ORDINANCE NO. XXXX

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF [] ADDING A NEW CHAPTER [] (WATER EFFICIENT NEW DEVELOPMENT) TO TITLE [] OF THE CITY OF [] MUNICIPAL CODE RELATED TO REQUIREMENTS FOR NEW DEVELOPMENT THAT PROMOTE WATER USE EFFICIENCY AND THE DEVELOPMENT OF ALTERNATE SOURCES OF WATER SUPPLY

WHEREAS, all California water users are responsible for making effective use of the available water resources; and

WHEREAS, water is a public resource that the California Constitution protects against waste and unreasonable use; and

WHEREAS, growing population, climate change, and the need to protect and grow the City's economy make it essential that the City manage its water resources as efficiently as possible; and

WHEREAS, reduced water use through conservation provides significant energy reduction and associated environmental benefits, and can help protect water quality, preserve and improve stream flows, and reduce greenhouse gas emissions; and

WHEREAS, improvements in technology and management practices offer the potential for increasing water efficiency in California over time, providing an essential water management tool to meet the need for water for urban, agricultural, and environmental uses; and

WHEREAS, the City has determined that the energy standards in this ordinance are cost-effective and require buildings to be designed to consume no more energy than permitted by Part 6 of Title 24 of the California Code of Regulations; and

WHEREAS, the development of Alternate Water Source Systems will assist in meeting future water requirements of the City and lessen the impacts of new development on the City's sanitary sewer system; and

WHEREAS, the application of risk-based water quality standards to Onsite Treated Nonpotable Water systems can protect public health, safety, and welfare; and

WHEREAS, adoption of this ordinance and related rules and regulations by the City will help achieve the City's goals for water supply use and preservation by:

(1) Promoting the values and benefits of Nonpotable Water use while recognizing the need to invest water and other resources as efficiently as possible;

(2) Encouraging the use of Nonpotable Water for nonpotable applications; and

(3) Replacing potable water with Alternate Water Sources for toilet and urinal flushing and irrigation to the maximum extent possible; and

WHEREAS, it is the intent of the City Council of the City of [] to require New Development constructed in the City of [] to meet and exceed the water efficiency and alternate sources of water supply requirements of the State of California.

NOW THEREFORE, THE CITY COUNCIL OF THE CITY OF [] DOES ORDAIN AS FOLLOWS:

SECTION 1. CEQA REVIEW.

The City Council finds, pursuant to [Title 14 of the California Code of Regulations, Section 15061(b)(3),] that this Ordinance is [exempt] from the California Environmental Quality Act (CEQA) in that it [is not a "project" which has the potential for causing a significant effect on the environment].

SECTION 2. DEFINITIONS.

The terms used in this Chapter have the meaning set forth below:

Alternate Water Source: A source of Nonpotable Water that includes Recycled Water, Graywater, Stormwater, condensate, onsite treated Nonpotable Water, Rainwater, Blackwater, and any other source approved by the Director.

Alternate Water Source System: The system of facilities necessary for providing Nonpotable Water for use in a development project, including but not limited to all collection, treatment, storage, and distribution facilities. Nonpotable Water System shall have the same meaning.

Blackwater: Wastewater containing bodily or other biological wastes. This is discharge from toilets, dishwashers, kitchen sinks, and utility sinks.

Building Energy Efficiency Standards: Those regulations contained in Title 24, Part 6 of the California Code of Regulations.

Compact Hot Water Distribution System: A hot water distribution system in which the water heater to fixture proximity is more compact than threshold criteria that is defined based on the dwelling unit conditioned floor area and number of stories, as described in Part 6 of Title 24 of the California Code of Regulations.

Director: The Director of [] or any individual designated by the Director to act on his or her behalf.

District: A group of two or more parcels that share Alternate Water Sources.

District System: An Alternate Water Source System serving a District development project.

Drain Water Heat Recovery (DWHR): A double wall heat exchanger that recovers heat from the effluent waste piping and uses it to preheat water in a domestic or service water-heating system in order to reduce water heating energy usage.

Equal Flow Configuration: Installation of a drain water heat recovery device with preheated water being routed to both the water heater and the shower, as opposed to an unequal flow configuration with preheated water being routed to either the water heater or the shower.

First Certificate of Occupancy: Either a temporary certificate of occupancy or a Certificate of Final Completion and Occupancy.

Foundation Drainage: Nuisance groundwater that is extracted to maintain a building's or facility's structural integrity and would otherwise be discharged to the City's sewer system. Foundation Drainage does not include Nonpotable groundwater extracted for a beneficial use that is subject to City groundwater well regulations.

Graywater: Untreated wastewater that has not been contaminated by any toilet discharge, has not been affected by infectious, contaminated, or unhealthy bodily wastes, and does not present a threat from contamination by unhealthful processing, manufacturing, or operating wastes. Graywater includes, but is not limited to, wastewater from bathtubs, showers, bathroom sinks, lavatories, clothes washing machines, and laundry tubs, but does not include wastewater from kitchen sinks or dishwashers. Graywater does not include Blackwater.

Graywater Ready: A design criteria for a structure's plumbing system that provides a noninvasive pathway to install a graywater treatment and reuse system at a later date. In a Graywater Ready home, for example, it will be possible to install an NSF 350 System without altering the in-wall or in-ground plumbing and electrical infrastructure.

Hot Water Recirculation System: A Hot Water System that uses the hot water return line and/or supply line connected to a water heater to enable continuous delivery of hot water to fixtures.

Hot Water System: A system that distributes hot water, consisting of a water heater, piping, and related equipment and devices.

Multi-family Residential: A residential building that contains three or more dwelling units.

New Development: Buildings and structures that have not received initial design approval from the Planning Department or a building permit from the Building Department prior to January 1, 2020.

Nonpotable Water: Water collected from Alternate Water Sources, treated, and intended to be used onsite for direct beneficial use.

Nonpotable Water Engineering Report: Report submitted by project applicant to the Director describing the Alternate Water Source System in accordance with the rules and regulations adopted by the City.

