

# CITY OF KELOWNA

## BYLAW NO. 11212

### Amendment No. 7 to Water Regulation Bylaw No. 10480

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The Municipal Council of the City of Kelowna, in open meeting assembled, enacts that the City of Kelowna Water Regulation Bylaw No. 10480 be amended as follows:

1. THAT PART 1 - INTRODUCTION, 1.2 Interpretation be amended by:

a) Deleting the definition for **"Blackflow Prevention Assembly Tester"** that reads:

**"Backflow Prevention Assembly Tester"** means a person who is approved by the City Engineer and holds a current certification from the British Columbia Water and Wastewater Association to test Approved Backflow Preventers.

And replace it with:

**"Backflow Prevention Assembly Tester"** means a person who is approved by the Manager and holds a current certification from the British Columbia Water and Wastewater Association to test Approved Backflow Preventers.

b) Deleting the definition for **"Beaver Lake Industrial Area"** that reads:

**"Beaver Lake Industrial Area"** means that area of lands legally described as Lots 1 to 28 inclusive, Section 2, Township 20, O.D.Y.D., Plan KAP57943 in the City."

And replace it with:

**"Beaver Lake Industrial Area"** means that area of lands in the City as shown in Schedule D.

c) Adding a new definition in its appropriate location for **"Bylaw Enforcement Officer"** that reads:

**"Bylaw Enforcement Officer"** means the person or persons appointed from time to time by the Council to enforce and administer this bylaw and shall include any Peace Officer.

d) Deleting the definition for **"Customer Service Account"** that reads:

**"Customer Service Account"** means an account for invoice or billing purposes under the City's Utility Billing Customer Care Bylaw No. 8754 as amended or replaced from time to time.

And replace in its appropriate location with:

**"Utility Billing Account"** means an account for invoice or billing purposes under the City's Utility Billing Customer Care Bylaw No. 8754 as amended or replaced from time to time."

e) Replacing all references throughout the bylaw that read **"Customer Service Account"** and replacing it with **"Utility Billing Account"**;

f) Adding a new definition in its appropriate location for **"Engineered Drip Irrigation"** that reads:

**"Engineered Drip Irrigation"** means a system using irrigation components which consume less than 20 gallons (91 litres) per hour and operate at less than 25 PSI (172 kPa) to deliver water to the root zone of the plant material being irrigated.

g) Deleting the words "appointed by Council" in the definition of **Manager**;

h) Adding a new definition in its appropriate location for **"Permit"** that reads:

**"Permit"** means a permit issued under Part 9 of this bylaw.

- i) Adding a new definition in its appropriate location for **"Person"** that reads:

**"Person"** shall mean and include any individual, corporation, partnership or party and heirs, executors, administrators or other legal representatives of the same, to whom the context can apply according to law. The singular shall also include the plural and the masculine shall also include the feminine.
  - j) Adding a new definition in its appropriate location for **"Public Announcement"** that reads:

**"Public Announcement"** means one or more advertisements or public service announcements in any one of:

    - (i) a television or radio broadcast from a station that broadcasts to the City.
    - (ii) a newspaper or other publication intended for general circulation, including one that is distributed without charge to the reader, that contains news and advertising, and is distributed with the City at least once per week.
  - k) Adding a new definition in its appropriate location for **"Restrictions Stage"** that reads:

**"Restrictions Stage"** means restrictions on water use as specified in Schedule E of this bylaw.
  - l) Deleting the definition for **"Smart Controller"** that reads:

**"Smart Controller"** means an electric timing device that sends an electric signal for automatic valves to open or close based on estimates or measures of depletion of available plant soil moisture in order to operate an automatic landscape irrigation system, that replenishes water as needed while minimizing excess water use that meets the requirements of this bylaw.

And replace with:

**"Irrigation Controller"** means an electric timing device that sends an electric signal for automatic valves to open or close in order to operate an automatic landscape irrigation system, that replenishes water as needed while minimizing excess water use that meets the requirements of this bylaw.
  - m) Adding the following to the end of the definition of Temporary Use the following:

"from the point of Building Permit approval until the first of Water Meter installation or the project is complete as defined by the British Columbia Builder's Lien Act as amended."
  - n) Adding a new definition in its appropriate location for **"Water"** that reads:

**"Water"** used as a noun, means water supplied directly or indirectly by the City of Kelowna Water Utility, whether or not mixed with rain water, gray water or recycled water.
  - o) Adding a new definition in its appropriate location for **"Watering"** that reads:

**"Watering"** used as a verb, mean the application or distribution of water (used as a noun) to lands or plants.
  - p) Deleting the definition for **"Water Meter Pit"** that reads:

**"Water Meter Pit"** means a chamber constructed underground, which is used to install a Water Meter or Approved Backflow Preventer.

And replacing it with:

**"Water Meter Pit"** means an enclosure constructed underground, which is used to install a Water Meter or Approved Backflow Preventer and would not be defined as a confined space under the Occupational Health and Safety (OHS) Regulations.
2. AND THAT **PART 2 - WATER SERVICE, 2.4 Construction of Service Connection, 2.4.3** be amended by adding to the end of the sentence "unless reviewed and approved by the Manager."

3. AND THAT PART 2 - WATER SERVICE, 2.7 Turn On Of Water Supply, 2.7.1 be deleted that reads:

"Applications for turning the supply of water from the **City Water Utility** shall be made in writing to the **Manager** and shall be accompanied by the fee set out in Schedule "B" of this bylaw."

And replaced with:

"Applications for turning on the supply of water from the **City Water Utility** shall be made in the form prescribed for that purpose to the **Manager** and shall be accompanied by the fee set out in Schedule "B" of this bylaw."

4. AND THAT PART 2 - WATER SERVICE, 2.9 Short Supply of City Water Utility, 2.9.1 and 2.9.2 be deleted that reads:

**"2.9 Short Supply of City Water Utility**

2.9.1 The **Manager** may at such times and for such length of time as is considered necessary or advisable by him or her, restrict or prohibit irrigation, yard and garden sprinklering, car washing and private pool filling to reduce water usage when the **Manager** considers water to be in short supply and every person shall abide by such restriction or prohibition.

2.9.2 The **City** may at such times and for such length of time as is considered necessary or advisable by **Council**, restrict or prohibit water uses when it considers water to be in short supply and every person shall abide by such restriction or prohibition."

And replaced with the following:

**"2.9 General Authority on Water Use for City Water Utility**

2.9.1 The **Manager** may at such times and for such length of time as is considered necessary or advisable by him or her, restrict or prohibit irrigation, yard and garden sprinklering, car washing and private pool filling to reduce water usage when the **Manager** considers water to be in short supply and every person shall abide by such restriction or prohibition.

2.9.2 The **City** may from time to time impose restrictions on water use, or change or revoke such restrictions, and in doing so may make the restrictions applicable at specified times or on specified days and may differentiate between classes of customers or areas of the **City**.

5. AND THAT PART 3 - WATER METERS, 3.1 Installation of Water Meters be amended as follows:

a) Deleting from 3.1.2 ", except land shown on a Bare Land Strata Plan.";

b) Deleting 3.1.3 in its entirety that reads:

"3.1.3 Despite section 3.1.1 and section 3.1.2, land shown on a strata plan that receives the supply of water from the City Water Utility from the same Service Connection, except land shown on a Bare Land Strata Plan, that is used for mixed residential and non-residential purposes shall have one Water Meter installed for the residential use and one Water Meter installed for the non-residential use."

c) Deleting 3.1.5 in its entirety that reads:

"3.1.5 A **Property** owner is responsible for the installation of a **Water Meter Setting** and **Water Meter Pit**."

