

1 [Health Code - Mandatory Use of Alternate Water Supplies in New Construction]

2

3 **Ordinance amending the Health Code, Article 12C, to require that new buildings of**  
 4 **250,000 square feet or more of floor area be constructed, operated, and maintained**  
 5 **using available alternate water sources for toilet and urinal flushing and irrigation; that**  
 6 **new buildings of 40,000 square feet or more of floor area prepare water budget**  
 7 **calculations; and that subdivision approval requirements include compliance with the**  
 8 **Health Code, Article 12C; and affirming the Planning Department's determination under**  
 9 **the California Environmental Quality Act.**

10 NOTE: **Unchanged Code text and uncodified text** are in plain Arial font.  
 11 **Additions to Codes** are in *single-underline italics Times New Roman font*.  
 12 **Deletions to Codes** are in *strikethrough italics Times New Roman font*.  
 13 **Board amendment additions** are in double-underlined Arial font.  
 14 **Board amendment deletions** are in ~~strikethrough Arial font~~.  
 15 **Asterisks (\* \* \* \*)** indicate the omission of unchanged Code  
 16 subsections or parts of tables.

17 Be it ordained by the People of the City and County of San Francisco:

18

19 Section 1. The Planning Department has determined that the actions contemplated in  
 20 this ordinance comply with the California Environmental Quality Act (California Public  
 21 Resources Code Sections 21000 et seq.). Said determination is on file with the Clerk of the  
 22 Board of Supervisors in File No. \_\_\_\_ and is incorporated herein by reference. The Board  
 23 affirms this determination.

24

25 Section 2. Article 12C of the Health Code is hereby amended by revising and  
 renumbering Sections 850-861 as follows (with new section numbers in parentheses): 850  
 (12C.1), 851 (12C.2), 852 (12C.3), 853 (12C.5), 854 (12C.6), 855 (12C.7), 856 (12C.8), 857

1 (12C.9), 858 (12C.10), 859 (12C.11), 860 (12C.12), and 861 (12C.13), and adding new  
2 Section 12C.4, to read as follows:

3 **SEC. ~~850~~12C.1. PURPOSE AND FINDINGS.**

4 The Board of Supervisors finds that:

5 (a) All California water users are responsible for making effective use of the  
6 available water resources.

7 (b) The development of alternate water source systems will assist in meeting future  
8 water requirements of the City and lessen the impacts of new developments on the City's  
9 sewer system.

10 (c) Establishing a regulatory structure that provides administrative efficiency and a  
11 streamlined project approval process will assist developers who opt to design, install, operate,  
12 and maintain alternate water source systems.

13 (d) Adoption of ~~this ordinance~~ Article 12C by the Board of Supervisors and adoption of  
14 rules and regulations by the Department of Public Health will help achieve the City's goals for  
15 water supply use and preservation by:

16 (1) Promoting the values and benefits of non-potable water use while recognizing  
17 the need to invest water and other resources as efficiently as possible;

18 (2) Encouraging the use of non-potable water for non-potable applications; and

19 (3) Replacing potable water use for toilet and urinal flushing and irrigation to the  
20 maximum extent possible with alternative water sources.

21 (e) It shall be City policy that within five years of the effective date of Ordinance No. \_\_\_\_\_,  
22 adding this subsection (e) to Article 12C, the City shall use only non-potable water for the purpose of  
23 irrigating and cleaning parks, streets and other public spaces. Within one year of the effective date of  
24 that ordinance, the City Administrator, in consultation as appropriate with other City departments,  
25 boards, and commissions, including, among others, the Recreation and Park Department, Department

1 of Public Works, Port of San Francisco, San Francisco International Airport, Department of Real  
2 Estate, and Capital Planning Committee, shall study what will be required to accomplish this policy,  
3 including associated costs, and report the results of the study to the Mayor and Board of Supervisors.  
4 Upon receiving this study, the Board of Supervisors intends to evaluate any changes to the law and  
5 Capital Plan needed to implement this policy.

