Infrastructure Efficiency (leaks, meters, etc.): None listed
Date of last Audit/Percent done: No data reported
Direct Conservation Single Family (SF) and Multi-Family (MF) and Commercial, Industrial, Institutional (CII) Efforts: None listed
Reuse or other Customer conservation projects: None listed

Water Conservation Indirect

Ordinances: None listed

Education and Outreach: None listed

Collaboration: None listed

Rate structure: None listed

Centerville, City of Summary of Water Conservation Report

2023 Report based on 2022 Water Use

Water Conservation Goals

Unaccounted Water Loss.....	0 percent
Residential gallons per capita per day	68
Nonresidential: Annual percent Reduction	-7.06 percent
Trend in total per capita demand	10.43
Total Peaking Factor	2.75

Water Accounting

Total water to Treatment	111,156,000 gallons
Total water to Distribution	111,156,000 gallons
Number of Residential connections	1,287
Number of Non-Residential connections	69
Residential versus Non-Residential Use	97.8 million gallons versus 13.3 million gallons
Date of Highest Use	7/20/2022

Water Conservation - Direct

Water Supply System Infrastructure Efficiency (leaks, meters, etc.): None listed
Date of last Audit/Percent done: No data reported
Direct Conservation Single Family (SF) and Multi-Family (MF) and Commercial, Industrial, Institutional (CII) Efforts: None listed
Reuse or other Customer conservation projects: None listed

Water Conservation Indirect

Ordinances

- Irrigation restrictions regulations
- Wellhead protection ordinance and zoning

Education and Outreach

- Consumer Confidence Reports -- 1
- Social media distribution (e.g., emails, Facebook, Twitter) -- 1
- Staff training -- 1
- Community newsletters -- 1
- Water week promotions -- 1
- Website -- 1

Collaboration

- Collaborated with watershed group(s)
- Collaborated with neighboring communities to manage timing/amount of water withdrawal of shared water resource
- Collaborated with MDH on wellhead protection project
- Collaborated with MDA on improving water quality and agricultural concerns
- Collaborated with DNR on improving on decreasing our permit allotment or enhancing conservation measures

Rate structure

- Base rate zero gallons
- Increasing Block

Circle Pines, City of Summary of Water Conservation Report

2023 Report based on 2022 Water Use

Water Conservation Goals

Unaccounted Water Loss.....	13.9 percent
Residential gallons per capita per day	59
Non-residential: Annual percent Reduction	11.22
Trend in total per capita demand	6.96
Total Peaking Factor	27.58

Water Accounting

Total water to Treatment	146,653,000 gallons
Total water to Distribution	146,653,000 gallons
Number of Residential connections	No data reported
Number of Non-Residential connections	No data reported
Residential versus Non-Residential Use	107.7 million gallons versus 18.5 million gallons
Date of Highest Use	11/2/2022

Water Conservation - Direct

Water Supply System Infrastructure Efficiency (leaks, meters, etc.): None listed

Date of last Audit/Percent done: No data reported

Direct Conservation Single Family (SF) and Multi-Family (MF) and Commercial, Industrial, Institutional (CII) Efforts:

- SF Toilet Retrofits: 18 units; Gallons saved: 108,000
- SF ET Irrigation Controllers: 5; Gallons saved: 45,000

Reuse or other Customer conservation projects: None listed

Water Conservation Indirect

Ordinances

- Critical/Emergency Water Deficiency Ordinance
- Irrigation restrictions regulations
- Water consumption regulation
- Allow native plants and low water use turf/plants
- Track enforcement

Education and Outreach

- Billing inserts or tips printed on the actual bill – 1
- Consumer Confidence Reports – 1
- Community newsletters – 2
- Website – 1

Collaboration

- Collaborated with watershed group(s)
- Collaborated with lake association(s)
- Collaborated with neighboring communities to manage timing/amount of water withdrawal of shared water resource

- Collaborated with MDH on wellhead protection project

Rate structure

- Flat
- Increasing Block

Columbus, City Of Summary of Water Conservation Report

2023 Report based on 2022 Water Use

Water Conservation Goals

Unaccounted Water Loss.....	16.6 percent
Residential gallons per capita per day	131
Non-residential: Annual Percent Reduction	-5.52
Trend in total per capita demand	16.33
Total Peaking Factor	6.58

Water Accounting

Total water to Treatment	22,625,800 gallons
Total water to Distribution	22,625,800 gallons
Number of Residential connections	39
Number of Non-Residential connections	18
Residential versus Non-Residential Use	2.7 million gallons versus 16.1 million gallons
Date of Highest Use	7/25/2022

Water Conservation - Direct

Water Supply System Infrastructure Efficiency (leaks, meters, etc.):

- Add irrigation meters: 37 gallons; \$0
- Add non-irrigation meters: 64 gallons; \$0

Date of last Audit/Percent done: No data reported

Direct Conservation Single Family (SF) and Multi-Family (MF) and Commercial, Industrial, Institutional (CII) Efforts: None listed

Reuse or other Customer conservation projects: None listed

Water Conservation Indirect

Ordinances: None listed

Education and Outreach: None listed

Collaboration: None listed

Rate structure: None listed

Cottage Grove, City Of Summary of Water Conservation Report

2023 Report based on 2022 Water Use

Water Conservation Goals

Unaccounted Water Loss.....	7.5 percent
Residential gallons per capita per day	75
Non-residential: Annual percent reduction.....	-53.69
Trend in total per capita demand	5.86
Total Peaking Factor	2.43

Water Accounting

Total water to Treatment	1,623,589,067 gallons
Total water to Distribution	1,623,589,067 gallons
Number of Residential connections	12,557
Number of Non-Residential connections	412
Residential versus Non-Residential Use	1,104.3 million gallons versus 397.8 million gallons
Date of Highest Use	6/29/2022

Water Conservation - Direct

Water Supply System Infrastructure Efficiency (leaks, meters, etc.)

- System leak fixing (before the meter): 259,200 gallons -- \$15,552

Date of last Audit/Percent done: No data reported

Direct Conservation Single Family (SF) and Multi-Family (MF) and Commercial, Industrial, Institutional (CII) Efforts:

- SF ET Irrigation Controllers:
Quantity: 150
Gallons saved: 1,350,000

Reuse or other Customer conservation projects: None listed

Water Conservation Indirect

Ordinances

- Irrigation restrictions regulations
- Allow native plants and low water use turf/plants

Education and Outreach

- Consumer Confidence Reports -- 1
- Social media distribution (e.g., emails, Facebook, Twitter) – 1
- Community newsletters – 1
- Direct mailings (water audit/retrofit kits, showerheads, brochures) – 1
- Website – 1

Collaboration: None listed

Rate structure: None listed

Forest Lake, City Of Summary of Water Conservation Report

2023 Report based on 2022 Water Use

Water Conservation Goals

Unaccounted Water Loss..... No data reported
Residential gallons per capita per day No data reported
Non-residential: Annual Percent Reduction No data reported
Trend in total per capita demand No data reported
Total Peaking Factor No data reported

Water Accounting

Total water to Treatment 440,796,000 gallons
Total water to Distribution 440,796,000 gallons
Number of Residential connections No data reported
Number of Non-Residential connections No data reported
Residential versus Non-Residential Use No data reported
Date of Highest Use No data reported

Water Conservation - Direct

Water Supply System Infrastructure Efficiency (leaks, meters, etc.): No data reported
Date of last Audit/Percent done: No data reported
Direct Conservation Single Family (SF) and Multi-Family (MF) and Commercial, Industrial, Institutional (CII) Efforts: No data reported
Reuse or other Customer conservation projects: None listed

Water Conservation Indirect

Ordinances: None listed
Education and Outreach: None listed
Collaboration: None listed
Rate structure: None listed

