

SUSTAINABILITY COMMISSION
CITY OF PALM SPRINGS, CALIFORNIA
www.palmsprings-ca.gov www.yoursustainablecity.com

**REGULAR
MEETING AGENDA**

December 15, 2015
5:00 PM



Palm Springs City Hall
Large Conference Room
3200 E. Tahquitz Canyon Way
Palm Springs, CA 92264

COMMISSIONERS

Joe Jackson- Chair	Grant Wilson, Vice Chair
Travis Armstrong	Tara Lazar
Thom Bettinger	Nate Otto
Nancy Ferguson	Mark Polischak
David Freedman	Victor Yepello

Staff representatives: Michele Mician, Sustainability Manager
Dan DeGarmo, Clerical Assistant
Gary Calhoun, Recycling Coordinator

City of Palm Springs Vision Statement: Palm Springs aspires to be a unique world-class desert community, where residents and visitors enjoy our high quality of life and a relaxing experience. We desire to balance our cultural and historical resources with responsible, sustainable economic growth and enhance our natural desert beauty. We are committed to providing responsive, friendly, and efficient customer service in an environment that fosters unity among all our citizens.

Please **MUTE OR TURN OFF** all audible electronic devices for the duration of this meeting. Thank you!

CALL TO ORDER

FLAG SALUTE

ROLL CALL

ACCEPTANCE OF AGENDA

CITY MANAGER AND ASSISTANT CITY MANAGER REPORT

PUBLIC COMMENTS: This time is for members of the public to address the Sustainability Commission on Agenda items and items of general interest within the subject matter within jurisdiction of the City. The Commission values your comments but, pursuant to the Brown Act, cannot take action on items not listed on the posted Agenda. Three (3) minutes for each speaker.

- A. WELCOME AND INTRODUCTIONS (5 MINUTES)**
 - 1. Resignation of Commissioner Yepello
 - 2. Recruitment for Open Commission Seats

- B. PRESENTATIONS (20 MINUTES)**
 - 1. Mayor's Healthy Planet, Healthy You Race and Wellness Festival, Jeff Hocker, Event Manager
 - 2. Water Efficient Landscaping Ordinance, Flinn Fagg, Planning Director

- C. MEETING MINUTES (5 MINUTES)**
 - 1. November 17, 2015 Meeting Minutes approval

- D. PARKS & RECREATION COMMISSION REPORT (5 MINUTES)**
 - 1. Update on Partnership Projects, Cheryl Houck, Liaison & Commissioner Armstrong

- E. RECYCLING REPORT, Gary Calhoun (10 MINUTES)**
 - 1. Results of December 12, 2015 Shredding and Electronic Waste Event

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F. SUSTAINABILITY MANAGERS REPORT, Michele Mician (15 MINUTES)

1. Summary of Sustainability Master Plan and Public Workshop, December 5, 2015
2. Household Hazardous Waste Site Updates
3. Walk and Roll Mobility App Live Demonstration

G. OLD BUSINESS (5 MINUTES)

1. Walking Master Plan, Michele Mician, Sustainability Manager

H. NEW BUSINESS (10 MINUTES)

1. Discussion on Model Water Efficient Landscape Ordinance: To be Voted on at Regular Meeting held on January 19, 2016

I. SUBCOMMITTEE REPORTS (30 MINUTES)

1. Water Conservation Subcommittee, Commissioner Freedman
2. Outreach Subcommittee, Commissioner Lazar
3. Green Building/Solar Subcommittee, Vice Chair Wilson, Commissioners Otto and Freedman
4. Waste Reduction Subcommittee, Commissioner Polischak
5. Wellness Subcommittee, Chair Jackson
6. Active Transportation Subcommittee, Commissioner Ferguson

J. COMMISSIONER COMMENTS (5 MINUTES)

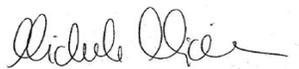
K. ADJOURNMENT - The meeting of the Sustainability Commission will adjourn to the Regular Meeting, which will be held at 5:00 p.m. on Tuesday, January 19, 2015 in the Large Conference Room at City Hall. The Sustainability Commission's normal meeting schedule is at 5 p.m. on the third Tuesday of every month except August unless otherwise noted or amended.

THE PUBLIC IS INVITED TO ATTEND

It is the intention of the City of Palm Springs to comply with the Americans with Disabilities Act (ADA) in all respects. If, as an attendee or a participant at this meeting, you will need special assistance beyond what is normally provided, the City will attempt to accommodate you in every reasonable manner. Please contact the Office of the City Clerk at (760) 323-8204 at least 48 hours prior to the meeting to inform us of your particular needs and to determine if accommodation is feasible. Please advise us at that time if you will need accommodations to attend or participate in meetings on a regular basis. If additional information is needed, please contact the Office of Sustainability at (760)323-8214.

Pursuant to G.C. Section 54957.5(b) (2) the designated office for inspection of records in connection with the meeting is Office of Sustainability, City Hall, 3200 E. Tahquitz Canyon Way. Complete Agenda Packets are available for public inspection at: City Hall, 3200 E. Tahquitz Canyon Way, Palm Springs, CA 92264. If you would like additional information on any item appearing on this agenda, please contact Office of Sustainability at 760-323-8248.

AFFIDAVIT OF POSTING: I, Michele C. Mician, Sustainability Manager of the City of Palm Springs, California, certify this Agenda was posted at or before 6:00 p.m. on December 10, 2015, as required by established policies and procedures.



, Michele C. Mician, Sustainability Manager

Sustainability Commission

CITY OF PALM SPRINGS, CALIFORNIA



MEETING MINUTES

Tuesday, November 17, 2015
Palm Springs City Hall, Large Conference Room

CALL TO ORDER: Chair Jackson called the meeting to order at **5:03** p.m.

PLEDGE OF ALLEGIANCE: Led by Vice Chair Wilson

ROLL CALL: A quorum was present for this Regular Meeting of the City of Palm Springs Sustainability Commission.

AGENDA APPROVAL: The agenda was presented by Sustainability Manager Mician. A motion to approve by Vice Chair Wilson and seconded by Commissioner Otto and unanimously carried.

	<u>This Meeting</u>	<u>Present to Date</u>	<u>FY 2015/2016 Excused Absences</u>	<u>FY 2015/2016 Unexcused Absences</u>
Thom Bettinger	X	39		
Joe Jackson	X	30		
Grant Wilson	X	32	1	
Mark Polischak	X	26	1	
Victor Yepello	E	25	1	
Travis Armstrong	X	26	1	
Tara Lazar	X	15		
Nate Otto	X	14		
David Freedman	X	5		
Nancy Ferguson	X	4		

X = Present

E = Excused (notified Chair and Staff of absence)

L = Late

U = did not notify of absence

CITY STAFF PRESENT: Michele Mician MS, Manager, Office of Sustainability
Dan DeGarmo, Clerical Assistant

CITY MANAGER AND ASSISTANT CITY MANAGER REPORT - None

PUBLIC COMMENTS: None

A. WELCOME AND INTRODUCTIONS - None

B. MEETING MINUTES

1. October 20, 2015 Meeting Minutes were presented by Sustainability Manager Mician. Motion to approve as amended by Commissioner Freedman and seconded by Commissioner Otto. Unanimously carried. Abstained: Vice Chair Wilson.

C. PARKS & RECREATION COMMISSION REPORT

Commissioner Armstrong reported that there will be a community meeting regarding turf removal at the Dog Park. Date to be determined.

Commissioner Armstrong reported on concerns regarding the use of the new Downtown Park.

Manager Mician inquired on status of Recycle Bins in Downtown area.

Manager Mician asked if Bike racks could be installed at trail markers

Manager Mician inquired if Parks and Rec would be responsible for replacing damaged signage on trails

Commissioner Armstrong reported that Parks and Rec Commission looking in to having high school kids help out in repairing trail signage and Skate Park signage.

D. RECYCLING REPORT, Gary Calhoun - absent, no report

E. SUSTAINABILITY MANAGERS REPORT, Michele Mician

1. Overview of Sustainability Master Plan and Public Workshop on December 5, 2015 at 2 PM at Welwood Murray Library
Manager Mician reported on the Sustainability Master Plan Workshop and agenda and referenced Squats for Tots coming up on December 5, 2015.
Deadline for comments for Master Plan due to Michele by December 1, 2015.
All Department Heads have been invited to the Open House Workshop on December 5, 2015
2. Walk and Roll App review
Manager Mician previewed the new Walk and Roll app showing the features of the app and explained the leader boards.
Google will be integrated into the app for locations.
Safety tips are also included.
Beta version on-line now. Final version to be revealed December 5, 2015
Possibly work with local businesses for discounts/specials for those who use app.
3. Electric Vehicle Infrastructure Update
Manager Mician provided an update on Electrical Vehicle Charging Stations.
Two Charging locations have some damage due to chargers being removed from vehicles improperly
4. Legacy Tree Program
Manager Mician updated the Commissioners on the Legacy Tree Program.

Commissioner questions and comments on the above were presented and discussed.

F. PRESENTATIONS

1. Product Stewardship in California Power Point, Michele Mician, Sustainability Manager
The Product Stewardship Council and the Producer Responsibility Resolution were presented by Manager Mician. Purpose of Council is to shift responsibility of waste disposal from government responsibility to manufacturer having responsibility for disposal of their product and/or packaging.
Arrow Awards were mentioned to provide incentive to manufacturers.
 - Commissioners made comments and questions regarding the motion which were discussed.
2. CV HIP Power Point, Alejandro Espinoza, Director for Nutrition Education & Obesity Prevention Program, Desert Healthcare District
Alejandro Espinoza presented a Power Point presentation on the new internet resource for health care information in the Coachella Valley.
Commissioner questions and comments were presented and discussed.

G. OLD BUSINESS

1. Leaf Blower Survey Results from ONE-PS, Commissioner Bettinger
Commissioner Bettinger reported on the ONE-PS meeting and the survey they presented on leaf blowers. He also stated that a proposal by ONE-PS to ban leaf blowers was presented but not voted on.
Commissioner Freedman commented on leaf blower proposal also.
Commissioner Bettinger and Chair Jackson added additional comments on the process that ONE-PS should follow to present their proposal to the Sustainability Commission.

H. NEW BUSINESS

1. Appointment of Ad Hoc Committee for Adaptive Reuse of Parks

Chair Jackson proposed that an Ad Hoc committee be appointed
Commissioner Freedman motioned and Commissioner Bettinger seconded a motion to appoint Commissioners Armstrong and Ferguson to an Ad Hoc committee for Adaptive Reuse of Parks. Motion passed unanimously.

2. CPUC Resolution Proposal, Commissioner Freedman

Commissioner Freedman reported on the upcoming CPUC meeting regarding Net Metering rate changes.

Commissioner Freedman motioned that a resolution be sent to the City Council to prepare and send a letter to CPUC against the changes. Seconded by Commissioner Bettinger.

Manager Mician stated that the December 2, 2015 City Council Agenda is complete and the resolution would not go on that meeting.

Commissioner Armstrong commented on procedural issues and wording on proposal.

Manager Mician reported on procedural issues as to timing to present to Council.

Commissioners made comments and questions regarding the motion.

Manager Mician stated that a letter from the Sustainability Commission would be another option considering timeliness of action needed. The CPUC meeting will be held on December 31, 2015.

Motion made by Commissioner Freedman to amend and have Staff prepare a letter from the Sustainability Commission. Acceptable by Commissioner Bettinger, second.

Commissioner Armstrong stated that he has questions on content of proposal and timing.

Amended motion passed with Commissioners Armstrong and Ferguson voting Nay,

Commissioner Lazar asked if letter could be approved by Commissioners before it is sent.

Manager Mician stated that motion would have to be amended to be sent without approval.

Commissioners and Manager commented on adding the letter to the December 5, 2015 Special Commission meeting. Agenda would have to be changed.

Chair Jackson requested staff communicate with the City Manager's Office in regards to the Sustainability Commission sending the letter to CPUC.

Commissioner Armstrong stated that he had concerns regarding lack of discussion of the Commission and what is included in the proposal. He also had concerns on the disregard for procedure and the process of adding a special meeting requiring Commissioners to meet.

Manager Mician stated that a Special meeting has already been called and that the Agenda can be amended to include additional items.

Commissioner Ferguson stated that she also has not had enough time to make an opinion on the proposal at this time.

Manager Mician reported on additional procedural items that could be addressed.

Commissioner Armstrong stated that he has concerns that the Commission voted on the proposal without proper discussion on the proposal.

Commissioner Ferguson requested that if the proposal is added to the December 5, 2015 Agenda that the Commissioners review all material on the proposal ahead of time to limit the discussion time at the Special Meeting.

Chair Jackson requested that any comments on the content of the proposal be emailed to Manager Mician as soon as possible in order to limit discussion time at the Special Meeting.

I. SUBCOMMITTEE REPORTS - (COMMITTEES REPORTED IN REVERSE ORDER)

1. Water Conservation Subcommittee, Commissioners Armstrong and Freedman

Commissioner Freedman reported on the National Wildlife Foundation's Wildlife Friendly landscapes. Commissioner Freedman also reported on the DWA meeting.

2. Outreach Subcommittee, Commissioner Lazar – No Report

3. Green Building/Solar Subcommittee, Vice Chair Wilson, Commissioners Otto and Freedman

Commissioner Otto reported on the City's solar installations.

4. Waste Reduction Subcommittee, Commissioner Polischak – No Report

5. Wellness Subcommittee, Chair Jackson

Chair Jackson reported on a new application on a community garden project.

6. Active Transportation Subcommittee, Commissioner Yepello

Commissioner Ferguson reported on bike lane status and action items and that communication is being made with the Measure J Commission and ONE-PS to confirm that items are not being done twice.

Commissioner questions and comments on all of the above were presented and discussed

J. COMMISSIONER COMMENTS

Commissioner Lazar stated that her feeling is that the basis of the Commission should focus on information and solutions and not on enforcement. She is volunteering her time to work with Pharmacies to get more informative solutions. Commissioners Polischak and Otto also volunteered.

Commissioner Armstrong asked if the December 5, 2015 meeting will be videotaped to record the vote on the letter to the CPUC. Manager Mician stated that the meeting will not be taped. She will contact City Manager for further input.

Commissioner Ferguson stated that there would still be time to discuss the CPUC letter at the December 15, 2015 Commission meeting since the CPUC meeting will not be until the end of December.

Chair Jackson stated that his wish would be to postpone the vote on the letter until the December 15, 2015 meeting.

Commissioner Ferguson also commented on Desert Highlands group to be put off. Would like to see that they are asked for input and make a presentation to the Commission.

K. ADJOURNMENT - The meeting of the Sustainability Commission adjourned at 7:21 p.m. Motion by Commissioner Lazar and Second by Commissioner Otto. They adjourned to the Special Meeting which will be held at 12:00 p.m. on Saturday, December 5, 2015 in the Welwood-Murray Library, 100 S Palm Canyon Drive, Palm Springs CA 92262. The Sustainability Commission's normal meeting schedule is at 5 p.m. on the third Tuesday of every month except August unless otherwise noted or amended.

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, Michele C. Mician, Sustainability Manager



SUSTAINABILITY COMMISSION STAFF REPORT

DATE: December 15, 2015

SUBJECT: Proposed Revisions to the Water Efficient Landscape Ordinance – PSMC Chapter 8.60

FROM: Department of Planning Services

PROJECT DESCRIPTION

This is a request for consideration of proposed revisions to the Palm Springs Municipal Code (PSMC) Chapter 8.60, "Water Efficient Landscape Ordinance," to address recent changes by the State of California regarding water conservation efforts and requirements. The Coachella Valley Association of Governments (CVAG), through its Technical Planning Subcommittee, has prepared a model ordinance for use by local governments.

RECOMMENDATION

That the Sustainability Commission review the proposed model ordinance and recommend associated updates to PSMC Chapter 8.60.

PREVIOUS ACTIONS

<i>Related Relevant Actions by the City</i>	
09/17/14	The City Council adopted Ordinance No. 1859, amending and restating PSMC Chapter 8.06, relating to water efficient landscaping regulations and requirements.

BACKGROUND AND ANALYSIS

The California Water Commission approved a model Water Efficient Landscape Ordinance in July 2015 as a means to assist cities and counties in updating their ordinances in accordance with Governor Brown's Drought Response Plan (Executive Order B-29-15). Local agencies, including cities and counties, are required to adopt a landscape ordinance that is at least as effective in conserving water as the State's Model Ordinance. Local agencies were given a deadline of December 1, 2015, to update their ordinances; however, local agencies working together were given an extended deadline of February 1, 2016. The Coachella Valley Association of

Governments (CVAG) and the Coachella Valley Water District (CVWD) have been working with other local water agencies, Riverside County, and all of the local cities to develop an updated regional Model Water Efficient Landscape Ordinance. This regional model ordinance can serve as a basis for updates to the City's ordinance.

CVAG staff, in coordination with CVWD staff, began work on the updated model ordinance earlier this year. The work plan for the updated model ordinance was presented to the CVAG Technical Planning Subcommittee in June 2015; the subcommittee met several times from June until November 2015 to review the requirements from the State and recommendations from CVWD and other participants. The attached model ordinance reflects the final recommendations from the CVAG Technical Planning Subcommittee. The proposed model ordinance will need to be tailored to meet the requirements of the City of Palm Springs.

Some of the key updates from the model ordinance for consideration are as follows:

- The size of the project subject to the ordinance is changed from a landscape area greater than or equal to 5,000 square feet to a total landscape area greater than or equal 2,500 square feet.
- A rating for plant water use (ET or Evapotranspiration Factor) of 0.45 compared to the 2010 ordinance of 0.5; the lower the ETAF number, the more water efficient the plants used in landscaping must be.
- An improved irrigation efficiency rating of 75% for spray systems and 90% for drip systems; the 2010 ordinance requires an irrigation efficiency of 75% for all systems.
- Long, narrow or irregularly shaped turf areas shall not be designed because of the difficulty in irrigating uniformly without overspray onto hardscaped areas, streets and sidewalks. The 2010 ordinance does not allow turf in areas less than *eight feet* in width. The 2015 ordinance limits turf in areas less than *ten feet* in width. Turf will be allowed in these areas only if irrigation design reflects the use of subsurface irrigation or a surface flow/wick irrigation system.
- The requirement for groundcover and mulch to reduce soil moisture evaporation is increased from *two inches* to *three inches*.
- Annual color plantings shall be used only in areas of high visual impact close to where people can appreciate them *and must be irrigated with drip, micro-irrigation or other systems with efficiencies of 90 percent or greater*. Otherwise, drip irrigated, perennial plantings should be the primary source of color.
- High water use plants, characterized by a plant factor of 0.7 to 1.0, are prohibited in street medians.
- Separate landscape water meters shall be installed for all projects except single family homes with a landscape area less than 5,000 square feet.
- High flow sensors that detect and report leaks or other malfunction shall be specified for all projects *where a dedicated landscape irrigation meter is required*.
- Changes to the requirements for an irrigation audit.
- Whenever possible, irrigation should be scheduled between 8:00 p.m. and 10:00 a.m. to avoid irrigating during times of high wind or high temperature.

While the City's existing landscape ordinance (Chapter 8.60) includes many of the conservation requirements proposed in the model ordinance, there are elements that may need to be adjusted to comply with the updated requirements adopted by the State. In addition, there are other requirements that are not currently addressed in the City's ordinance, such as irrigation efficiency and high-water use plant limitations, which should be considered for adoption.

CONCLUSION

In order to comply with the new requirements established by the State of California, the City will need to update its existing Water Efficient Landscape Ordinance. A proposed model ordinance, developed by CVAG, may serve as a guide for the City to consider in making updates to the landscape ordinance. It is recommended that the Sustainability Commission consider the model ordinance in proposing updates to the City's ordinance.

Flinn Fagg, AICP
Director of Planning Services

Attachments:

1. Comparison Table – Water Efficient Landscape Requirements
2. Model Ordinance (modeled from CVWD Ordinance No. 1302.1)

**Water Efficient Landscape Requirements
Comparison Table**

City of Palm Springs Existing Ordinance	CVAG/CVWD Model Ordinance	State Updates July 2015	Notes
<p>Threshold:</p> <ul style="list-style-type: none"> • New and rehabilitated landscape for commercial & multifamily over 2,500 SF • New residential subdivisions with developer-provided landscape (regardless of size) • New single-family over 5,000 SF • New single-family between 2,500 SF and 5,000 SF shall comply with 8.60.060 and 8.60.070 only <p>ET Adjustment Factor: 0.50</p>	<p>Threshold:</p> <ul style="list-style-type: none"> • New and rehabilitated landscape for all commercial projects • New and rehabilitated landscape for residential over 2,500 SF <p>ET Adjustment Factor: 0.45</p>	<p>Threshold:</p> <ul style="list-style-type: none"> • New landscape over 5,000 SF • Rehabilitated landscape over 2,500 SF 	<ul style="list-style-type: none"> • Update single-family threshold to include both new and rehabilitated landscapes for projects over 2,500 SF
<p>Irrigation Efficiency: N/A</p>	<p>Irrigation Efficiency:</p> <ul style="list-style-type: none"> • 0.75 for spray systems • 0.90 for drip systems 	<p>Irrigation Efficiency:</p> <ul style="list-style-type: none"> • 0.75 for spray systems • 0.81 for drip systems 	<ul style="list-style-type: none"> • Adopt irrigation efficiency requirements
<p>Maximum Applied Water Allowance: N/A</p>	<p>Maximum Applied Water Allowance – Rehabilitated Landscapes: .045 ET adjustment factor</p>	<p>Maximum Applied Water Allowance: N/A</p>	<ul style="list-style-type: none"> • Consider adoption of Maximum Applied Water Allowance requirements
<p>Turf: no turf in areas less than 6' in width, unless low-volume irrigation is used</p>	<p>Turf: No turf in areas less than 10' in width, unless subsurface irrigation or surface flow/wick system is used</p>	<p>Turf: Areas less than 10' in width shall use subsurface system or other means that produces no runoff</p>	<ul style="list-style-type: none"> • Update the turf restriction from 6' wide to 10' wide areas
<p>Soil-covering mulch/mineral groundcover: N/A</p>	<p>Soil-covering mulch/mineral groundcover: Min. 3" depth</p>	<p>Soil-covering mulch/mineral groundcover:</p> <ul style="list-style-type: none"> • Min. 3" depth • Up to 5% of landscape area may be left without mulch to preserve habitat 	<ul style="list-style-type: none"> • Adopt minimum mulch requirements
<p>Annual color plantings: N/A</p>	<p>Annual color plantings: Must be irrigated with drip, micro-irrigation or other systems with 90% efficiency</p>	<p>Annual color plantings: N/A</p>	<ul style="list-style-type: none"> • Consider adoption of restrictions for annual color plantings
<p>High-water use plants (plant factor = 0.7 to 1.0): N/A</p>	<p>High-water use plants (plant factor = 0.7 to 1.0): Prohibited in medians</p>	<p>High-water use plants (plant factor = 0.7 to 1.0) prohibited in medians</p>	<ul style="list-style-type: none"> • Adopt restrictions for high-water use plants

City of Palm Springs Existing Ordinance	CVAG/CVWD Model Ordinance	State Updates July 2015	Notes
Separate landscape meters: Required for all commercial and multifamily projects over 2,500 SF	Separate landscape meters: Required for all projects except single-family under 5,000 SF	Separate landscape meters: • Required for all commercial projects over 1,000 SF • Required for residential projects over 5,000 SF	• Update landscape meter requirements to include commercial projects over 1,000 SF and residential projects over 5,000 SF
High-flow sensors: Required for any project over 5,000 SF	High-flow sensors: Required for all projects where a dedicated meter is required	High-flow sensors: Required for all commercial projects and residential projects over 5,000 SF	• No change needed
Irrigation audit report: Required every 5 years for projects over 60,000 SF	Irrigation audit report: Required for submittal to local agency upon installation with Certificate of Completion	Irrigation audit report required for submittal to local agency upon installation with Certificate of Completion	• Update irrigation audit requirement to include an audit upon completion of the project in addition to other audit requirements
Watering schedule: N/A	Watering schedule: Between 8:00pm and 10:00am	Watering schedule: N/A	• Consider adoption of watering schedule requirements (issue: enforcement)

ATTACHMENT A
OF
ORDINANCE 1302.1

LANDSCAPE AND IRRIGATION SYSTEM DESIGN CRITERIA

Sections:

0.00.010	Purpose and Intent
0.00.020	Definitions
0.00.030	Provisions for New or Rehabilitated Landscapes
0.00.040	Other Provisions
0.00.050	Review and Program Monitoring Fees
0.00.060	Appeals
0.00.070	Penalties
0.00.080	Hearing Regarding Penalties
0.00.090	Appeal of Penalties

0.00.010 Purpose and Intent

A. The California State Legislature has found:

1. The waters of the state are of limited supply and are subject to ever increasing demands;
2. The continuation of California's economic prosperity is dependent on the availability of adequate supplies of water for future users;
3. It is the policy of the State to promote the conservation and efficient use of water and to prevent the waste of this valuable resource;
4. Landscapes are essential to the quality of life in California by providing areas for active and passive recreation and as an enhancement to the environment by cleaning air and water, preventing erosion, offering fire protection, and replacing ecosystems lost to development;
5. Landscape design, installation, maintenance and management can and shall be water efficient; and
6. Section 2 of Article X of the California Constitution specifies that the right to use water is limited to the amount reasonably required for the beneficial use to be served and the right does not and shall not extend to waste and unreasonable method of use.

B. Consistent with these legislative findings, the purpose of these criteria is to:

1. Promote the values and benefits of ~~landscapes while recognizing the need to invest water and other resources as efficiently as possible~~landscaping practices that integrate and go beyond the conservation and efficient use of water;
2. Establish a structure for planning, designing, installing, maintaining and managing water efficient landscapes in new construction and rehabilitated projects by encouraging the use of a watershed approach that requires

cross-sector collaboration of industry, government and property owners to achieve the many benefits possible;

3. Establish provisions for water management practices and water waste prevention for existing landscapes;
 4. Use water efficiently without waste by setting a Maximum Applied Water Allowance (MAWA) as an upper limit for water use and reduce water use to the lowest practical amount; and
 5. Promote the benefits of consistent landscape criteria with neighboring local and regional agencies.
- C. It is also the purpose of these criteria to implement the requirements of the California Code of Regulations Title 23, Waters Division 2, Department of Water Resources Chapter 2.7, Model Water Efficient Landscape Ordinance, and State of California Water Conservation in Landscaping Act. Authority cited: Section 65593, Government Code, Reference: Sections 65591, 65593, 65596 Government Code.
- D. It is the intent of these criteria to promote water conservation through climate-appropriate plant material and efficient irrigation systems, and to create a "Lush and Efficient" landscape theme through enhancing and improving the physical and natural environment.
- E. Applicability
1. These criteria shall apply to all of the following landscape projects:
 - a. New construction and rehabilitated landscapes for public agency projects and private development projects requiring a building or landscape permit, plan check or design review;
 - b. New construction and rehabilitated landscapes which are developer-installed in single-family and multi-family projects requiring a building or landscape permit, plan check or design review;
 - c. New construction and rehabilitated landscapes which are homeowner-provided and/or homeowner-hired in single family and multi-family residential projects with a total project landscape area equal to or greater than ~~2,500~~ 5,000 square feet requiring a building or landscape permit, plan check or design review; and
 - d. Existing landscapes limited to section 0.00.040 (B).
 2. These criteria do not apply to:
 - a. Registered local, state or federal historical sites;
 - b. Ecological restoration projects that do not require a permanent irrigation system;
 - c. Mined-land reclamation projects that do not require a permanent irrigation system; or
 - d. Plant collections, as part of botanical gardens and arboreturns open to the public.

