Get a Slice of the Apple.

TOWN OF APPLE VALLEY
PLANNING COMMISSION AGENDA
REGULAR MEETING
WEDNESDAY, November 4, 2015 – 6:00 P.M.

PUBLIC PARTICIPATION IS INVITED. Planning Commission meetings are held in the Town Council Chambers located at 14955 Dale Evans Parkway, Apple Valley, California. If you wish to be heard on any item on the agenda during the Commission's consideration of that item, or earlier if determined by the Commission, please so indicate by filling out a "REQUEST TO SPEAK" form at the Commission meeting. Place the request in the Speaker Request Box on the table near the Secretary, or hand it to the Secretary at the Commission meeting. (G.C. 54954.3 {a}).

Materials related to an item on this agenda, submitted to the Commission after distribution of the agenda packet, are available for public inspection in the Town Clerk's Office at 14955 Dale Evans Parkway, Apple Valley, CA during normal business hours. Such documents are also available on the Town of Apple Valley website at www.applevalley.org subject to staff's ability to post the documents before the meeting.

The Town of Apple Valley recognizes its obligation to provide equal access to those individuals with disabilities. Please contact the Town Clerk's Office, at (760) 240-7000, two working days prior to the scheduled meeting for any requests for reasonable accommodations.

REGULAR MEETING

The Regular meeting is open to the public and will begin at 6:00 p.m.

CALL TO ORDER

ROLL CALL

Commissioners: Lamoreaux_____;Shoup_____;Tinsley_____
Vice-Chairman Qualls_____; and Chairman Kallen_____

PLEDGE OF ALLEGIANCE

APPROVAL OF MINUTES

1. Minutes for the Regular Meeting of October 21, 2015.

PUBLIC HEARING ITEMS

2. **Conditional Use Permit No. 2000-008, Amendment No. 1.** A request to amend a previously approved Conditional Use Permit to allow the construction of two 2,466 square-foot residential buildings, each containing 3 apartment units, a 942 square-foot dining hall, a 1,473 square-foot administration building and an outdoor therapy pool at an existing care facility. The additional units will increase the facility from 42-bed facility to a 52-bed care facility.

Applicant: Mike Pontious representing Casa Colina Center for Rehabilitation
Location: The project site is located at 22200 Highway 18; APN 3112-731-07.

Project Planner: Carol Miller, Principal Planner
Recommendation: Approval

3. Conditional Use Permit No. 2015-001. A request to approve a Conditional Use Permit to develop and operate a private kennel on property containing a single-family residence. The project includes converting an existing accessory structure to a kennel and the future construction of a new 1,800 square foot kennel. The site is five (5) acres in size and located within the Residential Agriculture (R-A) zoning designation.

Applicant: Ms. Dawn Harvell
Location: The project site is located at 20131 Monte Vista Road; APN 0434-191-02.
Project Planner: Pam Cupp, Associate Planner
Recommendation: Approval

4. Development Code Amendment No. 2015-006. An amendment to Title 9 "Development Code" of the Town of Apple Valley Municipal Code by amending Chapter 9.75 "Water Conservation/Landscaping Regulations" for compliance with the State of California Code of Regulations Title 23, Division 2, Chapter 2.7 "Model Water Efficient Landscape Ordinance" and to add landscaping standards applicable to the single-family, in-fill development.

Applicant: Town of Apple Valley
Location: Town-wide
Project Planner: Pam Cupp, Associate Planner
Recommendation: Adopt Planning Commission Resolution No. 2015-010

PUBLIC COMMENTS

Anyone wishing to address an item not on the agenda, or an item that is not scheduled for a public hearing at this meeting, may do so at this time. California State Law does not allow the Commission to act on items not on the agenda, except in very limited circumstances. Your concerns may be referred to staff or placed on a future agenda.

PLANNING COMMISSION COMMENTS

STAFF COMMENTS

OTHER BUSINESS

5. **General Plan Conformity Finding.** The proposed Planning Commission action consists of a General Plan conformity finding for the disposition one (1) parcel of Town land.

Applicant: Town of Apple Valley
Location: Generally located at the northwest corner of State Highway 18 and Standing Rock Avenue; APN 3112-251-13
Project Planner: Carol Miller, Principal Planner
Recommendation: Adopt Planning Commission Resolution No. 2015-011

ADJOURNMENT

Because there are no items scheduled for the meeting of November 18, 2015, the Planning Commission will adjourn to its next regularly scheduled Planning Commission meeting on December 2, 2015.

M I N U T E S

TOWN OF APPLE VALLEY
PLANNING COMMISSION
Regular Meeting
Wednesday, October 21, 2015

CALL TO ORDER

At 6:00 p.m., Chairman Kallen called the Regular Meeting of the Planning Commission of the Town of Apple Valley for October 21, 2015, to order.

ROLL CALL

Planning Commission

Roll call was taken with the following members present: Commissioner Jason Lamoreaux, Commissioner Mark Shoup, Commissioner B.R. "Bob" Tinsley, Vice-Chairman Doug Qualls and Chairman Bruce Kallen.

STAFF PRESENT

Carol Miller, Principal Planner; Pam Cupp, Associate Planner; Douglas Fenn, Senior Planner; Richard Pedersen, Deputy Town Engineer, Haviva Shane, Town Attorney; and Yvonne Rivera, Planning Commission Secretary.

PLEDGE OF ALLEGIANCE

Commissioner Lamoreaux led the Pledge of Allegiance.

1. APPROVAL OF MINUTES

A. Minutes for the Regular Meeting of September 16, 2015.

Motion by Commissioner Tinsley, and seconded by Vice-Chairman Qualls, to approve the Minutes for the Regular Meeting of September 16, 2015.

Motion Carried by the following vote: Ayes: Commissioner Lamoreaux, Commissioner Shoup, Commissioner Tinsley, Vice-Chairman Qualls and Chairman Kallen. Noes: None. Absent: None. Abstain: None.

PUBLIC HEARING ITEMS

2. Conditional Use Permit No. 2015-007. A request to approve a Conditional Use Permit to operate a tire shop.

Applicant: Mr. Efrain Mota, representing Jr's Tire
Location: The project site is located at 13462 Central Road; APN 3087-392-14.

Chairman Kallen opened the public hearing at 6:02 p.m.

Ms. Pam Cupp, Associate Planner, presented the staff report as filed by the Planning Division.

Chairman Kallen asked the Applicant if he agreed to the Conditions of Approval.

Ms. Lorena Mota, Applicant, stated "Yes".

PUBLIC COMMENT

None.

Chairman Kallen closed the public hearing at 6:05 p.m.

MOTION

Motion by Commissioner Shoup, seconded by Chairman Lamoreaux, that the Planning Commission move to:

1. Find that, pursuant to the California Environmental Quality Act (CEQA), Section No.15301, Class 1, the proposed request is Exempt from further environmental review.

2. Find the Facts presented in the staff report support the required Findings for approval and adopt the Findings.

3. Approve Conditional Use Permit No. 2015-007, subject to the attached Conditions of Approval.

4. Direct Staff to file the Notice of Exemption.

ROLL CALL VOTE

Ayes:	Commissioner Lamoreaux
	Commissioner Shoup
	Commissioner Tinsley
	Vice-Chairman Qualls
	Chairman Kallen
Noes:	None
Abstain:	None
Absent:	None

The motion carried by a 5-0-0-0 vote.

3. Conditional Use Permit No. 2015-009. A request to approve a Conditional Use Permit to allow the operation of an automotive repair facility.

Applicant: Ms. Rubi Pena, representing 5 Star Transmission

Location: The project site is located at 21749 Highway 18, Suite B; APN 3087-341-10.

Chairman Kallen opened the public hearing at 6:06 p.m.

Ms. Pam Cupp, Associate Planner, presented the staff report as filed by the Planning Division.

Ms. Cupp answered questions by the Planning Commission regarding the parking requirements for the project site.

Commissioner Lamoreaux stated he noticed the vehicle on blocks at the project site. He questioned if business activity is currently taking place.

Commissioner Tinsley asked, and the Applicant agreed, that the vehicle be removed from the project site. Commissioner Tinsley also requested that the agreement by the Applicant be noted on record.

Chairman Kallen asked the Applicant if he agreed to the Conditions of Approval.

Mr. Miguel Diaz stated "Yes".

PUBLIC COMMENT

None.

Chairman Kallen closed public hearing at 6:15 p.m.

MOTION

Motion by Commissioner Lamoreaux, seconded by Commissioner Tinsley that the Planning Commission move to:

1. Find that, pursuant to the California Environmental Quality Act (CEQA), Section No.15301, Class 1, the proposed request is Exempt from further environmental review.

2. Find the Facts presented in the staff report support the required Findings for approval and adopt the Findings.

3. Approve Conditional Use Permit No. 2015-009, subject to the attached Conditions of Approval.

4. Direct Staff to file the Notice of Exemption.

ROLL CALL VOTE

Ayes:	Commissioner Lamoreaux
	Commissioner Shoup
	Commissioner Tinsley
	Vice-Chairman Qualls
	Chairman Kallen
Noes:	None
Abstain:	None
Absent:	None

The motion carried by a 5-0-0-0 vote.

4. Tentative Tract Map No. 18914. A request to approve a Tentative Tract Map to subdivide fifty-nine (59) gross acres into eighty-seven (87) single-family residential lots.

Applicant: United Engineering, Beau Cooper
Location: The project is located at the southeast corner of Central Road and Esaws Avenue; APN 0439-022-65.

Chairman Kallen opened the public hearing at 6:16 p.m.

Mr. Douglas Fenn, Senior Planner, presented the staff report. He noted the following correction to Condition of Approval No. P21: "In accordance with Code Section 9.28.050E2, a ***fourteen (14)-***foot wide landscape easement is required along Esaws Avenue" and not the sixteen (16)-foot easement as written in the staff report.

Chairman Kallen requested to know the location of the Lifeline Trails within the Residential Equestrian (RE-Q) zones of the tract.

Mr. Fenn answered questions by the Planning Commission regarding east wall, equestrian access and park criteria.

Ms. Carol Miller, Principal Planner, explained that equestrian standards require trails for within RE-Q zoning.

Commissioner Shoup asked questions regarding the access to the project site from Granite Hills High School.

Mr. Dean Phillips, representing United Engineering, stated that, after reviewing the project, he is in agreement with all the Conditions of Approval. He also stated he would be happy to work with staff to accommodate the need for an equestrian trail within the eastern portion of the map.

Ms. Miller clarified, for the benefit of the Planning Commission, the standards for walls according to the Development Code. She stated that solid walls are required along street frontages.

Chairman Kallen asked the Applicant if he agreed to the Conditions of Approval.

Mr. Phillips stated "Yes".

PUBLIC COMMENT

Since there was no one else in the audience that wished to speak, Chairman Kallen closed the public hearing at 6:45 p.m.

MOTION

Motion by Chairman Kallen, seconded by Commissioner Tinsley, that the Planning Commission move to:

1. Determine that the proposed Tentative Tract Map No. 18914 will not have a significant effect on the environment with adherence to the Mitigation Measures recommended in this report.
2. Adopt the Mitigated Negative Declaration findings for Tentative Tract Map No. 18914, finding that on the basis of the whole record before the Planning Commission, including the Initial Study and any comments received, there is no substantial evidence that the project will have a significant effect on the environment and that the Mitigated Negative Declaration reflects the Town's independent judgment and analysis.
3. Find that the facts presented in the staff report support the required Findings for approval and adopt those findings.
4. Approve Tentative Tract Map No. 18914, subject to the attached Conditions of Approval.
5. Direct staff to file a Notice of Determination.

ROLL CALL VOTE

Ayes:	Commissioner Lamoreaux Commissioner Shoup Commissioner Tinsley Vice-Chairman Qualls Chairman Kallen
Noes:	None
Abstain:	None
Absent:	None

The motion carried by a 5-0-0-0 vote.

5. Conditional Use Permit No. 2015-005. A request to approve a Conditional Use Permit to allow a not-to-exceed thirty-five (35)-foot high, V-shaped billboard with two (2), twelve (12) by forty (40), back-to-back faces

Applicant: Ann Schnitzer, Sun Outdoor Advertising LLC

Location: The project site is a 2.26-acre parcel that fronts the Outer Interstate-15 in between Saugus Road and Gridley Street; APN 0472-191-02.

Chairman Kallen opened the public hearing at 6:46 p.m.

Mr. Douglas Fenn, Senior Planner, presented the staff report. Mr. Fenn stated that, in addition to local regulations, billboards must comply with Caltrans standards as well as obtaining an Outdoor Advertisement permit. .

.Commissioner Shoup stated that he was not in favor of the billboard.

Carol Miller, Principal Planner, stated that, as with any Conditional Use Permit, appropriate Findings must be made in order to deny the billboard.

Discussion ensued regarding various issues surrounding the overall height for billboards.

PUBLIC COMMENT

Mr. John Osborne, Apple Valley, expressed concern regarding the height of the billboard becoming a potential safety hazard.

Mr. Fenn noted the height is depicted on the revised plans at thirty-five (35)-feet.

Ms. Miller recommended adding a Condition stating the overall height shall not exceed thirty-five (35) feet. She also recommended an Amendment to the Development Code that requires the Federal Aviation Administration (FAA) make a determination on the height, and that the Town receive a copy of the determination.

Chairman Kallen closed the public hearing at 7:00 p.m.

Commissioner Tinsley, speaking as an experienced pilot, stated he did not have any concerns regarding the entrance of the runway. However, he felt the thirty-five (35)-foot maximum height allowance should be included as part of the Condition.

Commissioner Lamoreaux, with the consensus of the Planning Commission and staff, recommended a revision to the language that requires the Applicant submit the necessary form to the FAA to determine the height clearance, and to submit a copy to the Town upon approval.

Chairman Kallen asked the Applicant if she agreed to the added Conditions of Approval.

Ms. Schnitzer, stated “Yes”.

MOTION

Motion by Commissioner Lamoreaux, seconded by Chairman Tinsley, that the Planning Commission move to:

1. Find that, pursuant to the California Environmental Quality Act (CEQA), Section No.15303, Class 3, the proposed request is Exempt from further environmental review.

2. Find the Facts presented in the staff report support the required Findings for approval and adopt the Findings.

3. Approve Conditional Use Permit No. 2015-005, subject to the attached Conditions of Approval, as amended

4. Direct Staff to file the Notice of Exemption.

ROLL CALL VOTE

Ayes: Commissioner Lamoreaux
Commissioner Tinsley
Vice-Chairman Qualls
Chairman Kallen

Noes: Commissioner Shoup
Abstain: None
Absent: None
The motion carried by a 4-1-0-0 vote.

6. Conditional Use Permit No. 2015-008. A request to approve a Conditional Use Permit to operate a tire and auto body shop, excluding sanding, painting and welding.

Applicant: **Mr. Joe Mazariegos repr**esenting Tonitos Tire Shop
Location: The project site is located at 22353 Outer Highway 18; APN 3087-382-03

Chairman Kallen opened the public hearing at 7:07 p.m.

Mr. Douglas Fenn, Senior Planner, presented the staff report. He explained the required parking for the project site and requested the Commission to consider the tandem parking within the building to count towards the required parking...

Mr. Fenn commented on the need for the business owner to comply with Air Quality Management District (AQMD) standards according to the existing Conditions.

Discussion ensued regarding the work performed as an auto body shop and the potential danger to the mobile home park located close to the project site.

Ms. Carol Miller, Principal Planner, informed the Planning Commission that the Fire District would inspect the project as part of the Certificate of Occupancy.

Mr. Fenn also informed the Planning Commission that the language written in Condition of Approval No. P16 prohibits any sanding and painting in the future.

Mr. Joseph Yeo, property owner, stated it was his understanding that the Applicant desired to operate a tire shop, but he then changed it to an auto body shop.

Chairman Kallen asked the Owner if he agreed to the Conditions of Approval, as amended.

Mr. Yeo stated “Yes”.

PUBLIC COMMENT

Chairman Kallen closed the public hearing at 7:23 p.m.

Discussion ensued regarding sanding and painting at the auto body shop.

Commissioner Tinsley felt that by not allowing the Applicant to call his business an “auto body shop”, it would limit his ability to do work. He believes eliminating sanding and painting would be sufficient.

Vice-Chairman Qualls expressed concern regarding the use of a torch at the auto body shop.

Ms. Miller read into the record, the definition of an "Auto Body Shop" according to the Development Code.

Commissioner Shoup reiterated concerns regarding the location of the auto body shop being too close to the mobile home park. He commented on the potential impacts that may come from sanding and painting.

Commissioner Lamoreaux, with the consensus of the Planning Commission, agreed that Condition of Approval No.P16 should be revised to exclude welding, painting and sanding.

Ms. Miller read into the record the language added to Condition of Approval No. P-16:

"Auto Body shall exclude welding, painting and sanding."

MOTION

Motion by Commissioner Tinsley, seconded by Chairman Kallen, that the Planning Commission move to:

1. Find that, pursuant to the California Environmental Quality Act (CEQA), Section No.15301, Class 1, the proposed request is Exempt from further environmental review.

2. Find the Facts presented in the staff report support the required Findings for approval and adopt the Findings.

3. Approve Conditional Use Permit No. 2015-008, subject to the attached Conditions of Approval, as amened.

4. Direct Staff to file the Notice of Exemption.

ROLL CALL VOTE

Ayes:	Commissioner Lamoreaux
	Commissioner Shoup
	Commissioner Tinsley
	Vice-Chairman Qualls
	Chairman Kallen
Noes:	None
Abstain:	None
Absent:	None

The motion carried by a 5-0-0-0 vote.

PUBLIC COMMENTS:

Mr. John Laraway, Apple Valley, expressed concern regarding too many restrictions that may come from the Infill Residential Ad Hoc Committee recommendations as it relates to landscaping requirements. He also requested information on future meetings where discussions on landscaping issues will take place.

Ms. Carol Miller, Principal Planner, invited Mr. Laraway to call her for information on upcoming meeting dates. Ms. Miller stated there would be an item presented to the Planning Commission regarding landscaping at the next Planning Commission meeting on November 4, 2015.

PLANNING COMMISSION COMMENTS

Commissioner Tinsley invited the public to attend the Apple Valley Chamber of Commerce Annual Fall Fundraiser this Saturday at the Moose Lodge from 6:00 p.m. to 10:00 p.m. He stated the fee is $25.00 per person.

Chairman Kallen would like staff to come back to the Planning Commission with a report pertaining to how other local Planning Commissions consider economic or financial aspects of any project in its deliberations.

Ms. Miller informed Chairman Kallen that the report would be presented to the Planning Commission at its first meeting in December, 2015.

STAFF COMMENTS

None.

OTHER BUSINESS

None.

ADJOURNMENT

Motion by Vice-Chairman Qualls, seconded by Commissioner Lamoreaux, and unanimously carried to adjourn the meeting of the Planning Commission at 7:50 p.m. to the Regular Meeting on November 4, 2015.

Respectfully Submitted by:

_____
Yvonne Rivera
Planning Commission Secretary

Approved by:

_____
Chairman Bruce Kallen

Get a Slice of the Apple.

TOWN OF APPLE VALLEY
PLANNING COMMISSION

Staff Report

AGENDA DATE: November 4, 2015

CASE NUMBER: Conditional Use Permit No. 2000-008, Amendment No. 1

APPLICANT: Mike Pontious representing Casa Colina Center for Rehabilitation

PROPOSAL: A request to amend a previously approved Conditional Use Permit to allow the construction of two 2,466 square-foot residential buildings, each containing three (3) apartment units, a 942 square-foot dining hall, a 1,473 square-foot administration building and an outdoor therapy pool at an existing care facility. The additional residential units will increase the facility from a forty-two (42) bed facility to a fifty-four (54) bed care facility.

LOCATION: The project site is located at 22200 Highway 18; APN 3112-731-07.

ENVIRONMENTAL DETERMINATION: Pursuant to the State Guidelines to Implement the California Environmental Quality Act (CEQA), Section 15301, Class 1, the proposed request is exempt from further environmental review since it is considered a minor addition to an existing 14,335 square-foot facility.

CASE PLANNER: Ms. Carol Miller, Principal Planner

RECOMMENDATION: Approval

PROJECT AND SITE DESCRIPTION:

A. General Plan Designations

Project Site:	General Commercial (C-G)
North:	Service Commercial (C-S)
East:	General Commercial (C-G)
South:	General Commercial (C-G)
West:	General Commercial (C-G)

B. Surrounding Land Use and Zoning

Project Site:	Village Commercial (C-V), existing residential care facility
North:	Service Commercial (C-S), light industrial buildings
East:	Village Commercial (C-V), vacant land

South:	Village Commercial (C-V), commercial
West:	Village Commercial (C-V), commercial

C. Building Height:

Permitted Maximum:	35 ft.
Proposed Maximum:	14 ft.

D. Setback Analysis:

		Required	Proposed
Building	Front	10 ft.	220 ft.
	Side	0 ft.	11 ft.
	Street Side	10 ft.	22 ft.
	Rear	10 ft.	30 ft.

E. Parking Analysis:

Total Parking Required:	28 spaces
Total Parking Provided:	31 spaces

F. Site Characteristics

The subject site is approximately 3.28 acres. The site is currently developed with a forty-two (42) bed residential care facility and on-site improvements. For security, the facility is enclosed by an existing block wall and electric sliding gates.

ANALYSIS:

A. General

In 2000, the Planning Commission approved the Conditional Use Permit to construct and operate a residential care facility. The facility provides the long-term care for adults suffering from head trauma. The applicant is requesting an amendment to expand the facility for Planning Commission consideration. The proposal will increase the forty-two (42) bed facility to a fifty-four (54) bed facility. The proposal also includes the construction of a 1,473 square-foot administration building, a 972 square-foot dining hall and a therapy pool with a patio deck.

B. Analysis

The floor plan of the residential units indicates that each unit contains 822 square feet consisting of two (2) bedrooms, two (2) bathrooms, a great room, and small kitchen. The intent of these new units is to meet the needs of higher functioning residents at a different and more independent level in their rehabilitation that attempts to replicate more of a home setting. Although each unit has a small kitchen, the new dining hall is intended as a common gathering place for this portion of the residents even though all are able to use all of the facilities amenities. The main building will remain to serve those residents that require a higher level of daily care.

The new dining hall floor plan indicates a kitchen and dining area, as well as a laundry room and storage room with separate entrances. The administration building includes offices and conference room. Adjacent to the therapy pool will be a patio decking to compliment the pool area.

The original conditions of approval required the facility to maintain a fifteen (15)-foot wide landscape buffer along the two property lines adjacent to commercial development or zoning. As proposed the residential units and dining hall are located approximately eleven (11) feet from the side property line at the closet points. The separation proposed between

the existing building and the proposed dining hall (wall-to-wall separation) is approximately seventeen (17) feet. The separation between the dining hall and the existing patio cover attached to the main building is approximately ten (10) feet. In order for the fifteen (15) foot landscape buffer to be met, the ten (10)-foot separation would be reduced to approximately six (6) feet. Since any future development on the property to the east would require a twenty-five (25)-foot landscape buffer along this common property line, the need to provide a fifteen (15)-foot landscape buffer is less crucial. Therefore, staff is recommending Condition No. P11 be revised to indicate an eleven (11)-foot wide landscape buffer (Condition No. P6) is required.

The site is currently developed as a forty-two (42) bed facility encompassing 14,335 square-feet of floor area, parking and landscaping. The proposed expansion does not impact the existing parking but does impact existing landscaping and common open space. The site has sufficient parking to accommodate the required parking for the expansion in accordance with the Development Code. Despite the loss of open space, sufficient open space remains plus a new pool and patio deck will be constructed.

The facility currently has three (3) access points into the subject site. The main entrance into the project site is through a two-way driveway from Outer Highway 18. The other gated entrances into the facility are from Pioneer Road. No changes in access are proposed or required as a result of this expansion.

C. Architectural Analysis

The existing facility was designed with Early California Mission style architecture. The proposed buildings have been designed with the same architectural style.

D. Environmental Assessment

Pursuant to the State Guidelines to Implement the California Environmental Quality Act (CEQA), Section 15301, Class 1, the proposed request is exempt from further environmental review since it is considered a minor addition to an existing 14,335 square-foot facility.

E. Noticing

This item was advertised as a public hearing in the Apple Valley News newspaper on October 23, 2015.

F. Conditional Use Permit Findings

As required under Section 9.16.090 of the Development Code, prior to approval of a Conditional Use Permit, the Planning Commission must make specific Findings. The Findings, and a suggested comment to address each, are presented below:

1. That the proposed location, size, design and operating characteristics of the proposed use is consistent with the General Plan, the purpose of this Code, the purpose of the zoning district in which the site is located, and the development policies and standards of the Town;

   Comment: The proposal is determined to be consistent with the General Plan because the proposed expansion to the existing care facility has been designed to be architecturally compatible with the existing buildings and designed to meet all the development standards of the zoning.