And replacing it with:

"3.1.5 A **Property** owner is responsible for the installation of a **Water Meter Setting** and the location in which the **Water Meter Setting** is housed."

6. AND THAT **PART 3 - WATER METERS, 3.2 Ownership of Water Meter, 3.2.1** be amended by deleting the words "and Water Meter Pits";
7. AND THAT **PART 4 - WATER QUALITY PROTECTION AND WATER CONSERVATION** be amended as follows:

- a) by deleting from **4.3 Hydrant Use, 4.3.2**, the word "or" after "road sweeping" and deleting "g) tanker truck filling" and replacing it with a new subparagraph g and h as follows:

"g) water tanker truck filling; or  
h) special events"

- b) that sub-section 4.3.4 be amended by:

- i) deleting the word "and" after the word "required" in sub-paragraph d;
- ii) adding the word "and" after "hydrant" in sub-paragraph e; and
- iii) adding a new sub-paragraph f that reads "the volume and or flow rate of water that may be used."

- c) Deleting the word "**Smart**" in sub-section **4.4 Landscape Water Conservation Report and Smart Controller Requirements** and replacing it with the word "**Irrigation**"

- d) Deleting sub-section 4.4.10 that reads:

"4.4.10 No Property owner required to submit a Landscape Water Conservation Report under section 4.4 of this bylaw shall cause or permit an automatic outdoor landscape irrigation system to operate without a Smart Controller installed and operated that meets the following minimum performance requirements:

- a) Tested by the Irrigation Association Smart Water Application Technologies as a Climate-based **Smart Controller** or Sensor-based **Smart Controller** and results have been released by the manufacturer;
- b) Multiple start times per program/ day;
- c) 365-day calendar;
- d) Odd/ even or watering day scheduling option;
- e) Independent day scheduling options;
- f) Water budgeting/ seasonal adjustment by percentage;
- g) Rain delay;
- h) Rain sensor/ Moisture sensor compatible;
- i) Weather or evapotranspiration based - either using historical weather data, or real time weather data;
- j) Installed and programmed according to the manufacturers specifications."

And replace it with:

"4.4.10 No Property owner required to submit a Landscape Water Conservation Report under section 4.4 of this bylaw shall cause or permit an automatic outdoor landscape irrigation system to operate without an Irrigation Controller installed and operated that meets the following minimum performance requirements:

- a) Multiple start times per program/ day;

- b) 365-day calendar;
- c) Odd/ even or watering day scheduling option;
- d) Independent day scheduling options;
- e) Water budgeting/ seasonal adjustment by percentage;
- f) Rain delay;
- g) Capable of receiving sensor inputs including rain sensor, moisture sensor and/or weather station data; and
- h) Installed and programmed according to the manufacturers specifications.

e) Delete sub-sections 4.4.11, 4.4.12 and 4.4.13 in their entirety that read:

“4.4.11 No Property owner shall cause or permit a Smart Controller to operate such that more water is used for outdoor landscape areas than the amount that would be indicated by the Irrigation Industry Association of British Columbia (IIABC) Irrigation Scheduling Calculator.

4.4.12 Every Property owner shall program and maintain Smart Controllers to adjust watering schedules automatically based on real or historic weather data. In cases where manual irrigation program adjustment is temporarily required, adjust water programming at least once per month between May and October, to follow the reference evapotranspiration measurements set out in Schedule “C” of this bylaw.

4.4.13 A Property owner must, at all reasonable times, provide adequate, convenient, and unobstructed access to the City for the purpose of inspecting and reading the Smart Controller.”

f) Delete the words “a Smart” and replace it with “an Irrigation” before the word “Controller” in sub-section 4.4.14;

g) Delete sub-sections 4.4.15, 4.4.16 and 4.4.17 in their entirety that read:

“4.4.15 If any irregularity or malfunction in a Smart Controller is observed by a Property owner, the Property owner shall repair or replace the Smart Controller within a 30-day period.

4.4.16 The Manager may shut off the supply of water to an outdoor landscape irrigation system, but not to the supply of water for domestic purposes, on any Property for any or all of the following reasons:

- a) failing to provide and obtain approval of a Landscape Water Conservation Report as required under section 4.4.3 of this bylaw;
- b) exceeding the Landscape Water Budget under section 4.4.1 of this bylaw;
- c) failing to install and operate a Smart Controller as required under section 4.4.9 of this bylaw; and
- d) failing to repair or replace any irregularity or malfunction in a Smart Controller within the time specified in the Manager’s order under section 4.4.14.

4.4.17 The Manager must, prior to shutting off the supply of water to an outdoor landscape irrigation system, notify the persons affected of their right to make representations to

Council, and may not shut off the supply of water unless Council has considered such representations and confirmed that the supply of water is to be shut off.”

8. AND THAT **PART 6 - CONDITIONS**, be amended as follows:

- a) by deleting in Section **6.4 Shut off of Water Supply**, the word “writing” and adding the words “the form prescribed for that purpose” before the words “to the Manager and shall”;
- b) Deleting section 6.5.1 that reads:

“Where water supply is to be shut off for reason of non-payment of water **Rates** and charges or other non-compliance with any provision of this Bylaw, the **Manager** will give 30 days’ notice to the **Property** owner.”

And replace it with:

“Where water supply is to be shut off for reason of non-payment of water **Rates** and charges or other non-compliance with any provision of this Bylaw the **Manager** will follow the process outlined in the Utility Billing Customer Care Bylaw No. 8754 as amended.”

9. AND THAT **PART 7 - RATES AND CHARGES**, be deleted in its entirety that reads:

**“7.3 Fire Protection Use**

7.3.1 Upon application to the City, a connection to the City Water Utility may be permitted solely for Fire Protection Use. The Property owner will pay to the City the Rates and charges for such use as set out in Schedule “A” to this bylaw.”

10. AND THAT a new **PART 8 - DECLARATION AND ANNOUNCEMENT OF RESTRICTION STAGES** and **PART 9 - PERMITS** , be added in its appropriate location as follows and that all subsequent PARTS be re-numbered:

**“PART 8 - WATER USE RESTRICTION STAGES**

**8.1 Declaration of Restriction Stages**

- 8.1.1 All persons must comply with the water use restrictions contained in **Schedule E - City of Kelowna Water Use Restrictions Stages**.
- 8.1.2 The **water** use restriction “Normal,” as described in **Schedule E - City of Kelowna Water Use Restrictions Stages** is the default water restriction in place at all times, unless a **water** use **Restrictions Stage** is declared activated in accordance with this bylaw.
- 8.1.3 The **Manager** or **City Council** may declare that the **City** has activated a **Restrictions Stage 1 through 4** as contained in **Schedule E - City of Kelowna Water Use Restriction Stages**.
- 8.1.4 If the **Manager** or **City Council** makes a declaration under subsection 8.1.3, the **Restrictions Stage** described in the declaration comes into force in the **City** thirty-six (36) hours after the **Manager** or **City Council** makes a **Public Announcement** of the declaration.
- 8.1.5 When a **Restriction Stage** comes into force under this section, any **Restriction Stage** that had been in force, if any, ceases to be in force.