6 **SEC. ~~851~~12C.2. DEFINITIONS.**

7 The terms used in this Article 12C have the meaning set forth below:

8 **Alternate Water Source:** a source of non-potable water that includes Graywater,  
9 on-site treated non-potable water, Rainwater, and any other source approved by the Director.

10 **Black Water:** wastewater containing bodily or other biological wastes, as from  
11 toilets, dishwashers, kitchen sinks, and utility sinks.

12 **City:** the City and County of San Francisco.

13 **Development Project:** Construction of new buildings. Development Projects are Large  
14 Development Projects and Small Development Projects.

15 **Director:** the Director of ~~Public~~ Health or any individual designated by the Director to  
16 act on his or her behalf.

17 **District:** a group of two or more parcels that share Alternate Water Sources.

18 **First Certificate of Occupancy:** either a temporary certificate of occupancy or a  
19 Certificate of Final Completion and Occupancy as defined in San Francisco Building Code  
20 Section 109A, whichever is issued first.

21 **Foundation Drainage:** nuisance groundwater that is extracted to maintain a  
22 building's or facility's structural integrity and would otherwise be discharged to the City's sewer  
23 system. Foundation Drainage does not include non-potable groundwater extracted for a  
24 beneficial use that is subject to City groundwater well regulations.

1           **General Manager:** the General Manager of the San Francisco Public Utilities  
2 Commission, or any individual designated by the General Manager to act on his or her behalf.

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

9           **Large Development Project:** Construction of a new building with a total cumulative area of  
10 250,000 square feet or more, located within the boundaries of the Reclaimed Water Use Map  
11 designated in accordance with Sections 1203 and 1209 of the Public Works Code. To the extent  
12 allowed by law, Large Development Projects include buildings constructed and operated by any local,  
13 state, or federal government entity.

14           **Large Development Project Applicant:** The person or entity applying for authorization to  
15 construct and operate a Large Development Project.

16           **Multi-Family Residential Building:** A building that contains three or more dwelling  
17 units.

18           **Non-potable Water:** Non-potable water collected from alternate water sources,  
19 treated, and intended to be used on the Project Applicant's site or District parcels and is  
20 suitable for direct beneficial use.

21           **Non-potable Water Engineering Report:** Report submitted by Project Applicant to  
22 the Director describing the alternate water source system in accordance with the rules and  
23 regulations adopted by the Department of ~~Public~~ Health.

24           **Non-residential:** A building that contains occupancies other than dwelling units.  
25

1           **NSF 350 System:** Any treatment system certified by NSF International to meet  
2 NSF/ANSI Standard 350 for Onsite Residential and Commercial Reuse Treatment Systems,  
3 as amended from time to time.

4           **Permittee:** owner or operator of an on-site treated Non-potable Water system.

5           **Project Applicant:** the person or entity applying for authorization to install and use  
6 an Alternate Water Source project.

7           **Rainwater:** precipitation collected from roof surfaces or other manmade,  
8 aboveground collection surfaces.

9           **Small Development Project:** Construction of a new building with a total cumulative area of  
10 40,000 square feet or more, but less than 250,000 square feet. To the extent allowed by law, Small  
11 Development Projects include buildings constructed and operated by any local, state, or federal  
12 government entity.

13           **Small Development Project Applicant:** The person or entity applying for authorization to  
14 construct and operate a Small Development Project.

15           **Small Residential Building:** A building that contains no more than two dwelling  
16 units.

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

18           **Water Budget:** The calculation of the potential volume of onsite alternate water supplies and  
19 demands of a Development Project and any other building subject to this Article 12C.

20           **Water Budget Calculator:** The water use calculation application approved by the General  
21 Manager that provides for the assessment of a proposed onsite water system, alternate water sources,  
22 and the end uses of the alternate water source.

