

Appendix A Water Demand Reduction Projections

Appendix A - Future Water Demand Reduction Projections

Initiative Category A1. Existing Direct Residential Water Use Programs

Initiative Multi-Residential Water Audit

Description A City consultant visits a building, reviews water bills, tests the flow rates of faucets and showers, checks for leaks, and recommends water-saving options.

Realized Water Consumption Savings

A. Total Number Multi Res Home Audits (2019 - 2025)	52	audits
B. Water Savings (inc. leak detection) (2019 - 2025)	192.3	m ³ /day
C. Number of Multi Res Home Visits Per Year (A / 7)	7.4	audits/year
D. Water Savings Per Multi Res Visit (B/A)	3.7	m ³ /day/audit

Future Water Consumption Savings

E. Number Future Years (2026-2051)	26	years
F. Number of Multi Res Audits Per Year	7	audits
G. Future Savings (D x E x F)	672.9	m ³ /day
H. Value of Future Savings (G x \$7,800 / m ³ /day)	\$5,248,511	\$

Program Cost

I. Cost of Multi Res Home Audit and Report	\$2,377	/audit
J. Total Cost of Multi Res Home Visits (I x E x F)	\$432,614	\$
K. Benefit Cost Ratio (H / J)	12.1	ratio

Notes

- Source for historical savings and costs (internal City data sources)
- Costs do not include City staff time
- Projected number of future audits does not consider the number of available building for potential audits

Appendix A - Future Water Demand Reduction Projections

Initiative Category A1. Existing Direct Residential Water Use Programs

Initiative Blue Built Home Certification

Description Rebates for greywater reuse, rainwater harvesting, high-efficiency fixtures, and submeters.

Water Consumption Savings

A. Total Number Participant Rebates (2017-2024)	49.0	rebates
B. Water Savings (2017-2024)	12.9	m ³ /day
C. Number Rebates Per Year (A / 8)	6	rebates/year
D. Water Savings Per Participant/Rebate (B/A)	0.26	m ³ /day/rebate
E. Program Cost (2017-2024)	\$221,559	\$
F. Cost / Water Saved (E / B)	\$17,135	\$ / m ³ / day

Future Water Consumption Savings

G. Number Future Years (2026-2051)	26	years
H. Projected Number Participants Per Year	6	rebates
I. Future Savings (D x G x H)	41.2	m ³ /day
J. Value of Future Savings (I x \$7,800 / m ³ /day)	\$321,086	\$

Program Cost

K. Total Cost for Future Savings (F x I)	\$705,372	\$
L. Benefit Cost Ratio (J / K)	0.5	ratio

Notes

- Cost of BBH Home based on City's financial reporting of direct costs for BBH program
- Historical rebates and water savings as reported in City of Guelph Water Efficiency Strategy 2024 Progress Report.
- Costs do not include City staff time, sales, or marketing

Appendix A - Future Water Demand Reduction Projections

Initiative Category A1. Existing Direct Residential Water Use Programs

Initiative Greywater Rebates

Description City offers up to \$1,000 rebate for greywater collection and reuse (e.g., shower-to-toilet flushing).

Water Consumption Savings

A. Estimated Water Savings Per System	0.060	m ³ /day/rebate
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Future Water Consumption Savings

B. Number Future Years (2026-2051)	26	years
C. Projected Number Participants Per Year	5	rebates
D. Future Savings (A x B x C)	7.8	m ³ /day
E. Value of Future Savings (D x \$7,800 / m ³ /day)	\$60,840	\$

Program Cost

F. Cost of Rebate	\$1,000	/rebate
G. Total Cost of Rebates (B x C x F)	\$130,000	\$
H. Benefit Cost Ratio (E / G)	0.5	

Notes

- Costs only include potential value of rebates to homeowner
- City records show no rebates from 2017 to present.
- Potential water savings per system calculated as 5 L/flush x 3 people / home x 5 flushes per day.
- Costs do not include City staff time or marketing

Appendix A - Future Water Demand Reduction Projections

Initiative Category A1. Existing Direct Residential Water Use Programs

Initiative Rain Barrel Discounts

Description City sells a limited quantity of discounted rain barrels to residents to reduce outdoor potable water use and summer peak demand.

