CITY OF CHULA VISTA

Development Services Department

California Department of Water Resources
Office of Water Use & Efficiency Branch
Attention: Mr Simon Eching
PO Box 942836
Sacramento, CA 94236-0001

1-28-10

Dear Mr Eching,

ADOPTION OF THE UPDATED MODEL WATER EFFICIENT LANDSCAPE ORDINANCE .

This letter is in response to your communication from October 2009 is which you requested that local agencies and governments notify the State about the status of their adoption of the Model Water Efficient Landscape Ordinance by January 31, 2010.

The City of Chula Vista took the principles contained within the state ordinance and wrote a local ordinance titled: **Chula Vista Landscape Water Conservation Ordinance** that has been adopted into the City's municipal code in chapter 20.12. The date of adoption was Dec 8, 2009. It came into effect on Jan 8, 2010.

A copy of the Chula Vista Landscape Water Conservation Ordinance and the agenda statement that accompanied it through City Council is attached for your records. (Attachment 1.) Also attached is a copy of the council resolution that adopted the document (Attachment 2.) The Council agenda statement describes the process taken to write the documents and staff's findings of how the Ordinance is at least as effective at conserving water as the DWR's updated Model Water Efficient Landscape Ordinance.

In some areas it is more effective, than the State ordinance, in that it introduces public information aspects of water conservation to applicants of small projects that are below the state mandated thresholds of applicability and puts those applicants in contact with The City's Conservation staff who will provide advice on how to achieve water savings on their site.

The adoption of the ordinance ties into other efforts that the city is making to reduce the amount of water that is used for landscape irrigation, in particular Climate Protection Measure #7 which is part of the City's overall Climate Action Plan. Attached is a copy of the Council agenda statement presenting the 12-month update on Climate Action Plan

implementation in which it referenced the State's model water conservation ordinance update that was in the pipeline at the time it was prepared. (Attachment 3).

Yours,

Mary Radley
Landscape Architect #4372
Development Services Department
City of Chula Vista

Phone: (619) 407 3542
E-mail: mradley@ci.chula-vista.ca.us

Attachment 1. Copy of the Signed Council Agenda Statement and the Ordinance Text.
Attachment 2. Copy of the Signed resolution adopting the Ordinance
Attachment 3. Copy of the Climate Change Initiative 12 month Progress Report, 9-15-09

CC.

Gary Halbert	Deputy City Manager/Director of Development Services
Richard Hopkins	Director of Public Works Operations
Michael Meacham	Director of Conservation and Environmental Services

Attachment 2

ORDINANCE NO. 3146

ORDINANCE OF THE CITY OF CHULA VISTA ADDING CHAPTER 20.12 TO TITLE 20 OF THE CHULA VISTA MUNICPAL CODE RELATING TO LANDSCAPE WATER CONSERVATION

WHEREAS, the State Legislature determined in the Water Conservation in Landscaping Act, Government Code sections 65591 et seq., that the State's water resources are in limited supply and while landscaping is essential to the quality of life in California, landscape design, installation, maintenance and management must be water efficient; and

WHEREAS, the Water Conservation in Landscaping Act mandates City's to either adopt the State's Model Water Ordinance or to adopt an ordinance of equal or greater efficacy by January 1, 2010, the purpose of which is to ensure efficient use of water in landscape design, installation, maintenance and management and to minimize water waste throughout the State of California; and

WHEREAS, the city determined that adoption of its own landscape water conservation ordinance, of equal or greater efficacy to the State's Model Water Ordinance, as permitted by state law, would better serve the needs and local conditions of Chula Vista; and

WHEREAS, in the development of the city's landscape water conservation ordinance, city staff met with the San Diego regional group 'Conservation Action Committee' (CAC), a group representing water purveyors, the building industry, the landscape industry, local City & the County jurisdictions and other interested bodies to review pertinent landscape water conservation issues relative to the San Diego region and the City of Chula Vista; and