0.00.020

Definitions

The words used in this section have the meanings set forth below:

ANTIDRAIN VALVE or CHECK VALVE - A valve located under/in a sprinkler head to hold water in the system to eliminate drainage from the lower elevation sprinkler heads.

APPLICATION RATE - The depth of water applied to a given area, usually measured in inches per hour. Also known as precipitation rate (sprinklers) or emission rate (drippers/microsprayers) in gallons per hour.

APPLIED WATER - The portion of water supplied by the irrigation system to the landscape.

AUTOMATIC CONTROLLER - An electronic or solid-state timer capable of operating valve stations to set the days, time and length of time of a water application.

BACKFLOW PREVENTION DEVICE - A safety device used to prevent pollution or contamination of the water supply due to the reverse flow of water from the irrigation system.

BENEFICIAL USE - Water used for landscape evapotranspiration.

BILLING UNITS - Units of water (100 cubic feet = 1 billing unit = 748 gallons = 1 CCF) for billing purposes. To convert gallons per year to 100 cubic feet per year, divide gallons per year by 748. (748 gallons = 100 cubic feet).

CONVERSION FACTOR (0.62) - A number that converts the Maximum Applied Water Allowance from acre-inches per acre to gallons per square foot. The conversion factor is calculated as follows:

$$\begin{array}{rcl} (325,851 \text{ gallons}/43,560 \text{ square feet})/12 \text{ inches} & = & (0.62) \\ 325,851 \text{ gallons} & = & \text{one acre-foot} \\ 43,560 \text{ square feet} & = & \text{one acre} \\ 12 \text{ inches} & = & \text{one foot} \end{array}$$

DESERT LANDSCAPE - A desert landscape using native plants spaced to look like a native habitat.

DISTRIBUTION UNIFORMITY - A measure of how evenly sprinklers apply water. The low-quarter measurement method (DULQ) utilized in the irrigation audit procedure is utilized for the purposes of these criteria. These criteria assume an attainable performance level of 75% DULQ for spray heads, 80% DULQ for rotor heads and 85% DULQ for recreational turf grass rotor heads.

DISTRICT – Coachella Valley Water District.

DRIP IRRIGATION - A method of irrigation where the water is applied slowly at the base of plants without watering the open space between plants.

ECOLOGICAL RESTORATION PROJECT - A project where the site is intentionally altered to establish a defined, indigenous, historic ecosystem.

EFFECTIVE PRECIPITATION or USABLE RAINFALL - The portion of total natural precipitation that is used by the plants, usually assumed to be three inches annually. Precipitation or rainfall is not considered a reliable source of water in the desert.

ELECTRONIC CONTROLLERS - Time clocks that have the capabilities of multiprogramming, water budgeting and multiple start times.

EMISSION UNIFORMITY - A measure of how evenly drip and microspray emitters apply water. The low-quarter measurement method (EULQ) utilized in the landscape irrigation evaluation procedure is utilized for the purposes of these criteria. These criteria assume 90% EULQ for drippers, microsprays and pressure compensating bubblers.

EMITTER - Drip irrigation fittings that deliver water slowly from the watering system to the soil.

ESTABLISHED LANDSCAPE - The point at which new plants in the landscape have developed roots into the soil adjacent to the root ball.

ESTABLISHMENT PERIOD - The first year after installing the plant in the landscape.

ESTIMATED TOTAL WATER USE (By hydrozone) - The portion of the estimated annual total applied water use that is derived from applied water to a specified hydrozone.

ESTIMATED ANNUAL TOTAL APPLIED WATER USE (Total of all hydrozones) - The annual total amount of water estimated to be needed by all hydrozones to keep the plants and water features in the landscaped area healthy and visually pleasing. It is based upon such factors as the local evapotranspiration rate, the size of the landscaped area, the size and type of water feature, the types of plants, and the efficiency of the irrigation system. The estimated annual total applied water use shall not exceed the Maximum Applied Water Allowance (MAWA).

EVAPOTRANSPIRATION or ET - The quantity of water evaporated from adjacent soil surfaces and transpired by plants expressed in inches during a specific time.

ET ADJUSTMENT FACTOR - A factor of 0.45 that, when applied to reference evapotranspiration, adjusts for plant factors and irrigation efficiency, two major influences upon the amount of water that needs to be applied to the landscape. A

~~combined plant mix with a site-wide average 0.38 is the basis of the plant factor portion of this calculation. The irrigation efficiency for purposes of the ET adjustment factor is 0.75. Therefore, the ET adjustment factor (0.5) = (0.38/0.75).~~

FINISHED GRADE – Grade height after surface mulch covering has been installed.

FLOW RATE - The rate at which water flows through pipes, valves and meters (gallons per minute or cubic feet per second).

HARDSCAPE - Concrete or asphalt areas including streets, parking lots, sidewalks, driveways, patios and decks.

HEAD-TO-HEAD COVERAGE - One hundred percent sprinkler coverage of the area to be irrigated, with maximum practical uniformity.

HIGH FLOW CHECK VALVE - A valve located under/in a sprinkler head to stop the flow of water if the spray head is broken or missing.

HYDROZONE - A portion of the landscaped area having plants with similar water needs that are served by a valve or set of valves with the same schedule. A hydrozone may be irrigated or non-irrigated. For example, a naturalized area planted with native vegetation that will not need supplemental irrigation (once established) is a non-irrigated hydrozone.

INFILTRATION RATE - The rate of water entry into the soil expressed as a depth of water per unit of time (inches per hour).

IRRIGATION EFFICIENCY - The measurement of the amount of water beneficially used divided by the amount of water applied. Irrigation efficiency is derived from measurements and estimates of irrigation system characteristics and management practices. The minimum irrigation efficiency for purposes of these regulations is 0.75 or 75 percent and .90 or 90 percent for drip systems. ~~Greater irrigation efficiency can be expected from well-designed and maintained systems.~~

LANDSCAPE IRRIGATION AUDIT - A process to perform site inspections, evaluate irrigation systems and develop efficient irrigation schedules.

LANDSCAPED AREA - The entire parcel less the building footprint, driveways, non-irrigated portions of the parking lots, hardscapes (such as decks and patios), and other nonporous areas. Water features are included in the calculation of a site's landscaped area.

LATERAL LINE - The water delivery pipeline that supplies water to the emitters sprinklers from a valve.

LOCAL AGENCY – A city, county, or water purveyor responsible for adopting and implementing the ordinance. The local agency is also responsible for

enforcement of the ordinance, including, but not limited to, approval of a design review, permit, plan check, or inspection of a project.

MAIN LINE - The pressurized pipeline that delivers water from the water source to a valve or outlet.

MAXIMUM APPLIED WATER ALLOWANCE (MAWA) - For design purposes, the upper limit of annual applied water for the established landscape area as specified in Division 2, Title 23, California Code of Regulations, Chapter 7, Section 492.4702. It is based upon the area's reference evapotranspiration, ET adjustment factor, and the size of the landscaped area. The estimated applied water use shall not exceed the Maximum Applied Water Allowance (MAWA).

MICROIRRIGATION - See drip irrigation.

MULCH - Any organic material such as leaves, bark, straw or inorganic material such as pebbles, stones, gravel, decorative sand or decomposed granite left loose and applied to the soil surface to reduce evaporation.

NATIVE PLANTS - Native plants are low water using plants that are: 1) indigenous to the Coachella Valley and lower Colorado Desert region of California and Arizona, 2) native to the southwestern United States and northern Mexico or 3) native to other desert regions of the world, but adapted to the Coachella Valley.

NATURAL GRADE - Grade height of native soil before application of surface mulch.

OPERATING PRESSURE - The pressure at which an irrigation system's sprinklers, bubblers, drippers or microsprays are designed to operate, usually indicated at the base of an irrigation head.

OVERHEAD SPRINKLER IRRIGATION STATIONS - Sprinklers with high flow rates (spray heads, impulse sprinklers, gear rotors, etc.) that are utilized to apply water through the air to large irrigated areas.

OVERSPRAY - The water which is delivered beyond the landscaped area onto pavements, walks, structures or other non-landscape areas. Also known as hardscape applications.

PLANT FACTOR - A factor that, when multiplied by reference evapotranspiration, estimates the amount of water used by plants. For purposes of these criteria, the average plant factor of very low water using plants ranges from 0.01 to 0.10, for low water using plants the range is 0.10 to 0.30, for moderate water using plants the range is 0.40 to 0.60, and for high water using plants, the range is 0.70 to 0.90. Reference: Water Use Classifications of Landscape Species IVH (WUCOLS IVH).

PRESSURE COMPENSATING (PC) BUBBLER – An emission device that allows the output of water to remain constant regardless of input pressure. Typical flow rates for this type of bubbler range between 0.25 gpm to 2.0 gpm.

PRESSURE COMPENSATING SCREENS/DEVICES - Small screens/devices inserted in place of standard screens/devices that are used in sprinkler heads for radius and high pressure control.

QUALIFIED PROFESSIONAL - A person who has been certified by their professional organization or a person who has demonstrated knowledge and is locally recognized as qualified among landscape architects due to longtime experience.

RAIN-SENSING DEVICE - A system which automatically shuts off the irrigation system when it rains.

RECYCLED WATER/RECLAIMED WATER - Treated or recycled wastewater of a quality suitable for nonpotable uses such as landscape irrigation. Recycled water is not for human consumption.

RECORD DRAWING or AS-BUILTS - A set of reproducible drawings which show 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.

RECREATIONAL AREA - Areas of active play or recreation such as golf courses, sports fields, school yards, picnic grounds, or other areas with intense foot or vehicular traffic.

RECREATIONAL TURF GRASS - High traffic turf grass that serves as a playing surface for sports and recreational activities. Athletic fields, golf courses, parks and school playgrounds are all examples of areas having recreational turf grass.

RECREATIONAL TURF GRASS ET ADJUSTMENT FACTOR - A factor of 0.82 that, when applied to reference evapotranspiration, adjusts for the additional stress of high traffic on recreational turf grass and the higher irrigation efficiencies of long-range rotary sprinklers. These are the two major influences upon the amount of water that needs to be applied to a recreational landscape. A mixed cool/warm season turf grass with a seasonal average of 0.7 is the basis of the plant factor portion of this calculation. The irrigation efficiency of long-range sprinklers for purposes of the ET adjustment factor is 0.85. Therefore, the ET adjustment factor is $0.82 = 0.7/0.85$.

REFERENCE EVAPOTRANSPIRATION or ETo - A standard measurement of the environmental parameters which affect the water use of plants, using cool season grass as a reference. ETo is expressed in inches per day, month or year and is an estimate of the evapotranspiration of a large field of cool-season grass that is well watered. Reference evapotranspiration is used as a basis of determining the Maximum Applied Water Allowances so that regional differences

in climate can be accommodated. For purposes of these criteria, CVWD Drawing No. 29523 will be used for ETo zones.

REHABILITATED LANDSCAPE - Any re-landscaping project in which the choice of new plant material and/or new irrigation system components is such that the calculation of the site's estimated water use will be significantly changed. The new estimated water use calculation must not exceed the Maximum Applied Water Allowance (MAWA) calculated for the site using a ~~0.45~~ ET adjustment factor.

RIPARIAN PLANTS - Riparian plants are high water using and water-loving plants that are found growing naturally along flowing rivers and lake shores. They may also be native to wet swampy areas with high water tables or poor drainage.

RUNOFF - Irrigation water which is not absorbed by the soil or landscape to which it is applied and which flows from the planted area.

SERVICE LINE - The pressurized pipeline that delivers water from the water source to the water meter.

SMART CONTROLLER - Weather-based or soil moisture-based irrigation controls that monitor and use information about environmental conditions for a specific location and landscape (such as soil moisture, rain, wind, the plants' evaporation and transpiration rates and, in some cases, plant type and more) to automatically control when to water and when not to, providing exactly the right amount of water to maintain lush, healthy growing conditions.

SOIL MOISTURE-SENSING DEVICE - A device that measures the amount of water in the soil.

SOIL TEXTURE - The classification of soil based on the percentage of sand, silt and clay in the soil.

SPRINKLER HEAD - A device which sprays water through a nozzle.

STATIC WATER PRESSURE - The pipeline or municipal water supply pressure when water is not flowing.

STATION - An area served by one valve or by a set of valves that operate simultaneously.

TURF - A surface of earth containing mowed grass with roots.

VALVE - A device used to control the flow of water in the irrigation system.

WATER FEATURE - Any water applied to the landscape for nonirrigation, decorative purposes. Fountains, streams, ponds and lakes are considered water

features. Water features use more water than efficiently irrigated turf grass and are assigned a plant factor of 1.1 for a stationary body of water and 1.2 for a moving body of water.

WATER SYSTEM - The network of piping, valves and irrigation heads.

WUCOLS III - Water Use Classifications of Landscape Species III

0.00.030 Provisions for new or rehabilitated landscapes

- A. Submittal and Approval of a Landscape Documentation Package**
1. Prior to construction, the project applicant shall:
 - a. Submit two copies of a Landscape Documentation Package to the Coachella Valley Water District (District) that conform to this chapter. No water meter will be issued until the District reviews and approves the Landscape Documentation Package.
 - b. Submit one copy of the Landscape Documentation Package to the local agency (city/county).
 2. Upon receipt of the Landscape Documentation Package, the District shall:
 - a. Review the Landscape Documentation Package.
 - b. Approve or deny the Landscape Documentation Package.
 3. Upon approval of the Landscape Documentation Package, the District will:
 - a. Sign and date the approved plans and return them to the project applicant.
 - b. Submit a copy of the project's Water Efficient Landscape Worksheet (Appendix B) to the local agency.
 4. Upon approval of the Landscape Documentation Package by the local agency, the project applicant shall:
 - a. Receive an approval of the landscape design review or plan check.
 - b. Finalize the Certificate of Completion, including recording the date of the approval.
 - c. File the Certificate of Completion with the District and the local agency, and provide a copy to the property owner or designee.

- d. Submit a copy of the approved Landscape Documentation Package, along with the record drawings and any other information, to the property owner or designee.
5. Each Landscape Documentation Package shall include the following elements:
- a. A completed Landscape Documentation Package Checklist (Appendix A), which includes the date, project applicant, and project address information. This checklist serves to verify that the elements of the Landscape Documentation Package have been completed.
 - b. Total landscaped area (square feet)
 - c. Project type (e.g., new, rehabilitated, public, private, cemetery, homeowner-installed, etc.)
 - d. Water Efficient Landscape Worksheet (Appendix B), which may be imbedded in the plan sheets of the Landscape Documentation Package, and include the following:
 - i. Hydrozone Information Table (reference Appendix C)
 - e. Water Budget Calculations (reference Appendix D) that adhere to the following requirements:
 - i. The plant factor used shall be from WUCOLS. The plant factors ranges from 0 to 0.3 for the low use plants, from 0.4 to 0.6 for the moderate use plants, from 0.7 to 1.0 for the high use plants and 1.1 to 1.2 for water features.
 - ii. All water features shall be included in the 1.1 to 1.2 hydrozone and temporary irrigated areas shall be included in the low water use hydrozone.. For the calculation of the Maximum Applied Water Allowance (MAWA) and Estimated Total Water Use, a project applicant shall use ETo values from the Reference Evapotranspiration Table, Appendix C. For geographic areas not covered in Appendix C, use data from other cities located nearby in the same reference evapotranspiration zone.
 - f. Landscape Design Plan
 - g. Irrigation Design Plan
 - h. Grading Design Plan (as required)
 - i. Soil Management Report (as required)
 - j. All plans must contain a signature block for both the local agency and the District.
6. The Landscape Documentation Package shall be submitted by the following procedure:
- a. The applicant or applicant's representative may bring, send or ship copies of the Landscape Documentation Package to the District,

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and the local agency, as applicable. Appropriate fees must accompany the Landscape Documentation Package.

- b. The plans will normally be returned to the applicant or local agency with comments by the District (Water Management Department) within ten working days of receipt.
- c. After noted corrections have been made, the applicant shall re-submit the Landscape Documentation Package to the District for approval and signing by the Water Management Department and Development Services Department for the District.
- d. Signed plans will be held at the District's Palm Desert office for applicant pick up or sent by certified shipping at the applicant's request and expense.

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e. For direct communication:

Telephone No.: (760) 398-2651 Water Management Department

Mailing Address: Coachella Valley Water District
Attention: Water Management Department
Post Office Box 1058
Coachella, California 92236

Hand Delivery or Shipping Address: Coachella Valley Water District
Attention: Water Management Department
85-995 Avenue 52
Coachella, California 92236

Hand Delivery or Shipping Address: Coachella Valley Water District
Attention: Water Management Department
75-525 Hovley Lane East
Palm Desert, California 92211

f. The District will inspect the landscaped area(s) for conformance with the approved Landscape Documentation Package. Landscaping that does not conform to the approved Landscape Documentation Package is subject to penalties as provided in Section 0.00.070.

7. Upon review and approval of the Landscape Documentation Package by the District, the project applicant shall:

- a. Submit a copy of the District-approved Landscape Documentation Package and Water Efficient Landscape Worksheet to the local agency.
- b. Provide the property owner or site manager a copy of the District-approved Landscape Documentation Package, in addition to the record drawings and any other information normally forwarded to the property owner or site manager.

8. Upon review and approval of the Landscape Documentation Package by the local agency, the project applicant shall:

- a. Record the date of the permit on the Certificate of Completion.
- b. Provide the property owner or designee a copy of the local-agency approved Landscape Documentation Package, in addition to the record drawings, and any other information normally forwarded to the property owner or designee.

B. Landscape Design Plan

A landscape design plan meeting the following design criteria shall be submitted as part of the Landscape Documentation package. For the efficient use of water, a landscape shall be carefully designed and planned for the intended function of the project.

1. Any plant may be selected for the landscape, providing the Estimated Total Water Use in the landscape area does not exceed the Maximum Applied Water Allowance (MAWA). To encourage the efficient use of water the following is highly recommended:
 - a. Protection and preservation of native species and natural vegetation;
 - b. Selection of water-conserving plant and turf species;
 - c. Selection of trees based on applicable local tree ordinances or tree shading guidelines; and
 - d. Selection of plants from local and regional landscape program plant lists.
2. **Specifications for Landscape Design Plan**

The landscape design plan shall be drawn on 36-inch by 24-inch project base sheets at a scale that accurately and clearly identifies the following:

 - a. Tract name, tract number or parcel map number on cover sheet.
 - b. Proposed planting areas.
 - c. Plant material location and size.
 - d. Plant botanical and common names.
 - e. Plant spacing, where applicable.
 - f. Natural features including, but not limited to, rock outcroppings, and existing trees and shrubs that will remain incorporated into the new landscape.
 - g. Vicinity map showing site location on top sheet or on cover sheet.
 - h. Title block on each sheet with the name and address of the project, and the name and address of the professional design company with its signed professional stamp, if applicable.
 - i. Reserve two 6-inch by 3-inch spaces for a) the local agency signature block and b) a District signature block in lower right corner of the cover sheet and on all of the landscape, irrigation design/detail/specification sheets.
 - j. Show plan scale and north arrow on design sheets.
 - k. Show graphic scale on all design sheets.
 - l. Show all property lines and street names.
 - m. Show all paved areas, such as driveways, walkways and streets.

- n. Show all pools, ponds, lakes, fountains, water features, fences and retaining walls.
- o. Show locations of all overhead and underground utilities within project area.
- p. Provide an index map, as necessary, showing the overall project, including all 1/4 and 1/16 section lines and section numbers.
- q. Show ~~these~~ notes on each design sheet stating, ~~“Trees, plants, walls, sidewalks and permanent structures of any kind shall not be planted, installed or built in CVWD, USBR and local agency easements or rights-of-way without first obtaining an encroachment permit from CVWD and the local agency. No permanent structures or trees within CVWD and/or USBR easements. CVWD will not be responsible for replacing damage or replacement of and/or maintaining any surface improvements, including but not limited to, decorative concrete, and/or landscaping, curb, gutter, sidewalks, planters, gates and related improvements installed over within water lines, valves, sewer lines or laterals CVWD and/or USBR easements.”~~
In addition, “No trees shall be installed in an easement and/or within 15’ of a CVWD and/or USBR pipeline.” If surface improvements may be installed within CVWD and/or USBR easements only upon the prior consent of CVWD, which consent may be granted or denied at CVWD’s sole discretion. In the event of such consent, then a Non-interference review letter (NIRL) may apply per Section 3.4 of CVWD’s Development Design Manual.
- r. Show Maximum Applied Water Allowance (MAWA) for the proposed project. (See formula in Appendix C and Sample MAWA, Appendix D.)
- s. Show total landscaped area in square feet. Separate area square footages by hydrozone. Show the total percentage area of each hydrozone. Include total area of all water features as separate hydrozones of still or moving water. Show Estimated Total Water Use, for each major plant group hydrozone and water feature hydrozone expressed in either seasonal (turf grass) or annual (trees, shrubs, groundcovers and water features) billing units.
- t. Show Total Estimated Total Water Use for each major plant group hydrozone and water feature hydrozone expressed in either seasonal (turf grass) or annual (trees, shrubs, groundcovers and water features) billing units.
- u. Show Total Estimated Water Use for the entire project. (Formula in Appendix C and on Sample Calculation Estimated Water Use, Appendix D.) The Total Estimated Use shall not exceed the Maximum Applied Water Allowance (MAWA).
- v. Designate recreational areas and recreational turf areas.

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- w. When model homes are included, show the Maximum Applied Water Allowance (MAWA) and Estimated Total Water Use (by hydrozone with totals) for each model unit.

3. Landscape Design Criteria

- a. The landscape design must be carefully planned and take into account the intended function of the project.
- b. Plants' appropriateness shall be selected based upon their adaptability to the climatic, geologic and topographical conditions of the site.
- c. Selection of water-efficient and low-maintenance plant material is required.
- d. All planted areas must be a minimum of one inch below adjacent hardscapes to eliminate runoff and overflow.
- e. Long, narrow or irregularly shaped turf areas shall not be designed because of the difficulty in irrigating uniformly without overspray onto hardscaped areas, streets and sidewalks. Areas less than 108 feet in width shall not be designed with turf. Turf will be allowed in these areas only if irrigation design reflects the use of subsurface irrigation or a surface flow/wick irrigation system.
- f. Turf areas irrigated with spray/rotor systems must be set back at least 24 inches from curbs, driveways, sidewalks or any other area that may result in runoff of water onto streets. An undulating landscape buffer area created by the setback shall be designed with rocks, cobble or decomposed granite and/or can be landscaped with drip irrigated shrubs/accents or covered with a suitable ground cover.
- g. Plants having similar water use shall be grouped together in distinct hydrozones.
- h. The use of a soil covering mulch or a mineral groundcover of a minimum three-inch depth to reduce soil surface evaporation is required around trees, shrubs and on nonirrigated areas. The use of boulders and cobble shall be considered to reduce the total vegetation area.
- i. Annual color plantings shall be used only in areas of high visual impact and must be irrigated with drip, microirrigation or other systems with efficiencies of 90 percent or greater. -close to where people can appreciate them. Otherwise, drip irrigated, perennial plantings should be the primary source of color.
- j. Native desert plants shall be specified to be planted in a shallow, wide, rough hole two times the root ball width. The root ball will be set on either undisturbed native soil or a firmed native soil. The root ball top will be set even with the finished surface grade or above grade if the soil is poorly drained. The hole must be

backfilled with native soil. Extra soil may be used to mound up around plants where the soil is poorly drained.

- k. Landscaping must not obstruct or interfere with street signs, lights or road/walkway visibility. Screening may be provided by walls, berms or plantings.

l. High water use plants, characterized by a plant factor of 0.7 to 1.0, are prohibited in street medians.

m.f. Use locally approved plant materials lists in the selection of appropriate plants.

n.M. Planter islands in parking lots with canopy trees shall be sized to meet local land use agency requirements.

o.n. A landscape plan in fire-prone areas shall address fire safety and prevention. A defensible space or zone around a building or structure is required per Public Resources Code Section 4291 (a) and (b). Avoid fire-prone plant material and highly flammable mulches.

p.e. The use of invasive and/or noxious plant species is prohibited.

q.p. The architectural guidelines of a common interest development, which includes community apartment projects, condominiums, planned developments and stock cooperatives, shall not prohibit or include conditions that have the effect of prohibiting the use of low-water use plants as a group (California Civil Code, Section 1353.8).

D. Grading Design Plan

1. For efficient use of water, grading of a project site shall be designed to minimize soil erosion, runoff and water waste. A grading plan shall be submitted as part of the Landscape Documentation Package. A comprehensive grading plan prepared by a civil engineer for other local agency permits satisfies this requirement.
2. The project applicant shall submit a landscape grading plan that indicates finished configurations and elevations of the landscape area including:
 - a. Height of graded slopes;
 - b. Drainage patterns;
 - c. Pad elevations;
 - d. Finish grade; and
 - e. Stormwater retention improvements, if applicable.
3. To prevent excessive erosion and runoff, it is highly recommended, and per local agency requirements, that project applicants:
 - a. Grade so that all irrigation and normal rainfall remains within property lines and does not drain on to non-permeable hardscapes;

- b. Avoid disruption of natural drainage patterns and undisturbed soil; and
 - c. Avoid soil compaction in landscape areas.
4. The grading design plan shall contain the following statement: "I have complied with the criteria of the ordinance and applied them accordingly for the efficient use of water in the grading plan."
 5. Turf is not allowed on slopes greater than 25% where the toe of the slope is adjacent to an impermeable hardscape and where 25% means 1 foot of vertical elevation change for every 4 feet of horizontal length (rise divided by run x 100 = slope percent).
 6. Slopes greater than 25% shall not be irrigated with an irrigation system with a precipitation rate exceeding 0.75 inches per hour. This restriction may be modified if the landscape designer specifies an alternative design or technology, as part of the Landscape Documentation Package, and clearly demonstrates no runoff or erosion will occur. Prevention of runoff must be confirmed during an irrigation audit.
 7. All grading must retain normal stormwater runoff and provide for an area of containment. All irrigation water must be retained within property lines and not allowed to flow into public streets or public rights-of-way. Where appropriate, a simulated dry creek bed may be used to convey storm drainage into retention areas. A drywell shall be installed if the retention basin is to be used as a recreational area.
 8. Mounded or sloped planting areas that contribute to runoff onto hardscape are prohibited. Sloped planting areas above a hardscaped area shall be avoided unless there is a drainage swale at toe of slope to direct runoff away from hardscape.
 9. Median islands must be graded to prevent stormwater and excess irrigation runoff.

