

Water Conservation Plan



Water Supply System:

Prepared by:

Date:

1. Introduction

Water and water conservation are important to our community because _____

The purpose of this plan is to develop and implement a long-term strategy addressing water quality and quantity issues to protect both public and environmental health.

It is important for our water supply system to conserve water because _____

The scope of this water conservation plan is _____

This water conservation plan fits with these other plans _____

This water conservation plan is prepared following the steps in the Water Conservation Planning Guide for British Columbia's Communities from the University of Victoria's POLIS Project (Wong et al. 2009). The planning process is shown in Figure 1.

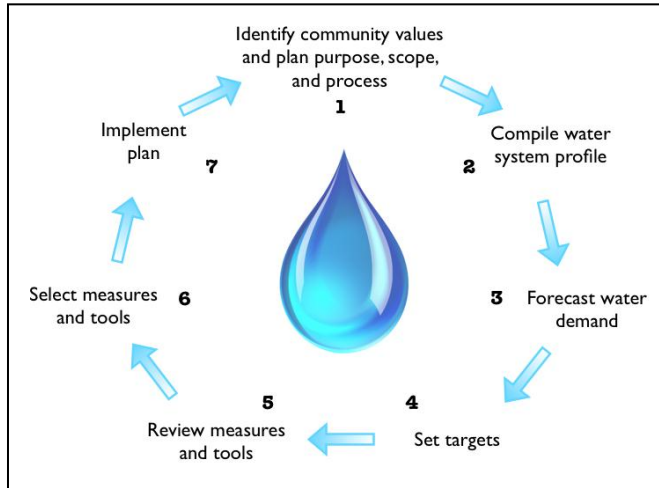


Figure 1: Water Conservation Planning Process

Source: [Water Conservation Planning Guide for British Columbia’s Communities](#), from University of Victoria’s POLIS Project

The Action Team for this plan includes: _____

This water conservation plan is supported by _____

2. Water Supply System Profile

Our water supply comes from _____

Water is treated _____

Water is stored _____

Sewage is _____

Our water supply system provides water to _____

Current data for the water supply system are shown below in Tables 1, 2 and 3.

Table 1. Water System Data

Total population currently served by system	
Maximum future population served by system	
Annual water supply capacity of system	
Maximum daily supply capacity of system	

Table 2. Service Connections Data

Service Connections	# of connections	# of connections metered	% of connections metered
Residential connections			
Public connections (e.g. hydrant, park, community centre)			
Other connections (e.g. commercial, industrial, institutional, agricultural)			
Total service connections (add up all the connections listed above)			

Table 3. Water Use Data

Type of Water Use	Maximum Day (m ³)	Annual (m ³)	Annual Per Capita (m ³)	Average Day (m ³)	Average Day Per Capita (litres)
Calculation			= [Annual] / [population]	= [Annual] / 365	= [Average day] x 1000 / [population]
Residential Connections					
Total System					

A comparison with other jurisdictions for average day per capita water use is shown in Figure 2.