WHEREAS, staff met with local Chula Vista water purveyors Otay Water District and the Sweetwater Authority in the development of the landscape water conservation ordinance; and

WHEREAS, the Chula Vista Resource Conservation Commission heard an information item on the draft Landscape Water Conservation Ordinance on the September 28, 2009, and expressed support for the proposed requirements to conserve the use of water in Chula Vista landscapes; and

WHEREAS, the Environmental Review Coordinator has reviewed the proposed activity for compliance with the California Environmental Quality Act (CEQA) and has determined that the activity qualifies for a Class 7 categorical exemption pursuant to Section 15307 (Actions by Regulatory Agencies for Protection of Natural Resources) of the State CEQA Guidelines, because the proposed action seeks to implement a State mandate aimed at conserving the City's water resources through proper landscape design, installation, maintenance and water management techniques and standards.

THE CITY COUNCIL OF THE CITY OF CHULA VISTA DOES ORDAIN AS FOLLOWS:

That Chapter 20.12 is hereby added to the Chula Vista Municipal Code to read as follows:

SECTION I:

The ordinance language shall read per Exhibit A attached hereto.

SECTION II:

This ordinance shall take effect and be in full force and effect on the 30th day from and after its adoption.

Presented by

Gary Halbert, P.E., AICP
Deputy City Manager/Director of
Development Services

Approved as to form by

Bart C. Miesfeld
City Attorney

PASSED, APPROVED, and ADOPTED by the City Council of the City of Chula Vista, California, this 8th day of December 2009, by the following vote:

AYES:	Councilmembers:	Bensoussan, Castaneda, Ramirez, Thompson and Cox
NAYS:	Councilmembers:	None
ABSENT:	Councilmembers:	None

Cheryl Cox, Mayor

ATTEST:

Donna R. Norris, CMC, City Clerk

STATE OF CALIFORNIA)
COUNTY OF SAN DIEGO)
CITY OF CHULA VISTA)

I, Donna R. Norris, City Clerk of Chula Vista, California, do hereby certify that the foregoing Ordinance No. 3146 had its first reading at a regular meeting held on the 17th day of November 2009 and its second reading and adoption at a regular meeting of said City Council held on the 8th day of December 2009; and was duly published in summary form in accordance with the requirements of state law and the City Charter.

Executed this 8th day of December 2009.

Donna R. Norris, CMC, City Clerk

EXHIBIT A

CHAPTER 20.12 CHULA VISTA LANDSCAPE WATER CONSERVATION ORDINANCE

Sections:

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20.12.020 Definitions
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20.12.010 Purpose

The State Legislature determined in the Water Conservation in Landscaping Act (the "ACT"), Government Code sections 65591 et seq. that the State's water resources are in limited supply. The Legislature also recognized that while landscaping is essential to the quality of life in California, landscape design, installation, maintenance and management must be water efficient. The general purpose of this chapter is to establish water use standards for landscapes in Chula Vista that implement the landscape design requirements established by the "ACT". Consistent with the Legislature's findings the purpose of this ordinance is to:

A. Promote the values and benefits of landscapes while recognizing the need to utilize water and other resources as efficiently as possible.
B. Establish a structure for planning, designing, installing, maintaining and managing water efficient landscapes in new and rehabilitated landscapes.

C. Promote the use of recycled water, gray water & captured rainwater for irrigation landscaping when it is available.
D. Use of water efficiently, and without waste, by setting a Maximum Applied Water Allowance as an upper limit for water use at the lowest practical amount.