23           **Water Budget Documentation:** An in-depth assessment of the Project Applicant's  
24 non-potable water use, including survey information, water meter readings, water service  
25

1 billing information, Alternate Water Source schematic drawings, or any other information  
2 deemed necessary by the General Manager.

3 **SEC. ~~852~~12C.3. APPLICABILITY.**

4 This Article 12C shall apply to the installation and operation of the Alternate Water  
5 Source systems at Large Development Projects, and to the voluntary installation and operation of  
6 the alternate water source systems at sites containing multi-family and non-residential buildings  
7 that are not Large Development Projects. This Article does not apply to:

- 8 (a) Systems at small residential occupancies.
- 9 (b) Graywater systems where Graywater is collected solely for subsurface irrigation  
10 and does not require disinfection, as determined by the Director.
- 11 (c) Rainwater systems where Rainwater is collected solely for subsurface irrigation,  
12 drip irrigation, or non-sprinkled surface applications and does not require disinfection, as  
13 determined by the Director.

14 **SEC. 12C.4. DEVELOPMENT PROJECT REQUIREMENTS.**

15 (a) Beginning September 1, 2015, Large Development Projects shall be constructed, operated,  
16 and maintained in compliance with the following:

- 17 (1) All toilet and urinal flushing and irrigation demands shall be met through the  
18 collection and reuse of available onsite Rainwater, Graywater, and Foundation Drainage, to the extent  
19 required by application of the Water Budget Documentation developed for each Development Project.
- 20 (2) A Large Development Project Applicant shall use the Water Budget Calculator, as  
21 provided by the General Manager's rules, to prepare a Water Budget assessing the amount of  
22 Rainwater, Graywater, and Foundation Drainage produced on site, and the planned toilet and urinal  
23 flushing and irrigation demands.
- 24 (3) If, based on the Water Budget Documentation, the available supply from onsite  
25 sources exceeds the demands for toilet and urinal flushing and irrigation, 100% of those demands shall

1 be met by using the available onsite sources. If, based on the Water Budget Documentation, the  
2 available supply from onsite sources is less than the demands for toilet and urinal flushing and  
3 irrigation, 100% of the available onsite supply shall be used to meet the demands for toilet and urinal  
4 flushing and irrigation. Available Black Water or Stormwater supplies may be used instead of, or in  
5 addition to Rainwater, Graywater, and Foundation Drainage to meet the requirements of this  
6 subsection.

7 (4) Small Development Project Applicants shall use the Water Budget Calculator, as  
8 provided by the General Manager's rules, to prepare a Water Budget assessing the amount of  
9 Rainwater, Graywater, and Foundation Drainage produced on site, and the planned toilet and urinal  
10 flushing and irrigation demands.

11 (5) City departments shall not issue an encroachment permit, a site permit, or plumbing  
12 permit for a Large Development Project or a Small Development Project, or approve a Non-potable  
13 Water Engineering Report, prior to the General Manager's determination that the Water Budget  
14 Documentation has been prepared in accordance with the General Manager's rules for Water Budget  
15 calculations.

16 (b) Subdivision Approvals.

17 (1) Parcel Map or Tentative Subdivision Map Conditions. The Director of Public Works  
18 shall not approve a tentative subdivision map or a parcel map for any property unless a condition is  
19 imposed requiring compliance with this Article 12C to serve the potential uses of the property covered  
20 by the parcel map or tentative subdivision map, as specified in the provisions of this Article.

21 (2) Subdivision Regulations. The Director of Public Works shall adopt regulations  
22 consistent with, and in furtherance of this Article 12C.

23 (3) Final Maps. The Director of Public Works shall not endorse and file a final map for  
24 property within the boundaries of the City without first determining that:

1                   (A) The subdivider has complied with the conditions imposed on the tentative  
2 subdivision map or parcel map, pursuant to this Article 12C; and

3                   (B) For any such conditions not fully satisfied prior to the recordation of the  
4 final map, the subdivider has signed a certificate of agreement and/or improvement agreement, to  
5 ensure compliance with such conditions.