E. Irrigation Design Plan

For the efficient use of water, an irrigation system shall meet all the requirements listed in this section and the manufactures recommendations. The irrigation system and its related components shall be planned and designed to allow for proper installation, management, and maintenance. An irrigation design plan meeting the following criteria shall be submitted as part of the Landscape Documentation Package.

Separate landscape water meters shall be installed for all projects except single family homes with a landscape area less than 5,000 square feet. Landscape meters for single family homes with a landscape area over 5,000 square feet may be served by a permanent service connection provided by the District or be a privately owned submeter installed at the irrigation point of connection on the customer service line. - When irrigation water is from a well, the well shall be metered. The irrigation design plan shall be drawn on project base sheets. It should be separate from, but use the same format as, the landscape design plan. The irrigation system specifications shall accurately and clearly identify the following:

Comment [JK1]: Terms Permanent Service Connection and Customer Service Line were retrieved from our Regulations Governing Domestic Water in order to maintain consistency.

1. Specifications for Irrigation Design.
 - a. Control valves, manufacturer's model number, size and location.
 - b. Irrigation head manufacturer's model number, radius, operating pressure, gallons per minute/gallons per hour (gpm/gph) and location.
 - c. Piping type, size and location.
 - d. Point of connection or source of water and static water pressure.
 - e. Meter location and size (where applicable).
 - f. Pump station location and pumping capacity (where applicable).
 - g. Power supply/electrical access and location.
 - h. Plan scale and north arrow on all sheets.
 - i. Graphic scaling on all irrigation design sheets.
 - j. Irrigation installation details and notes/specifications.
 - k. The irrigation system shall be automatic, constructed to discourage vandalism and simple to maintain.
 - l. All equipment shall be of proven design with local service available.
 - m. Show location, station number, size, and design gpm of each valve on plan. Control valves shall be rated at 200 psi.
 - n. Visible sprinklers near hardscape shall be of pop-up design.
 - o. All heads should have a minimum number of wearing pieces with an extended life cycle.
 - p. Sprinklers, drippers, valves, etc., must be operated within manufacturer's specifications.
 - q. Manual shut-off valves shall be fully ported ball valves or butterfly valves. Manual shut-off valves are required upstream of automatic valve manifolds.
 - r. Master valves shall be metal, located as close to the point of connection as possible, and be metal piped between the master valve and the water meter.
 - s. High flow sensors that detect and report high flow conditions created by system damage or malfunction shall be specified for all projects where a dedicated landscape irrigation meter is required, excluding single family and multi-family dwellings.
 - t. The following statement "I have complied with the criteria of the ordinance and have applied them accordingly for the efficient use of water in the irrigation design plan;" and
 - u. The signature of a licensed landscape architect, certified irrigation designer, irrigation consultant, landscape contractor or any other person authorized to design an irrigation system.

2. Specifications for Irrigation Efficiency

The minimum irrigation efficiency shall be 0.75 (75%). Greater irrigation efficiencies are expected from well-designed and maintained systems.

The following are required:

- a. Design spray head and rotor head stations with consideration for worst wind conditions. Close spacing and low-angle nozzles are required in high and frequent wind areas (ETo Zone No. 5).
- b. Spacing of sprinkler heads shall not exceed manufacturer's maximum recommendations for proper coverage. The plan design shall show a minimum of 0.75 (75%) distribution uniformity.
- c. Only irrigation heads with matched precipitation rates shall be circuited on the same valve.
- d. Valve circuiting shall be designed to be consistent with hydrozones.
- e. Individual hydrozones that mix plants that are moderate and low water use may be allowed if:
 - (i) plant factor calculation is based on the proportions of the respective plant water uses and their plant factor; or
 - (ii) the plant factor of the higher water using plant is used for the calculations.
- f. Individual hydrozones that mix high and low water use plants shall not be permitted.
- g. On the landscape design plan and irrigation design plan, hydrozone areas shall be designated by number, letter, or other designation. On the irrigation design plan, designate the areas irrigated by each valve, and assign a number to each valve. Use this valve number in the hydrozone information table. This table can assist with pre-inspection and final inspection of the irrigation system, and programming the controller.

3. Irrigation System Criteria

- a. Reduced pressure backflow prevention devices shall be installed behind meter at curb by the District.
- b. Show location, station number, size and design gpm of each valve on plan.
- c. Smart Controllers shall be specified for all projects. This includes climate based or sensor based controllers, which can automatically adjust for local weather and/or site conditions.
- d. High flow check valves shall be installed in or under all heads adjacent to street curbing, parking lots and where damage could occur to property due to flooding, unless controllers with flow sensor capabilities are specified that can automatically shut off individual control valves when excess flow is detected.

- e. Pressure compensating screens/devices shall be specified on all spray heads to reduce radius as needed to prevent overthrow onto hardscape and/or to control high pressure misting.
- f. All irrigation systems shall be designed to avoid runoff onto hardscape from low head drainage, overspray and other similar conditions where water flows onto adjacent property, nonirrigated areas, walks, roadways or structures.
- g. Rotor type heads shall be set back a minimum of 4 feet from hardscape.
- h. The use of drip, microirrigation or pressure compensating bubblers or other systems with efficiencies of 90 percent or greater is required for all shrubs and trees. Small, narrow (less than 8 feet), irregularly shaped or sloping areas shall be irrigated with drip, microspray or PC (pressure-compensating) bubbler heads.
- i. Trees in turf areas shall be on a separate station to provide proper deep watering.
- j. Street median irrigation
 - i. No overhead sprinkler irrigation system shall be installed in median strips or in islands.
 - ii. Median islands or strips shall be designed with either a drip emitter to each plant or subsurface irrigation. Bubblers used for trees must be fixed-flow pressure compensating type. Adjustable bubblers are prohibited
- k. Meter sizing for landscape purposes shall be 33 gpm per planted acre. Maximum design meter flow rates are: 3/4" = 23 gpm, 1" = 37 gpm, 1-1/2" = 80 gpm, 2" = 120 gpm
- l. Large projects located outside Improvement District No. 1 of the Coachella Valley Water District shall connect to or provide future connection to recycled water if such water is available. Large projects located inside Improvement District No. 1 may be required to connect to canal irrigation water or recycled water if such water is available. (See attached boundary map.)

4. Drip Irrigation System Criteria

- a. The drip system must be sized for mature-size plants.
- b. The irrigation system should complete all irrigation cycles during peak use in about 12 hours. Normally, each irrigation controller should not have more than four drip stations that operate simultaneously.
- c. Field installed below ground pipe connections shall be threaded PVC or glued PVC. Surface laid hose and tubing is prohibited. Polyethylene tubing is allowed only in subsurface installations. Drip emitter installation shall be directly into polyethylene tubing

on a ¼ inch thick-walled riser. Multi-port outlet devices and multi-port distribution is prohibited.

- d. Proportion gallons per day per plant according to plant size. The following sizing chart is for peak water use. The low to high end of the range is according to the relative water requirements of the plants. The low end is for desert natives and the high end is for medium water use type plants.

Size of Plant	Gallons Per Day
Large trees (over 30-foot diameter)	58+ to 97+
Medium trees (about 18-foot diameter)	21 to 35
Small trees/large shrubs (9-foot diameter)	6 to 10
Medium shrubs (3.5-foot diameter)	.8 to 1.3
Small shrubs/groundcover	.5 or less

- e. Plants with widely differing water requirements shall be valved separately. As an example, separate trees from small shrubs and cactus from other shrubs. Multiple emitter point sources of water for large shrubs and trees must provide continuous bands of moisture from the root ball out to the mature drip line plus 20 percent of the plant diameter. See Appendix C for more information on emitter spacing and wetted area.
- f. Most plants require 50 percent or more of the soil volume within the drip line to be wetted by the irrigation system. See Appendix C for more information. For additional information on plant watering and plant relative water needs, see the plant list section of the "Lush and Efficient, Landscape Gardening in the Coachella Valley" or a list provided by the local agency.

5. Recycled Water Specifications

- a. When a site has recycled water available or is in an area that will have recycled water available as irrigation water, the irrigation system shall be installed using the industry standard purple colored or marked "Recycled Water Do Not Drink" on pipes, valves and sprinkler heads.
- b. The backup groundwater supply (well water or domestic water) shall be metered. Backup supply water is only for emergencies when recycled water is not available.

- c. Recycled water users must comply with all county, state and federal health regulations. Cross connection control shall require a 6-inch air gap system or a reduced pressure backflow device. All retrofitted systems shall be dye tested before being put into service.
 - d. Where available, recycled water shall be used as a source for decorative water features.
 - e. Sites using recycled water are not exempted from the Maximum Applied Water Allowance (MAWA), prescribed water audits or the provisions of these criteria.
 - f. A Recycled Water Checklist (Appendix G) shall be submitted to the District upon submittal of the first plan check of the landscape design plan and the irrigation design plan.
6. Irrigation Water (Nonpotable) Specifications
- a. When a site is using nonpotable irrigation water that is not recycled water (from an on-site well or canal water) all hose bibs shall be loose key type and quick coupler valves shall be of locking type with nonpotable markings to prevent possible accidental drinking of this water.
 - b. Sites using nonpotable irrigation water are not exempted from the Maximum Applied Water Allowance (MAWA), prescribed water audits or the provisions of these criteria.
7. Groundwater Water Specifications
- a. Sites using groundwater irrigation water from wells are not exempted from the Maximum Applied Water Allowance (MAWA), prescribed water audits, or the provisions of these criteria.
8. Golf Course Criteria
- a. For all new golf courses and additions or renovations to existing golf courses, the area of irrigated turf used for tees, fairways, greens and practice areas shall be limited. The total turf area of the golf course shall be limited to a maximum of four (4) irrigated acres average per golf hole. Practice areas such as driving ranges and short game areas shall not exceed ten (10) acres of turf. The golf course design shall reflect the natural topography and drainage ways of the site, minimize the clearing of vegetation and be flexible and water efficient in design.
 - b. All nonturf areas such as ponds, lakes, artificial water courses, bunkers and irrigated landscapes within the golf course project area must not exceed the Maximum Applied Water Allowance (MAWA) calculations set forth within these criteria.

0.00.040 Other Provisions

- A. Landscape Audit, Irrigation Survey, and Irrigation Water Use Analysis for New Construction and Rehabilitated Landscapes
1. This section shall apply to new construction and rehabilitated landscape projects installed after January 1, 2010 as described in Section 0.00.030.
 2. All landscape irrigation audits shall be conducted by a certified landscape irrigation auditor.
 3. The project applicant shall submit an irrigation audit report with the Certificate of Completion to the local agency that may include, but not be limited to, inspection, system tune-up, system test with distribution uniformity, reporting overspray or run-off that causes overland flow, and preparation of an irrigation schedule, including configuring irrigation controllers with application rate, soil types, plant factors, slope, exposure and any other factors necessary for accurate programming;
 4. The District will administer programs that may include, but not be limited to, irrigation water use analysis, irrigation audits and irrigation surveys for compliance with the Maximum Applied Water Allowance (MAWA).
 5. The owner of the landscaped area shall bear the cost of the audit.
- B. Irrigation Audit, Irrigation Survey and Irrigation Water Use Analysis for Existing Landscapes
1. This section shall apply to all existing landscapes that were installed before January 1, 2010 and are over one (1) acre in size.
 2. The District will administer programs that may include, but not be limited to, irrigation water analysis, irrigation surveys and irrigation audits that verify landscape water use does not exceed the Maximum Applied Water Allowance (MAWA) for existing landscapes. The Maximum Applied Water Allowance (MAWA) for existing landscapes shall be calculated as: $MAWA = (.70) (ET_0) (LA) (.62/748)$ unless landscape plans were submitted and approved under a more water conserving ordinance.

C. Water Waste Prevention

1. Water Waste Prevention. Water waste resulting from inefficient landscape irrigation including run-off, low-head drainage, overspray, or other similar conditions where water flows onto adjacent property, nonirrigated areas, walks, roadways, or structures is prohibited. All broken heads and pipes must be repaired within 72 hours of notification. Penalties for violation of these prohibitions are established in Section 0.00.070.
2. Water service to customers who cause water waste may have their service discontinued.
3. Customers who appear to be exceeding the Maximum Applied Water Allowance (MAWA) may be interviewed by the District Water Management Department to verify customer water usage to ensure compliance.

D. Soil Management Report

1. In order to reduce runoff and encourage healthy plant growth, a soil management report shall be completed by the project applicant or designee as follows:
 - a. Submit soil samples to a laboratory for analysis and recommendation.
 - b. Soil sampling shall be conducted in accordance with laboratory protocol, including protocols regarding adequate sampling depth for the intended plants.
 - c. The soil analysis may include:
 - i. Determination of soil texture, indicating the available water holding capacity.
 - ii. An approximate soil infiltration rate (either) measured or derived from soil texture/infiltration rate tables. A range of infiltration rates shall be noted where appropriate.
 - iii. Measure of pH, total soluble salts and percent organic matter.
 - d. The project applicant or designee shall comply with one of the following:
 - i. If significant mass grading is not planned, the soil analysis report shall be submitted to the local agency as part of the Landscape Documentation Package; or
 - ii. If significant mass grading is planned, the soil analysis report shall be submitted to the local agency as part of the Certificate of Completion.
 - e. The soil analysis report shall be made available, in a timely manner, to the professionals preparing the landscape design plans and the irrigation plans to make any necessary adjustments to the design plans.

- f. The project applicant or designee shall submit documentation verifying implementation of soil analysis report recommendations to the local agency with the Certificate of Completion.

E. Developer-Provided Documentation

1. The developer/applicant/designee shall provide an approved copy of the Landscape Documentation Package and the following information for the homeowner or irrigation system operator. The package/information shall include a set of drawings, a recommended monthly irrigation schedule, and a recommended irrigation system maintenance schedule as described in Section 0.00.040G.
2. Irrigation Schedules. For the efficient use of water, all irrigation schedules shall be developed, managed, and evaluated to utilize the minimum amount of water to maintain plant health. Irrigation schedules shall meet the following criteria:
 - a. An annual irrigation program with monthly irrigation schedules shall be required for the plant establishment period, for the established landscape, and for any temporarily irrigated areas. The irrigation schedule shall:
 - i. Include run time (in minutes per cycle), suggested number of cycles per day, and frequency of irrigation for each station.
 - ii. Provide the amount of applied water (in hundred cubic feet) recommended on a monthly and annual basis.
 - iii. Whenever possible, incorporate the use of evapotranspiration data, such as those from the California Irrigation Management Information System (CIMIS) weather stations, to apply the appropriate levels of water for different climates.
 - iv. Whenever possible, be scheduled between 8:00 p.m. and 10:00 a.m. to avoid irrigating during times of high wind or high temperature. Run times and other water efficient requirements may be imposed by the CVWD Board of Directors from time to time.

G. Maintenance Schedules

A regular maintenance schedule satisfying the following conditions shall be submitted as part of the Landscape Documentation Package:

1. Landscapes shall be maintained to ensure water efficiency. A regular maintenance schedule shall include but not be limited to checking, adjusting, cleaning and repairing equipment; resetting the automatic controller, aerating and dethatching turf areas; replenishing mulch; fertilizing; pruning; and weeding in all landscaped areas.
2. Repair of irrigation equipment shall be done with the originally specified materials or their approved equal.

3. A project applicant is encouraged to implement sustainable or environmentally-friendly practices for the overall landscape maintenance.
- H. Certificate of Completion
1. The Certificate of Completion (Appendix E) shall include the following:
 - a. Submittal and Approval Dates of the Landscape Documentation Package and Submittal Date of the Water Efficient Landscape Worksheet
 - b. Project Name
 - c. Project Address and Location
 - d. Applicant Name, Telephone and Mailing Address
 - e. Property Owners Name, Telephone, and Mailing Address
 2. Certification by either the signer of the landscape design plan, the signer of the irrigation design plan, or the licensed landscape contractor that the landscape project has been installed per the approved Landscape Documentation Package.
 3. Irrigation scheduling parameters used to set the controller. A diagram of the irrigation plan showing hydrozones shall be kept with the irrigation controller for subsequent management purposes.
 4. Landscape and irrigation maintenance schedule.
 5. Irrigation audit report.
 6. Soil analysis report and documentation verifying implementation of soil report recommendations.
 7. The project applicant shall:
 - a. Submit the signed Certificate of Completion to both the local agency and the District for review and approval.
 - b. Ensure that copies of the Certificate of Completion with all approvals are submitted to the local agency, the District, and property owner or his or her designee.
 8. The District and the local agency shall:
 - a. Receive the signed Certificate of Completion from the project applicant.
 - b. Approve or deny the Certificate of Completion. If the Certificate of Completion is denied, the local agency shall provide information to the project applicant regarding reapplication, appeal or other assistance.
- I. Stormwater Management
1. Stormwater management practices minimize runoff and increase infiltration which recharges groundwater and improves water quality. Implementing stormwater best management practices into the landscape

and grading design plans to minimize runoff and to increase on-site retention and infiltration are encouraged.

2. Project applicants shall refer to the District, the local agency, and/or Regional Water Quality Control Board for information on any applicable stormwater ordinances and stormwater management plans.
3. Rain gardens and other landscape features that increase rain water capture and infiltration are recommended.

J. Public Education

1. Public education is a critical component to promote the efficient use of water in landscapes. The use of appropriate principles of design, installation, management and maintenance that save water is encouraged in the community.
2. The District and the local agency shall provide information to ~~owners of new, single family residential homes~~ residents regarding the design, installation, management and maintenance of water efficient landscapes.

0.00.050 Review and Program Monitoring Fees

- A. Review and Program Monitoring fees are deemed necessary to review Landscape Documentation Packages and monitor landscape irrigation audits and shall be imposed on the subject applicant, property owner or designee.
- B. A Landscape Documentation Package review fee will be due at the time of initial project application submission to the District.
- C. The Board of Directors, by resolution, shall establish the amount of the above fees in accordance with applicable law.

0.00.060 Appeals

- A. Appeal to General Manager-Chief Engineer. An applicant, property owner or designee of any applicable project may appeal decisions made by the Water Management Department or Service Director other than imposition of penalties (see Sections 0.00.070 – 0.00.090 regarding imposition of penalties) to the General Manager-Chief Engineer, in writing, within fifteen (15) days of notification of decision. The General Manager-Chief Engineer's decision shall become final on the fifteenth (15th) day following service of written notification of said decision unless a timely appeal is filed pursuant to 0.00.060 B.
- B. Appeal to Board of Directors. An applicant, property owner or designee of any applicable project may appeal decisions made by the General Manager-Chief Engineer pursuant to Section 0.00.060 A. to the Board of Directors. Said appeal must be written and submitted to the Secretary of the Board of Directors within fifteen (15) days of the date of notification of the General Manager-Chief Engineer's decision. The Board of Directors' decision shall be final upon its adoption.

0.00.070 Penalties

- A. Violation of any part of Ordinance No. 1302.1 may result in any or all of the following penalties as may be imposed by the District or any other local agency

with jurisdiction to take enforcement actions. The following penalties apply when enforcement action is taken by the District:

1. Monetary. See Appendix F for schedule of monetary penalties.
 2. Termination of Service.
- B. Notice. The District shall issue a written notice of imposition of penalty. The notice shall set forth penalty imposed and the reason for imposition of it. The notice shall be served on the customer by registered or certified mail and shall advise that the customer may request review of the imposition of penalty by filing a written request for a hearing pursuant to the provision of Section 0.00.080.

0.00.080 Hearing Regarding Penalties

- A. Request for Hearing. Customers who have received notice of imposition of penalty may make a written request for a hearing. The District must receive the request for hearing no later than fifteen (15) days from the date of the notice of imposition of penalty. The request for hearing shall set forth, in detail, all facts supporting the request. Upon District's receipt of a timely request for a hearing, imposition of penalty shall be stayed until the Statement of Decision after hearing becomes final, or, if the Statement of Decision is timely appealed, the Board of Directors' order on appeal is adopted.
- B. Notice of Hearing. Within ten (10) days of the District's receipt of the request for hearing, the District shall provide written notice to the customer of the date, time and place of the hearing. The hearing date shall be within thirty (30) days of the mailing of the notice of hearing, unless the parties agree, in writing, to a later date.
- C. Hearing. The General Manager-Chief Engineer, or his designee, shall act as the Hearing Officer. At the hearing, the customer shall have an opportunity to respond to the allegations set forth in the notice of imposition of penalty by producing written and/or oral evidence.
- D. Statement of Decision. Within ten (10) days following the hearing, the Hearing Officer shall prepare a written Statement of Decision, which shall set forth the facts upon which the decision is based. The Statement of Decision shall be served by personal delivery or registered or certified mail on the customer. The Statement of Decision shall become final on the sixteenth (16th) day after service on the customer unless a request for appeal is timely filed with the Board of Directors pursuant to Section 0.00.090.

0.00.090 Appeal of Penalties

- A. Request for Appeal. A customer may appeal a Statement of Decision by filing a written request for appeal with the Board of Directors before the date the Statement of Decision becomes final, i.e., no later than the fifteenth (15th) day following service of the Statement of Decision on the customer. The request for appeal shall set forth, in detail, all the issues in dispute and all facts supporting the request.
- B. Notice of Appeal Hearing. No later than thirty (30) days after receipt of the request for appeal, the Board of Directors shall set the matter for a hearing. Written notice of said hearing of appeal shall be served on the appellant by

personal delivery or registered or certified mail. The hearing date shall be a date within thirty (30) days of service of the notice of hearing of appeal, unless the parties agree, in writing, to a later date. If the Board of Directors does not hear the appeal within the required time due to acts or omissions of the appellant, the Statement of Decision shall become final on the thirty-first (31st) day after service of notice of hearing of appeal on the customer.

- C. **Determination and Order on Appeal.** After the hearing of appeal, the Board of Directors shall issue an order affirming, modifying or reversing the General Manager-Chief Engineer's decision. The Board of Directors shall set forth its Determination and Order, in writing, and shall serve the Determination and Order to the customer by personal delivery or registered or certified mail within thirty (30) days following the hearing. The Determination and Order of the Board of Directors shall be final upon its adoption.

DRAFT

APPENDIX A

Landscape Documentation Package Checklist

Project Site: _____ Tract or Parcel Number: _____

Project Assessor's Parcel Number (APN): _____

Project Location: _____

Landscape Architect/Irrigation Designer/Contractor and Name and Contact Information: _____

Included in this Landscape Documentation Package are: (Check to indicate completion)

- ___ 1. Water Efficient Landscape Worksheet (Appendix B)
WATER BUDGET CALCULATIONS (Appendix D)
- ___ 2. Maximum Applied Water Allowance (MAWA):
Conventional Landscape: _____ 100 cubic feet/year
+ Recreational Turf grass Landscape: _____ 100 cubic feet/year (if applicable)
Maximum Applied Water Allowance: _____ 100 cubic feet/year
- ___ 3. Estimated Total Water Use by Hydrozone:
Turf grass Hydrozones: _____ 100 cubic feet/year
Recreational Turf grass Hydrozones: _____ 100 cubic feet/year
Low Plant Hydrozones: _____ 100 cubic feet/year
Medium Plant Hydrozones: _____ 100 cubic feet/year
High Plant Hydrozones: _____ 100 cubic feet/year
Water Features: _____ 100 cubic feet/year
Other _____ : _____ 100 cubic feet/year
Estimated Total Water Use: _____ 100 cubic feet/year
- ___ 4. ETWU < MAWA
PLAN SETS
- ___ 5. Landscape Design Plan
- ___ 6. Irrigation Design Plan
- ___ 7. Grading Design Plan
- ___ 8. Soil Management Report

I agree to comply with the requirements of the water efficient landscape ordinance and submit a complete Landscape Documentation Package.

Date: _____ Applicant: _____

APPENDIX B

SAMPLE WATER EFFICIENT LANDSCAPE WORKSHEET

This worksheet is filled out by the project applicant and is a required element of the Landscape Documentation Package.

PROJECT INFORMATION

Project Name		
Name of Project Applicant	Telephone No.	
	Fax No.	
Title	Email Address	
Company	Street Address	
City	State	Zip Code

SECTION A. HYDROZONE INFORMATION TABLE

Please complete the hydrozone table(s) for each irrigation point of connection. Use as many tables as necessary to provide the square footage of landscape area per valve.