Water Consumption Savings

A. Total Number of Barrels Sold (2017-2024)	2,700	barrels
B. Number of rain barrels filled per year (summer period)	20	events
C. Total amount of rain captured per rain barrel (B x 200 L)	4	m ³ / barrel / season
D. Fraction of historical rain barrels in service	0.5	
E. Total amount of rain captured (A x C x D)	5,400	m ³ / season
F. Daily amount of rain captured (E / 100 days)	54.0	m ³ /day
G. Fraction of rain captured used for irrigation	0.50	
H. Total Water Consumption Reduction (F x G)	27.0	m ³ /day
I. Water Consumption Reduction Per Barrel (H / A)	0.010	m ³ /day

Future Water Consumption Savings

J. Number Future Years (2026-2051)	26	years
K. Projected Number Participants Per Year	300	barrels/year
L. Future Savings (I x J x K)	78.00	m ³ /day
M. Value of Future Savings (L x \$7,800 / m ³ /day)	\$608,400	\$

Program Cost

N. Total Cost per Barrel (Discount/Subsidy)	\$45	barrel
O. Total Cost of Program (J x K x N)	\$351,000	\$
P. Benefit Cost Ratio (M / O)	1.7	

Notes

Source of # rain barrel rebates (internal City data sources)
 Assumptions for a) fraction of rain barrels in service b) fraction of water used for irrigation based on judgement.
 Costs do not include city staff time or marketing

Appendix A - Future Water Demand Reduction Projections

Initiative Category A1. Existing Direct Residential Water Use Programs

Initiative Rain Garden Rebates

Description City offers up to \$2,000 to residents who install a rain garden. Rebate is \$0.50/litre of rain retention.

Existing Water Consumption Savings

A. Total Number Participant Rebates (2019-2024)	112	gardens
B. Volume Diverted (2019-2024)	228	m ³ / event
C. Average Diversion Per Rebate	2,033	L / rebate
D. Number of annual rain garden filling events	15	events / season
E. Runoff Diverted Per Season (B x D)	3,416	m ³ /season
F. Runoff Diverted Per Day (E / 100)	34	m ³ /day
G. Runoff Diverted Per Garden (F / A)	0.305	m ³ /day/garden
H. Proportion of daily runoff offsetting irrigation	25%	
I. Irrigation demand offset by rain garden (H x G)	0.076	m ³ /day/garden
J. Historical irrigation demand offset by rain garden (I x A)	8.5	m ³ /day

Future Water Consumption Savings

K. Number Future Years (2026-2051)	26	years
L. Projected Number Participants Per Year	15	rebates/year
M. Total Number of Rain Gardens (L x K)	390	rain gardens
N. Total runoff diverted (M x G)	118.9	m ³ /day
O. Total irrigation offset (M x I)	29.7	m ³ /day
P. Value of Future Irrigation Savings (O x \$7,800 / m ³ /day)	\$231,944	
Q. Value of Future Stormwater Savings (N x 1,000 m ³ /day)	NA	

Program Cost

R. Total Cost per Participant (Rebate + Admin)	\$1,317	/rebate
S. Total Cost of Program (M x R)	\$513,485	\$
T. Benefit Cost Ratio ((P + Q) / S)	0.5	

Notes

Source of number of rebates (internal City data sources)
Assumptions regarding a) runoff events b) irrigation offset based on judgement
Costs do not include Staff time or marketing

Appendix A - Future Water Demand Reduction Projections

Initiative Category A1. Existing Direct Residential Water Use Programs

Initiative Rainwater Harvesting Rebates

Description City offers up to \$2,000 to residents who install outdoor rainwater harvesting tank or all-season rainwater harvesting system. Rebate calculated as \$0.50 per litre of tank storage.