20.12.020 Definitions

A. **"Applicant"** means an individual or entity submitting a landscape documentation package to request a permit, plan check, or design review from the City of Chula Vista.
B. **"Applied Water"** means the portion of water supplied by the irrigation system to the landscape.
C. **"Building Permit"** Means a permit to engage in a certain type of construction on a specific location.
D. **"City"** means the City of Chula Vista.
E. **"Cool season turf,"** means a type of turf that remains green in the winter months.
F. **"Discretionary permit"** means any permit requiring a decision making body to exercise judgment prior to it's approval, conditional approval or denial.
G. **"Ecological restoration project"** means a project where the site is intentionally altered to establish a defined, indigenous, historic ecosystem.
H. **"Established"** in the context of landscape, means the point at which plants in the landscape have developed significant root growth into the site. Typically most plants are established after one or two years.
I. **"Estimated Total Water Use" (ETWU)** means the total water used for the landscape area of the project.
J. **"ET adjustment factor (ETAF)"** means a factor that when applied to "reference evapotranspiration", adjusts for plant water requirements and irrigation efficiency, two major influences on the amount of water required for healthy landscapes.
K. **"Evapotranspiration rate"** means the quantity of water evaporated from adjacent soil and other surfaces and transpired by plants during a specified time. See also 'reference evapotranspiration.'
L. **"Gray water"** means the wastewater generated from domestic activities such as dish washing, laundry and bathing.
M. **"Hardscape"** means any durable surface material, pervious or impervious.
N. "**Homeowner provided** " means installed either by a private individual or installed by a licensed contractor hired by the homeowner.
O. **"Hydrozone"** means a portion of the landscape area having plants with similar water needs. A hydrozone may be irrigated or non-irrigated.
P. **"Infiltration rate"** means the rate of water entry into the soil expressed as a depth of water per unit of time (e.g., inches per hour).
Q. **"Irrigation audit"** means an in-depth evaluation of the performance of an irrigation system conducted by a Certified Landscape Irrigation Auditor. An irrigation audit includes, but is not limited to: inspection, system tune-up, system test with distribution uniformity or emission uniformity, reporting overspray or runoff that causes overland flow, and preparation of an irrigation schedule.

R. **"Irrigation efficiency" (IE)** Irrigation efficiency means the measurement of the amount of water beneficially used divided by the water applied. Irrigation efficiency is derived from measurements and estimates of irrigation system characteristics and management practices.

S. **"Irrigation survey"** means an evaluation of an irrigation system that is less detailed than an irrigation audit. An irrigation survey includes, but is not limited to: inspection, system test, and written recommendations to improve performance of the irrigation system

T. **"Landscape architect"** means a person who holds a license to practice landscape architecture in the state of California, pursuant to Business and Professions Code, Section 5615.

U. **"Landscape area,"** means an area with outdoor plants, turf and other vegetation that uses water provided by the Otay Water District, the Sweetwater Authority or other local water purveyor. A landscape area includes water features either in an area with vegetation or that stands alone. A landscape area does not include the footprint of buildings, structures, decks, patios, sidewalks, driveways, gravel or stone walkways void of plant materials, paved portions of parking lots or other hard landscape. A landscape area does not include an area without irrigation designated for non-development such as designated open space or area with existing natural vegetation or a transition zone.

V. **"Landscape Manual"** means the City of Chula Vista Landscape Manual as may be amended from time to time.

W. "**Landscape Documentation Package**" means a package of drawings and other documents that are required to be submitted to the City for approval in order to demonstrate that the landscape design complies with the requirements of this ordinance.

X. **"Low head drainage"** means a sprinkler head or other irrigation device that continues to emit water to the zone in which it is located after it has shut off.

Y. **"Low volume irrigation"** means any equipment that uniformly delivers a low volume of water to the landscape such as 0.5 inches, 0.7 inches and 1.0 inch per hour.

Z. **"Low water usage"** means a plant species identified as having a low plant factor in the context of plant selection. "**High water usage**" means a plant species identified as having a high plant factor in the context of plant selection.

AA. **"Maximum Applied Water Allowance"** (MAWA) means the maximum allowed water use for a specific landscape area based on the square footage of the area, the ETAF and the reference ETo.