Fridley, City Of Summary of Water Conservation Report

2023 Report based on 2022 Water Use

Water Conservation Goals

Unaccounted Water Loss.....	8.3 percent
Residential gallons per capita per day	63
Non-residential: Annual Percent Reduction	4.37
Trend in total per capita demand	3.92
Total Peaking Factor	1.85

Water Accounting

Total water to Treatment	796,912,000 gallons
Total water to Distribution	1,269,892,000 gallons
Number of Residential connections	No data reported
Number of Non-Residential connections	No data reported
Residential versus Non-Residential Use	703.5 million gal. vs. 460.9 million gal.
Date of Highest Use	7/21/2022

Water Conservation - Direct

Water Supply System Infrastructure Efficiency (leaks, meters, etc.):

- System leak fixing (before the meter): 9,000,000 gallons; \$0
- Hydrant repair: 3,000,000 gallons; \$0

Date of last Audit/Percent done: No data reported

Direct Conservation Single Family (SF) and Multi-Family (MF) and Commercial, Industrial, Institutional (CII) Efforts:

- SF Toilet Retrofits
 - Quantity: 12
 - Gallons saved: 72,000
- SF Clothes Washer Rebates
 - Quantity: 22
 - Gallons saved: 110,000
- SF Rain Barrels
 - Quantity: 1
 - Gallons saved: 1,300
- SF ET Irrigation Controllers
 - Quantity: 9
 - Gallons saved: 81,000

Reuse or other Customer conservation projects: None listed

Water Conservation Indirect

Ordinances:

- Critical/Emergency Water Deficiency Ordinance
- Irrigation restrictions Regulations
- Tree ratio requirement

- Allow native plants and Low water use turf/plants
- Wellhead protection ordinance and zoning
- Ordinances that permit stormwater irrigation or reuse
- Track enforcement

Education and Outreach:

- Consumer Confidence Reports -- 1
- Social media distribution (e.g., emails, Facebook, Twitter) -- 6
- Presentations to community groups -- 2
- Facility tours -- 1
- Displays and exhibits -- 1
- Marketing rebate programs (e.g., indoor fixtures & appliances and outdoor practices) -- 1
- Community news letters -- 3
- Information kiosk at utility and public buildings -- 1
- Community events (children's water festivals, environmental fairs) -- 1
- Website -- 3
- Targeted efforts (large volume users, users with large increases) -- 1

Collaboration:

- Collaborated with watershed group(s)
- Collaborated with other high volume water users (commercial, industrial, institutional or agricultural)
- Collaborated with SWCD or NRCS on land/water management practices
- Collaborated with MDH on wellhead protection project

Rate structure:

- Increasing block

Hugo, City Of Summary of Water Conservation Report

2023 Report based on 2022 Water Use

Water Conservation Goals

Unaccounted Water Loss.....	5.3 percent
Residential gallons per capita per day	64
Non-residential: Annual Percent Reduction	14.01
Trend in total per capita demand	1.37
Total Peaking Factor	3.52

Water Accounting

Total water to Treatment	427,626,000 gallons
Total water to Distribution	427,626,000 gallons
Number of Residential connections	4,005
Number of Non-Residential connections	112
Residential versus Non-Residential Use	323.2 million gallons versus 81.6 million gallons
Date of Highest Use	7/22/2022

Water Conservation - Direct

Water Supply System Infrastructure Efficiency (leaks, meters, etc.): None listed

Date of last Audit/Percent done: No data reported

Direct Conservation Single Family (SF) and Multi-Family (MF) and Commercial, Industrial, Institutional (CII) Efforts:

- SF ET Irrigation Controllers:
 - Quantity: 25
 - Gallons saved: 225,000

Reuse or other Customer conservation projects:

- Adelaide Park and Soccer Fields: 1,018,244 gallons saved; \$1,440
- Waters Edge Reuse: 352,000 gallons saved; \$2,029
- Beaver Ponds Park and Fields Reuse: 1,477,000 gallons saved; \$1,996
- Waters Edge Phase 2: 11,929,000 gallons saved; \$6,943
- Oneka Place Reuse (Private): 3,083,170 gallons saved; \$0
- Clearwater Cove (Private): 3,892,000 gallons saved; \$0
- Oneka Ridge Golf Course: 294,000 gallons saved; \$0
- Adelaide Landing (Private): 31,609,756 gallons saved; \$0
- CSAH 8 Reuse: 14,000,000 gallons saved: \$523,758

Water Conservation Indirect

Ordinances

- Irrigation restrictions regulations
- Water consumption regulation for toilets
- Water consumption regulation for showerheads
- Water consumption regulation for urinals
- Water consumption regulation for clothes washers

- Water consumption regulation for dishwashers
- Soil preparation requirements (inches of topsoil)
- Tree ratio requirement
- Wellhead protection ordinance and zoning

Education and Outreach

- Billing inserts or tips printed on the actual bill – 1
- Consumer Confidence Reports -- 1
- Social media distribution (e.g., emails, Facebook, Twitter) -- 1
- Presentations to community groups – 6
- Community newsletters -- 2
- Direct mailings (water audit/retrofit kits, showerheads, brochures) -- 1
- Information kiosk at utility and public buildings -- 1
- Website -- 1
- Targeted efforts (large volume users, users with large increases) -- 1

Collaboration

- Collaborated with watershed group(s)
- Collaborated with lake association(s)
- Collaborated with neighboring communities to manage timing/amount of water withdrawal of shared water resource
- Collaborated with other high volume water users (commercial, industrial, institutional or agricultural)
- Collaborated with SWCD or NRCS on land/water management practices
- Collaborated with MDH on wellhead protection project
- Collaborated with MDA on improving water quality and agricultural concerns
- Collaborated with DNR on improving on decreasing our permit allotment or enhancing conservation measures
- Collaborated with community Homeowners' Associations to implement water reuse systems.

Rate structure

- Increasing Block

Lake Elmo, City Of Summary of Water Conservation Report

2023 Report based on 2022 Water Use

Water Conservation Goals

Unaccounted Water Loss.....	2 percent
Residential gallons per capita per day	94
Nonresidential: Annual Percent Reduction	4.86
Trend in total per capita demand	9.57
Total Peaking Factor	2.87

Water Accounting

Total water to Treatment	400,090,000 gallons
Total water to Distribution	400,090,000 gallons
Number of Residential connections	3,119
Number of Non-Residential connections	176
Residential versus Non-Residential Use	337.9 million gallons versus 54.2 million gallons
Date of Highest Use	7/21/2022

Water Conservation - Direct

Water Supply System Infrastructure Efficiency (leaks, meters, etc.)

- System leak fixing (before the meter): 658,281 gallons -- \$48,000
- Meter Repair/Replace: zero gallons -- \$40,000
- Hydrant repair: 79,926 gallons -- \$1,800
- Add non-irrigation meters: zero gallons -- \$2,000
- Pressure control: zero gallons -- \$8,000

Date of last Audit/Percent done: No data reported

Direct Conservation Single Family (SF) and Multi-Family (MF) and Commercial, Industrial, Institutional (CII) Efforts:

- SF Toilet Retrofits:
 - Quantity: 14
 - Gallons saved: 84,000
- SF Clothes Washer Rebates:
 - Quantity: 1
 - Gallons saved: 5,000
- SF ET Irrigation Controllers:
 - Quantity: 52
 - Gallons saved: 468,000
- CII Toilet Retrofits:
 - Quantity: 4
 - Gallons saved: 37,960

Reuse or other Customer conservation projects: None listed

Water Conservation Indirect

Ordinances

- Critical/Emergency Water Deficiency Ordinance
- Irrigation restrictions regulations
- Water consumption regulation for toilets
- Water consumption regulation for showerheads
- Water consumption regulation for urinals
- Soil preparation requirements (inches of topsoil)
- Tree ratio requirement
- Allow native plants and low water use turf/plants
- Mandatory “green” building or plumbing codes
- Wellhead protection ordinance and zoning
- Non-Zoning Wetlands Ordinance (beyond state/federal laws)
- Track enforcement