## 8.2 Time Limit for Water Use Restrictions

- 8.2.1 No **Restriction Stage** remains in force after October 31st of any year, unless the **Manager** makes a declaration under this section.
- 8.2.2 At any time before or after October 31st of any year, the **Manager** may, declare that notwithstanding subsection 8.2.1, a **Restriction Stage** will remain in force or come into force after October 31st.

## PART 9 - PERMITS

### 9.1 Permits

- 9.1.1 A person may apply to the **Manager** for a **permit** authorizing the person to water when Stage 1 Restrictions or Stage 2 Restrictions are in force if the person has installed a new lawn, either by placing sod or turf or by seeding.
- 9.1.2 An application for a **permit** must be accompanied by supporting documents, as required by the **Manager**.
- 9.1.3 The **Manager**, upon being satisfied that an applicant qualifies under subsection 9.1.1 and has complied with subsection 9.1.2, may issue a **permit** to the applicant and include terms and conditions in respect to the **permit**.
- 9.1.4 Notwithstanding Stage 1 Restrictions or Stage 2 Restrictions, the holder of a valid **permit** is authorized to water in accordance with the terms and conditions of the **permit**.
- 9.1.5 A **permit** does not exempt the **permit** holder from Stage 3 Restrictions or Stage 4 Restrictions.
- 9.1.6 A **permit** must be affixed to a post facing the street servicing the property, beside the principal driveway or if there is no driveway, in a visible location in the front yard of the property.”

11. AND THAT the new **PART 10 - GENERAL, 10.2 Offence and Penalties**, 10.2.1 be deleted in its entirety that reads:

“10.2.1 Any person who contravenes this bylaw is liable upon summary conviction to a minimum fine of \$1000 and a maximum fine of \$10,000 and the cost of prosecution. Every day during which there is an infraction of this bylaw shall constitute a separate offence.”

And replaced with the following:

“10.2.1 Every Person who violates any provisions of this bylaw or who suffers or permits any act or thing to be done in contravention or in violation of any of the provisions of this bylaw or who neglects to do or refrains from doing anything required to be done by any of the provisions of this bylaw, or who does any act which constitutes an offence against the bylaw is guilty of an offence against this bylaw and liable to the penalties hereby imposed. Each day that the violation continues to exist, shall constitute a separate offence.

10.2.2 Every Person who commits an offence against this bylaw is liable on conviction, to a fine of up to \$10,000.00, or liable to a term of incarceration for a period of not more than 90 days, or both. Any penalty imposed pursuant to this bylaw shall be in addition to, and not in substitution for, any other penalty or remedy imposed pursuant to any other applicable statute, law or legislation.”

12. AND THAT **SCHEDULE “A”, Water Rates and Charges**, be amended by:

c) Deleting section 5. Temporary Use in its entirety that reads:

**“5. Temporary Use**

For **Temporary Use** of water during construction on:

Single Family residential properties a flat charge of \$19.50 bi-monthly for the year 2015 and a flat charge of \$19.89 bi-monthly for the year 2016.

For non-residential properties and **Multi-Family Residential** properties a bi-monthly flat charge of \$128.40 for 2015 and a bi-monthly flat charge of \$130.97 for 2016.”

And replace it with:

**“5. Temporary Use**

For Temporary Use of water during construction. The following rates and charges will apply beginning two months after approval of each New Construction Building Permit and end upon the first of either the installation of the Water Meter or the project is deemed complete as defined by the British Columbia Builder’s Lien Act on:

Single Family residential properties a flat charge of \$40.04 bi-monthly for the year 2016.

For non-residential properties and Multi-Family Residential properties a bi-monthly flat charge of \$108.62 for 2016.

For Projects deemed to be complete as defined above and that do not have a Water Meter then rates will be twenty (20) times the applicable Temporary Use rate.”

d) Deleting from **section 11 Single Family Strata - single family housing on a strata property** the words “except land shown on a Bare Land Strata Plan,” after the words “from the same **Service Connection**,”

13. AND THAT **SCHEDULE “C” Landscape Water Conservation Report Requirements** be deleted in its entirety and replaced with a new **SCHEDULE “C” Landscape Water Conservation Report Requirements** as attached to and forming part of this bylaw;
14. AND THAT a new **SCHEDULE “D” Beaver Lake Industrial Area** be added in its appropriate location as attached to and forming part of this bylaw;
15. ANDE THAT a new **SCHEDULE “E” - City of Kelowna Water Use Restrictions Stages** be added in its appropriate location as attached to and forming part of this bylaw;
16. This bylaw may be cited for all purposes as “Bylaw No. 11212, being Amendment No. 7 to Water Regulation Bylaw No. 10480.”
17. This bylaw shall come into full force and effect and is binding on all persons as and from the date of adoption.



Read a first, second and third time by the Municipal Council this 18<sup>th</sup> day of April, 2016.

Adopted by the Municipal Council of the City of Kelowna this

\_\_\_\_\_  
Mayor

\_\_\_\_\_  
City Clerk

# SCHEDULE "C"

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## Landscape Water Conservation Report Requirements

Schedule C provides the scope of information that is required in applications for new or renovated irrigation systems in the **City** of Kelowna Water Utility area. Applicants are required to submit three components for review and approval by the **City**:

1. Project and Applicant Identification
2. Landscape Water Conservation Checklist
3. Landscape Water Conservation Calculation Table

### **Project and Applicant Identification**

Applicants shall provide a project name that clearly distinguishes the project from others in the **City**. **City** staff may assign an application number in addition to this project name.

Applicants may be the **Property** owner or an agent appointed by the **Property** owner with authority to commit the Owner to meet the requirements of the bylaw. Applicants shall provide their contact information and be available to liaise with the **City** throughout the design and landscape construction period.

### **Landscape Water Conservation Checklist**

Applicants shall complete the attached Landscape Water Conservation Checklist to identify and confirm that the project will conform to City Standards and Bylaws. Applicants should use the Notes section to explain unchecked clauses. The **City** may require additional information or refuse permit approval based on its review of the application checklist completion and comments.

### **Landscape Water Conservation Calculation Table**

Applicants shall complete a Landscape Water Conservation Calculation Table. Applicants may choose from one of two methods: the Spreadsheet Method or the Manual Method.

**Spreadsheet Method:** A Landscape Water Conservation Calculation Spreadsheet can be found on the City of Kelowna website within the Water Smart section or will be made available from **City** staff to allow the applicant to enter project information which will enable the spreadsheet to calculate the **Landscape Water Budget (WB)**, the **Estimated Landscape Water Use (WU)**, and the difference between them.

The Landscape Water Conservation Calculation Spreadsheet embeds the formulas shown in this Schedule C, and is available in MS Excel format, separately.

**Manual Method:** Using the attached Landscape Water Conservation Calculation Table as a model, applicants may manually fill in and calculate the **Landscape Water Budget (WB)**, the **Estimated Landscape Water Use (WU)**, and the difference between them.

In both cases the applicant needs to design and supply the areas of various landscape treatments and the cumulative total landscape area of the project. Projects below the minimum area stipulated in the Water Regulation Bylaw do not require an application or permit.

It is the responsibility of the Applicant to create a calculation and installed system that meets the requirements of the Water Regulation Bylaw, including that the **Landscape Water Budget (WB)** must exceed the **Estimated Landscape Water Use (WU)** for the system design, installation and operation.