BB. **"Mulch"** means an organic material such as leaves bark, straw or inorganic mineral materials such as rocks, gravel or decomposed granite left loose as applied to the soil surface to reduce evaporation, suppress weeds, moderate soil temperature or prevent erosion.

CC. **"Multi family residential development"** means condominiums, apartments and mobile homes.

DD. **"New construction"** means, for the purposes of this ordinance, a new building with a landscape or other new landscape, such as a park, playground, or greenbelt without an associated building.

EE. **"Outdoor 'WaterSmart' Package"** means a document/documents, for example leaflets and a checklist of recommendations, describing landscape water conservation principles and techniques appropriate to small landscape design and installation.

FF. **"Overspray"** means the water from irrigation or that is delivered outside an area targeted for the irrigation and makes contact with a surface not intended to be irrigated.

GG. **"Pervious"** means any surfaces or material that allows the passage of water through the material and into underlying soil.

HH. **"Plant factor"** means a factor that, when multiplied by the ETo, estimates the amount of water a plant needs for healthy growth.

II. **"Point of Connection"** means the source of water for a specific irrigation system.

JJ. **"Precipitation rate"** means the rate of application of water measured in inches per hour.

KK. **"Record drawing" or "as built"** means a reproducible drawing which shows significant changes in the work made during construction and which are usually based on drawings marked up in the field and other data furnished by the contractor.

LL. **"Recreation area"** means an area dedicated to active play such as parks, sports fields, and golf courses.

MM. **"Recycled water"** means water that has been treated at the highest level required by the California Department of Health Services for water not intended for human consumption. "Tertiary treated recycled water" means water that has been through three levels of treatment including filtration and disinfectant. "Recycled water" is sometimes referred to as "reclaimed water".

NN. **"Reference evapotranspiration"** or **"ETo"** means a standard measurement of environmental parameters that affect the water use of plants. ETo is given in inches per day, month or year and is an estimate of the evapotranspiration of a large field of four inches to seven inches tall, cool season turf that is well watered. Reference evapotranspiration is used as the basis of determining the MAWA so that regional difference in climate can be accommodated.

OO. **"Rehabilitated landscape"** means any re-landscaping project, that requires a permit, plan check, or design review, in accordance with the applicability criteria of this ordinance, where 50 percent of the total landscape area, and the modifications are completed within one year. In the case of single-family homes, only those construction projects that have impacts to landscaped areas shall be deemed to be rehabilitated landscapes.

PP. **"Residential development"** means development of single family or multi-family homes.

QQ. **"Runoff"** means water that is not absorbed by the soil or landscape to which it is applied and flows from the landscaped area. For example, runoff may result from water that is applied at too great a rate (application rate exceeds infiltration rate) or when there is a slope.

RR. **"Smart controller"** means a weather based or soil moisture based irrigation controller that monitors and uses information about environmental conditions for a specific location to automatically adjust watering schedules.

SS. **"Soil moisture sensing device"** or **"soil moisture sensor"** means a device that measures the amount of water in the soil. The device may also suspend or initiate an irrigation event.

TT. **"Soil texture"** means the classification of soil based on its percentage of sand, silt, and clay.

UU. **"Soil"** means the growing medium available for plant growth.

VV. **"Special landscaped area"** means an area of landscape that falls into one of the following categories:

1. Is used for growing edible plants including community gardens.
2. Is irrigated with recycled water.
3. Is used for active play, or recreation, such as a park sports field or turf on a golf course that provides a playing surface or a culturally significant community space, as determined by the city manager.

WW. **"Sprinkler head"** means a device which delivers water through a nozzle.

XX. **"Statement of Substantial Conformance"** references the form administered by landscape inspectors.

YY. **"Static water pressure"** means the pipeline or municipal water supply pressure when water is not flowing.

ZZ. **"Station"** means an area served by one valve or by a set of valves that operate simultaneously.