Irrigation Point of Connection (P.O.C.) No. _____					
Controller No.	Valve Circuit No.	Plant Types(s)*	Irrigation Method**	Area (Sq. Ft.)	% of Landscape Area
Total					100%

***Plant Type**

- Cst = Cool Season Turf
- WST = Warm Season Turf
- HW = High Water Use Plants
- MW = Moderate Water Use Plants
- LW = Low Water Use Plants

****Irrigation Method**

- MS = Microspray
- S = Spray
- R = Rotor
- B = Bubbler
- D = Drip
- O = Other

**APPENDIX C
ET PROFILE AND PLANT FACTORS**

Monthly ETo (inches)	Jan>	<Feb	Mar	Apr>	<May	Jun	Jul	Aug	Sep>	<Oct	Nov	Dec	Totals Inches	Totals Feet
Zone No. 1-Coves	1.71	2.84	4.00	5.70	6.84	7.98	7.98	6.27	5.70	4.00	2.28	1.71	57.01	4.75
Zone No. 2-COD	2.00	3.36	4.68	6.68	8.02	9.35	9.35	7.35	6.68	4.68	2.67	2.00	66.82	5.57
Zone No. 3-EMC	2.25	3.75	5.25	7.50	9.00	10.50	10.50	8.25	7.50	5.25	3.00	2.25	75.00	6.25
Zone No. 4-TH	2.64	4.40	6.16	8.80	10.56	12.32	12.32	9.68	8.80	6.16	3.52	2.64	88.00	7.33
Zone No. 5-I10	2.82	4.68	6.57	9.39	11.27	13.15	13.15	10.33	9.39	6.57	3.76	2.82	93.90	7.83
% Annual ETo per Month	3	5	7	10	12	14	14	11	10	7	4	3		

- Zone No. 1 = Most protected cove areas with minimum wind, longest mountain shadows, higher rainfall, Palm Can. to La Q. Cove
- Zone No. 2 = Lower cove areas, light winds, long afternoon shadows from mountains, typ. Hwy 111 from Cathedral City to La Quinta
- Zone No. 3, 4 = Moderate winds, minimum mountain shadows, some blowing sand and dust; 3) Upper valley predominate wind from northwest, 4) Lower valley has lower elevation and more summer southeast wind
- Zone No.5 = Frequent strong northwest winds, heavy blowing sand and dust, typical of I-10 corridor to Washington Street

Maximum Applied Water Allowance (CCF) = ETo (in inches for season) X .50 X Area (in square feet) X .62 / 748
 ET Adjustment Factor = ~~45.38~~ Plant Factor / ~~.75~~ Irrigation System Efficiency = 0.50
 .62 = gallons per square foot per inch deep
 CCF = 100 cubic feet = 1 billing unit = 748 gallons

Estimated Total Water Use (CCF) = $\frac{ETo \text{ (in inches for season)} \times \text{Plant Factor} \times \text{Area (in square feet)} \times 0.62}{748}$
 Irrigation System Efficiency

- Target Irrigation Efficiency = .80 Turf Rotor
- = .75 Sprayheads
- = .90 Drip/Micro/PC Bubbler

Emitters per Plant Estimate = $\frac{\text{Area Of Plant In Square Feet} \times \% \text{ Of Area To Be Wet}}{\text{Square Feet Wet Per Emitter}}$

Soil Type	(inches water holding capacity per inch of depth)	Emitter Wetted Area Square Feet Each	Emitter Spacing
Very Coarse Sand	0.05	.75 to 1.75	10"
Blow Sand	0.07	1.75 to 3	18"
Fine Sand	0.10	3 to 5	3'
Very Fine Silty Sand	0.15	5 to 10	4'
Silt Loam	0.17	10 to 28	4.5'

Typical of high on an alluvial fan
 Typical of mid valley ridge area
 Typical of low on alluvial fans from Rancho Mirage to Indian Wells
 Typical of lowest alluvial fans from La Quinta, Indio, & Coachella
 Typical of lower valley agricultural areas located below sea level

Plant Factor (Kc)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg
Cool Turf 100%**	1.00	1.00	1.00	NR	NR	NR	NR	NR	NR	1.00	1.00	1.00	1.00
Warm Turf 100%**	NR	NR	NR	0.80	0.80	0.80	0.80	0.80	0.80	NR	NR	NR	0.80
Cool Turf 80%*	0.80	0.80	0.80	0.70	NR	NR	NR	NR	NR	0.80	0.80	0.80	0.79
Warm Turf 60%*	NR	NR	NR	0.60	0.60	0.60	0.60	0.60	0.60	0.60	NR	NR	0.60
Combined TurfSav*	0.80	0.80	0.80	0.70	0.60	0.60	0.60	0.60	0.60	0.70	0.80	0.80	0.70
Tree/Shrub/GC L*	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
Tree/Shrub/GC L**	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Tree/Shrub/GC M*	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
Tree/Shrub/GC M**	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Tree/Shrub/GC H*	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Tree/Shrub/GC H**	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Open WaterFactor	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10

(Approx. Evaporation from a still water surface, higher factor (1.2) with falls and fountains.) Reference: WUCOLS III

CombinedTurfSav = Combination of cool and warm season turf according to normal management in the Coachella Valley

* = Normal irrigation level to maintain established planting

** = Normal irrigation level during plant establishment

GC = Groundcover

L = Low water use Kc .1 to .3

M = Moderate water use Kc .4 to .6

H = High water use Kc .7 to .9

NR = Not Recommended

APPENDIX D

SAMPLE CALCULATION/ESTIMATED TOTAL WATER USE (by Hydrozone)

Using the following formula from Appendix C:

ETWU	=	(ETo) x (PF) x (LA) x (.62) / (748) / (IE)
ETWU	=	Estimated Water Use (hundred cubic feet)
ETo	=	Reference Evapotranspiration (inches) [for period of estimate]
PF	=	Plant Factor (Kc)
LA	=	Landscaped Area (in square feet)
.62	=	Conversion Factor (to gallons per square foot)
748	=	Conversion Factor (to hundred cubic feet)
IE	=	Irrigation System Efficiency

Project Site Example: Total landscaped area 60,000 square feet in Palm Desert near the intersection of Cook Street and Country Club Drive in Zone No. 3 (75.0" Annual ETo).

- ~~12,000~~ 12,000 square feet of turf grass overseeded with rye grass in winter, irrigated with low angle rotor sprinklers.
- ~~32,700~~ 32,700 square feet of "low" desert native plantings on drip irrigation.
- 15,300 square feet of "moderate" water using plantings on drip irrigation.

See Appendix C for formula factors. ETo is totaled for season. Turf grass plant factors are the average for the season and tree/shrub/groundcover plant factors are considered constant annually.

Plant Factors

<u>Turf Grass</u>	<u>Low Native Plants</u>	<u>Moderate Shrubs</u>
0.70	0.20	0.50

$$ETWU = [(ETo) \times (PF) \times (LA) \times (.62) / (748)] / (IE) = CCF$$

$$\text{Overseeded Turf Grass: Season} = 75.0 \times .7 \times 12,000 \times .62 / 748 / .80 = 653897 \text{ CCF}$$

$$\text{Seasonal Turf ETWU} = 653897 \text{ CCF}$$

$$\text{"Low" Native Plants: Annual} = 75.0 \times .2 \times 32,700 \times .62 / 748 / .90 = 451389 \text{ CCF}$$

$$\text{"Low" Native ETWU} = 451389 \text{ CCF}$$

$$\text{"Moderate" Shrubs and Ground Cover: Annual} = 75.0 \times .5 \times 15,300 \times .62 / 748 / .90 = 528 \text{ CCF}$$

$$\text{"Moderate" ETWU} = 528 \text{ CCF}$$

$$\text{Project Total ETWU} = 1,632814 \text{ CCF}$$

APPENDIX D

SAMPLE CALCULATION

Maximum Applied Water Allowance (MAWA)

Using the following formula:

$$\begin{aligned} \text{MAWA} &= [(\text{ETo}) \times (0.4550) \times (\text{LA}) \times (0.62)] / (748) \\ \text{MAWA} &= \text{Maximum Applied Water Allowance (CCF or hundred cubic feet)} \\ \text{ETo} &= \text{Reference Evapotranspiration (inches per year)} \\ 0.4550 &= \text{ET adjustment factor} = \frac{38 \text{ PF}}{75 \text{ IE}} \\ \text{LA} &= \text{Landscaped Area (square feet)} \\ 0.62 &= \text{Conversion Factor (to gallons per square foot)} \\ 748 &= \text{Conversion Factor (to hundred cubic feet)} \end{aligned}$$

Using the project for the Estimated Total Water Use example:

Landscaped area of 60,000 square feet in Palm Desert near the intersection of Cook Street and Country Club Drive in Zone No. 3 (75.0" Annual ETo).

$$\begin{aligned} \text{MAWA} &= 75.0 (\text{ETo}) \times (0.4550) \times (\text{LA}) \times (0.62) / (748) \\ &= [75.0(0.4550) (60,000) (0.62)] / (748) \\ \text{MAWA} &= 1,678,864 \text{ CCF} \end{aligned}$$

ETWU total of 1,632,814 CCF is < the MAWA of 1,678,865 CCF

APPENDIX E

SAMPLE CERTIFICATE OF COMPLETION

Project Name: _____

Parcel Map or Tract No.: _____ APN: _____

Project Location: _____

Maximum Applied Water Allowance (MAWA): _____ (in hundred cubic feet)

Estimated Annual Total Applied Water Use: _____ (in hundred cubic feet)

Preliminary project documentation submitted (initials indicate submittal)

- _____ 1. Grading design plan
- _____ 2. Landscape design plan
- _____ 3. Irrigation design plan
- _____ 4. Irrigation schedules

Post Installation inspection (initials indicate completion)

- _____ 1. Plants installed as specified
- _____ 2. Irrigation System installed as designed

Comments: _____

A copy of this certification has been provided to the owner/developer, the local agency and to the District. I certify the work has been completed in accordance with District Ordinance 1302.1, Landscape and Irrigation System Design Criteria.

Landscape Architect/Designee Signature License No. Date

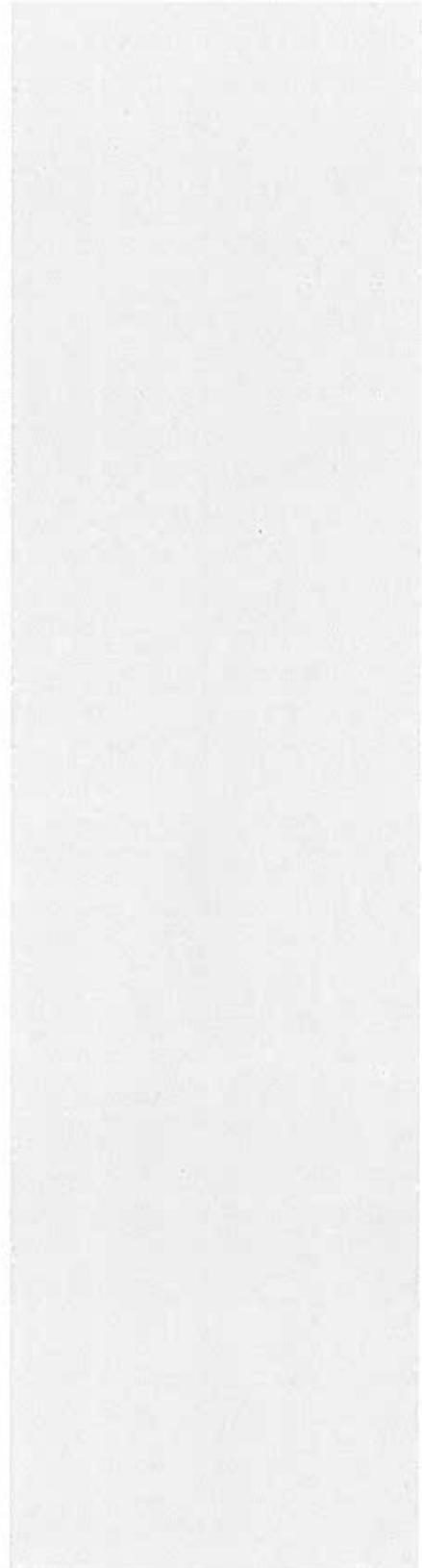
- 1. Date the Landscape Documentation Package was submitted to the Local Agency: _____
- 2. Date the Landscape Documentation Package was approved by the Local Agency: _____
- 3. Date a copy of the Water Efficient Landscape Worksheet (including the Water Budget Calculation) was submitted to the District: _____

|
APPENDIX F

SCHEDULE OF MONETARY PENALTIES

1. \$250 upon receipt of first written Notice of Non-compliance.
2. An additional \$250 (for a total of \$500) upon receipt of the second Notice of Non-compliance issued thirty (30) days after the receipt of the first Notice of Non-compliance.

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APPENDIX G

Recycled Water Checklist

1. Obtain coverage under the general waste discharge requirements for discharge of recycled water for golf course and landscape irrigation Order No. 97-700 or equivalent version of this permit from the California Regional Water Quality Control Board of the Colorado River Basin Region (Regional Board) by submitting a Notice of Intent to the Regional Board and paying application/annual fees.
2. Enter into an agreement with CVWD for receiving nonpotable water for golf course and landscape irrigation. The agreement between discharger and CVWD must be provided to the Regional Board within 90 days of receiving coverage under the permit referenced above in item #1.
3. Landscape and Irrigation system plans must meet regulatory requirements of Order 97-700 or equivalent version of this permit, the State Board's Recycled Water Policy, and California Department of Public Health (CDPH) Statutes and Regulations related to recycled water, such as the Health and Safety Code, the Water Code, Title 17 and Title 22 Code of Regulations. These requirements include but are not limited to the following:
 - a. An air-gap separation, a vertically measured distance between supply pipe and receiving vessel must be present and meet the required distance for the size of the supply pipe.
 - b. The appropriate type of backflow protection is to be installed for auxiliary water supplies and recycled water.
 - c. The required separation distance between recycled water lines and impoundments and application area; and domestic wells and water lines is maintained and approved by CDPH.
 - d. The design of the irrigation system shall not cause the occurrence of ponding anywhere in the reuse area, and overspray or mist around dwellings, outdoor eating areas and/or food handling facilities is eliminated. Irrigation runoff shall be confined to the recycled water use area unless authorized by CDPH.
 - e. Drinking fountains will be protected from spray, mist or runoff by use of a drinking fountain cover or shelter approved for this purpose.
 - f. Hose bibs are not allowed on portions of the recycled water systems accessible to the general public. Quick couplers that differ from those used on the potable water system are allowed.

ATTACHMENT A
OF
ORDINANCE 1302.1

LANDSCAPE AND IRRIGATION SYSTEM DESIGN CRITERIA

Sections:

- 0.00.010 Purpose and Intent
- 0.00.020 Definitions
- 0.00.030 Provisions for New or Rehabilitated Landscapes
- 0.00.040 Other Provisions
- 0.00.050 Review and Program Monitoring Fees
- 0.00.060 Appeals
- 0.00.070 Penalties
- 0.00.080 Hearing Regarding Penalties
- 0.00.090 Appeal of Penalties

0.00.010 Purpose and Intent

- A. The California State Legislature has found:
 - 1. The waters of the state are of limited supply and are subject to ever increasing demands;
 - 2. The continuation of California's economic prosperity is dependent on the availability of adequate supplies of water for future users;
 - 3. It is the policy of the State to promote the conservation and efficient use of water and to prevent the waste of this valuable resource;
 - 4. Landscapes are essential to the quality of life in California by providing areas for active and passive recreation and as an enhancement to the environment by cleaning air and water, preventing erosion, offering fire protection, and replacing ecosystems lost to development;
 - 5. Landscape design, installation, maintenance and management can and shall be water efficient; and
 - 6. Section 2 of Article X of the California Constitution specifies that the right to use water is limited to the amount reasonably required for the beneficial use to be served and the right does not and shall not extend to waste and unreasonable method of use.
- B. Consistent with these legislative findings, the purpose of these criteria is to:
 - 1. Promote the values and benefits of ~~landscapes while recognizing the need to invest water and other resources as efficiently as possible~~ landscaping practices that integrate and go beyond the conservation and efficient use of water;
 - 2. Establish a structure for planning, designing, installing, maintaining and managing water efficient landscapes in new construction and rehabilitated projects by encouraging the use of a watershed approach that requires

cross-sector collaboration of industry, government and property owners to achieve the many benefits possible;

3. Establish provisions for water management practices and water waste prevention for existing landscapes;
 4. Use water efficiently without waste by setting a Maximum Applied Water Allowance (MAWA) as an upper limit for water use and reduce water use to the lowest practical amount; and
 5. Promote the benefits of consistent landscape criteria with neighboring local and regional agencies.
- C. It is also the purpose of these criteria to implement the requirements of the California Code of Regulations Title 23. Waters Division 2. Department of Water Resources Chapter 2.7. Model Water Efficient Landscape Ordinance, and State of California Water Conservation in Landscaping Act. Authority cited: Section 65593, Government Code, Reference: Sections 65591, 65593, 65596 Government Code.
- D. It is the intent of these criteria to promote water conservation through climate-appropriate plant material and efficient irrigation systems, and to create a “Lush and Efficient” landscape theme through enhancing and improving the physical and natural environment.
- E. Applicability
1. These criteria shall apply to all of the following landscape projects:
 - a. New construction and rehabilitated landscapes for public agency projects and private development projects requiring a building or landscape permit, plan check or design review;
 - b. New construction and rehabilitated landscapes which are developer-installed in single-family and multi-family projects requiring a building or landscape permit, plan check or design review;
 - c. New construction and rehabilitated landscapes which are homeowner-provided and/or homeowner-hired in single family and multi-family residential projects with a total project landscape area equal to or greater than ~~2,500~~ ~~5,000~~ square feet requiring a building or landscape permit, plan check or design review; and
 - d. Existing landscapes limited to section 0.00.040 (B).
 2. These criteria do not apply to:
 - a. Registered local, state or federal historical sites;
 - b. Ecological restoration projects that do not require a permanent irrigation system;
 - c. Mined-land reclamation projects that do not require a permanent irrigation system; or
 - d. Plant collections, as part of botanical gardens and arboretums open to the public.

0.00.020

Definitions

The words used in this section have the meanings set forth below:

ANTIDRAIN VALVE or CHECK VALVE - A valve located under/in a sprinkler head to hold water in the system to eliminate drainage from the lower elevation sprinkler heads.

APPLICATION RATE - The depth of water applied to a given area, usually measured in inches per hour. Also known as precipitation rate (sprinklers) or emission rate (drippers/microsprayers) in gallons per hour.

APPLIED WATER - The portion of water supplied by the irrigation system to the landscape.

AUTOMATIC CONTROLLER - An electronic or solid-state timer capable of operating valve stations to set the days, time and length of time of a water application.

BACKFLOW PREVENTION DEVICE - A safety device used to prevent pollution or contamination of the water supply due to the reverse flow of water from the irrigation system.

BENEFICIAL USE - Water used for landscape evapotranspiration.

BILLING UNITS - Units of water (100 cubic feet = 1 billing unit = 748 gallons = 1 CCF) for billing purposes. To convert gallons per year to 100 cubic feet per year, divide gallons per year by 748. (748 gallons = 100 cubic feet).

CONVERSION FACTOR (0.62) - A number that converts the Maximum Applied Water Allowance from acre-inches per acre to gallons per square foot. The conversion factor is calculated as follows:

$$\begin{array}{l} (325,851 \text{ gallons}/43,560 \text{ square feet})/12 \text{ inches} = (0.62) \\ 325,851 \text{ gallons} = \text{one acre-foot} \\ 43,560 \text{ square feet} = \text{one acre} \\ 12 \text{ inches} = \text{one foot} \end{array}$$

DESERT LANDSCAPE - A desert landscape using native plants spaced to look like a native habitat.

DISTRIBUTION UNIFORMITY - A measure of how evenly sprinklers apply water. The low-quarter measurement method (DULQ) utilized in the irrigation audit procedure is utilized for the purposes of these criteria. These criteria assume an attainable performance level of 75% DULQ for spray heads, 80% DULQ for rotor heads and 85% DULQ for recreational turf grass rotor heads.

DISTRICT – Coachella Valley Water District.

DRIP IRRIGATION - A method of irrigation where the water is applied slowly at the base of plants without watering the open space between plants.

ECOLOGICAL RESTORATION PROJECT - A project where the site is intentionally altered to establish a defined, indigenous, historic ecosystem.

EFFECTIVE PRECIPITATION or USABLE RAINFALL - The portion of total natural precipitation that is used by the plants, usually assumed to be three inches annually. Precipitation or rainfall is not considered a reliable source of water in the desert.

ELECTRONIC CONTROLLERS - Time clocks that have the capabilities of multiprogramming, water budgeting and multiple start times.

EMISSION UNIFORMITY - A measure of how evenly drip and microspray emitters apply water. The low-quarter measurement method (EULQ) utilized in the landscape irrigation evaluation procedure is utilized for the purposes of these criteria. These criteria assume 90% EULQ for drippers, microsprays and pressure compensating bubblers.

EMITTER - Drip irrigation fittings that deliver water slowly from the watering system to the soil.

ESTABLISHED LANDSCAPE - The point at which new plants in the landscape have developed roots into the soil adjacent to the root ball.

ESTABLISHMENT PERIOD - The first year after installing the plant in the landscape.

ESTIMATED TOTAL WATER USE (By hydrozone) - The portion of the estimated annual total applied water use that is derived from applied water to a specified hydrozone.

ESTIMATED ANNUAL TOTAL APPLIED WATER USE (Total of all hydrozones) - The annual total amount of water estimated to be needed by all hydrozones to keep the plants and water features in the landscaped area healthy and visually pleasing. It is based upon such factors as the local evapotranspiration rate, the size of the landscaped area, the size and type of water feature, the types of plants, and the efficiency of the irrigation system. The estimated annual total applied water use shall not exceed the Maximum Applied Water Allowance (MAWA).

EVAPOTRANSPIRATION or ET - The quantity of water evaporated from adjacent soil surfaces and transpired by plants expressed in inches during a specific time.

ET ADJUSTMENT FACTOR - A factor of 0.455 that, when applied to reference evapotranspiration, adjusts for plant factors and irrigation efficiency, two major influences upon the amount of water that needs to be applied to the landscape. **A**

~~combined plant mix with a site-wide average 0.38 is the basis of the plant factor portion of this calculation. The irrigation efficiency for purposes of the ET adjustment factor is 0.75. Therefore, the ET adjustment factor $(0.5) = (0.38/0.75)$.~~

FINISHED GRADE – Grade height after surface mulch covering has been installed.

FLOW RATE - The rate at which water flows through pipes, valves and meters (gallons per minute or cubic feet per second).

HARDSCAPE - Concrete or asphalt areas including streets, parking lots, sidewalks, driveways, patios and decks.

HEAD-TO-HEAD COVERAGE - One hundred percent sprinkler coverage of the area to be irrigated, with maximum practical uniformity.

HIGH FLOW CHECK VALVE - A valve located under/in a sprinkler head to stop the flow of water if the spray head is broken or missing.

HYDROZONE - A portion of the landscaped area having plants with similar water needs that are served by a valve or set of valves with the same schedule. A hydrozone may be irrigated or non-irrigated. For example, a naturalized area planted with native vegetation that will not need supplemental irrigation (once established) is a non-irrigated hydrozone.

INFILTRATION RATE - The rate of water entry into the soil expressed as a depth of water per unit of time (inches per hour).

IRRIGATION EFFICIENCY - The measurement of the amount of water beneficially used divided by the amount of water applied. Irrigation efficiency is derived from measurements and estimates of irrigation system characteristics and management practices. The minimum irrigation efficiency for purposes of these regulations is 0.75 or 75 percent and .90 or 90 percent for drip systems. ~~Greater irrigation efficiency can be expected from well-designed and maintained systems.~~

LANDSCAPE IRRIGATION AUDIT - A process to perform site inspections, evaluate irrigation systems and develop efficient irrigation schedules.

LANDSCAPED AREA - The entire parcel less the building footprint, driveways, non-irrigated portions of the parking lots, hardscapes (such as decks and patios), and other nonporous areas. Water features are included in the calculation of a site's landscaped area.

LATERAL LINE - The water delivery pipeline that supplies water to the emitters sprinklers from a valve.

LOCAL AGENCY – A city, county, or water purveyor responsible for adopting and implementing the ordinance. The local agency is also responsible for

enforcement of the ordinance, including, but not limited to, approval of a design review, permit, plan check, or inspection of a project.

MAIN LINE - The pressurized pipeline that delivers water from the water source to a valve or outlet.

MAXIMUM APPLIED WATER ALLOWANCE (MAWA) - For design purposes, the upper limit of annual applied water for the established landscape area as specified in Division 2, Title 23, California Code of Regulations, Chapter 7, Section ~~492.4702~~. It is based upon the area's reference evapotranspiration, ET adjustment factor, and the size of the landscaped area. The estimated applied water use shall not exceed the Maximum Applied Water Allowance (MAWA).

MICROIRRIGATION - See drip irrigation.

MULCH - Any organic material such as leaves, bark, straw or inorganic material such as pebbles, stones, gravel, decorative sand or decomposed granite left loose and applied to the soil surface to reduce evaporation.

NATIVE PLANTS - Native plants are low water using plants that are:
1) indigenous to the Coachella Valley and lower Colorado Desert region of California and Arizona, 2) native to the southwestern United States and northern Mexico or 3) native to other desert regions of the world, but adapted to the Coachella Valley.

NATURAL GRADE – Grade height of native soil before application of surface mulch.

OPERATING PRESSURE - The pressure at which an irrigation system's sprinklers, bubblers, drippers or microsprays are designed to operate, usually indicated at the base of an irrigation head.

OVERHEAD SPRINKLER IRRIGATION STATIONS - Sprinklers with high flow rates (spray heads, impulse sprinklers, gear rotors, etc.) that are utilized to apply water through the air to large irrigated areas.

OVERSPRAY - The water which is delivered beyond the landscaped area onto pavements, walks, structures or other non-landscape areas. Also known as hardscape applications.

PLANT FACTOR - A factor that, when multiplied by reference evapotranspiration, estimates the amount of water used by plants. For purposes of these criteria, the average plant factor of very low water using plants ranges from 0.01 to 0.10, for low water using plants the range is 0.10 to 0.30, for moderate water using plants the range is 0.40 to 0.60, and for high water using plants, the range is 0.70 to 0.90. Reference: Water Use Classifications of Landscape Species ~~IVH~~ (WUCOLS ~~IVH~~).

PRESSURE COMPENSATING (PC) BUBBLER – An emission device that allows the output of water to remain constant regardless of input pressure. Typical flow rates for this type of bubbler range between 0.25 gpm to 2.0 gpm.

PRESSURE COMPENSATING SCREENS/DEVICES - Small screens/devices inserted in place of standard screens/devices that are used in sprinkler heads for radius and high pressure control.

QUALIFIED PROFESSIONAL - A person who has been certified by their professional organization or a person who has demonstrated knowledge and is locally recognized as qualified among landscape architects due to longtime experience.

RAIN-SENSING DEVICE - A system which automatically shuts off the irrigation system when it rains.

RECYCLED WATER/RECLAIMED WATER - Treated or recycled wastewater of a quality suitable for nonpotable uses such as landscape irrigation. Recycled water is not for human consumption.

RECORD DRAWING or AS-BUILTS - A set of reproducible drawings which show 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.

RECREATIONAL AREA - Areas of active play or recreation such as golf courses, sports fields, school yards, picnic grounds, or other areas with intense foot or vehicular traffic.

RECREATIONAL TURF GRASS - High traffic turf grass that serves as a playing surface for sports and recreational activities. Athletic fields, golf courses, parks and school playgrounds are all examples of areas having recreational turf grass.

RECREATIONAL TURF GRASS ET ADJUSTMENT FACTOR - A factor of 0.82 that, when applied to reference evapotranspiration, adjusts for the additional stress of high traffic on recreational turf grass and the higher irrigation efficiencies of long-range rotary sprinklers. These are the two major influences upon the amount of water that needs to be applied to a recreational landscape. A mixed cool/warm season turf grass with a seasonal average of 0.7 is the basis of the plant factor portion of this calculation. The irrigation efficiency of long-range sprinklers for purposes of the ET adjustment factor is 0.85. Therefore, the ET adjustment factor is $0.82 = 0.7/0.85$.

REFERENCE EVAPOTRANSPIRATION or ETo - A standard measurement of the environmental parameters which affect the water use of plants, using cool season grass as a reference. ETo is expressed in inches per day, month or year and is an estimate of the evapotranspiration of a large field of cool-season grass that is well watered. Reference evapotranspiration is used as a basis of determining the Maximum Applied Water Allowances so that regional differences

in climate can be accommodated. For purposes of these criteria, CVWD Drawing No. 29523 will be used for ETo zones.

REHABILITATED LANDSCAPE - Any re-landscaping project in which the choice of new plant material and/or new irrigation system components is such that the calculation of the site's estimated water use will be significantly changed. The new estimated water use calculation must not exceed the Maximum Applied Water Allowance (MAWA) calculated for the site using a ~~0.45~~ ET adjustment factor.

RIPARIAN PLANTS - Riparian plants are high water using and water-loving plants that are found growing naturally along flowing rivers and lake shores. They may also be native to wet swampy areas with high water tables or poor drainage.

RUNOFF - Irrigation water which is not absorbed by the soil or landscape to which it is applied and which flows from the planted area.

SERVICE LINE - The pressurized pipeline that delivers water from the water source to the water meter.

SMART CONTROLLER – Weather-based or soil moisture-based irrigation controls that monitor and use information about environmental conditions for a specific location and landscape (such as soil moisture, rain, wind, the plants' evaporation and transpiration rates and, in some cases, plant type and more) to automatically control when to water and when not to, providing exactly the right amount of water to maintain lush, healthy growing conditions.