Education and Outreach

- Consumer Confidence Reports – 1
- Press releases to traditional local news outlets -- 1
- Social media distribution (e.g., emails, Facebook, Twitter) -- 80
- Presentations to community groups -- 1
- Staff training -- 8
- Displays and exhibits -- 1
- Marketing rebate programs (e.g., indoor fixtures & appliances and outdoor practices) -- 2
- Community news letters -- 2
- Direct mailings (water audit/retrofit kits, showerheads, brochures) -- 2
- Information kiosk at utility and public buildings -- 1
- Public service announcements – 1
- Community events -- 1
- Website – 4
- Targeted efforts -- 3
- Notices of ordinances – 1
- Emergency conservation notices -- 4

Collaboration

- Collaborated with watershed group(s)
- Collaborated with MDH on wellhead protection project
- Collaborated with DNR on improving on decreasing our permit allotment or enhancing conservation measures

Rate structure

- Base Rate Zero Gallons
- Increasing Block

Lakeland, City of Summary of Water Conservation Report

2023 Report based on 2022 Water Use

Water Conservation Goals

Unaccounted Water Loss..... No data reported
Residential gallons per capita per day No data reported
Non-residential: Annual percent Reduction No data reported
Trend in total per capita demand No data reported
Total Peaking Factor No data reported

Water Accounting

Total water to Treatment 72,518,000 gallons
Total water to Distribution 72,518,000 gallons
Number of Residential connections No data reported
Number of Non-Residential connections No data reported
Residential versus Non-Residential Use No data reported
Date of Highest Use No data reported

Water Conservation - Direct

Water Supply System Infrastructure Efficiency (leaks, meters, etc.): No data reported
Date of last Audit/Percent done: No data reported
Direct Conservation Single Family (SF) and Multi-Family (MF) and Commercial, Industrial, Institutional (CII) Efforts: None listed
Reuse or other Customer conservation projects: None listed

Water Conservation Indirect

Ordinances: None listed

Education and Outreach: None listed

Collaboration: None listed

Rate structure: None listed

Lexington, City Of Summary of Water Conservation Report

2023 Report based on 2022 Water Use

Water Conservation Goals

Unaccounted Water Loss.....	0 percent
Residential gallons per capita per day	51
Non-residential: Annual percent Reduction	-5.29
Trend in total per capita demand	11.69
Total Peaking Factor	1.57

Water Accounting

Total water to Treatment	58,547,124 gallons
Total water to Distribution	58,547,124 gallons
Number of Residential connections	578
Number of Non-Residential connections	60
Residential versus Non-Residential Use	48.9 million gallons versus 9.7 million gallons
Date of Highest Use	8/5/2022

Water Conservation - Direct

Water Supply System Infrastructure Efficiency (leaks, meters, etc.): None listed
Date of last Audit/Percent done: No data reported
Direct Conservation Single Family (SF) and Multi-Family (MF) and Commercial, Industrial, Institutional (CII) Efforts: None listed
Reuse or other Customer conservation projects: None listed

Water Conservation Indirect

Ordinances:

- Private well ordinance
- Irrigation restriction regulations
- Wellhead protection ordinance and zoning

Education and Outreach

- Billing inserts or tips printed on the actual bill -- 4
- Consumer Confidence Reports -- 1

Collaboration: None listed

Rate structure

- Increasing Block

Lino Lakes, City Of Summary of Water Conservation Report

2023 Report based on 2022 Water Use

Water Conservation Goals

Unaccounted Water Loss.....	2.6 percent
Residential gallons per capita per day	88
Non-residential: Annual Percent Reduction	-10.76
Trend in total per capita demand	4.45
Total Peaking Factor	2.84

Water Accounting

Total water to Treatment	623,250,000 gallons
Total water to Distribution	623,250,000 gallons
Number of Residential connections	5,395
Number of Non-Residential connections	125
Residential versus Non-Residential Use	522.9 million gallons versus 84.2 million gallons
Date of Highest Use	9/7/2022

Water Conservation - Direct

Water Supply System Infrastructure Efficiency (leaks, meters, etc.): None listed

Date of last Audit/Percent done: No data reported

Direct Conservation Single Family (SF) and Multi-Family (MF) and Commercial, Industrial, Institutional (CII) Efforts:

- SF ET Irrigation Controllers:
 - Quantity: 100
 - Gallons saved: 900,000

Reuse or other customer conservation projects: None listed

Water Conservation Indirect

Ordinances

- Critical/Emergency Water Deficiency Ordinance
- Irrigation restrictions regulations
- Soil preparation requirements (inches of topsoil)
- Tree ratio requirement
- Wellhead protection ordinance and zoning
- Track enforcement

Education and Outreach

- Consumer Confidence Reports – 1
- Press releases to traditional local news outlets (e.g., newspapers, radio and TV) -- 1
- Social media distribution -- 1
- Staff training -- 5
- Facility tours -- 1
- Community newsletters -- 4
- Information kiosk at utility and public buildings – 1

- Public service announcements -- 1
- Website – 1
- Notices of ordinances – 1
- Emergency conservation notices -- 1

Collaboration

- Collaborated with watershed group(s)
- Collaborated with MDH on wellhead protection project

Rate structure

- Increasing Block

Mahtomedi, City of Summary of Water Conservation Report

2023 Report based on 2022 Water Use

Water Conservation Goals

Unaccounted Water Loss.....	8 percent
Residential gallons per capita per day	69
Non-residential: Annual Percent Reduction	No data reported
Trend in total per capita demand	No data reported
Total Peaking Factor	2.63

Water Accounting

Total water to Treatment	247,744,000 gallons
Total water to Distribution	247,744,000 gallons
Number of Residential connections	2,733
Number of Non-residential connections	48
Residential versus Non-Residential Use	209.4 million gal. vs. 18.5 million gal.
Date of Highest Use	7/21/2022

Water Conservation - Direct

Water Supply System Infrastructure Efficiency (leaks, meters, etc.): None listed

Date of last Audit/Percent done: No data reported

Direct Conservation Single Family (SF) and Multi-Family (MF) and Commercial, Industrial, Institutional (CII) Efforts:

- SF Toilet Retrofits:
 - Quantity: 20
 - Gallons saved: 120,000
- SF Clothes Washer Rebates:
 - Quantity: 12
 - Gallons saved: 60,000

Reuse or other Customer conservation projects: None listed

Water Conservation Indirect

Ordinances:

- Critical/Emergency Water Deficiency Ordinance
- Private well ordinance (private wells in a city must comply with water restrictions)
- Irrigation restrictions Regulations
- Water consumption regulation
- Tree ratio requirement
- Allow native plants and Low water use turf/plants
- Wellhead protection ordinance and zoning

Education and Outreach:

- Consumer Confidence Reports -- 1
- Social media distribution (e.g., emails, Facebook, Twitter) -- 1
- Paid advertisements (e.g., billboards, print media, TV, radio, web sites, etc.) -- 1

- Staff training -- 7
- Community news letters -- 6
- Information kiosk at utility and public buildings -- 3
- Public service announcements -- 2
- Cable TV Programs -- 365
- Community events (children's water festivals, environmental fairs) -- 1
- Website -- 365
- Notices of ordinances -- 4

Collaboration:

- Collaborated with watershed group(s)
- Collaborated with lake association(s)
- Collaborated with SWCD or NRCS on land/water management practices
- Collaborated with DNR on improving on decreasing our permit allotment or enhancing conservation measures

Rate structure: Increasing block

Marine on St. Croix, City of Summary of Water Conservation Report

2023 Report based on 2022 Water Use

Water Conservation Goals

Unaccounted Water Loss..... No data reported
Residential gallons per capita per day No data reported
Non-residential: Annual percent Reduction No data reported
Trend in total per capita demand No data reported
Total Peaking Factor No data reported