AAA. **"Turf"** means a ground cover surface of mowed grass. Annual bluegrass, Kentucky bluegrass, Perennial ryegrass, Red fescue, and Tall fescue are cool-season grasses. Bermudagrass, Kikuyugrass, Seashore Paspalum, St. Augustinegrass, Zoysiagrass, and Buffalo grass are warm-season grasses.

BBB. **"Valve"** means a device used to control the flow of water in the irrigation system.

CCC. **"Vegetated area"** means an area with vegetation that is irrigated.

DDD. **"Warm season turf"** means a type of turf that grows during warm weather but becomes dormant during cold weather.

EEE. **"Water feature"** means a design element where open water provides an aesthetic or recreational function. Water features include ponds, lakes, waterfalls, fountains, artificial streams, spas, and swimming pools (where water is artificially supplied). The surface area of water features is included in the high water use hydrozone of the landscape area. Constructed wetlands used for on-site wastewater treatment or storm water best management practices that are not irrigated and used solely for water treatment or storm water retention are not water features and, therefore, are not subject to the water budget calculation.

FFF. **"WUCOLS"** means the Water Use Classification of Landscape Species published by the University of California Cooperative Extension, the Department of Water Resources and the Bureau of Reclamation, as may be amended from time to time.

20.012.030 Applicability

After Jan 1, 2010, this ordinance shall apply to any project requiring a building permit, discretionary permit, or city approval of landscape and irrigation plans that is within the following categories:

A. New construction and rehabilitated landscapes for public agencies and private development projects with a proposed cumulative landscape area equal to or greater than 2,500 square feet. These include, but are not limited to, industrial, commercial, cemetery, public, quasi-public, institutional, multi-family residential development and developer installed front yards. Applicants shall submit a Landscape Documentation Package to the city for approval, by city signature, prior to the installation of the landscape improvements.

B. New construction and rehabilitated landscapes for public agencies and private development projects including, but not limited to, industrial, commercial, cemetery, public, quasi-public, multi-family residential development and developer installed front yards with a cumulative landscape area in the range of 0 square feet - 2,499 square feet. These applicants shall receive an Outdoor 'WaterSmart' Package from the City.

C. New and rehabilitated construction of landscapes which are homeowner provided or contractor installed on behalf of the homeowner with a total landscape area of equal to or greater than 5,000 square feet. Applicants shall submit a Landscape Documentation Package to the city for approval, by city signature, prior to the installation of the landscape improvements.

D. New and rehabilitated construction of landscapes which are homeowner provided or contractor installed on behalf of the homeowner with a total landscape area in the range of 0 square feet to 4,999 square feet. These applicants shall receive an Outdoor 'WaterSmart' Package from the City.

E. A model home that includes a landscape area where the home is served by either the Otay Water District, the Sweetwater Authority or the California American Water Company. Applicants shall submit a Landscape Documentation Package to the city for approval, by city signature, prior to the installation of the landscape improvements

This ordinance shall apply to new applications and applications that have been through one city plan check by city officials. Applications that have had two or more plan checks are 'grand fathered' in, with their current landscape design concept. However, it is recommended that the applicant voluntarily modify landscape proposals that are high in water use.

20.12.040 Exemptions

This ordinance does not apply to the following:

A. Registered local, state or federal historical sites.
B. Ecological restoration projects that do not require a permanent irrigation system.
C. Mine land reclamation projects that do not require permanent irrigation systems.
D. Plant collections, as part of botanical gardens and arboretums open to the public.

20.12.050 City of Chula Vista Landscape Manual

The City of Chula Vista Landscape Manual is incorporated into the Chula Vista Municipal Code by reference. The City of Chula Vista Landscape Manual may be periodically updated by the Director of Development Services.