2. That the location, size, design and operating characteristics of the proposed use will be compatible with, and will not adversely affect, nor be materially detrimental to adjacent uses, residents, buildings, structures or natural resources;

   Comment: The proposed expansion to the existing care facility has been designed to be architecturally compatible with the existing buildings. The expansion to the number of units and the locations of the proposed structures are logical and meet the Development Code and therefore, would not be detrimental to the adjacent uses.

3. That the proposed use is compatible in scale, bulk, lot coverage, and density with adjacent uses;

   Comment: The expansion of the existing facility is compatible in scale, bulk, lot coverage, and density with adjacent uses because the proposal has been designed to match the existing care facility and meets all Code requirements.

4. That there are public facilities, services and utilities available at the appropriate levels or that these will be installed at the appropriate time to serve the project as they are needed;

   Comment: Because there are existing improvements to serve the proposed site, the proposal will not result in the need for additional facilities, services or utilities.

5. That there will not be a harmful effect upon desirable neighborhood characteristics;

   Comment: The location, size, design and operating characteristics of the proposed expansion to the existing care facility and the condition under which it will be operated and maintained, will not be harmful to the neighborhood characteristics because the proposal is not a significant increase to the occupancy of the facility which has existed at this location for many years without any impact to the neighboring characteristics.

6. That the generation of traffic will not adversely impact the capacity and physical character of surrounding streets;

   Comment: The proposed expansion is to an existing residential care facility located within a commercially zoned area that fronts Outer Highway 18 and Pioneer Road. Both roads can accommodate traffic generated from this proposal because the increase in residents is not substantial and all road improvements are existing.

7. That traffic improvements and/or mitigation measures are provided in a manner adequate to maintain the existing service level or a Level of Service (LOS) C or better on arterial roads and are consistent with the Circulation Element of the General Plan;

Comment: All off-site improvements exist and, although an increase in units is proposed, the increase in twelve additional beds will not result in traffic related issues or diminish the Level of Service.

8. That there will not be significant harmful effects upon environmental quality and natural resources;

Comment: Under the State guidelines to implement the California Environmental Quality Act (CEQA), the project is not anticipated to have any direct, or indirect, adverse impact upon the environment based on the scope of the project.

9. That there are no other relevant negative impacts of the proposed use that cannot be reasonably mitigated;

Comment: Under the State guidelines to implement the California Environmental Quality Act (CEQA), the project is not anticipated to have any direct, or indirect, adverse impact upon the environment.

10. That the impacts, as described in paragraphs 1 through 9 above, and the proposed location, size, design and operating characteristics of the proposed use and the conditions under which it would be maintained will not be detrimental to the public health, safety or welfare, nor be materially injurious to properties or improvements in the vicinity, nor be contrary to the adopted General Plan;

Comment: Because the proposal is not a substantial increase or change in use, the location, size, design and operating characteristics of the proposed care facility expansion, and the recommended conditions under which it will be operated and maintained, will not be detrimental to the public health, safety or welfare, nor will it be materially injurious to properties or improvements in the vicinity.

11. That the proposed conditional use will comply with all of the applicable provisions of this title.

Comment: The proposed expansion is being built in conformance to the Development Code.

12. That the materials, textures and details of the proposed construction, to the extent feasible, are compatible with the adjacent and neighboring structures;

Comment: The surrounding area consists of non-conforming metal building which would not be the desired materials. However, the materials, textures and details of the proposed buildings will match the existing architectural style of the facility.

13. That the development proposal does not unnecessarily block public views from other buildings or from public ways, or visually dominate its surroundings with respect to mass and scale to an extent unnecessary and inappropriate to the use;

Comment: The new buildings will not block public views or dominate its surroundings because the maximum building heights is fourteen (14) feet which is similar to the adjacent on-site buildings.

14. That quality in architectural design is maintained in order to enhance the visual environment of the Town and to protect the economic value of existing structures;

Comment: The materials, textures and details of the proposed buildings will match the existing architectural style of the facility.

15. That access to the site and circulation on- and off-site is safe and convenient for pedestrians, bicyclists, equestrians and motorists.

Comment: The on- and off-site circulation patterns of the development will not change under this expansion which currently provide a safe and convenient manner for access.

RECOMMENDATION:
Based upon the information contained within this report, and any input received from the public at the hearing, it is recommended that the Planning Commission move to:

1. Find that, pursuant to the California Environmental Quality Act (CEQA), Section 15301, Class 1, the proposed request is Exempt from further environmental review.

2. Find the facts presented in the staff report support the required Findings for approval and adopt the Findings as provided for the CUP No. 2000-008 Amendment No. 1.

3. Approve Conditional Use Permit No. 2000-008 Amendment No. 1, subject to the attached Conditions of Approval.

4. Direct staff to file a Notice of Exemption.

Prepared By:	**Reviewed By:**
Carol Miller Principal Planner	Lori Lamson Assistant Town Manager

ATTACHMENTS:
1. Recommended Conditions of Approval
2. Site Plan
3. Elevations
3. Floor Plan
4. Zoning Map

TOWN OF APPLE VALLEY

RECOMMENDED CONDITIONS OF APPROVAL
Case No. Conditional Use Permit No. 2000-008 Amendment No. 1

Please note: *Many of the suggested Conditions of Approval presented herewith are provided for informational purposes and are otherwise required by the Municipal Code. Failure to provide a Condition of Approval herein that reflects a requirement of the Municipal Code does not relieve the applicant and/or property owner from full conformance and adherence to all requirements of the Municipal Code.*

Planning Division Conditions of Approval:

P1. This project shall comply with the provisions of State law and the Town of Apple Valley Development Code and the General Plan. This conditional approval, if not exercised, shall expire three (3) years from the date of action of the reviewing authority, unless otherwise extended pursuant to the provisions of application of State law and local ordinance. The extension application must be filed, and the appropriate fees paid, at least sixty (60) days prior to the expiration date. The Conditional Use Permit amendment becomes effective ten (10) days from the date of the decision unless an appeal is filed as stated in the Town's Development Code.

P2. The applicant agrees to defend at its sole expense (with attorneys approved by the Town), hold harmless and indemnify the Town, its agents, officers and employees, against any action brought against the Town, its agents, officers or employees concerning the approval of this project or the implementation or performance thereof, and from any judgment, court costs and attorney's fees which the Town, its agents, officers or employees may be required to pay as a result of such action. The Town may, at its sole discretion, participate in the defense of any such action, but such participation shall not relieve the applicant of this obligation under this condition.

P3. The filing of a Notice of Determination requires the County Clerk to collect a documentary handling fee of fifty dollars ($50.00). The fee must be paid in a timely manner in accordance with Town procedures. No permits may be issued until such fee is paid.

P4. The approval of Conditional Use Permit No. 2000-008 Amendment No. 1 by the Planning Commission is recognized as acknowledgment of Conditions of Approval by the applicant, unless an appeal is filed in accordance with Section 9.12.250, *Appeals*, of the Town of Apple Valley Development Code.

P5. All previously approved Conditions of Approval shall remain in effect as appropriate, except as modified or superseded by these conditions of approval.

P6. The project shall provide a minimum eleven (11)-foot wide landscape buffer between the residential units and the adjacent commercial zoning properties.

P7. In accordance with Condition of Approval No. ET1, the site plan submitted for plan check shall show an additional trash enclosure in accordance with Town standards that can accommodate both regular refuge and recyclables.

Environmental and Regulatory Compliance Conditions of Approval

ET1. The project must provide trash enclosures with adequate areas for collecting and loading recyclable materials in compliance with AB 341. The trash enclosures must comply with the newly adopted recycling standards.

Public Resource Code Section 42910-42912

ET2. The developer shall complete and submit a Waste Management Plan ("WMP"), on a WMP form approved by the Town for this purpose as part of the application packet for the building or demolition permit. The completed WMP shall indicate all of the following:

(1) The estimated volume or weight of project C&D debris to be generated;

(2) The estimated volume or weight of such materials that can feasibly be diverted via reuse or recycling;

(3) The vendor or facility that the Developer proposes to use to collect or receive that material; and

(4) The estimated volume or weight of C&D materials that will be landfilled.

Town of Apple Valley Municipal Code Section 8.19.020(a)

ET3. Compliance with Condition of Approval No. ER2 shall be met by any of the following:

(1) Contract for hauling services with Town's franchise hauler, with all Project debris delivered to San Bernardino County self-haul landfill diversion program, provided the diversion program is currently operating; and provide acceptable proof of recycling to the Town in the form of receipts and/or weigh tickets, in conformance with the WMP

(2) Self-haul all Project debris to San Bernardino County self-haul landfill diversion program, provided the diversion program is currently operating; and provide acceptable proof of recycling to the Town in the form of receipts and/or weigh tickets, in conformance with the WMP

(3) Self-haul all Project debris to a construction materials recycling facility, and provide acceptable proof of recycling to the Town in the form of receipts and/or weigh tickets, in conformance with the WMP

(4) Contract with a construction site cleanup company to recycle at least 50% of the Project construction debris, and provide acceptable proof of recycling to the Town in the form of receipts and/or weigh tickets, in conformance with the WMP.

Town of Apple Valley Municipal Code Section 8.19.030

ET4. Prior to issuance of Certificate of Occupancy, the developer shall submit to the WMP Compliance Official documentation proving that it has met the Diversion Requirement for the Project. The Diversion Requirement shall be that the developer has diverted at least fifty percent (50%) of the total C&D debris generated by the Project via reuse or recycling. This documentation shall include all of the following:

(1) Receipts from the vendor or facility that collected or received each material showing the actual weight or volume of that material;

(2) A copy of the previously submitted WMP for the Project adding the actual volume or weight of each material diverted and landfilled;

(3) Any additional information the Developer believes is relevant to determining its efforts to comply in good faith with this Chapter 8.19.

Town of Apple Valley Municipal Code Section 8.19.050

The developer shall make reasonable efforts to ensure that all C&D debris diverted or landfilled are measured and recorded using the most accurate method of measurement available. To the extent practical, all C&D debris shall be weighed by measurement on scales. Such scales shall be in compliance with all regulatory requirements for accuracy and maintenance. For C&D debris for which weighing is not practical due to small size or other considerations, a volumetric measurement shall be used. For conversion of volumetric measurements to weight, the developer shall use the Standardized Conversion Rates approved by the Town for this purpose.

Building and Safety Division Conditions of Approval

B1. Grading and drainage plans including a soils report must be submitted to and approved by the Building Department and Engineering Department prior to grading permit issuance.

B2. Submit plans, engineering and obtain permits for all structures, retaining walls, and signs

B3. Comply with State of California Disability Access requirements

B4. A pre-grading meeting is required prior to beginning any land disturbance. This meeting will include the Building Inspector, General Contractor, Grading Contractor, soils technician and any other parties required to be present during the grading process such as Biologist, Paleontologist.

B5. A dust palliative or hydro seed will be required on those portions of the site graded but not constructed (phased construction)

B6. Page two (2) of the submitted building plans will be the conditions of approval

B7. Construction must comply with 2013 California Building Codes

B8. Best Managements Practices (BMP's) are required for the site during construction

Engineering Conditions of Approval

EC1. Traffic impact fees adopted by the Town shall be paid by the developer.

EC2. Any developer fees adopted by the Town including but not limited to drainage fees shall be paid by the developer.

Public Works Conditions of Approval

PW1. Sewage disposal shall be by connection to the Town of Apple Valley sewer system. Financial arrangements, plans and improvement agreements must be approved by the Town of Apple Valley Public Works Department.

PW2. Sewer connection fees required.

Apple Valley Fire Protection District Conditions of Approval

FD1. Prior to construction occurring on any parcel, the owner shall contact the Fire District for verification of current fire protection development requirements.

FD2. All new construction shall comply with applicable sections of the California Code, California Building Code, and other statutes, ordinances, rules, and regulations regarding fires and fire prevention adopted by the State, County, or Apple Valley Fire Protection District.

FD3. All combustible vegetation, such as dead shrubbery and dry grasses, shall be removed from each building site a minimum distance of thirty (30) feet from any combustible building material, including the finished structure. This does not apply to single specimens of trees, ornamental shrubbery, or similar plants, which are used as ground cover if they do not form a means of transmitting fire.

FD4. Fire lanes shall be provided with a minimum width of twenty six (26) feet, maintained, and identified. Twenty six (26) feet access will start at both points of ingress and continue throughout the site.

FD5. Approved numbers or addresses shall be placed on all new buildings in such a position as to be plainly visible and legible from the street or road fronting the property. Said numbers shall contrast with their background. Additional non-illuminated contrasting (18) inch numbers shall be displayed and the location will be determined by fire department prior to installation.

FD6. Provide a strip sign above the main entrance door which reads: "This Door To Remain Unlocked When Building is Occupied."

FD7. Every exit door with the exception of the main entrance shall be openable from the inside without the use of a key, tool or special knowledge or effort. Special locking devices shall be of an approved type.

FD8. Air-moving systems supplying air in excess of 2,000 CFM shall have an automatic shut off for smoke control. Where fire detection or alarm systems are provided for the building, the smoke detectors required by this section shall be supervised by such systems.

FD9. Install illuminated exit signs at exits. Exit signs shall be energized from separate circuits. Illumination shall normally be provided by the premises wiring system. In the event of failure of this system, illumination shall be automatically provided from an emergency system.

FD10. No landscaping, i.e., trees or shrubs may be within three feet of any fire protection equipment.

FD11. Commercial and industrial developments shall have street addresses and location approved by the Fire District. Where the building setback exceeds 200 feet from the roadway, additional non-illuminated contrasting eighteen (18) inch numbers shall be displayed at the property entrance. When these developments have rear doors of each unit, the unit number shall be a minimum of six (6)-inches and shall contrast with their background.

Apple Valley Fire Protection District, Ordinance 52

FD12. System Standards:

*Fire Flow	1500	GPM @ 20 psi Residual Pressure
Duration	2	Hour(s)
Hydrant Spacing	330	Feet

*If blank, flow to be determined by calculation when additional construction information is received.

- A total of 3 additional fire hydrants will be required on site for the fire protection. It is the responsibility of the owner/developer to provide all new fire hydrants with reflective pavement markers set into pavement and curb identification.

FD13. An approved fire sprinkler system shall be installed throughout any building:

- Exceeds 4,999 square feet
- Two stories or greater.
- Existing building(s) with intensification of use, or
- Other per California Building Code requirements.

FD14. The system shall be supervised and connected to an approved alarm monitoring station and provide local alarm which will give an audible signal at a protected location. Supervision to be both water flow and tamper. Sprinkler work may not commence until approved plans and permits have been issued by the Fire District.
Apple Valley Fire Protection District, Ordinance 52

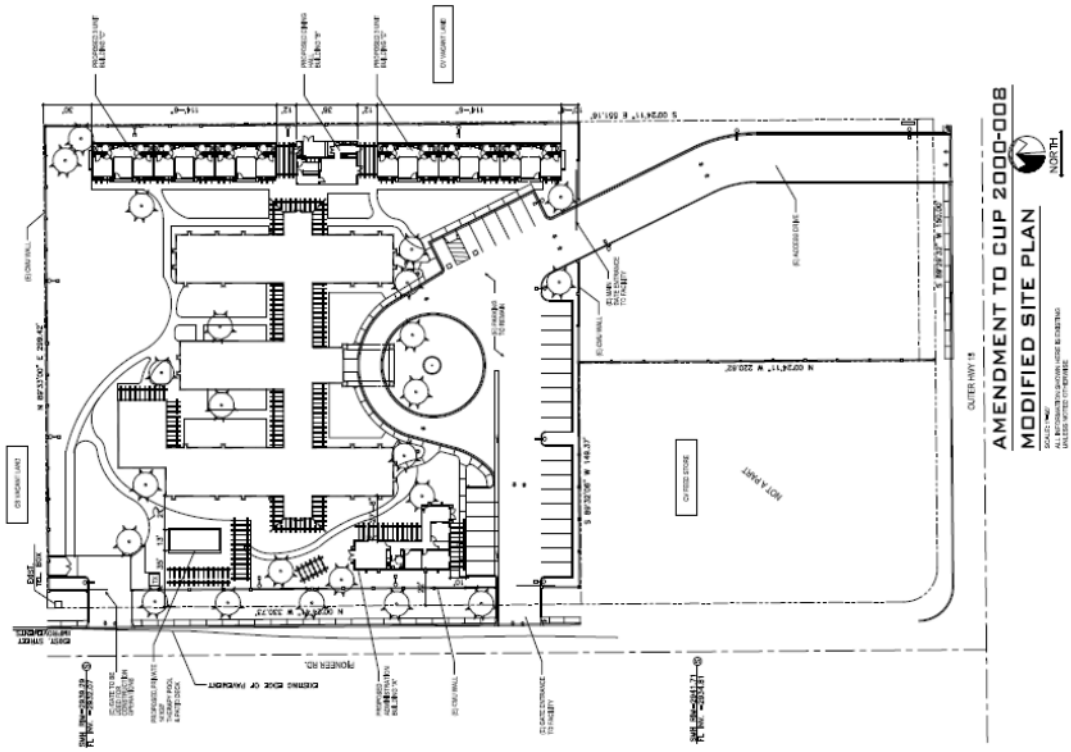
FD15. Prior to issuance of building permit, the developer shall pay all applicable fees as identified in the Apple Valley Fire Protection District Ordinance.

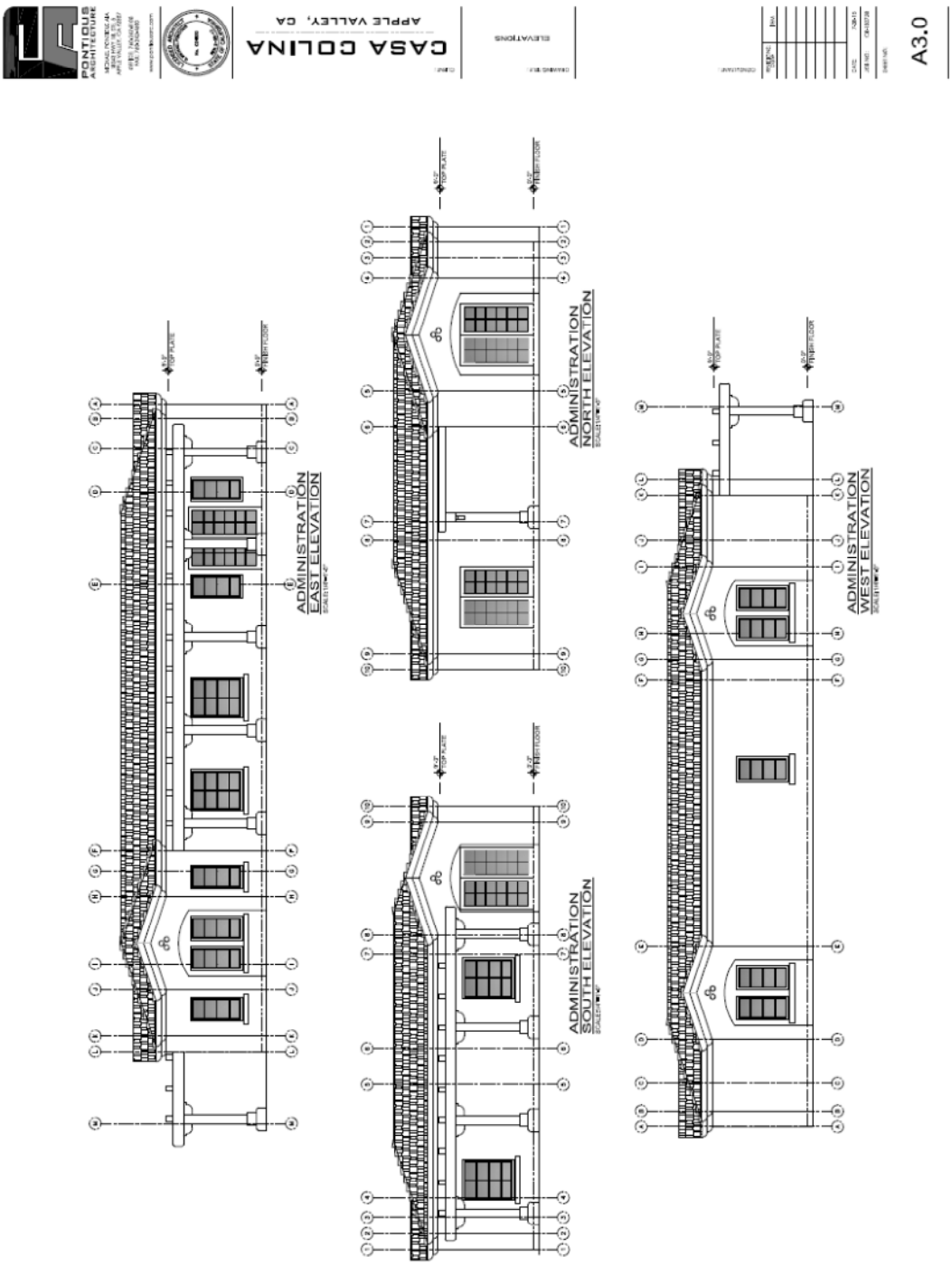
FD16. A Knox Box Rapid Entry System shall be required for this project.
Apple Valley Fire Protection District Ordinance 52

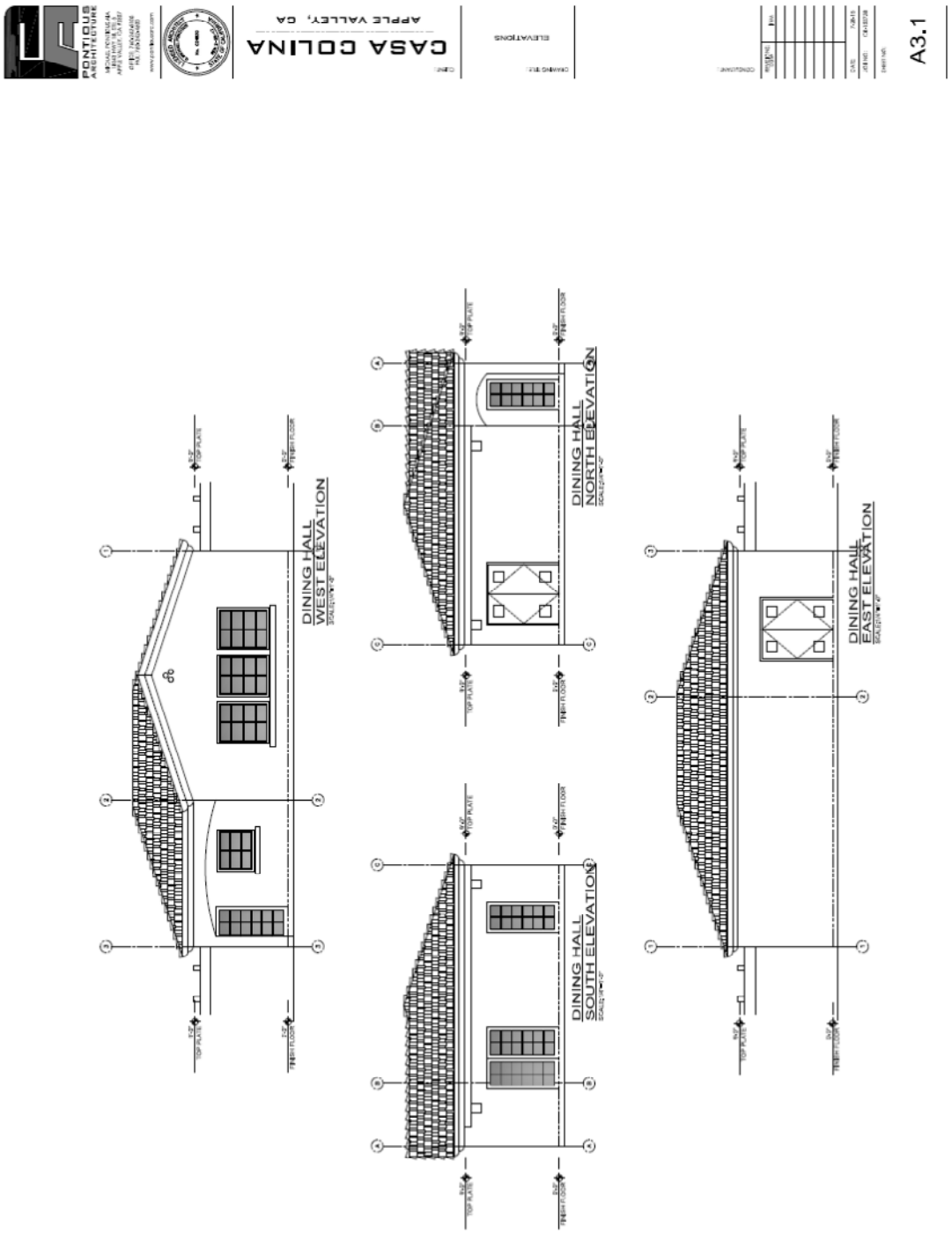
FD17. Fire Extinguishers with a minimum rating of 2A40BC shall be provided, as per inspection, prior to Certificate of Occupancy.