SOIL MOISTURE-SENSING DEVICE - A device that measures the amount of water in the soil.

SOIL TEXTURE - The classification of soil based on the percentage of sand, silt and clay in the soil.

SPRINKLER HEAD - A device which sprays water through a nozzle.

STATIC WATER PRESSURE - The pipeline or municipal water supply pressure when water is not flowing.

STATION - An area served by one valve or by a set of valves that operate simultaneously.

TURF - A surface of earth containing mowed grass with roots.

VALVE - A device used to control the flow of water in the irrigation system.

WATER FEATURE - Any water applied to the landscape for nonirrigation, decorative purposes. Fountains, streams, ponds and lakes are considered water

features. Water features use more water than efficiently irrigated turf grass and are assigned a plant factor of 1.1 for a stationary body of water and 1.2 for a moving body of water.

WATER SYSTEM - The network of piping, valves and irrigation heads.

WUCOLS III - Water Use Classifications of Landscape Species III

0.00.030 Provisions for new or rehabilitated landscapes

- A. Submittal and Approval of a Landscape Documentation Package
1. Prior to construction, the project applicant shall:
 - a. Submit two copies of a Landscape Documentation Package to the Coachella Valley Water District (District) that conform to this chapter. No water meter will be issued until the District reviews and approves the Landscape Documentation Package.
 - b. Submit one copy of the Landscape Documentation Package to the local agency (city/county).
 2. Upon receipt of the Landscape Documentation Package, the District shall:
 - a. Review the Landscape Documentation Package.
 - b. Approve or deny the Landscape Documentation Package.
 3. Upon approval of the Landscape Documentation Package, the District will:
 - a. Sign and date the approved plans and return them to the project applicant.
 - b. Submit a copy of the project's Water Efficient Landscape Worksheet (Appendix B) to the local agency.
 4. Upon approval of the Landscape Documentation Package by the local agency, the project applicant shall:
 - a. Receive an approval of the landscape design review or plan check.
 - b. Finalize the Certificate of Completion, including recording the date of the approval.
 - c. File the Certificate of Completion with the District and the local agency, and provide a copy to the property owner or designee.

- d. Submit a copy of the approved Landscape Documentation Package, along with the record drawings and any other information, to the property owner or designee.
5. Each Landscape Documentation Package shall include the following elements:
- a. A completed Landscape Documentation Package Checklist (Appendix A), which includes the date, project applicant, and project address information. This checklist serves to verify that the elements of the Landscape Documentation Package have been completed.
 - b. Total landscaped area (square feet)
 - c. Project type (e.g., new, rehabilitated, public, private, cemetery, homeowner-installed, etc.)
 - d. Water Efficient Landscape Worksheet (Appendix B), which may be imbedded in the plan sheets of the Landscape Documentation Package, and include the following:
 - i. Hydrozone Information Table (reference Appendix C)
 - e. Water Budget Calculations (reference Appendix D) that adhere to the following requirements:
 - i. The plant factor used shall be from WUCOLS. The plant factors ranges from 0 to 0.3 for the low use plants, from 0.4 to 0.6 for the moderate use plants, from 0.7 to 1.0 for the high use plants and 1.1 to 1.2 for water features.
 - ii. All water features shall be included in the 1.1 to 1.2 hydrozone and temporary irrigated areas shall be included in the low water use hydrozone.. For the calculation of the Maximum Applied Water Allowance (MAWA) and Estimated Total Water Use, a project applicant shall use ETo values from the Reference Evapotranspiration Table, Appendix C. For geographic areas not covered in Appendix C, use data from other cities located nearby in the same reference evapotranspiration zone.
 - f. Landscape Design Plan
 - g. Irrigation Design Plan
 - h. Grading Design Plan (as required)
 - i. Soil Management Report (as required)
 - j. All plans must contain a signature block for both the local agency and the District.
6. The Landscape Documentation Package shall be submitted by the following procedure:
- a. The applicant or applicant's representative may bring, send or ship copies of the Landscape Documentation Package to the District,

and the local agency, as applicable. Appropriate fees must accompany the Landscape Documentation Package.

- b. The plans will normally be returned to the applicant or local agency with comments by the District (Water Management Department) within ten working days of receipt.
- c. After noted corrections have been made, the applicant shall re-submit the Landscape Documentation Package to the District for approval and signing by the Water Management Department and Development Services Department for the District.
- d. Signed plans will be held at the District's Palm Desert office for applicant pick up or sent by certified shipping at the applicant's request and expense.

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- e. For direct communication:
 - Telephone No.: (760) 398-2651 Water Management Department
 - Mailing Address: Coachella Valley Water District
Attention: Water Management Department
Post Office Box 1058
Coachella, California 92236
 - Hand Delivery or Shipping Address: Coachella Valley Water District
Attention: Water Management Department
85-995 Avenue 52
Coachella, California 92236
 - Hand Delivery or Shipping Address: Coachella Valley Water District
Attention: Water Management Department
75-525 Hovley Lane East
Palm Desert, California 92211

- f. The District will inspect the landscaped area(s) for conformance with the approved Landscape Documentation Package. Landscaping that does not conform to the approved Landscape Documentation Package is subject to penalties as provided in Section 0.00.070.

- 7. Upon review and approval of the Landscape Documentation Package by the District, the project applicant shall:
 - a. Submit a copy of the District-approved Landscape Documentation Package and Water Efficient Landscape Worksheet to the local agency.
 - b. Provide the property owner or site manager a copy of the District-approved Landscape Documentation Package, in addition to the record drawings and any other information normally forwarded to the property owner or site manager.
- 8. Upon review and approval of the Landscape Documentation Package by the local agency, the project applicant shall:
 - a. Record the date of the permit on the Certificate of Completion.
 - b. Provide the property owner or designee a copy of the local-agency approved Landscape Documentation Package, in addition to the record drawings, and any other information normally forwarded to the property owner or designee.

B. Landscape Design Plan

A landscape design plan meeting the following design criteria shall be submitted as part of the Landscape Documentation package. For the efficient use of water, a landscape shall be carefully designed and planned for the intended function of the project.

1. Any plant may be selected for the landscape, providing the Estimated Total Water Use in the landscape area does not exceed the Maximum Applied Water Allowance (MAWA). To encourage the efficient use of water the following is highly recommended:
 - a. Protection and preservation of native species and natural vegetation;
 - b. Selection of water-conserving plant and turf species;
 - c. Selection of trees based on applicable local tree ordinances or tree shading guidelines; and
 - d. Selection of plants from local and regional landscape program plant lists.
2. Specifications for Landscape Design Plan

The landscape design plan shall be drawn on 36-inch by 24-inch project base sheets at a scale that accurately and clearly identifies the following:

 - a. Tract name, tract number or parcel map number on cover sheet.
 - b. Proposed planting areas.
 - c. Plant material location and size.
 - d. Plant botanical and common names.
 - e. Plant spacing, where applicable.
 - f. Natural features including, but not limited to, rock outcroppings, and existing trees and shrubs that will remain incorporated into the new landscape.
 - g. Vicinity map showing site location on top sheet or on cover sheet.
 - h. Title block on each sheet with the name and address of the project, and the name and address of the professional design company with its signed professional stamp, if applicable.
 - i. Reserve two 6-inch by 3-inch spaces for a) the local agency signature block and b) a District signature block in lower right corner of the cover sheet and on all of the landscape, irrigation design/detail/specification sheets.
 - j. Show plan scale and north arrow on design sheets.
 - k. Show graphic scale on all design sheets.
 - l. Show all property lines and street names.
 - m. Show all paved areas, such as driveways, walkways and streets.

- n. Show all pools, ponds, lakes, fountains, water features, fences and retaining walls.
- o. Show locations of all overhead and underground utilities within project area.
- p. Provide an index map, as necessary, showing the overall project, including all 1/4 and 1/16 section lines and section numbers.
- q. Show ~~these~~^{this} notes on each design sheet stating, ~~“Trees, plants, walls, sidewalks and permanent structures of any kind shall not be planted, installed or built in CVWD, USBR and local agency easements or rights of way without first obtaining an encroachment permit from CVWD and the local agency. No permanent structures or trees within CVWD and/or USBR easements. CVWD will not be responsible for replacing damage or replacement of and/or maintaining any surface improvements, including but not limited to, decorative concrete, and/or landscaping, curb, gutter, sidewalks, planters, gates and related improvements installed over within water lines, valves, sewer lines or laterals CVWD and/or USBR easements.”~~
In addition, “No trees shall be installed in an easement and/or within 15’ of a CVWD and/or USBR pipeline.” If surface improvements may be installed within CVWD and/or USBR easements only upon the prior consent of CVWD, which consent may be granted or denied at CVWD’s sole discretion. In the event of such consent, then a Non-interference review letter (NIRL) may apply per Section 3.4 of CVWD’s Development Design Manual.
- r. Show Maximum Applied Water Allowance (MAWA) for the proposed project. (See formula in Appendix C and Sample MAWA, Appendix D.)
- s. Show total landscaped area in square feet. Separate area square footages by hydrozone. Show the total percentage area of each hydrozone. Include total area of all water features as separate hydrozones of still or moving water. Show Estimated Total Water Use, for each major plant group hydrozone and water feature hydrozone expressed in either seasonal (turf grass) or annual (trees, shrubs, groundcovers and water features) billing units.
- t. Show Total Estimated Total Water Use for each major plant group hydrozone and water feature hydrozone expressed in either seasonal (turf grass) or annual (trees, shrubs, groundcovers and water features) billing units.
- u. Show Total Estimated Water Use for the entire project. (Formula in Appendix C and on Sample Calculation Estimated Water Use, Appendix D.) The Total Estimated Use shall not exceed the Maximum Applied Water Allowance (MAWA).
- v. Designate recreational areas and recreational turf areas.

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- w. When model homes are included, show the Maximum Applied Water Allowance (MAWA) and Estimated Total Water Use (by hydrozone with totals) for each model unit.

3. Landscape Design Criteria

- a. The landscape design must be carefully planned and take into account the intended function of the project.
- b. Plants' appropriateness shall be selected based upon their adaptability to the climatic, geologic and topographical conditions of the site.
- c. Selection of water-efficient and low-maintenance plant material is required.
- d. All planted areas must be a minimum of one inch below adjacent hardscapes to eliminate runoff and overflow.
- e. Long, narrow or irregularly shaped turf areas shall not be designed because of the difficulty in irrigating uniformly without overspray onto hardscaped areas, streets and sidewalks. Areas less than ~~108~~ feet in width shall not be designed with turf. Turf will be allowed in these areas only if irrigation design reflects the use of subsurface irrigation or a surface flow/wick irrigation system.
- f. Turf areas irrigated with spray/rotor systems must be set back at least 24 inches from curbs, driveways, sidewalks or any other area that may result in runoff of water onto streets. An undulating landscape buffer area created by the setback shall be designed with rocks, cobble or decomposed granite and/or can be landscaped with drip irrigated shrubs/accents or covered with a suitable ground cover.
- g. Plants having similar water use shall be grouped together in distinct hydrozones.
- h. The use of a soil covering mulch or a mineral groundcover of a minimum ~~three~~ two-inch depth to reduce soil surface evaporation is required around trees, shrubs and on nonirrigated areas. The use of boulders and cobble shall be considered to reduce the total vegetation area.
- i. Annual color plantings shall be used only in areas of high visual impact and must be irrigated with drip, microirrigation or other systems with efficiencies of 90 percent or greater. ~~close to where people can appreciate them.~~ Otherwise, drip irrigated, perennial plantings should be the primary source of color.
- j. Native desert plants shall be specified to be planted in a shallow, wide, rough hole two times the root ball width. The root ball will be set on either undisturbed native soil or a firmed native soil. The root ball top will be set even with the finished surface grade or above grade if the soil is poorly drained. The hole must be

backfilled with native soil. Extra soil may be used to mound up around plants where the soil is poorly drained.

- k. Landscaping must not obstruct or interfere with street signs, lights or road/walkway visibility. Screening may be provided by walls, berms or plantings.
- l. High water use plans, characterized by a plant factor of 0.7 to 1.0, are prohibited in street medians.
- m.~~l.~~ Use locally approved plant materials lists in the selection of appropriate plants.
- n.~~M.~~ Planter islands in parking lots with canopy trees shall be sized to meet local land use agency requirements.
- o.~~n.~~ A landscape plan in fire-prone areas shall address fire safety and prevention. A defensible space or zone around a building or structure is required per Public Resources Code Section 4291 (a) and (b). Avoid fire-prone plant material and highly flammable mulches.
- p.~~o.~~ The use of invasive and/or noxious plant species is prohibited.
- q.~~p.~~ The architectural guidelines of a common interest development, which includes community apartment projects, condominiums, planned developments and stock cooperatives, shall not prohibit or include conditions that have the effect of prohibiting the use of low-water use plants as a group (California Civil Code, Section 1353.8).

D. Grading Design Plan

- 1. For efficient use of water, grading of a project site shall be designed to minimize soil erosion, runoff and water waste. A grading plan shall be submitted as part of the Landscape Documentation Package. A comprehensive grading plan prepared by a civil engineer for other local agency permits satisfies this requirement.
- 2. The project applicant shall submit a landscape grading plan that indicates finished configurations and elevations of the landscape area including:
 - a. Height of graded slopes;
 - b. Drainage patterns;
 - c. Pad elevations;
 - d. Finish grade; and
 - e. Stormwater retention improvements, if applicable.
- 3. To prevent excessive erosion and runoff, it is highly recommended, and per local agency requirements, that project applicants:
 - a. Grade so that all irrigation and normal rainfall remains within property lines and does not drain on to non-permeable hardscapes;

- b. Avoid disruption of natural drainage patterns and undisturbed soil; and
 - c. Avoid soil compaction in landscape areas.
4. The grading design plan shall contain the following statement: "I have complied with the criteria of the ordinance and applied them accordingly for the efficient use of water in the grading plan."
 5. Turf is not allowed on slopes greater than 25% where the toe of the slope is adjacent to an impermeable hardscape and where 25% means 1 foot of vertical elevation change for every 4 feet of horizontal length (rise divided by run x 100 = slope percent).
 6. Slopes greater than 25% shall not be irrigated with an irrigation system with a precipitation rate exceeding 0.75 inches per hour. This restriction may be modified if the landscape designer specifies an alternative design or technology, as part of the Landscape Documentation Package, and clearly demonstrates no runoff or erosion will occur. Prevention of runoff must be confirmed during an irrigation audit.
 7. All grading must retain normal stormwater runoff and provide for an area of containment. All irrigation water must be retained within property lines and not allowed to flow into public streets or public rights-of-way. Where appropriate, a simulated dry creek bed may be used to convey storm drainage into retention areas. A drywell shall be installed if the retention basin is to be used as a recreational area.
 8. Mounded or sloped planting areas that contribute to runoff onto hardscape are prohibited. Sloped planting areas above a hardscaped area shall be avoided unless there is a drainage swale at toe of slope to direct runoff away from hardscape.
 9. Median islands must be graded to prevent stormwater and excess irrigation runoff.

E. Irrigation Design Plan

For the efficient use of water, an irrigation system shall meet all the requirements listed in this section and the manufactures recommendations. The irrigation system and its related components shall be planned and designed to allow for proper installation, management, and maintenance. An irrigation design plan meeting the following criteria shall be submitted as part of the Landscape Documentation Package.

Separate landscape water meters shall be installed for all projects except single family homes with a landscape area less than 5,000 square feet. Landscape meters for single family homes with a landscape area over 5,000 square feet may be served by a permanent service connection provided by the District or be a privately owned submeter installed at the irrigation point of connection on the customer service line. - When irrigation water is from a well, the well shall be metered. The irrigation design plan shall be drawn on project base sheets. It should be separate from, but use the same format as, the landscape design plan. The irrigation system specifications shall accurately and clearly identify the following:

Comment [JK1]: Terms Permanent Service Connection and Customer Service Line were retrieved from our Regulations Governing Domestic Water in order to maintain consistency.

1. Specifications for Irrigation Design.
 - a. Control valves, manufacturer's model number, size and location.
 - b. Irrigation head manufacturer's model number, radius, operating pressure, gallons per minute/gallons per hour (gpm/gph) and location.
 - c. Piping type, size and location.
 - d. Point of connection or source of water and static water pressure.
 - e. Meter location and size (where applicable).
 - f. Pump station location and pumping capacity (where applicable).
 - g. Power supply/electrical access and location.
 - h. Plan scale and north arrow on all sheets.
 - i. Graphic scaling on all irrigation design sheets.
 - j. Irrigation installation details and notes/specifications.
 - k. The irrigation system shall be automatic, constructed to discourage vandalism and simple to maintain.
 - l. All equipment shall be of proven design with local service available.
 - m. Show location, station number, size, and design gpm of each valve on plan. Control valves shall be rated at 200 psi.
 - n. Visible sprinklers near hardscape shall be of pop-up design.
 - o. All heads should have a minimum number of wearing pieces with an extended life cycle.
 - p. Sprinklers, drippers, valves, etc., must be operated within manufacturer's specifications.
 - q. Manual shut-off valves shall be fully ported ball valves or butterfly valves. Manual shut-off valves are required upstream of automatic valve manifolds.
 - r. Master valves shall be metal, located as close to the point of connection as possible, and be metal piped between the master valve and the water meter.
 - s. High flow sensors that detect and report high flow conditions created by system damage or malfunction shall be specified for all projects where a dedicated landscape irrigation meter is required. ~~excluding single family and multi-family dwellings.~~
 - t. The following statement "I have complied with the criteria of the ordinance and have applied them accordingly for the efficient use of water in the irrigation design plan;" and
 - u. The signature of a licensed landscape architect, certified irrigation designer, irrigation consultant, landscape contractor or any other person authorized to design an irrigation system.

2. Specifications for Irrigation Efficiency

The minimum irrigation efficiency shall be 0.75 (75%). Greater irrigation efficiencies are expected from well-designed and maintained systems.

The following are required:

- a. Design spray head and rotor head stations with consideration for worst wind conditions. Close spacing and low-angle nozzles are required in high and frequent wind areas (ETo Zone No. 5).
- b. Spacing of sprinkler heads shall not exceed manufacturer's maximum recommendations for proper coverage. The plan design shall show a minimum of 0.75 (75%) distribution uniformity.
- c. Only irrigation heads with matched precipitation rates shall be circuited on the same valve.
- d. Valve circuited shall be designed to be consistent with hydrozones.
- e. Individual hydrozones that mix plants that are moderate and low water use may be allowed if:
 - (i) plant factor calculation is based on the proportions of the respective plant water uses and their plant factor; or
 - (ii) the plant factor of the higher water using plant is used for the calculations.
- f. Individual hydrozones that mix high and low water use plants shall not be permitted.
- g. On the landscape design plan and irrigation design plan, hydrozone areas shall be designated by number, letter, or other designation. On the irrigation design plan, designate the areas irrigated by each valve, and assign a number to each valve. Use this valve number in the hydrozone information table. This table can assist with pre-inspection and final inspection of the irrigation system, and programming the controller.

3. Irrigation System Criteria

- a. Reduced pressure backflow prevention devices shall be installed behind meter at curb by the District.
- b. Show location, station number, size and design gpm of each valve on plan.
- c. Smart Controllers shall be specified for all projects. This includes climate based or sensor based controllers, which can automatically adjust for local weather and/or site conditions.
- d. High flow check valves shall be installed in or under all heads adjacent to street curbing, parking lots and where damage could occur to property due to flooding, unless controllers with flow sensor capabilities are specified that can automatically shut off individual control valves when excess flow is detected.

- e. Pressure compensating screens/devices shall be specified on all spray heads to reduce radius as needed to prevent overthrow onto hardscape and/or to control high pressure misting.
 - f. All irrigation systems shall be designed to avoid runoff onto hardscape from low head drainage, overspray and other similar conditions where water flows onto adjacent property, nonirrigated areas, walks, roadways or structures.
 - g. Rotor type heads shall be set back a minimum of 4 feet from hardscape.
 - h. The use of drip, microirrigation or pressure compensating bubblers or other systems with efficiencies of 90 percent or greater is required for all shrubs and trees. Small, narrow (less than 8 feet), irregularly shaped or sloping areas shall be irrigated with drip, microspray or PC (pressure-compensating) bubbler heads.
 - i. Trees in turf areas shall be on a separate station to provide proper deep watering.
 - j. Street median irrigation
 - i. No overhead sprinkler irrigation system shall be installed in median strips or in islands.
 - ii. Median islands or strips shall be designed with either a drip emitter to each plant or subsurface irrigation. Bubblers used for trees must be fixed-flow pressure compensating type. Adjustable bubblers are prohibited
 - k. Meter sizing for landscape purposes shall be 33 gpm per planted acre. Maximum design meter flow rates are: 3/4" = 23 gpm, 1" = 37 gpm, 1-1/2" = 80 gpm, 2" = 120 gpm
 - l. Large projects located outside Improvement District No. 1 of the Coachella Valley Water District shall connect to or provide future connection to recycled water if such water is available. Large projects located inside Improvement District No. 1 may be required to connect to canal irrigation water or recycled water if such water is available. **(See attached boundary map.)**
4. Drip Irrigation System Criteria
- a. The drip system must be sized for mature-size plants.
 - b. The irrigation system should complete all irrigation cycles during peak use in about 12 hours. Normally, each irrigation controller should not have more than four drip stations that operate simultaneously.
 - c. Field installed below ground pipe connections shall be threaded PVC or glued PVC. Surface laid hose and tubing is prohibited. Polyethylene tubing is allowed only in subsurface installations. Drip emitter installation shall be directly into polyethylene tubing

on a ¼ inch thick-walled riser. Multi-port outlet devices and multi-port distribution is prohibited.

- d. Proportion gallons per day per plant according to plant size. The following sizing chart is for peak water use. The low to high end of the range is according to the relative water requirements of the plants. The low end is for desert natives and the high end is for medium water use type plants.

Size of Plant	Gallons Per Day
Large trees (over 30-foot diameter)	58+ to 97+
Medium trees (about 18-foot diameter)	21 to 35
Small trees/large shrubs (9-foot diameter)	6 to 10
Medium shrubs (3.5-foot diameter)	.8 to 1.3
Small shrubs/groundcover	.5 or less

- e. Plants with widely differing water requirements shall be valved separately. As an example, separate trees from small shrubs and cactus from other shrubs. Multiple emitter point sources of water for large shrubs and trees must provide continuous bands of moisture from the root ball out to the mature drip line plus 20 percent of the plant diameter. See Appendix C for more information on emitter spacing and wetted area.
- f. Most plants require 50 percent or more of the soil volume within the drip line to be wetted by the irrigation system. See Appendix C for more information. For additional information on plant watering and plant relative water needs, see the plant list section of the "Lush and Efficient, Landscape Gardening in the Coachella Valley" or a list provided by the local agency.

5. Recycled Water Specifications

- a. When a site has recycled water available or is in an area that will have recycled water available as irrigation water, the irrigation system shall be installed using the industry standard purple colored or marked "Recycled Water Do Not Drink" on pipes, valves and sprinkler heads.
- b. The backup groundwater supply (well water or domestic water) shall be metered. Backup supply water is only for emergencies when recycled water is not available.

- c. Recycled water users must comply with all county, state and federal health regulations. Cross connection control shall require a 6-inch air gap system or a reduced pressure backflow device. All retrofitted systems shall be dye tested before being put into service.
 - d. Where available, recycled water shall be used as a source for decorative water features.
 - e. Sites using recycled water are not exempted from the Maximum Applied Water Allowance (MAWA), prescribed water audits or the provisions of these criteria.
 - f. A Recycled Water Checklist (Appendix G) shall be submitted to the District upon submittal of the first plan check of the landscape design plan and the irrigation design plan.
6. Irrigation Water (Nonpotable) Specifications
- a. When a site is using nonpotable irrigation water that is not recycled water (from an on-site well or canal water) all hose bibs shall be loose key type and quick coupler valves shall be of locking type with nonpotable markings to prevent possible accidental drinking of this water.
 - b. Sites using nonpotable irrigation water are not exempted from the Maximum Applied Water Allowance (MAWA), prescribed water audits or the provisions of these criteria.
7. Groundwater Water Specifications
- a. Sites using groundwater irrigation water from wells are not exempted from the Maximum Applied Water Allowance (MAWA), prescribed water audits, or the provisions of these criteria.
8. Golf Course Criteria
- a. For all new golf courses and additions or renovations to existing golf courses, the area of irrigated turf used for tees, fairways, greens and practice areas shall be limited. The total turf area of the golf course shall be limited to a maximum of four (4) irrigated acres average per golf hole. Practice areas such as driving ranges and short game areas shall not exceed ten (10) acres of turf. The golf course design shall reflect the natural topography and drainage ways of the site, minimize the clearing of vegetation and be flexible and water efficient in design.
 - b. All nonturf areas such as ponds, lakes, artificial water courses, bunkers and irrigated landscapes within the golf course project area must not exceed the Maximum Applied Water Allowance (MAWA) calculations set forth within these criteria.

0.00.040 Other Provisions

- A. Landscape Audit, Irrigation Survey, and Irrigation Water Use Analysis for New Construction and Rehabilitated Landscapes
1. This section shall apply to new construction and rehabilitated landscape projects installed after January 1, 2010 as described in Section 0.00.030.
 2. All landscape irrigation audits shall be conducted by a certified landscape irrigation auditor.
 3. The project applicant shall submit an irrigation audit report with the Certificate of Completion to the local agency that may include, but not be limited to, inspection, system tune-up, system test with distribution uniformity, reporting overspray or run-off that causes overland flow, and preparation of an irrigation schedule, including configuring irrigation controllers with application rate, soil types, plant factors, slope, exposure and any other factors necessary for accurate programming;
 4. The District will administer programs that may include, but not be limited to, irrigation water use analysis, irrigation audits and irrigation surveys for compliance with the Maximum Applied Water Allowance (MAWA).
 5. The owner of the landscaped area shall bear the cost of the audit.
- B. Irrigation Audit, Irrigation Survey and Irrigation Water Use Analysis for Existing Landscapes
1. This section shall apply to all existing landscapes that were installed before January 1, 2010 and are over one (1) acre in size.
 2. The District will administer programs that may include, but not be limited to, irrigation water analysis, irrigation surveys and irrigation audits that verify landscape water use does not exceed the Maximum Applied Water Allowance (MAWA) for existing landscapes. The Maximum Applied Water Allowance (MAWA) for existing landscapes shall be calculated as: $MAWA = (.70) (ET_o) (LA) (.62/748)$ unless landscape plans were submitted and approved under a more water conserving ordinance.

C. Water Waste Prevention

1. Water Waste Prevention. Water waste resulting from inefficient landscape irrigation including run-off, low-head drainage, overspray, or other similar conditions where water flows onto adjacent property, nonirrigated areas, walks, roadways, or structures is prohibited. All broken heads and pipes must be repaired within 72 hours of notification. Penalties for violation of these prohibitions are established in Section 0.00.070.
2. Water service to customers who cause water waste may have their service discontinued.
3. Customers who appear to be exceeding the Maximum Applied Water Allowance (MAWA) may be interviewed by the District Water Management Department to verify customer water usage to ensure compliance.