20.12.060 Landscape Documentation Package

Project applicants shall submit the necessary information on required landscape and irrigation plans in a form and manner prescribed by the Director of Development Services. Necessary information shall include:

A. Title Sheet
B. Soil Management Report
C. Planting Plan
D. Landscape Construction Plan
E. Irrigation Plan
F. Grading Plan

20.12.070 Title Sheet

The title sheet shall contain items as described in the City of Chula Vista Landscape Manual. The title sheet shall also contain the applicant's signature and a date along with the statement **"I am familiar with and agree to comply with the requirements for landscape improvement plans as described in Chapter 20.12 of the Municipal Code. I have prepared this plan in compliance with those regulations. I certify that the plan implements the regulations to provide efficient landscape water use."**

20.12.080 Soil Management Report

The soil management report shall be prepared by a licensed landscape architect, licensed civil engineer or licensed architect and contain the information described in CVMC 20.12.080.A and 20.12.080.B. The soil management report shall be based on site conditions after grading operations have been completed. The soil management report

information shall either be submitted as one of the sheets in the planting plan set or as a separate document.

A. An analysis of the soil for the proposed landscape area of the project covering information about soil texture, soil infiltration rate, pH, total soluble salts, plant sodium, percent organic matter and horticultural suitability.
B. Recommendations for soil amendments that may be necessary to allow healthy plant survival and growth in the landscape area using efficient irrigation techniques.

20.12.090 Planting Plan

The planting plan shall be prepared by a licensed landscape architect, licensed civil engineer or licensed architect and contain, but is not limited to, the following information:

A. A list/legend of all vegetation by botanical and common name that exists or is proposed to be planted in the landscape area(s). For new planting include the quantities, container size at planting, the location of each plant and the associated hydrozone. Identify existing vegetation to remain and existing vegetation to be removed.
B. The planting design shall group plants in hydrozones based on the moisture requirements of those plants. A hydrozone may mix plants of moderate and low water usage or plants with high water usage with plants of moderate water usage. No hydrozone shall mix plants with high water usage with plants with low water use. Plant factors are available from WUCOLS.
C. Plant selection shall take into account suitability of the soil and climatic attributes as well as the availability of supplemental water available through irrigation.
D. The planting plan set shall include planting details, specifications, maintenance specifications and responsibilities.
E. Plant selections for all properties adjacent to a wild land–urban interface or open space area shall comply with current Chula Vista Fire Department guidelines and regulations.
F. The plan shall demonstrate compliance with best management practices required by Section 14.20 of the municipal code.

20.12.100 Landscape Construction Plan

The landscape construction plan shall include all elements of hard landscape, paving and drainage not shown on civil engineering plans. It shall include physical layout, specifications and details. The landscape construction plan shall include plans, details and specifications of any water features that comprise the overall landscape improvements.

20.12.110 Irrigation Plans

The irrigation plans shall be prepared by a licensed landscape architect, licensed civil engineer, licensed architect or an irrigation consultant. The irrigation plans shall include, but are not be limited to, the following information:

A. The location, type and size of all components of the irrigation system that will provide water to the landscape area, including, but not limited to, controller, water lines, valves, sprinkler heads, moisture sensing devices, rain switches, quick couplers, pressure regulators and backflow devices.

B. The irrigation water source and type (potable or recycled), point of connection, the static water pressure at the point of connection, the application rate in inches per hour and the design operating pressure in pounds per square inch for each station.

C. Irrigation schedule information including typical irrigation schedules that demonstrate that landscape can thrive using the MAWA calculated as part of that package. Include specification notes for routine inspection, repair and replacement of equipment and state the party responsible for maintenance.

D. A table that identifies MAWA for the improvements, including the calculations used to determine the MAWA. The calculations shall be based on the formula in paragraph 20.12.140. Temporarily irrigated areas shall be included in the low water use low water use hydrozone. The surface area of a water feature or pool shall be included in the high water use areas for the purposes of water budget calculation.

E. A table that identifies ETWU for the improvements and includes the calculations used to determine the ETWU. The calculations shall be based on the formula in paragraph 20.12.150. Temporarily irrigated areas shall be included in the low water use low water use hydrozone. The surface area of a water feature or pool shall be included in the high water use areas for the purposes of water budget calculation.