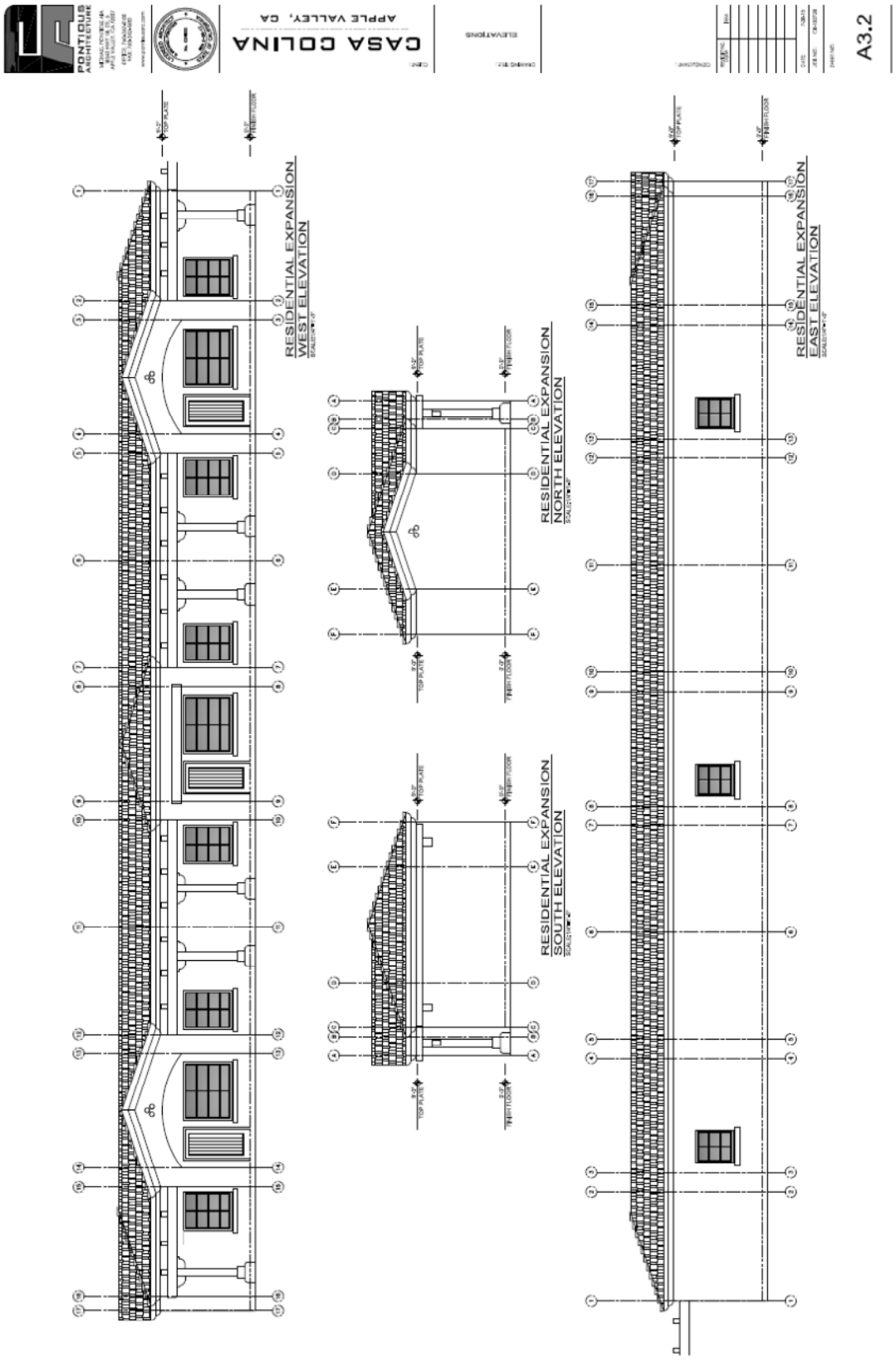
END OF CONDITIONS

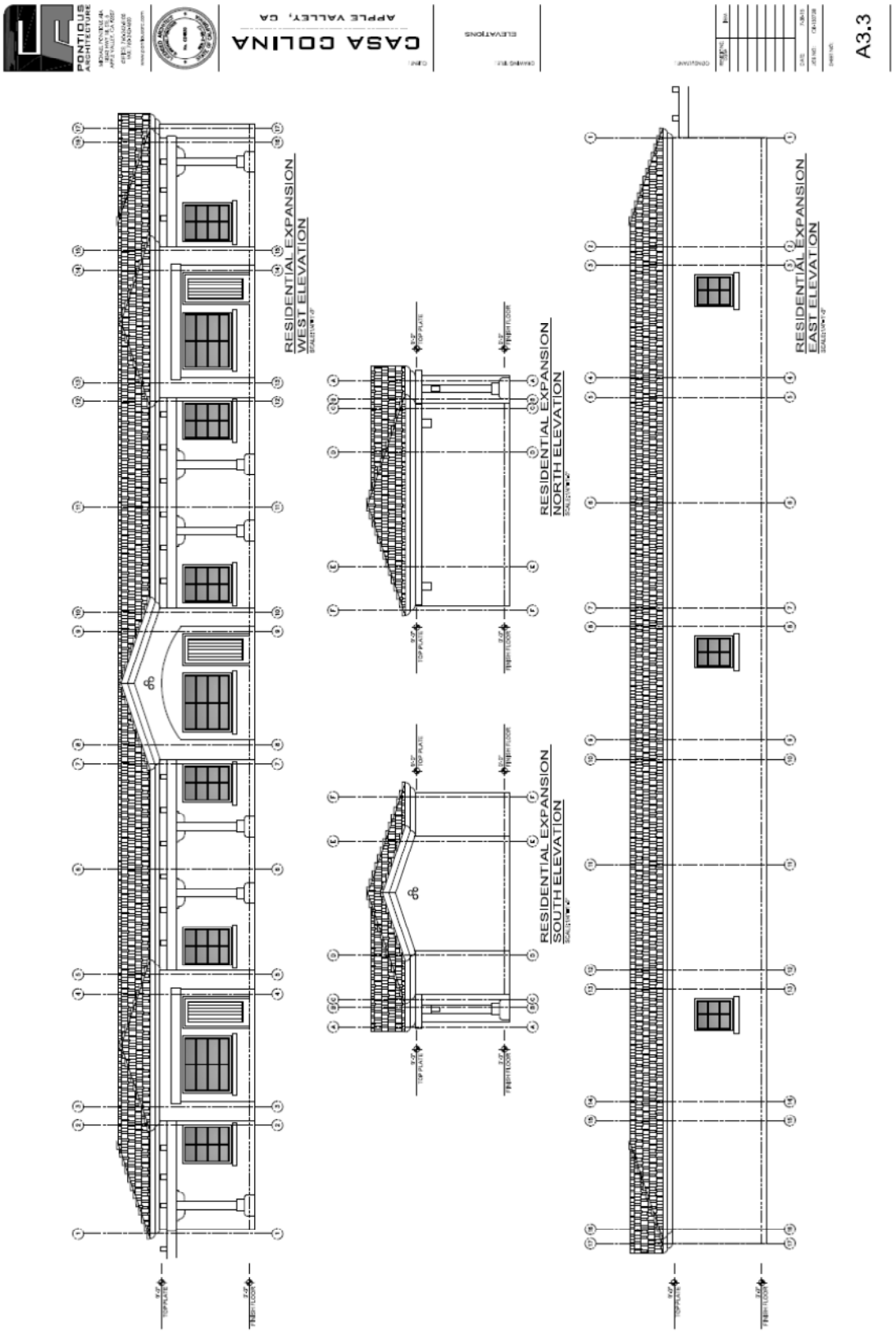

PONTIOUS ARCHITECTURE
CASA COLINA
APPLE VALLEY, CA
SITE PLAN
A1
PROJECT DATA
VICINITY MAP

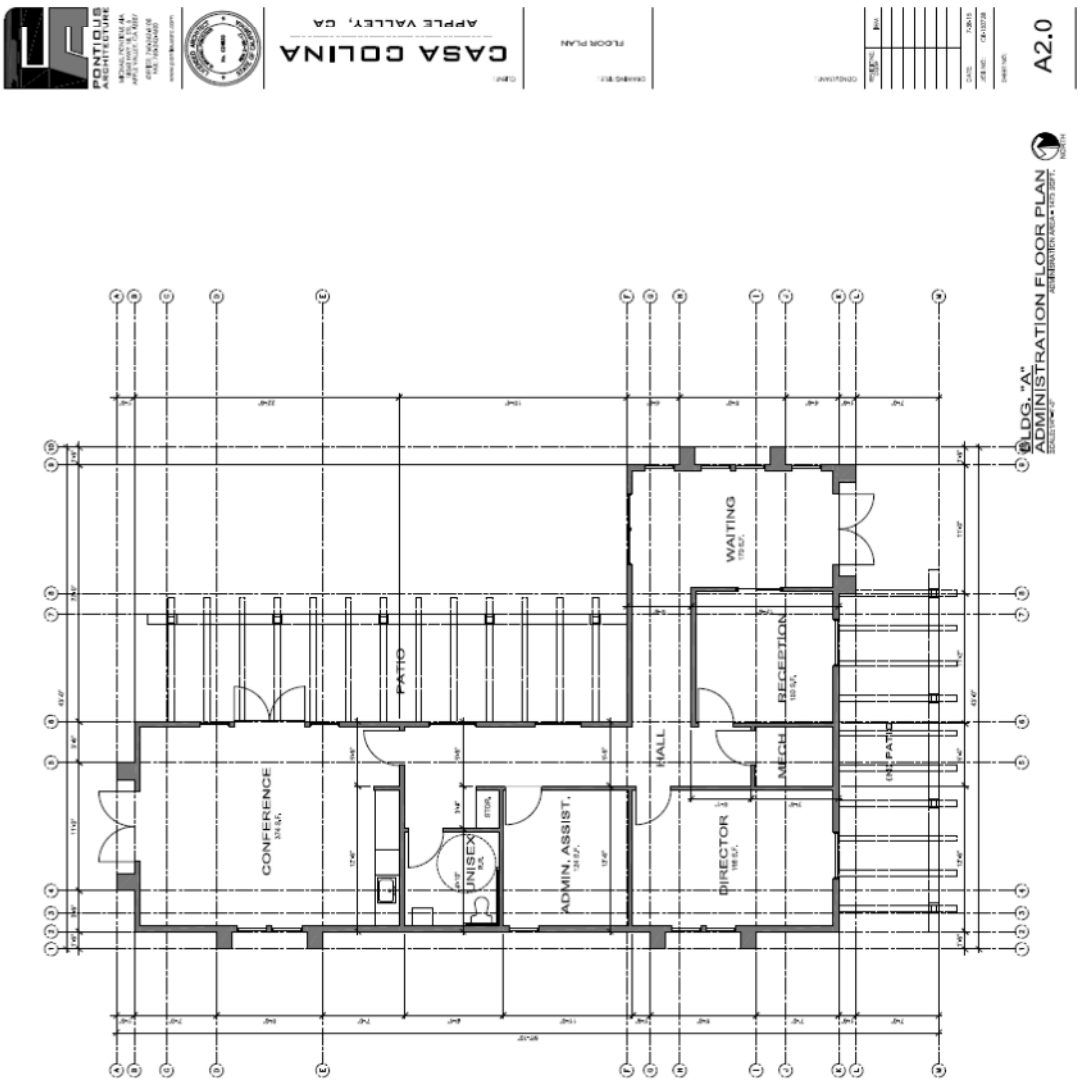

AMENDMENT TO CUP 2000-008
MODIFIED SITE PLAN
NORTH
PIONEER RD.
OUTER HWY 18
NOT A PART


PONTIOUS ARCHITECTURE
CASA COLINA
APPLE VALLEY, CA
ELEVATIONS
A3.0
ADMINISTRATION EAST ELEVATION
ADMINISTRATION NORTH ELEVATION
ADMINISTRATION SOUTH ELEVATION
ADMINISTRATION WEST ELEVATION

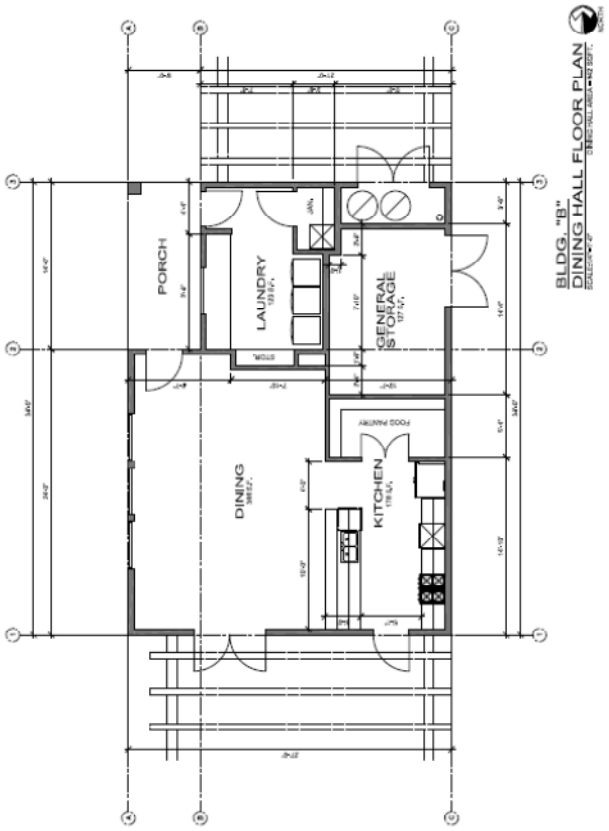

PONTIOUS ARCHITECTURE
CASA COLINA
APPLE VALLEY, CA
ELEVATIONS
A3.1
DINING HALL
WEST ELEVATION
DINING HALL
NORTH ELEVATION
DINING HALL
SOUTH ELEVATION
DINING HALL
EAST ELEVATION

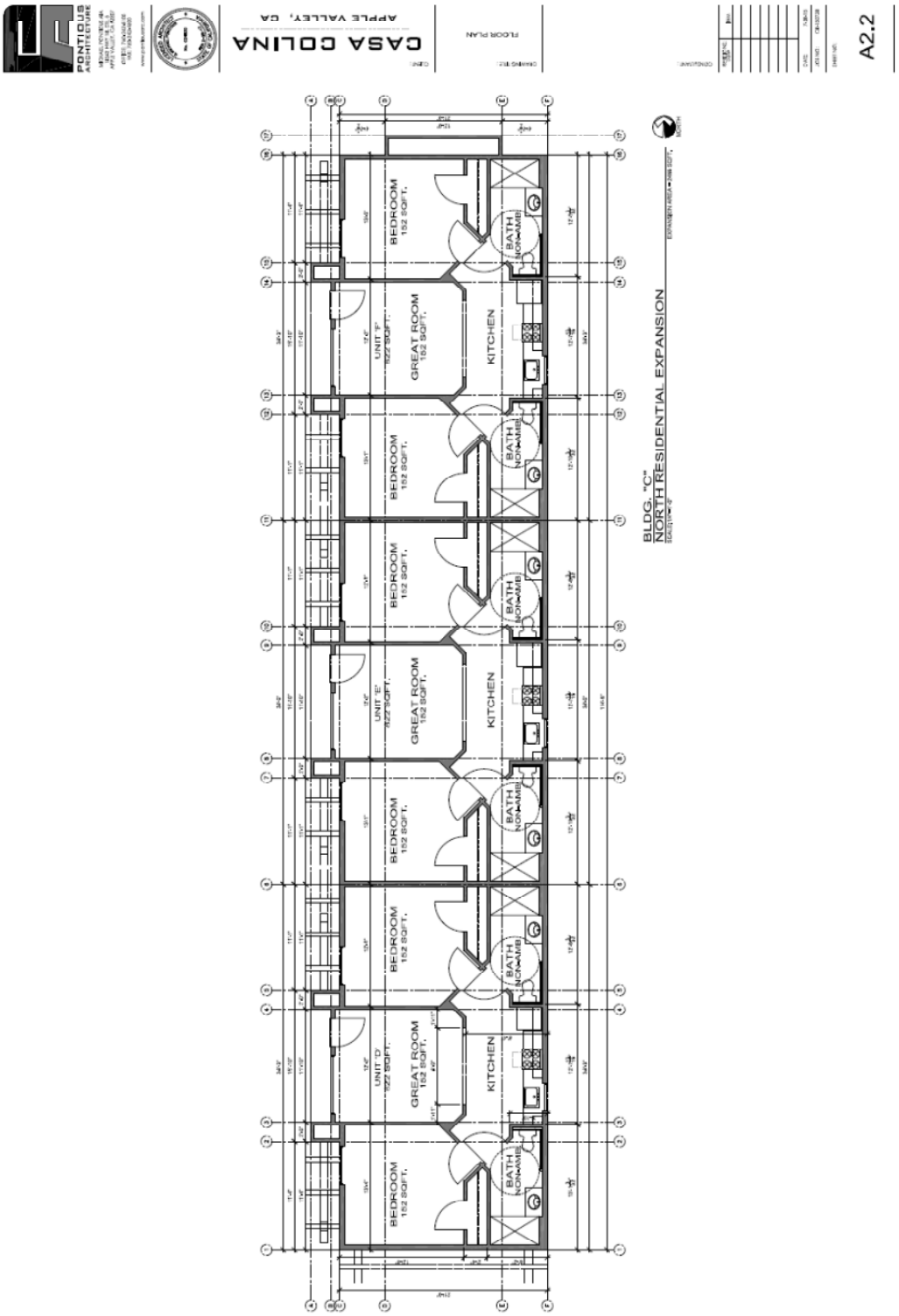

CASA COLINA
APPLE VALLEY, CA
A3.2
RESIDENTIAL EXPANSION
WEST ELEVATION
RESIDENTIAL EXPANSION
NORTH ELEVATION
RESIDENTIAL EXPANSION
SOUTH ELEVATION
RESIDENTIAL EXPANSION
EAST ELEVATION

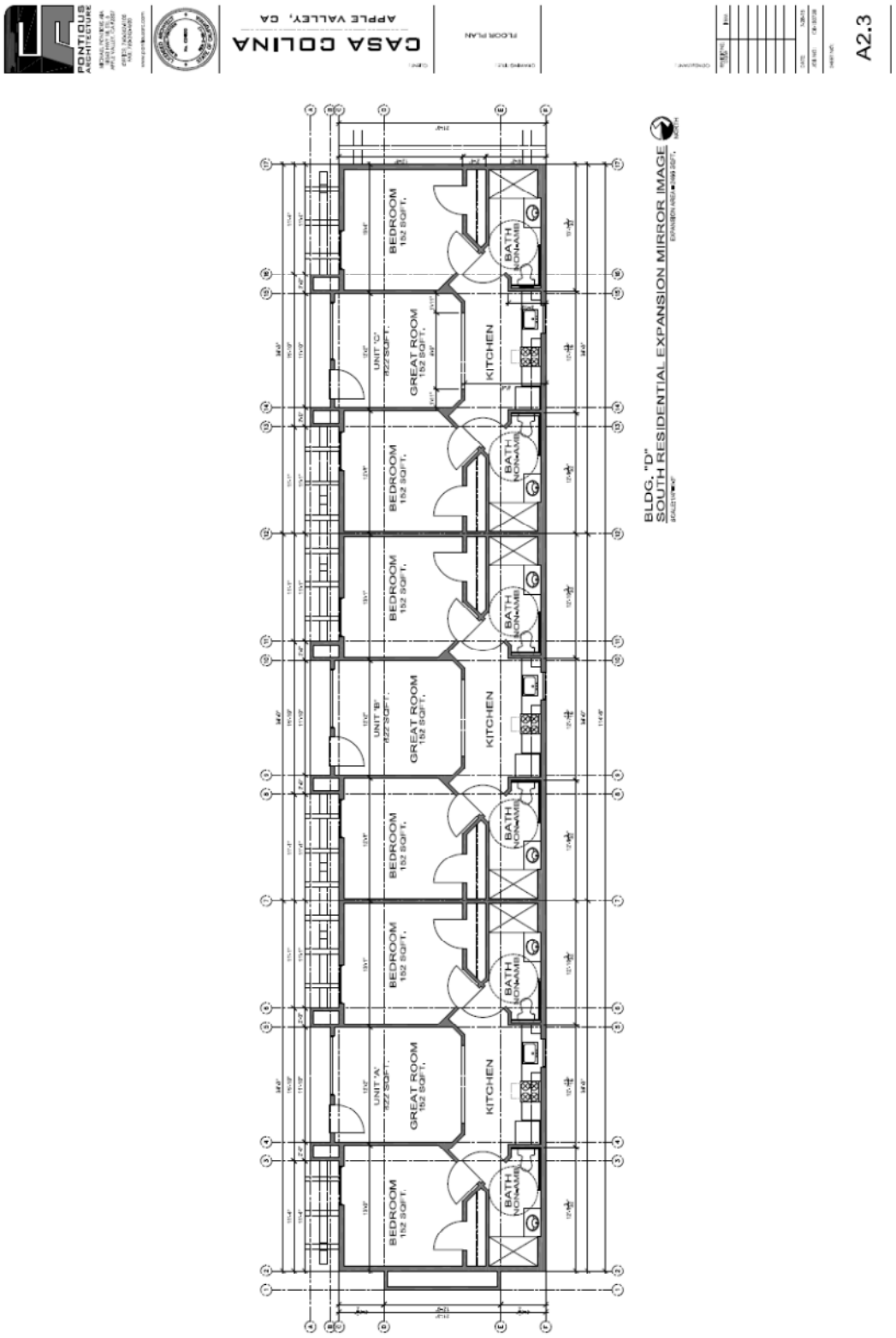

PONTIOUS ARCHITECTURE
CASA COLINA
APPLE VALLEY, CA
ELEVATIONS
A3.3
RESIDENTIAL EXPANSION
WEST ELEVATION
RESIDENTIAL EXPANSION
NORTH ELEVATION
RESIDENTIAL EXPANSION
SOUTH ELEVATION
RESIDENTIAL EXPANSION
EAST ELEVATION

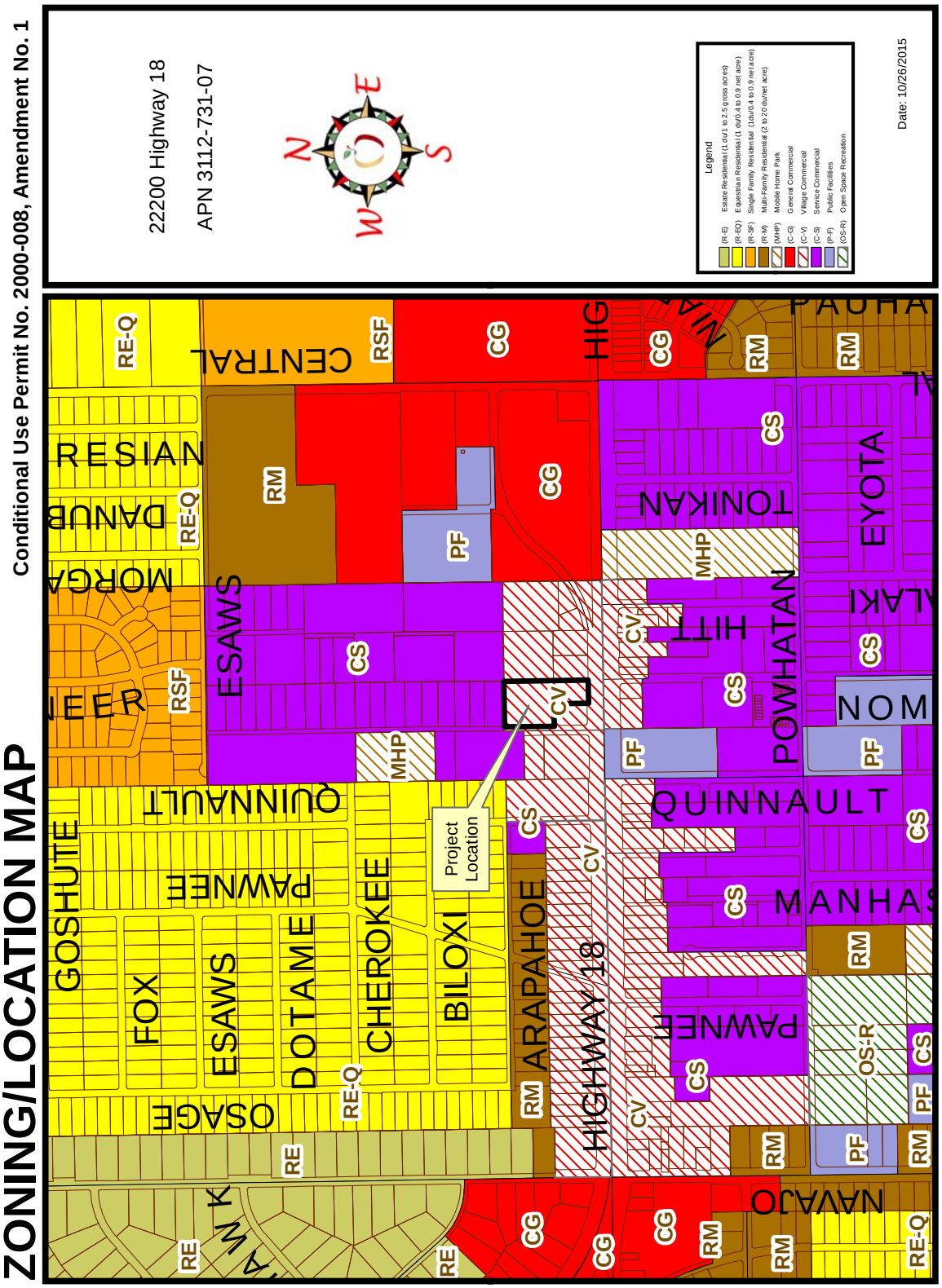

CASA COLINA
APPLE VALLEY, CA
FLOOR PLAN
A2.0
BLDG. "A"
ADMINISTRATION FLOOR PLAN
CONFERENCE
PATIO
UNISEX
ADMIN. ASSIST.
HALL
MECH.
DIRECTOR
RECEPTION
WAITING


CASA COLINA
APPLE VALLEY, CA
FLOOR PLAN
A2.2


PORCH
LAUNDRY
GENERAL STORAGE
DINING
KITCHEN
BLDG. "B"
DINING HALL FLOOR PLAN


CASA COLINA
APPLE VALLEY, CA
FLOOR PLAN
A2.2
BLDG. "C"
NORTH RESIDENTIAL EXPANSION
BEDROOM 152 SQFT.
GREAT ROOM 152 SQFT.
KITCHEN
BATH (NON-MBR)
UNIT 'E' 722 SQFT.
UNIT 'D' 722 SQFT.