Water Consumption Savings

A. Total Number Participant Rebates (2020-2023)	14	rebates
B. Volume of rainwater stored	23.5	m ³
C. Average rainwater stored per system	1,676.8	L
D. Number of annual filling events	25	events / year
E. Rainwater captured per year (B x D)	587	m ³ /year
F. Rainwater captured per day (E / 365)	1.6	m ³ /day
G. Rainwater captured per day per system (F / A)	0.11	m ³ /day / system

Future Water Consumption Savings

H. Number Future Years (2026-2051)	26	years
I. Projected Number Participants Per Year	4	rebates/year
J. Total Number of Systems (I x H)	104	systems
K. Total water captured (J x G)	11.9	m ³ /day
L. Value of Future Water Savings (K x \$7,800 / m ³ /day)	\$93,165	

Program Cost

M. Total Cost per Participant (Rebate + Admin)	\$1,238	/rebate
O. Total Cost of Program (J x M)	\$128,793	\$
P. Benefit Cost Ratio (L / O)	0.7	

Notes

Source of number of rebates (internal City data sources)
Assumptions regarding a) runoff events b) potable water offset based on judgement
Costs do not include Staff time or marketing

Appendix A - Future Water Demand Reduction Projections

Initiative Category A1. Existing Direct Residential Water Use Programs

Initiative Royal Flush Toilet Rebate

Description \$50 rebate for each 6-litre or larger toilet you replace with a WaterSense® certified high efficiency (4.8-litre/flush or less) single or dual flush toilet.

Water Consumption Savings

A. Total Number Participant Rebates (2017–2024)	4,747	rebates
B. Water Savings (2017–2024)	187	m ³ /day
C. Number Rebates Per Year (A / 8 years)	593	rebates/year
D. Water Savings Per Rebate (B / A)	0.039	m ³ /day/rebate

Future Water Consumption Savings

E. Number Future Years (2026-2051)	26	years
F. Projected Number Participants Per Year	175	rebates/year
G. Future Savings Per Rebate	0.038	m ³ /day/rebate
H. Future Savings (G x E x F)	174	m ³ /day
I. Value of Future Savings (H x \$7,800 / m ³ /day)	\$1,355,718	\$

Program Cost

J. Total Cost per Participant (Rebate + Admin)	\$50	/rebate
K. Total Cost of Program (J x E x F)	\$227,500	\$
L. Benefit Cost Ratio (I / K)	6.0	

Notes

- Historical rebates and water savings as reported in City of Guelph Water Efficiency Strategy 2024 Progress Report.
- Estimate of future rebates approximately 50% of average 2020-2025 rebates
- Costs do not include City staff time or marketing

Appendix A - Future Water Demand Reduction Projections

Initiative Category A1. Existing Direct Residential Water Use Programs

Initiative Single-Family Home Water Audit

Description A City consultant visits a home, reviews water bills, tests the flow rates of faucets and showers, checks for leaks, and recommends water-saving options.

Water Consumption Savings

A. Total Number Home Visits (2017–2024)	1046	visits
B. Total Water Savings (2017–2024)	37.8	m ³ /day
C. Number Home Visits Per Year (A / 8 years)	130.8	visits/year
D. Average Water Savings Per Home Visit (B / A)	0.036	m ³ /day/visit

Future Water Consumption Savings

E. Number Future Years (2026-2051)	26	years
F. Number Home Visits Per Year (Projected)	150	visits/year
G. Future Savings (D x E x F)	141	m ³ /day
H. Value of Future Savings (G x \$7,800 / m ³ /day)	\$1,100,471	\$

Program Cost

I. Cost of Home Visit (Audit)	\$150	/audit
J. Total Cost of Program (I x E x F)	\$585,000	\$
K. Benefit Cost Ratio (H / J)	1.9	

