

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

2020 Report based on 2019 Water Use

Water Conservation Goals

Unaccounted Water Loss.....	7.4 percent
Residential gallons per capita per day	72
Non-residential: Annual percent Reduction.....	6.62
Trend in total per capita demand.....	10.09257
Total Peaking Factor	2.39

Water Accounting

Total water to Treatment	
Total water to Distribution	103,215,000 gallons
Number of Residential connections	993
Number of Non-Residential connections	68
Residential versus Non-Residential Use	69.0 million gallons versus 26.5 million gallons
Date of Highest Use	6/20/2019

Water Conservation - Direct

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

- System leak fixing (before the meter): 100,000 gallons -- \$10,000
- Meter Repair/Replace: 500,000 gallons -- \$3,500
- Hydrant repair: 100,000 gallons -- \$20,000
- Add non-irrigation meters: 30,000 gallons -- \$500

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
- Irrigation restrictions Regulations
- Soil preparation requirements (Inches of topsoil)
- Wellhead protection ordinance and zoning

Education and Outreach

- Billing inserts or tips printed on the actual bill – 4
- Consumer Confidence Reports -- 1
- Staff training -- 2
- Community newsletters -- 2
- Website -- 2

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

2020 Report based on 2019 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 0.47

Water Accounting

Total water to Treatment 2,374,526,300 gallons
Total water to Distribution 2,374,526,300 gallons
Number of Residential connections No data reported
Number of Non-Residential connections No data reported
Residential vs. Non-Residential Use 0.0 million gallons versus 0.0 million gallons
Date of Highest Use 7/21/2019

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

- Critical/Emergency Water Deficiency Ordinance
- Private well ordinance (private wells in a city must comply with water restrictions)
- Irrigation restrictions Regulations
- Water Waste Prohibition
- Soil preparation requirements (inches of topsoil)
- Tree ratio requirement
- Allow native plants and Low water use turf/plants
- Wellhead protection ordinance and zoning
- Track enforcement

Education and Outreach

- Consumer Confidence Reports -- 2
- Social media distribution (e.g., emails, Facebook, Twitter) -- 6
- Staff training -- 1
- Community newsletters -- 2
- Website -- 1
- Notices of ordinances -- 100

Collaboration

- 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

Centerville, City of Summary of Water Conservation Report

2020 Report based on 2019 Water Use

Water Conservation Goals

Unaccounted Water Loss.....	0 percent
Residential gallons per capita per day	51
Nonresidential: Annual percent Reduction	5.65
Trend in total per capita demand	9.35137
Total Peaking Factor	2.28

Water Accounting

Total water to Treatment	83,067,000 gallons
Total water to Distribution	83,067,000 gallons
Number of Residential connections	1,216
Number of Non-Residential connections	59
Residential versus Non-Residential Use	76.0 million gallons versus 7.0 million gallons
Date of Highest Use	6/19/2019

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

2020 Report based on 2019 Water Use

Water Conservation Goals

Unaccounted Water Loss.....	12.4 percent
Residential gallons per capita per day	53
Non-residential: Annual percent Reduction	-0.16
Trend in total per capita demand	8.44047
Total Peaking Factor	1.84

Water Accounting

Total water to Treatment	130,989,000 gallons
Total water to Distribution	130,989,000 gallons
Number of Residential connections	1,815
Number of Non-Residential connections	No data reported
Residential versus Non-Residential Use	99.8 million gallons versus 15.0 million gallons
Date of Highest Use	5/15/2019

Water Conservation - Direct

Water Supply System Infrastructure Efficiency (leaks, meters, etc.): None listed
Date of last Audit/Percent done: 6/27/2017; 90 percent completed
Direct Conservation Single Family (SF) and Multi-Family (MF) and Commercial, Industrial, Institutional (CII) Efforts:

- SF ET Irrigation Controllers:
Quantity: 1
Gallons saved: 9,000

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
- Facility tours -- 1
- Community newsletters -- 4
- 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 MDH on wellhead protection project