D. Soil Management Report

1. In order to reduce runoff and encourage healthy plant growth, a soil management report shall be completed by the project applicant or designee as follows:
 - a. Submit soil samples to a laboratory for analysis and recommendation.
 - b. Soil sampling shall be conducted in accordance with laboratory protocol, including protocols regarding adequate sampling depth for the intended plants.
 - c. The soil analysis may include:
 - i. Determination of soil texture, indicating the available water holding capacity.
 - ii. An approximate soil infiltration rate (either) measured or derived from soil texture/infiltration rate tables. A range of infiltration rates shall be noted where appropriate.
 - iii. Measure of pH, total soluble salts and percent organic matter.
 - d. The project applicant or designee shall comply with one of the following:
 - i. If significant mass grading is not planned, the soil analysis report shall be submitted to the local agency as part of the Landscape Documentation Package; or
 - ii. If significant mass grading is planned, the soil analysis report shall be submitted to the local agency as part of the Certificate of Completion.
 - e. The soil analysis report shall be made available, in a timely manner, to the professionals preparing the landscape design plans and the irrigation plans to make any necessary adjustments to the design plans.

- f. The project applicant or designee shall submit documentation verifying implementation of soil analysis report recommendations to the local agency with the Certificate of Completion.

E. Developer-Provided Documentation

- 1. The developer/applicant/designee shall provide an approved copy of the Landscape Documentation Package and the following information for the homeowner or irrigation system operator. The package/information shall include a set of drawings, a recommended monthly irrigation schedule, and a recommended irrigation system maintenance schedule as described in Section 0.00.040G.
- 2. Irrigation Schedules. For the efficient use of water, all irrigation schedules shall be developed, managed, and evaluated to utilize the minimum amount of water to maintain plant health. Irrigation schedules shall meet the following criteria:
 - a. An annual irrigation program with monthly irrigation schedules shall be required for the plant establishment period, for the established landscape, and for any temporarily irrigated areas. The irrigation schedule shall:
 - i. Include run time (in minutes per cycle), suggested number of cycles per day, and frequency of irrigation for each station.
 - ii. Provide the amount of applied water (in hundred cubic feet) recommended on a monthly and annual basis.
 - iii. Whenever possible, incorporate the use of evapotranspiration data, such as those from the California Irrigation Management Information System (CIMIS) weather stations, to apply the appropriate levels of water for different climates.
 - iv. Whenever possible, be scheduled between 8:00 p.m. and 10:00 a.m. to avoid irrigating during times of high wind or high temperature. Run times and other water efficient requirements may be imposed by the CVWD Board of Directors from time to time.

G. Maintenance Schedules

A regular maintenance schedule satisfying the following conditions shall be submitted as part of the Landscape Documentation Package:

- 1. Landscapes shall be maintained to ensure water efficiency. A regular maintenance schedule shall include but not be limited to checking, adjusting, cleaning and repairing equipment; resetting the automatic controller, aerating and dethatching turf areas; replenishing mulch; fertilizing; pruning; and weeding in all landscaped areas.
- 2. Repair of irrigation equipment shall be done with the originally specified materials or their approved equal.

3. A project applicant is encouraged to implement sustainable or environmentally-friendly practices for the overall landscape maintenance.

H. Certificate of Completion

1. The Certificate of Completion (Appendix E) shall include the following:
 - a. Submittal and Approval Dates of the Landscape Documentation Package and Submittal Date of the Water Efficient Landscape Worksheet
 - b. Project Name
 - c. Project Address and Location
 - d. Applicant Name, Telephone and Mailing Address
 - e. Property Owners Name, Telephone, and Mailing Address
2. Certification by either the signer of the landscape design plan, the signer of the irrigation design plan, or the licensed landscape contractor that the landscape project has been installed per the approved Landscape Documentation Package.
3. Irrigation scheduling parameters used to set the controller. A diagram of the irrigation plan showing hydrozones shall be kept with the irrigation controller for subsequent management purposes.
4. Landscape and irrigation maintenance schedule.
5. Irrigation audit report.
6. Soil analysis report and documentation verifying implementation of soil report recommendations.
7. The project applicant shall:
 - a. Submit the signed Certificate of Completion to both the local agency and the District for review and approval.
 - b. Ensure that copies of the Certificate of Completion with all approvals are submitted to the local agency, the District, and property owner or his or her designee.
8. The District and the local agency shall:
 - a. Receive the signed Certificate of Completion from the project applicant.
 - b. Approve or deny the Certificate of Completion. If the Certificate of Completion is denied, the local agency shall provide information to the project applicant regarding reapplication, appeal or other assistance.

I. Stormwater Management

1. Stormwater management practices minimize runoff and increase infiltration which recharges groundwater and improves water quality. Implementing stormwater best management practices into the landscape

and grading design plans to minimize runoff and to increase on-site retention and infiltration are encouraged.

2. Project applicants shall refer to the District, the local agency, and/or Regional Water Quality Control Board for information on any applicable stormwater ordinances and stormwater management plans.
3. Rain gardens and other landscape features that increase rain water capture and infiltration are recommended.

J. Public Education

1. Public education is a critical component to promote the efficient use of water in landscapes. The use of appropriate principles of design, installation, management and maintenance that save water is encouraged in the community.
2. The District and the local agency shall provide information to ~~owners of new, single family residential homes~~ residents regarding the design, installation, management and maintenance of water efficient landscapes.

0.00.050 Review and Program Monitoring Fees

- A. Review and Program Monitoring fees are deemed necessary to review Landscape Documentation Packages and monitor landscape irrigation audits and shall be imposed on the subject applicant, property owner or designee.
- B. A Landscape Documentation Package review fee will be due at the time of initial project application submission to the District.
- C. The Board of Directors, by resolution, shall establish the amount of the above fees in accordance with applicable law.

0.00.060 Appeals

- A. Appeal to General Manager-Chief Engineer. An applicant, property owner or designee of any applicable project may appeal decisions made by the Water Management Department or Service Director other than imposition of penalties (see Sections 0.00.070 – 0.00.090 regarding imposition of penalties) to the General Manager-Chief Engineer, in writing, within fifteen (15) days of notification of decision. The General Manager-Chief Engineer's decision shall become final on the fifteenth (15th) day following service of written notification of said decision unless a timely appeal is filed pursuant to 0.00.060 B.
- B. Appeal to Board of Directors. An applicant, property owner or designee of any applicable project may appeal decisions made by the General Manager-Chief Engineer pursuant to Section 0.00.060 A. to the Board of Directors. Said appeal must be written and submitted to the Secretary of the Board of Directors within fifteen (15) days of the date of notification of the General Manager-Chief Engineer's decision. The Board of Directors' decision shall be final upon its adoption.

0.00.070 Penalties

- A. Violation of any part of Ordinance No. 1302.1 may result in any or all of the following penalties as may be imposed by the District or any other local agency

with jurisdiction to take enforcement actions. The following penalties apply when enforcement action is taken by the District:

1. Monetary. See Appendix F for schedule of monetary penalties.
 2. Termination of Service.
- B. Notice. The District shall issue a written notice of imposition of penalty. The notice shall set forth penalty imposed and the reason for imposition of it. The notice shall be served on the customer by registered or certified mail and shall advise that the customer may request review of the imposition of penalty by filing a written request for a hearing pursuant to the provision of Section 0.00.080.

0.00.080 Hearing Regarding Penalties

- A. Request for Hearing. Customers who have received notice of imposition of penalty may make a written request for a hearing. The District must receive the request for hearing no later than fifteen (15) days from the date of the notice of imposition of penalty. The request for hearing shall set forth, in detail, all facts supporting the request. Upon District's receipt of a timely request for a hearing, imposition of penalty shall be stayed until the Statement of Decision after hearing becomes final, or, if the Statement of Decision is timely appealed, the Board of Directors' order on appeal is adopted.
- B. Notice of Hearing. Within ten (10) days of the District's receipt of the request for hearing, the District shall provide written notice to the customer of the date, time and place of the hearing. The hearing date shall be within thirty (30) days of the mailing of the notice of hearing, unless the parties agree, in writing, to a later date.
- C. Hearing. The General Manager-Chief Engineer, or his designee, shall act as the Hearing Officer. At the hearing, the customer shall have an opportunity to respond to the allegations set forth in the notice of imposition of penalty by producing written and/or oral evidence.
- D. Statement of Decision. Within ten (10) days following the hearing, the Hearing Officer shall prepare a written Statement of Decision, which shall set forth the facts upon which the decision is based. The Statement of Decision shall be served by personal delivery or registered or certified mail on the customer. The Statement of Decision shall become final on the sixteenth (16th) day after service on the customer unless a request for appeal is timely filed with the Board of Directors pursuant to Section 0.00.090.

0.00.090 Appeal of Penalties

- A. Request for Appeal. A customer may appeal a Statement of Decision by filing a written request for appeal with the Board of Directors before the date the Statement of Decision becomes final, i.e., no later than the fifteenth (15th) day following service of the Statement of Decision on the customer. The request for appeal shall set forth, in detail, all the issues in dispute and all facts supporting the request.
- B. Notice of Appeal Hearing. No later than thirty (30) days after receipt of the request for appeal, the Board of Directors shall set the matter for a hearing. Written notice of said hearing of appeal shall be served on the appellant by

personal delivery or registered or certified mail. The hearing date shall be a date within thirty (30) days of service of the notice of hearing of appeal, unless the parties agree, in writing, to a later date. If the Board of Directors does not hear the appeal within the required time due to acts or omissions of the appellant, the Statement of Decision shall become final on the thirty-first (31st) day after service of notice of hearing of appeal on the customer.

- C. Determination and Order on Appeal. After the hearing of appeal, the Board of Directors shall issue an order affirming, modifying or reversing the General Manager-Chief Engineer's decision. The Board of Directors shall set forth its Determination and Order, in writing, and shall serve the Determination and Order to the customer by personal delivery or registered or certified mail within thirty (30) days following the hearing. The Determination and Order of the Board of Directors shall be final upon its adoption.

DRAFT

APPENDIX A

Landscape Documentation Package Checklist

Project Site: _____ Tract or Parcel Number: _____

Project Assessor's Parcel Number (APN): _____

Project Location: _____

Landscape Architect/Irrigation Designer/Contractor and Name and Contact Information: _____

Included in this Landscape Documentation Package are: (Check to indicate completion)

- ___ 1. Water Efficient Landscape Worksheet (Appendix B)
WATER BUDGET CALCULATIONS (Appendix D)
- ___ 2. Maximum Applied Water Allowance (MAWA):
Conventional Landscape: _____ 100 cubic feet/year
+ Recreational Turf grass Landscape: _____ 100 cubic feet/year (if applicable)
Maximum Applied Water Allowance: _____ 100 cubic feet/year
- ___ 3. Estimated Total Water Use by Hydrozone:
Turf grass Hydrozones: _____ 100 cubic feet/year
Recreational Turf grass Hydrozones: _____ 100 cubic feet/year
Low Plant Hydrozones: _____ 100 cubic feet/year
Medium Plant Hydrozones: _____ 100 cubic feet/year
High Plant Hydrozones: _____ 100 cubic feet/year
Water Features: _____ 100 cubic feet/year
Other _____: _____ 100 cubic feet/year
Estimated Total Water Use: _____ 100 cubic feet/year
- ___ 4. ETWU < MAWA
PLAN SETS
- ___ 5. Landscape Design Plan
- ___ 6. Irrigation Design Plan
- ___ 7. Grading Design Plan
- ___ 8. Soil Management Report

I agree to comply with the requirements of the water efficient landscape ordinance and submit a complete Landscape Documentation Package.

Date: _____ Applicant: _____

APPENDIX B

SAMPLE WATER EFFICIENT LANDSCAPE WORKSHEET

This worksheet is filled out by the project applicant and is a required element of the Landscape Documentation Package.

PROJECT INFORMATION

Project Name		
Name of Project Applicant	Telephone No.	
	Fax No.	
Title	Email Address	
Company	Street Address	
City	State	Zip Code

SECTION A. HYDROZONE INFORMATION TABLE

Please complete the hydrozone table(s) for each irrigation point of connection. Use as many tables as necessary to provide the square footage of landscape area per valve.

Irrigation Point of Connection (P.O.C.) No. _____					
Controller No.	Valve Circuit No.	Plant Types(s)*	Irrigation Method**	Area (Sq. Ft.)	% of Landscape Area
Total					100%

***Plant Type**
 Cst = Cool Season Turf
 WST = Warm Season Turf
 HW = High Water Use Plants
 MW = Moderate Water Use Plants
 LW = Low Water Use Plants

****Irrigation Method**
 MS = Microspray
 S = Spray
 R = Rotor
 B = Bubbler
 D = Drip
 O = Other

APPENDIX C
ET PROFILE AND PLANT FACTORS

	Jan>	<Feb	Mar	Apr>	<May	Jun	Jul	Aug	Sep>	<Oct	Nov	Dec	Totals	Totals
<u>Monthly ETo (inches)</u>												Inches	Feet
Zone No. 1-Coves	1.71	2.84	4.00	5.70	6.84	7.98	7.98	6.27	5.70	4.00	2.28	1.71	57.01	4.75
Zone No. 2-COD	2.00	3.36	4.68	6.68	8.02	9.35	9.35	7.35	6.68	4.68	2.67	2.00	66.82	5.57
Zone No. 3-EMC	2.25	3.75	5.25	7.50	9.00	10.50	10.50	8.25	7.50	5.25	3.00	2.25	75.00	6.25
Zone No. 4-TH	2.64	4.40	6.16	8.80	10.56	12.32	12.32	9.68	8.80	6.16	3.52	2.64	88.00	7.33
Zone No. 5-I10	2.82	4.68	6.57	9.39	11.27	13.15	13.15	10.33	9.39	6.57	3.76	2.82	93.90	7.83
% Annual ETo per Month	3	5	7	10	12	14	14	11	10	7	4	3		

- Zone No. 1 = Most protected cove areas with minimum wind, longest mountain shadows, higher rainfall, Palm Can. to La Q. Cove
- Zone No. 2 = Lower cove areas, light winds, long afternoon shadows from mountains, typ. Hwy 111 from Cathedral City to La Quinta
- Zone No. 3, 4 = Moderate winds, minimum mountain shadows, some blowing sand and dust; 3) Upper valley predominate wind from northwest, 4) Lower valley has lower elevation and more summer southeast wind
- Zone No.5 = Frequent strong northwest winds, heavy blowing sand and dust, typical of I-10 corridor to Washington Street

Maximum Applied Water Allowance (CCF) = $\frac{\text{ETo (in inches for season)} \times .50 \times \text{Area (in square feet)} \times .62}{748}$
 ET Adjustment Factor = ~~.45~~ ~~.38 Plant Factor~~ / ~~.75 Irrigation System Efficiency~~ = 0.50
 .62 = gallons per square foot per inch deep
 CCF = 100 cubic feet = 1 billing unit = 748 gallons

Estimated Total Water Use (CCF) = $\frac{\text{ETo (in inches for season)} \times \text{Plant Factor} \times \text{Area (in square feet)} \times 0.62}{748 \times \text{Irrigation System Efficiency}}$

- Target Irrigation Efficiency = .80 Turf Rotor
- = .75 Sprayheads
- = .90 Drip/Micro/PC Bubbler

Emitters per Plant Estimate = $\frac{\text{Area Of Plant In Square Feet} \times \% \text{ Of Area To Be Wet}}{\text{Square Feet Wet Per Emitter}}$

Soil Type	(inches water holding capacity per inch of depth)	Emitter Wetted Area Square Feet Each	Emitter Spacing
Very Coarse Sand	0.05 Typical of high on an alluvial fan	.75 to 1.75	10"
Blow Sand	0.07 Typical of mid valley ridge area	1.75 to 3	18"
Fine Sand	0.10 Typical of low on alluvial fans from Rancho Mirage to Indian Wells	3 to 5	3'
Very Fine Silty Sand	0.15 Typical of lowest alluvial fans from La Quinta, Indio, & Coachella	5 to 10	4'
Silt Loam	0.17 Typical of lower valley agricultural areas located below sea level	10 to 28	4.5'

Plant Factor (Kc)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg
Cool Turf 100%**	1.00	1.00	1.00	NR	NR	NR	NR	NR	NR	1.00	1.00	1.00	1.00
Warm Turf 100%**	NR	NR	NR	0.80	0.80	0.80	0.80	0.80	0.80	NR	NR	NR	0.80
Cool Turf 80%*	0.80	0.80	0.80	0.70	NR	NR	NR	NR	NR	0.80	0.80	0.80	0.79
Warm Turf 60%*	NR	NR	NR	0.60	0.60	0.60	0.60	0.60	0.60	0.60	NR	NR	0.60
Combined TurfSav*	0.80	0.80	0.80	0.70	0.60	0.60	0.60	0.60	0.60	0.70	0.80	0.80	0.70
Tree/Shrub/GC L*	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
Tree/Shrub/GC L**	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Tree/Shrub/GC M*	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
Tree/Shrub/GC M**	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Tree/Shrub/GC H*	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Tree/Shrub/GC H**	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Open WaterFactor	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10

(Approx. Evaporation from a still water surface, higher factor (1.2) with falls and fountains.) Reference; WUCOLS III

- CombinedTurfSav = Combination of cool and warm season turf according to normal management in the Coachella Valley
- * = Normal irrigation level to maintain established planting
- ** = Normal irrigation level during plant establishment

- GC = Groundcover
- L = Low water use Kc .1 to .3
- M = Moderate water use Kc .4 to .6
- H = High water use Kc .7 to .9
- NR = Not Recommended

APPENDIX D

SAMPLE CALCULATION/ESTIMATED TOTAL WATER USE (by Hydrozone)

Using the following formula from Appendix C:

ETWU	= (ETo) x (PF) x (LA) x (.62) / (748) / (IE)
ETWU	= Estimated Water Use (hundred cubic feet)
ETo	= Reference Evapotranspiration (inches) [for period of estimate]
PF	= Plant Factor (Kc)
LA	= Landscaped Area (in square feet)
.62	= Conversion Factor (to gallons per square foot)
748	= Conversion Factor (to hundred cubic feet)
IE	= Irrigation System Efficiency

Project Site Example: Total landscaped area 60,000 square feet in Palm Desert near the intersection of Cook Street and Country Club Drive in Zone No. 3 (75.0" Annual ETo).

- ~~12,000~~6,500 square feet of turf grass overseeded with rye grass in winter, irrigated with low angle rotor sprinklers.
- ~~32,700~~28,200 square feet of "low" desert native plantings on drip irrigation.
- 15,300 square feet of "moderate" water using plantings on drip irrigation.

See Appendix C for formula factors. ETo is totaled for season. Turf grass plant factors are the average for the season and tree/shrub/groundcover plant factors are considered constant annually.

Plant Factors

<u>Turf Grass</u>	<u>Low Native Plants</u>	<u>Moderate Shrubs</u>
0.70	0.20	0.50

$$ETWU = [(ETo) \times (PF) \times (LA) \times (.62) / (748)] / (IE) = CCF$$

$$\text{Overseeded Turf Grass: Season} = 75.0 \times .7 \times \del{12,000} \times .62 / 748 / .80 = \del{653897} \text{ CCF}$$

$$\text{Seasonal Turf ETWU} = \del{653897} \text{ CCF}$$

$$\text{"Low" Native Plants: Annual} = 75.0 \times .2 \times \del{28,200} \times .62 / 748 / .90 = \del{451389} \text{ CCF}$$

$$\text{"Low" Native ETWU} = \del{451389} \text{ CCF}$$

$$\text{"Moderate" Shrubs and Ground Cover: Annual} = 75.0 \times .5 \times 15,300 \times .62 / 748 / .90 = 528 \text{ CCF}$$

$$\text{"Moderate" ETWU} = 528 \text{ CCF}$$

$$\text{Project Total ETWU} = \del{1,632,814} \text{ CCF}$$

APPENDIX D

SAMPLE CALCULATION

Maximum Applied Water Allowance (MAWA)

Using the following formula:

$$\begin{aligned} \text{MAWA} &= [(\text{ETo}) \times (0.4550) \times (\text{LA}) \times (0.62)] / (748) \\ \text{MAWA} &= \text{Maximum Applied Water Allowance (CCF or hundred cubic feet)} \\ \text{ETo} &= \text{Reference Evapotranspiration (inches per year)} \\ 0.4550 &= \text{ET adjustment factor} \\ \text{LA} &= \text{Landscaped Area (square feet)} \\ 0.62 &= \text{Conversion Factor (to gallons per square foot)} \\ 748 &= \text{Conversion Factor (to hundred cubic feet)} \end{aligned}$$

Using the project for the Estimated Total Water Use example:

Landscaped area of 60,000 square feet in Palm Desert near the intersection of Cook Street and Country Club Drive in Zone No. 3 (75.0" Annual ETo).

$$\begin{aligned} \text{MAWA} &= 75.0 (\text{ETo}) \times (0.4550) \times (\text{LA}) \times (0.62) / (748) \\ &= [75.0(0.4550) (60,000) (0.62)] / (748) \\ \text{MAWA} &= 1,678,864 \text{ CCF} \end{aligned}$$

ETWU total of 1,632,814 CCF is < the MAWA of 1,678,865 CCF

APPENDIX E

SAMPLE CERTIFICATE OF COMPLETION

Project Name: _____

Parcel Map or Tract No.: _____ APN: _____

Project Location: _____

Maximum Applied Water Allowance (MAWA): _____ (in hundred cubic feet)

Estimated Annual Total Applied Water Use: _____ (in hundred cubic feet)

Preliminary project documentation submitted (initials indicate submittal)

- _____ 1. Grading design plan
- _____ 2. Landscape design plan
- _____ 3. Irrigation design plan
- _____ 4. Irrigation schedules

Post Installation inspection (initials indicate completion)

- _____ 1. Plants installed as specified
- _____ 2. Irrigation System installed as designed

Comments: _____

A copy of this certification has been provided to the owner/developer, the local agency and to the District. I certify the work has been completed in accordance with District Ordinance 1302.1, Landscape and Irrigation System Design Criteria.

Landscape Architect/Designee Signature License No. Date

- 1. Date the Landscape Documentation Package was submitted to the Local Agency: _____
- 2. Date the Landscape Documentation Package was approved by the Local Agency: _____
- 3. Date a copy of the Water Efficient Landscape Worksheet (including the Water Budget Calculation) was submitted to the District: _____

|
APPENDIX F

SCHEDULE OF MONETARY PENALTIES

1. \$250 upon receipt of first written Notice of Non-compliance.
2. An additional \$250 (for a total of \$500) upon receipt of the second Notice of Non-compliance issued thirty (30) days after the receipt of the first Notice of Non-compliance.

DRAFT

APPENDIX G

Recycled Water Checklist

1. Obtain coverage under the general waste discharge requirements for discharge of recycled water for golf course and landscape irrigation Order No. 97-700 or equivalent version of this permit from the California Regional Water Quality Control Board of the Colorado River Basin Region (Regional Board) by submitting a Notice of Intent to the Regional Board and paying application/annual fees.
2. Enter into an agreement with CVWD for receiving nonpotable water for golf course and landscape irrigation. The agreement between discharger and CVWD must be provided to the Regional Board within 90 days of receiving coverage under the permit referenced above in item #1.
3. Landscape and Irrigation system plans must meet regulatory requirements of Order 97-700 or equivalent version of this permit, the State Board's Recycled Water Policy, and California Department of Public Health (CDPH) Statutes and Regulations related to recycled water, such as the Health and Safety Code, the Water Code, Title 17 and Title 22 Code of Regulations. These requirements include but are not limited to the following:
 - a. An air-gap separation, a vertically measured distance between supply pipe and receiving vessel must be present and meet the required distance for the size of the supply pipe.
 - b. The appropriate type of backflow protection is to be installed for auxiliary water supplies and recycled water.
 - c. The required separation distance between recycled water lines and impoundments and application area; and domestic wells and water lines is maintained and approved by CDPH.
 - d. The design of the irrigation system shall not cause the occurrence of ponding anywhere in the reuse area, and overspray or mist around dwellings, outdoor eating areas and/or food handling facilities is eliminated. Irrigation runoff shall be confined to the recycled water use area unless authorized by CDPH.
 - e. Drinking fountains will be protected from spray, mist or runoff by use of a drinking fountain cover or shelter approved for this purpose.
 - f. Hose bibs are not allowed on portions of the recycled water systems accessible to the general public. Quick couplers that differ from those used on the potable water system are allowed.

- 1
- g. Signs are posted in areas that the public has access to that are no less than 4 inches high by 8 inches wide and include “RECYCLED WATER—DO NOT DRINK” and the international do not drink symbol as indicated in CCR Title 22 Division 4 Chapter 3 Article 4 Section as figure 60310-A. The number and locations of these signs will be approved by CDPH.
 - h. The recycled water irrigation system is able to be operated during a time of day that will minimize contact with the public.
 - i. All pipes installed above or below ground on or after June 1, 1993 designed to carry recycled water are to be colored purple or wrapped in purple tape.
 - j. Golf course pump houses utilizing recycled water are appropriately tagged with warning signs with proper wording of sufficient size to warn the public that recycled water is not safe for drinking. All new and replacement at grade valve boxes shall be purple or appropriately tagged for water reuse purposes. All other appurtenances and equipment used for recycled water must be identified as used for recycled water distribution per the recommendations of CDPH.
4. Prior to construction, landscape and irrigation system plans must be submitted for approval to the following agencies (please allow for a 30 day comment period):
 - a. Regional Board Water Quality Control Board,
 - b. California Department of Public Health, and
 - c. CVWD.
 5. Upon approval from the Regional Board and CDPH, the discharger shall provide notification that recycled water will be used for irrigation to people who reside adjacent to the recycled water use area and to golf course patrons through a method approved by the Regional Board’s Executive Officer and CDPH at least 30 days prior to use of recycled water.
 6. A Use Site Supervisor must be designated and his or her name and contact information must be provided in writing to CVWD and the Regional Board 30 days prior to discharge of recycled water. This person will be available to be contacted and receive periodic education and training on the uses and restrictions of recycled water.
 7. A cross-connection control test will be performed on the irrigation and domestic systems prior to the discharge of recycled water and at least once every four years thereafter. This test is to be conducted by an American Water Works Association (AWWA) certified cross-connection control program specialist or equivalent. The results of these tests are to be submitted to CVWD, CDPH, and the Regional Board within 30 days of test completion.
 8. “As-Built” plans and specifications showing the domestic and irrigation systems, location of all potable and recycled water connections and location of all on-site and nearby wells to CDPH, as per the CDPH requested time frame.