Water Accounting

Total water to Treatment 2,490,000 gallons
Total water to Distribution 2,490,000 gallons
Number of Residential connections No data reported
Number of Non-Residential connections No data reported
Residential versus Non-Residential Use No data reported
Date of Highest Use No data reported

Water Conservation - Direct

Water Supply System Infrastructure Efficiency (leaks, meters, etc.): No data reported
Date of last Audit/Percent done: No data reported
Direct Conservation Single Family (SF) and Multi-Family (MF) and Commercial, Industrial, Institutional (CII) Efforts: No data reported
Reuse or other Customer conservation projects: No data reported

Water Conservation Indirect

Ordinances: No data reported
Education and Outreach: None No data reported
Collaboration: No data reported
Rate structure: No data reported

Minneapolis, City Of Summary of Water Conservation Report

2023 Report based on 2022 Water Use

Water Conservation Goals

Unaccounted Water Loss.....	17.2 percent
Residential gallons per capita per day	52
Annual Percent Reduction-Nonresidential	-4.26
Trend in total per capita demand	2.19
Total Peaking Factor	2.16

Water Accounting

Total water to Treatment	19,679,780,000 gallons
Total water to Distribution	14,451,972,976 gallons
Number of Residential connections	93,581
Number of Non-Res. connections.....	7,223
Residential versus Non-Residential Use	8,357.1 million gallons versus 3,608.7 million gallons
Date of Highest Use	6/23/2022

Water Conservation - Direct

Water Supply System Infrastructure Efficiency (leaks, meters, etc.):

- Meter Repair/Replace: zero gallons -- \$214,165
- Hydrant repair: zero gallons -- \$916,427

Date of last Audit/Percent done: 12/31/2015; 87 percent completed

Direct Conservation Single Family (SF) and Multi-Family (MF) and Commercial, Industrial, Institutional (CII) Efforts: None listed

Reuse or other Customer conservation projects: None listed

Water Conservation Indirect

Ordinances

- Critical/Emergency Water Deficiency Ordinance
- Private well ordinance (private wells in a city must comply with water restrictions)
- Soil preparation requirements (inches of topsoil)
- Allow native plants and low water use turf/plants
- Non-Zoning Wetlands Ordinance (beyond state/federal laws)
- Ordinances that permit stormwater irrigation or reuse

Education and Outreach

- Billing inserts or tips printed on the actual bill -- 12
- Consumer Confidence Reports – 1
- Website – 1

Collaboration

- Collaborated with watershed group(s)
- Collaborated with lake association(s)
- Collaborated with neighboring communities to manage timing/amount of water withdrawal of shared water resource

Rate structure

- Base Rate Zero Gallons
- Uniform

Mounds View, City Of Summary of Water Conservation Report

2023 Report based on 2022 Water Use

Water Conservation Goals

Unaccounted Water Loss.....	18.2 percent
Residential gallons per capita per day	58
Annual Percent Reduction-Nonresidential	2.85
Trend in total per capita demand	9.71
Total Peaking Factor	2.34

Water Accounting

Total water to Treatment	443,896,000 gallons
Total water to Distribution	443,896,000 gallons
Number of Residential connections	3,187
Number of Non-Res. connections.....	109
Residential versus Non-Residential Use	276.7 million gallons versus 86.3 million gallons
Date of Highest Use	7/20/2022

Water Conservation - Direct

Water Supply System Infrastructure Efficiency (leaks, meters, etc.): None listed
Date of last Audit/Percent done: 9/1/2021; 100% completed
Direct Conservation Single Family (SF) and Multi-Family (MF) and Commercial, Industrial, Institutional (CII) Efforts: None listed
Reuse or other Customer conservation projects: None listed

Water Conservation Indirect

Ordinances

- Irrigation restrictions regulations

Education and Outreach

- Consumer Confidence Reports -- 1
- Social media distribution -- 1
- Displays and exhibits -- 1
- Community newsletters -- 4
- Website -- 1

Collaboration: None listed

Rate structure

- Increasing Block

New Brighton, City Of Summary of Water Conservation Report

2023 Report based on 2022 Water Use

Water Conservation Goals

Unaccounted Water Loss	-10.4 percent
Residential gallons per capita per day	Not reported
Non-residential: annual percent reduction	-8.08
Trend in total per capita demand	Not reported
Total Peaking Factor	2.39

Water Accounting

Total water to Treatment	1,155,356,000 gallons
Total water to Distribution	735,612,000 gallons
Number of Residential connections	5,703
Number of Non-Residential connections	327
Residential versus Non-Residential Use	653.5 million gallons versus 158.6 million gallons
Date of Highest Use	7/23/2022

Water Conservation - Direct

Water Supply System Infrastructure Efficiency (leaks, meters, etc.): None listed

Date of last Audit/Percent done: Not reported

Direct Conservation Single Family (SF) and Multi-Family (MF) and Commercial, Industrial, Institutional (CII) Efforts:

- SF Toilet Retrofits:
 - Quantity: 90
 - Gallons saved: 540,000

Reuse or other Customer conservation projects: none listed

Water Conservation Indirect

Ordinances

- Critical/Emergency Water Deficiency Ordinance
- Irrigation restrictions regulations
- Soil preparation requirements (Inches of topsoil)
- Allow native plants and low water use turf/plants
- Wellhead protection ordinance and zoning
- Non-Zoning Wetlands Ordinance (beyond state/federal laws)
- Track enforcement

Education and Outreach

- Consumer Confidence Reports -- 1
- Social media distribution (e.g., emails, Facebook, Twitter) -- 1
- Presentations to community groups -- 1
- Facility tours -- 3

- Displays and exhibits -- 1
- Community newsletters -- 3
- Information kiosk at utility and public buildings -- 1

Collaboration

- Collaborated with watershed group(s)
- Collaborated with lake association(s)
- Collaborated with MDH on wellhead protection project

Rate structure

- Uniform

Newport, City of Summary of Water Conservation Report

2023 Report based on 2022 Water Use

Water Conservation Goals

Unaccounted Water Loss.....	10.6 percent
Residential gallons per capita per day	56
Non-residential: Annual Percent Reduction	8.57
Trend in total per capita demand	5.44
Total Peaking Factor	1.49

Water Accounting

Total water to Treatment	119,348,000 gallons
Total water to Distribution	119,348,000 gallons
Number of Residential connections	1,116
Number of Non-Residential connections	79
Residential versus Non-Residential Use	80.7 million gallons versus 26.0 million gallons
Date of Highest Use	6/23/2022

Water Conservation - Direct

Water Supply System Infrastructure Efficiency (leaks, meters, etc.): None listed
Date of last Audit/Percent done: None listed
Direct Conservation Single Family (SF) and Multi-Family (MF) and Commercial, Industrial, Institutional (CII) Efforts: None listed
Reuse or other Customer conservation projects: None listed

Water Conservation Indirect

Ordinances

- Wellhead protection ordinance and zoning

Education and Outreach

- Billing inserts or tips printed on the actual bill -- 4
- Consumer Confidence Reports – 1
- Social media distribution -- 6
- Community newsletters – 4
- Community events -- 1

Collaboration

- Collaborated with watershed group(s)
- Collaborated with SWCD or NRCS on land/water management practices

Rate structure: Increasing Block

North St. Paul, City of Summary of Water Conservation Report

2023 Report based on 2022 Water Use

Water Conservation Goals

Unaccounted Water Loss.....	9.7 percent
Residential gallons per capita per day	52
Non-residential: Annual Percent Reduction	-0.67
Trend in total per capita demand	7.87
Total Peaking Factor	2.05

Water Accounting

Total water to Treatment	372,418,000 gallons
Total water to Distribution	372,418,000 gallons
Number of Residential connections	4,496
Number of Non-Residential connections	269
Residential versus Non-Residential Use	240.7 million gallons versus 95.5 million gallons
Date of Highest Use	7/18/2022