Rate structure

- Flat
- Increasing Block

Columbus, City Of Summary of Water Conservation Report

2020 Report based on 2019 Water Use

Water Conservation Goals

Unaccounted Water Loss.....	31.3 percent
Residential gallons per capita per day	97
Non-residential: Annual Percent Reduction	10.41
Trend in total per capita demand	-47.59452
Total Peaking Factor	10.99

Water Accounting

Total water to Treatment	20,292,700 gallons
Total water to Distribution	20,292,700 gallons
Number of Residential connections	17
Number of Non-Residential connections	14
Residential versus Non-Residential Use	1.1 million gallons versus 12.8 million gallons
Date of Highest Use	9/26/2019

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: gallons -- \$0
- none: gallons -- \$0

Water Conservation Indirect

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

Cottage Grove, City Of - Public Works Dept Summary of Water Conservation Report

2020 Report based on 2019 Water Use

Water Conservation Goals

Unaccounted Water Loss.....	7 percent
Residential gallons per capita per day.....	60
Non-residential: Annual percent reduction.....	-82.82
Trend in total per capita demand.....	7.53386
Total Peaking Factor.....	2.54

Water Accounting

Total water to Treatment.....	1,155,929,474 gallons
Total water to Distribution.....	1,155,929,474 gallons
Number of Residential connections.....	11,212
Number of Non-Residential connections.....	178
Residential versus Non-Residential Use.....	840.8 million gallons versus 234.5 million gallons
Date of Highest Use.....	8/9/2019

Water Conservation - Direct

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

- System leak fixing (before the meter): 2,592,000 gallons -- \$5,650

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: 200
 - Gallons saved: 1,800,000

Reuse or other Customer conservation projects: None listed

Water Conservation Indirect

Ordinances

- Irrigation restrictions Regulations

Education and Outreach

- Billing inserts or tips printed on the actual bill -- 12
- Consumer Confidence Reports -- 1
- Social media distribution (e.g., emails, Facebook, Twitter) -- 1
- Displays and exhibits -- 1
- Website -- 1

Collaboration: None listed

Rate structure: Increasing Block

Forest Lake, City Of Summary of Water Conservation Report

2020 Report based on 2019 Water Use

Water Conservation Goals

Unaccounted Water Loss.....	9.1 percent
Residential gallons per capita per day	60
Non-residential: Annual Percent Reduction	13.01
Trend in total per capita demand	9.2828
Total Peaking Factor	1.73

Water Accounting

Total water to Treatment	429,574,000 gallons
Total water to Distribution	429,574,000 gallons
Number of Residential connections	3,800
Number of Non-Residential connections	416
Residential versus Non-Residential Use	245.9 million gallons versus 144.8 million gallons
Date of Highest Use	6/29/2019

Water Conservation - Direct

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

- System leak fixing (before the meter): 3,500,000 gallons -- \$76,581
- Meter Repair/Replace: 1,571,300 gallons -- \$128,881
- Hydrant repair: no gallons reported -- \$50,494
- Meter testing: no gallons reported -- \$60

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

- Billing inserts or tips printed on the actual bill -- 6867
- Consumer Confidence Reports -- 6867
- Social media distribution (e.g., emails, Facebook, Twitter) -- 2
- Community newsletters -- 2
- Information kiosk at utility and public buildings -- 1
- Website -- 2
- Notices of ordinances -- 2

Collaboration

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

Rate structure

- Flat
- Increasing Block

Fridley, City Of Summary of Water Conservation Report

2020 Report based on 2019 Water Use

Water Conservation Goals

Unaccounted Water Loss.....	4.6 percent
Residential gallons per capita per day	55
Non-residential: Annual Percent Reduction	4.11
Trend in total per capita demand	9.58951
Total Peaking Factor	1.69

Water Accounting

Total water to Treatment	577,865,000 gallons
Total water to Distribution	1,104,078,000 gallons
Number of Residential connections	No data reported
Number of Non-Residential connections	No data reported
Residential versus Non-Residential Use	580.1 million gallons versus 472.9 million gallons
Date of Highest Use	8/2/2019