Notes

Historical rebates and water savings as reported in City of Guelph Water Efficiency Strategy 2024 Progress Report.
Assume the City of Guelph pays consulting fee of \$150 per audit (based on 2024 contract).
Costs do not include Staff or marketing

Appendix A - Future Water Demand Reduction Projections

Initiative Category A1. Existing Direct Residential Water Use Programs

Initiative Residential Sub-Water Metering Rebate

Description A water sub-meter measures water consumption by the minute allowing for leak detection, identification of inefficient plumbing fixtures and other water-wasting activities.

Water Consumption Savings

A. Total Number Participant Rebates (2017–2024)	27	rebates
B. Water Savings (2017–2024)	9.3	m ³ /day
C. Number Rebates Per Year (A / 8 years)	3.4	rebates/year
D. Water Savings Per Rebate (B / A)	0.34	m ³ /day/rebate
E. Number Future Years (2026-2051)	26	years
F. Projected Number Participants Per Year	5	rebates/year
G. Future Savings (D x E x F)	44.5	m ³ /day
H. Value of Future Savings (G x \$7,800 / m ³ /day)	\$347,389	\$

Program Cost

I. Value of Individual Rebate (2017-2024)	\$100	/rebate
M. Total Cost of Program (I x E x F)	\$13,000	\$
N. Benefit/Cost Ratio (H / M)	26.7	

Notes

Individual rebate assumed to be \$100
 Historical rebates and water savings as reported in City of Guelph Water Efficiency Strategy 2024 Progress Report.
 Costs for staff time and engagement not considered.

Appendix A - Future Water Demand Reduction Projections

Initiative Category A2. Existing Direct ICI Programs

Initiative Stormwater Credit for Business

Description Up to 50% of stormwater fee credit based on peak flow reduction, runoff volume reduction, water quality treatment, or operations and activities.

Current Program

A. Total Number of Credits (2018-2024)	134	credits
B. Total Value of Credits	\$769,453	
C. Average Value of Credit	\$5,742	\$/credit
D. Total Peak Flow Reduction	NA	m ³ /day
E. Total Average Flow Reduction	NA	m ³ /day

Future Projection

F. Number Future Years (2026-2051)	26	years
G. Projected Number Participants Per Year	20	credits/year
H. Cost of Future Credits (F x G x C)	\$2,985,937	\$
I. Value of Future Savings	NA	\$

Benefit Cost

L. Benefit Cost Ratio (K / I)	NA
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Notes

Industrial, commercial, institutional and multi-residential (6+units) can apply.
Up to 50% of the stormwater fees credited for installing BMPs and low impact development technology that reduces peak flows, reduces stormwater runoff, and/or provides water quality treatment.
- Records of stormwater flow reduction not available.
- Costs do not include city staff time or advertising

Appendix A - Future Water Demand Reduction Projections

Initiative Category A2. Existing Direct ICI Programs

Initiative Water Smart Business Program

Description The City of Guelph Water Smart Business Program helps local industrial, commercial, and institutional (ICI) users reduce water consumption and save money through audits and efficiency upgrades. Eligible businesses receive up to \$10,000 for water audits and up to \$100,000 in incentives for retrofits, such as improved cooling or processing equipment.

Water Consumption Savings

A. Total Number Audits/Rebates (2019-2025)	17	rebates
B. Water Savings (2019-2025)	225	m ³ /day
C. Total Leaks Detected	278	m ³ /day
D. Total Audits and Incentives Paid (2019-2025)	\$ 213,012.50	
E. Number of Credits Per Year (A / 7 years)	2.4	credits/year
F. Water Savings and Leaks Per Participant ((B + C) / A)	29.6	m ³ /day/credit
G. Investment Per Cubic Meter Water Saved (D/ (B+C))	\$424	\$ / m ³ /day