6                   (4) This Subsection (b) shall not apply to tentative subdivision maps or parcel maps  
7 submitted solely for the purposes of condominium conversion, as defined in Subdivision Code Section  
8 1308(d).

9                   (c) The San Francisco Public Utilities Commission shall conduct a feasibility analysis, and  
10 shall report the findings of that analysis to the Mayor and Board of Supervisors within one year of the  
11 effective date of this ordinance, for eventual retrofit of all buildings in San Francisco to employ water  
12 recycling. The feasibility analysis shall distinguish among different building types and consider  
13 timetables for different types of buildings. Upon receiving this feasibility analysis, the Board of  
14 Supervisors intends to consider any changes to the law needed to move toward feasible retrofits of  
15 existing buildings.

16                   **SEC. ~~853~~12C.5. REGULATION OF ALTERNATE WATER SOURCES.**

17                   (a) Any person or entity who installs and operates an A~~alternate~~ W~~water~~ S~~source~~  
18 system shall comply with this Article 12C, the rules and regulations adopted by the  
19 Department of Public Health, and all applicable local, state, and federal laws.

20                   (b) Within 90 days after passage of this ordinance, the Director shall issue rules and  
21 regulations regarding the operation of A~~alternate~~ W~~water~~ S~~source~~ systems necessary to  
22 effectuate the purposes of the Article and to protect public health and safety. These  
23 regulations shall address, at a minimum:

24                   (1) Water quality criteria;

25                   (2) Monitoring and reporting content and frequencies; and



1 (3) Operation and maintenance requirements.

2 (c) The Director shall review applications for Alternative Water Sources systems  
3 and may issue or deny such applications, in accordance with applicable laws and regulations.

4 (d) The Department of Building Inspection shall review plans and issue or deny  
5 plumbing permits for the construction, installation, or modification of alternate water source  
6 systems, in accordance with applicable laws and regulations.

7 **SEC. 85412C.6. PROJECT APPLICANT AND/OR PERMITTEE DESIGN AND**  
8 **CONSTRUCTION REQUIREMENTS.**

9 (a) Prior to initiating installation of any Alternate Water Source project, Project  
10 Applicants shall submit to the Director an application for permits to operate Alternate Water  
11 Source systems. Such applications shall comply with the requirements of this Article 12C and  
12 any regulations the Director has issued. Project Applicants shall pay a non-refundable permit  
13 application fee to cover the costs of investigation and processing the application and issuing  
14 the permit. Each project application submitted to the Director shall include a Non-potable  
15 Water Engineering Report that provides project information the Director determines to be  
16 necessary for complete review of the proposed project. City departments may not approve or  
17 issue permits for any site installing an Alternate Water Source system unless and until the  
18 Director has approved the Non-potable Water Engineering Report.

19 The Non-potable Water Engineering Report for District systems must include  
20 information on the permanent legal agreements between property owners, and provide  
21 documentation that each party is a willing and responsible participant in the District Non-  
22 potable Water use.

23 (b) **System Design.** All buildings using Non-potable Water from Alternate  
24 Water Source systems shall include:

1 (1) A flow meter on the non-potable distribution system to account for Non-  
2 potable Water use;

3 (2) A reduced pressure backflow assembly (RP) within 25 feet of the downstream  
4 side of the point of connection or meter to protect the City's public water and/or recycled water  
5 system;

6 (3) Signage that state law and the Department of Public Health's rules and  
7 regulations require;

8 (4) Cross connection control in accordance with California Code of Regulations  
9 Titles 17 and 22 and the San Francisco Public Utilities Commission's Cross Connection  
10 Control Program;

11 (5) Any other requirements the Director determines are necessary to protect  
12 public health.