Water Conservation - Direct

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

- System leak fixing (before the meter): 8,000,000 gallons -- \$0
- Hydrant repair: 14,000,000 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: 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

Hugo, City Of Summary of Water Conservation Report

2020 Report based on 2019 Water Use

Water Conservation Goals

Unaccounted Water Loss.....	0.6 percent
Residential gallons per capita per day	57
Non-residential: Annual Percent Reduction	15.92
Trend in total per capita demand	7.93254
Total Peaking Factor	3.05

Water Accounting

Total water to Treatment	327,327,000 gallons
Total water to Distribution	327,327,000 gallons
Number of Residential connections	3,530
Number of Non-Residential connections	104
Residential versus Non-Residential Use	259.9 million gallons versus 65.5 million gallons
Date of Highest Use	9/10/2019

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
- 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

- Consumer Confidence Reports -- 1
- Social media distribution (e.g., emails, Facebook, Twitter) -- 1
- Presentations to community groups -- 3
- Facility tours -- 1
- Community newsletters -- 2
- Direct mailings (water audit/retrofit kits, showerheads, brochures) -- 2
- 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

Rate structure

- Increasing Block

Lake Elmo, City Of Summary of Water Conservation Report

2020 Report based on 2019 Water Use

Water Conservation Goals

Unaccounted Water Loss.....	8.8 percent
Residential gallons per capita per day	68
Nonresidential: Annual Percent Reduction	-96.82
Trend in total per capita demand	-144.07492
Total Peaking Factor	2.72

Water Accounting

Total water to Treatment	241,946,000 gallons
Total water to Distribution	241,946,000 gallons
Number of Residential connections	2,463
Number of Non-Residential connections	164
Residential versus Non-Residential Use	176.9 million gallons versus 43.7 million gallons
Date of Highest Use	8/6/2019

Water Conservation - Direct

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

- System leak fixing (before the meter): 550,000 gallons -- \$50,000
- Meter Repair/Replace: gallons -- \$56,000
- Reduce unauthorized water use: 25,000 gallons -- \$0
- Pressure Control: 250,000 gallons -- \$150,000

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: 25

Gallons saved: 225,000

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
- 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)

Education and Outreach

- Consumer Confidence Reports -- 1

Collaboration

- Collaborated with MDH on wellhead protection project

Rate structure

- Base Rate Zero Gallons
- Increasing Block

Lakeland, City of Summary of Water Conservation Report

2020 Report based on 2019 Water Use

Water Conservation Goals

Unaccounted Water Loss..... 6.1 percent
Residential gallons per capita per day 85
Non-residential: Annual Percent Reduction No data reported
Trend in total per capita demand No data reported
Total Peaking Factor 2.45

Water Accounting

Total water to Treatment 67,587,000 gallons
Total water to Distribution 67,587,000 gallons
Number of Residential connections No data reported
Number of Non-Residential connections No data reported
Residential versus Non-Residential Use 57.0 million gallons versus 6.4 million gallons
Date of Highest Use 7/29/2019

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

Lexington, City Of Summary of Water Conservation Report

2020 Report based on 2019 Water Use

Water Conservation Goals

Unaccounted Water Loss.....	0.2 percent
Residential gallons per capita per day	43
Non-residential: Annual percent Reduction	9.11
Trend in total per capita demand	5.31567
Total Peaking Factor	1.55

Water Accounting

Total water to Treatment	42,408,010 gallons
Total water to Distribution	42,408,010 gallons
Number of Residential connections	567
Number of Non-Residential connections	60
Residential versus Non-Residential Use	33.3 million gallons versus 9.0 million gallons
Date of Highest Use	8/6/2019

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 (private wells in a city must comply with water restrictions)
- Irrigation restrictions 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

2019 Report based on 2018 Water Use

Water Conservation Goals

Unaccounted Water Loss.....	0 percent
Residential gallons per capita per day	63
Non-residential: Annual Percent Reduction	-14.05
Trend in total per capita demand	1.127
Total Peaking Factor	2.53