Nonpotable Water System: The same meaning as Alternate Water Source System.

Nonresidential: A building that contains occupancies other than dwelling units. For the purposes of this ordinance, hotels, motels, institutional housing (such as hostels and dormitories), hospitals, and night shelters are considered nonresidential.

NSF 350 System: Any treatment system certified to meet NSF/ANSI Standard 350 for Onsite

Residential and Commercial Reuse Treatment Systems, as amended from time to time.

Open Cooling Tower: An open, or direct contact, cooling tower which exposes water directly to the cooling atmosphere, thereby transferring the source heat load from the water directly to the air by a combination of heat and mass transfer.

Onsite Treated Nonpotable Water: Nonpotable Water that has been collected, treated, and intended to be used onsite and is suitable for direct beneficial use.

Onsite Treated Nonpotable Water Program: Program established by the Director for Onsite Treated Nonpotable Water systems including rules and regulations regarding the operation of Alternate Water Source Systems necessary to effectuate the purposes of this ordinance and to protect public health and safety.

Permittee: Owner or operator of an Onsite Treated Nonpotable Water system.

Rainwater: Precipitation collected from roof surfaces or other manmade, aboveground collection surfaces.

Recycled Water: Water that has been reclaimed from wastewater for beneficial use as defined by Title 22 of the California Code of Regulations.

Residential: A building that contains residential dwelling units including single-family or multi-family housing units and mobile homes.

Single-family Residential: A residential building that contains one or two dwelling units.

Stormwater: Precipitation collected from at-grade or below grade surfaces.

Water Budget: The calculation of the potential volume of onsite Alternate Water Sources and demands of a development project and any other building subject to this ordinance.

Water Budget Calculator: The water use calculation application approved by the Director that provides for the assessment of a proposed onsite water system, Alternate Water Sources, and the end uses of the Alternate Water Sources.

Water Budget Documentation: An in-depth assessment of the project applicant's Nonpotable Water use, including survey information, water meter readings, water service billing information, Alternate Water Source schematic drawings, or any other information deemed necessary by the Director.

SECTION 3. The City Council hereby adds a new Chapter [] (Water Efficient New Development) to Title [] of the City of [] Municipal Code to read as follows:

{CODE SECTION} 1. APPLICABILITY.

A. This chapter shall apply to all New Development in the City of [].

B. **Exception.** The Director may exempt a covered New Development project from some or all provisions of this chapter upon determination that sufficient practical challenges exist making compliance with the provisions infeasible. The project applicant is responsible for demonstrating infeasibility of compliance with the provisions when applying for exemption.

{CODE SECTION} 2. REQUIREMENTS.

{CODE SECTION} 2.1. REQUIREMENTS FOR SINGLE-FAMILY RESIDENTIAL BUILDINGS.

A. **Single-Family Residential Water Waste Reduction when Heating Water**. Section 110.3(c) of the California Code of Regulations Title 24, Part 6 ("Building Energy Efficiency Standards"), related to mandatory requirements for service water-heating systems and equipment, is hereby amended to add the following Section 110.3(c)7:

7. **Single-Family Residential New Development.** Single-family Residential New Development must meet either A or B:

A. **Compact Hot Water Distribution System.** Meet the criteria of the Building Energy Efficiency Standards related to the HERS-Verified Compact Hot Water Distribution System Expanded Credit as specified in the Reference Appendix RA4.4.16. If a Single-family Residential New Development is using the prescriptive compliance approach to demonstrate compliance with the Building Energy Efficiency Standards, such compact hot water distribution system may also be used to satisfy the requirement options related to compact hot water distribution systems as specified in Section 150.1(c)8.

B. **Hot Water System Volume Limit.** The hot water system shall not allow more than 0.125 gallons of water to be delivered to any fixture before hot water arrives. If a hot water recirculation system or electric trace heating system is used to comply with Section 110.3(c)7B, the branch from the recirculating loop or electric trace heating element to the fixture shall contain a maximum of 0.125 gallons. For reference, this volume limitation equates to branch runs no longer than approximately 22' of 3/8" nominal pipe size, 12' of 1/2" nominal pipe size, or 5.5' of 3/4" nominal pipe size.

i. **Demand Hot Water Recirculation System with Manual Control.** Hot water recirculation systems used to comply with Section 110.3(c)7B shall not be controlled solely by timers and shall only be demand systems with manual control, in compliance with the Building Energy Efficiency Standards requirements related to HERS-Verified Demand Recirculation with Manual Control as specified in the Reference Appendix RA4.4.17, RA3.6.6, and RA4.4.9. and as required by the prescriptive compliance approach as specified in Section 150.1(c)8.

ii. **Drain Water Heat Recovery System.** Hot water systems pursuing compliance under Section 110.3(c)7B using a demand hot water recirculation system with manual control shall also include a drain water heat recovery system on the master bathroom shower, installed in an Equal Flow Configuration and in compliance with the Building Energy Efficiency Standards requirements related

to HERS-Verified Drain Water Heat Recovery System as specified in the Reference Appendix RA4.4.21. If a Single-family Residential New Development is using the prescriptive compliance approach to demonstrate compliance with the Building Energy Efficiency Standards, such drain water heat recovery system may also be used to satisfy the requirement options related to drain water heat recovery systems as specified in Section 150.1(c)8.

EXCEPTION to Section 110.3(c)7: Stand-alone tubs.

B. **Single-Family Residential Graywater Ready Collection and Distribution System**. All new Single-family Residential units shall be built Graywater Ready in compliance with Chapter 15 of the California Plumbing Code. The components of a Graywater system shall be labeled in compliance with Chapter 6, Section 601.3, of the California Plumbing Code.

1. **Applicability.** This Section 2.1.B shall apply to the installation of Graywater Collection and Distribution Systems at new Single-family Residential units.