Water Conservation - Direct

Water Supply System Infrastructure Efficiency (leaks, meters, etc.):

- Meter repair/replace: 50 gallons -- \$15,000
- Hydrant repair: 6 gallons -- \$30,000

Date of last Audit/Percent done:

Direct Conservation Single Family (SF) and Multi-Family (MF) and Commercial, Industrial, Institutional (CII) Efforts: None listed

Reuse or other Customer conservation projects: None listed

Water Conservation Indirect

Ordinances:

- Irrigation restrictions regulations
- Tree ratio requirement
- Allow native plants and low water use turf/plants
- Wellhead protection ordinance and zoning

Education and Outreach:

- Consumer confidence reports – 4,765
- Social media distribution – 6
- Paid advertisements – 6
- Community newsletters – 10
- Website – 10

Collaboration:

- Collaborated with watershed group(s)
- Collaborated with lake association(s)

- Collaborated with neighboring communities to manage timing/amount of water withdrawal of shared water resource
- Collaborated with SWCD or NRCS on land/water management practices
- Collaborated with MDH on wellhead protection project

Rate structure:

- Base rate zero gallons
- Excess use rate

Oakdale, City of Summary of Water Conservation Report

2023 Report based on 2022 Water Use

Water Conservation Goals

Unaccounted Water Loss.....	7.5 percent
Residential gallons per capita per day	60
Non-residential: annual percent reduction	21.9
Trend in total per capita demand	6.91
Total Peaking Factor	2.24

Water Accounting

Total water to Treatment	890,712,986 gallons
Total water to Distribution	874,631,986 gallons
Number of residential connections	8,588
Number of non-residential connections.....	489
Residential versus non-residential Use.....	621.9 million gallons versus 187.4 million gallons
Date of Highest Use	7/21/2022

Water Conservation - Direct

Water Supply System Infrastructure Efficiency (leaks, meters, etc.):

- System leak fixing: 210,000 gallons -- \$186,000
- Meter repair/replace: 50,000 gallons -- \$30,000
- Hydrant repair: zero gallons -- \$35,000
- Reduce unauthorized water use: 2,000,000 gallons -- \$0
- Meter testing: 60,000 gallons -- \$12,000
- Add irrigation meters: 1,500,000 gallons -- \$3,000
- Pressure control: zero gallons -- \$10,000

Date of last Audit/Percent done: none listed

Direct Conservation Single Family (SF) and Multi-Family (MF) and Commercial, Industrial, Institutional (CII) Efforts:

- MF/CII ET Irrigation Controllers
 - Quantity: 11
 - Gallons saved: 990,000

Reuse or other Customer conservation projects: None listed

Water Conservation Indirect

Ordinances

- Critical/emergency water deficiency ordinance
- Irrigation restrictions regulations
- Water consumption regulation for toilets, showerheads, urinals
- Water waste prohibition
- Tree ratio requirement

- Allow native plants and low water use turf/plants
- Mandatory “green” building or plumbing codes
- Wellhead protection ordinance and zoning
- Non-zoning wetlands ordinance

Education and Outreach

- Billing inserts or tips printed on the actual bill – 40,849
- Consumer Confidence Reports – 1
- Social media distribution – 6
- Presentations to community groups – 1
- Displays and exhibits – 1
- Community newsletters – 1
- Information kiosk at utility and public buildings – 2
- Website -- 1

Collaboration

- Collaborated with watershed group(s)
- Collaborated with MDH on wellhead protection project

Rate structure

- Base rate zero gallons
- Increasing block

Oak Park Heights, City Of Summary of Water Conservation Report

2023 Report based on 2022 Water Use

Water Conservation Goals

Unaccounted Water Loss.....	16.1 percent
Residential gallons per capita per day	58
Non-residential: annual percent reduction	19.24
Trend in total per capita demand	-2.45
Total Peaking Factor	2.01

Water Accounting

Total water to Treatment	207,630,000 gallons
Total water to Distribution	207,630,000 gallons
Number of residential connections	1,151
Number of non-residential connections.....	151
Residential versus non-residential Use.....	101.7 million gallons versus 72.5 million gallons
Date of Highest Use	7/8/2022

Water Conservation - Direct

Water Supply System Infrastructure Efficiency (leaks, meters, etc.): None listed
Date of last Audit/Percent done: none listed
Direct Conservation Single Family (SF) and Multi-Family (MF) and Commercial, Industrial, Institutional (CII) Efforts: None listed
Reuse or other Customer conservation projects: None listed

Water Conservation Indirect

Ordinances

- Critical/emergency water deficiency ordinance
- Irrigation restrictions regulations
- Water consumption regulation
- Tree ratio requirement
- Allow native plants and low water use turf/plants
- Wellhead protection ordinance and zoning

Education and Outreach

- Consumer Confidence Reports – 1
- Staff training – 3
- Community newsletters – 4
- Website -- 1

Collaboration

- Collaborated with watershed group(s)
- Collaborated with SWCD or NRCS on land/water management practices

Rate structure

- Increasing block

Saint Anthony, City of Summary of Water Conservation Report

2023 Report based on 2022 Water Use

Water Conservation Goals

Unaccounted Water Loss.....	0.9 percent
Residential gallons per capita per day	60
Non-residential: Annual percent reduction.....	2.09
Trend in total per capita demand	3.65
Total Peaking Factor	2.1

Water Accounting

Total water to Treatment	283,620,788 gallons
Total water to Distribution	283,620,788 gallons
Number of Residential connections	2,257
Number of Non-Residential connections	130
Residential versus Non-Residential Use	198.1 million gallons versus 83.0 million gallons
Date of Highest Use	7/23/2022

Water Conservation - Direct

Water Supply System Infrastructure Efficiency (leaks, meters, etc.): None listed

Date of last Audit/Percent done: No data reported

Direct Conservation Single Family (SF) and Multi-Family (MF) and Commercial, Industrial, Institutional (CII) Efforts:

- SF Rain Barrels:
 - Quantity: 15
 - Gallons saved: 19,500

Reuse or other Customer conservation projects: None listed

Water Conservation Indirect

Ordinances

- Critical/emergency water deficiency ordinance
- Private well ordinance (private wells in a city must comply with water restrictions)
- Irrigation restrictions regulations
- Water consumption regulation
- Allow native plants and low water use turf/plants
- Wellhead protection ordinance and zoning
- Ordinances that permit stormwater irrigation or reuse

Education and Outreach

- Consumer Confidence Reports -- 1
- Staff training -- 1
- Facility tours -- 5
- Community newsletters -- 6
- Information kiosk at utility and public buildings -- 1
- K-12 education programs -- 5

- Water week promotions -- 1
- Website – 2
- Notices of ordinances -- 1

Collaboration

- Collaborated with watershed group(s)
- Collaborated with lake association(s)
- Collaborated with MDH on wellhead protection project

Rate structure

- Base rate zero gallons
- Uniform

St. Paul Park, City of Summary of Water Conservation Report

2023 Report based on 2022 Water Use

Water Conservation Goals

Unaccounted Water Loss.....	-11.3 percent
Residential gallons per capita per day	64
Non-residential: Annual Percent Reduction	-13.49
Trend in total per capita demand	7.53
Total Peaking Factor	2.77

Water Accounting

Total water to Treatment	188,870,000 gallons
Total water to Distribution	159,165,500 gallons
Number of Residential connections	1,813
Number of Non-Residential connections	81
Residential versus Non-Residential Use	128.3 million gallons versus 48.8 million gallons
Date of Highest Use	7/1/2022

Water Conservation - Direct

Water Supply System Infrastructure Efficiency (leaks, meters, etc.)