Water Accounting

Total water to Treatment	508,936,000 gallons
Total water to Distribution	508,936,000 gallons
Number of Residential connections	4,985
Number of Non-Residential connections	117
Residential versus Non-Residential Use	418.9 million gallons versus 90.1 million gallons
Date of Highest Use	8/16/2018

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

- 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

- Consumer Confidence Reports -- 1
- Staff training -- 3
- Community newsletters -- 3
- Information kiosk at utility and public buildings -- 1
- Website -- 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

2019 Report based on 2018 Water Use

Water Conservation Goals

Unaccounted Water Loss.....	9.8 percent
Residential gallons per capita per day	59
Non-residential: Annual Percent Reduction	-5.96
Trend in total per capita demand	2.33415
Total Peaking Factor	2.31

Water Accounting

Total water to Treatment	234,051,000 gallons
Total water to Distribution	234,051,000 gallons
Number of Residential connections	2,593
Number of Non-residential connections	114
Residential versus Non-Residential Use	173.2 million gallons versus 38.0 million gallons
Date of Highest Use	8/16/2018

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

- Critical/Emergency Water Deficiency Ordinance
- Irrigation restrictions Regulations
- Water consumption regulation
- Allow native plants and Low water use turf/plants
- Wellhead protection ordinance and zoning

Education and Outreach

- Consumer Confidence Reports -- 1
- Staff training -- 6
- Displays and exhibits -- 1
- Community newsletters -- 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 MDH on wellhead protection project

Rate structure

- Increasing Block

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

2019 Report based on 2018 Water Use

Water Conservation Goals

Unaccounted Water Loss..... 0 percent
Residential gallons per capita per day 65
Non-residential: Annual Percent Reduction No data reported
Trend in total per capita demand No data reported
Total Peaking Factor 2.88

Water Accounting

Total water to Treatment 2,230,000 gallons
Total water to Distribution 2,230,000 gallons
Number of Residential connections 37
Number of Non-Residential connections No data reported
Residential versus Non-Residential Use 2.2 million gallons versus 0.0 million gallons
Date of Highest Use 8/17/2018

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
• Consumer Confidence Reports -- 1
• Social media distribution (e.g., emails, Facebook, Twitter) -- 1
• Staff training -- 1
• Facility tours -- 3
• Community newsletters -- 4

Collaboration: None listed

Rate structure

- Flat

Mounds View, City Of Summary of Water Conservation Report

2020 Report based on 2019 Water Use

Water Conservation Goals

Unaccounted Water Loss.....	13.7 percent
Residential gallons per capita per day	54
Annual Percent Reduction-Nonresidential	9.78
Trend in total per capita demand	12.80714
Total Peaking Factor	1.97

Water Accounting

Total water to Treatment	404,468,000 gallons
Total water to Distribution	404,468,000 gallons
Number of Residential connections	3,150
Number of Non-Res. connections.....	126
Residential versus Non-Residential Use	258.8 million gallons versus 90.4 million gallons
Date of Highest Use	7/26/2019

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

Education and Outreach

- Consumer Confidence Reports -- 1
- Facility tours -- 1
- Displays and exhibits -- 1
- Community newsletters -- 1
- Website -- 1

Collaboration: None listed

Rate structure

- Increasing Block

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

2019 Report based on 2018 Water Use

Water Conservation Goals

Unaccounted Water Loss.....	-12 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	2.01

Water Accounting

Total water to Treatment	359,910,000 gallons
Total water to Distribution	359,910,000 gallons
Number of Residential connections	4,651
Number of Non-Residential connections	No data reported
Residential versus Non-Residential Use	289.7 million gallons versus 113.4 million gallons
Date of Highest Use	8/15/2018

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

- Wellhead protection ordinance and zoning
- Non-Zoning Wetlands Ordinance (beyond state/federal laws)

Education and Outreach

- Consumer Confidence Reports -- 4651
- Information kiosk at utility and public buildings -- 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