2. **Development Project Requirements.** Graywater Ready Single-family Residential units must include the following:

(a) Dedicated Graywater collection plumbing, which must:

i. Capture water from a sufficient number of fixtures to meet the landscape water demand of the Single-family Residential unit, specifically, water from showers, baths, lavatory sinks, and laundry washing machines. The landscape water demand shall be calculated in accordance with Model Water Efficient Landscape Ordinance as adopted in [municipal code section];

ii. Convene each source in the location on the property designated to accommodate future non-invasive installation of a treatment system; and

iii. Reconverge with the home's Blackwater collection system prior to flowing to the municipal sewer system.

(b) Dedicated locations on the property to accommodate future non-invasive installation of:

i. A complete Graywater treatment system;

ii. A storage tank for treated Graywater with a capacity of at least 175 gallons; and

iii. A surge tank with overflow protection to hold Graywater for no longer than 24 hours while Graywater is draining by gravity or by pump into the landscape.

(c) Dedicated distribution plumbing for treated Graywater, so that potable water can be disconnected in the future when appropriately treated Graywater is available, which must include:

i. Dedicated supply feeds capable of providing treated Graywater to each landscape irrigation system on the property (for example, front yard and back yard).

(d) Other requirements for the Single-family Residential unit to be Graywater Ready, including:

i. A hose bib with potable water within 15 feet of each point where the Graywater system exits the envelope of the home; and

ii. A dedicated 20-amp, 120-volt electrical circuit with GFCI breaker within 5 feet of each point where the Graywater system exits the envelope of the home.

3. **Exceptions.**

(a) Additions and alterations of existing buildings that use the existing building drain(s) are exempted from this Section 2.1.B.

(b) Sites with irrigated landscape area not exceeding 500 square feet are exempted from this Section 2.1.B.

C. **Single-Family Residential Onsite Treated Nonpotable Water Systems.**

1. **Applicability.** This Section 2.1.C shall apply to the voluntary installation and operation of Alternate Water Source Systems at Single-family Residential units. This section shall not apply to Graywater systems where Graywater is collected solely for subsurface irrigation and does not require treatment and that are regulated by Chapter 15 (commencing with Section 1501.0) of the California Plumbing Code (Part 5 of Title 24 of the California Code of Regulations), as determined by the Director, or Rainwater systems where Rainwater is collected solely for subsurface irrigation, drip irrigation, or non-sprinkled surface applications and does not require treatment and that are regulated by Chapter 16 (commencing with Section 1601.0) of the California Plumbing Code (Part 5 of Title 24 of the California Code of Regulations), as determined by the Director.

2. **Regulation of Alternate Water Sources.**

(a) Any person or entity who installs and operates an Alternate Water Source System shall comply with this ordinance, the rules and regulations adopted by the California Department of Public Health, and all applicable local, state, and federal laws. Alternate Water Source Systems shall be designed and built in compliance with Title 17 and Title 22 of the California Code of Regulations, Chapter 15 of the California Plumbing Code and labeled in compliance with Chapter 6, Section 601.3, of the California Plumbing Code.

(b) **Onsite Treated Nonpotable Water Program.** Within ninety (90) days after passage of this ordinance, the Director shall establish a program for Onsite Treated Nonpotable Water systems including rules and regulations regarding the operation of Alternate Water Source Systems necessary to effectuate the purposes of this ordinance and to

protect public health and safety. This Onsite Treated Nonpotable Water Program shall include the risk-based water quality standards established by the California State Water Resources Control Board and shall address, at a minimum:

i. Water quality criteria, including risk-based log reduction targets for the removal of pathogens such as enteric viruses, parasitic protozoa, and enteric bacteria for Nonpotable Water sources, Graywater, Rainwater, Stormwater, and Blackwater, and nonpotable end uses, toilet and urinal flushing, clothes washing, irrigation, and dust suppression;

ii. Water quality monitoring requirements, including content and frequencies;

iii. Reporting requirements for the water quality monitoring results, including content and frequencies;

iv. Notification and public information requirements;

v. Cross-connection controls; and

vi. Operation and maintenance requirements.

(c) The Director shall review applications for Alternate Water Source Systems and may issue or deny such applications, in accordance with applicable laws and regulations.

(d) The relevant City departments shall review plans and issue or deny permits for the construction, installation, or modification of Alternate Water Source Systems, in accordance with applicable laws and regulations.

3. **Project Applicant and/or Permittee Design and Construction Requirements.**

(a) Prior to initiating installation of any Alternate Water Source project, project applicants shall submit to the Director an application for permits to operate Alternate Water Source Systems. Such applications shall comply with the requirements of this ordinance and any regulations the Director has issued. Project applicants shall pay a non-refundable permit application fee to cover the costs of investigation and processing the application and issuing the permit. Each project application submitted to the Director shall include a Nonpotable Water Engineering Report that provides project information determined by the Director to be necessary for complete review of the proposed project. City departments may not approve or issue permits for any site installing an Alternate Water Source System unless and until the Director has approved the Nonpotable Water Engineering Report.

(b) **System Design.** All buildings using Nonpotable Water from Alternate Water Source Systems shall include:

i. A flow meter on the nonpotable distribution system to account for Nonpotable Water use;

ii. A reduced pressure backflow assembly (RP) within twenty-five (25) feet of the downstream side of the point of connection or meter to protect the City's public water and/or Recycled Water system;

iii. Signage that state law and the Department of Public Health's rules and regulations require;

iv. Cross connection control in accordance with Titles 17 and 22 of the California Code of Regulations;

v. Any other requirements the Director determines are necessary to protect public health.

(c) **Plumbing Permit.** A project applicant shall obtain from the Department of Building Inspection an appropriate plumbing permit and any other building or installation permit required to construct, install, and/or alter an Alternate Water Source System.

(d) **Encroachment Permit.** A project applicant shall obtain from the Department of Public Works appropriate authorization for placement of any pipelines or other portions of an Alternate Water Source System within the public right-of-way.