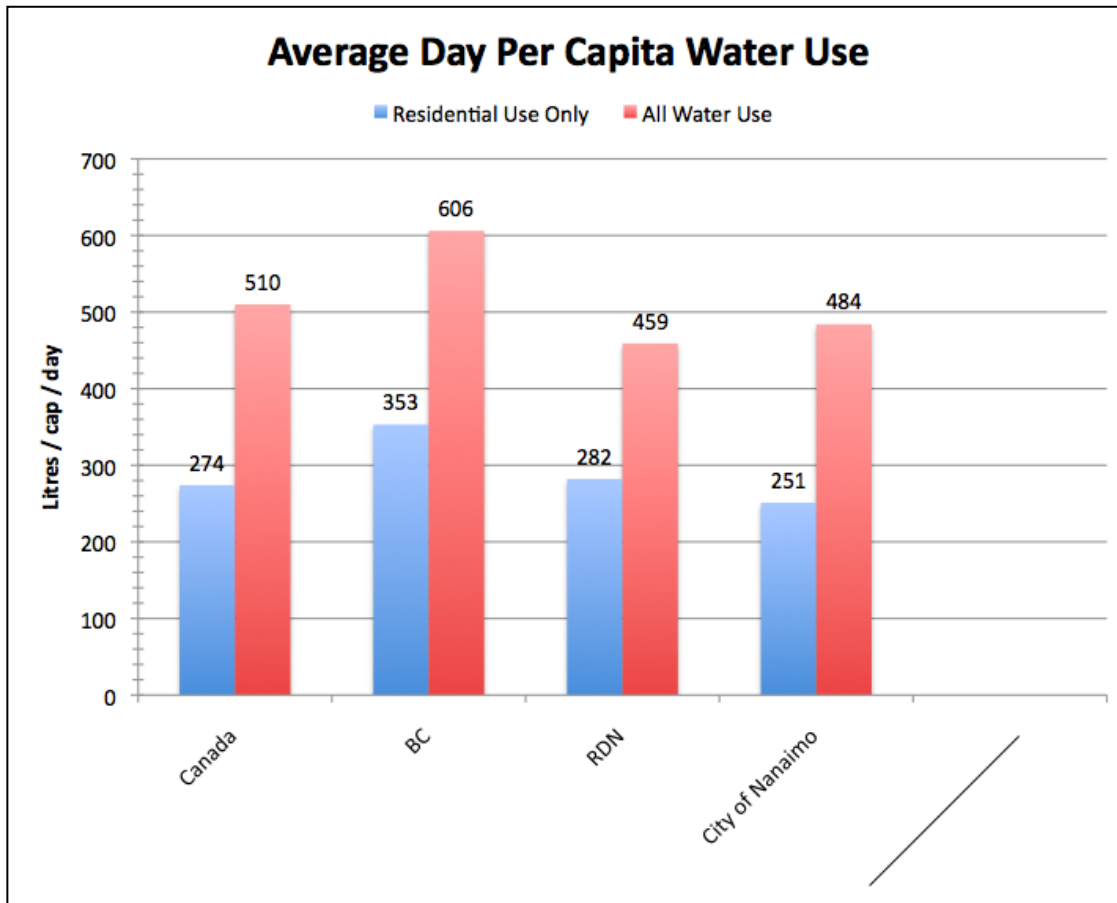


Figure 2: Average Day Water Use Comparison

Sources: Canada and BC - 2011 Municipal Water Use Report (Environment Canada)

3. Forecasting Demand

The amount of water that will be used by our system in the future depends on our population growth and our reductions in per capita water use.

Figures 2 and 3 show possible water use futures for our system. The possible futures shown are:

- No Reductions – we continue to use the current amount of water per capita
- 0.5% Annual Reduction – every year we reduce our water use per capita by 0.5% from the previous year
- 2% Annual Reduction – every year we reduce our water use per capita by 2% from the previous year

The calculations for these forecasts are shown in Tables 4 and 5.