**Project and Applicant Identification**

Owner			Contractor co. name		
Project address			Contractor contact name		
City	Kelowna		Contractor phone #		
Owner phone #			Contractor email		
Owner email					
Province		Postal Code:		Preferred contact	Owner <input type="checkbox"/> Contractor <input type="checkbox"/>


**Landscape Water Conservation Checklist**

The Applicant in submitting this application, has adhered to:

- ☐ Applicable electrical standards, plumbing standards, and backflow prevention standards.
- ☐ Bylaw 7900 Schedule 4 and 5
- ☐ Requirements of Water Regulation Bylaw

Where an exemption is required (e.g. golf course or large playing field) contact the City's Water Smart program directly.

Note that checklists for selecting an irrigation contractor are available through IIABC or via the web link below:  
<https://www.irrigationbc.com/page/selecting-a-contractor>

Applicant Notes on the Landscape Water Conservation Checklist

Signature:

Date:

## Landscape Water Conservation Calculation Table

Project Name/Address:

Applicant Name:

### Step 1: Measure Total Landscape Area (LA)

Insert area of site that will absorb water:  sq.m.

Note: INCLUDE BOULEVARD, and proposed lawn, plants, mulch, PERVIOUS decks. Do not include building areas, driveways, patios, decks or walks unless pervious.

Calculate Estimated Water Use (WU) for each Landscape Treatment  $WU = (ET_o \text{ of } 1000)((PF \times HA/IE))/1000$  see Page 4

Step 2: Divide Into Landscape Treatments	Plant Factor (PF)	Irr Efficiency (IE)	Hydrozone Area (sq.m.) (HA)	% of Total LA	Estimated Water Use (cu.m.) (WU)
<b>Unwatered Pervious Areas (not impervious paving)</b>					
Unwatered pervious mulch (e.g. stone, bark or sand)	N/A	N/A			N/A
Unwatered pervious deck (e.g. spaced wood deck)	N/A	N/A			N/A
Unwatered pervious paving (e.g. AquaPave, Rima Pave)	N/A	N/A			N/A
Unwatered naturalized meadow (e.g. wildflowers)	N/A	N/A			N/A
Unwatered naturalized area (e.g. existing natural area)	N/A	N/A			N/A
Other unwatered pervious area Specify:	N/A	N/A			N/A
Water Feature (use recirculating water)	1	1			
<b>Watered Planting Beds (shrubs or groundcover)</b>					
Low water use plants, high efficiency irrigation	0.3	0.9			
Low water use plants, moderate efficiency irrigation	0.3	0.7			
Moderate water use plants, high efficiency irrigation	0.5	0.9			
Moderate water use plants, moderate efficiency irrigation	0.5	0.7			
High water use plants, high efficiency irrigation	0.7	0.9			
High water use plants, moderate efficiency irrigation	0.7	0.7			
<b>Watered Mown Lawn Areas</b>					
Mown lawn, moderate efficiency irrigation	1	0.7			
<b>Special Landscape Areas (SLA)</b>					
Vegetable garden, high efficiency irrigation	1	0.9			
Vegetable garden, moderate efficiency irrigation	1	0.7			
Sports or playground Lawn, Commercial application, moderate efficiency irrigation	1	0.7			
Areas where non-potable water supplements irrigation	0.3	1			
<b>Totals</b>			= Total LA	=100%	=Total WU
Special Landscape Area (SLA) Subtotal					

Landscape Water Conservation Calculation Table (cont'd)

Project Name:

Applicant Name:

Step 3: Calculate & Compare Water Budget to Estimated Water Use		
Note: For Evapotranspiration (ETo) in Kelowna allow 800 mm/yr		
Calculate <b>Landscape Water Budget (WB)</b> $WB = ETo[(1.0 \times \text{Total LA}) + (0.3 \times \text{Subtotal SLA})]/1000$	Show Calculations	Total WB (cu.m./yr)
Calculate <b>Estimated Landscape Water Use (WU)</b> $WU = ETo(PF \times HA/IE)/1000$	Calculate for each Landscape Type on Page 3, then sum into Total WU	Total WU (cu.m./yr)
Subtract <b>Estimated Landscape Water Use from Landscape Water Budget (WB - WU)</b> Result Must be greater than 0 Adjust landscape areas or planting/irrigation type to suit.	Notes	Difference (cu.m./yr)

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

### Landscape Water Budget (WB)

The project's **Landscape Water Budget** shall be calculated using this equation:

$$WB = ETo[(1.0 \times LA) + (0.3 \times SLA)] / 1000$$

where:

WB = Maximum **Landscape Water Budget** (cubic metres per year)

\*ETo = Reference Evapotranspiration (use 8000 millimetres per year)

1.0 = ET Adjustment Factor (ETAF)

LA = Landscaped Area includes Special Landscape Area (square metres)

SLA = Portion of the landscape area identified as Special Landscape Area (square metres)

0.3 = the additional ET Adjustment Factor for Special Landscape Area (1.3 - 1.0 = 0.3)

/ 1000 = divide total calculation by 1000 to convert to cubic metres/year

### Estimated Landscape Water Use (WU)

The project's **Estimated Water Use** in the landscape is calculated using the following formula:

$$WU = ETo(PF \times HA/IE)/1000$$

where:

WU = **Estimated Landscape Water Use** per year (cubic metres per year)

ETo = Reference Evapotranspiration (use 8000 millimetres per year) PF = Plant Factor

HA = Hydrozone area [high, medium, low and no water use areas] (square metres)

IE = Irrigation efficiency (minimum 0.7)

/ 1000 = divide total calculation by 1000 to convert to cubic metres/year

### Interpretation

**Landscape area:** means all of the planting areas, turf areas, pervious paving, water features and unirrigated pervious surfaces - such as existing or planted native vegetation, spaced wood deck, stone or organic mulch - in a landscape design plan subject to the **Landscape Water Budget** calculation. The landscape area does not include footprints of buildings or structures, impervious sidewalks, impervious driveways or parking lots, impervious decks or patios, other impervious hardscapes.

**Pervious:** means surfaces that allow water to soak into the underlying ground and do not create runoff when exposed to up to the mean annual rainfall.

**Impervious:** means surfaces that shed water and create runoff when exposed to rainfall events of 1 mm or greater.

**Special Landscape Area (SLA):** for all calculations, means an area of the landscape dedicated solely to edible plants, areas irrigated with recycled water, and water features using recycled water, captured rainwater, or other non potable water source. For calculations in multiple family, park and playground areas, but not for single family lots, Special Landscape Area may also include areas dedicated to active play such as park lawns, sports fields, golf courses and where turf provides an intensively used playing surface.

**Water Feature:** means a designed element where open water performs an aesthetic or recreational function. Water features include ponds, lakes, waterfalls, fountains, artificial streams, spas and swimming pools (where make-up water is supplied from the municipal potable system).

**Hydrozone:** means a portion of the landscaped area having plants with similar water needs. A hydrozone may be irrigated or non-irrigated.

- Unirrigated pervious paving, spaced wood deck or other pedestrian, decorative or driveway surfacing that allows rainwater to soak into underlying ground without puddling shall be included in total landscaped area calculations and shall be in a no water use hydrozone.
- All water feature surface areas shall be included in the high water use hydrozone.
- Individual hydrozones that mix high and low water use plants shall not be permitted.
- Individual hydrozones that mix plants of moderate and low water use or moderate and high water use may be allowed if:
  - Plant factor calculation is based on the proportions of the respective plant water uses and their plant factor, or
  - If the plant factor of the higher water using plant is used for calculations.
  -

**Plant factor or plant water use factor (PF):** means a factor, when multiplied by the Reference Evapotranspiration (ET<sub>o</sub>) that estimates the amount of water needed by plants.