13 ~~(c) *Water Budget Documentation. Upon submitting a project application to the Director, a*~~  
14 ~~*project applicant shall also submit Water Budget Documentation to the General Manager for review.*~~  
15 ~~*Water Budget Documentation shall include a description and location of the proposed alternate water*~~  
16 ~~*source system, the project's water budget, and other applicable information as determined by the*~~  
17 ~~*General Manager. City departments may not issue an encroachment permit, a site permit or plumbing*~~  
18 ~~*permit, or approve a Non-potable Water Engineering Report unless and until the General Manager has*~~  
19 ~~*reviewed the Water Budget Documentation.*~~

20 ~~(d)~~(c) **Plumbing Permit.** A Pproject Applicant shall obtain from the Department of  
21 Building Inspection an appropriate plumbing permit and any other building or installation  
22 permit required to construct, install, alter, an alternate water source system. Each parcel  
23 within a District shall obtain appropriate plumbing and any other building or installation  
24 permits required.

1           ~~(e)~~(d) **Encroachment Permit.** A ~~P~~Project ~~A~~Applicant shall obtain from the  
2 Department of Public Works appropriate authorization for placement of any pipelines or other  
3 portions of an alternate water source system within the public right-of-way.

4           ~~(f)~~(e) **Construction Certification Letter.** ~~P~~Project ~~A~~Applicants shall certify to the  
5 Director that alternate water source system construction is complete and consistent with the  
6 approved Non-potable Water Engineering Report in accordance with the provisions of this  
7 Article 12C and any implementing rules and regulations. City departments may not approve or  
8 issue a ~~F~~First ~~C~~Certificate of ~~O~~Occupancy or approval for any ~~A~~Alternate ~~W~~Water ~~S~~Source system  
9 until the Director has reviewed and verified the Construction Certification Letter.

10           **SEC. ~~855~~12C.7. FEES.**

11           (a) The non-refundable application fees for alternative source water system permits  
12 are:

13           (1) Rainwater	\$1,544.00
14           (2) NSF 350 systems	\$2,688.00
15           (3) Foundation Drainage	\$5,032.00
16           (4) Graywater	\$5,032.00
17           (5) Black <del>W</del> <u>W</u> ater	\$9,034.00
18           (6) Transfer of any permit	\$229.00
19           (7) District Scale, the applicable amount	\$191.00 per hour for plan review and/or
20           above, plus	on site inspection.

21  
22           (b) The fees set forth in this Section 12C.7 may be adjusted each year, without  
23 further action by the Board of Supervisors.

24           Not later than April 1, the Director shall report to the Controller the revenues  
25 generated by the fees for the prior fiscal year and the prior fiscal year's costs of operation, as

1 well as any other information that the Controller determines appropriate to the performance of  
2 the duties set forth in this Section.

3 Not later than May 15, the Controller shall determine whether the current fees  
4 produce, or are projected to produce, revenues sufficient to support the costs of providing the  
5 services for which the fees are assessed and that the fees will not produce revenue that  
6 significantly exceed more than the costs of providing the services for which the fees are  
7 assessed.

8 The Controller shall if necessary, adjust the fees upward or downward for the  
9 upcoming fiscal year as appropriate to ensure that the program recovers the costs of  
10 operation without producing revenue which is significantly more than such costs. The adjusted  
11 rates shall become operative on July 1.

12 (c) Every permit holder shall also pay an annual license fee as provided in the  
13 Business and Taxation ~~Regulations~~ Code Section 249.24.

14 **SEC. ~~856~~12C.8. OPERATING REQUIREMENTS.**

15 When the Director determines the applicant has satisfied all the requirements of this  
16 Article 12C, the Director may issue an operations permit for an ~~Alternative Wwater Ssource~~  
17 system. Permittees shall timely submit all water quality monitoring information required by the  
18 provisions of this Article ~~12C~~ and the Department of Public Health's rules and regulations.  
19 Permittees shall conduct ongoing backflow prevention and cross connection testing in  
20 accordance with this Article, the rules and regulations of the Department of Public Health, and  
21 all applicable local, state, and federal laws.