Future Water Consumption Savings

H. Number Future Years (2026-2051)	26	years
I. Projected Number Participants Per Year	3	credits/year
J. Future Savings (F x H x I)	2,306	m ³ /day
K. Value of Future Savings (J x \$7,800 / m ³ /day)	\$17,987,167	\$

Program Cost

L. Future Investment Per Cubic Meter Water Saved	\$500	\$ / m ³ /day
M. Total Cost of Program (J x L)	\$1,153,024	\$
N. Benefit/Cost Ratio (K / M)	15.6	

Notes

City records (internal City data sources) used for verified water savings, audit and incentives paid. Estimate of leaks detected by City staff.
Costs do not include City staff time, marketing

Appendix A - Future Water Demand Reduction Projections

Initiative Category	A2. Existing Direct ICI Programs
Initiative	Water Smart Business Program - Double Rebate and Investment
Description	Double the audit investment and incentive provided historically.

Water Consumption Savings

A. Total Number Audits/Rebates (2019-2025)	17	rebates
B. Water Savings (2019-2025)	225	m ³ /day
C. Total Leaks Detected	278	
D. Total Audits and Incentives Paid (2019-2025)	\$ 213,012.50	
E. Number of Credits Per Year (A / 7 years)	2.4	credits/year
F. Water Savings and Leaks Per Participant ((B + C) / A)	29.6	m ³ /day/credit
G. Investment Per Cubic Meter Water Saved (D/ (B+C))	\$424	\$ / m ³ /day

Future Water Consumption Savings

H. Number Future Years (2026-2051)	26	years
I. Projected Number Participants Per Year	5	credits/year
J. Future Savings (F x H x I)	3,843	m ³ /day
K. Value of Future Savings (J x \$7,800 / m ³ /day)	\$29,978,612	\$

Program Cost

L. Future Investment Per Cubic Meter Water Saved	\$1,000	\$ / m ³ /day
M. Total Cost of Program (J x L)	\$3,843,412	\$
N. Benefit/Cost Ratio (K / M)	7.8	

Notes

City records (internal City data sources) used for verified water savings, audit and incentives paid. Estimate of leaks detected by City staff.
Costs do not include City staff time, marketing
Assumes that ICI uptake doubles with increased rebate.

Appendix A - Future Water Demand Reduction Projections

Initiative Category C. Existing Non-Revenue Water Programs

Initiative Water Loss Strategy and Leak Detection Program

Description Deployment of leak detection programs followed by leak repair and reclaimed water supply capacity.

Current Performance

A. Average Real Losses (2020-2022)	1,661	ML/year
B. Average Real Losses (2020-2022)	4,551	m ³ /day
C. Average Population (2020-2022)	145,000	People
D. Real Losses Per Capita (2020-2022) (B / C * 1000)	31	lcd

Future Loss Estimate

E. 2051 Population (WSMP)	208,000	People
F. 2051 Per Capita Real Loss Estimate (WSMP)	42	lcd
G. 2051 Real Loss Estimate (WSMP) (E x F / 1000)	8,736	m ³ /day
H. 2051 Real Loss Estimate (@ current per capita rate)	6,528	m ³ /day
I. Leakage Savings Target (G - H)	2,208	m ³ /day
J. Value of Leakage Savings (I x \$7,800)	\$17,223,343	
K. Annual Cost of leak detection	\$100,000	
L. Total Cost of leak detection (K x 26)	\$2,600,000	
M Benefit Cost Ratio (J/L)	6.6	

Notes

Average real losses (2020-2022) from City AWWA water balance records.
WSMP real losses calculated as NRW estimate (62 lcd) subtract current apparent losses etc.
Estimated costs for leak repair not available.
Costs do not include City staff time

Appendix A - Future Water Demand Reduction Projections

Initiative Category D1. AMI/AMR Implementation

Initiative Advanced Metering Infrastructure / Reading (AMI/AMR)

Description Implement AMI/AMR across City with detailed water use reporting provided to all residential and ICI customers.

