In developing a Water Conservation Plan for the City, the Water Department would like to understand the current level of water use and water use efficiency among City residents and businesses. Your input and professional judgement is a vital component of this process. Please provide your best professional assessment whenever possible. If exact numbers or percentages are not readily available, please provide high-level estimates that can provide an overall sense of the extent of water use efficiency in your facilities.

Members of the Cambridge Compact for a Sustainable Future (the Compact) include some of the City's largest employers and largest water users, and include universities, property management companies, and research facilities. ***Some of the following questions are applicable to all Compact members, while other questions may be applicable to only certain types of facilities***.

1. **Is Water Conservation a component of your facility planning? This refers to water efficiency upgrades (i.e., low flow toilets, showerheads, faucets, water-saving dishwashers, washer machines, etc.)**

   Yes ____ No ____

   If yes, please briefly describe the plans. _____

   _____

   _____

   If no, would you be willing to incorporate water conservation into future facility planning efforts whether during renovations or implementation of plumbing fixture upgrades?

   Yes ____ No ____

2. **Is there someone in your organization/company responsible for monitoring water use?**

   Yes ____ No ____

   If yes, please briefly describe the position. _____

3. **Have water efficiency upgrades already been incorporated into your facility?**

   Yes ____ No ____

   If yes, has this been accomplished as part of a facility renovation or as part of a focused water conservation implementation effort? Yes ____ No ___

If yes, please describe briefly _____

_____

_____

Please indicate the focus of the upgrades and year of the most recent upgrade.

Toilets _____

Urinals _____

Faucets _____

Showers _____

Clothes washers _____

Ice machines or chillers _____

Kitchen or Food Service _____

Cooling tower _____

Landscape and irrigation _____

Other _____

4. **Have you obtained LEED credits in the "Water Efficiency" category for any of your facility upgrades or new construction?**

Yes ____ No ___

If yes, please briefly describe. _____

_____

_____

If no, is this something you would consider in the future during renovations or new construction?

Yes ____ No ___

5. For property managers of multiple residential units:

a. Are residents provided a copy of a water bill or indication of their water use?
Yes ____ No ___

b. As property manager:
Do you have the legal authority to change out fixtures? Yes __ No ___
Do you require permission of the resident? Yes __ No ___
Is it the resident's responsibility? Yes __ No ___

c. What is the degree of cooperation of residents on such matters?

In favor	Acceptable	Neutral	Not Acceptable	Opposed

6. For property managers of facilities including universities with commercial kitchens and food service:

a. Is the kitchen and food service provided by a third party?
Yes ____ No ___

b. As property manager:
Do you have the legal authority to change out fixtures? Yes __ No ___
Do you require permission of the third party? Yes __ No ___
Is it the third party's responsibility? Yes __ No ___

c. What is the degree of cooperation on such matters?

In favor	Acceptable	Neutral	Not Acceptable	Opposed

7. Do you provide Water Conservation education for your residents/employees?

Yes ____ No ___

If yes, please briefly describe (i.e., flyers, notices, emails, posters, etc.) _____

_____

If no, would you be willing to incorporate Water Conservation education into your business practices? Yes ____ No ___

The U.S. Green Building Council LEED certification program includes components for water efficiency. The required elements are permanent metering, a 20 percent reduction in indoor water use from a baseline, and a 30 percent reduction in the landscape water requirement or not having a permanent irrigation system. In addition, buildings with cooling towers must have a make-up water meter, conductivity controller with overflow sensor, and drift eliminators.

Additional points can be acquired by submetering irrigation systems, plumbing fixtures, hot water heaters, boilers and other process use; achieving from 25 to 50 percent reduction in indoor use; achieving a 50 percent reduction in irrigation water use, or eliminating landscape irrigation; and maximizing cooling tower operations to either the estimated maximum cycles of concentration or achieving 10 cycles of concentration.

8. **As a property owner, how receptive would you be to a city ordinance requiring the minimum LEED requirement for water efficiency for all new construction and renovations?**

In favor	Acceptable	Neutral	Not Acceptable	Opposed

9. **What incentives could the city offer to promote adoption of LEED required level of water efficiency?**
   _____

10. **As a property owner, how receptive would you be to a 50 percent cost-sharing program for installing the minimum LEED requirement for water efficiency for renovations?**

In favor	Acceptable	Neutral	Not Acceptable	Opposed

11. **As a property owner, how receptive would you be to a "Facility Manager's Workshop" to review finding and fixing leaks, installing water efficiency features, and discussing potential savings and available rebates?**

In favor	Acceptable	Neutral	Not Acceptable	Opposed

12. Please offer your suggestions for improving water use efficiency among properties within the city.

_____

_____

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Please respond to the following questions for your building type(s). If exact numbers or percentages are not readily available, please provide high-level estimates that provide an overall sense of the extent of water use efficiency in your facilities.