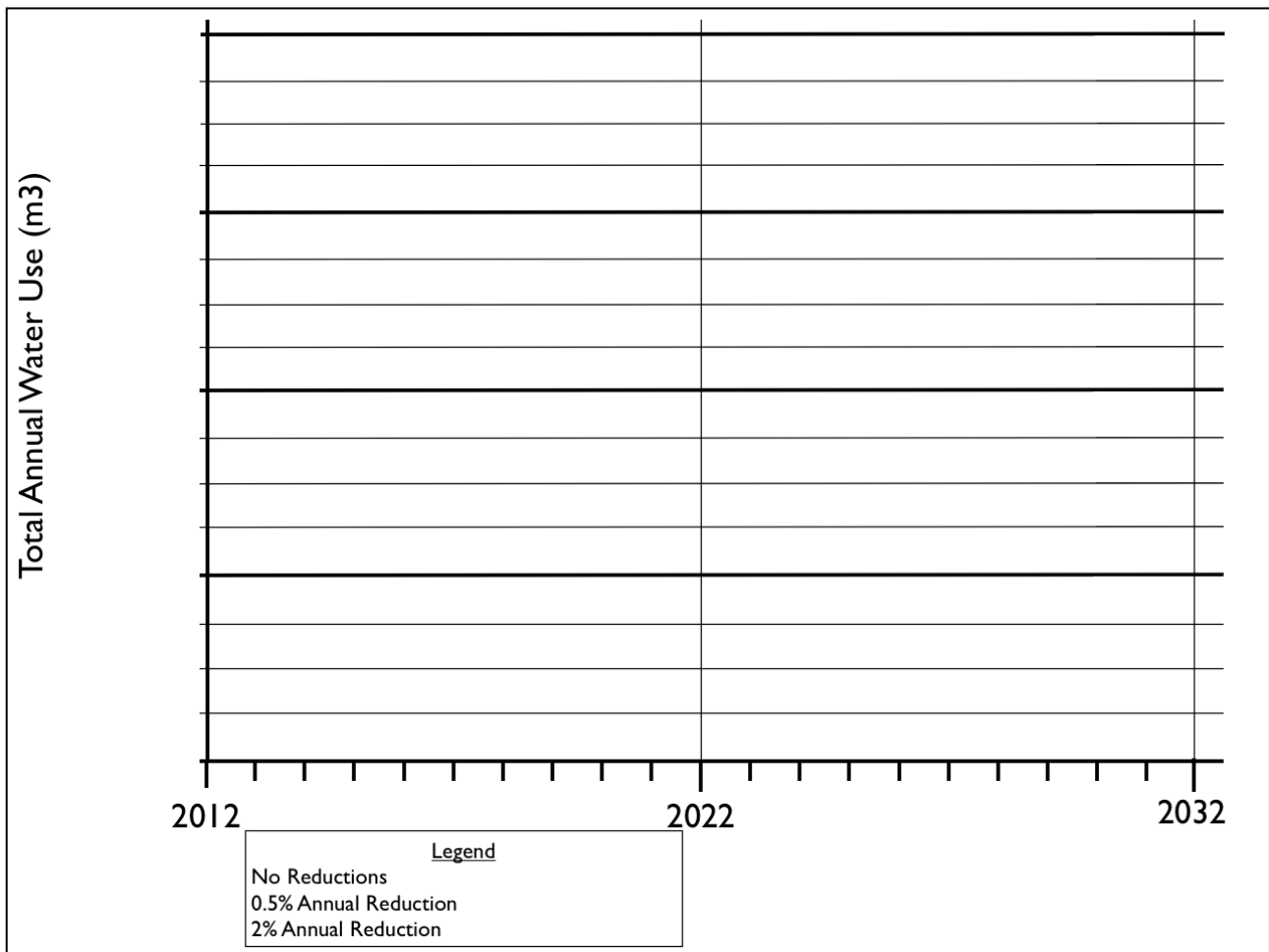


Figure 3: Total Annual Water Use Forecasts

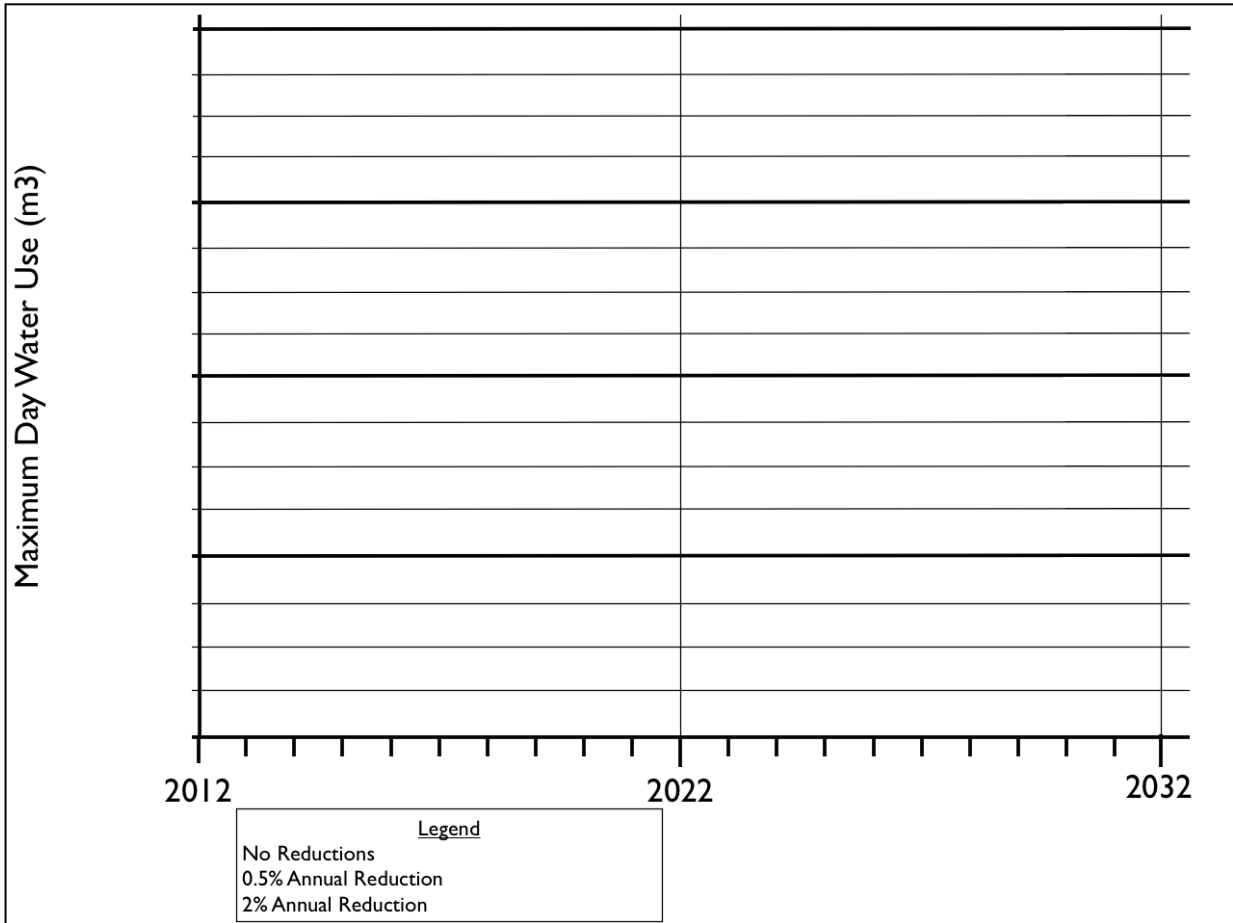


Figure 4: Maximum Day Water Use Forecasts

We expect that our population will _____

If we continue to use the same amount of water per capita _____

Table 4. Annual Water Use Forecasts

		2012	2022 (10 years)	2032 (20 years)
Service Population				
Total System Annual Water Use (m³)	No Reductions	= Current Total System Water Use	= [Total System Annual Per Capita (Table 3)] x [2022 pop]	= [Total System Annual Per Capita (Table 3)] x [2032 pop]
	0.5% Annual Reduction	= Current Total System Water Use	= [2022 no reductions water use] x 0.951	= [2032 no reductions water use] x 0.905
	2% Annual Reduction	= Current Total System Water Use	= [2022 no reductions water use] x 0.817	= [2032 no reductions water use] x 0.668

Table 5. Maximum Day Water Use Forecasts

		2012	2022 (10 years)	2032 (20 years)
Service Population				
Total System Maximum Day Water Use (m³)	No Reductions	= Current Total System Water Use	= [Total System Annual Per Capita (Table 3)] x [2022 pop]	= [Total System Annual Per Capita (Table 3)] x [2032 pop]
	0.5% Annual Reduction	= Current Total System Water Use	= [2022 no reductions water use] x 0.951	= [2032 no reductions water use] x 0.905
	2% Annual Reduction	= Current Total System Water Use	= [2022 no reductions water use] x 0.817	= [2032 no reductions water use] x 0.668

4. Conservation Goals and Targets

Benefits we would like to achieve through water conservation are listed as our water conservation goals in Table 6.