PONTIOUS ARCHITECTURE
CASA COLINA
APPLE VALLEY, CA
FLOOR PLAN
A2.3
BLDG. "D"
SOUTH RESIDENTIAL EXPANSION MIRROR IMAGE
BEDROOM 152 SQFT.
GREAT ROOM 152 SQFT.
KITCHEN
BATH
UNIT 'A' 1225QFT.
UNIT 'B' 1225QFT.
UNIT 'C' 1225QFT.


ZONING/LOCATION MAP
Conditional Use Permit No. 2000-008, Amendment No. 1
22200 Highway 18
APN 3112-731-07
Project Location
Legend
(R-E) Estate Residential (1 du/1 to 2.5 gross acres)
(R-EQ) Equestrian Residential (1 du/0.4 to 0.9 net acre)
(R-SF) Single Family Residential (1du/0.4 to 0.9 net acre)
(R-M) Multi-Family Residential (2 to 20 du/net. acre)
(MHP) Mobile Home Park
(C-G) General Commercial
(C-V) Village Commercial
(C-S) Service Commercial
(P-F) Public Facilities
(OS-R) Open Space Recreation
Date: 10/26/2015
HIGHWAY 18
ARAPAHOE
CHEROKEE
BILOXI
QUINNAULT
GOSHUTE
FOX
OSAGE
ESAWS
DOTAME
PAWNEE
CENTRAL
RESIAN
DANUB
MORGA
TONIKAN
POWHATAN
EYOTA
NOM
MANHAS
NAVAJO
RE
RE-Q
RSF
RM
MHP
CS
CV
PF
CG
OS-R

Get a Slice of the Apple.

Agenda Item No. 3

TOWN OF APPLE VALLEY
PLANNING COMMISSION

Staff Report

AGENDA DATE:	November 4, 2015
CASE NUMBER:	Conditional Use Permit No. 2015-001
APPLICANT:	Ms. Dawn Harvell
PROPOSAL:	A request to approve a Conditional Use Permit to operate a private kennel on property containing a single family residence. The project includes the conversion of existing accessory structure to kennels and the future construction of a new 1,800 square foot kennel. The site is five (5) acres in size and located within the Residential Agriculture (R-A) zoning designation.
LOCATION:	20131 Monte Vista Road; APN 0434-191-02
ENVIRONMENTAL DETERMINATION:	Pursuant to the Guidelines to Implement the California Environmental Quality Act (CEQA), Section 15301 Class 1, the proposed request is Exempt from further environmental review.
CASE PLANNER:	Ms. Pam Cupp, Associate Planner
RECOMMENDATION:	Approval

PROJECT SITE AND DESCRIPTION

A. Project Size:
The project is located on a five (5) acre parcel.

B. General Plan Designations:
Project Site - Residential Low Density (R-LD)

C. North - Residential Low Density (R-LD)
South - Residential Low Density (R-LD)
East - Residential Low Density (R-LD)
West - Residential Low Density (R-LD)

D. Surrounding Zoning and Land Use:
Project Site- Residential Agriculture (R-A), single family residence.
North - Residential Agriculture (R-A), single family residence.
South - Residential Agriculture (R-A), single family residence.
East - Residential Agriculture (R-A), single family residence.
West - Residential Agriculture (R-A), vacant.

E. Site Characteristic:
The project site is five (5) acres in size and contains an existing single family residence and several accessory structures. There are similar single family residences located to the north, south and east.

F. Lot Coverage:

Proposed	Maximum Allowed
6,995 sf (3%)	54,450 sf (25%)

ANALYSIS

A. General:
The applicant is requesting Planning Commission review and approval of a Conditional Use Permit to operate a private, non-commercial kennel. The project site is five (5) acres in size and is within the Residential Agricultural (R-A) zone, which permits non-commercial kennels with an approved Conditional Use Permit.

The applicant indicates that she raises and trains championship Labrador Retrievers. The R-A zone allows the keeping of up to four (4) dogs by right of zone. A maximum of twenty (20) adult dogs over the age of four (4) months may be allowed with an approved Conditional Use Permit.

B. Site Analysis:
The project site is on the southeast corner of Deep Creek Road and Monte Vista Lane. The lot is five (5) acres in size and contains an existing single-family residence and numerous out-buildings typically found in this type of rural setting. The single family home and detached garage/workshop are located on the northwesterly corner of the property. The detached garage is located approximately seventy (70) feet from the front property line. This meets the current required front yard setback of fifty (50) feet within the R-A zone.

Setback Analysis

	Setbacks Required/Provided				
	Front Setback	**Street Side**	**Side**	**Rear**	**Separation from nearest habitable structure**
SFR	50/105	45/75	25/180	35/465	
Kennel 1	50/70	45/110	25/210	25/550	65/110
Kennel 2	50/115	45/260	25/40	25/520	65/90

Proposed Kennel	50/>180	45/145	25/122	25/>345	65/>110
Chicken Coop	50/250	45/280	25/20	25/400	65/>130
Shelter 4	50/430	45/300	25/10	25/200	65/>300

Roofed animal enclosures are required to maintain a minimum setback of twenty-five (25) feet from the property line and a minimum separation distance of sixty-five (65) feet from any off-site, habitable dwelling unit. All of the existing and proposed kennels comply with the required setbacks and separation distances. The chicken coop and shelter 4 do not meet the minimum side yard setback of twenty-five (25) feet; however each building does meet the required separation distance to off-site habitable structures. It is unclear if these structures are actively used to house animals; however, animal keeping would be prohibited in these two structures.

Accessory Structures Analysis

The site plan illustrates that, in addition to the single family residence, there are several accessory structures detailed as follows:

Primary Structure	**Size**		
SFR	2,360 sf		
Accessory Structures	**Size**	**Percentage of Primary**	
Kennel 1	1,440	.61	
Kennel 2	248	.10	
Shelter 1	132	.06	
Shelter 2	240	.10	
Shelter 3	234	.10	
Shelter 4	150	.06	
Barn	295	.12	
Chicken Coop	96	.04	
Total Square Footage of Accessory Structures	**2,835**	**120%**	**475 SF over permitted accessory structures.**
Proposed Kennel	1800	76%	2,275 SF over permitted accessory structures
Upon build-out	6,995		

Any single accessory structure shall not exceed seventy-five (75) percent of the square footage of the primary structure. The total of all accessory structures on a site shall not exceed 100 percent of the square footage of the primary structure. The accessory structures on this site exceed that which is permitted by 475 square feet. The applicant will need to remove structures in order to remain compliant with the Development Code. The proposed 1,800 square foot kennel may not be constructed unless additional roof area is added to the primary dwelling unit.

Kennel Analysis

The detached garage/workshop is 1,440 square feet in size and has been converted into a kennel and identified as Kennel #1 on the site plan. Kennel #2 is located on the southwesterly portion of the lot. Both kennels meet the minimum setback and separation distance required to adjacent, habitable structures. The kennels have been designed in a manner consistent with Development Code requirements for kennel improvements. Sound attenuation insulation has been added to the interior walls of both kennels.

Exterior animal pens and runs have also been improved to meet the Town's kennel improvement requirements. Dog training and exercising will mainly occur on the rear portion of the property. Based upon the size of the parcel, the applicant does not propose any exterior, sound attenuation walls at this time. However, the applicant remains responsible to ensure that the noise level measured at the property line is within the ambient level required by the Development Code.

This proposal is for a private kennel, and will be an accessory use to an existing, single family residence. As such, additional parking is not required. Traffic to and from the site will not exceed that which typically occurs at a single family home. Animal Services has inspected the site and is in support of the proposal. Animal Services has provided its Conditions of Approval for the Commission's consideration, which include provisions addressing licensing, animal care, sanitation, inspections and penalties that may be imposed for non-compliance.

A citizen came to the public counter for information and followed up his visit with a letter via email that identified specific concerns they had with the proposal. Concerns cited include traffic hazards, blowing trash, noise and animal waste. Noise and/or animal waste have been addressed in this report and Conditions of Approval have been recommended to ensure compliance with the Town's existing regulations related to noise and removal of animal waste.

C. Development Review

This project was not reviewed by the Development Advisory Board; however, project information was distributed and comments were requested from Town Divisions and affected agencies. All comments and recommended Conditions of Approval received from Town Divisions and local agencies are included in this report.

D. Environmental Assessment:

Pursuant to the Guidelines to Implement the California Environmental Quality Act (CEQA), Section 15301, Class 1, the proposed request is Exempt from further environmental review.

E. Noticing:

The project was legally noticed in the Apple Valley News on October 23, 2015 and notices were mailed to all property owners within 300-feet of the project site.

F. Findings:

CONDITIONAL USE PERMIT FINDINGS:

As required under Section 9.16.090 of the Development Code, prior to approval of a Conditional Use Permit, the Planning Commission must make specific Findings. The Findings, and a suggested comment to address each, are presented below:

1. That the proposed location, size, design and operating characteristics of the proposed use is consistent with the General Plan, the purpose of this Code, the purpose of the zoning district in which the site is located, and the development policies and standards of the Town;

   Comment: The proposed kennel is allowed with the review and approval of a Conditional Use Permit by the Planning Commission. Therefore, it is in compliance with the Development Code of the Town of Apple Valley and adopted General Plan.

2. That the location, size, design and operating characteristics of the proposed use will be compatible with, and will not adversely affect, nor be materially detrimental to adjacent uses, residents, buildings, structures or natural resources;

   Comment: The proposed kennel is an accessory use to an existing single-family residence. Because the site is located within the Residential Agricultural (R-A) zoning designation and animal keeping is a permitted use, the kennel would be considered a compatible use in this location. The property is five (5) acres in size with more than adequate separation from adjacent habitable structures within the vicinity. The proposal, with adherence to the recommended Conditions of Approval will ensure the use is compatible with, and will not adversely affect, the adjacent uses and residents.

3. That the proposed use is compatible in scale, bulk, lot coverage, and density with adjacent uses;

   Comment: The proposed kennel is compatible with surrounding uses because it is accessory to the primary use of a single family residence within this residential agricultural area. Any additional accessory structures built will comply with the residential site development standards.

4. That there are public facilities, services and utilities available at the appropriate levels or that these will be installed at the appropriate time to serve the project as they are needed;

   Comment: No changes to the site are proposed that will require additional services because the proposed kennel is only an accessory use to the existing single family residence located on the site. There are existing services and utilities available to service this proposal.

5. That there will not be a harmful effect upon desirable neighborhood characteristics;

   Comment: The proposal will not be harmful to the neighborhood characteristics because the proposed kennel is an accessory use to an existing single-family residence located within the Residential Agricultural (R-A) zoning designation. Animal keeping is an intended and compatible use in this location. The property is five (5) acres in size with more than adequate separation from adjacent habitable structures within the vicinity. The proposal, with adherence to the recommended Conditions of Approval, will not be harmful to the neighborhood characteristics.

6. That the generation of traffic will not adversely impact the capacity and physical character of surrounding streets;

   Comment: The generation of traffic will not adversely impact the capacity and physical character of surrounding streets because the project site is located at the southeast corner of Deep Creek Road and Monte Vista Lane. Although Deep Creek Road is improved, access to the site is from Monte Vista Lane which is an unimproved road. Traffic generated from the proposed kennel will be negligible and should not exceed traffic typically associated with the existing single family use.

7. That traffic improvements and/or mitigation measures are provided in a manner adequate to maintain the existing service level or a Level of Service (LOS) C or better on arterial roads and are consistent with the Circulation Element of the General Plan;

   Comment: Traffic generated from the proposed kennel will be negligible and should not exceed traffic typically associated with the existing single family use. Traffic generated from the project will not adversely impact the surrounding area.

8. That there will not be significant harmful effects upon environmental quality and natural resources;

   Comment: There will not be significant harmful effects upon environmental quality and natural resources because the kennel will be required to remove waste on a daily basis and use a animal wastewater discharge system approved by the Building and Safety department.

9. That there are no other relevant negative impacts of the proposed use that cannot be reasonably mitigated;

   Comment: With adherence to the Conditions of Approval, the proposal will not result in any other relevant negative impacts.

10. That the impacts, as described in paragraphs 1 through 9 above, and the proposed location, size, design and operating characteristics of the proposed use and the conditions under which it would be maintained will not be detrimental to the public health, safety or welfare, nor be materially injurious to properties or improvements in the vicinity, nor be contrary to the adopted General Plan;

Comment: The location, size, design and operating characteristics of the proposed kennel, and the recommended conditions under which it will be operated and maintained, will not be detrimental to the public health, safety or welfare, nor will it be materially injurious to properties or improvements in the vicinity. Waste shall be removed daily and the project is required to conform to the Noise Control Ordinance of the Development Code.

11. That the proposed conditional use will comply with all of the applicable provisions of this title.

Comment: The kennel can operate in conformance to the Development Code, subject to approval of a Conditional Use Permit and adherence to the recommended Conditions of Approval.

12. That the materials, textures and details of the proposed construction, to the extent feasible, are compatible with the adjacent and neighboring structures;

Comment: The proposed kennel will be compatible with surrounding uses because it is accessory to the primary use of a single family residence. Any additional accessory structures built will comply with the residential site development standards.

13. That the development proposal does not unnecessarily block public views from other buildings or from public ways, or visually dominate its surroundings with respect to mass and scale to an extent unnecessary and inappropriate to the use;

Comment: The proposed kennel will be compatible with surrounding uses because it is accessory to the primary use of a single family residence. Any additional accessory structures built will comply with the residential site development standards that limit the height of accessory structures; therefore, the use will not block public views or dominate its surroundings.

14. That quality in architectural design is maintained in order to enhance the visual environment of the Town and to protect the economic value of existing structures;

Comment: The proposed kennel will be compatible with surrounding uses because it is accessory to the primary use of a single family residence and has been designed to complement the single family residence. Any additional accessory structures built will comply with the residential site development standards.

15. That access to the site and circulation on- and off-site is safe and convenient for pedestrians, bicyclists, equestrians and motorists.

Comment: The project site is located at the southeast corner of Deep Creek Road and Monte Vista Lane. Although Deep Creek Road is improved, access to the site is from Monte Vista Lane which is an unimproved road. The site has an access gate and a large, paved driveway; therefore, access to the site and circulation on- and off-site will remain safe and convenient for pedestrians, bicyclists, equestrians and motorists.

Recommendation:
Based upon the information contained within this report, and any input received from the public at the hearing, it is recommended that the Planning Commission move to:

1. Find that, pursuant to the California Environmental Quality Act (CEQA), Section No.15301, Class 1, the proposed request is Exempt from further environmental review.

2. Find the Facts presented in the staff report support the required Findings for approval and adopt the Findings.

3. Approve Conditional Use Permit No. 2015-001, subject to the attached Conditions of Approval.

4. Direct Staff to file the Notice of Exemption.

Prepared By:	**Reviewed By:**
Pam Cupp Associate Planner	Carol Miller Principal Planner

ATTACHMENTS:
1. Recommended Conditions of Approval
2. Site Plan
3. Aerial/Separation Map
4. Zoning/Location Map
5. Comments Letter (Mr. Al Vogler)

RECOMMENDED CONDITIONS OF APPROVAL
Conditional Use Permit No. 2015-001

Please note: Many of the suggested Conditions of Approval presented herewith are provided for informational purposes and are otherwise required by the Municipal Code. Failure to provide a Condition of Approval herein that reflects a requirement of the Municipal Code does not relieve the applicant and/or property owner from full conformance and adherence to all requirements of the Municipal Code.

Planning Division Conditions of Approval

P1. This project shall comply with the provisions of State law and the Town of Apple Valley Development Code and the General Plan. This conditional approval, if not exercised, shall expire three (3) years from the date of action of the reviewing authority, unless otherwise extended pursuant to the provisions of application of State law and local ordinance. The extension application must be filed, and the appropriate fees paid, at least sixty (60) days prior to the expiration date. The Conditional use Permit becomes effective ten (10) days from the date of the decision unless an appeal is filed as stated in the Town's Development Code.

P2. The applicant agrees to defend at its sole expense (with attorneys approved by the Town), hold harmless and indemnify the Town, its agents, officers and employees, against any action brought against the Town, its agents, officers or employees concerning the approval of this project or the implementation or performance thereof, and from any judgment, court costs and attorney's fees which the Town, its agents, officers or employees may be required to pay as a result of such action. The Town may, at its sole discretion, participate in the defense of any such action, but such participation shall not relieve the applicant of this obligation under this condition.

P3. It is the sole responsibility of the applicant on any Permit, or other appropriate discretionary review application for any structure, to submit plans, specifications and/or illustrations with the application that will fully and accurately represent and portray the structures, facilities and appurtenances thereto that are to be installed or erected if approved by the Commission. Any such plans, specifications and/or illustrations that are reviewed and approved by the Planning Commission at an advertised public hearing shall accurately reflect the structures, facilities and appurtenances expected and required to be installed at the approved location without substantive deviations, modifications, alterations, adjustments or revisions of any nature.

P4. The filing of a Notice of Exemption requires the County Clerk to collect a documentary handling fee of fifty dollars ($50.00). The fee must be paid in a timely manner in accordance with Town procedures. No permits may be issued until such fee is paid. The check shall be made payable to the Clerk of the Board of Supervisors.

P5. The approval of Conditional Use Permit No. 2015-001 by the Planning Commission is recognized as acknowledgment of Conditions of Approval by the applicant, unless an appeal is filed in accordance with Section 9.12.250, *Appeals*, of the Town of Apple Valley Development Code.

P6. Conditional Use Permit No. 2015-001 may be reviewed annually or more often, if deemed necessary by the Community Development and/or Animal Services Department, to ensure compliance with the conditions contained herein. Additional conditions may be recommended to, and imposed by, the Planning Commission to mitigate any negative impacts resulting from the operations not contained within the scope of this permit.

P7. Three (3), or more, substantiated complaints against this kennel may cause the Planning Commission to initiate revocation proceedings to terminate Conditional Use Permit No. 2015-001.

P8. All litter and animal waste shall be removed from the exterior animal pens area around the premises daily.

P9. Exterior animal pens containing unsupervised dogs must contain provisions for shelter from the elements and a fresh water supply.

P10. Conditional Use Permit No. 2015-001 does not authorize the operator to deviate from any established noise or nuisance laws.

P11. All noise shall be sound attenuated so that the noise level measured at the property line is within the ambient level for the zone in which the site is located.

P12. All roofed animal enclosures shall be at least sixty-five (65) feet from any habitable structure located off the subject property.

P13. Animal runs shall meet the following minimums:

1. No animal runs, exercise areas or keeping of the kenneled animals shall be located within the required front, street side or side yards setbacks.
2. Kennels or animal runs shall be appropriately sized for the animal being kept.
3. Animal runs shall be constructed and/or coated with a nonporous material to discourage the breeding of ticks and other similar pests.
4. All animal runs shall have concrete or other durable flooring sloped for proper drainage.
5. All animal runs shall be provided with drains sufficient to control drainage and daily washing of the runs.

P14. All animal runs shall be washed down daily to control odor, flies and the breeding of ticks, fleas, bacteria and other vectors.

P15. The outside area where animals are maintained shall be entirely enclosed by a secondary fence a minimum of six (6) feet in height and located a minimum of ten (10) feet from the enclosure.

P16. The kennel facility must meet requirements of San Bernardino County Department of Environmental Health (Preventive Veterinary Services) and Town of Apple Valley Animal Services.

Animal Services Conditions of Approval

Every person within the Town of Apple Valley who owns, conducts, manages, or operates any animal establishment for which a license is required by this Chapter shall comply with each of the following conditions:

AVMC 15.01.110 Annual Permit/Business License

(b) General Regulations

AS1. Housing facilities for animals shall be structurally sound and shall be maintained in good repair to protect animals from injury and restrict entrance of other animals;

AS2. All animals and all animal buildings or enclosures shall be maintained in a clean and sanitary condition;

AS3. All animals shall be supplied with sufficient good wholesome food as often as the feeding habits of the respective animals require; access to potable water at all times; and access to adequate shelter at all times to protect from the elements;

AS4. Animal buildings and enclosures shall be so constructed and maintained as to prevent the escape of animals;

AS5. All reasonable precautions shall be taken to protect the public from the animals and animals from the public;

AS6. Every building or enclosure wherein animals are maintained shall be properly ventilated to prevent drafts and to remove odors; heating and cooling shall be provided as required according to physical needs of the animals;

AS7. All animal rooms, cages, and runs shall be of sufficient size to provide adequate and proper housing for animals kept therein;

AS8. All animal runs shall be of approved construction and shall be provided with adequate waste and manure disposal and for drainage into an approved sewer or individual sewer disposal installation;

AS9. Dogs shall not be tethered, fastened, chained, tied or otherwise restrained to a dog house, tree, fence, or any other stationary object longer than three (3) hours in a 24-hour period or a time that is otherwise approved by animal control. A running line, pulley or trolley system may be used. A dog may not be tethered by means of a choke collar or pinch collar.

AS10. Every precaution shall be taken to avoid the production of nuisances and any hazard to the public health as a result of the presence of wild, dangerous, and/or exotic animals;

AS11. Every violation of applicable regulation shall be corrected within a reasonable time to be specified by the Animal Control Officer.

AS12. Failure of the applicant for said license to comply with any of the foregoing conditions shall be deemed just cause for the denial of any license, whether original or renewal.

AS13. *Revocation of license or Animal Control Permit.* The Animal Control Officer shall inspect the animal establishment annually. The Animal Control Officer shall investigate a complaint of any animal establishment. The Animal Control Officer or Hearing Officer may revoke any license or Animal Control Permit issued pursuant to this Chapter, whenever he or she shall determine from an inspection or substantiated complaints that any animal establishment fails to meet all conditions contained in this Chapter or for any other violation of applicable regulations. Any revocation of a license or Animal Control Permit may be permanent or temporary. Upon reinstatement, the license or permit shall be in effect for the remainder of the original term for which it was issued.

AS14. There must never be three (3) substantiated animal violation complaints against you, your animals or your property.

AS15. All dogs must be currently licensed within thirty (30) days or at four (4) months of age.

AS16. At no time will you be permitted to keep more than twenty (20) dogs, puppies must be removed within thirty (30) days of being weaned.

AS17. Written record on the health, status, and disposition of each dog must be available for a period of not less than one year after the disposition of the dog.