- System leak fixing: 2 gallons -- \$0
- Meter Repair/Replace: 15 gallons -- \$0
- Meter testing: 10 gallons -- \$0
- Add irrigation meters: 1 gallon -- \$0

Date of last Audit/Percent done: 7/23/2021; 100 percent

Direct Conservation Single Family (SF) and Multi-Family (MF) and Commercial, Industrial, Institutional (CII) Efforts: None listed

Reuse or other Customer conservation projects: None listed

Water Conservation Indirect

Ordinances

- Critical/emergency water deficiency ordinance
- Irrigation restrictions ordinance
- Permit required to fill pool or require pool to be covered
- Wellhead protection ordinance and zoning

Education and Outreach

- Consumer Confidence Reports – 1
- Social media distribution (e.g., emails, Facebook, Twitter) -- 25
- Staff training – 12
- Facility tours -- 1
- Community newsletters -- 4
- Information kiosk at utility and public buildings -- 1

- Website -- 12

Collaboration

- Collaborated with watershed group(s)
- Collaborated with neighboring communities to manage timing/amount of water withdrawal of shared water resource
- Collaborated with MDH on wellhead protection project

Rate structure

- Increasing block

St. Paul Regional Water Services Summary of Water Conservation Report

2023 Report based on 2022 Water Use

Water Conservation Goals

Unaccounted Water Loss.....	16.5 percent
Residential gallons per capita per day	30
Non-residential: Annual percent reduction.....	-1.35
Trend in total per capita demand	5.32
Total Peaking Factor	1.96

Water Accounting

Total water to Treatment	25,293,644,750 gallons
Total water to Distribution	12,211,689,367 gallons
Number of Residential connections	88,937
Number of Non-Residential connections	5,591
Residential versus Non-Residential Use	5,117.5 million gallons versus 5,074.6 million gallons
Date of Highest Use	7/21/2022

Water Conservation - Direct

Water Supply System Infrastructure Efficiency (leaks, meters, etc.)

- Meter repair/replacement: no gallons reported -- \$14,700
 - Hydrant repair: no gallons reported -- \$300,000
- Meter testing: no gallons reported -- \$142,000
- Customer leaks/high users fixed: 1,873,905 gallons -- \$846,447

Date of last Audit/Percent done: 12/31/2022; 100% completed

Direct Conservation Single Family (SF) and Multi-Family (MF) and Commercial, Industrial, Institutional (CII) Efforts: None listed

Reuse or other Customer conservation projects: None listed

Water Conservation Indirect

Ordinances:

- Irrigation restrictions regulations
- Wellhead protection ordinance and zoning

Education and Outreach

- Billing inserts or tips printed on the actual bill -- 1
- Consumer Confidence Reports -- 1
- Press releases to traditional local news outlets (e.g., newspapers, radio and TV) -- 1
- Paid advertisements (e.g., billboards, print media, TV, radio, web sites, etc.) -- 1
- Facility tours -- 2
- K-12 education programs (Project Wet, Drinking Water Institute, presentations) -- 4
- Community events -- 14
- Water week promotions -- 1
- Website -- 1

- Targeted efforts (large volume users, users with large increases) – 2,520

Collaboration

- Collaborated with watershed group(s)
- Collaborated with other high volume water users (commercial, industrial, institutional or agricultural)
- Collaborate with MDH on wellhead protection project
- Collaborated with MDA on improving water quality and agricultural concerns

Rate structure

- Base rate zero gallons
- Seasonal rate

Shoreview, City Of Summary of Water Conservation Report

2023 Report based on 2022 Water Use

Water Conservation Goals

Unaccounted Water Loss.....	2.1 percent
Residential gallons per capita per day	65
Non-residential: Annual Percent Reduction	-0.61
Trend in total per capita demand	2.41
Total Peaking Factor	2.27

Water Accounting

Total water to Treatment	877,448,400 gallons
Total water to Distribution	877,448,400 gallons
Number of Residential connections	8,542
Number of Non-Residential connections	240
Residential versus Non-Residential Use	646.9 million gallons versus 211.7 million gallons
Date of Highest Use	7/20/2022

Water Conservation - Direct

Water Supply System Infrastructure Efficiency (leaks, meters, etc.)

- System leak fixing (before the meter): zero gallons -- \$60,000
- Hydrant repair: zero gallons -- \$27,080
- Meter repair/replace: zero gallons -- \$24,653
- Meter testing: zero gallons -- \$2,485

Date of last Audit/Percent done: No data reported

Direct Conservation Single Family (SF) and Multi-Family (MF) and Commercial, Industrial, Institutional (CII) Efforts: None listed

Reuse or other Customer conservation projects: None listed

Water Conservation Indirect

Ordinances:

- Critical/emergency water deficiency ordinance
- Private well ordinance (private wells in a city must comply with water restrictions)
- Irrigation restrictions regulations
- Allow native plants and low water use turf/plants
- Wellhead protection ordinance and zoning
- Track enforcement

Education and Outreach:

- Billing inserts or tips printed on the actual bill -- 3
- Consumer Confidence Reports -- 1
- Social media distribution (e.g., emails, Facebook, Twitter) -- 4
- Staff training -- 2

- Facility tours -- 3
- Community news letters -- 2
- Information kiosk at utility and public buildings -- 1
- Community education classes -- 1
- Website -- 1

Collaboration:

- Collaborated with watershed group(s)
- Collaborated with lake association(s)

Rate structure: Increasing block

Spring Lake Park, City Of Summary of Water Conservation Report

2023 Report based on 2022 Water Use

Water Conservation Goals

Unaccounted Water Loss.....	0.7 percent
Residential gallons per capita per day	50
Non-residential: Annual percent reduction.....	43.05
Trend in total per capita demand	28.78
Total Peaking Factor	3.43

Water Accounting

Total water to Treatment	263,160,000 gallons
Total water to Distribution	195,955,000 gallons
Number of Residential connections	11,987
Number of Non-Residential connections	871
Residential versus Non-Residential Use	131.1 million gallons versus 63.5 million gallons
Date of Highest Use	7/1/2022

Water Conservation - Direct

Water Supply System Infrastructure Efficiency (leaks, meters, etc.):

- Meter repair/replace: 30 gallons -- \$5,000

Date of last Audit/Percent done: Not listed

Direct Conservation Single Family (SF) and Multi-Family (MF) and Commercial, Industrial, Institutional (CII) Efforts: None listed

Reuse or other Customer conservation projects: None listed

Water Conservation Indirect

Ordinances

- Critical/Emergency Water Deficiency Ordinance
- Private well ordinance (private wells in a city must comply with water restrictions)
- Irrigation restrictions regulations
- Tree ratio requirement
- Permit required to fill pool or require pool to be covered
- Allow native plants and low water use turf/plants
- Mandatory “green” building or plumbing codes
- Wellhead protection ordinance and zoning
- Track enforcement

Education and Outreach

- Billing inserts or tips printed on the actual bill -- 1
- Consumer Confidence Reports -- 3
- Press releases to traditional local news outlets (e.g., newspapers, radio and TV) -- 1
- Social media distribution (e.g., emails, Facebook, Twitter) -- 1
- Paid advertisements (e.g., billboards, print media, TV, radio, web sites, etc.) -- 1
- Community newsletters – 4
- Direct mailings -- 4

- Information kiosk at utility and public buildings -- 1
- Website -- 1
- Notices of ordinances -- 1

Collaboration

- Collaborated with watershed group(s)
- Collaborated with MDH on wellhead protection project

Rate structure

- Increasing block

Stillwater, City of-Board of Water Commissioners Summary of Water Conservation Report

2023 Report based on 2022 Water Use

Water Conservation Goals

Unaccounted Water Loss	11.6 percent
Residential gallons per capita per day	54
Non-residential: Annual Percent Reduction	-6.22
Trend in total per capita demand	14.37
Total Peaking Factor	2.47