22 **SEC. ~~857~~12C.9. NON-POTABLE WATER USE AUDITS.**

23 When required by the General Manager, the Permittee or property owner, shall  
24 conduct a Non-potable Water use audit describing the extent of Non-potable Water use in  
25 accordance with requirements provided by the General Manager.

1           **SEC. ~~858~~12C.10. SALE OR TRANSFER OF PERMITS.**

2           (a) Permittees shall notify the Director of any intent to sell or transfer the building or  
3 facility containing an Alternate Water Source system 30 days prior to the sale or transfer of  
4 property, in accordance with regulations adopted by the Director.

5           (b) Any subsequent owner shall submit documentation to the Director establishing  
6 their ability to own, operate and maintain the Alternate Water Source system in accordance  
7 with this Article 12C, the rules and regulations adopted by the Department of Public Health,  
8 and all applicable local, state, and federal laws, within 90 days of transfer of the property and  
9 prior to commencement of operations of the Alternate Water ~~supply~~ Source system.

10          (c) The Director may approve or deny the transfer of the permit to operate to any  
11 subsequent owner, in accordance with the requirements of ~~the~~is Article 12C and applicable  
12 regulations.

13           **SEC. ~~859~~12C.11. INSPECTION AND NOTICES OF VIOLATION.**

14          The Director may inspect any Alternate Water Source system subject to the  
15 requirements of this Article 12C to determine compliance with the provisions of this Article and  
16 applicable regulations.

17           **SEC. ~~860~~12C.12. VIOLATION AND PENALTIES.**

18          The Director may impose administrative penalties on any Permittee, or person  
19 otherwise subject to the requirements of this Article 12C, who violates any provision of this  
20 Article or any applicable rule or regulation shall be subject to enforcement in accordance with  
21 Chapter 100 of the ~~San Francisco~~ Administrative Code with respect to administrative penalties,  
22 and may pursue any other available legal remedies for such violations.

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1           **SEC. ~~86~~12C.13. REVOCATION AND SUSPENSION OF PERMIT.**

2           The Director may order a ~~P~~ermittee to cease operation of an ~~A~~lternate ~~W~~ater  
3 ~~S~~ource system, or may revoke or suspend the permit to operate if the Director determines  
4 that:

5           (a) The manager, operator or any employee has violated any provision of *this* Article  
6 12C or any regulation issued pursuant to this Article;

7           (b) The ~~A~~lternate ~~W~~ater ~~S~~ource system is being operated or maintained in a  
8 manner threatening the public health or health of patrons and/or residents; or

9           (c) The owner or operator has refused to allow any duly authorized City official to  
10 inspect the premises or the operations of the ~~A~~lternate ~~W~~ater ~~S~~ource system.

11  
12           Section 3. Effective Date. This ordinance shall become effective 30 days after  
13 enactment. Enactment occurs when the Mayor signs the ordinance, the Mayor returns the  
14 ordinance unsigned or does not sign the ordinance within ten days of receiving it, or the Board  
15 of Supervisors overrides the Mayor's veto of the ordinance.

16  
17           Section 4. Scope of Ordinance. In enacting this ordinance, the Board of Supervisors  
18 intends to amend only those words, phrases, paragraphs, subsections, sections, articles,  
19 numbers, punctuation marks, charts, diagrams, or any other constituent parts of the Municipal  
20 Code that are explicitly shown in this ordinance as additions, deletions, Board amendment

21     ///

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1 additions, and Board amendment deletions in accordance with the "Note" that appears under  
2 the official title of the ordinance.

3

4 APPROVED AS TO FORM:  
5 DENNIS J. HERRERA, City Attorney

6 By: \_\_\_\_\_  
7 John Roddy  
8 Deputy City Attorney

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