- Increasing Block

New Brighton, City Of Summary of Water Conservation Report

2020 Report based on 2019 Water Use

Water Conservation Goals

Unaccounted Water Loss	6.4 percent
Residential gallons per capita per day	61
Non-residential: annual percent reduction	5.74
Trend in total per capita demand	6.67838
Total Peaking Factor	2.74

Water Accounting

Total water to Treatment	1,234,682,000 gallons
Total water to Distribution	700,296,000 gallons
Number of Residential connections	5,671
Number of Non-Residential connections	311
Residential versus Non-Residential Use	518.0 million gallons versus 137.8 million gallons
Date of Highest Use	6/19/2019

Water Conservation - Direct

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

- System leak fixing (before the meter): 100,000 gallons -- \$3,333
- Meter Repair/Replace: no gallons reported -- \$1,093,519
- Hydrant repair: no gallons reported -- \$184,423
- Add irrigation meters: no gallons reported -- \$456

Date of last Audit/Percent done: 8/14/2019; 100 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:

- Lions Park Water Re-use Project: no gallons reported -- \$283,800

Water Conservation Indirect

Ordinances

- Critical/Emergency Water Deficiency Ordinance
- Irrigation restrictions Regulations
- Soil preparation requirements (Inches of topsoil)
- Permit required to fill pool or require pool to be covered
- 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) -- 3
- Presentations to community groups -- 2
- Facility tours -- 20
- Displays and exhibits -- 1
- Community newsletters -- 7
- Information kiosk at utility and public buildings -- 1
- Website -- 1

Collaboration

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

Rate structure

- Uniform

Newport, City of Summary of Water Conservation Report

2020 Report based on 2019 Water Use

Water Conservation Goals

Unaccounted Water Loss.....	16.8 percent
Residential gallons per capita per day	45
Non-residential: Annual Percent Reduction	-15.3
Trend in total per capita demand	2.07507
Total Peaking Factor	1.59

Water Accounting

Total water to Treatment	107,267,000 gallons
Total water to Distribution	107,267,000 gallons
Number of Residential connections	1,006
Number of Non-Residential connections	78
Residential versus Non-Residential Use	61.7 million gallons versus 27.5 million gallons
Date of Highest Use	8/9/2019

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:

- Single family Toilet Retrofits:

Quantity: 5

Gallons saved: 30,000

- Single family Clothes Washer Rebates:

Quantity: 5

Gallons saved: 25,000

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
- Marketing rebate programs (e.g., indoor fixtures & appliances and outdoor practices) -- 2
- Community newsletters -- 4

Collaboration

- Collaborated with watershed group(s)

Rate structure: Increasing Block

Oak Park Heights, City Of Summary of Water Conservation Report

2020 Report based on 2019 Water Use

Water Conservation Goals

Unaccounted Water Loss.....	17.4 percent
Residential gallons per capita per day	56
Non-residential: annual percent reduction	No data reported
Trend in total per capita demand.....	No data reported
Total Peaking Factor	2.01

Water Accounting

Total water to Treatment	214,744,000 gallons
Total water to Distribution	214,744,000 gallons
Number of residential connections	1,141
Number of non-residential connections.....	156
Residential versus non-residential Use.....	91.8 million gallons versus 85.6 million gallons
Date of Highest Use	9/18/2019

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

- Critical/Emergency Water Deficiency Ordinance
- Private well ordinance (private wells in a city must comply with water restrictions)
- Irrigation restrictions Regulations
- Tree ratio requirement
- 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
- Staff training -- 1
- Community newsletters -- 1
- Targeted efforts (large volume users, users with large increases) -- 1

Collaboration

- Collaborated with MDH on wellhead protection project

Rate structure

- Increasing Block

Shoreview, City Of Summary of Water Conservation Report

2020 Report based on 2019 Water Use

Water Conservation Goals

Unaccounted Water Loss.....	2.8 percent
Residential gallons per capita per day	55
Non-residential: Annual Percent Reduction	7.56
Trend in total per capita demand	8.15557
Total Peaking Factor	2.09

Water Accounting

Total water to Treatment	757,894,100 gallons
Total water to Distribution	757,894,100 gallons
Number of Residential connections	8,453
Number of Non-Residential connections	234
Residential versus Non-Residential Use	540.4 million gallons versus 196.4 million gallons
Date of Highest Use	6/19/2019