AS18. Animal Services Officer shall have the authority to enter upon any area or premises at any reasonable time to enforce the provisions of this chapter.

Building and Safety Division Conditions of Approval

BC1. Submit plans and obtain permits for all structures and retaining walls, signs.

BC2. A pre-construction permit and inspection are required prior to any land disturbing activity to verify requirements for erosion control, flood hazard native plant protection and desert tortoise habitat.

BC3. Comply with the State of California Disability Access requirements.

BC4. A pre-grading meeting is required prior to beginning any land disturbance. This meeting will include the Building Inspector, General Contractor, Grading Contractor, soils technician and any other parties required to be present during the grading process such as a Biologist and/or Paleontologist.

BC5. A dust palliative or hydro seed will be required on those portions of the site graded but not constructed (phased construction)

BC6. Page two (2) of the submitted building plans will be conditions of approval.

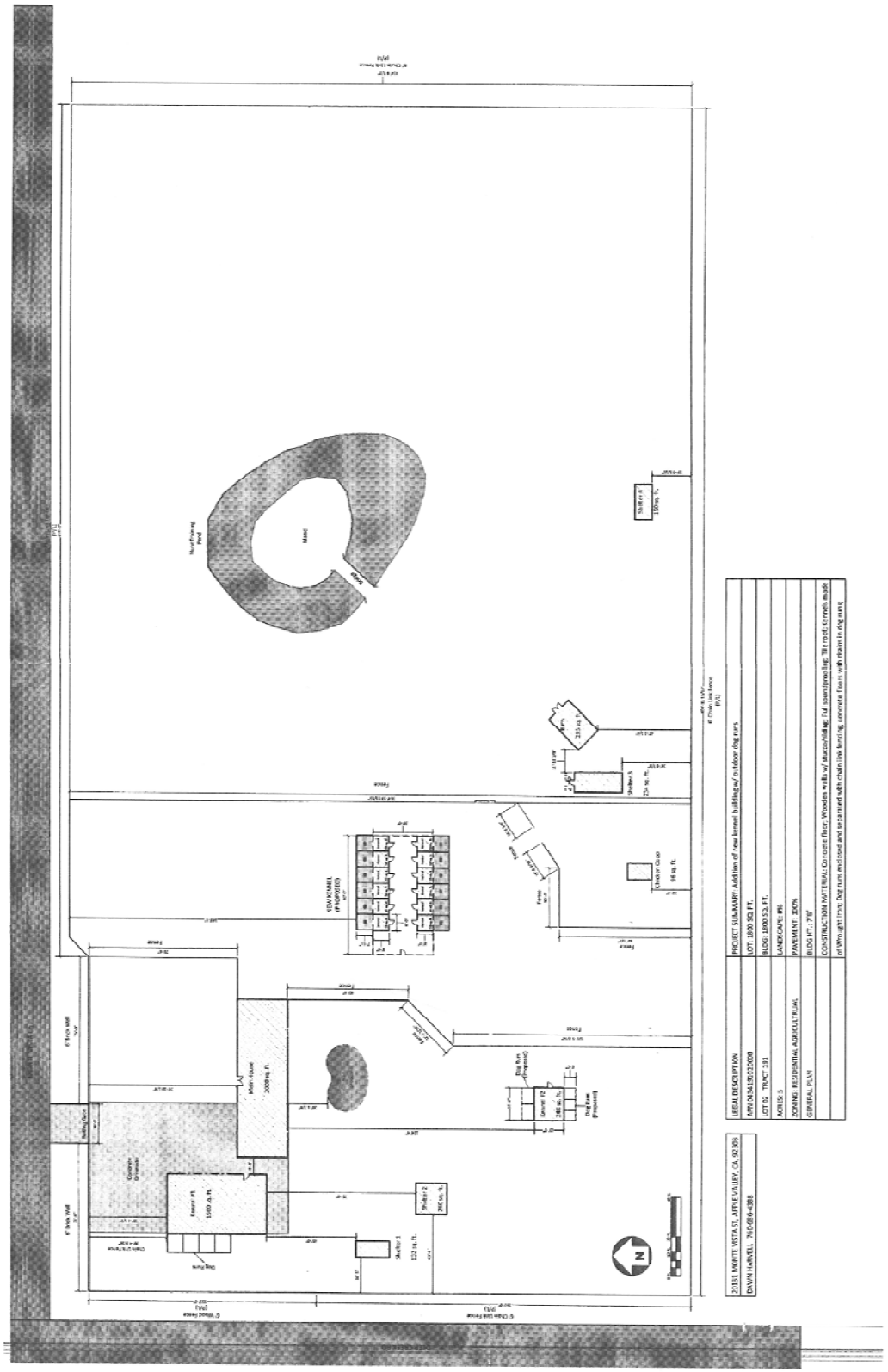
BC7. Construction must comply with 2013 California Building Codes and green Building Code.

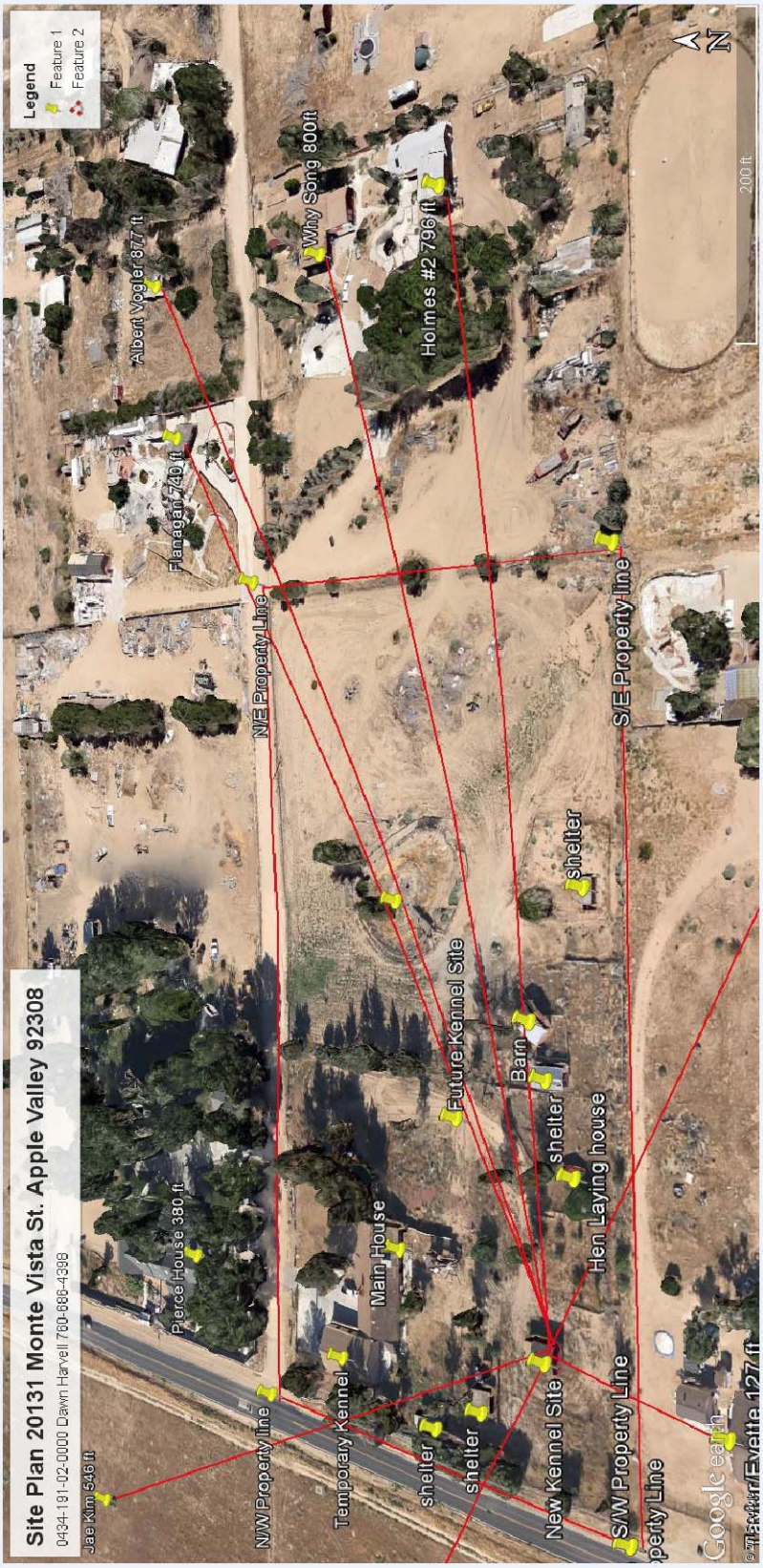
BC8. Best Management Practices (BMP's) are required for the site during construction.

BC9. Provide Water Quality Management Plan (WQMP) or Alternative Compliance Plan

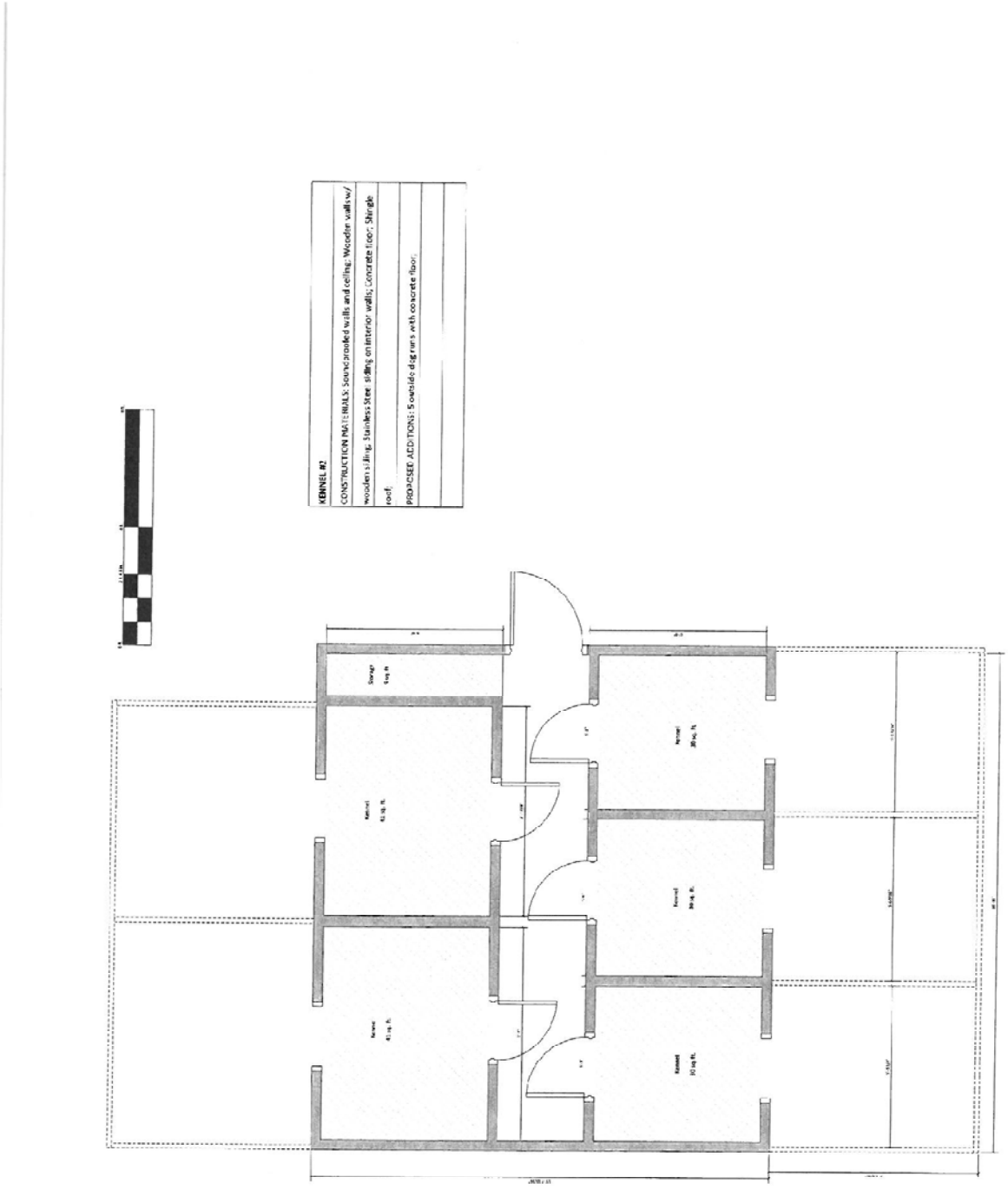
BC10. Provide design and specifications for waste water discharge.

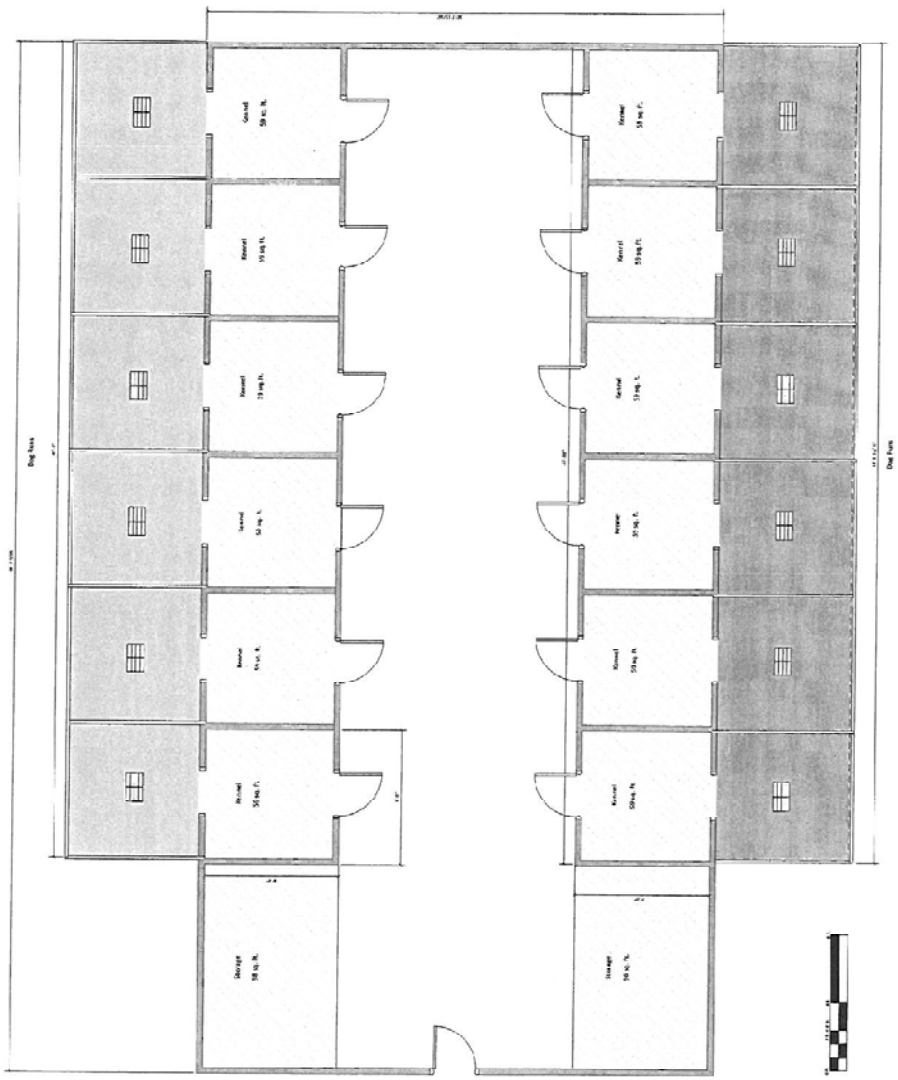
End of Conditions


PROJECT SUMMARY: Addition of new kennel building w/ outdoor dog runs
LOT: 1830 SQ.FT.
BLDG: 1800 SQ. FT.
LANDSCAPE: 0%
PAVEMENT: 100%
BLDG HT.: 7'6"
CONSTRUCTION MATERIAL: Concrete floor, Wooden walls w/ stucco siding; Tin roof; Green mesh
LEGAL DESCRIPTION
APN: 0434413220000
LOT 92 TRACT 131
ACRES: 5
ZONING: RESIDENTIAL AGRICULTURAL
GENERAL PLAN
20131 KNOLTE VISTA ST., APPLE VALLEY, CA. 92308
DAWN HARWELL 760-686-4388


Site Plan 20131 Monte Vista St. Apple Valley 92308
0434-191-02-0000 Dawn Harvell 760-868-4398
Legend
Feature 1
Feature 2
N
200 ft
Albert Vogler 877 ft
Why Song 800ft
Holmes #2 796 ft
Flanagan 749 ft
N/E Property Line
S/E Property Line
Future Kennel Site
Barn
shelter
Hen Laying house
Pierce House 380 ft
Main House
Temporary Kennel
shelter
shelter
New Kennel Site
S/W Property Line
N/W Property line
Jae Kim 546 ft
Google earth

KENNEL #1
CONSTRUCTION MATERIALS: Wood walls with stucco; Concrete floor; Soundproofed North
wall; Tile roof; Chain link kennels; chain link dog runs;
PROPOSED ADDITIONS: 5® outdoor dog run; concrete floor for all dog runs; soundproof all
walls and roof;

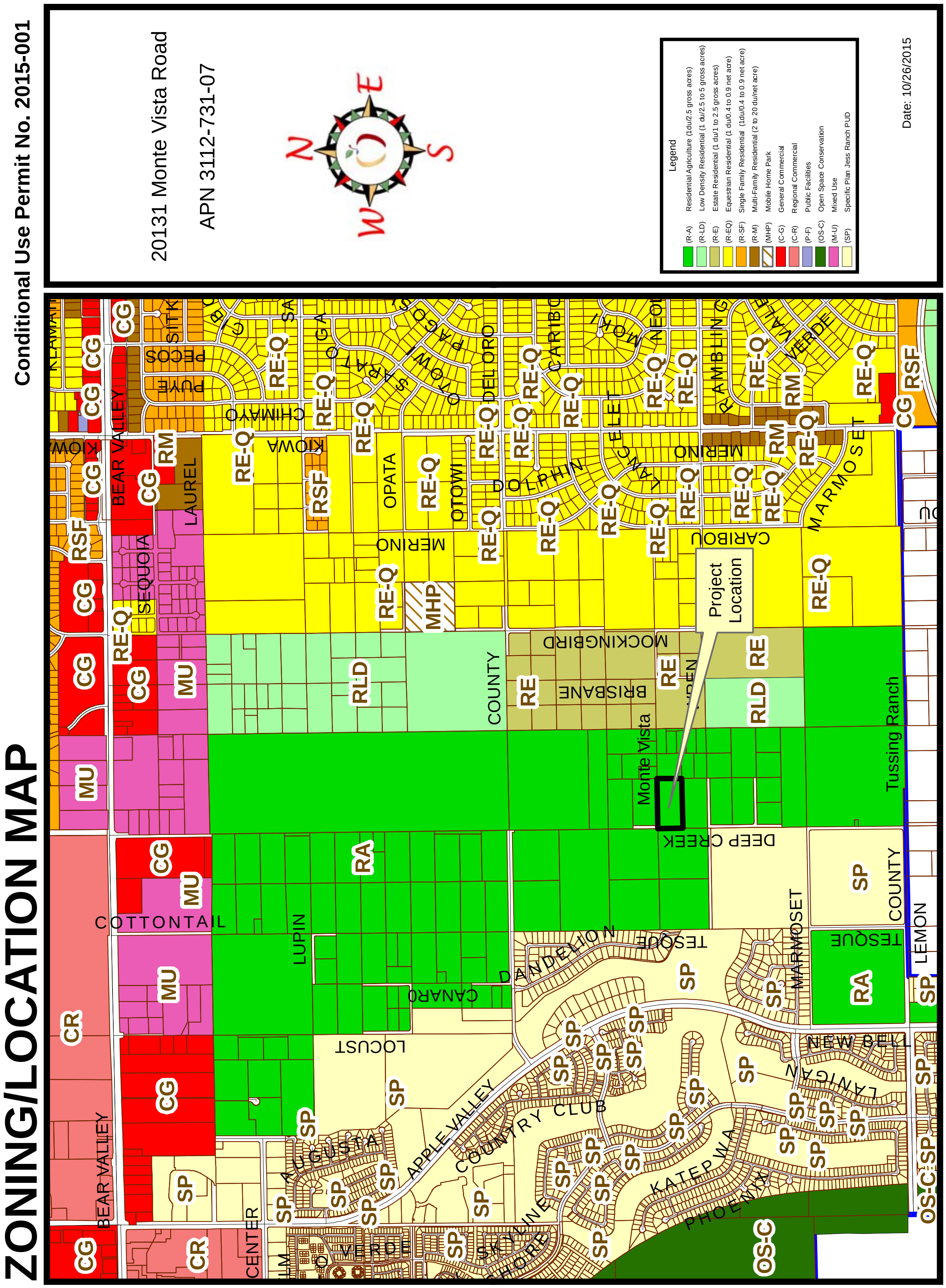

KENNEL #2
CONSTRUCTION MATERIALS: Soundproofed walls and ceiling; Wooden walls w/ wooden siding; Stainless Steel siding on interior walls; Concrete floor; Shingle roof;
PROPOSED ADDITIONS: 5 outside dog runs with concrete floor;



PROPOSED KENNEL

BUILDING HEIGHT: 7'8"

CONSTRUCTION MATERIALS: Sound proofing throughout; Concrete riser floor; Wood walls with Stucco or Siding, Outside dog runs have concrete floor with drains; Tile Roof; Kennels made of Wrought Iron; Dog Runs enclosed and separated with Chain Link Fencing;


Conditional Use Permit No. 2015-001
ZONING/LOCATION MAP
20131 Monte Vista Road
APN 3112-731-07
N
E
S
W
Legend
(R-A) Residential Agriculture (1du/2.5 gross acres)
(R-LD) Low Density Residential (1 du/2.5 to 5 gross acres)
(R-E) Estate Residential (1 du/1 to 2.5 gross acres)
(R-EQ) Equestrian Residential (1 du/0.4 to 0.9 net acre)
(R-SF) Single Family Residential (1du/0.4 to 0.9 net acre)
(R-M) Multi-Family Residential (2 to 20 du/net acre)
(MHP) Mobile Home Park
(C-G) General Commercial
(C-R) Regional Commercial
(P-F) Public Facilities
(OS-C) Open Space Conservation
(M-U) Mixed Use
(SP) Specific Plan Jess Ranch PUD
Date: 10/26/2015
Project Location
Monte Vista
Tussing Ranch
DEEP CREEK
MOCKINGBIRD
BRISBANE
CARIBOU
MERINO
COTTONTAIL
BEAR VALLEY
LOCUST
APPLE VALLEY
COUNTRY CLUB
TESQUE
NEW BELL
LEMON
MARMOSET

Monte Vista Rd. - private kennel 10-29-2015

Dear Ms. Harvell:

Thank you for taking time with me yesterday to explain the project.

We have concerns in the following areas:

1. Automobile traffic on the very narrow Monte Vista Rd. should require on-site parking. If autos are parked outside of the wall/fence and a fire engine or truck had to go east on Monte Vista, it could be unsafe. I realize that you stated the kennel would be private. Nevertheless, at some time I would imagine that vehicles other than those of the owner will be present.
2. Traffic exiting Monte vista onto Deep Creek Rd. is somewhat risky. The subject property has dead? trees blocking the line of site of northbound traffic on Deep Creek, and should be removed.
3. We are concerned about any trash either blowing on the site or leaving the site onto Monte Vista and/or adjacent property.
4. Animal noise could be a problem if the animals are allowed to roam freely outside of the buildings. Twenty dogs could certainly make a chorus.
5. Prompt cleanup of animal waste.
6. Will there be a requirement that the dogs are to be housed inside of the existing or new buildings?
7. Monte Vista is an unmaintained road. Since all rain runoff water flows westerly, that portion of the road in front of the site receives the most water and therefore potentially the most erosion. With potential extra traffic due to the kennel, the site owner should keep that portion of Monte Vista in a drivable condition for the adjacent property owners.

I hope that the kennel is a successful enterprise and that the owners do all possible to maintain their property, including fencing that is now hanging loose, to maintain a level of orderly appearance.

Thank you-

Al Vogler
rvogler461@aol.com
760 244-5091

Get a Slice of the Apple.

Agenda Item No. 4

TOWN OF APPLE VALLEY
PLANNING COMMISSION

Staff Report

AGENDA DATE: November 4, 2015

CASE NUMBER: Development Code Amendment No. 2015-006

APPLICANT: Town of Apple Valley

PROPOSAL: An amendment to Title 9 "Development Code" of the Town of Apple Valley Municipal Code by amending Chapter 9.75 "Water Conservation/Landscaping Regulations" for compliance with the State of California Code of Regulations Title 23, Division 2, Chapter 2.7 "Model Water Efficient Landscape Ordinance" and to add landscaping standards applicable to single-family, in-fill development.