13. To what extent do your buildings meet the LEED criteria for water efficiency?

	% Not LEED	% Meet LEED Requirement	% Meet LEED Requirement plus additional points
Housing			
Dormitories			
Colleges & Universities			
Research Laboratories			
Hotels			
Restaurants			
Offices			
Other Businesses			

14. Toilets – approximate % of toilets with the following flush volumes in your facilities

Toilets	Dormitories	Universities	Hotels	Research Labs	Restaurants	Offices
	%	%	%	%	%	%
3.5 gallons per flush (1978-1994)						
1.6 gpf (since 1994)						
1.28 gpf WaterSense						
Dual-flush WaterSense						

The EPA WaterSense program maintains a list of water efficient fixtures. https://www.epa.gov/watersense

15. Urinals – approximate % of urinals with the following flush volumes in your facilities

Urinals	Dormitories	Universities	Hotels	Research Labs	Restaurants	Offices
	%	%	%	%	%	%
3.5 gallons per flush						
2.0 gpf						
1.0 gpf (since 1996)						
0.5 gpf or less WaterSense						
Non-water using						

The EPA WaterSense program maintains a list of water efficient fixtures. https://www.epa.gov/watersense

16. Faucets – approximate % of faucets with the following flow rates in your facilities

Faucets*	Dormitories	Universities	Hotels	Research Labs	Restaurants	Offices
	%	%	%	%	%	%
3.0 gallons per minute						
2.5 gpm (since 1994)						
2.0 to 2.2 gpm						
1.5 gpm WaterSense						
1.0 gpm WaterSense						
0.5 gpm WaterSense						
Metered (Sensor) Faucets						
2.0 to 2.5 gpm						
1.5 gpm (0.25 gal/cycle) (since 1994)						
1.0 gpm						
0.5 gpm WaterSense						

The EPA WaterSense program maintains a list of water efficient fixtures. https://www.epa.gov/watersense

17. **Showers** – approximate % of showers with the following flow rates in your facilities

Showerheads	Dormitories	Universities	Hotels	Research Labs	Restaurants	Offices
	%	%	%	%	%	%
3.0 gallons per minute						
2.5 gpm (since 1994)						
2.0 gpm WaterSense						
2.25 gpm WaterSense						
1.75 gpm WaterSense						
1.5 gpm WaterSense						

The EPA WaterSense program maintains a list of water efficient fixtures. https://www.epa.gov/watersense

18. **Clothes Washers** – approximate % of clothes washers by type in your facilities

Clothes Washers	Dormitories	Universities	Hotels	Research Labs	Restaurants	Offices
Residential-type Clothes Washers	%	%	%	%	%	%
Older Top-loaders 12+ WF						
High Efficiency Front-loaders:						
9.5 WF (since 2011)						
6.0 WF						
4.7 WF (since 2015)						
4.0 or less WF						
Commercial Clothes Washers						
Conventional commercial washer (20 lb)						
Multi-load washers (80 lb)						
Washer Extractors (800 lb)						
Tunnel Washers (2,000 lb)						
Ozone System						

19. Ice Machines – approximate % of ice machines by type in your facilities

Ice Machines	Dormitories	Universities	Hotels	Research Labs	Restaurants	Offices
	%	%	%	%	%	%
Single-pass water-cooled						
Closed-loop water-cooled						
Air-cooled						

20. Chillers & Refrigeration Units (other than kitchens and ice machines) – approximate % of chiller equipment by type in your facilities

Chillers	Dormitories	Universities	Hotels	Research Labs	Restaurants	Offices
	%	%	%	%	%	%
Single-pass cooling						
Closed-loop cooling						
Air-cooled						

21. Commercial Kitchens – approximate % of kitchen equipment by type in your facilities

Commercial Kitchen	Dormitories	Universities	Hotels	Research Labs	Restaurants
Combination ovens	%	%	%	%	%
Boiler-based					
Connectionless					
Steam cookers					
Boiler-based					
Connectionless					
Steam kettles					
Boiler-based					
Self-contained					
Wok stoves					
Water-cooled					
Waterless					
Dipper wells					
Single-pass					
Single-pass with flow-restrictor					
Metered use as needed					
Food disposal with sluice trough					
Single-pass					
Recirculating					
Recirculating with load sensor					
Pre-rinse spray valves					
3.0 gpm or more					
1.6 gpm WaterSense (since 2005)					
1.28 gpm WaterSense					
0.65 gpm WaterSense					
Commercial dishwashers					
Older model					
Energy Star					
Energy Star with rack sensor					
Refrigeration systems					
Single-pass cooling					
Closed-loop cooling					
Air-cooled					

22. Cooling Towers – approximate number of cooling towers in your facilities

Cooling Towers	Dormitories	Universities	Hotels	Research Labs	Restaurants	Offices
Number of units						
If number of units is unknown, please estimate % of buildings with cooling towers						

23. Cooling Towers – approximate % of cooling towers by type in each sector

Cooling Towers		Dormitories	Universities	Hotels	Research Labs	Restaurants	Offices
		%	%	%	%	%	%
Cycles of Concentration							
	1 - 3						
	4 - 6						
	7-10						
	more than 10						
Drift Eliminators	With						
	Without						
Conductivity Controller	With						
	Without						
pH Controller	With						
	Without						
Softener	With						
	Without						
Sub-metered	With						
	Without						
Condensate Return	With						
	Without						

24. Irrigation Systems – approximate number of irrigation systems in your facilities

Irrigation Systems	Dormitories	Universities	Hotels	Research Labs	Restaurants	Offices
Number of units						
If number of units is unknown, please estimate % of buildings with irrigation systems						

25. Irrigation System Controllers – approximate % of irrigation systems by type in your facilities

Irrigation Controllers	Dormitories	Universities	Hotels	Research Labs	Restaurants	Offices
	%	%	%	%	%	%
Manual irrigation						
Standard clock-timer						
Weather-based						
Weather-based with sensors						

26. Who is responsible for landscaping and landscape irrigation?

Residents ____

Employees ____

Property Manager ____

Contractor ____

Other (please specify) _____

27. If we may contact you for further information, it would be helpful if you could provide your contact information. This is optional.

Name:_____

Date:_____

Business Name and Address:_____

_____

_____

Email: _____

Telephone:_____