Water Consumption Opportunity

A. Current Trend 2051 Water Consumption Estimate (ADD)	63,034	m ³ /day
B. Current Trend 2051 NRW Water Use Estimate	8,528	m ³ /day
C. Target Reduction in Domestic and ICI Water Consumption	2%	
D. Target Reduction in NRW Water Use	5%	
E. Target Reduction in Consumptive Water Use (A x C)	1,261	m ³ /day
F. Target Reduction in NRW Water Use (B x D)	426	m ³ /day
G. Total Target Reduction in Water Consumption (E + F)	1,687	m ³ /day

Benefit and Cost of AMI/AMR

H. Number of Years	26	Years
I. Estimated Capital Expenditure	\$15,000,000	
J. Annual Operating / Maintenance Costs	\$500,000	/year
K. Total Cost (I + H x J)	\$28,000,000	
L. Annual Meter Reading Savings	\$900,000	/year
M. Value of Water Saved (G x \$7,800)	\$13,159,159	
N. Total Benefit (M + L x H)	\$36,559,159	
O. Benefit Cost Ratio (N / K)	1.3	

Notes

A. Water Consumption Reduction. According to U.S. EPA and AWWA-related research, utilities that provide customers with access to their own consumption data through AMI portals can achieve 2–10% aggregate water savings driven by customer engagement and increased conservation awareness enabled by AMI data visibility. The City can expect further reductions by utilizing the results to target specific high-use customers.

B. Real-world implementations combining AMI with continuous data analytics have achieved NRW reductions in the range of approximately 18–35% over a year in documented cases.

Appendix A - Future Water Demand Reduction Projections

Initiative Category D1. AMI/AMR Implementation with High-Volume Water and Virtual DMA Focus

Initiative Advanced Metering Infrastructure / Reading (AMI/AMR) w/Active Management

Description Implement AMI/AMR across City with detailed water use reporting provided to all residential and ICI customers.

Water Consumption Opportunity

A. Current Trend 2051 Water Consumption Estimate (ADD)	63,034	m ³ /day
B. Current Trend 2051 NRW Water Use Estimate	8,528	m ³ /day
C. Target Reduction in Domestic and ICI Water Consumption	4%	
D. Target Reduction in NRW Water Use	10%	
E. Target Reduction in Consumptive Water Use (A x C)	2,521	m ³ /day
F. Target Reduction in NRW Water Use (B x D)	853	m ³ /day
G. Total Target Reduction in Water Consumption (E + F)	3,374	m ³ /day

Benefit and Cost of AMI/AMR

H. Number of Years	26	Years
I. Estimated Capital Expenditure	\$15,000,000	
J. Annual Operating / Maintenance Costs	\$500,000	/year
K. Total Cost (I + H x J)	\$28,000,000	
L. Annual Meter Reading Savings	\$900,000	/year
M. Value of Water Saved (G x \$7,800)	\$26,318,317	
N. Total Benefit (M + L x H)	\$49,718,317	
O. Benefit Cost Ratio (N / K)	1.8	

Notes

Increase in water use and leakage reduction targets associated with greater organizational focus on water conservation.

A. Water Consumption Reduction. According to U.S. EPA and AWWA-related research, utilities that provide customers with access to their own consumption data through AMI portals can achieve 2–10% aggregate water savings driven by customer engagement and increased conservation awareness enabled by AMI data visibility. The City can expect further reductions by utilizing the results to target specific high-use customers.

B. Real-world implementations combining AMI with continuous data analytics have achieved NRW reductions in the range of approximately 18–35% over a year in documented cases.

Appendix A - Future Water Demand Reduction Projections

Initiative Category D1. Residential District Reuse / Purple Pipe

Initiative Residential District Reuse / Purple Pipe

Description As an example of a district plan, consider using treated wastewater as a source of a) toilet flushing and b) irrigation water for the future DoLime development.