**Sample Staff Report
Consideration of the
Coachella Valley Water Efficient Landscape Ordinance**

DATE: December ____, 2015

TO: **PLANNING COMMISSION or CITY COUNCIL**

FROM:

RE: **CONSIDERATION OF RESOLUTION 2015-__ ADOPTING A WATER EFFICIENT LANDSCAPE ORDINANCE (or ADOPTING AMENDMENTS TO THE WATER EFFICIENT LANDSCAPE ORDINANCE)**

ENVIRONMENTAL DETERMINATION: THE PLANNING DEPARTMENT REVIEWED THE [*Action Taken*] UNDER THE PROVISIONS OF THE CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) AND DETERMINED THAT THE [*Action Taken*] IS EXEMPT PURSUANT TO SECTION 15061(B)(3) AND SECTION 15307 OF THE CEQA GUIDELINES BECAUSE THE PROPOSED CHANGES WILL RESULT IN A REDUCTION IN THE OVERALL USE OF WATER RESOURCES

BACKGROUND: One of the requirements associated with Governor Brown's Drought Response Plan, Executive Order B-29-15, is for cities and counties to update their Water Efficient Landscape Ordinance. On July 15, 2015 the California Water Commission approved a model Water Efficient Landscape Ordinance, developed to assure consistency with the Water Conservation in Landscaping Act of 2006 (AB 1881, Laird). Under AB 1881, local agencies, including counties and cities, are required to adopt a local model water efficient landscape ordinance that is at least as effective in conserving water as the State Model Ordinance. If a local agency does not adopt such an ordinance, the agency is subject to the State's model ordinance by statute. The deadline for local agencies is December 1, 2015 to adopt their own ordinance, or adopt the State's model ordinance. However, Local agencies working together to develop a regional ordinance have until February 1, 2016 to adopt an ordinance. The Coachella Valley Association of Governments (CVAG) and the Coachella Valley Water District (CVWD) have been working with other local water agencies, Riverside County and all the cities to develop an updated regional Model Water Efficient Landscape Ordinance. This regional approach will allow jurisdictions to have until February 1, 2016 to adopt an updated ordinance.

To accomplish this coordinated effort, Coachella Valley Water District (CVWD) staff, CVAG staff, other local water agencies and the CVAG Technical Planning Subcommittee of planning and community development staff met to review and provide input for a regional model Water Efficient Landscape Ordinance. The regional Model Water Efficient Landscape Ordinance was crafted to not only meet the state requirements, but also be tailored specifically to the unique climate and water conservation needs of the Coachella Valley. At the first meeting in June, the local jurisdictions and water agencies agreed in principle that CVWD's Ordinance 1302.1 establishing Landscape and Irrigation System Design Criteria would be a good model from which to work. The committee met several times from June until November 2015 to review the requirements from the State and recommendations from CVWD and other participants. The attached CVWD ordinance includes all requirements for landscape design and construction in Attachment A, Landscape and Irrigation System Design Criteria. For use by all jurisdictions, Attachment A is herein referred to as the "Coachella Valley Model Water Efficient Landscape Ordinance."

Substantial water savings can be gained by proper landscape design, installation and maintenance. The State Model Ordinance is designed to increase water efficiency standards for new and retrofitted landscapes through more efficient irrigation systems, greywater usage, onsite storm water capture, and by limiting the portion of landscapes that can be covered in turf. In 2009, CVAG worked with the local water districts and city/county planning staff to develop a model water efficient landscape ordinance. That ordinance was adopted by most participating cities by January 2010 as required by the State. At that time, the Coachella Valley Model ordinance was 30% more water efficient than the state model.

The main objectives of the Coachella Valley Model Water Efficient Landscape Ordinance are reducing overall landscape water use, reducing or eliminating water in the streets, and limiting turf. The Coachella Valley Model Water Efficient Landscape Ordinance addresses the state-mandated elements and adds specific provisions tailored to water efficient landscaping in the desert. The state-mandated changes to the current landscaping and irrigation design standards will result in minor changes to the existing CVWD ordinance and ordinances in place in some jurisdictions. The attached matrix compares the updated Coachella Valley model ordinance with the State Model Water Efficient Landscape Ordinance and the 2010 regional ordinance. This matrix demonstrates that the Coachella Valley model meets or exceeds the state requirements.

Some of the key updates to the Coachella Valley Water Efficient Landscape Ordinance are:

- The size of the project subject to the ordinance is changed from a landscape area greater than or equal to 5,000 square feet to a total landscape area greater than or equal 2,500 square feet.
- A rating for plant water use (ETAF or Evapotranspiration Factor) of 0.45 compared to the 2010 ordinance of 0.5; the lower the ETAF number the more water efficient the plants used in landscaping must be.
- An improved irrigation efficiency rating of 75% for spray systems and 90% for drip systems; the 2010 ordinance requires an irrigation efficiency of 75% for all systems.
- Long, narrow or irregularly shaped turf areas shall not be designed because of the difficulty in irrigating uniformly without overspray onto hardscaped areas, streets and sidewalks. The 2010 ordinance does not allow turf in areas less than *eight feet* in width. The 2015 ordinance limits turf in areas less than *ten feet* in width. Turf will be allowed in these areas only if irrigation design reflects the use of subsurface irrigation or a surface flow/wick irrigation system.
- The requirement for groundcover and mulch to reduce soil moisture evaporation is increased from *two inches* to *three inches*.
- Annual color plantings shall be used only in areas of high visual impact close to where people can appreciate them *and must be irrigated with drip, microirrigation or other systems with efficiencies of 90 percent or greater*. Otherwise, drip irrigated, perennial plantings should be the primary source of color.
- High water use plants, characterized by a plant factor of 0.7 to 1.0, are prohibited in street medians.
- Separate landscape water meters shall be installed for all projects except single family homes with a landscape area less than 5,000 square feet.
- High flow sensors that detect and report leaks or other malfunction shall be specified for all projects *where a dedicated landscape irrigation meter is required*.
- Changes to the requirements for an irrigation audit.
- A diagram of the irrigation plan showing hydrozones to be kept with the irrigation controller for subsequent management purposes
- Information regarding the design, installation, management and maintenance of water efficient landscapes to be provided to residents.
- Whenever possible, irrigation should be scheduled between 8:00 p.m. and 10:00 a.m. to avoid irrigating during times of high wind or high temperature.

- Changes to the provisions for District imposed penalties.
- No permanent structures or trees within CVWD and/or US Bureau of Reclamation easements.

CVAG, CVWD, Mission Springs Water District, Indio Water Authority, Desert Water Agency, Coachella Water Authority and the local jurisdictions will continue to coordinate on public outreach regarding the Water Efficient Landscape Ordinance.

The assistance of the local water agencies, in particular CVWD, is gratefully acknowledged.

ANALYSIS

Estimates by CVWD and others indicate that Coachella Valley residents use 70 to 80 percent of their water outside the home. The CVWD Model Water Efficient Landscape Ordinance promotes the concept that replacing grass lawn with water-efficient plants and groundcover can save a significant amount of water and reduce monthly water bills. Because CVWD and other water agencies have already implemented water efficiency standards that apply to the communities they serve that exceed state minimums, state mandated revisions will result in minor changes to current landscaping and irrigation design standards. The proposed Coachella Valley Model ordinance is estimated to be 5% more water efficient than the state model.

All of the state-mandated changes make a positive contribution to the water conservation and efficiency efforts in the Coachella Valley without compromising aesthetic quality. Because the City and the [local water agency] have already taken the initiative to ensure greater water efficiency in landscaping design, changes to water efficiency and irrigation design are minimal.

It is our understanding from the state Department of Water Resources that if a city does not adopt a model ordinance by February 1, 2016, the state model ordinance will apply until the city adopts their own ordinance; there are no penalties associated with adoption after the February 1 deadline. Also, the Coachella Valley Water District board has adopted the Coachella Valley Model Water Efficient Landscape Ordinance effective December 1, 2015. The Model Water Efficient Landscape Ordinance applies to all cities within CVWD territory.

Public Notice

This request was published in the Desert Sun newspaper on _____, 2015. To date, no inquiries or letters have been received.

Public Agency Review

A copy of this request has been sent to CVWD, the Riverside County Fire Department, and has been reviewed by City Departments. No comments were received before the preparation of this staff report.

STATEMENT OF MANDATORY FINDINGS:

Findings to recommend approval of this (describe action) can be made and are contained in the attached Resolution.

RECOMMENDATION:

1. Adopt Resolution 2015-_____, approving the Water Efficient Landscape Ordinance.

Prepared by: _____

RESOLUTION 2015-_____

A RESOLUTION OF THE _____ PLANNING COMMISSION or CITY COUNCIL _____ OF THE CITY OF _____, CALIFORNIA, APPROVING A WATER EFFICIENT LANDSCAPE ORDINANCE

CASE NO.: 2015-_____
APPLICANT: CITY OF _____

(Note: Individual jurisdictions will need to insert the specific action you will take (Ordinance adoption, Municipal Code Amendment, etc.)

WHEREAS, the Planning Commission or City Council _____ of the City of _____, California, did on the _____th day of _____, 2015, hold a duly noticed Public Hearing for review of a (describe action) to adopt the City's amended Water Efficient Landscape Ordinance; and

WHEREAS, said (describe action) has complied with the requirements of "The Rules to Implement the California Environmental Quality Act of 1970" (CEQA) as amended (Resolution 83-63) in that the City of _____ Planning Department has reviewed the Amendment under the provisions of CEQA, and has determined that the Amendment is exempt pursuant to Section 15061(B)(3) and Section 15307 of the CEQA Guidelines; and

WHEREAS, on September 28, 2006, Assembly Bill 1881, the Water Conservation in Landscaping Act of 2006, was signed into law, requiring that every city in California either adopt the State Model Water-Efficient Landscape Ordinance or a landscape ordinance which is at least as effective in conserving water by January 1, 2010; and

WHEREAS, on _____, 2010, the City of _____, California, adopted the City's Water Efficient Landscape Ordinance consistent with AB 1881; and

WHEREAS, on April 1, 2015, the Governor of the State of California, Jerry Brown, issued a Drought Response Plan, Executive Order B-29-15, declaring a statewide water shortage emergency. The Executive Order called for the Department of Water Resources to update the Model Ordinance through expedited regulation; if a local agency does not adopt an updated ordinance, the agency is subject to the State's model ordinance by statute. The deadline for local agencies working together to develop a regional ordinance is February 1, 2016 to adopt an updated ordinance; and

WHEREAS, on July 15, 2015, the California Water Commission approved an updated Model Water Efficient Landscape Ordinance (MWELO), developed to assure consistency with AB 1881; and

WHEREAS, on November 24, 2015, the Coachella Valley Water District approved an updated Model Water Efficient Landscape Ordinance, developed in collaboration with the Coachella Valley Association of Governments, water agencies, and Coachella Valley jurisdictions, to be used as regional Model Water Efficient Landscape Ordinance that satisfies the state requirements; and

WHEREAS, the City of _____ recognizes that the conservation of available water resources is essential to the future health and welfare of the community; and

WHEREAS, the City of _____ recognizes that reduction in water use in landscaping will contribute significantly to conservation of our water resources, and encourages the use of water-efficient landscaping and irrigation practices that are suited to our desert climate; and

WHEREAS, the _____ published the public hearing notice in the Desert Sun newspaper on _____, 2015, as prescribed by the Municipal Code; and

WHEREAS, at said public hearing, upon hearing and considering all testimony and arguments, if any, of all interested persons wanting to be heard, said _____ did make the following mandatory findings recommending approval of said (describe action):

1. The proposed (describe action) is consistent with the General Plan and Zoning Ordinance in that it will result in a reduction in the City's overall water usage while allowing for the continued high quality of development in the City.
2. Approval of the (describe action) will not create conditions materially detrimental to the public health, safety and welfare, and will have no impacts on the public health, safety and welfare.
3. The proposed (describe action) is consistent with the State Model Water Efficient Landscape Ordinance and will result in the improved conservation of available water resources, which are essential to the future health and welfare of the community.

NOW, THEREFORE, BE IT RESOLVED by the _____ Planning Commission or City Council _____ of the City of _____, California, as follows:

Sustainability Commission Meeting

Summary Notes

December 5, 2015



GENERAL PLAN

At a high-level, Commission members recommended the following:

- Include a Sustainability Plan glossary.
- Replace 'dashboard metric' with scorecard.
- Highlight awareness and education, as this is a critical role the City's plays.
- Reference and tailor activities to seasonal residents, including objectives and actions.
- Remove jargon or define concepts such as placemaking.
- Very user-friendly for residents and businesses.
- Expand the "What you can do?" section to include actions beyond the City, such as the CV HIP – Health Information Platform.
- Make sure to reference the Buzz trolley.
- Revise the goals
 - For example, Palm Springs is WORKING TOWARDS being a zero waste community.
 - In 2020 Palm Springs...
 - Is written in present state... needs to be reflect future

CHAPTER FORMAT

- Consider removing the goals since its stated twice in each chapter.
- Need to be clear on the baseline and the end point for Goals/Objectives, e.g. start calling out 2020.
- Reference statewide goals with links.
- Consider adding an action timeline 1-3, 3-5, 5-10 years.
- Ensure clarity between municipal / city actions and community actions.
- Add links within policies and actions

SUSTAINABILITY PLAN VISION

Commissions made the following comments on the draft vision:

- Vision needs to describe the end state.
- There needs to be a more in-depth definition of sustainability, e.g. a section on What is sustainability?
- Make the vision more concise, less wordy, to the point.

- Include infographic of sustainability.
- Begin with Palm Springs is... something shorter.
- Weave healthy and connected on all levels.

INTRODUCTION

- Make sure to incorporate a discussion about being a resort community and what that means for the Sustainability Plan.
- Refine the community engagement section to ensure that it accurately reflects the project outreach.
- Guiding principle bullet points – some are redundant, need editing.
- Decision-making tool - insert high res table.
- For decision-making, make sure that cost is reflected broadly, including things such as staff time and resources, not just money.
- Rename the section “Who enforces the rules” to Existing Policy and Planning Framework.
- Be clear the plan is for the next 5 years.
- Include introductory language stating the project was funded by SCAG.

CHAPTER BY CHAPTER

CHAPTER 1: Climate Change + Resilience

- Show picture of mountains: before and after (with and without snow)
- Make the bullet points in the “What is resiliency?” section consistent by dividing into different sections, e.g. climate impact vs consequence.

Chapter 2: Economic Prosperity + Green Business

- Add definition of what a Green Business is in Palm Springs.
- Objective 1: define the timeframe and make sure ten businesses make sense, e.g. two per year.
- Add the word incentivize to the objective.

Chapter 3: Community Health + Wellness

- Put a date to “healthy status”.
- Objective 1: add an action that promotes complete neighborhoods/active transportation, mirroring language in other chapters.

Chapter 4: Livable Neighborhoods

- De-jargonize and define placemaking.
 - Define “tactics”
 - Include a section “What is placemaking?”

- Reference neighborhoods and map – link it!
- Consider adding the word ‘Safe’ in goal, and adding actions for CTEPD or other safe design strategies.
- Objective 3, Action 5. Change “Incentivize” to “Encourage”.
- Objective 2: include historical preservation aspect of smart growth.

Chapter 5: Active Transportation

- Refine language, including:
 - Bicycle friendly business district
 - Eco driving
 - Mass transit
- Define transit oriented development and how it would apply in Palm Springs.
- Objective 1, Action 13: Promote Walk and Roll and Buzz apps.
- Include actions to expand the Buzz, including service routes, hours, etc.

Urban Forests + Natural Systems

- Introduction: make sure to define what an urban forest is in a desert community.
- Link to Urban Forest Management Plan.
- Link to Stormwater Master Plan
- Objective 1, Action 2: Shade structure or similar may be more appropriate than trees in some instances; therefore, it may make sense to mitigate tree replacement elsewhere in the City.

Water Conservation + Efficiency

- Make sure the education connection is clear. The City can prepare resource guides, etc. to help residents reduce water use.
- Objective 1, Action 2 – the language is too specific, remove.
- Evaluate building codes for new opportunities, including waterless urinals.
- Increase greywater and recycled water use by higher %.



Palm Springs Sustainability Plan

Community Workshop #1 Summary
December 5, 2015

On Saturday, December 5, 2015 the City of Palm Springs (City) hosted an “open house” style community workshop about the Sustainability Plan. The workshop offered an opportunity for the public to learn more about the Sustainability Plan and to provide input on the Admin Draft.

Purpose and Overview

The Sustainability Plan community workshop took place on Saturday, December 5, 2015 from 2:00pm-4:00pm at the Palm Springs Public Library. The objectives of the workshop were to:

- Provide an overview of the Sustainability Plan.
- Present the vision, goals, objectives, and actions of the admin draft and to obtain input.
- Identify gaps in the draft Plan goals, objectives, and actions.
- Educate the community about sustainability.
- Continue to engage the community to generate ideas, enthusiasm, and support for the Plan update.



Workshop Activities

Workshop participants had the opportunity to participate in four different workshop activities. These activities focused on:

1. Vision for Sustainability
2. Draft Goals
3. Active Transportation
4. Prioritizing Next Steps

The purpose of the each activity was to receive feedback on the Plan's draft goals, objectives, and actions and to gain a better understanding of the community's vision for sustainability. Below are descriptions of each activity, images of the poster(s) at each station, and a summary of the community



input.



Vision for Sustainability

The Vision for Sustainability activity allowed community members to write their visions for a healthy, sustainable and climate-resilient community on the sign provided. Over 79 community members participated in this activity, where a diverse set of responses were received. Some of the responses are shown below.



Draft Goals

This interactive workshop activity allowed participants to comment on the draft Sustainability Plan goals. The poster asked participants whether they supported the goal, how the goal could be refined, and whether there were other high-level goals the City should consider.

Participants were supportive of all four draft CAP goals. They provided details on recommended strategies and actions to support the goals, and other potential goals. The following table summarizes the breadth of comments on the draft goals.

SUSTAINABILITY MASTER PLAN GOALS			
Goals set the general direction for a plan. The following goals set the path for a more sustainable Palm Springs. Let us know what you think about the DRAFT Sustainability Master Plan Goals!			
GOALS	Would you support this goal? ● yes ● no	How can this goal be refined? (write your comments on a sticky note)	How can we achieve this goal? (write your comments on a sticky note)
Palm Springs is resilient and carbon neutral. <small>Carbon neutral: Reducing the amount of carbon released into the environment through projects such as wind farms, solar installations, energy efficiency retrofits, or other carbon offsets.</small>	● ●		
Palm Springs is a center for clean tech, renewable energy, and innovation. <small>Clean tech: Products, processes, and services that minimize waste and require as little non-renewable resources as possible.</small>	● ● ● ● ●		
Palm Springs citizens and all sectors of our community are engaged in an active, life-long process of becoming aware of and making choices to achieve one's potential and optimal well-being in life.	● ●		active citizens for action young children
Palm Springs is a City of vibrant and livable neighborhoods. <small>Livable neighborhoods: neighborhoods where walking, biking, and transit are the preferred modes of transportation, where public spaces are well-designed and well-maintained, where housing is affordable and plentiful, and the economy is thriving.</small>	● ● ● ● ● ●		
Palm Springs is a leader in sustainable transportation. <small>Sustainable transportation: Transportation that is affordable, offers many transport modes, supports a vibrant economy, and operates efficiently by limiting the amount of emissions and waste released into the environment.</small>	● ● ● ● ●	separable transportation that is separable available to all neighborhoods	Disrupted Bike Lanes make community
Palm Springs cultivates a flourishing urban forest and desert ecosystem ensuring habitat protection and enhance and access to open space, recreation and natural resources.	●		
Palm Springs is a high efficiency, renewable energy city. <small>Renewable energy: Energy generated from wind, solar, biomass, and other non-fossil sources.</small>	● ● ● ● ●	leader in innovative technology	
Palm Springs is a leader in water efficiency and reuse.	● ● ● ● ●		
Palm Springs is a zero waste community. <small>Zero waste: Eliminating the need for landfills by reusing waste and using fewer resources through practices like recycling and composting.</small>	● ● ● ● ● ● ● ● ● ●		City Composting
Palm Springs is a healthier, more food-secure community that supports community-based agriculture. <small>Food-secure: People have access to safe, sufficient, and nutritious food that meets their daily needs.</small>	● ●		education of what is healthy access to community based grown food
Palm Springs is a model for sustainable practices throughout every department in the City.	●		

Goal
1. Climate Change: Palm Springs is resilient and carbon neutral.
2. Sustainable Economy: Palm Springs is a center for clean tech, renewable energy, and innovation.
3. Community Health: Palm Springs citizens and all sectors of our community are engaged in an active, life-long process of becoming aware of and making choices to achieve one's potential and optimal well-being in life.
Additional comments:
<ul style="list-style-type: none"> • <i>Sub categories for seniors and young children.</i>
4. Livable Neighborhoods: Palm Springs is a City of vibrant and livable neighborhoods.
5. Active and Sustainable Transportation: Palm Springs is a leader in sustainable transportation.
Additional comments:
<ul style="list-style-type: none"> • <i>Sustainable transportation that is available to all neighborhoods.</i> • <i>Protected bike lanes</i> • <i>Connectivity</i>
6. Urban Forests and Natural Systems: Palm Springs cultivates a flourishing urban forest and desert ecosystem ensuring habitat protection and enhance and access to open space, recreation and natural resources.
7. Energy: Palm Springs is a high efficiency, renewable energy city.
Additional comments:
<ul style="list-style-type: none"> • <i>Leader in innovative technology</i>
8. Water: Palm Springs is a leader in water efficiency and reuse
9. Solid Waste and Recycling: Palm Springs is a zero waste community.
Additional comments:
<ul style="list-style-type: none"> • <i>Citywide composting</i>
10. Urban Agriculture: Palm Springs is a healthier, more food-secure community that supports community-based agriculture.
Additional comments:
<ul style="list-style-type: none"> • <i>Education on what is healthy</i> • <i>Access to community-based grown food</i>
11. Lead by Example: Palm Springs is a model for sustainable practices throughout every department in the City.

Active Transportation

This workshop activity allowed participants to comment on active transportation in the City. A map highlighting the bike infrastructure, parking, and FixIt stations was provided allowing community members to use dots and markers to show where more bike parking, FixIt stations, and other improvements are needed.

While dots were scattered throughout the entire City, there were multiple dots placed along Palm Canyon Drive and Sunrise Way. Locations specified by participants lacking bike parking and services include:

- Animal shelter
- Purple room
- Casinos
- Parker Hotel
- Library
- Camelot Theater
- Food bank
- Palm Springs Police Department
- Hotel parking lots

Additional comments include:

- Buzz parking along all Buzz stops
- Smoke free zones near Buzz stops
- Prioritizing Indian Loop
- Lack of sidewalks



Next Steps

The Next Steps activity allowed participants to prioritize actions the City should take first on its path towards sustainability. The following summarizes the results of this exercise, highlighting the top three actions that received the most responses.

1. Expand commercial recycling and composting for businesses in the City.
2. Focus on clean technology and renewable energy programs.
3. Form a Green Citizen Academy to educate the community about sustainability and empower individuals to take action.





Tours will resume in October. Most tours meet at **193 S. Palm Canyon Drive** outside of the PS General Store on the corner of **Arenas** and Palm Canyon Drive, across the street from Kaiser Grill Restaurant. Others meet in Uptown District.

Enjoy an entertaining and informative stroll through the heart of Palm Springs with a professional tour guide. With Palm Springs Walking Tours you will learn about the unique history, art, architecture, the stunning desert environment and the diversity that makes Palm Springs such a quaint, quirky and compelling destination.

The Architecture of Palm Springs tour highlights the buildings and the “starchitects” of our signature Desert Modern and Spanish Colonial Revival styles. You will see a dozen different examples with an emphasis on Desert Modern design. Learn about the elements that were adapted to make the structures work in our sometimes extreme environment.

Palm Springs, Past to Present is an overview tour which provides a look at our history from the early days when violently shifting land formed our spectacular mountains to the Native Americans to the early settlers and the post WWI and WWII celebrities and waves of residents to the diversity of today. This tour also includes the architecture, art, restaurants, shopping and cultural life from village to the vibrant valley of today. The Ghosts and Legends of Palm Springs is an evening tour. A high energy, party destination such as Palm Springs has seen its share of spirits who for one reason or another do not want to leave – and they haven’t! Discover the legends and lore of the local tribes, such as why you do not want to be in Tahquitz Canyon after dark! You’ll hear about colorful characters, haunted stores which used to be gambling and night life locations and the curse of a local inn. This area is home to one of the strongest vortexes in America – come and see if you feel the energy. People tend to return to Palm Springs again and again. Some people say it is the weather or golf or the great food and people. And of course it is all of the above. But the special energy of Palm Springs is real and I believe you will feel it too. Come on a Palm Springs Walking Tour to increase your enjoyment and understanding of this fabulous location. Before, during and after the tour we will have time for me to answer all of your questions.

I look forward to sharing my love of and knowledge of Palm Springs with you. - See more at: <http://www.visitpalm Springs.com/overview/play/palm-springs-walking-tours/128683#sthash.gGsK9ZDB.dpuf>

Walking Tours of Palm Springs

Tour 1: The Architecture of Palm Springs:

A focus on the standout examples of downtown Mid-Century Desert Modernism and Spanish Colonial Revival styles and the "Starchitects" of the designs. Learn the evolution of and elements of each and see how these divergent styles continue to comfortably coexist and are being preserved today. 90 minutes.

Tour 2: Palm Springs History: Past to Present:

Learn about the local Native Americans, pioneers, celebrities, and the post WWI and WWII mid-century boom, bust and revival. This tour also touches on the architectural styles, public art, geography and climate that make the City of Palm Springs a charming, quaint, quirky, compelling and desirable location. 70 minutes

Tour 3: Ghosts and Legends of Palms Springs:

Explore the dark side of Palm Springs as you hear stories of residents and visitors who never left the desert as well as Native American legends and lore. Learn about the effect of the San Andreas earthquake fault and the vortex in the Palm Springs area. 70 minutes

Tour 4 - Uptown Palm Springs:

Hip and historic. A great combination! Learn about and experience this fun and fascinating area.

Tour 5: Inns: The History, the Architecture and the Charm:

Stroll the streets in the neighborhood with the largest concentration of inns - all charming, eclectic and historic. Hear about the famous people who stayed here in the shadow of the mountains. 90 minutes.

Tour 6: Dead Celebrities Tour:

OK, these folks may be dead, but they sure knew how to live! See their homes in the beautiful Las Palmas neighborhood and hear the stories of their lively time spent in Palm Springs.

WALKING PLAN SUPPORT DOCUMENTS

Palm Springs Walks!

Wellness-Walking Initiative

1/29/2015

Wellness Sub-Committee: Joe Jackson, Thom Bettinger, Mark Polischak; assisted by Grant Wilson

Goal: To improve health and build community among Palm Springs citizens and visitors.

Concerns/Issues in the Built Environment

Discontinuous sidewalks on primary pedestrian routes

Safe pedestrian crosswalks and signage at appropriate intervals

Insufficient shade structures, benches, trash receptacles, and water fountains which encourage walking

Trees and desert landscaped planting areas can make the routes more inviting as “linear parks”

Programming

Develop a “Palm Springs Walks” map (like bike maps) for designated walking routes, in cooperation with the Historical Society, Downtown merchants, tourism leaders, and neighborhood organizations

Promote recognition of neighborhoods that encourage residents’ walking (possibly using apps or pedometers), in cooperation with the PS Neighborhood Involvement Committee

Increase establishments that participate in the “Tap It” program to refill walkers’ water bottles

Short-Range Goal in cooperation with the Planning Department

Find funding to deal with walking issues that are a priority due to public safety (no sidewalks or marked crosswalks)

Long-Range Goal in cooperation with the Planning Department

Adopt “Complete Streets” standards for pedestrians, creating design standards for each type of pedestrian corridor.