(e) **Construction Certification Letter.** Project applicants shall certify to the Director that Alternate Water Source System construction is complete and consistent with the approved Nonpotable Water Engineering Report in accordance with the provisions of this ordinance and any implementing rules and regulations. City departments may not approve or issue a First Certificate of Occupancy or approval for any Alternate Water Source System until the Director has reviewed and verified the Construction Certificate Letter.

4. **Fees.**

(a) The non-refundable application fees for Alternate Water Source System permits are:

i. Rainwater: $

ii. NSF 350 systems: $

iii. Foundation Drainage: $

iv. Graywater: $

v. Blackwater: $

vi. Transfer of any permit: $

(b) The fees set forth in this Section 2.1.C.4 may be adjusted each year, without further action by the City Council.

Not later than April 1, the Director shall report to the Controller the revenues generated by the fees for the prior fiscal year and the prior fiscal year's costs of operation, as well as any other information that the Controller determines appropriate to the performance of the duties set forth in the Section.

Not later than May 15, the Controller shall determine whether the current fees produce, or are projected to produce, revenues sufficient to support the costs of providing the services for which the fees are assessed and that the fees will not produce revenue that exceeds the reasonable costs of providing the services for which the fees are assessed.

The Controller shall if necessary, adjust the fees upward or downward for the upcoming fiscal year as appropriate to ensure that the program recovers the costs of operation without producing revenue that exceeds the reasonable costs of providing the services for which the fees are assessed. The adjusted rates shall become operative on July 1.

5. **Operating Requirements.** When the Director determines the applicant has satisfied all the requirements of this Section 2.1.C, the Director may issue an operations permit for an Alternate Water Source System. Permittees shall timely submit all water quality monitoring information required by the provisions of this ordinance and the rules and regulations of the California Department of Public Health and California State Water Resources Control Board. Permittees shall conduct ongoing backflow prevention and cross connection testing in accordance with this ordinance, the rules and regulations of the California Department of Public Health and California State Water Resources Control Board, and all applicable local, state, and federal laws.

6. **Nonpotable Water Use Audits.** When required by the Director, the Permittee or property owner shall conduct a Nonpotable Water use audit describing the extent of Nonpotable Water use in accordance with the requirements provided by the Director.

7. **Sale or Transfer.** Permittees shall notify the Director of any intent to sell or transfer the building or facility containing an Alternate Water Source System within thirty (30) days following the sale or transfer of property, in accordance with regulations adopted by the Director.

8. **Inspection and Notices of Violation.** The Director may inspect any Alternate Water Source System subject to the requirements of this Section 2.1.C to determine compliance with the provisions of this ordinance and applicable regulations.

9. **Violation and Penalties.** Any Permittee or person otherwise subject to the requirements of this Section 2.1.C who violates any provision of this Section 2.1.C or any applicable rule or regulation shall be subject to enforcement of relevant administrative penalties. The Director may impose administrative penalties and may pursue any other legal remedies for such violations.

10. **Revocation and Suspension of Permit.** The Director may order a Permittee to cease operation of an Alternate Water Source System or may revoke or suspend the permit to operate if the Director determines that:

(a) The manager, operator, or any employee has violated any provision of this Section 2.1.C or any regulation issued pursuant to this Section 2.1.C;

(b) The Alternate Water Source System is being operated or maintained in a manner threatening the public health or health of patrons and/or residents;

(c) The owner or operator has refused to allow any duly authorized City official to inspect the premises or the operations of the Alternate Water Source System; or

(d) The California State Water Resources Control Board has directed such action.

D. **Use of Recycled Water for Single-Family Residential Common Landscaping.** All new Single-family Residential units with landscaping provided by a water meter serving three or more homes that is managed by a homeowners' association or other association or entity shall be irrigated with Recycled Water if Recycled Water is available within 200 feet of the property line. If Recycled Water is planned to be made available to the development within ten years from the date of building permit issuance or is within the adopted Recycled Water project area, a system shall be constructed that will enable Recycled Water to be easily connected to the irrigation system once the Recycled Water supply is available within 200 feet of the property line, locating irrigation system plumbing such that the system can be supplied near the anticipated point of connection to the future Recycled Water system, ensuring there are no cross-connections between Recycled Water and potable water supplies, and using irrigation system components suitable for use with Recycled Water.

Alternate Water Source Systems shall be labeled in compliance with Chapter 6, Section 601.3, of the California Plumbing Code.

{CODE SECTION} 2.2. REQUIREMENTS FOR MULTI-FAMILY RESIDENTIAL BUILDINGS AND NONRESIDENTIAL BUILDINGS.

A. **Multi-Family and Nonresidential Exterior Faucet Locks**. Locks shall be installed on all publicly accessible exterior faucets and hose bibs.

B. **Water Meters to Measure Indoor Water Use.** For new buildings or additions with a total gross floor area of 50,000 square feet or more, separate water meters or submeters shall be installed to measure indoor water use as follows:

1. For each individual leased, rented, or other tenant space within the building projected to consume more than 100 gallons per day (380 L/day).

2. For each building that uses more than 100 gallons per day (380 L/day) on a parcel containing multiple buildings.

3. Where potable water is used for industrial/process uses, for water supplied to the following subsystems:

(a) Makeup water for cooling towers where flow through is greater than 500 gpm (30 L/s);

(b) Makeup water for evaporative coolers greater than 6 gpm (0.04 L/s); and

(c) Steam and hot-water boilers with energy input more than 500,000 Btu/h (147 kW).

C. **Cooling Towers**. All newly constructed cooling towers shall include devices to capture and reuse the blowdown water discharged from the cooling tower, operated in accordance with Section 2.2.D of this ordinance. Plumbing to facilitate the use of Alternate Water Sources shall be labeled in compliance with Chapter 6, Section 601.3, of the California Plumbing Code.