Water Consumption Opportunity

A. Projected population	4,763	People
B. Projected per capita water demand (WSMP)	159	lcd
C. Residential Water Demand	757	m ³ /day
D. Average Toilet Flushing Demand	20	lcd
E. Average Irrigation Demand (Estimate)	30	lcd
F. Potential ADD Demand Reduction (D + E) * A / 1000	238	m ³ /day
G. Potential MDD Demand Reduction (F x 1.54)	367	m ³ /day
H. Value of Water Consumption Reduction (G x \$7,800 m ³ /day)	\$2,860,658	

Benefit and Cost of AMI/AMR

I. Approximate Cost of Infrastructure (water main + servicing)	\$12,000,000
J. Benefit Cost Ratio (H / J)	0.24

Notes

Toilet flushing demand calculated based on average 4 flushes per resident per day
 No technical basis for average irrigation demand
 MDD adjustment factor = 1.54 X ADD (1.34 factor X 15% factor of safety)
 Cost of infrastructure approximatley estimated based on \$1,000 / m for 4 km of water main, \$5,000 / residential home for servicing, and \$2,500 / unit for high density residential.
 Costs do not include City staff time, studies, EA and permitting.

Appendix B One Water Scenarios

Appendix B - Initiative Assignment (One Water Scenarios)

Category	Description / Initiative	Rank	Scenario A	Scenario B	Scenario C	Scenario D	Scenario E
			Scaled Down	Modified Business As Usual	One Water Structure	AMI/AMR	Residential District Water Reuse
Organizational Structure	Existing Oversight		S	S	S	S	S
Organizational Structure	Indirect and Public Programs		S	S	S	S	S
Organizational Structure	Stormwater		S	S	S	S	S
Organizational Structure	Smart Business		S	-	-	-	-
Organizational Structure	Expanded Smart Business		-	S	S	S	S
Organizational Structure	Residential Programs		S	S	S	S	S
Organizational Structure	Healthy Landscapes		-	S	S	S	S
Organizational Structure	AMI/AMR Leadership		-	-	-	S	S
Organizational Structure	One Water Oversight		-	-	S	S	S
Organizational Structure	Project Management		-	-	M	M	M
A1. Existing Direct Residential Water Use Programs	Single-Family Home Water Audit	2	S	S	S	S	S
A1. Existing Direct Residential Water Use Programs	Blue Built Home Certification	4	-	-	-	-	-
A1. Existing Direct Residential Water Use Programs	Blue Built Home Certification - MFH & New Construction	4	-	S	S	S	S
A1. Existing Direct Residential Water Use Programs	Multi-Residential Water Audit	1	S	S	S	S	S
A1. Existing Direct Residential Water Use Programs	Water Sub-Metering Rebate	9	-	-	-	-	S
A1. Existing Direct Residential Water Use Programs	Royal Flush Toilet Rebate	6	-	-	-	-	-
A1. Existing Direct Residential Water Use Programs	Rain Barrel Discounts	5	S	S	S	S	S
A1. Existing Direct Residential Water Use Programs	Rain Garden Rebates	7	-	-	-	-	-
A1. Existing Direct Residential Water Use Programs	Rainwater Harvesting Rebates	10	-	-	-	-	S
A1. Existing Direct Residential Water Use Programs	Greywater Rebates	3	-	-	-	-	S
A2. Existing Direct ICI Programs	Stormwater Credit for Business	4	S	S	S	S	S
A2. Existing Direct ICI Programs	Water Smart Business Program	2	S	-	-	-	-
A2. Existing Direct ICI Programs	Water Smart Business Program (Double Incentive)	1	-	S	S	S	S
B. Existing Indirect Programs	Healthy Landscapes Visit	3	-	S	S	S	S
B. Existing Indirect Programs	Subsidized Tree Planting Program	5	-	S	S	S	S
B. Existing Indirect Programs	Curriculum-Linked Education Program	4	-	S	S	S	S
B. Existing Indirect Programs	Public Outreach Events	2	S	S	S	S	S
C. Existing Non-Revenue Water Programs	Municipal Facility Water Efficiency Upgrades	2	-	S	S	S	S
C. Existing Non-Revenue Water Programs	Water Loss Strategy and Leak Detection Program	1	S	S	S	S	S
D1. New Residential Programs	Community-Led Initiatives (SNAP-like)	6	-	-	M	M	M
D1. New Residential Programs	Lower Income Retrofit Subsidy	4	-	S	S	S	S
D1. New Residential Programs	Tiered Water / Conservation Pricing		-	-	-	L	L
D1. New Residential Programs	High-volume water user and geography program	3	-	S	S	M	M
D1. New Residential Programs	District Water Reuse / Purple Pipe	2	-	-	-	-	L
D1. New Residential Programs	Recognition Programs	7	-	-	-	-	-
D1. New Residential Programs	Product Performance Standards	8	-	-	-	-	-
D2. New ICI Programs	Tiered Water / Conservation Pricing	3	-	-	-	L	L
D2. New ICI Programs	High-volume water user and sector program	1	-	-	M	M	M
D2. New ICI Programs	Recognition Programs	4	-	-	M	M	M
D2. New ICI Programs	Industrial Use Restrictions	5	-	-	-	-	-
D2. New ICI Programs	Non-Potable Water Reuse and Alternative Supply	2	-	-	L	L	L
E. New Non-Revenue Water Programs	Purple Pipe - Water Reuse and Recycling	2	-	-	-	-	L
F. Data Governance & Integrity	Water consumption and reporting	3	-	S	S	M	M
F. Data Governance & Integrity	Water balance and reporting	7	-	S	S	M	M
F. Data Governance & Integrity	AMI Implementation - Pilot Project		-	S	S	-	-
F. Data Governance & Integrity	AMI Implementation - Passive Management		-	-	-	S	S
F. Data Governance & Integrity	AMI Implementation - Active Management		-	-	-	-	-
F. Data Governance & Integrity	AMI data management and reporting	1	-	-	-	S	S
F. Data Governance & Integrity	Urban Stormwater Management & Modelling	4	S	S	S	S	S
F. Data Governance & Integrity	Expanded Stormwater Monitoring	5	-	-	S	S	S
F. Data Governance & Integrity	Enhanced Monitoring and Flow Measurement	6	-	-	S	S	S