Water Accounting

Total water to Treatment	737,809,000 gallons
Total water to Distribution	737,809,000 gallons
Number of Residential connections	6,396
Number of Non-Residential connections	364
Residential versus Non-Residential Use	385.7 million gallons versus 266.2 million gallons
Date of Highest Use	6/23/2022

Water Conservation - Direct

Water Supply System Infrastructure Efficiency (leaks, meters, etc.): None listed

Date of last Audit/Percent done: No data reported

Direct Conservation Single Family (SF) and Multi-Family (MF) and Commercial, Industrial, Institutional (CII) Efforts:

- SF Toilet Retrofits:
 - Quantity: 18
 - Gallons saved: 108,000
- SF Clothes Washer Rebates:
 - Quantity: 26
 - Gallons saved: 130,000
- SF ET Irrigation Controllers:
 - Quantity: 6
 - Gallons saved: 54,000

Reuse or other Customer conservation projects: None listed

Water Conservation Indirect

Ordinances

- Critical/emergency water deficiency ordinance
- Irrigation restrictions regulations
- Tree ratio requirement
- Wellhead protection ordinance and zoning

Education and Outreach

- Consumer Confidence Reports -- 1
- Staff training -- 2
- Community newsletters -- 4
- Website -- 2

Collaboration

- Collaborated with watershed group(s)
- Collaborated with neighboring communities to manage timing/amount of water withdrawal of shared water resource
- Collaborated with other high volume water users (commercial, industrial, institutional or agricultural)
- Collaborated with MDH on wellhead protection project
- Collaborated with DNR on improving on decreasing our permit allotment or enhancing conservation measures

Rate structure

- Increasing block

Vadnais Heights, City of Summary of Water Conservation Report

2023 Report based on 2022 Water Use

Water Conservation Goals

Unaccounted Water Loss..... No data reported
Residential gallons per capita per day No data reported
Non-residential: annual percent reduction No data reported
Trend in total per capita demand No data reported
Total Peaking Factor No data reported

Water Accounting

Total water to Treatment 484,016,000 gallons
Total water to Distribution 484,016,000 gallons
Number of residential connections No data reported
Number of non-residential connections..... No data reported
Residential versus non-residential Use..... No data reported
Date of Highest Use No data reported

Water Conservation - Direct

Water Supply System Infrastructure Efficiency (leaks, meters, etc.): None listed
Date of last Audit/Percent done: None listed
Direct Conservation Single Family (SF) and Multi-Family (MF) and Commercial, Industrial, Institutional (CII) Efforts: None listed
Reuse or other Customer conservation projects: None listed

Water Conservation Indirect

Ordinances
Education and Outreach
Collaboration
Rate structure

White Bear Lake, City of Summary of Water Conservation Report

2023 Report based on 2022 Water Use

Water Conservation Goals

Unaccounted Water Loss.....	- 2.7 percent
Residential gallons per capita per day	59
Non-residential: Annual Percent Reduction	- 10.93
Trend in total per capita demand	3.77
Total Peaking Factor	2.03

Water Accounting

Total water to Treatment	720,245,746 gallons
Total water to Distribution	720,245,746 gallons
Number of Residential connections	7,665
Number of Non-Residential connections	566
Residential versus Non-Residential Use	556.5 million gallons versus 182.9 million gallons
Date of Highest Use	7/21/2022

Water Conservation - Direct

Water Supply System Infrastructure Efficiency (leaks, meters, etc.)

- System leak fixing (before the meter): 7,500 gallons -- \$18,900
- Meter Repair/Replace: zero gallons reported -- \$370,000
- Hydrant repair: 4,000 gallons -- \$10,000

Date of last Audit/Percent done: No data reported

Direct Conservation Single Family (SF) and Multi-Family (MF) and Commercial, Industrial, Institutional (CII) Efforts:

- SF Toilet Retrofits:
 - Quantity: 30
 - Gallons saved: 180,000

Reuse or other Customer conservation projects: None listed

Water Conservation Indirect

Ordinances

- Irrigation restrictions regulations
- Soil preparation requirements (inches of topsoil)
- Tree ratio requirement
- Allow native plants and low water use turf/plants
- Wellhead protection ordinance and zoning
- Non-zoning wetlands ordinance (beyond state/federal laws)
- Track enforcement

Education and Outreach:

- Billing inserts or tips printed on the actual bill -- 2
- Consumer Confidence Reports -- 2
- Social media distribution (e.g., emails, Facebook, Twitter) -- 4
- Displays and exhibits -- 1
- Marketing rebate programs (e.g., indoor fixtures & appliances and outdoor practices) -- 1
- Community news letters -- 5
- Community events (children's water festivals, environmental fairs) -- 1
- Website -- 4
- Notices of ordinances -- 2
- Emergency conservation notices -- 1

Collaboration:

- Collaborated with watershed group(s)
- Collaborated with lake association(s)
- Collaborated with SWCD or NRCS on land/water management practices

Rate structure: Increasing block

White Bear Township Summary of Water Conservation Report

2023 Report based on 2022 Water Use

Water Conservation Goals

Unaccounted Water Loss.....	0.8 percent
Residential gallons per capita per day	70
Non-residential: Annual Percent Reduction	-8.06
Trend in total per capita demand	13.87
Total Peaking Factor	2.94

Water Accounting

Total water to Treatment	444,342,000 gallons
Total water to Distribution	441,319,500 gallons
Number of Residential connections	4,833
Number of Non-Residential connections	218
Residential versus Non-Residential Use	311 million gallons versus 126.9 million gallons
Date of Highest Use	7/21/2022

Water Conservation - Direct

Water Supply System Infrastructure Efficiency (leaks, meters, etc.)

- System leak fixing (before the meter): 573,500 gallons -- \$3,269
- Storage Mixing: 1,750,000 gallons -- \$11,200

Date of last Audit/Percent done: 10/10/2022; 100 percent completed

Direct Conservation Single Family (SF) and Multi-Family (MF) and Commercial, Industrial, Institutional (CII) Efforts:

- SF Toilet Retrofits:
 - Quantity: 59
 - Gallons saved: 354,000
- SF Clothes Washer Rebates:
 - Quantity: 22
 - Gallons saved: 110,000
- Energy Star Dishwasher:
 - Quantity: 1
 - Gallons saved: 5,600
- SF ET Irrigation Controllers:
 - Quantity: 8
 - Gallons saved: 72,000

Reuse or other Customer conservation projects: None listed

Water Conservation Indirect

Ordinances

- Critical/emergency water deficiency ordinance
- Irrigation restrictions regulations
- Soil preparation requirements (Inches of topsoil)

- Tree ratio requirement
- Wellhead protection ordinance and zoning

Education and Outreach

- Billing inserts or tips printed on the actual bill -- 3
- Consumer Confidence Reports -- 1
- Social media distribution (e.g., emails, Facebook, Twitter) -- 2
- Presentations to community groups – 2
- Marketing rebate programs -- 5
- Community news letters -- 6
- Website – 4

Collaboration

- Collaborated with watershed group(s)
- Collaborated with DNR on improving on decreasing our permit allotment or enhancing conservation measures

Rate structure

- Increasing block

Woodbury, City Of Summary of Water Conservation Report

2023 Report based on 2022 Water Use

Water Conservation Goals

Unaccounted Water Loss.....	3.8 percent
Residential gallons per capita per day	84
Non-residential: Annual Percent Reduction	-5.98
Trend in total per capita demand	3.50
Total Peaking Factor	2.48

Water Accounting

Total water to Treatment	2,960,329,865 gallons
Total water to Distribution	2,960,329,865 gallons
Number of Residential connections	24,388
Number of Non-Residential connections	905
Residential versus Non-Residential Use	2,388.2 million gallons versus 459.9 million gallons
Date of Highest Use	7/21/2022

Water Conservation - Direct

Water Supply System Infrastructure Efficiency (leaks, meters, etc.):

- System leak fixing: zero gallons -- \$60,596
- Meter repair/replace: zero gallons -- \$598,899