Water Conservation - Direct

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

- Rice Creek Fields stormwater reuse: 2,500,000 gallons -- \$8,048
- WaterSmart Software: 10,300,000 gallons -- \$22,600

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
- Presentations to community groups -- 1
- Staff training -- 3
- Facility tours -- 2
- Community newsletters -- 2

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

2020 Report based on 2019 Water Use

Water Conservation Goals

Unaccounted Water Loss.....	7.6 percent
Residential gallons per capita per day	62
Non-residential: Annual percent reduction.....	- 4.37
Trend in total per capita demand	3.67041
Total Peaking Factor	1.75

Water Accounting

Total water to Treatment	258,449,000 gallons
Total water to Distribution	258,449,000 gallons
Number of Residential connections	2,031
Number of Non-Residential connections	173
Residential versus Non-Residential Use	146.9 million gallons versus 91.9 million gallons
Date of Highest Use	8/6/2019

Water Conservation - Direct

Water Supply System Infrastructure Efficiency (leaks, meters, etc.): None listed
Date of last Audit/Percent done: No date reported; 98 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)
- 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 -- 3
- Consumer Confidence Reports -- 2
- Press releases to traditional local news outlets (e.g., newspapers, radio and TV) -- 2
- Social media distribution (e.g., emails, Facebook, Twitter) -- 1
- Paid advertisements (e.g., billboards, print media, TV, radio, web sites, etc.) -- 1
- Staff training -- 3
- Community newsletters -- 4
- Information kiosk at utility and public buildings -- 4

- Website -- 5
- Targeted efforts (large volume users, users with large increases) -- 4
- Notices of ordinances -- 2

Collaboration

- Collaborated with watershed group(s)

Rate structure

- Increasing Block

St. Anthony, City Of Summary of Water Conservation Report

2020 Report based on 2019 Water Use

Water Conservation Goals

Unaccounted Water Loss.....	1.1 percent
Residential gallons per capita per day	61
Non-residential: Annual percent reduction.....	2.09
Trend in total per capita demand	5.2968
Total Peaking Factor	2.34

Water Accounting

Total water to Treatment	256,424,254 gallons
Total water to Distribution	256,424,254 gallons
Number of Residential connections	2,220
Number of Non-Residential connections	130
Residential versus Non-Residential Use	184.4 million gallons versus 69.3 million gallons
Date of Highest Use	8/20/2019

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: 25

Gallons saved: 32,500

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 -- 4
- Facility tours -- 6
- Community newsletters -- 4
- Information kiosk at utility and public buildings -- 1
- K-12 education programs (Project Wet, Drinking Water Institute, presentations) -- 7

- 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 Regional Water Services Summary of Water Conservation Report

2020 Report based on 2019 Water Use

Water Conservation Goals

Unaccounted Water Loss.....	17 percent
Residential gallons per capita per day	29
Non-residential: Annual percent reduction.....	27.29
Trend in total per capita demand	6.5724
Total Peaking Factor	1.63

Water Accounting

Total water to Treatment	13,993,008,036 gallons
Total water to Distribution	12,155,173,211 gallons
Number of Residential connections	89,612
Number of Non-Residential connections	4,409
Residential versus Non-Residential Use	4,824.5 million gallons versus 5,266.5 million gallons
Date of Highest Use	8/7/2019

Water Conservation - Direct

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

- System leak fixing (before the meter): 96,000,000 gallons -- \$0
- Meter Repair/Replace: no gallons reported -- \$18,000
- Hydrant repair: no gallons reported -- \$1,046,358
- Meter testing: no gallons reported -- \$130,000
- Customer leaks/high users fixed: 75,000,000 gallons -- \$750,000

Date of last Audit/Percent done: 7/1/2019; 25% 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: None listed