**Irrigation efficiency (IE):** means the measurement of the amount of water beneficially used divided by the amount of water applied. **Evapotranspiration Rate:** means the quantity of water evaporated from adjacent soil plus the quantity of water transpired by plants during a specified time.

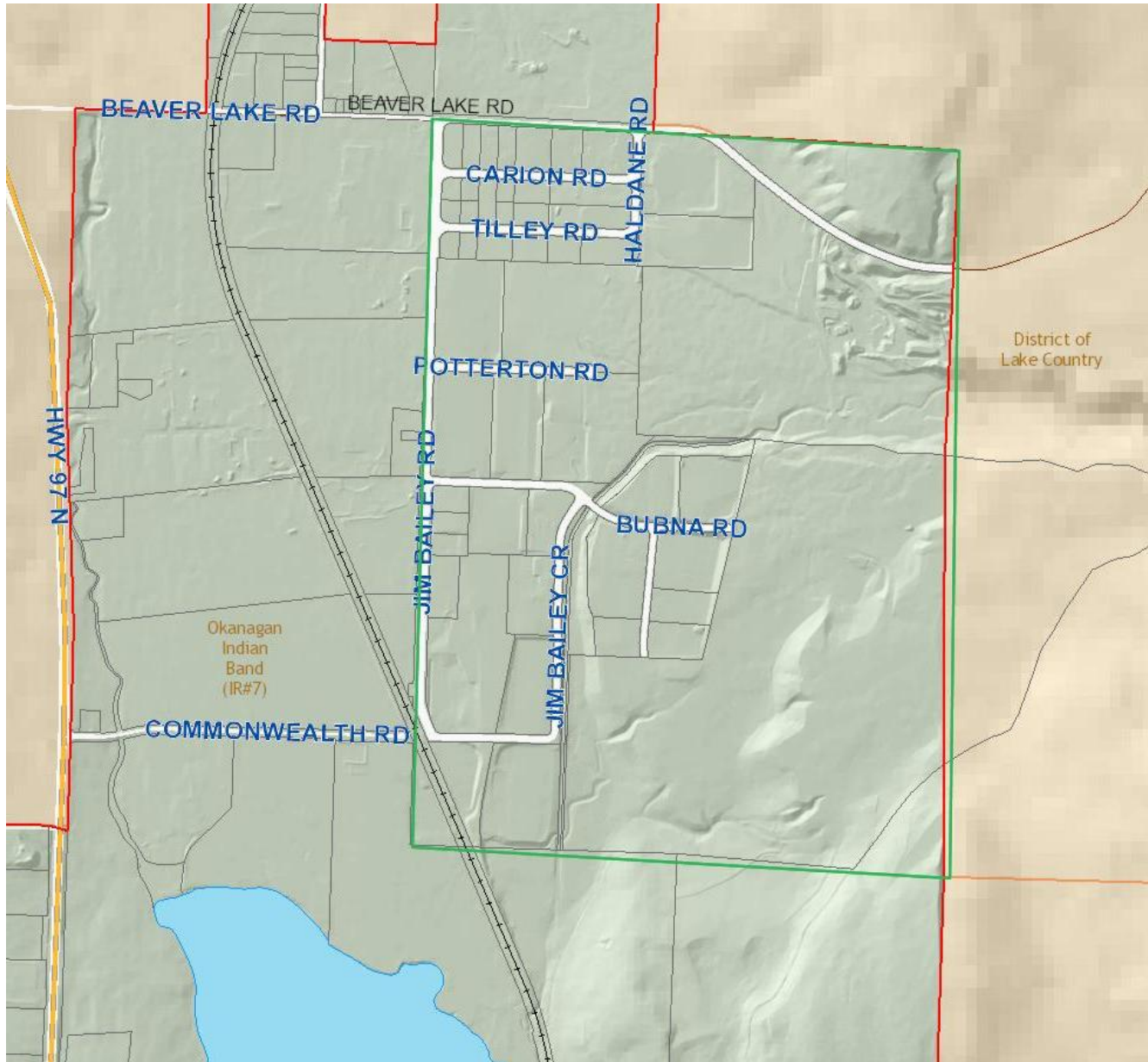
**Reference evapotranspiration (ET<sub>o</sub>):** means a standard measurement of environmental parameters which affect the water use of plants. ET<sub>o</sub> is given in millimeters per day, month or year and is an estimate of the evapotranspiration of a grass reference crop using a modified Penman Monteith equation.

# SCHEDULE "D"

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## Beaver Lake Industrial Area