F. The plan shall demonstrate compliance with best management practices required by Section 14.20 of the municipal code.

20.12.120 Grading Plans

Grading plans shall include site grading information including, but not limited to, elevations, slope heights, drainage patterns, pad elevations, storm water management, and finish grade. Previously approved grading plans that comply with the City grading ordinance 15.04, "as built" grading plans or grading plans undergoing the grading permit approval process are acceptable submittals.

20.12.130 Irrigation System Design

The following techniques and practices shall be incorporated into the design of irrigation systems:

A The irrigation system shall be designed to conform to the hydrozones of the plants specified in the planting plan.

B The irrigation system shall be designed to prevent runoff, over spray, low-head drainage and other similar conditions where irrigation water flows or sprays onto area not intended for irrigation and use low volume irrigation for mulched areas wherever feasible.

C Portions of irrigation systems containing slopes greater than 25 percent shall utilize a precipitation rate of 0.75 inches per hour or less to prevent runoff.

D Sprinkler heads and other low emission devices shall be selected based on what is appropriate for the plant type in the hydrozone and shall have matched precipitation rates unless otherwise directed by the manufacturer's recommendations.

E Sprinkler spacing shall be designed to achieve the highest possible distribution uniformity.

F The system shall provide that only low volume irrigation is used to irrigate any vegetation within 24 inches of an impermeable surface unless the adjacent impermeable surfaces are designed and constructed to cause water to drain entirely into landscaped areas.

G The irrigation system shall be regulated by means of a smart controller (either evapotranspiration, weather based, soil moisture based or similar.).

H Irrigation projects equal or greater than 5,000 square feet shall include the installation of a master valve and flow sensor to prevent water waste associated with mainline breaks and other failures.

I Where feasible, trees shall be placed on separate valves from shrubs, groundcover and turf.

20.12.140 Maximum Applied Water Allowance (MAWA)

All applicable landscapes shall not exceed the MAWA calculated for the project using the following formula:

$$\mathbf{MAWA = (ETo)(0.62)[(0.7 \times LA) + (0.3 \times SLA)]}$$

In which the following abbreviations apply:

1. MAWA = Maximum Applied Water Allowance in gallons/year
2. ETo = Evapotranspiration in inches per year.
3. 0.62 = Conversion factor to gallons per square foot.
4. 0.7 = ET adjustment for plant factors and irrigation efficiency (ETAF).
5. LA = Landscape Area including SLA.
6. SLA = Portion of the landscape area identified as Special Landscape areas. Measured in square feet
7. 0.3 = The additional ET adjustment factor for special landscape areas (1.0 – 0.7 = 0.3).*

* The City reserves the right to reduce the ET adjustment factor for Special Landscape Areas that are the responsibility of the City to maintain.

20.12.150 Estimated Total Water Use (ETWU)

All applicable landscape shall calculate the ETWU for each project using the following Formula:

$$ETWU = (ETo)(0.62)\ ((PF \times HA / IE) + SLA)$$

In which the following abbreviations apply;

1. ETWU = Estimated Total Water Use in gallons per year.
2. ETo = Evapotranspiration in inches per year.
3. 0.62 = Conversion factor to gallons per square foot.
4. PF = Plant factor from WUCOLS.
5. HA = Hydrozone Area in square feet. Each HA shall be classified according to its water use; high medium, or low according to the legends on the planting plans.
6. IE = Irrigation Efficiency (Minimum average 0.71).
7. SLA = Special Landscape area in square feet.

20.12.160 Water Allowance / Water Use Comparison.

Irrigations plans shall state, in close proximity on the sheet, the MAWA and the ETWU for each Point of Connection thereby demonstrating that the ETWU does not exceed the MAWA.