Table 6. Water Conservation Goals

1.
2.
3.
4.
5.

Our targets for water conservation are listed in Table 7.

Table 7. Water Conservation Targets

1.
2.

5. Current Water Conservation Measures

Table 8 lists the water conservation measures we already have in place in our water system.

Table 8. Current Water Conservation Measures

Description of Conservation Measure	Year Implemented

The most effective water conservation measure has been _____

The least effective water conservation measure has been _____

6. Conservation Measures to Implement

To help select conservation measures for our system, we have rated a number of potential measures according to the selection criteria shown in Table 9.

Table 9. Selection Criteria

1.
2.
3.
4.

Each measure was given a score out of 5 for each selection criterion (5 is the best, 0 is the worst). The scores were added up to give a total score. Table 10 shows the results of the rating.

We plan to implement _____

Table 10. Conservation Measures Rating

Conservation Measures	Selection Criteria				Total Score
	1.	2.	3.	4.	
1.					
2.					
3.					
4.					
5.					
6.					
7.					

7. Implementation Strategy

The next steps to implement this water conservation plan are:

1. _____

This will be performed by: _____

This will be completed by the following date: _____

2. _____

This will be performed by: _____

This will be completed by the following date: _____

3. _____

This will be performed by: _____

This will be completed by the following date: _____