Date of last Audit/Percent done: No data reported

Direct Conservation Single Family (SF) and Multi-Family (MF) and Commercial, Industrial, Institutional (CII) Efforts:

- SF ET Irrigation Controllers
 - Quantity: 497
 - Gallons saved: 4,473,000
- MF Toilet Retrofits:
 - Quantity: 246
 - Gallons saved: 2,356,926

Reuse or other Customer conservation projects: None listed

Water Conservation Indirect

Ordinances

- Critical/emergency water deficiency ordinance
- Private well ordinance (private wells in a city must comply with water restrictions)
- Irrigation restrictions regulations
- Water consumption regulation
- Soil preparation requirements (inches of topsoil)
- Tree ratio requirement
- Allow native plants and low water use turf/plants
- Mandatory “green” building or plumbing codes

- Wellhead protection ordinance and zoning
- Non-zoning wetlands ordinance (beyond state/federal laws)
- Ordinances that permit stormwater irrigation or reuse
- Track enforcement
- Regulation for sensor and smart irrigation controllers (new installs)

Education and Outreach

- Billing inserts or tips printed on the actual bill -- 1
- Consumer Confidence Reports – 1
- Social media distribution (e.g., emails, Facebook, Twitter) -- 20
- Marketing rebate programs (e.g., indoor fixtures & appliances and outdoor practices) -- 12
- Community newsletters -- 8
- Direct mailings (water audit/retrofit kits, showerheads, brochures) -- 1
- Water week promotions -- 1
- Website -- 4
- Notices of ordinances – 4

Collaboration

- Collaborated with watershed group(s)
- Collaborated with neighboring communities to manage timing/amount of water withdrawal of shared water resource
- Collaborated with other high volume water users (commercial, industrial, institutional or agricultural)
- Collaborated with MDH on wellhead protection project

Rate structure

- Increasing block

General Comments and Recommendations for additional conservation efforts:

1. Water Conservation Goals: Compare your water supply system results to the statewide water conservation goals that are set in the Water Supply Plans:
 - a. Unaccounted for Water Loss <10%
 - b. Residential Gallons per Capita Demand (GPCD) Daily <75
 - c. Annual % Reduction in Nonresidential Use >1.5%
 - d. Trend in Total per Capita Demand >=1.0
 - e. Total peaking factor <2.6

Each water supplier should try to achieve the statewide water conservation goals by the time their next Water Supply Plan is due (2026-2028).

2. Water Loss: For most water suppliers, working on reducing water loss should be your top conservation objective. Cities should first make their own water supply system as efficient as possible. In addition to leaks, water can be “lost” through unauthorized consumption (theft), administrative errors, data handling errors, and metering inaccuracies or failure.
3. Leak Repair: Budgeting for and keeping on top of aging pipes and infrastructure will be important in the coming years to reduce water loss. Also check fire hydrants frequently, many cities are finding these to be part of their water loss problem.
4. Meters: A water meter program should include selection, installation, testing and maintenance. Over time meters lose accuracy and inaccurate meters contribute to loss of revenue. Accurate meters are also key to getting a handle on water loss. Focus first on large meter installations.
5. Audit: Water audits are the first step for controlling water loss. AWWA offers free [Water Audit Software](#). The second step is intervention and implementing solutions, and the third step is evaluation and further improvements if needed. Metering and better water accounting are key to improving the city’s water loss percentage.
6. Peak Water Day: Generally this number indicates if the city has high summer water use. Conservation education should focus on improving landscape irrigation efficiency on public and private property. The [UMN Turfgrass Science](#) website has excellent irrigation resources. If your peak water day was for hydrant flushing, you might evaluate if this amount could be reduced without sacrificing best practices. Some cities are significantly cutting back with hydrant flushing and not impacting water quality.
7. Residential & Non-Residential: Compare the volume of Residential and non-residential water user. Is one significantly more than the other or are they quite close in water use? Focusing on your big water use accounts with education programs or conservation partnerships may make sense.
8. Non-residential education and outreach ideas:
 - a. Non-residential use is always an opportunity for water conservation – economically Commercial, Industrial and Institutional users *want* to be as efficient as possible. The city should look at the 2-3 largest non-residential water users and meet with them to see if there are things they can do to conserve water.
 - b. Cities often work with the CII categories that are easiest to implement: government/municipal buildings and facilities; large landscape areas; schools and/or

colleges; office buildings; restaurants. Research shows that the degree of success for water conservation are: 1. Schools/colleges, 2. Commercial and apartments, 3. Large landscape areas, 4. Lodging, 5. Public pools/water parks. Target your efforts here for optimal success.

- c. If any of the CII facilities have outdoor lawn irrigation this is an easy and quick way to reduce water use by installing smart meters, doing an irrigation audit to look for leaks and broken heads, or simply turning off the irrigation controllers and only turning them on when there has been a lack of rainfall.
9. Residential education and outreach ideas:
 - a. The city may want to offer free toilet leak detection tablets to customers since this is the most common leak and easy to fix. Contact the MN DNR Information Center for a free supply of toilet leak detection info cards and dye tablets.
 - b. You may want to try promoting this home water conservation app that only takes a few minutes and is fun and informative <http://nrwa.aqkwa.com> (try it yourself!). In addition to adults, you can work with the schools, kids may influence their parents to conserve water.
 - c. Other new water campaigns the city may want to participate in include: the US EPA WaterSense Program. Membership is free and allows you access to great resources. Also *Value of Water*- US Water Alliance has a Value of Water Campaign <http://uswateralliance.org/initiatives/value-of-water> with a toolkit that has PDFs of ads, billboards, bill stuffers, bus shelter ads, banners, and social media. The focus is positive, emphasizing that water is essential.
 10. Ordinances: City Councils may want to strengthen their water conservation ordinances. League of MN Cities is a great source for sample ordinances.
 11. Rate Structure: Cities should regularly evaluate the water rate structure. MN Rural Water Association provides this service (free for a quick review; small fee for a full bookkeeping audit).
 12. Future Weather: Northern cities are already experiencing changing seasons and weather patterns. Some of these will impact water supply and demand. Climate science tells us three key trends will likely continue through mid-century:
 1. Extreme rainfall is happening more often.
 2. Minnesota's climate is becoming warmer and wetter.
 3. Winter is warming 13 times faster than summer and there are fewer days of extreme cold.

These changes will likely impact public water supplies in several ways:

- a. Rivers & Streams: Rivers will see altered high and low flows and an increase in contamination due to flooding. Whatever the historic flood level has been in the past, anticipate it to be higher. Are water treatment facilities, water towers, and pumps flood proof/resilient? Are there industries upstream that may contaminate drinking water supplies during a flood? Are communications in place to notify the city of possible contamination and emergency flood preparations in place? If the city is not a member of MnWARN they may want to consider this voluntary option. Warmer winters may mean more ice, which often requires more salt treatment. Chloride contamination is becoming a concern in many areas of the state and may require additional water treatment.

- b. Lakes: Longer thermal stratification on lakes means that seasonal mixing may be eliminated in shallow water, resulting in fish kills. This may not affect the city directly. Thin ice may pose safety hazards to citizens and staff.
- c. Possible City Infrastructure Impact: direct damage from heavy rain, increased mold/moisture damage, safety and accessibility on ice or trails, damage to culverts and bridges.
- d. Invasive species have new advantages. Are zebra mussels a threat at your water or wastewater treatment facilities? If not, they may be in the future. Forest insect pests may migrate further north killing vast forested areas and increasing fire hazards.
- e. Warmer winter temperatures: The good news is this may mean fewer frozen water lines.
- f. Forests: Boreal species will face increasing hydrothermal stress. The heat stress is more than trees can tolerate and forest communities will change across the landscape and higher temperatures means more drying of vegetation. If geographically appropriate, is the water system prepared for a possible increase in forest fires?