Fully integrate “Complete Streets” standards into the General Plan and zoning ordinance

Action Steps

Establish priority areas: map missing sidewalk areas and identify crosswalks/signals needed

Create a “walkable community plan” for all sections of the City

Investigate 2 websites: AmericaWalks.org and walkfriendly.org (Walk Friendly Communities)

Potential Partners with the Wellness and NMT Sub-Committees of the Sustainability Commission

City Planning Commission

PS Frontrunners and Walkers

PS Unified School District

City Measure J Commission

Agua Caliente Band of Cahuilla Indians

PSNIC: PS Neighborhood Involvement Commission

Desert Healthcare District

Coachella Valley Association of Governments

BICYCLE AND PEDESTRIAN FACILITIES

Recommended Bicycle Network

As a whole, bicycle facilities provide safe, comfortable mobility opportunities for a wide range of users and are considered a fundamental part of a complete street. In addition to a standard striped bike lane, facilities such as buffered bicycle lanes and bicycle boulevards (bike routes enhanced with shared lane markings and signage) contribute to improving the experience of cyclist travel on a street without compromising the mobility needs of other users.

A separate Existing Conditions Report was prepared as part of the Master Plan and describes existing and currently planned street improvements. The Complete Streets improvements identified here build on the existing and planned bicycle facilities proposed by the Tribe, the City of Palm Springs and the Coachella Valley Association of Governments (CVAG) as documented in the Existing Conditions Report. In most cases, the proposals enhance the planned facilities and further emphasize the importance of providing safe and convenient facilities for all users of the roadway.

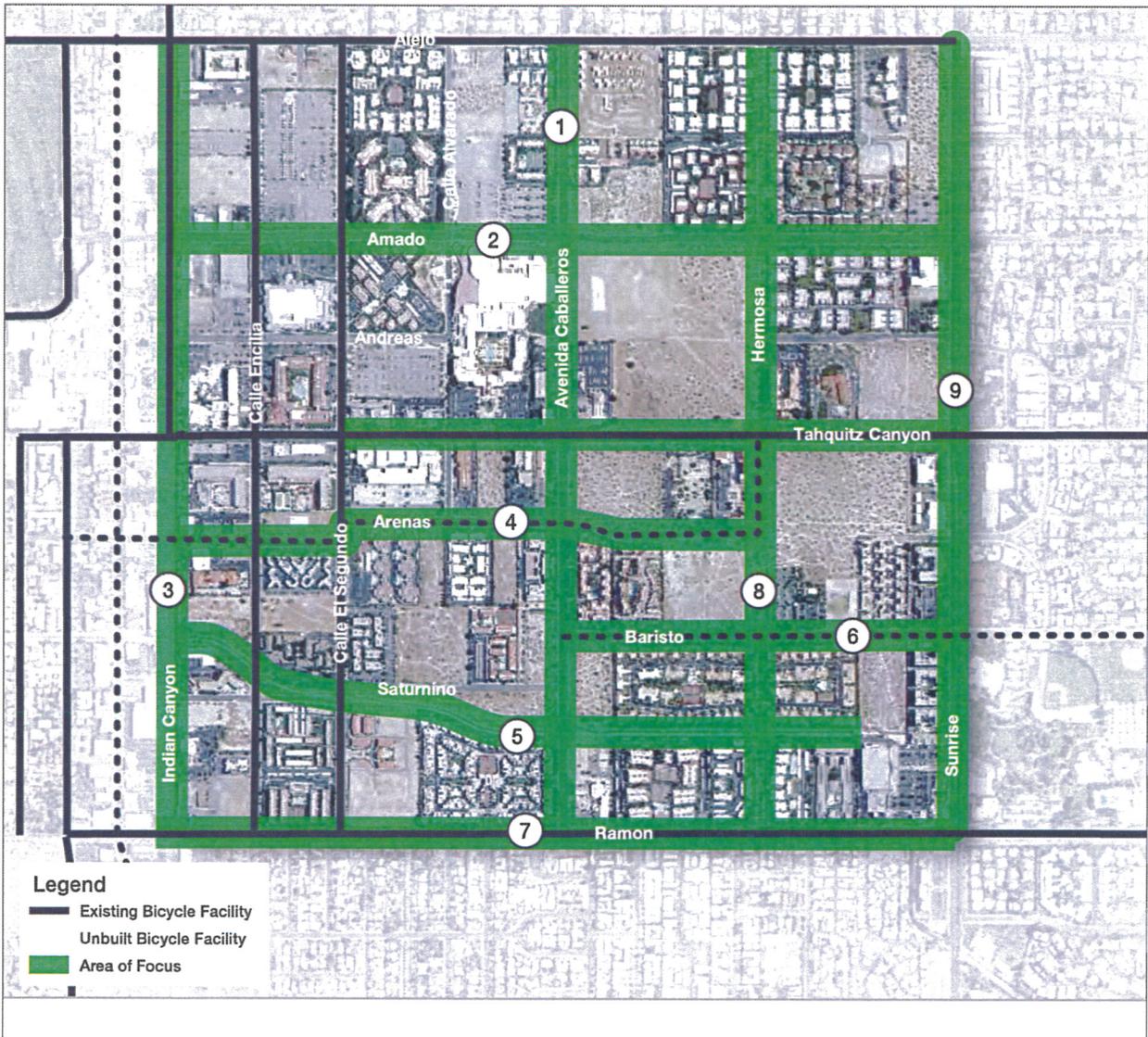
The following list highlights the Caltrans Bikeway Design Classifications for each of the bikeway facility types proposed for Section 14.

- **Class I Bike** Paths are facilities separated from roadways for use by bicyclists and pedestrians.
- **Class II Bike** Lanes use signage and striping to delineate the right-of-way assigned to bicyclists and motorists. Bike lanes encourage predictable movements by both bicyclists and motorists. A painted “buffered” area of separation may also be used to increase distance between cyclists and vehicles where space is available, increasing comfort and safety for riders. Cycle Tracks are exclusive bike facilities that combine the user experience of a separated path with the on-street infrastructure of conventional bike lanes, typically adjacent to the existing curb face.
- **Class III Bike** Routes are bikeways where bicyclists and cars operate within the same travel lane, either side by side or in single file depending on roadway configuration. The most basic type of bikeway is a signed shared roadway. This facility provides continuity with other bicycle facilities (usually bike lanes), or designates preferred routes through high-demand corridors. Bike Routes may also be converted to “Bike Boulevards” through designated by pavement markings, signage and other treatments including directional signage, traffic diverters, roundabouts, chicanes, chokers and /or other traffic calming devices to reduce vehicle speeds or volumes.

In addition to these classifications, the bicycle network can be supplemented with additional bicycle parking to encourage use of the network by providing a safe, attractive place for cyclists to leave their bicycles while visiting area attractions. Figure 5.5 illustrates the locations of proposed improvements to the bicycle network.



Figure 5.5 – Bicycle Network Improvements



Summary of Proposed Improvements

- 1. Avenida Caballeros** Convert planned Bike Lanes to Bike Boulevard with traffic circle at Amado
- 2. Amado** Construct planned 5' Bike Lanes
- 3. Indian Canyon** Remove one lane of traffic, install Buffered Bike Lane with colorization on east side of roadway through study area
- 4. Arenas** Construct planned 6' Bike Lanes east of Calle Encilia, Bike Blvd west of Calle Encilia
- 5. Flood Channel** Create future bike and pedestrian pathway
- 6. Baristo** Colored Bike Lanes once Hermosa is completed
- 7. Ramon** Remove on-street parking on north side of street and construct colored bike lane in both directions.
- 8. Hermosa** Add bike boulevard once connection between Arenas and Baristo is completed (no bicycle facility is currently planned on Hermosa)
- 9. Sunrise** Construct 6' colored bike lane in both directions.



Recommended Pedestrian Network

The pedestrian network is an integral part of an attractive, functional street environment. Section 14 features constructed sidewalks consistent with ADA standards along every stretch of roadway fronting existing development. Additional sidewalks will be completed upon development or improvement of the vacant privately-owned parcels within the Section 14. As such, the recommendations for Section 14 focus on improving existing sidewalks and pedestrian crossings through a series of design and construction improvements aimed at improving safety and the aesthetic appeal of the study area.

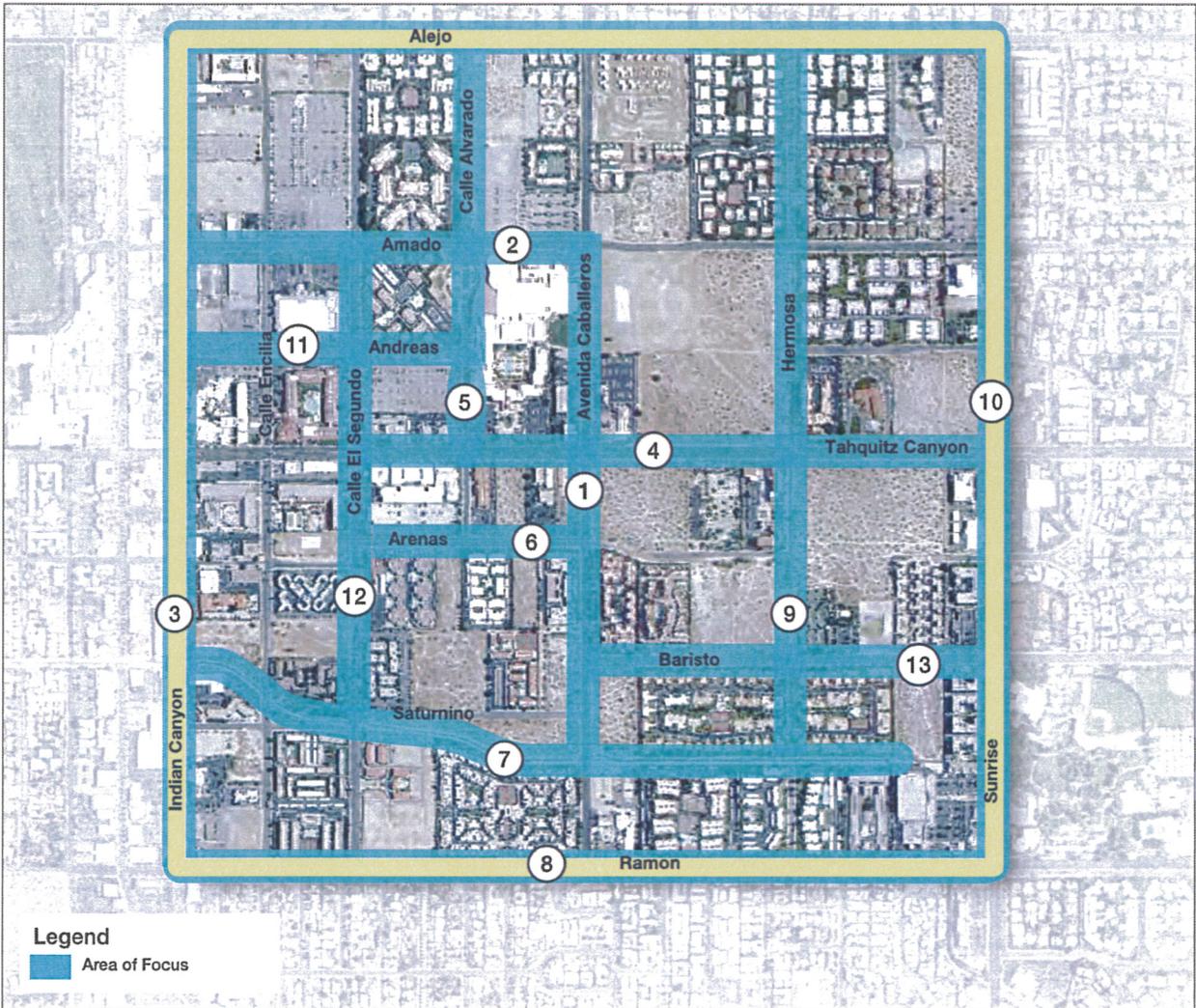
A brief overview of the pedestrian improvements proposed for the study area is presented below.

- Enhanced Pedestrian Crossings** - Intersections are one of the more critical elements of a complete street. They represent the convergence of all modes – cars and truck bicycles, pedestrians – and have the greatest potential for conflict. Research has shown that pedestrians will often not walk more than 200 feet laterally in order to cross a street, and pedestrians will begin to seek out mid-block crossing opportunities when intersection spacing exceeds 400 feet. The distance can be even less when two high-volume, complementary uses are located directly across the street from each other. Well-designed crossings provide better safety for pedestrians by reducing the likelihood of a motor vehicle collision. Crossings can also support interplay between both sides of a street, which is essential to an active pedestrian street, and encourage appropriate motor vehicle operating speeds. On two-lane streets in Section 14, simple pavement marking or different-colored pavement in crosswalks is largely sufficient for intersections. However, for higher-volume multi-lane streets such as Tahquitz and Indian Canyons, additional treatments should be implemented when necessary. For multi-lane streets carrying high volumes of motor vehicles, a raised median should be provided to facilitate safe crossings for elderly and young pedestrians.
- Curb Extensions** - Where on-street parking and/or shoulders are present, curb extensions may be considered for intersections with high volumes of pedestrian activity. Curb extensions reduce pedestrian cross times and exposure to motor vehicles, increase visibility and encourage appropriate motor vehicle operating speeds. Additionally, curb extensions create public space and enable placement of street furniture (lighting, benches, landscaping, gateway features and other public art, essential elements of an attractive street environment).
- Street Trees and Street Furniture** - Streetscape elements such as street trees and street furniture (lighting, benches, etc.) provide many benefits for complete streets. They provide a buffer between the sidewalk and adjacent motor vehicle travel lanes; they add a frame of reference to the roadway, encouraging the driver to proceed at appropriate speeds; trees provide shade and gathering places. Lighting enhancements consistent with local Dark Sky policies allow for an enhanced, safer walking environment without compromising the view of the desert sky at night.
- Wider sidewalks and pedestrian promenades** – In some areas of high pedestrian activity and available right-of-way, existing sidewalks may be widened to accommodate pedestrian volumes through the narrowing of the existing roadway. In addition, certain low-volume access roads may be converted to pedestrian promenades to beautify the built environment and facilitate pedestrian activity.

Figure 5.6 identifies locations for improvements to the pedestrian network.



Figure 5.6 – Pedestrian Network Improvements



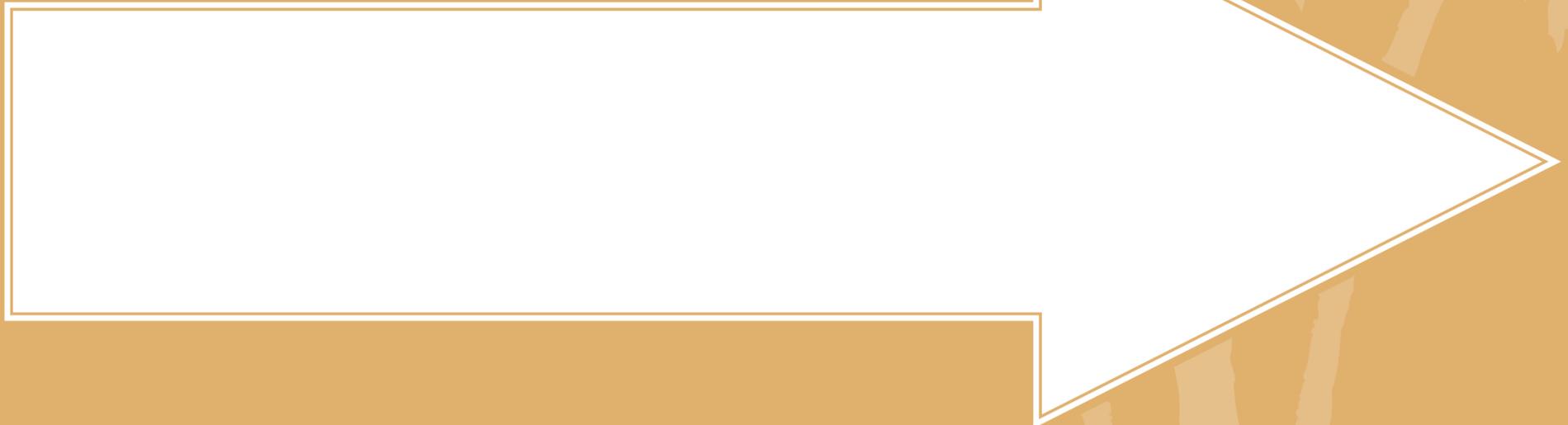
Summary of Proposed Improvements

1. **Avenida Caballeros** Lighting and textured crossings, additional street trees
2. **Amado** Curb extensions, textured crossings, additional street trees
3. **Indian Canyon** Enhanced pedestrian amenities and sidewalks
4. **Tahquitz Canyon** Wider sidewalks through lane narrowing, pedestrian lighting improvements
5. **Calle Alvarado** Pedestrian promenade and pedestrian crossing at Tahquitz Canyon Way
6. **Arenas** Pedestrian lighting improvements and additional street trees
7. **Flood Channel** Future pedestrian pathway
8. **Ramon** Pedestrian lighting improvements and additional street trees
9. **Hermosa** Sidewalks and street trees once connection between Arenas and Baristo is completed
10. **Sunrise** Pedestrian lighting improvements and additional street trees
11. **Andreas** Pedestrian lighting improvements and additional street trees
12. **Calle El Segundo** Pedestrian lighting improvements and additional street trees
13. **Baristo** Pedestrian lighting improvements and additional street trees



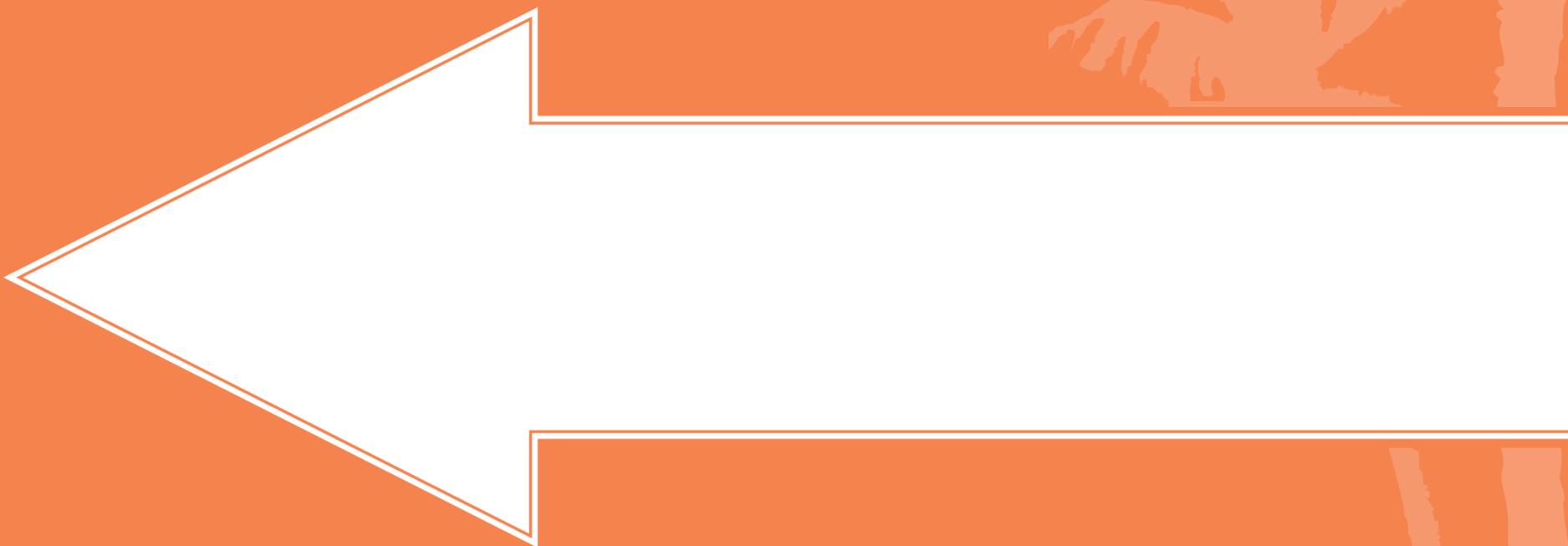
Just another sunny day in Palm Springs...

It's an 8 Minute Walk
to the Palm Springs
Convention Center



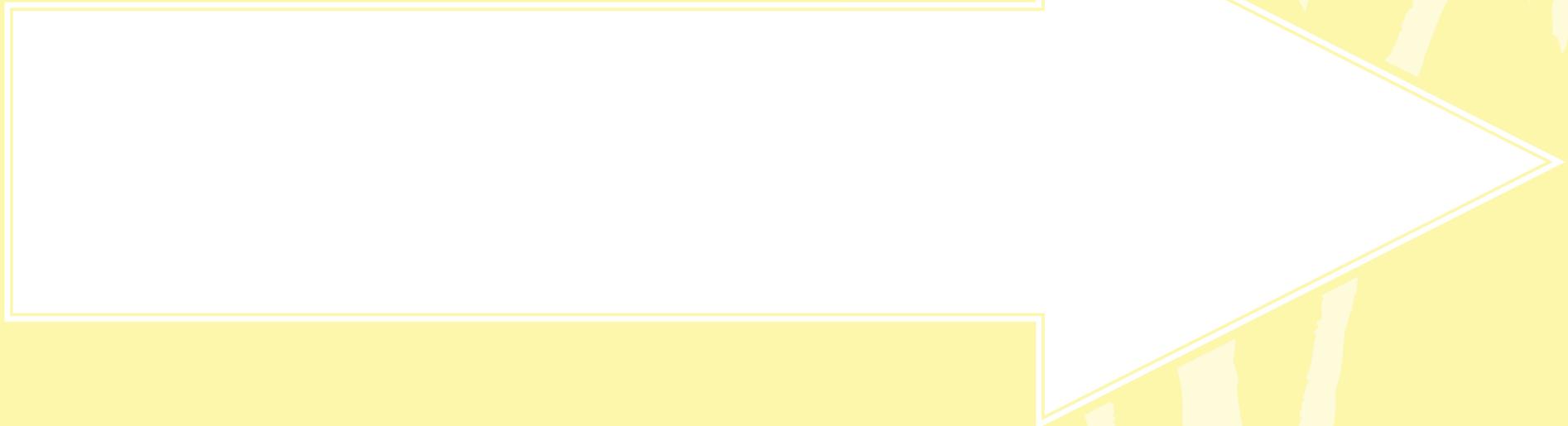
Just another sunny day in Palm Springs...

It's a 10 Minute Walk
to the Palm Springs
Convention Center



Just another sunny day in Palm Springs...

It's an 11 Minute Walk
to the Palm Springs
Convention Center



Just another sunny day in Palm Springs...

It's an 8 Minute Walk
to the Palm Springs
Convention Center



Just another sunny day in Palm Springs...



It's an 8 Minute Walk
to the Courtyard by Marriott



It's a 10 Minute Walk
to the Hyatt Palm Springs

It's an 11 Minute Walk to the
Hard Rock Palm Springs



It's an 8 Minute Walk
to the Hilton Palm Springs





SUBCOMMITTEE REPORT

PRESENTED FOR COMMISSION MEETING DATE: 12/15/2015

SUBMITTED BY: Mark Polischak

SUBCOMMITTEE NAME: Waste Reduction

SUBMITTED DATE: 12/09/2015

SUBCOMMITTEE MEETING DATE: 12/8/2015

NEXT SUBCOMMITTEE MEETING DATE: 1/12/2016

Subcommittee Meeting Goal:

To focus and educate stakeholders on the reasons for participation and possible ordinance to reduce food waste in the City of Palm Springs and to identify how the city can best implement the transitional reduction goals.

Summary:

The Waste Reduction sub-committee met on December 8, 2015. Product Stewardship was discussed.

(Product stewardship is defined as the act of minimizing the health, safety, environmental, and social impacts of a product and its packaging throughout all lifecycle stages, while also maximizing economic benefits. The manufacturer, or producer, of the product has the greatest ability to minimize adverse impacts, but other stakeholders, such as suppliers, retailers, and consumers, also play a role. Stewardship can be either voluntary or required by law.)

The subcommittee will focus on Pharmaceutical Product Stewardship to determine the feasibility of Pharmaceutical company responsibility via a potential ordinance to dispose of the communities unused medications. Currently, the City of Palm Springs accepts the community's unused medications at drop-off points such as the fire stations and City Hall. However, this is currently at a cost to the city which uses Sharps Compliance Inc. Medical Waste Disposal Management as the recycling agent. The sub-committee would like to engage local pharmacies to become drop-off sites for unused medications with the expectation that pharmaceutical companies would cover the costs associated with the drop-off boxes and destruction or recycling of unused medications.

The sub-committee has requested to be on the Technical Working Group's January 11th CVAG Agenda to discuss the possibility of regional Product Stewardship participation.

The sub-committee has reached out to Chris Cunningham at Palm Springs Disposal to get input regarding the volume of medications and sharps that they are seeing in regular community waste pickup.

The sub-committee will reach out to California Product Stewardship Council to request Palm Springs be included in their list of cities currently providing medication recycling.

The sub-committee will begin compiling a pharmacy list and develop communications to request voluntary participation in the medication Product Stewardship program.

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Recommendation/Request

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ACTION ITEMS REQUEST TO COMMISSION	
ACTION ITEMS REQUEST TO OFFICE OF SUSTAINABILITY	
POTENTIAL FISCAL IMPACT/REQUEST IF ANY:	



SUBCOMMITTEE REPORT

PRESENTED FOR COMMISSION MEETING DATE: 12/15/15	SUBMITTED BY: David Freedman
SUBCOMMITTEE NAME: Green Building / Solar	SUBMITTED DATE: 12/09/15
SUBCOMMITTEE MEETING DATE: 11/19/15	NEXT SUBCOMMITTEE MEETING DATE: 12/17/15

Subcommittee Meeting Goal:

1. Discuss letter to California Public Utilities Commission (CPUC) on net energy metering tariffs
2. Review Energy Conservation & Renewable Energy chapter of draft Sustainability Master Plan

Summary:

1. The Subcommittee members discussed the discussion at the Commission of 11/17/15 on the resolution approved by the Commission to send a letter to the CPUC on its proposed net energy metering tariffs for solar energy. The Subcommittee members asked to review the draft letter being prepared by the Office of Sustainability.
2. The Subcommittee members reviewed the Energy Conservation & Renewable Energy chapter of the draft Sustainability Master Plan. David Freedman agreed to prepare a set of comments on behalf of the Subcommittee.

Recommendation/Request

None

ACTION ITEMS REQUEST TO COMMISSION	None
ACTION ITEMS REQUEST TO OFFICE OF SUSTAINABILITY	Send to the Subcommittee for review draft of letter to the CPUC on its proposed net energy metering tariffs for solar energy. Send final approved letter to the CPUC.
POTENTIAL FISCAL IMPACT/REQUEST IF ANY:	None