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
- Social media distribution (e.g., emails, Facebook, Twitter) -- 4
- Paid advertisements (e.g., billboards, print media, TV, radio, web sites, etc.) -- 3
- Presentations to community groups -- 50
- Facility tours -- 50
- Displays and exhibits -- 1
- Direct mailings (water audit/retrofit kits, showerheads, brochures) -- 3
- Demonstration projects (landscaping or plumbing) -- 1
- K-12 education programs (Project Wet, Drinking Water Institute, presentations) -- 50

- Water week promotions -- 1
- Website -- 1
- Targeted efforts (large volume users, users with large increases) -- 2

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 MDH on wellhead protection project
- Collaborated with MDA on improving water quality and agricultural concerns

Rate structure

- Base Rate Zero Gallons
- Seasonal Rate

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

2020 Report based on 2019 Water Use

Water Conservation Goals

Unaccounted Water Loss.....	7.1 percent
Residential gallons per capita per day	57
Non-residential: Annual Percent Reduction	25.93
Trend in total per capita demand	-17.48491
Total Peaking Factor	1.96

Water Accounting

Total water to Treatment	175,294,000 gallons
Total water to Distribution	175,294,000 gallons
Number of Residential connections	1,799
Number of Non-Residential connections	92
Residential versus Non-Residential Use	113.3 million gallons versus 49.6 million gallons
Date of Highest Use	8/7/2019

Water Conservation - Direct

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

- System leak fixing (before the meter): 3 gallons -- \$0
- Meter Repair/Replace: 10 gallons -- \$0
- Meter testing: 20 gallons -- \$0

Date of last Audit/Percent done: No date reported; 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

- Critical/Emergency Water Deficiency Ordinance

Education and Outreach

- Consumer Confidence Reports -- 1
- Staff training -- 12
- Displays and exhibits -- 1
- Community newsletters -- 2
- Information kiosk at utility and public buildings -- 2
- 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

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

2020 Report based on 2019 Water Use

Water Conservation Goals

Unaccounted Water Loss	0.3 percent
Residential gallons per capita per day	64
Non-residential: Annual Percent Reduction	-120.23
Trend in total per capita demand	23.75393
Total Peaking Factor	1.9

Water Accounting

Total water to Treatment	675,736,000 gallons
Total water to Distribution	675,736,000 gallons
Number of Residential connections	6,332
Number of Non-Residential connections	338
Residential versus Non-Residential Use	477.1 million gallons versus 196.5 million gallons
Date of Highest Use	8/4/2019

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

- 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 -- 1

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

- Seasonal Rate

Vadnais Heights, City Of Summary of Water Conservation Report

2018 Report based on 2017 Water Use

Water Conservation Goals

Unaccounted Water Loss.....	18.1 percent
Residential gallons per capita per day	81
Non-residential: Annual Percent Reduction	No data reported
Trend in total per capita demand	No data reported
Total Peaking Factor	2.09

Water Accounting

Total water to Treatment	579,000,000 gallons
Total water to Distribution	461,978,000 gallons
Number of Residential connections	3,556
Number of Non-Residential connections	168
Residential versus Non-Residential Use	358.2 million gallons versus 20.0 million gallons
Date of Highest Use	6/10/2017

Water Conservation - Direct

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

- Meter Repair/Replace: 10,000 gallons -- \$10,000
- Hydrant repair: 50,000 gallons -- \$50,000

Date of last Audit/Percent done: 1/1/2017; 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
- 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 -- 10500
- Consumer Confidence Reports -- 1
- Community newsletters -- 10500
- Information kiosk at utility and public buildings -- 1
- Community events (children's water festivals, environmental fairs) -- 1
- Website -- 1

Collaboration

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

Rate structure

- Increasing Block

City of White Bear Lake Summary of Water Conservation Report

2020 Report based on 2019 Water Use

Water Conservation Goals

Unaccounted Water Loss.....	9.8 percent
Residential gallons per capita per day	52
Non-residential: Annual Percent Reduction	9.35
Trend in total per capita demand	5.27854
Total Peaking Factor	1.86