Any sets of plans where the ETWU does exceed the MAWA shall not be approved by the City of Chula Vista. (ETWU shall be equal to or less than MAWA)

20.12.170 Limitations On The Use Of Water Features.

The total of all water features for a project, other than single-family homes with a landscape area of less than 5,000 square feet and a homeowners association or apartment building swim complex that serves a residential project, shall be limited to 15 percent of the total landscape area of the project.

20.12.180 Turf Regulations

The following regulations shall apply to all projects that are required to submit a landscape design package to the City for approval:

A. Turf shall not be used on slopes greater than 25 percent where the toe of the slope is adjacent to an impermeable surface.

B. Only low volume irrigation shall be used for turf in a landscape area where any dimension of the landscape area is six feet or less wide.

C. On commercial, industrial or multi-family landscape no turf shall be installed in a median, parking lot island or parkway unless, if determined by the city manager, limited use of turf is necessary to provide safe access for pedestrians leaving a parked vehicle to reach the sidewalk.

D. On commercial, industrial or multifamily landscape no turf shall be installed on any portion of the site that is inaccessible or unusable to a person who uses the site.

E. On a commercial or industrial projects, decorative cool season turf shall not be used. The use of warm season turf shall not exceed 15 percent of the total landscape area of a project.

F. An athletic field, park, golf course, cemetery or other similar use shall be designed to limit the use of turf to only those areas where it is essential for the operation of the facility, as determined by the city manager. Areas where turf is not essential to the operation of the facility shall be landscaped with plants with lower water use requirements than turf.

G. No turf shall be allowed in a landscape area that cannot be efficiently irrigated, for example where overspray and run off cannot be avoided.

20.12.190 Public Education & Model Homes

All model homes shall clearly display a sign, visible from the roadway adjacent to the home using black writing (two inches high minimum) on a white sign stating, "THIS MODEL HOME USES WATER EFFICIENT LANDSCAPE AND IRRIGATION".

Developers shall provide homebuyers with an Outdoor 'WaterSmart' Package at move-in and information about the City of Chula Vista Naturescape Program.

20.12.200 Recycled Water and Gray Water

Newly constructed and rehabilitated landscapes for public agencies and private development projects with a landscape area equal to or greater than 2,500 square feet including, but are not limited to, industrial, commercial, cemetery, public, quasi-public, institutional and multi-family residential development shall use recycled water for irrigation purposes where it is available.

Use of recycled water or gray water for irrigation purposes does not excuse a person from complying with all State and local laws and regulations related to recycled water use or gray water use.

20.12.210 Landscape Installation

An approved landscape design package shall be fully installed prior to final inspection.

20.12.220 Landscape and Irrigation Maintenance

Once the landscape on all projects, approved as a result of these regulations, is established, it shall be maintained to ensure compliance with the approved MAWA by the party responsible for landscape maintenance.

20.12.230 Modified Approvals

An Applicant may submit an application to modify part or all of their Landscape Documentation Package.

20.12.240 Statement Of Substantial Conformance

For all projects approved by the City, the landscape architect of record shall state in writing that the landscape improvements have been installed in compliance with the approved Landscape Documentation Package. They shall be satisfied that the irrigation system has been functionally tested, by testing, irrigation survey or irrigation audit, for, but not limited to, the following: distribution uniformity, over spray and runoff have been addressed, and water use can match the included calculations once plants are established with the irrigation provided.

The City shall receive the signed landscape architect's statement prior to final inspection and City issuance of a certificate of completion of the project.

20.12.250 City's Right to Inspect

The City has the right, but not the obligation, to inspect any landscape installation for which it has an approved Landscape Documentation Package.

20.12.260 Waste Water Prevention

No new irrigation system (since the approval of this ordinance) shall allow irrigation water to flow onto adjacent property, non-irrigated areas, structure, walkways, roadways or other paved areas whether the cause is run off, low head drainage or other similar condition. Penalties for violating any provisions of this chapter will be issued pursuant to CVMC 1.41.100 et seq.