*The Beaver Lake Industrial Area lands are those lands highlighted below:*



Schedule E - City of Kelowna Water Use Restrictions Stages						
	<b>Residential Water Use Restrictions*</b>	NORMAL	STAGE 1	STAGE 2	STAGE 3	STAGE 4
		DESCRIPTION: Represents normal (i.e., average) conditions for local area. Water use restrictions focus on water use efficiencies and drought awareness.	DESCRIPTION: Primary objective of this stages is to inform the public of the potential for more severe drought to occur. If triggered by drought, represents early drought (drier than average) conditions for local area. Intent is to call this stage earlier in a cycle so that the potential to move to more severe stages is reduced.	DESCRIPTION: Represents low water supply conditions for local area or prolonged, moderate, drought conditions are established. Water use restrictions are necessary to sufficiently reduce water demand to allow for sustainable supply and to meet environmental requirements.	DESCRIPTION: Represents very low water supply conditions or severe drought conditions for local area. Water use restrictions are necessary to maintain supplies during a period of critical water shortage.	DESCRIPTION: Strict water use restrictions are necessary to maintain critical supply. No spare water is available. Represents an emergency loss of supply during which water is spared for consumptive and sanitary purposes only. Fire protection may be compromised.
	Goal:	Efficient on-going Water Use practices	10% Reduction in Total and Peak Use	20% Reduction in Total and Peak Use	35% Reduction in Total and Peak Use	Maintain Health of Community
	ACTIVITY*	RESTRICTION DETAILS	RESTRICTION DETAILS	RESTRICTION DETAILS	RESTRICTION DETAILS	RESTRICTION DETAILS
A	Lawn and Aesthetic Garden Watering - Manual Sprinklers Odd Address Schedule Even Address Schedule	Watering allowed between 6am - 10am and 7pm - 12am up to 3 days per week.  Tuesday, Thursday, Saturday Wednesday, Friday, Sunday	Watering allowed between 6am - 10am and 7pm - 12am up to 3 days per week.  Tuesday, Thursday, Saturday Wednesday, Friday, Sunday	Watering allowed between 6am - 10am and 7pm - 12am up to 2 days per week.  Tuesday & Saturday Wednesday & Sunday	Watering allowed between 6am - 10am and 7pm - 12am one (1) per week.  Saturday Sunday	Use of supplied water for all forms of aesthetic lawn and garden watering is prohibited.
B	Lawn and Aesthetic Garden Watering - Automatic Timer Sprinkler Systems Odd Address Schedule Even Address Schedule	Watering allowed between 12am - 6am up to 3 days per week.  Tuesday, Thursday, Saturday Wednesday, Friday, Sunday	Watering allowed between 12am - 6am up to 3 days per week.  Tuesday, Thursday, Saturday Wednesday, Friday, Sunday	Watering allowed between 12am - 6am up to 2 days per week.  Tuesday & Saturday Wednesday & Sunday	Watering allowed between 12am - 6am one (1) day per week.  Saturday Sunday	
C	Lawn and Aesthetic Garden Watering - Handheld Sprinkling (spring-loaded nozzle on hose or watering can); Engineered Drip Irrigation	Anytime.	Follow Stage 1 Lawn and Aesthetic Garden Watering - Manual Sprinklers (Line A)	Follow Stage 1 Lawn and Aesthetic Garden Watering - Manual Sprinklers (Line A)	Follow Stage 2 Lawn and Aesthetic Garden Watering - Manual Sprinklers (Line A)	
D	New (non-established) Lawns and Landscaping Sprinkling	Follow supplier recommended watering schedule. After installation (2 weeks for Sod or 6 weeks for Seeded Lawns) resume watering as per Lawn & Aesthetic Garden Watering restrictions for your irrigation system (Lines A-C).	City of Kelowna sprinkling permit required. Follow supplier recommended watering schedule. Recommended that seeding start no later than May 31 or after Sept. 1. After installation (2 weeks for Sod or 6 weeks for Seeded Lawns) resume watering as per Stage 1 Lawn & Aesthetic Garden Watering restrictions for your irrigation system (Lines A-C).	City of Kelowna sprinkling permit required. Sod requires 2 week permit to be displayed on lawn. Seeding must start before April 30 or after Sept. 1 and requires a 6 week permit to be displayed on lawn. After permit period, resume watering as per Stage 2 Lawn & Aesthetic Garden Sprinkling restrictions for your irrigation system (Lines A-C).	No new permits issued for seeded lawns. Placement of sod may take place with sprinkling permit not to exceed 2 week period. After permit period, resume watering as per Stage 3 Lawn & Aesthetic Garden Sprinkling restrictions for your irrigation system (Lines A-C).	No new permits issued or renewed. Use of water for this purpose prohibited.
E	Food Gardens and Fruit Trees/Shrubs	Follow Lawn and Aesthetic Garden Watering restrictions, as noted above (Lines A-C), for the irrigation system in use.	Follow Stage 1Lawn and Aesthetic Garden Watering restrictions (Lines A-C above) for the irrigation system in use.	Follow Stage 1Lawn and Aesthetic Garden Watering restrictions (Lines A-C above) for the irrigation system in use.	Watering allowed Tuesdays & Fridays between 6am - 10am and 7pm to 12am, as required to maintain plant health.	Use of water for this purpose prohibited.
F	Garden Ponds, Aesthetic Fountains, and Water Features	Filling and refilling is permitted on days and times specified for Lawn & Aesthetic Garden Watering- Manual Sprinkling (Line A).	Filling and refilling is permitted on days and times specified for Stage 1 Lawn & Aesthetic Garden Watering-Manual Sprinkling (Line A).	Filling and refilling is permitted on days and times specified for Stage 2 Lawn & Aesthetic Garden Watering-Manual Sprinkling (Line A).	Filling and refilling with water supplied by City of Kelowna is prohibited.	Use of water for this purpose prohibited.



	<b><i>Residential Water Use Restrictions*</i></b>	NORMAL	STAGE 1	STAGE 2	STAGE 3	STAGE 4
		DESCRIPTION: Represents normal (i.e., average) conditions for local area. Water use restrictions focus on water use efficiencies and drought awareness.	DESCRIPTION: Primary objective of this stages is to inform the public of the potential for more severe drought to occur. If triggered by drought, represents early drought (drier than average) conditions for local area. Intent is to call this stage earlier in a cycle so that the potential to move to more severe stages is reduced.	DESCRIPTION: Represents low water supply conditions for local area or prolonged, moderate, drought conditions are established. Water use restrictions are necessary to sufficiently reduce water demand to allow for sustainable supply and to meet environmental requirements.	DESCRIPTION: Represents very low water supply conditions or severe drought conditions for local area. Water use restrictions are necessary to maintain supplies during a period of critical water shortage.	DESCRIPTION: Strict water use restrictions are necessary to maintain critical supply. No spare water is available. Represents an emergency loss of supply during which water is spared for consumptive and sanitary purposes only. Fire protection may be compromised.
	Goal:	Efficient on-going Water Use practices	10% Reduction in Total and Peak Use	20% Reduction in Total and Peak Use	35% Reduction in Total and Peak Use	Maintain Health of Community
	ACTIVITY*	RESTRICTION DETAILS	RESTRICTION DETAILS	RESTRICTION DETAILS	RESTRICTION DETAILS	RESTRICTION DETAILS
G	Pools	Filling and refilling is permitted anytime.	Filling and refilling is permitted anytime.	Filling and refilling is permitted prior to June 15. Topping up only between June 15 and August 31.	Topping up allowed once per week on Wednesday. Filling and refilling are prohibited.	Use of water for this purpose prohibited.
H	Cleaning Outdoor Surfaces (driveways, sidewalks, decks, artificial turf, patios)	Use a broom, device or hose with a spring-loaded nozzle, or mop and bucket.	Use a broom, device or hose with a spring-loaded nozzle, or mop and bucket.	Washing with spring-loaded nozzle for health and safety purposes or to prepare a surface for painting or similar treatment. Washing for aesthetic purposes is prohibited.	Washing with spring-loaded nozzle for health and safety reasons only. Washing for aesthetic purposes is prohibited.	All forms of cleaning of outdoor surfaces with water are prohibited unless ordered by a regulatory authority (i.e., WCB, public health inspector, etc.).
I	Vehicle (boat/ automobile/ATV/ etc.) Washing	Use a bucket with cloth or sponge with a spring-loaded nozzle, or visit a water wise commercial car wash.	Use a bucket with cloth or sponge with a spring-loaded nozzle, or visit a water wise commercial car wash.	Use a bucket with cloth or sponge with a spring loaded nozzle, or visit a water wise commercial car wash.	No washing or rinsing except for safety purposes (windows, lights, licenses).	No washing or rinsing with water except for safety purposes (windows, lights, licenses).

\* These restrictions are for water supplied by City of Kelowna only. They do not apply to the use of reclaimed or recycled water, grey water, rainwater harvested by the customer, or any other sources of water not supplied by City of Kelowna. Customers are encouraged to utilize rainwater for appropriate uses such as garden irrigation.