Water Accounting

Total water to Treatment	717,745,022 gallons
Total water to Distribution	717,745,022 gallons
Number of Residential connections	7,670
Number of Non-Residential connections	547
Residential versus Non-Residential Use	486.3 million gallons versus 160.9 million gallons
Date of Highest Use	6/4/2019

Water Conservation - Direct

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

- System leak fixing (before the meter): 1,000,000 gallons -- \$140,734
- Meter Repair/Replace: zero gallons reported -- \$127,484
- Hydrant repair: 100,000 gallons -- \$41,550

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
- 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
- Press releases to traditional local news outlets (e.g., newspapers, radio and TV) -- 1
- Social media distribution (e.g., emails, Facebook, Twitter) -- 6
- Presentations to community groups -- 1

- Displays and exhibits -- 1
- Community newsletters -- 1
- K-12 education programs (Project Wet, Drinking Water Institute, presentations) -- 1
- Community events (children's water festivals, environmental fairs) -- 2
- Community education classes -- 2
- Website -- 1
- Notices of ordinances -- 2

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

White Bear Township Summary of Water Conservation Report

2020 Report based on 2019 Water Use

Water Conservation Goals

Unaccounted Water Loss.....	-2 percent
Residential gallons per capita per day	64
Non-residential: Annual Percent Reduction	20.86
Trend in total per capita demand	15.56112
Total Peaking Factor	2.57

Water Accounting

Total water to Treatment	377,026,400 gallons
Total water to Distribution	372,551,400 gallons
Number of Residential connections	4,789
Number of Non-Residential connections	187
Residential versus Non-Residential Use	289.3 million gallons versus 90.7 million gallons
Date of Highest Use	7/14/2019

Water Conservation - Direct

- Water Supply System Infrastructure Efficiency (leaks, meters, etc.)
- System leak fixing (before the meter): 2,143,000 gallons -- \$5,037
 - Hydrant repair: 425 gallons -- \$1,000

Date of last Audit/Percent done: No date reported; 100 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
- Irrigation restrictions Regulations
- Soil preparation requirements (Inches of topsoil)
- Tree ratio requirement
- Wellhead protection ordinance and zoning
- Ordinances that permit stormwater irrigation or reuse

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) -- 6
- Marketing rebate programs (e.g., indoor fixtures & appliances and outdoor practices) -- 2
- Website -- 4
- Notices of ordinances -- 1

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

2020 Report based on 2019 Water Use

Water Conservation Goals

Unaccounted Water Loss.....	4.4 percent
Residential gallons per capita per day	71
Non-residential: Annual Percent Reduction	3.93
Trend in total per capita demand	11.46187
Total Peaking Factor	2.48

Water Accounting

Total water to Treatment	2,398,700,053 gallons
Total water to Distribution	2,398,700,053 gallons
Number of Residential connections	23,055
Number of Non-Residential connections	864
Residential versus Non-Residential Use	1,882.0 million gallons versus 411.0 million gallons
Date of Highest Use	8/8/2019

Water Conservation - Direct

- Water Supply System Infrastructure Efficiency (leaks, meters, etc.)
- System leak fixing (before the meter): zero gallons reported -- \$114,617
 - Meter Repair/Replace: zero gallons reported -- \$336,645
 - Hydrant repair: zero gallons reported -- \$26,695

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: 660
Gallons saved: 5,940,000
- MF/CII Large Landscape Projects:
Quantity: 13
Gallons saved: 5,850,000

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
- Mandatory "green" building or plumbing codes

- Wellhead protection ordinance and zoning
- Non-Zoning Wetlands Ordinance (beyond state/federal laws)
- 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
- Displays and exhibits -- 2
- Marketing rebate programs (e.g., indoor fixtures & appliances and outdoor practices) -- 15
- Community newsletters -- 8
- Direct mailings (water audit/retrofit kits, showerheads, brochures) -- 1
- Cable TV Programs -- 4
- K-12 education programs (Project Wet, Drinking Water Institute, presentations) -- 1
- Community education classes -- 1
- Water week promotions -- 1
- Website -- 4
- Notices of ordinances -- 1

Collaboration

- Collaborated with watershed group(s)
- 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?