D. **Use of Alternate Water Sources for Multi-family and Nonresidential Buildings**. All new Multi-family Residential and Nonresidential structures shall include dual plumbing systems that facilitate and maximize the use of Alternate Water Sources for use in irrigation, toilet flushing, cooling towers, and other uses suitable for Nonpotable Water as allowed by the appropriate agencies in compliance with the following:

1. If Recycled Water is available within 200 feet of the property line or if the Director has determined that it is reasonably available, 100 percent of water for toilets, urinals, floor drains, and process cooling and heating in that building shall come from Recycled Water. Plumbing to facilitate the use of Alternate Water Sources shall be labeled in compliance with Chapter 6, Section 601.3, of the California Plumbing Code.

2. If Recycled Water is planned to be made available to the development within ten years from the date of building permit issuance or the development is within the adopted Recycled Water project area, the development may meet the requirements of this Section 2.2.D solely by building out the dual plumbing distribution system to the anticipated point of connection to the future Recycled Water system. Plumbing to facilitate the use of Alternate Water Sources shall be labeled in compliance with Chapter 6, Section 601.3, of the California Plumbing Code.

3. **Onsite Treated Nonpotable Water Systems.** If Recycled Water is not available to the development and is not anticipated to be made available to the development within ten years, the development shall install onsite water collection and treatment systems to capture, collect, treat, and distribute Graywater, Rainwater, and Stormwater runoff. The use of treated Blackwater may be allowed by the Director.

   (a) **Applicability.** This Section 2.2.D.3 shall apply to the installation and operation of Alternate Water Source Systems at new development projects with a total gross floor area of [] square feet or more and to the voluntary installation and operation of Alternate Water Source Systems at sites containing Multi-family Residential and Nonresidential buildings. This Section 2.2.D.3 shall not apply to systems at Single-family Residential occupancies, Graywater systems where Graywater is collected solely for subsurface irrigation and does not require treatment and that are regulated by Chapter 15 (commencing with Section 1501.0) of the California Plumbing Code (Part 5 of Title 24 of the California Code of Regulations), as determined by the Director, or Rainwater systems where Rainwater is collected solely for subsurface irrigation, drip irrigation, or non-sprinkled surface applications and does not require treatment and that are regulated by Chapter 16 (commencing with Section 1601.0) of the California Plumbing Code

(Part 5 of Title 24 of the California Code of Regulations), as determined by the Director.

(b) **Development Project Requirements.**

i. All toilet and urinal flushing and irrigation demands shall be met through the collection and reuse of available onsite Rainwater, Graywater, and Foundation Drainage, to the extent required by application of the Water Budget Documentation developed for each project.

ii. Project applicants shall use the Water Budget Calculator, as provided by the Onsite Treated Nonpotable Water Program established by the Director, to prepare a Water Budget assessing the amount of Rainwater, Graywater, and Foundation Drainage produced onsite, and the planned toilet and urinal flushing and irrigation demands.

iii. If, based on the Water Budget Documentation, the available supply from onsite sources exceeds the demands for toilet and urinal flushing and irrigation, 100% of those demands shall be met by using the available onsite sources. If, based on the Water Budget Documentation, the available supply from onsite sources is less than the demands for toilet and urinal flushing and irrigation, 100% of the available onsite supply shall be used to meet the demands for toilet and urinal flushing and irrigation. Available Blackwater or Stormwater supplies may be used instead of, or in addition to Rainwater, Graywater, and Foundation Drainage to meet the available onsite supply requirements calculated in accordance with the Water Budget Documentation requirements.

iv. **Additional Requirements for District Systems.** All District Systems shall conform to the following requirements, subject to the Director's determination, is his or her sole discretion, that an exception to any of such requirements will fulfill the purposes and objectives of this ordinance. Where a District System complies with the requirements in Section 2.2.D.3(b)iv.1 through 2.2.D.3(b)iv.4, including any exceptions approved by the Director, individual development projects within the District shall not be required to demonstrate compliance as long as the individual development projects are provided service by the approved District System.

1. In addition to preparation of the Water Budget, project applicants for District Systems shall submit implementation plans for review and approval, in accordance with the rules and regulations of the Onsite Treated Nonpotable Water Program established by the Director.

2. District Systems shall be operated by a single Permittee having sole control of operations of all of its facilities, including but not limited to treatment and distribution facilities. District Systems shall be constructed in accordance with all applicable standards and specifications set by the water service provider, sewer service provider, and/or any authority having jurisdiction.

3. District Systems and development projects shall not provide Nonpotable Water to water users or for purposes located outside the boundaries of the District or approved development project, except when the water users or other purposes are located on property contiguous to, or across a public right of way from, the boundaries of the District or approved development project, and the total amount of Nonpotable Water produced by the Alternate Water Source System will not exceed 125% of the District System's or approved development project's Nonpotable Water demands for toilet and urinal flushing and irrigation, as determined by the approved Water Budget Documentation.

4. For District Systems, the ongoing operation and maintenance responsibilities of the responsible party shall be held by the owner of the common areas within the District development project and may be transferred to a homeowners' association or similar entity that maintains the common areas within the District development project.

v. The Director may approve alternate District Systems that will achieve compliance with the purposes and objectives of this ordinance, in accordance with the rules and regulations of the Onsite Treated Nonpotable Water Program established by the Director. Alternative District Systems may include, but are not limited to, water purchase agreements.

vi. City departments shall not issue an encroachment permit, a site permit, or a plumbing permit for a project, or approve a Nonpotable Water Engineering Report, prior to the Director's determination that the Water Budget Documentation has been prepared in accordance with the rules for Water Budget calculations in the Onsite Treated Nonpotable Water Program established by the Director.

vii. **Subdivision Approvals.**

1. **Parcel Map or Tentative Subdivision Map Conditions.** The Director of Public Works shall not approve a parcel map or tentative subdivision map for any property unless a condition is imposed requiring compliance with this ordinance to serve the potential uses of the property covered by the parcel map or tentative subdivision map, as specified in the provisions of this ordinance.

2. **Subdivision Regulations.** The Director of Public Works shall adopt regulations consistent with, and in furtherance of this ordinance.