Schedule E - City of Kelowna Water Use Restriction Stage

	<b>Commercial Water Use Restrictions**</b>	NORMAL	STAGE 1	STAGE 2	STAGE 3	STAGE 4
		DESCRIPTION: Represents normal (i.e., average) conditions for local area. Water use restrictions focus on water use efficiencies and drought awareness.	DESCRIPTION: Primary objective of this stages is to inform the public of the potential for more severe drought to occur. If triggered by drought, represents early drought (drier than average) conditions for local area. Intent is to call this stage earlier in a cycle so that the potential to move to more severe stages is reduced.	DESCRIPTION: Represents low water supply conditions for local area or prolonged, moderate, drought conditions are established. Water use restrictions are necessary to sufficiently reduce water demand to allow for sustainable supply and to meet environmental requirements.	DESCRIPTION: Represents very low water supply conditions or severe drought conditions for local area. Water use restrictions are necessary to maintain supplies during a period of critical water shortage.	DESCRIPTION: Strict water use restrictions are necessary to maintain critical supply. No spare water is available. Represents an emergency loss of supply during which water is spared for consumptive and sanitary purposes only. Fire protection may be compromised.
	Goal:	Efficient on-going Water Use practices	10% Reduction in Total and Peak Use	20% Reduction in Total and Peak Use	35% Reduction in Total and Peak Use	Maintain Health of Community
	ACTIVITY*	RESTRICTION DETAILS	RESTRICTION DETAILS	RESTRICTION DETAILS	RESTRICTION DETAILS	RESTRICTION DETAILS
A	Lawn, Aesthetic Garden, and Plants for sale - Manual Sprinkling Odd Address Schedule Even Address Schedule	Watering allowed between 6am - 10am and 7pm - 12am up to 3 days per week.  Tuesday, Thursday, Saturday Wednesday, Friday, Sunday	Watering allowed between 6am - 10am and 7pm - 12am up to 3 days per week.  Tuesday, Thursday, Saturday Wednesday, Friday, Sunday	Watering allowed between 6am - 10am and 7pm - 12am up to 2 days per week.  Tuesday & Saturday Wednesday & Sunday	Watering allowed between 6am - 10am and 7pm - 12am one (1) per week.  Saturday Sunday	Use of supplied water for all forms of aesthetic lawn and garden watering is prohibited.
B	Lawn, Aesthetic Garden, and Plants for sale - Automatic Timer Sprinkler Systems Odd Address Schedule Even Address Schedule	Watering allowed between 12am - 6am up to 3 days per week.  Tuesday, Thursday, Saturday Wednesday, Friday, Sunday	Watering allowed between 12am - 6am up to 3 days per week.  Tuesday, Thursday, Saturday Wednesday, Friday, Sunday	Watering allowed between 12am - 6am up to 2 days per week.  Tuesday & Saturday Wednesday & Sunday	Watering allowed between 12am - 6am one (1) day per week.  Saturday Sunday	
C	Lawn, Aesthetic Garden, and Plants for sale - Handheld Sprinkling (spring-loaded nozzle on hose or watering can); Engineering Drip Irrigation Systems	Anytime	Anytime	Hand watering of potted plants can be done any day between 6am-10am & 5pm-12am. In-ground plant watering is allowed up to 3 days per week as per Stage 1 Manual Sprinkling restrictions (Line A).	Hand watering of potted plants is allowed on Tuesday, Thursday, & Sunday between 6am-10am & 7pm-12am. In-ground plant watering is allowed up to 2 days per week as per Stage 2 Manual Sprinkling restrictions (Line A).	
D	New (non-established) Lawns and Landscaping Sprinkling	Follow supplier recommended watering schedule. After installation (2 weeks for Sod or 6 weeks for Seeded Lawns) resume watering as per Lawn & Aesthetic Garden Watering restrictions for your irrigation system (Lines A-C).	City of Kelowna sprinkling permit required. Follow supplier recommended watering schedule. Recommended that seeding start no later than May 31 or after Sept. 1. After installation (2 weeks for Sod or 6 weeks for Seeded Lawns) resume watering as per Stage 1 Lawn & Aesthetic Garden Watering restrictions for your irrigation system (Lines A-C).	City of Kelowna sprinkling permit required. Sod requires 2 week permit to be displayed on lawn. Seeding must start before April 30 or after Sept. 1 and requires a 6 week permit to be displayed on lawn. After permit period, resume watering as per Stage 2 Lawn & Aesthetic Garden Sprinkling restrictions for your irrigation system (Lines A-C).	No new permits issued for seeded lawns. Placement of sod may take place with sprinkling permit not to exceed 2 week period. After permit period, resume watering as per Stage 3 Lawn & Aesthetic Garden Sprinkling restrictions for your irrigation system (Lines A-D).	No new permits issued or renewed. Use of water for this purpose prohibited.
E	Garden Ponds, Aesthetic Fountains, and Water Features	Filling and refilling is permitted on days and times specified for Lawn & Aesthetic Garden Watering- Manual Sprinkling (Line A).	Filling and refilling is permitted on days and times specified for Stage 1 Lawn & Aesthetic Garden Watering-Manual Sprinkling (Line A).	Filling and refilling is permitted on days and times specified for Stage 2 Lawn & Aesthetic Garden Watering-Manual Sprinkling (Line A).	Filling and refilling with water is prohibited.	Use of water for this purpose prohibited.
F	Pools	Filling and refilling is permitted anytime.	Filling and refilling is permitted anytime.	Filling and refilling is permitted prior to June 15. Topping up only between June 15 and August 31.	Topping up allowed once per week on Wednesday. Filling and refilling are prohibited.	Use of water for this purpose prohibited
G	Cleaning Outdoor Surfaces (driveways, sidewalks, decks, artificial	Use a broom, device or hose with a spring-loaded nozzle, or mop and bucket.	Use a broom, device or hose with a spring-loaded nozzle, or mop and bucket.	Washing with spring-loaded nozzle for health and safety purposes or to prepare a surface for painting or similar treatment. Washing for aesthetic purposes is prohibited.	Washing with spring-loaded nozzle for health and safety reasons only. Washing for aesthetic purposes is prohibited.	All forms of cleaning of outdoor surfaces water are prohibited unless ordered by a regulatory authority (i.e., WCB, public health inspector, etc.).

	<b>Commercial Water Use Restrictions**</b>	NORMAL	STAGE 1	STAGE 2	STAGE 3	STAGE 4
		DESCRIPTION: Represents normal (i.e., average) conditions for local area. Water use restrictions focus on water use efficiencies and drought awareness.	DESCRIPTION: Primary objective of this stages is to inform the public of the potential for more severe drought to occur. If triggered by drought, represents early drought (drier than average) conditions for local area. Intent is to call this stage earlier in a cycle so that the potential to move to more severe stages is reduced.	DESCRIPTION: Represents low water supply conditions for local area or prolonged, moderate, drought conditions are established. Water use restrictions are necessary to sufficiently reduce water demand to allow for sustainable supply and to meet environmental requirements.	DESCRIPTION: Represents very low water supply conditions or severe drought conditions for local area. Water use restrictions are necessary to maintain supplies during a period of critical water shortage.	DESCRIPTION: Strict water use restrictions are necessary to maintain critical supply. No spare water is available. Represents an emergency loss of supply during which water is spared for consumptive and sanitary purposes only. Fire protection may be compromised.
	Goal:	Efficient on-going Water Use practices	10% Reduction in Total and Peak Use	20% Reduction in Total and Peak Use	35% Reduction in Total and Peak Use	Maintain Health of Community
	ACTIVITY*	RESTRICTION DETAILS	RESTRICTION DETAILS	RESTRICTION DETAILS	RESTRICTION DETAILS	RESTRICTION DETAILS
	turf, patios)					
H	Vehicle (boat/ automobile/ATV/ etc.) Washing	Use a commercial car wash or hose equipped with spring-loaded nozzle.	Use a commercial car wash or hose equipped with spring-loaded nozzle. Conveyorized/automatic car wash facilities should strive to be water wise as per industry standards.	Car washes using recycled water systems may continue to operate with no restrictions. Conveyorized/automatic car wash facilities should strive to be water wise as per industry standards- shorten wash times. Wand wash or washing with spring-loaded nozzle is permitted.	Spring-loaded nozzle or wand wash permitted for health and safety purposes only. Car washes using recycled water systems may continue to operate if wash times are shortened.	No washing or rinsing of vehicles and pleasure crafts, except spot cleaning with sponge and bucket for health and safety reasons (windows, lights, license plates).
I	Golf Courses	Irrigation should only occur between 7pm-10am.	Limit irrigation of Fairways to 5 times per week and avoid irrigation between 10am-7pm.	Reduce watering of greens and tees. Fairway watering limited to three days per week between 7 pm and 10 am.	No watering permitted for fairways. Minimal watering only for tees and greens.	All forms of watering are prohibited.
J	Artificial turf and outdoor tracks (i.e. Bicycle, motorcycle, and running tracks)	Cleaning, with a hose or sprinkler, permitted for health and safety only. Use spring-loaded nozzle.	Cleaning, with a hose or sprinkler, permitted for health and safety only. Use spring-loaded nozzle.	Cleaning, with a hose or sprinkler, permitted for health and safety only. Use spring-loaded nozzle.	Cleaning, with a hose or sprinkler, permitted for health and safety only. Use spring-loaded nozzle.	All forms of cleaning of outdoor surfaces with are prohibited unless ordered by a regulatory authority (i.e. WCB, public health inspector, etc.).