LOCATION: Town-wide

ENVIRONMENTAL DETERMINATION: Staff has determined that the project is not subject to the California Environmental Quality Act (CEQA) pursuant to Section 15061(b)(3) of the State Guidelines to Implement CEQA, which states that the activity is covered by the general rule that CEQA applies only to projects that have the potential for causing a significant effect on the environment. Where it can be seen with certainty that there is no possibility that the activity in question, the proposed Code Amendment, may have a significant effect on the environment, the activity is not subject to CEQA.

CASE PLANNER:

RECOMMENDATION: Adopt Planning Commission Resolution No. 2015-010

BACKGROUND

Governor Brown's Drought Executive Order of April 1, 2015 (EO B-29-15) directed the Department of Water Resources to update the State's Model Water Efficient Landscape Ordinance (MWELO) through expedited regulation. On July 15, 2015 the updated MWELO was approved by the California Water Commission. The Governor's Order further mandates thal all

local agencies have until December 1, 2015 to adopt the Ordinance or adopt their own ordinance which must be at least as effective in conserving water as the State's Ordinance. If a local agency does not take action on a water efficient landscape ordinance by the specified date, the State's Ordinance becomes effective by default.

On April 7, 2015, the Community Development Department hosted a workshop with developers and others. to discuss single family residential in-fill development. Items discussed included design and landscaping standards. As a result of that workshop the ad hoc committee was formed to closely examine the existing standards and discuss potential modifications to the Development Code. This amendment will add landscape design standards, as recommended by the ad hoc committee, specific to single family infill development.

DISCUSSION

The last amendment to Chapter 9.75 "Water Conservation/Landscaping Regulations" was in 2006 when the Town made revision that required all single family infill to provide landscaping within the required front and street side yard setbacks. The revisions further included provisions that all new landscapes requiring water conservation in landscape design rather than only encouraging its use. The modifications were based upon a model ordinance created by the Mojave Water Agency and used a turf limitation approach instead of the more complicated water budget approach.

In 2009 the State adopted its own Model Water Efficient Landscape Ordinance (MWELO). Local agencies were ordered to adopt the ordinance or demonstrate that local regulations were as effective as the state's MWELO. At the time, the Town's regulations were more effective that the MWELO. The most recent revisions to the State's MWELO are now more restrictive than the Town's current Code; therefore, an amendment is necessary. This amendment includes the requirement to establish a water budget approach to all new landscapes requiring a permit. The water budget approach is complicated; however, staff will develop simplified forms to help with the calculations. Some of the more significant modifications include the following:

- Landscape plans must include the Water Use Classification of Landscape Species (WUCOLS) and/or labeling and dimensions for each hydrozone.
- Separate landscape meters will be required for all commercial projects over 1,000 square feet and residential projects or 2,500 square feet.
- Landscapes over 500 square feet will need to submit Certificates of Completion, landscape and irrigation maintenance schedule and an irrigation audit and irrigation water use analysis.
- Turf is not permitted for any non-residential development.

A copy of the State's MWELO has been attached for reference.

At the local level, the ad hoc committee reviewed all existing landscape standards applicable to single family infill developments. The recommendations of the committee are included within this amendment as Section 9.75.060(C) "Landscape Requirements for Single-Family Infill Development". Single-family infill landscapes are required to comply with the modifications consistent with the MWELO. The Ad Hoc committee does recommend a significant reduction to the amount of landscape required. Some of the recommended modifications include the following:

- The minimum landscaped area shall be determined as follows:

  Front yard - 25% of the land area within the required front yard setback or 5,000 square feet, whichever is less. ***(Reduced from the entire front yard setback.)***

  Street Side yard - 25% of the land area within the required street side yard setback or 2,500 square feet, whichever is less. This area can further be reduced with the installation of a solid wall or fence, then only the strip of land between the wall or fence and public right of way shall be landscaped. ***(Reduced from the entire side yard setback.)***

- The use of turf may not exceed twenty-five (25) percent of the total landscaped area.
- A minimum of one (1) tree and ten (10) shrubs shall be required per fifty (50) feet of street frontage. ***(Reduced from 1 tree and 6 shrubs per 30 feet.)***
- Minimum size shall be five (5) gallon shrubs and fifteen (15) gallon trees.
- Fifty (50) percent of trees shall be canopy trees.

Attached for Commission consideration is the strike-thru/underline version of the proposed changed to Development Code Section 9.75 "Water Conservation/Landscaping Regulations".

FINDINGS

An amendment to the Development Code requires that the Planning Commission address two (2) required "Findings", as listed within Development Code Section 9.06.060. For Commission consideration, the required Findings are listed below, along with a comment addressing each. If the Commission concurs with these comments, they may be adopted and forwarded to the Council for its consideration of the Development Code Amendment. If the Commission wishes modifications to the offered comments, after considering input and public testimony at the public hearing, modifications to the Findings and Code Amendment recommendations can be included into the information forwarded to the Council for consideration.

A. The proposed amendment is consistent with the General Plan; and

Comment: The General Plan provides the basic framework for land development within the Town of Apple Valley, with the Development Code setting the specific standards and criteria to fulfill the General Plan's Goals and Policies. The proposed Code Amendment increases the regulations for water conservation and landscaping for new development. The changes proposed to the Development Code would continue to protect the property values and providing an improved living environment for Apple Valley residents.

B. The proposed amendment will not be detrimental to the public health, safety or welfare of the Town or its residents.

Comment: Amending the Code as proposed under Development Code Amendment No. 2015-006 will amend the Town's Development Code as it pertains to the water conservation and landscape regulations for new development. The Development

Code Amendment would increase these regulations requiring that all new development conform to regulations that will further assist the conservation of water in Apple Valley and within the Victor Valley region. Thus, the amendment proposed shall result in a change to the Code that addresses the community's living environment while providing for the health, safety and general welfare of the citizens of the Town of Apple Valley.

NOTICING

Development Code Amendment No. 2015-006 was advertised as a public hearing in the Apple Valley News newspaper on October 23, 2015.

ENVIRONMENTAL REVIEW

Staff has determined that the project is not subject to the California Environmental Quality Act (CEQA) pursuant to Section 15061(b)(3) of the State Guidelines to Implement CEQA, which states that the activity is covered by the general rule that CEQA applies only to projects that have the potential for causing a significant effect on the environment. Where it can be seen with certainty that there is no possibility that the activity in question, the proposed Code Amendment, may have a significant effect on the environment, the activity is not subject to CEQA.

RECOMMENDATION

Following receipt of public input and discussion by the Commission, it is recommended that the Commission move to approve Planning Commission Resolution No. 2015-010, forwarding a recommendation that the Town Council amend Title 9 "Development Code" of the Town of Apple Valley Municipal Code as outlined within the staff report.

Prepared By:	**Reviewed By:**
Pam Cupp Associate Planner	Carol Miller Principal Planner

Attachment:

1. Strike-thru/underline Proposed Chapter 9.75 "Water Conservation/Landscaping Regulations
2. California Code of Regulations Title 23, Division 2, Chapter 2.7 "Model Water Efficient Landscape Ordinance (MWELO)"
3. Planning Commission Resolution No. 2015-010

CHAPTER 9.75 WATER CONSERVATION/LANDSCAPING REGULATIONS

SECTIONS:

~~9.75.010 GENERAL PROVISIONS *(AMENDED ORD. 326, 355)*~~

9.75.010 PURPOSE

The purpose of this Chapter is to provide minimum water conservation and landscape development standards which will promote the general welfare of Apple Valley residents through the provision of an outdoor environment which will:

A. Use water efficiently without waste by setting a Maximum Applied Water Allowance as an upper limit for water use and reduce water use to the lowest practical amount**.**
B. Create aesthetically pleasing views and vistas along public streets.
C. Complement and enhance the functional and aesthetic design of new building and site development projects so as to protect and enhance property values.
D. Use water conservation designs that create a mini-oasis concept, where plants and turf are concentrated in areas near buildings where they may be enjoyed at a pedestrian level.
E. Provide visual screening of parking, service and storage areas.
F. Mitigate the adverse impacts of higher intensity land uses upon lower intensity uses through the provision of needed landscape buffers.
G. Promote water conservation by restricting the use of turf and ornamental water features and requiring the utilization of low water use plant materials.
H. Promote climate modifications for enhancement of pedestrian environment at street frontages, parking lots and building facades.
I. Provide maximum shade on ground surfaces to reduce the "urban heat island effect" produced by large expanses of unprotected paved areas.

9.75.020 APPLICABILITY

A. All persons owning, developing or maintaining property subject to the provisions of this Chapter shall comply with all applicable provisions contained herein. The landscape standards and requirements established by this Chapter shall apply to all new developments that require the approval of a building permit, site development plan or Development Permit.
B. No Building Permit shall be approved or issued unless the Planning Division finds that the project satisfies the criteria set forth in this Chapter.

C. Cemeteries shall only be required to provide scheduled irrigation based on CIMIS (California Irrigation Management Information System) or conduct water audits every three (3) years with strict adherence to the recommendations in the water audit. CIMIS and water audits shall be submitted to the water serving entity for compliance.

D. This Chapter does not apply to the following:

1. Registered local, state or federal historical sites;
2. Ecological restoration projects that do not require a permanent irrigation system;
3. Mined-land reclamation projects that do not require a permanent irrigation system; or
4. Existing plant collections, as part of botanical gardens and arboretums open to the public.

E. The provisions California Code of Regulations Title 23, Division 2, Chapter 2.7 "Model Water Efficient Landscape Ordinance (MWELO)", which may be amended from time to time are made part of this Chapter by reference with the same force and effect as if the provisions therein were specifically and fully set out herein, excepting that when the provisions of this chapter are more restrictive than conflicting State provisions, this chapter shall prevail.

9.75.030 DEFINITIONS

Application Rate means the depth of water applied to a given area, usually measured in inches per hour.

Applied Water means the portion of water supplied by the irrigation system to the landscape.

Automatic Irrigation Controller means a timing device used to remotely control valves that operate an irrigation system. Automatic irrigation controllers are able to self-adjust and schedule irrigation events using either evapotranspiration (weather-based) or soil moisture data. ~~mechanical or solid state timer, capable of operating valve stations to set the days and length of time of a water application.~~

Backflow Prevention Device means a safety device used to prevent pollution or contamination of the water supply due to the reverse flow of water from the irrigation system.

Bubbler Emitter – See Low Volume Irrigation Systems

Certified Irrigation Designer means a person certified to design irrigation systems by an accredited academic institution, a professional trade organization or other program such as the US Environmental Protection Agency's WaterSense irrigation designer certification program and Irrigation Association's Certified Irrigation Designer program.

Certified Landscape Irrigation Auditor means a person certified to perform landscape irrigation audits by an accredited academic institution, a professional trade organization or other program such as the US Environmental Protection Agency's WaterSense irrigation auditor certification program and Irrigation Association's Certified Landscape Irrigation Auditor program.

Check Valve or anti-drain valve means a valve located under a sprinkler head, or other location in the irrigation system, to hold water in the system to prevent ~~so it minimizes~~ drainage from ~~the lower elevation downstream~~ sprinkler heads when the sprinkler is off.

Common Open Space means the land within or serving as a part of a development, not individually owned or dedicated for public use, which is designed and intended for the common use or enjoyment of the residents of the development and may include such complementary structures and improvements as are necessary and appropriate.

Compost means the safe and stable product of controlled biologic decomposition of organic materials that is beneficial to plant growth.

Conversion Factor (0.62) means the number that converts acre-inches per acre per year to gallons per square foot per year.

Distribution Uniformity means the measure of the uniformity of irrigation water over a defined area.

Drip Emitter – See Low Volume Irrigation System.

Drip Irrigation means any non-spray low volume irrigation system utilizing emission devices with a flow rate measured in gallons per hour. Low volume irrigation systems are specifically designed to apply small volumes of water slowly at or near the root zone of plants.

Ecological Restoration Project means a project where the site is intentionally altered to establish a defined, indigenous, historic ecosystem.

Effective Precipitation or Usable Rainfall (EPPT) means the portion of total precipitation which becomes available for plant growth.

Electric Automatic Controllers refers to time clocks that have the capabilities of multi-programming and multiple start times in order to control amount of water applied to landscaping.

Emitter means a drip irrigation emission device that delivers water slowly from the system to the soil.

Established Landscaping means the point at which new plants in the landscape have developed roots into the soil adjacent to the root ball.

Establishment Period means the first year after installing the plant in the landscape.

Estimated Total Water Use (ETWU) is the estimated water needs calculated and based on the plants used and irrigation method selected for the landscape design. The ETWU must be below the Maximum Applied Water Allowance.

ET Adjustment Factor (ETAF) means a factor of 0.55 for residential areas and 0.45 for non-residential areas, 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. The ETAF for new and existing (non-rehabilitated) Special Landscape Areas shall not exceed 1.0. The ETAF for existing non-rehabilitated landscapes is 0.8.

Evapotranspiration Rate means the quantity of water evaporated from adjacent soil and other surfaces and transpired by plants during a specified time.

Flow Rate means the rate at which water flows through pipes, valves and emission devices, measured in gallons per minute, gallons per hour, or cubic feet per second.

Flow Sensor means an inline device installed at the supply point of the irrigation system that produces a repeatable signal proportional to flow rate. Flow sensors must be connected to an automatic irrigation controller, or flow monitor capable of receiving flow signals and operating master valves. This combination flow sensor/controller may also function as a landscape water meter or submeter.

Friable means a soil condition that is easily crumbled or loosely compacted down to a minimum depth per planting material requirements, whereby the root structure of newly planted material will be allowed to spread unimpeded.

Fuel Modification Plan Guideline means guidelines from a local fire authority to assist residents and businesses that are developing land or building structures in a fire hazard severity zone.

Graywater means untreated wastewater that has not been contaminated by any toilet discharge, has not been affected by infectious, contaminated, or unhealthy bodily wastes, and does not present a threat from contamination by unhealthful processing, manufacturing, or operating wastes. "Graywater" includes, but is not limited to, wastewater from bathtubs, showers, bathroom washbasins, clothes washing machines, and laundry tubs, but does not include wastewater from kitchen sinks or dishwashers. Health and Safety Code Section 17922.12.

Hardscapes shall mean any durable material (pervious and non-pervious) such as concrete and/or inorganic decorative landscape materials, including but not limited to, stones, boulders, cobbles, pavers, decorative concrete, etc. ~~and/or mulch, incorporated into an overall landscape design~~.

Hydrozone means a portion of the landscaped area having plants with similar water needs and rooting depth. A hydrozone may be irrigated or non-irrigated. Hydrozones are categorized as low, moderate, high water, or mixed water use. Temporarily irrigated areas of the landscape shall be included in the low water use hydrozone for the water budget calculation. ~~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. For example: A naturalized area planted with native vegetation that will not need supplemental irrigation (once established) is a non-irrigated Hydrozone.~~

Infiltration Rate means the rate of water entry into the soil expressed as a depth of water per unit of time (inches per hour).

Interior Open Space is that open space enclosed by line extensions of the exterior walls of one or more buildings constructed on a common building site.

Invasive Plant Species means species of plants not historically found in California that spread outside cultivated areas and can damage environmental or economic resources. Invasive species may be regulated by county agricultural agencies as noxious species. Lists of invasive plants are maintained at the California Invasive Plant Inventory and USDA invasive and noxious weeds database.

Irrigation Audit means an in-depth evaluation of the performance of an irrigation system conducted by a Certified Landscape Irrigation Auditor. An irrigation audit includes, but is not limited to: inspection, system tune-up, system test with distribution uniformity or emission uniformity, reporting overspray or runoff that causes overland flow, and preparation of an irrigation schedule. The audit must be conducted in a manner consistent with the Irrigation Association's Landscape Irrigation Auditor Certification program or other U.S. Environmental Protection Agency "Watersense" labeled auditing program.

Irrigation Efficiency means 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 for overhead spray devices and 0.81 for drip systems .

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

Irrigation Water Use Analysis means an analysis of water use data based on meter readings and billing data.

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

Landscape Area means all the planting areas, turf areas, and water features in a landscape design plan subject to the Maximum Applied Water Allowance calculation. The landscape area does not include footprints of buildings or structures, sidewalks, driveways, parking lots, decks, patios, gravel or stone walks, other pervious or non-pervious hardscapes, and other non-irrigated areas designated for non-development (e.g., open spaces and existing native vegetation). ~~shall mean the entire parcel less the building footprint, driveways and non-irrigated portions of parking lots including hardscapes, such as decks, patios and other non porous areas. Water features (including pools and ponds) are included in the calculation of the landscaped area. Areas dedicated to edible plants, such as orchards or vegetable gardens, are not included.~~

Landscape Contractor means a person licensed by the state of California to construct, maintain, repair, install, or subcontract the development of landscape systems.

Landscaping means all living plants such as trees, shrubs, vines, vegetative ground cover, organic or inorganic materials, earthen berms, walls, walkways, plazas, courtyards, lighting, benches, trash containers, ponds, fountains, sculptures, and other site furnishings creating an attractive environment. It also includes decorative materials such as bark, rock or stone which are allowed to be used in conjunction with live material planting beds.

Landscape Plan. A graphic representation of the development of a site that illustrates the nature, design, and location of all landscaping and irrigation elements and materials.

Landscape Water Meter means an inline device installed at the irrigation supply point that measures the flow of water into the irrigation system and is connected to a totalizer to record water use.

Lateral Line means the water delivery pipeline that supplies water to the emitters or sprinklers from the valve.

Low Volume Irrigation systems means the application of irrigation water at low pressure through a system of tubing or lateral lines and low-volume emitters such as drip, drip lines, and bubblers. Low volume irrigation systems are specifically designed to apply small volumes of water slowly at or near the root zone of plants. ~~shall mean appropriately designed irrigation systems that utilize low volume devices appropriate to the climatic and site factors. Such heads include micro sprinkler heads, drip emitters and bubbler emitters.~~

Low Water Use Plant Material means trees, shrubs and ground covers that survive with a limited amount of supplemental water, as identified in the Approved Plant list.

Main Line is the pressurized pipeline that delivers water from the water source to a valve or outlet.

Master Shut-Off Valve is an automatic valve installed at the irrigation supply point which controls water flow into the irrigation system. When this valve is closed water will not be supplied to the irrigation system. A master valve will greatly reduce any water loss due to a leaky station valve.

Maximum Applied Water Allowance (MAWA) means the upper limit of annual applied water for the established landscaped area as specified in Section 492.4. It is based upon the area's reference evapotranspiration, the ET Adjustment Factor, and the size of the landscape area. The Estimated Total Water Use shall not exceed the Maximum Applied Water Allowance. Special Landscape Areas, including recreation areas, areas permanently and solely dedicated to edible plants such as orchards and vegetable gardens, and areas irrigated with recycled water are subject to the MAWA with an ETAF not to exceed 1.0.

MAWA = (ETo) (0.62) [(ETAF x LA) + ((1-ETAF) x SLA)]. The ETo factor for Apple Valley is 66.2 and the ETAF is 0.55 for residential and 0.45 for non-residential.

Median is an area between opposing lanes of traffic that may be unplanted or planted with trees, shrubs, perennials, and ornamental grasses.

Micro Sprinkler - See Low Volume Irrigation Systems.

Microclimate means the climate of a small, specific area that may contrast with the climate of the overall landscape area due to factors such as wind, sun exposure, plant density, or proximity to reflective surfaces.

Mined-Land Reclamation Projects means any surface mining operation with a reclamation plan approved in accordance with the Surface Mining and Reclamation Act of 1975.

Mulch means any organic material such as leaves, bark, straw, compost or inorganic mineral material such as pebbles, stones, gravel and decorative sand or decomposed granite left loose and applied to the soil surface to reduce evaporation suppressing weeds, moderating soil temperature, and preventing soil erosion.

Native Plants means plants that are : (1) Indigenous to the desert region of California, Nevada and/or Arizona; and (2) Native to the southwestern United States and northern Mexico and (3) are low to minimal water users.

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

Non-Residential Landscape means landscapes in commercial, institutional, industrial and public settings that may have areas designated for recreation or public assembly. It also includes portions of common areas of common interest developments with designated recreational areas.

Operating Pressure means the pressure at which the parts of an irrigation system are designed by the manufacturer to operate.

Overdraft shall mean that situation wherein the current total annual consumptive use of water in the Mojave Basin Area exceeds the long-term average annual natural water supply to the Basin Area or Sub Area.

Overhead Sprinkler Irrigation Systems or Overhead Spray Irrigation Systems means systems that deliver water through the air (e.g., spray heads and rotors).

Overspray shall mean the water, which is delivered beyond the landscaped area, wetting pavements, walks, structures or other non-landscaped areas.

Parkway means the area of a public street that lies between the curb and the adjacent property line or physical boundary definition such as fences or walls, which is used for landscaping and/or passive recreational purposes.

Pervious means any surface or material that allows the passage of water through the material and into the underlying soil.

Plant Factor Or Plant Water Use Factor is a factor, when multiplied by ETo, estimates the amount of water needed by plants. For purposes of this ordinance, the plant factor range for very low water use plants is 0 to 0.1, the plant factor range for low water use plants is 0.1 to 0.3, the plant factor range for moderate water use plants is 0.4 to 0.6, and the plant factor range for high water use plants is 0.7 to 1.0. Plant factors

cited in this ordinance are derived from the publication "Water Use Classification of Landscape Species". Plant factors may also be obtained from horticultural researchers from academic institutions or professional associations as approved by the California Department of Water Resources (DWR).

Qualified Professional means a person who has been certified by his or her professional organization or a person who has demonstrated knowledge and is locally recognized as qualified around Landscape Architects due to long time experience.

Rain Sensor or Rain Shutoff Device shall mean a system which automatically shuts off the irrigation

system when it rains.

Reclaimed Water, Recycled Water, or Treated Sewage Effluent Water, means treated or recycled waste water of a quality suitable for nonpotable uses such as landscape irrigation and water features. This water is not intended for human consumption. ~~water which has been processed by a municipal or comparable wastewater treatment plant and/or otherwise made available for reuse which has been approved by Federal, State or local regulatory agencies.~~

Recreation Areas means areas, excluding private single family residential areas, designated for active play, recreation or public assembly in parks, sports fields, picnic grounds, amphitheaters or golf course tees, fairways, roughs, surrounds and greens. ~~shall mean areas of active play or recreation such as sports fields, school yards, picnic grounds or other areas with intense foot traffic.~~

Reference Evapotranspiration (ETo) means a standard measurement of environmental parameters which affect the water use of plants. The ETo for Apple Valley is 66.2 inches per year, and is an estimate of the evapotranspiration of a large field of four- to seven-inch tall, cool-season grass that is well watered. Reference evapotranspiration is used as the basis of determining the Maximum Applied Water Allowances so that regional differences in climate can be accommodated.

Rehabilitated Landscape means any relandscaping project that requires a permit, plan check, or design review, and the modified landscape area is equal to or greater than 2,500 square feet. ~~shall mean any re-landscaping project that requires discretionary approval and any re-landscaping project whose choice of new plant material and/or 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 calculated for the site using a 0.6 ET Adjustment Factor.~~

Residential Landscape means landscapes surrounding single or multifamily homes.

Run Off means water which is not absorbed by the soil or landscape to which it is applied and flows from the area. For example: Run off may result from water that is applied at too great a rate (application rate exceeds infiltration rate), or when there is a severe slope.

Salvaged/Harvested Water. Storm water collected for landscape use.

Soil Moisture Sensing Device or Soil Moisture Sensor means a device that measures the amount of water in the soil. The device may also suspend or initiate an irrigation event.

Soil Texture means the classification of soil based on its percentage of sand, silt, and clay.

Special Landscape Area (SLA) means an area of the landscape dedicated solely to edible plants, recreational areas, areas irrigated with recycled water, or water features using recycled water.

Sprinkler Head shall mean a device which sprays water through a nozzle.

Static Water Pressure means the pipeline or municipal water supply pressure when water is not flowing.

Station shall mean an area served by one valve or by a set of valves that operate simultaneously.

Swing Joint means an irrigation component that provides a flexible, leak-free connection between the emission device and lateral pipeline to allow movement in any direction and to prevent equipment damage.

Submeter means a metering device to measure water applied to the landscape that is installed after the primary utility water meter.

Turf shall mean a surface layer of earth containing mowed grass with its roots.

Valve shall mean a device used to control the flow of water in the irrigation system.

Water Conserving Plant Species means a plant species identified as having a very low or low plant factor.