3. **Final Maps.** The Director of Public Works shall not endorse and file a final map for property within the boundaries of the City without first determining that the subdivider has complied with the conditions imposed on the parcel map or tentative subdivision map pursuant to this ordinance and for any such conditions not fully satisfied prior to the recordation of the final map, the subdivider has signed a certificate of

agreement and/or improvement agreement, to ensure compliance with such conditions.

4. This Section 2.2.D.3(b)vii shall not apply to parcel maps or tentative subdivision maps submitted solely for the purposes of condominium conversion.

viii. In the event that a privately owned Alternate Water Supply System approved by the Director is subsequently determined by the California Public Utilities Commission to be subject to that agency's jurisdiction and regulation, the City may, with the consent of the affected owner, acquire and operate the facilities.

(c) **Regulation of Alternate Water Sources.**

i. Any person or entity who installs and operates an Alternate Water Source System shall comply with this ordinance, the rules and regulations adopted by the California Department of Public Health, and all applicable local, state, and federal laws. Alternate Water Source Systems shall be designed and built in compliance with Title 17 and Title 22 of California Code of Regulations, Chapter 15 of the California Plumbing Code and labeled in compliance with Chapter 6, Section 601.3, of the California Plumbing Code.

ii. **Onsite Treated Nonpotable Water Program.** Within ninety (90) days after passage of this ordinance, the Director shall establish a program for Onsite Treated Nonpotable Water systems including rules and regulations regarding the operation of Alternate Water Source Systems necessary to effectuate the purposes of this ordinance and to protect public health and safety. This Onsite Treated Nonpotable Water Program shall include the risk-based water quality standards established by the California State Water Resources Control Board and shall address, at a minimum:

1. Water quality criteria, including risk-based log reduction targets for the removal of pathogens such as enteric viruses, parasitic protozoa, and enteric bacteria for Nonpotable Water sources, Graywater, Rainwater, Stormwater, and Blackwater, and nonpotable end uses, toilet and urinal flushing, clothes washing, irrigation, and dust suppression;

2. Water quality monitoring requirements, including content and frequencies;

3. Reporting requirements for the water quality monitoring results, including content and frequencies;

4. Notification and public information requirements;

5. Cross-connection controls; and

6. Operation and maintenance requirements.

iii. The Director shall review applications for Alternate Water Source Systems and may issue or deny such applications, in accordance with applicable laws and regulations.

iv. The relevant City departments shall review plans and issue or deny permits for the construction, installation, or modification of Alternate Water Source Systems, in accordance with applicable laws and regulations.

(d) **Project Applicant and/or Permittee Design and Construction Requirements.**

i. Prior to initiating installation of any Alternate Water Source project, project applicants shall submit to the Director an application for permits to operate Alternate Water Source Systems. Such applications shall comply with the requirements of this ordinance and any rules and regulations of the Onsite Treated Nonpotable Water Program established by the Director. Project applicants shall pay a non-refundable permit application fee to cover the costs of investigation and processing the application and issuing the permit. Each project application submitted to the Director shall include a Nonpotable Water Engineering Report that provides project information determined by the Director to be necessary for complete review of the proposed project. City departments may not approve or issue permits for any site installing an Alternate Water Source System unless and until the Director has approved the Nonpotable Water Engineering Report.

The Nonpotable Water Engineering Report for District Systems must include information on the permanent legal agreements between property owners and provide documentation that each party is a willing and responsible participant in the District Nonpotable Water use.

ii. **System Design.** All buildings using Nonpotable Water from Alternate Water Source Systems shall include:

1. A flow meter on the nonpotable distribution system to account for Nonpotable Water use;

2. A reduced pressure backflow assembly (RP) within twenty-five (25) feet of the downstream side of the point of connection or meter to protect the City's public water and/or Recycled Water system;

3. Signage that state law and the California Department of Public Health's rules and regulations require;

4. Cross connection control in accordance with Titles 17 and 22 of the California Code of Regulations;

5. Any other requirements the Director determines are necessary to protect public health.

iii. **Plumbing Permit.** A project applicant shall obtain from the Department of Building Inspection an appropriate plumbing permit and any other building or installation permit required to construct, install, and/or alter an Alternate Water Source System. Each parcel within a District shall obtain appropriate plumbing and any other building or installation permits required.

iv. **Encroachment Permit.** A project applicant shall obtain from the Department of Public Works appropriate authorization for placement of any pipelines or other portions of an Alternate Water Source System within the public right-of-way.

v. **Construction Certification Letter.** Project applicants shall certify to the Director that Alternate Water Source System construction is complete and consistent with the approved Nonpotable Water Engineering Report in accordance with the provisions of this ordinance and any implementing rules and regulations. City departments may not approve or issue a First Certificate of Occupancy or approval for any Alternate Water Source System until the Director has reviewed and verified the Construction Certificate Letter.

(e) **Fees.**

i. The non-refundable application fees for Alternate Water Source System permits are:

1. Rainwater: $
2. NSF 350 systems: $
3. Foundation Drainage: $
4. Graywater: $
5. Blackwater: $
6. Transfer of any permit: $
7. District Scale, the applicable amount above, plus: $ per hour for plan review and/or onsite inspection

ii. The fees set forth in this Section 4.2.D.3(e) may be adjusted each year, without further action by the City Council.

Not later than April 1, the Director shall report to the Controller the revenues generated by the fees for the prior fiscal year and the prior fiscal year's costs of operation, as well as any other information that the Controller determines appropriate to the performance of the duties set forth in this Section 2.2.D.

Not later than May 15, the Controller shall determine whether the current fees produce, or are projected to produce, revenues sufficient to support the costs of providing the services for which the fees are assessed and that the fees will not

produce revenue that exceeds the reasonable costs of providing the services for which the fees are assessed.

The Controller shall if necessary, adjust the fees upward or downward for the upcoming fiscal year as appropriate to ensure that the program recovers the costs of operation without producing revenue that exceeds the reasonable costs of providing the services for which the fees are assessed. The adjusted rates shall become operative on July 1.