Appendix B - Initiative Assignment (One Water Scenarios)

Category	Description / Initiative	Rank	Scenario A	Scenario B	Scenario C	Scenario D	Scenario E
			Scaled Down	Modified Business As Usual	One Water Structure	AMI/AMR	Residential District Water Reuse
F. Data Governance & Integrity	Establish a Common/Integrated Data & Analytics Platform for all One-Water Related Business Functions	2	-	-	M	M	M
G. One Water Planning and Management	Asset Management Alignment	10	-	-	S	S	S
G. One Water Planning and Management	Consolidate management of customer-facing interactions	7	-	-	S	S	S
G. One Water Planning and Management	Integrate Master Planning	3	-	-	S	S	S
G. One Water Planning and Management	Integrated water demand and conservation management and reporting	1	-	-	S	S	S
G. One Water Planning and Management	Implement consistent KPI framework	9	-	-	S	S	S
G. One Water Planning and Management	Climate Risk and Asset Management Program	5	-	-	S	S	S
G. One Water Planning and Management	SWM and LID Strategy & Planning	2	-	-	S	S	S
G. One Water Planning and Management	Updated Policies, Standards, and Maintenance		-	-	S	S	S
G. One Water Planning and Management	Water-related energy monitoring and GHG mitigation	4	-	-	S	S	S
G. One Water Planning and Management	Energy Optimization and Efficiency Reporting	11	-	-	S	S	S