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

~~means any water applied to the landscape for non-irrigation, 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 Intensive Landscape*** means an area of land that is watered with a permanent water application system and planted primarily with plants not referred to in the "Low Water Use Plant List". Included is the total surface area of all water features (i.e. swimming pools of any size, fountains, ponds, water courses, waterfalls and other artificial water structures) filled or refilled with water from any source.~~

Water Waste shall mean any unreasonable or non-beneficial use of water or any unreasonable method or use of water, including but expressly not limited to, the specific uses, conditions, actions or omissions prohibited or restricted by the Ordinance, as hereinafter set forth.

Watering Window means the time of day irrigation is allowed.

WUCOLS means the Water Use Classification of Landscape Species published by the University of California Cooperative Extension and the Department of Water Resources 2014.

Xeriscape Landscaping. A water conservation concept that stresses the use of the appropriate plant material and irrigation techniques which are well suited for the local micro-climate. This concept incorporates native plants, selected hardscapes, and proper planting and irrigation techniques that improve the overall water efficiency of a landscape system.

Zone means an area served by one valve, sometimes referred to as a Station.

9.75.040 PROCESSING PROCEDURES AND SUBMITTAL REQUIREMENTS

As a condition of approval for any development proposal, the applicant shall submit a landscape documentation package to the Planning Division ~~plans~~ that include the following:

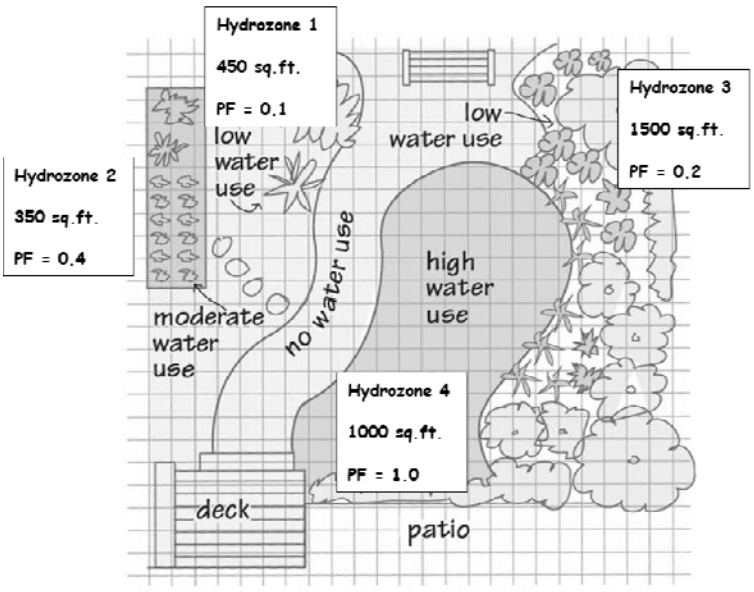
A. Landscape Plans. Plans submitted for residential development are not required to be prepared by a licensed Landscape Architect. All non-residential development requires a California licensed Landscape Architect, Architect, Landscape Contractor (within the scope of his/her license) or Certified Irrigation Designer shall prepare the landscape plans. All landscape plans submitted by the applicant shall be fully dimensioned and drawn at a minimum scale of one (1) inch equals thirty (30) feet (maximum sheet size 30" X 42") and contain the following information:

1. Date
2. Project applicant
3. Project address (if available, parcel and/or lot number(s))
4. Total landscape area (square feet), including a breakdown of turf and plant material
5. Project type (e.g., new, rehabilitated, public, private, cemetery, homeowner-installed)
6. Water supply type (e.g., potable, recycled, well) and identify the local retail water purveyor if the applicant is not served by a private well
7. Contact information for the project applicant and property owner
8. Applicant signature and date with statement, "I agree to comply with the requirements of the prescriptive compliance option to the MWELO" or for landscape area over 2,500 square feet , include the statement, "I agree to comply with the requirements of the water efficient landscape ordinance and submit a complete Landscape Documentation Package".
9. A table containing Lot size and breakdown of square feet with total percentage of lot area occupied by each of the following:
- ***a.*** Buildings;
- ***b.*** Paved areas;
- ***c.*** Irrigated landscape area
- ***d.*** Irrigated Turf area; and
- ***e.*** Hardscape area

10. A table listing the plant material including the plant symbols, common and botanical names, plant factor, sizes, spacing (if applicable), quantities, required guarantee and other remarks as appropriate to describe the plant selection. Table shall also include symbols and description of all inorganic materials schedule including type of materials (i.e. decomposed granite, river rock, Arizona stone, etc.).
11. Show all existing and proposed buildings, roof overhangs and other structures, paved areas, landscaped areas (including non-irrigated areas), power poles, fire hydrants, water meters, light standards, streets, street names, signs, fences/walls, water features (including pools and ponds), storm water retention/detention areas and other permanent features to be added and/or retained on site;
12. Show the location of existing and proposed plant materials. If required, to be preserved in place, indicated by botanical name and variety, common name, size and location. The location of all plant material shall be shown on the plan at approximately two-thirds the mature size of the plant material.
13. A diagram showing the amount of shading that the landscaping is expected to provide at its maturity with sun at its apex.
14. ***Additional Requirements.*** Landscape areas with an average WUCOL Plant Factor exceeding 0.3 and/or landscape areas that exceed 2,500 square feet, shall also include the following on the Landscape Plan:

- ***a.*** Delineate and label each hydrozone by number, letter, or other method;

b. Identify each hydrozone as low, moderate, high water, or mixed water use. Temporarily irrigated areas of the landscape shall be included in the low water use hydrozone for the water budget calculation.



Source: Santa Clara Valley Water District, "Rules of Thumb for Water-Wise Gardening"

c. Identify recreational areas.
d. Identify areas permanently and solely dedicated to edible plants;
e. Identify areas irrigated with recycled water;
f. Identify type of mulch and application depth (three (3)-inch minimum within all planting areas);
g. Identify soil amendments, type, and quantity;
h. Identify type and surface area of water features.
i. Identify any applicable rain harvesting or catchment technologies and its 24-hour retention or infiltration capacity.
j. Identify any applicable graywater discharge piping, system components and area(s) of distribution.
k. Attach a completed Water Efficient Landscape Worksheet with hydrozone information table and water budget calculations.
l. Soils Management Report. In order to reduce runoff and encourage healthy plant growth, a soil management report shall be completed by the project applicant, or his/her designee, as follows:

1) Submit soil samples to a laboratory for analysis and recommendations.
2) Soil sampling shall be conducted in accordance with laboratory protocol, including protocols regarding adequate sampling depth for the intended plants.
3) The soil analysis shall include:

a) Soil texture;
b) Infiltration rate determined by laboratory test or soil texture infiltration rate table;
c) Ph;
d) Total soluble salts;
e) Sodium;
f) Percent organic matter; and
g) Recommendations.

4) In projects with multiple landscape installations (i.e. production home developments) a soil sampling rate of 1 in 7 lots or approximately 15% will satisfy this requirement. Large landscape projects shall sample at a rate equivalent to 1 in 7 lots.

5) The project applicant, or his/her designee, shall comply with one of the following:

a) 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

b) If significant mass grading is planned, the soil analysis report shall be submitted to the local agency as part of the Certificate of Completion.

6) The soil analysis report shall be made available, in a timely manner, to the professionals preparing the landscape design plans and irrigation design plans to make any necessary adjustments to the design plans.

7) The project applicant, or his/her designee, shall submit documentation verifying implementation of soil analysis report recommendations to the local agency with Certificate of Completion.

~~***15. Final Planting Plans Shall Contain the Following Minimum Information:***~~

~~***16.*** All proposed lawn areas and ground cover areas shall be identified, including the types and amounts of living plant materials to be used and the size and depth of non-living materials. The manner in which any lawn areas are to be established shall be included.~~

B. Irrigation Design Plan. All irrigation plans shall contain the following minimum information:

~~Irrigation details and pressure loss calculations.~~

1. Location and size of separate water meters for landscape, if applicable.

2. Location, type and size of all components of the irrigation system, including controllers, main and lateral lines, valves, sprinkler heads, moisture sensing devices, rain switches, quick couplers, pressure regulators, and backflow prevention devices;

3. A table including the manufacturer and a description of all parts use in the irrigation plan.

4. Details of the backflow prevention devices, valves, sprinkler heads, controllers, etc.

5. Static water pressure at the point of connection to the public water supply;

6. Flow rate (gallons per minute), application rate (inches per hour), and design operating pressure (pressure per square inch) for each station;

7. Recycled water irrigation systems, if any;

8. The following statement: "I have complied with the criteria of the ordinance and applied them accordingly for the efficient use of water in the irrigation design plan"; and

9. The signature of a licensed landscape architect, certified irrigation designer, licensed landscape contractor, or any other person authorized to design an irrigation system.

C. Additional requirements. Landscape areas with an average WUCOL Plant Factor exceeding 0.3 and/or landscape areas that exceed 2,500 square feet, shall also provide the following documentation upon submittal:

1. Water Efficient Landscape Worksheet;

a. Hydrozone information table

b. Water budget calculations

1) Maximum Applied Water Allowance (MAWA)

2) Estimated Total Water Use (ETWU)

2. Soil management report;
3. Grading design plan.

D. Project Completion. Landscape areas 500 square feet or greater shall submit the following to the Planning Division prior to the project's final inspection for occupancy:

1. A Certificate of Completion shall be provided to the Planning Division, local water purveyor and the property owner or his or her designee. containing the following information:

a. Project information sheet that contains:

1) date;
2) project name;
3) project applicant name, telephone, and mailing address;
4) project address and location; and
5) property owner name, telephone, and mailing address;

b. 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;

a. Where there have been significant changes made in the field during construction, these "as-built" or record drawings shall be included with the certification;
b. A diagram of the irrigation plan showing hydrozones shall be kept with the irrigation controller for subsequent management purposes.

c. Irrigation scheduling parameters used to set the controller

2. Landscape and irrigation maintenance schedule. Landscapes shall be maintained to ensure water use efficiency. A regular maintenance schedule shall be submitted with the Certificate of Completion.

a. A regular maintenance schedule shall include, but not be limited to, routine inspection; auditing, adjustment and repair of the irrigation system and its components; aerating and dethatching turf areas; topdressing with compost, replenishing mulch; fertilizing; pruning; weeding in all landscape areas, and removing obstructions to emission devices. Operation of the irrigation system outside the normal watering window is allowed for auditing and system maintenance.
b. Repair of all irrigation equipment shall be done with the originally installed components or their equivalents or with components with greater efficiency.
c. A project applicant is encouraged to implement established landscape industry sustainable Best Practices for all landscape maintenance activities.

3. **Irrigation Audit, Irrigation Survey, and Irrigation Water Use Analysis.**

a. (a) All landscape irrigation audits shall be conducted by a local agency landscape irrigation auditor or a third party certified landscape irrigation auditor. Landscape audits shall not be conducted by the person who designed the landscape or installed the landscape.
b. (b) In large projects or projects with multiple landscape installations (i.e. production home developments) an auditing rate of 1 in 7 lots or approximately 15% will satisfy this requirement.
c. The project applicant shall submit an irrigation audit report with the Certificate of Completion to the Planning Division that may include, but is not 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;

~~75.020 NEW LANDSCAPE IMPROVEMENT PROJECTS *(Amended Ord. 326, 355)*~~

9.75.050 WATER CONSERVING LANDSCAPE DESIGN STANDARDS

For the efficient use of water, a landscape shall be carefully designed and planned for the intended function of the project. All landscape design plans must meet the following design criteria:

A. Use only those plants officially approved on the currently adopted ~~low water use~~ plant list or alternative plants as approved by the Director.

B. Any plant from the list may be selected for the landscape, providing the Estimated Total Water Use in the landscape area does not exceed the Maximum Applied Water Allowance.

C. Turf Limitations on New Landscaping Projects.

1. Turf shall not exceed twenty-five (25) percent of the total landscape in any residential areas ~~All new landscaping for the front and street side yards for new residential development shall be subject to the following requirements:; All landscaping for new non-residential development shall be subject to the following, unless specifically omitted in this Chapter, such as recreational uses. Recreational areas shall not be considered in calculating the percentage of the total lot area and shall not be considered in determining compliance with this Section.~~

2. Except for Special Landscape Areas, the use of turf for non-residential uses is prohibited.

3. 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).

4. Turf is prohibited within public rights-of-way, including parkways.

~~***I. Provisions for New Landscapes***~~

~~***a. Single Residential /Duplex.*** Landscaping shall be installed in the front yard of the residence meeting the following requirements:~~

~~1) Limit total area of water intensive landscaping/turf to not more than thirty (30) percent of the landscaped area (Up to a maximum of 900 square feet).~~
~~2) Use only low water use plants on all additional landscape areas.~~
~~3) Install low volume irrigations systems on any additional landscape areas.~~

~~***b. Residential Multi-Family Dwelling.*** Water Intensive Landscaping/Turf shall be limited to ten (10) percent of the first 9,000 square feet and five (5) percent of the remaining lot area up to one (1) acre. Additional acreage of development over one (1) acre shall be limited to a maximum of five (5) percent water intensive landscape/turf.~~

~~***c. Non-Residential Limitation on water intensive landscape and turf areas.*** The following types of facilities shall limit the water intensive landscape and turf within the landscape area to the following percentages of the total lot area, and all remaining landscape areas shall consist of plants identified on the approved plant list. Turf areas shall not be located within six (6) feet of a street, curb, paved surface or sidewalk if adjacent to a paved surface. Turf area may be located within six (6) feet of the aforementioned features if subterranean drip irrigation is used. The maximum slope of a turf area shall not exceed twenty five (25) percent.~~

~~1) Churches: Twenty five (25) percent~~

~~2) Resorts, including hotels and motels: Ten (10) percent of the total area.~~
~~3) Commercial, institutional and industrial uses: Shall be limited to ten (10) percent of the first 9,000 square feet and five (5) percent of the remaining lot area up to one (1) acre. Additional acreage of development over one (1) acre shall be limited to a maximum of five (5) percent water intensive landscape/turf.~~

~~***C.*** No water intensive landscape or turf shall be permitted in any right-of-way.~~

~~***a.*** The maximum slope of a turf area shall not exceed 4:1 or 25 percent.~~

~~***b.*** Turf areas shall not be located within six (6) feet of a street, curb, paved surface or sidewalk unless watered with subterranean drip irrigation.~~

~~***c.*** No area of turf (unless watered with subterranean drip irrigation) shall have a width less than five (5) feet unless adjacent to a planter bed or other landscape area which will catch overspray.~~

D. Each zone (hydrozone) shall have plant materials with similar water use.

E. Water Features

a) Recirculating water systems shall be used for water features.
b) Where available, recycled water shall be used as a source for decorative water features.
c) Surface area of a water feature shall be included in the high water use hydrozone area of the water budget calculation.
d) Pool and spa covers are highly recommended.

F. High water use plants, characterized by a plant factor of 0.7 to 1.0, are prohibited in street medians or right-of-way. ~~(unless watered with subterranean drip irrigation)~~

G. The use of invasive plant species, such as those listed by the California Invasive Plant Council, is strongly discouraged.

H. Artificial turf/plants are not limited.

I. Compacted soils, including areas of caliches, shall be transformed to a friable condition. On engineered slopes, only amended planting holes need meet this requirement.

J. Add soil additives within landscape areas to increase the water holding capacity of the soil and improve the health of the plants. For landscape installations, compost at a rate of a minimum of four cubic yards per 1,000 square feet of permeable area shall be incorporated to a depth of six inches into the soil. Soils with greater than 6% organic matter in the top 6 inches of soil are exempt from adding compost and tilling.

K. Cover final soil surfaces with organic or inorganic mulches to insulate against soil temperature extremes and conserve moisture. A minimum three inch (3″) layer of mulch shall be applied on all exposed soil surfaces of planting areas except in turf areas, creeping or rooting groundcovers, or direct seeding applications where mulch is contraindicated.

~~***L.*** Recreational areas shall not be considered in calculating percentage of the total lot area and shall not be considered in determining compliance with this Section, but shall be subject to the requirements of "Water Efficiency in Landscape Irrigation and Design".~~

M. ***Unity and Continuity*** Landscape unity and continuity may be significantly enhanced through the selection of a dominant tree and shrub species. Such dominance shall be established by making the selected species clearly in the majority of sixty (60) percent or more.

N. ***Tree and Shrub Placement in Proximity to Fire Hydrant.*** Trees, as measured from trunk center, shall be placed a minimum of five (5) feet from fire hydrants. Shrubs, as measured from their mature perimeter, shall be located a minimum of five (5) feet from the rear of a fire hydrant. In no case shall any material other than groundcover be placed between the street or roadway and within fifteen (15) feet of either side or front of a fire hydrant (Figure 9.75.020-A).

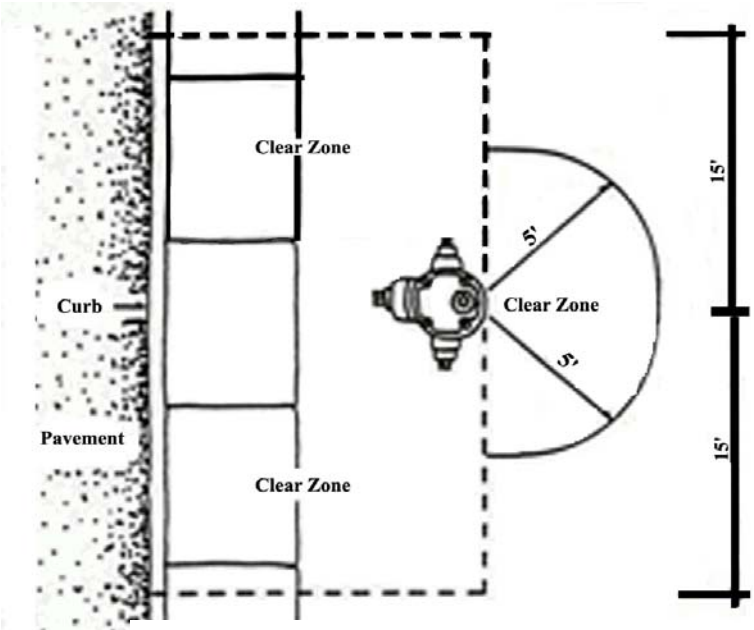


Figure 9.75.020-A Fire Hydrant Clear

O. Ground Surface Treatment

1. ***Pre-Treatment of Ground Surfaces Required.*** A ~~pre-emergent herbicide~~ mesh weed barrier shall be applied to the ground prior to ~~and after~~ the placement of natural surface materials (decomposed granite, gravel, crushed rock, river run rock, etc.) in any landscaped area to prevent weed growth.
2. ***Inorganic Ground Cover.*** Inorganic ground covers (decomposed granite, crushed stone, etc.) shall be of a natural color harmonious with other site and architectural materials and shall be installed to a minimum depth of two (2) inches.
3. ***Plant Cover/Dust Control.*** Unless otherwise provided for within this Chapter, all portions of a development site (including future building pads) not occupied by buildings, structures, paved improvements, and required landscape areas shall be temporarily landscaped with plant materials in accordance with this Chapter or treated with an appropriate inorganic ground cover and maintained in a weed and dust free condition.

P. Plant Massing. The massing of trees and shrubs into groups containing three (3) or more plants is required unless standards elsewhere within this Chapter require only a single element, e.g., single trees within parking lot planter islands. Planting of single shrub specimens, unless used to repeat an element already established within a massed planting within the same visual area, is prohibited.

Q. Plant Groupings (Hydrozones). The grouping of plant species commonly found together in natural associations or of common environmental requirements (soil type, water, sun exposure, temperature limitations, etc.) is required.

R. Plant Spacing. In order to foster a more natural look, an uneven spacing of plants is required unless such plants are being used to create a massed shrub or groundcover bed. The spacing of shrubs shall be sufficient to allow plants to reach their natural mature size and form.

S. Consistency with Existing Streetscape Standards. Street frontage landscaping shall be consistent with any previously adopted specific streetscape standards.

9.75.060 LANDSCAPE AREA AND MATERIAL REQUIREMENTS

A. Landscape Area Requirements for Residential Tracts, Multi-family Residential and All Non-Residential Development.

All portions of a development site not utilized for building development, service areas, paved or improved storage areas, parking, driveways, etc., shall be landscaped. Minimum areas of landscaping are as follows:

1. Front Building Setback/Street Right-of-Way Areas. All front building setback and street right-of-way areas located between on-site improvements and the back of existing or future public sidewalks or street curbs, except needed access driveways, shall be fully landscaped, unless otherwise provided for in this Development Code.

2. Parking Lot Area. The following landscaping standards apply to parking lots (Figure 9.75.020-A, B and C):

a. In order to reduce the "heat island effect" of large expanses of unprotected paved areas, a minimum of thirty (30) percent of the interior parking surface of all parking lots shall be shaded at the maturity of the landscaping.

b. Provide a minimum of one (1) tree (minimum fifteen (15) gallon size when planted) for each seven (7) parking spaces located so as to visually disrupt long rows of parking spaces, trees may be clustered where appropriate.

c. A thirty-six to forty-two (36-42)-inch high decorative masonry wall, hedge or landscaped berm, as measured from the finished grade of the parking area, shall also be used adjacent to public rights-of-way to screen the parking area. The height of the screening wall or berm may be reduced when the parking lot is below grade. Horizontal and vertical variations in the design of screening walls are required where the length of such walls exceed forty (40) feet. Said variations are subject to Planning Staff approval.

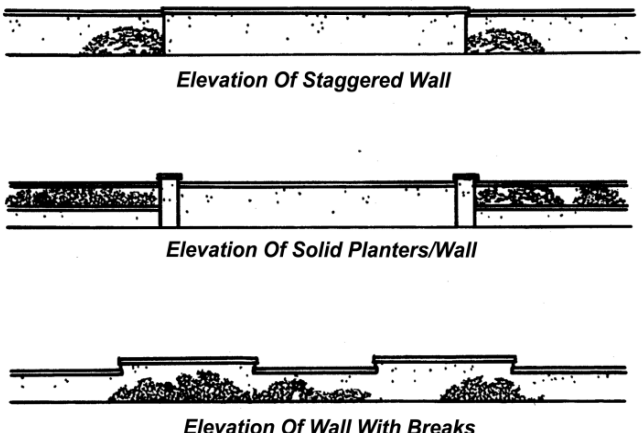


Figure 9.75.020-A Recommended Design Features and Materials

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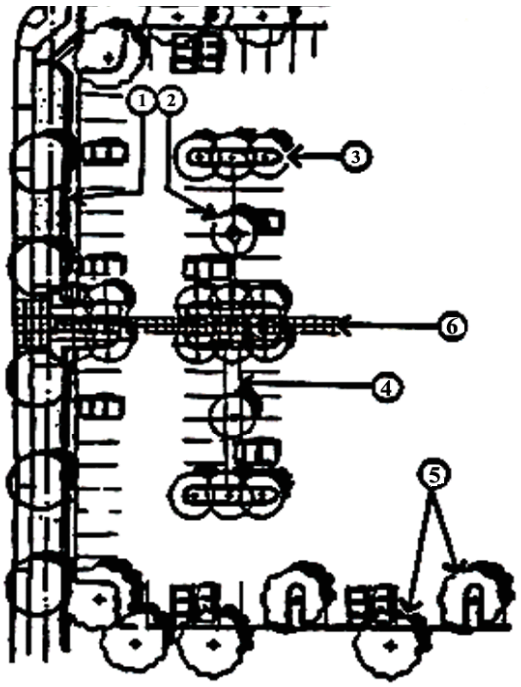
d. A minimum of five (5) percent of the interior parking surface area of all parking lots shall be landscaped. Such percentage may be achieved by combining ~~paragraph (1) below with paragraph (2) and/or (3)~~ the following:.

1) Planter islands a minimum of five (5) feet in width shall be located at the ends of all rows of parking stalls between the last stall and any drive aisle. Where drive aisles are curved, alternative dimensions with similar area may be approved (Figure 9.75.020-B); and

2) Planter islands, shall be uniformly distributed throughout the interior parking area, and protected by raised curbs (Figure 9.75.020-B); or

3) Planter strips, located between double rows of parking stalls, shall be a minimum of four (4) feet in width. Each parking stall may overhang two (2) feet into this area (Figure 9.75.020-B).