4. **Operating Requirements.** When the Director determines the applicant has satisfied all the requirements of this Section 2.2.D, the Director may issue an operations permit for an Alternate Water Source System. Permittees shall timely submit all water quality monitoring information required by the provisions of this ordinance and the rules and regulations of California Department of Public Health and the California State Water Resources Control Board. Permittees shall conduct ongoing backflow prevention and cross connection testing in accordance with this ordinance, the rules and regulations of the California Department of Public Health and California State Water Resources Control Board, and all applicable local, state, and federal laws.

5. **Nonpotable Water Use Audits.** When required by the Director, the Permittee or property owner shall conduct a Nonpotable Water use audit describing the extent of Nonpotable Water use in accordance with the requirements provided by the Director.

6. **Sale or Transfer.** Permittees shall notify the Director of any intent to sell or transfer the building or facility containing an Alternate Water Source System within thirty (30) days following the sale or transfer of property, in accordance with regulations adopted by the Director.

7. **Inspection and Notices of Violation.** The Director may inspect any Alternate Water Source System subject to the requirements of this Section 2.2.D to determine compliance with the provisions of this ordinance and applicable regulations.

8. **Violation and Penalties.** Any Permittee or person otherwise subject to the requirements of this Section 2.2.D who violates any provision of this Section 2.2.D or any applicable rule or regulation shall be subject to enforcement of relevant administrative penalties. The Director may impose administrative penalties and may pursue any other legal remedies for such violations.

9. **Revocation and Suspension of Permit.** The Director may order a Permittee to cease operation of an Alternate Water Source System, may revoke or suspend the permit to operate, and/or may terminate the operation of, and modify to render inoperable an Alternate Water Source System, if the Director determines that:

   (a) The manager, operator, or any employee has violated any provision of this Section 2.2.D or any regulation issued pursuant to this Section 2.2.D;

   (b) The Alternate Water Source System is being operated or maintained in a manner threatening the public health or health of patrons and/or residents;

(c) The owner or operator has refused to allow any duly authorized City official to inspect the premises or the operations of the Alternate Water Source System; or

(d) The California State Water Resources Control Board has directed such action.

10. **Exceptions.**

(a) Additions that use any part of the existing plumbing piping system are exempted from this Section 2.2.D.

(b) Alterations that do not include replacing all of the potable water piping are exempted from this Section 2.2.D.

(c) Mental hospitals or other facilities operated by a public agency for the treatment of persons with mental disorders are exempted from this Section 2.2.D.

(d) Where Recycled Water quality has been deemed unsuitable by the Director for a particular fixture or equipment, the fixture and/or equipment shall be dual-plumbed for future connection.

{CODE SECTION} 2.3. REQUIREMENTS FOR COMMERCIAL FACILITIES.

A. **Use of Manually Operated Toilets in Commercial Facilities.** Toilets and urinals in commercial facilities shall not have sensor or automatic flush valves and instead shall have manually operated flush mechanisms.

B. **Use of Manually Operated Faucets in Commercial Facilities.** Faucets in commercial facilities shall not have automatic sensors installed and instead shall have manually operated handles, which may include metering faucets.

1. **Exceptions.** Hospitals and airports are exempted from this Section 2.3.B.

C. **Water Efficiency in Commercial Kitchens.** All new and replacement commercial dishwashers, food steamers, combination ovens, and food waste pulping systems must comply with water efficiency standards as defined in the 2019 California Green Building Standards Code, Part 11, Section A5.303.3 – Appliances and fixtures for commercial application. These standards are mandatory for the purposes of this provision.

{CODE SECTION 2.4. REQUIREMENTS RELATED TO SALE AND INSTALLATION OF COMPLIANT FIXTURES AND FITTINGS.

A. **Retail Establishments Selling Compliant Fixtures and Fittings.** All stores, outlets and other retails establishments shall only offer for sale plumbing fixtures and fittings that are in compliance with California appliance water efficiency standards. Model numbers of plumbing fixtures and fittings offered for sale must be listed in the California Energy Commission Appliance Efficiency Database.

B. **Plumbers, Contractors, and Service Providers Installing Compliant Fixtures and Fittings**. All plumbers, contractors, and other service providers shall not install any plumbing fixtures or other devices that are not in compliance with California appliance water efficiency standards. Model numbers of plumbing fixtures and fittings installed by plumbers, contractors, and service providers must be listed in the California Energy Commission Appliance Efficiency Database.

{CODE SECTION} 2.5. REQUIREMENTS RELATED TO LANDSCAPE IRRIGATION AND POOL AND SPA COVERS FOR RESIDENTIAL AND NONRESIDENTIAL PROPERTIES.

Requirements in this provision may be addressed in [Water Efficient Landscape Ordinance adopted by jurisdiction]. In any instances of conflicting requirements, the more stringent requirement shall prevail. (*Jurisdictions may wish to edit this provision prior to adoption to more closely align with the specific Water Efficient Landscape Ordinance adopted by jurisdiction.*)

A. **Water Meters for Landscape Irrigation.** A landscape water meter shall be installed for landscape irrigation for the following:

1. When required by the California Department of Water Resources Model Water Efficient Landscape Ordinance or local water efficient landscape ordinance;

2. Additions and alterations, with a valuation of $200,000 or more, where the entire potable water system is replaced, including all underground piping to the existing meter; and

3. Landscaped areas shall have flow sensors or hydrometers, regardless of being metered separately.

B. **Irrigation Controllers.** In new construction or building additions or alterations with over 500 square feet of cumulative landscaped area, install irrigation controllers and sensors which include the following criteria:

1. Controllers shall be weather- or soil moisture-based controllers that automatically adjust irrigation in response to changes in plants' needs as weather conditions change.

2. Weather-based controllers without integral rain sensors or communication systems that account for local rainfall shall have a separate wired or wireless rain sensor that connects or communicates with the controller(s). Soil moisture-based controllers are not required to have rain sensor input.

3. **Exception.** For new residential construction, manual irrigation is also permitted.

C. **Irrigation System.** In landscaped areas, irrigation nozzles shall have a maximum precipitation rate of one inch per hour.