\* These restrictions are for water supplied by City of Kelowna Water only. They do not apply to the use of reclaimed or recycled water, grey water, rainwater harvested by the customer, or any other sources of water not supplied by the City of Kelowna. Customers are encouraged to utilize rainwater for appropriate uses such as garden irrigation.

\*\* These restrictions apply to all businesses supplied by the City of Kelowna. Any activity relating to irrigation, including the watering of plants for sale (nursery stock) or cemeteries, is required to adhere to the restrictions as they apply to the type of irrigation used by the business.

Schedule E - City of Kelowna Water Use Restriction Stage

<b>Public Institutional Water Use Restrictions*</b>		NORMAL	STAGE 1	STAGE 2	STAGE 3	STAGE 4
		DESCRIPTION: Represents normal (i.e., average) conditions for local area. Water use restrictions focus on water use efficiencies and drought awareness.	DESCRIPTION: Primary objective of this stages is to inform the public of the potential for more severe drought to occur. If triggered by drought, represents early drought (drier than average) conditions for local area. Intent is to call this stage earlier in a cycle so that the potential to move to more severe stages is reduced.	DESCRIPTION: Represents low water supply conditions for local area or prolonged, moderate, drought conditions are established. Water use restrictions are necessary to sufficiently reduce water demand to allow for sustainable supply and to meet environmental requirements.	DESCRIPTION: Represents very low water supply conditions or severe drought conditions for local area. Water use restrictions are necessary to maintain supplies during a period of critical water shortage.	DESCRIPTION: Strict water use restrictions are necessary to maintain critical supply. No spare water is available. Represents an emergency loss of supply during which water is spared for consumptive and sanitary purposes only. Fire protection may be compromised.
Goal:		Efficient on-going Water Use practices	10% Reduction in Total and Peak Use	20% Reduction in Total and Peak Use	35% Reduction in Total and Peak Use	Maintain Health of Community
ACTIVITY*		RESTRICTION DETAILS	RESTRICTION DETAILS	RESTRICTION DETAILS	RESTRICTION DETAILS	RESTRICTION DETAILS
A	Municipal parks, sport fields, grassed boulevards, Cemeteries, school yards.	Sufficient and efficient water use to maintain healthy public space appropriate to its use in consultation with the water provider. Where practical irrigation should only occur between 7pm-10am	10% overall volume reduction consistent with an approved drought response plan.	20% overall volume reduction consistent with an approved drought response plan.	30% overall volume reduction consistent with an approved drought response plan.	All forms of irrigation are prohibited.
B	Maintenance, ground under repair and testing	Anytime	Anytime	Avoid irrigation between 10 am - 7 pm. Reduce maintenance to priority space	Avoid irrigation between 10 am - 7 pm. Reduce maintenance to priority space	No ground repair or testing.
C	Municipal Water Main Flushing and Hydrant Maintenance	No restrictions.	No restrictions.	Only for unscheduled safety or public health reasons. No routine flushing.	Only for unscheduled safety or public health reasons. No routine flushing.	Only for unscheduled safety or public health reason. No routine flushing.
D	Artificial Turf	Use spring loaded nozzle. No restrictions on fields with user activated switches.	Cleaning, with a hose or sprinkler, permitted for health and safety only. Use spring-loaded nozzle. No restrictions on fields with user activated switches.	Cleaning, with a hose or sprinkler, permitted for health and safety only. Use spring-loaded nozzle.	Cleaning, with a hose or sprinkler, permitted for health and safety only. Use spring-loaded nozzle.	All forms of cleaning of outdoor surfaces with City of Kelowna water are prohibited unless ordered by a regulatory authority (i.e., WCB, public health inspector, etc.).

\* These restrictions are for water supplied by City of Kelowna only. They do not apply to the use of reclaimed or recycled water, grey water, rainwater harvested by the customer, or any other sources of water not supplied by City of Kelowna. Customers are encouraged to utilize rainwater for appropriate uses such as garden irrigation.

Schedule E - City of Kelowna Water Use Restriction Stage					
Agricultural Water Use Restrictions	NORMAL	STAGE 1	STAGE 2	STAGE 3	STAGE 4
	DESCRIPTION: Represents normal (i.e., average) conditions for local area. Water use restrictions focus on water use efficiencies and drought awareness.	DESCRIPTION: Primary objective of this stages is to inform the public of the potential for more severe drought to occur. If triggered by drought, represents early drought (drier than average) conditions for local area. Intent is to call this stage earlier in a cycle so that the potential to move to more severe stages is reduced.	DESCRIPTION: Represents low water supply conditions for local area or prolonged, moderate, drought conditions are established. Water use restrictions are necessary to sufficiently reduce water demand to allow for sustainable supply and to meet environmental requirements.	DESCRIPTION: Represents very low water supply conditions or severe drought conditions for local area. Water use restrictions are necessary to maintain supplies during a period of critical water shortage.	DESCRIPTION: Strict water use restrictions are necessary to maintain critical supply. No spare water is available. Represents an emergency loss of supply during which water is spared for consumptive and sanitary purposes only
Goal:	Efficient on-going Water Use practices	10% Reduction in Total and Peak Use	20% Reduction in Total and Peak Use	35% Reduction in Total and Peak Use	Maintain Health of Community
ACTIVITY*	RESTRICTION DETAILS	RESTRICTION DETAILS	RESTRICTION DETAILS	RESTRICTION DETAILS	RESTRICTION DETAILS
Crop Irrigation**	Maximum water use permitted per water allotment for season.	A 10% reduction of normal annual allotment.  Increased monitoring of allocation compliance and communication to encourage users to take voluntary conservation measures.	A 20% reduction in total annual water allotment.	A 35% reduction in total annual water allotment.	Mandatory water restrictions. Outdoor water use prohibited except water for livestock and minimal maintenance of perennial fruit trees.
* These restrictions are for water supplied by the City of Kelowna only. They do not apply to the use of reclaimed or recycled water, grey water, rainwater harvested by the customer, or any other sources of water not supplied by the City of Kelowna.					
** Typical irrigation season is April 15 - September 15. The City of Kelowna reserves the right to change turn on and turn off dates, thereby affecting irrigation season duration, based on current water supply availability and drought forecasts. If the restriction stage is reduced during the growing season, customer allocation would be prorated based on the number of days the higher restriction level was instituted.					