D. **Irrigation Audits.** For newly constructed landscaped areas, the local agency shall administer an irrigation audit to verify that the irrigation system complies with regulations, as well as to identify potential deficiencies and assure that corrections have been made. If corrections are needed, these must be addressed prior to approval of the new construction.

E. **Swimming Pool and Spa Covers.** Swimming pools and spas must be in compliance with the 2019 Building Energy Efficiency Standards for Part 6 of Title 24 of the California Code of Regulations Section 110.4. For Single-family Residential dwellings, any permanently installed outdoor in-ground swimming pool or spa not covered by the scope of the 2019 Building Energy Efficiency Standards for Part 6 of Title 24 of the California Code of Regulations Section 110.4, including any swimming pool or spa that is non-heated or has electric resistance heating deriving at least 60 percent of the annual heating energy from site solar energy or recovered energy, shall be equipped with a cover having a manual or power-operated reel system.

1. **Exceptions.**

(a). For irregular-shaped swimming pools and spas not covered by the scope of the 2019 Building Energy Efficiency Standards for Part 6 of Title 24 of the California Code of Regulations Section 110.4, including any swimming pool or spa that is non-heated or has electric resistance heating deriving at least 60 percent of the annual heating energy from site solar energy or recovered energy, for which it is infeasible to cover 100 percent of the swimming pool or spa with a reel system due to its irregular shape, other types of covers may be allowed as determined by the Director.

(b). Additions or alterations to existing swimming pools and spas not covered by the scope of the 2019 Building Energy Efficiency Standards for Part 6 of Title 24 of the California Code of Regulations Section 110.4, including any swimming pool or spa that is non-heated or has electric resistance heating deriving at least 60 percent of the annual heating energy from site solar energy or recovered energy, with a valuation not exceeding $25,000 are exempted from this Section 2.5.E.

SECTION 4. SEVERABILITY. If any portion of this Ordinance is held to be invalid or inapplicable to any situation by a court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this Ordinance or the applicability of this Ordinance to other situations.

SECTION 5. EFFECTIVE DATE. This Ordinance and the rules, regulations, provisions, requirements, orders, and matters established and adopted hereby shall take effect and be in full force and effect from and after the expiration of ninety (90) days after the date of its adoption.

SECTION 6. POSTING AND PUBLICATION. The City Clerk is hereby directed to publish this ordinance pursuant to §36933 of the Government Code.

THE FOREGOING ORDINANCE WAS INTRODUCED AT A MEETING OF THE CITY COUNCIL HELD ON THE [] DAY OF [MONTH YEAR] AND WAS FINALLY ADOPTED AT A MEETING OF THE CITY COUNCIL HELD ON THE [] DAY OF [MONTH YEAR], AND SAID ORDINANCE WAS DULY PASSED AND ADOPTED IN ACCORDANCE WITH LAW BY THE FOLLOWING VOTE:

AYES: COUNCIL MEMBERS:

NOES: COUNCIL MEMBERS:

ABSTAIN: COUNCIL MEMBERS:

ABSENT: COUNCIL MEMBERS:

APPROVED: **DATE:**

_____ _____

NAME, Title

ATTEST: **DATE:**

_____ _____

NAME, Title

EXHIBIT A

EXPRESS FINDINGS FOR LOCAL AMENDMENTS OF BUILDING STANDARDS

Section 1.1.8 of Part 2 of Title 24 of the California Code of Regulations (California Building Standards Code) and Sections 17958 and 18941.5 of the California Health and Safety Code provide that any city, county, or city and county may make more restrictive amendments to the provisions of Title 24 of the California Code of Regulations. Sections 17958.5 and 17958.7 of the California Health and Safety Code require that for each proposed local amendment to the provisions of Title 24 of the California Code of Regulations, the local governing body must make an express finding supporting its determination that each such local amendment is reasonably necessary because of local climatic, geological, or topographical conditions. Section 101.7.1 of Part 11 of Title 24 of the California Code of Regulations, known as the California Green Building Standards Code, provides that local climatic, geological, or topographical conditions include environmental conditions as established by the city, county, or city and county.

Pursuant to Sections 17958.5 and 17958.7 of the California Health and Safety Code, the following tables summarize the provisions of the 2019 California Building Standards Code in Title 24 of the California Code of Regulations being amended by the Ordinance and the findings providing justification for each amendment.

Section of Ordinance Making Amendment	**Section of CA Code Being Amended**	**Title**	**Add, Delete, or Amend?**	**Justification (see below for key)**
{CODE SECTION} 2.1A	110.3(c) of Part 6 of Title 24	Mandatory Requirements for Service Water-Heating Systems and Equipment	Add	C

Key to Justification for Amendments to Title 24 of the California Code of Regulations

C	This amendment is justified on the basis of a local **climatic** condition. Risks such as climate change and drought could negatively affect water supply reliability in Santa Clara County. Santa Clara County is characterized by a dry climate and experiences the effects of drought and the benefits of saving water more intensely than some other communities in California. Santa Clara County's vulnerabilities to climate change include increases in seasonal irrigation demands, a decrease in imported water supplies as a result of reduced snow pack and a shift in the timing of runoff, more frequent and severe droughts, changes in surface water quality associated with changes in flows and temperature, and

	changes in imported water quality due to salinity intrusion in the delta. Temperature projections for the Bay Area show an expected increase in the frequency and intensity of heat waves that could result in a decrease in water supply and/or changes in water demands. Precipitation for the beginning of 2018 was 60% of average levels at the San Jose Index Station and significantly lower than that of the Santa Cruz Mountains, the Diablo Range and South County, with snow water equivalent for the Northern Sierra falling well below normal. It is necessary to maximize water efficiency and reduce the waste and unnecessary use of potable water in order to help ensure that water supply is capable of reliably satisfying demand while withstanding the potential and expected future drought conditions in Santa Clara County.
G	This amendment is justified on the basis of a local **geological** condition.
T	This amendment is justified on the basis of a local **topographical** condition.