Figure 9.75.020-B Planter Islands/Strips

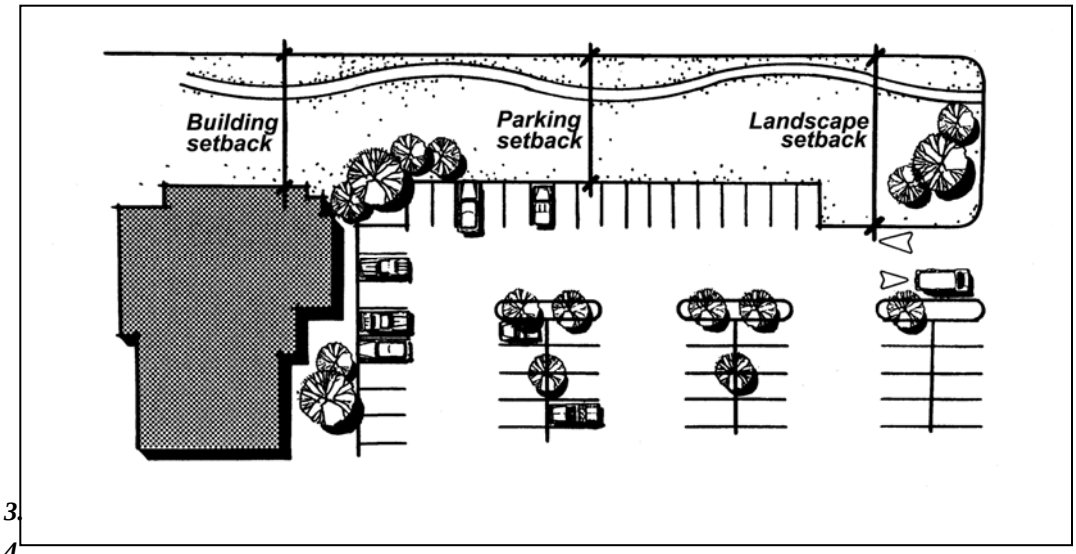


LEGEND

1 30" - 42" Block wall and/or berm.
2 Minimum 6' square tree well.
3 Minimum 6'x18' end of row planter island.
4 Planter strips a mimimum of 4' in width between double rows.
5 Minimum one tree per each 7 uninterrupted parking stalls.
6 Special paving at pedestrian circulation areas.

e. Trees within parking lots shall be kept trimmed to a minimum clear canopy height of six (6) feet for visual safety.

f. A landscaped strip with a minimum width of ten (10) feet shall be provided where parking lots are adjacent to a public right-of-way or residential uses or districts, unless otherwise provided for in this Code.



3.
4.

Figure 9.75.020-C Landscape Areas

3. Landscape Buffers/Perimeter Landscape Strips

a. Landscape Buffers. When providing a buffer between commercial/industrial and residential uses or districts the following features are required:

1) Landscaping shall include one (1) tree for each 200 square feet of required landscape area. Said tree shall be a minimum fifteen (15) gallon size when planted, twenty (20) percent of such required trees shall be twenty-four (24)-inch box size; and

2) A six (6)-foot decorative masonry wall reflecting the design, material, and color of the primary structures within the project, excluding approved gate openings; and

3) Evergreen trees a minimum of six (6) feet in height planted at a maximum spacing of twenty (20) feet on center and shrubs planted at a rate of five (5) per one hundred linear feet.

4. Front Building Setback Area. Landscaping in the front building setback area shall be provided at a minimum rate of one (1) tree and six (6) shrubs per thirty (30) linear feet of frontage plus sufficient groundcover plantings to provide combined shrub and ground coverage of fifty (50) percent of the total landscaped area. Trees and shrubs may be grouped, but gaps between groupings of plants shall not exceed forty (40) feet.

5. Other Perimeter Areas. Landscaping in other perimeter areas shall be provided at a minimum rate of one (1) tree and six (6) shrubs per forty (40) linear feet plus sufficient groundcover plantings to provide combined shrub and ground coverage of forty (40) percent of the total landscaped area, except where screening is required. Trees shall be a minimum fifteen (15) gallon size when planted, twenty (20) percent of which shall be twenty-four (24) inch box size. Trees and shrubs may be grouped, but gaps between groupings of plants shall not exceed fifty (50) feet.

B. Landscape Improvement Requirements. The following minimum landscape improvements are required within the following landscape areas:

1. Single-Family Residential Tracts and Multi-Family Residential Developments

a. Common open space/retention areas, A minimum of one (1) tree and six (6) shrubs per 500 square feet of open space plus such additional vegetative ground cover as is necessary to cover a minimum of fifty (50) percent of the total landscaped area with shrubs, ground cover and turf in accordance with subsection 9.75.9020.I above.

b. Arterial and collector street rights-of-way. Arterial and collector street rights-of-way adjacent to and within single and multi-family residential developments shall be landscaped at a rate of one (1) tree and three (3) shrubs per 30 linear feet plus such vegetative ground cover necessary to cover a minimum of forty (40) percent of the total landscaped area with shrubs and ground cover. Turf is prohibited within public rights-of-way.

2. Commercial/Office/Institutional Developments. One (1) tree and six (6) shrubs per 500 square feet of interior open space plus such additional ground cover which, upon maturity, will cover a minimum of fifty (50) percent of all interior open space surfaces. The inclusion of turf is subject to the limitations established in subsection 9.75.020.I above.

3. Industrial Developments. One (1) tree and six (6) shrubs per 750 square feet of interior open space plus such additional vegetative ground cover which, upon maturity, will cover a minimum of forty (40) percent of all interior open space surfaces. The inclusion of turf is subject to the limitations established in subsection 9.75.020.I above.

4. Grading in the Front Building Setback. Front setback areas shall be graded in a manner which creates natural and pleasing ground forms in accordance with the following guidelines:

a. A maximum of fifty (50) percent of the front building setback area may be used for storm water retention;

b. Soil excavated to create needed retention basins shall, within the slope limitations established below, be used to create complementary earth mounds elsewhere within the same front building setback area;

c. Earth mounds with a maximum slope ratio of four to one (4:1), horizontal to vertical, shall be located and designed to minimize street views into retention basins;

d. Grading and other site preparation shall preclude the run-off of rain and/or irrigation water from landscaped surfaces onto paved surfaces.

5. Finished Grade Surfaces. All landscaped areas shall be graded so that finish grade surfaces of all nonliving materials (i.e., decomposed granite, crushed rock, mulch, and the like) are at least one and one-half (11/2) inches below concrete or other paved surfaces.

6. Protection of Landscaped Areas. Landscaped areas adjacent to vehicular drives or parking areas shall be protected by a six (6)-inch vertical curb. Areas surfaced with different materials (i.e. lawn and decomposed granite) shall be separated by masonry, wood, or mowing strips.

~~***7. Irrigation Systems.*** The use of drip irrigation systems or systems of equivalent efficiency for all landscaping at commercial and industrial facilities and all common areas of residential developments is required. The use of similar systems on individual residential lots is encouraged.~~

C. ***Landscape Requirements for Single-Family In-fill Development.*** The following minimum landscape improvements are required within the following landscape areas:

1. The minimum landscaped area shall be determined as follows:

a. Front yard - 25% of the land area within the required front yard setback or 5,000 square feet, whichever is less.

b. Street Side yard - 25% of the land area within the required street side yard setback or 2,500 square feet, whichever is less. This area can further be reduced

with the installation of a solid wall or fence, then only the strip of land between the wall or fence and public right of way shall be landscaped.

2. Minimize the removal of native vegetation and incorporate these plants into the final landscape design.
3. The required landscape areas shall include a mix of organic and inorganic materials (i.e., gravel, crushed rock, river run rock, etc.). Decomposed granite is not a permitted ground cover within any irrigated, landscaped area.
4. A minimum of four (4) yards of compost per 1,000 square feet of irrigated landscaped area is required.
5. A mesh weed barrier is required prior to the placement of inorganic ground cover.
6. In all areas, imported, inorganic ground cover shall be installed to a minimum depth of two (2) inches.
7. In order to minimize run-off and increase water infiltration, areas identified with high caliche concentrations will require excavation, to a level below the caliche, prior to landscape installation.
8. Xeriscape landscaping is required for all front yards, street side yards. The use of turf is strongly discouraged.
9. The use of turf may not exceed twenty-five (25) percent of the total landscaped area.
10. Low water use plants and low volume irrigations systems are to be used on all additional landscape areas.
11. The use of artificial turf is not limited.
12. A minimum of one (1) tree and ten (10) shrubs shall be required per fifty (50) feet of street frontage.
13. Minimum size shall be five (5) gallon shrubs and fifteen (15) gallon trees.
14. Fifty (50) percent of trees shall be canopy trees as defined within the Section 9.75.050 "Approved Plant List".
15. Grouping of plants with similar water needs is required.
16. Uneven spacing is required to create a natural look.

17. ***Deferment of Landscape Installation Provisions.*** No Building Permit shall be approved or issued unless the Planning Division finds that the project satisfies the criteria set forth in this Chapter. Residential infill lots not built and permitted to the owner of the property is exempt from this requirement, provided that a deposit of an amount adopted by Council Resolution is submitted prior to issuance of building permits. For this exemption, a landscape plan implementing the criteria of this Chapter must be submitted and approved by the Planning Division prior to occupancy of the residence. The property owner is required to install the approved landscaping within six (6) months from the date of occupancy. Failure to complete the approved landscaping in said time frame will result in forfeiting the deposit to the Town and having the non-compliance of landscape requirements forwarded to the Code Enforcement Division for legal action. One extension of time not to exceed six (6) months may be approved at the discretion of the Director for special circumstances.

9.75.070 IRRIGATION DESIGN STANDARDS~~, GENERAL, SPECIAL PROVISIONS~~

This section applies to landscaped areas requiring permanent irrigation, not areas that require temporary irrigation solely for the plant establishment period. For the efficient use of water, an irrigation system shall meet all the requirements listed in this section and the manufacturers' 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 design criteria shall be submitted as part of the Landscape Documentation Package.

A. Automatic irrigation controllers are required and must use evapotranspiration or soil moisture sensor data and utilize a rain sensor. Sensors (rain, freeze, wind, etc.), either integral or auxiliary, that suspend or alter irrigation operation during unfavorable weather conditions shall be required on all irrigation systems, as appropriate for local climatic conditions. Irrigation should be avoided during windy or freezing weather or during rain.

B. Irrigation controllers shall be of a type which does not lose programming data in the event the primary power source is interrupted.

C. Pressure regulators shall be installed on the irrigation system to ensure the dynamic pressure of the system is within the manufacturers recommended pressure range.

D. Manual shut-off valves (such as a gate valve, ball valve, or butterfly valve) shall be installed as close as possible to the point of connection of the water supply to minimize water loss in case of an emergency (such as a main line break) or routine repair.

E. Backflow prevention devices shall be required to protect the water supply from contamination by the irrigation system. A project applicant shall refer to the applicable local agency code (i.e., public health) for additional backflow prevention requirements.

F. Flow sensors that detect high flow conditions created by system damage or malfunction are required for all on non-residential landscapes and residential landscapes of 5000 sq. ft. or larger.

G. Master shut-off valves are required on all projects except landscapes that make use of technologies that allow for the individual control of sprinklers that are individually pressurized in a system equipped with low pressure shut down features.

H. All irrigation emission devices must meet the requirements set in the ANSI standard, ASABE/ICC 802-2014. "Landscape Irrigation Sprinkler and Emitter Standard," All sprinkler heads installed in the landscape must document a distribution uniformity low quarter of 0.65 or higher using the protocol defined in ASABE/ICC 802-2014.

I. The irrigation system shall be designed to prevent runoff, low head drainage, overspray, or other similar conditions where irrigation water flows onto non-targeted areas, such as adjacent property, non-irrigated areas, hardscapes, roadways, or structures.

J. Relevant information from the soil management plan, such as soil type and infiltration rate, shall be utilized when designing irrigation systems.

K. The design of the irrigation system shall conform to the hydrozones of the landscape design plan.

L. The irrigation system must be designed and installed to meet, at a minimum, the irrigation efficiency criteria as described in the submitted Water Efficient Landscape Worksheet and the Maximum Applied Water Allowance.

M. Areas less than ten (10) feet in width in any direction shall be irrigated with subsurface irrigation or other means that produces no runoff or overspray.

N. In mulched planting areas, the use of low volume irrigation is required to maximize water infiltration into the root zone.

O. Sprinkler heads and other emission devices shall have matched precipitation rates, unless otherwise directed by the manufacturer's recommendations.

P. Head to head coverage is recommended. However, sprinkler spacing shall be designed to achieve the highest possible distribution uniformity using the manufacturer's recommendations.

Q. Swing joints or other riser-protection components are required on all risers subject to damage that are adjacent to hardscapes or in high traffic areas of turfgrass.

R. Check valves or anti-drain valves are required on all sprinkler heads where low point drainage could occur.

S. For non-residential projects with landscape areas of 1,000 sq. ft. or residential irrigated landscapes of 5,000 sq. ft. or greater, a submeter(s), to measure landscape water use shall be installed. The submeter may be privately owned or provided by the water purveyor,

T. At the time of final inspection, the permit applicant must provide the owner of the property with a certificate of completion, certificate of installation, irrigation schedule and a schedule of landscape and irrigation maintenance.

U. It is highly recommended that the project applicant or local agency inquire with the local water purveyor about peak water operating demands (on the water supply system) or water restrictions that may impact the effectiveness of the irrigation system.

V. Overhead irrigation shall not be permitted within 24 inches of any non-permeable surface. Allowable irrigation within the setback from non-permeable surfaces may include drip, drip line, or other low flow non-spray technology. The setback area may be planted or unplanted. The surfacing of the setback may be mulch, gravel, or other porous material. These restrictions may be modified if:

1. The landscape area is adjacent to permeable surfacing and no runoff occurs; or
2. The adjacent non-permeable surfaces are designed and constructed to drain entirely to landscaping; or
3. The irrigation designer specifies an alternative design or technology, as part of the Landscape Documentation Package and clearly demonstrates strict adherence to irrigation system design criteria in Section 492.7 (a)(1)(I). Prevention of overspray and runoff must be confirmed during the irrigation audit.

W. Slopes greater than 25% shall not be irrigated with an irrigation system with a application 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 and erosion must be confirmed during the irrigation audit.

X. Hydrozone

1. Each valve shall irrigate a hydrozone with similar site, slope, sun exposure, soil conditions, and plant materials with similar water use.
2. Sprinkler heads and other emission devices shall be selected based on what is appropriate for the plant type within that hydrozone.
3. Where feasible, trees shall be placed on separate valves from shrubs, groundcovers, and turf to facilitate the appropriate irrigation of trees. The mature size and extent of the root zone shall be considered when designing irrigation for the tree.
4. Individual hydrozones that mix plants of moderate and low water use, or moderate and high water use, may be allowed if:
   - ***a.*** Plant factor calculation is based on the proportions of the respective plant water uses and their plant factor; or
   - ***b.*** The plant factor of the higher water using plant is used for calculations.
   - ***c.*** Individual hydrozones that mix high and low water use plants shall not be permitted.
   - ***d.*** 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 (see Appendix B Section A). This table can also assist with the irrigation audit and programming the controller.

Y. Irrigation Scheduling. For the efficient use of water, all irrigation schedules shall be developed, managed, and evaluated to utilize the minimum amount of water required to maintain plant health. Irrigation schedules shall meet the following criteria:

1. Irrigation scheduling shall be regulated by automatic irrigation controllers.
2. Overhead sprinkler irrigation shall be scheduled to operate during the months of May through October, between the hours of 6:00 P.M. and 9:00 A.M. and during the remaining months of

November through April, between the hours of 9:00 A.M. and 3:00 P.M. to reduce water loss from wind and evaporation and to avoid ice during winter months. Drip irrigation and subterranean devices shall not be subject to this water window.

3. For implementation of the irrigation schedule, particular attention must be paid to irrigation run times, emission device, flow rate, and current reference evapotranspiration, so that applied water meets the Estimated Total Water Use. Total annual applied water shall be less than or equal to Maximum Applied Water Allowance (MAWA). Actual irrigation schedules shall be regulated by automatic irrigation controllers using current reference evapotranspiration data (e.g., CIMIS) or soil moisture sensor data.

4. Parameters used to set the automatic controller shall be developed and submitted for each of the following:

- ***a.*** the plant establishment period;
- ***b.*** the established landscape; and
- ***c.*** temporarily irrigated areas.

5. Each irrigation schedule shall consider for each station all of the following that apply:

- ***a.*** irrigation interval (days between irrigation);
- ***b.*** irrigation run times (hours or minutes per irrigation event to avoid runoff);
- ***c.*** number of cycle starts required for each irrigation event to avoid runoff;
- ***d.*** amount of applied water scheduled to be applied on a monthly basis;
- ***e.*** application rate setting;
- ***f.*** root depth setting;
- ***g.*** plant type setting;
- ***h.*** soil type;
- ***i.*** slope factor setting;
- ***j.*** shade factor setting; and
- ***k.*** irrigation uniformity or efficiency setting.

~~***6.*** Utilize efficient irrigation systems and maintain irrigation systems so they operate at peak efficiency. Lessen water demand by keeping weed growth down and by thinning unwanted wood from trees rather than cropping them.~~

~~***Irrigation Operation- Systems must be designed and operated to maximize irrigation efficiency***.~~

- ~~***A.*** Valves shall be scheduled for multiple repeat cycles if necessary to reduce runoff, especially on slopes and with soils with slow infiltration rates.~~
- ~~***B.*** All zone run times shall be adjusted seasonally to accommodate landscape water needs, exposure slope and soil types.~~
- ~~***C.*** Turf and non-turf shall be irrigated on separate valves.~~
- ~~***D.*** Drip emitters and sprinklers shall be placed on separate valves.~~
- ~~***E.*** No single zone shall mix head types, such as rotors and pop-up spray heads on the same zone.~~

~~***8. Water Efficiency in Landscape and Irrigation Design***~~

~~New irrigations systems and improvements shall be designed to achieve water efficiency.~~

- ~~***A.*** Each valve shall irrigate a landscape with similar site, slope and soil conditions and plant materials with similar watering needs.~~

~~***a.*** Turf and non-turf shall be irrigated on separate valves.~~
~~***b.*** Drip emitters and sprinklers shall be placed on separate valves.~~
~~***c.*** Bubblers shall be placed on a separate valve and shall not exceed 2 gallons per hour (gph) for each device.~~

~~***B.*** Soil types, infiltration rate and slopes shall be considered in order to avoid runoff and overspray, where water flows onto adjacent property, non-irrigated areas, walks, roadways or structures. Proper irrigation equipment, schedules and repeat cycles shall be used to minimize runoff. Spray zones shall run parallel to the slope to minimize runoff.~~

~~***C.*** A minimum of three (3) inches of mulch shall be applied to all exposed soil surface areas in new plantings.~~

~~***E.*** A pressure reducing valve shall be used when the static water pressure exceeds the pressure needed by the system by 15 pounds per square inch (psi). Pressure reducing valves can be installed within the project on the mainline or at the valve, if elevation changes require it.~~

~~***F***. Turf irrigation principles:~~

~~***a).*** No single zone shall mix head types, such as rotors and pop-up spray heads on the same zone.~~

~~***b).*** No sprinkler irrigation systems shall be installed in strips less than five (5) feet wide.~~

~~***c).*** Small areas (25 feet wide or less) shall be irrigated with fixed nozzle pop-up spray heads with matched precipitation nozzles. Nozzles shall be sized to provide head to head coverage. Heads shall pop-up a minimum of four (4) inches in turf areas. Heads can be specified with pressure reducing features where needed.~~

~~***d).*** Large areas (wider than 25 feet) shall be irrigated with gear driven rotor heads with a minimum precipitation rate of 1.45 inches per hour for a full circle head. Heads shall pop-up a minimum of four (4) inches in turf areas.~~

~~***e).*** Check valves shall be included in heads or valves where low head drainage will occur due to elevations changes.~~

~~***f).*** Use emerging water saving technology such as evapotranspiration controls and subterranean irrigation systems is highly encouraged.~~

~~***9. Irrigation Control Systems Shall be employed that offer flexibility in programming***.~~

~~***A.*** All irrigation systems shall include an electric automatic controller with multiple programs and multiple repeat and rest cycle capabilities and a flexible calendar program.~~

~~***B.*** Each zone/valve shall have its own station on the controller. The exception is drip valves, which can be doubled on the controller.~~

~~***10. Systems shall be operated to maximize irrigation water efficiency.***~~

~~***A.*** Sprinkler irrigation shall be scheduled to operate during the months of May through October, between the hours of 6:00 PM and 9:00 AM and during the remaining months of November through April, between the hours of 9:00 AM to 3:00 PM to reduce the water loss from wind and evaporation, and to avoid ice during winter months. Drip irrigation and subterranean devices shall not be subject to this water window.~~

~~***B.*** Valves shall be scheduled for multiple repeat cycles if necessary to reduce runoff, especially on slopes and with soils with slow infiltration rates.~~

~~***C.*** All zone run times shall be adjusted seasonally to accommodate landscape water needs, exposure slope and soil types.~~

~~If approved, the Planning Division or Building Division will make an inspection of the completed project for compliance with the program before issuing a Certificate of Occupancy.~~

9.75.080 ENFORCEMENT/REPORTING.

A. The Town shall 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.

B. All existing landscapes that were installed before December 1, 2015 and are over one acre in size, that have a water meter, the Town, or other designated authority, shall administer programs that may include, but not be limited to, irrigation water use analyses, irrigation surveys, and irrigation audits to evaluate water use and provide recommendations as necessary to reduce landscape water use to a level that does not exceed the Maximum Applied Water Allowance for existing landscapes.

C. For landscapes that do not have a meter, the Town, or other designated authority, shall administer programs that may include, but not be limited to, irrigation surveys and irrigation audits to evaluate water use and provide recommendations as necessary in order to prevent water waste.

D. All landscape irrigation audits shall be conducted by a certified landscape irrigation auditor.

9.75.090 PUBLIC EDUCATION *(AMENDED ORD. 326)*

The Town of Apple Valley shall make available information about water efficient landscaping to water users throughout the community. The Town will also use public education to encourage users to conserve water through voluntary compliance. In addition to education, the Town may use enforcement measures to curb water waste.

A. Information shall be provided to new homeowners about designing, installing and maintaining water efficient landscapes.

B. Model Homes. All model homes that are landscaped shall use signs and written information to demonstrate the principles of water efficient landscapes described in this ordinance as follows:

1. Signs shall be used to identify the model as an example of a water efficient landscape featuring elements such as hydrozones, irrigation equipment, and others that contribute to the overall water efficient theme. Signage

shall include information about the site water use as designed per the local ordinance; specify who designed and installed the water efficient landscape; and demonstrate low water use approaches to landscaping such as using native plants, graywater systems, and rainwater catchment systems.

2. Information shall be provided about designing, installing, managing, and maintaining water efficient landscapes.

~~9.75.030 LOW WATER USE AND CALIFORNIA NATIVE PLANTS~~ ~~*(AMENDED ORD. 326)*~~

9.75.100 APPROVED PLANT LIST (AMENDED ORD. 326)

All landscape shall strive to maximize the use of native species as provided in the approved plant list in this Section or as approved by the Director. Where native material is not appropriate for the intended use or appearance, plant species that are regionally adapted and non-invasive may be used with the approval of the Director.

Ground Cover

Botanical Name	Common Name	Water Use	Plant Factor
Abelia x grandiflora and cvs.	glossy abelia	Moderate	0.5
Acacia redolens	prostrate acacia	Low	0.2
Achillea millefolium (non-native hybrids)	yarrow (non-native hybrids)	Low	0.2
Achillea millefolium (CA native cultivars)	yarrow	Low	0.2
Ajuga reptans (shade)	carpet bugle	Moderate	0.5
Artemisia spp. (herbaceous)	angel"s hair	Moderate	0.5
Artemisia spp. (shrubby)	sagebrush	Low	0.2
Atriplex CA native species	saltbush	Low	0.2
Baccharis pilularis cvs.	dwarf coyote brush	Moderate	0.5
Baccharis "Starn"	Starn coyote brush	Low	0.2
Berberis aquifolium "Compacta" (partial shade in South Inland)	compact Oregon grape holly	Moderate	0.5
Berberis aquifolium var. repens (shade)	creeping mahonia	Moderate	0.5
Cerastium tomentosum	snow in summer	Moderate	0.5
Cistus spp. and cvs.	rockrose	Moderate	0.5
Convolvulus mauritanicus	ground morning glory	Moderate	0.5
Cotoneaster horizontalis	rock cotoneaster	Moderate	0.5

Cotoneaster spp.(ground covers)	cotoneaster	Moderate	0.5
Cuphea llavea	bat-faced cuphea	Moderate	0.5
Cytisus x kewensis	Kew broom	Moderate	0.5
Dalea capitata	dalea (capitata)	Moderate	0.5
Dalea greggii	trailing indigo bush	Low	0.2
Euonymus fortunei	purple winter creeper	Moderate	0.5
Fragaria spp. (CA native and non-natives species)	strawberry	Moderate	0.5
Gazania spp.	gazania	Moderate	0.5
Geranium spp.	cranesbill	Moderate	0.5
Juniperus spp.	juniper	Moderate	0.5
Lantana camara & cvs.	lantana	Moderate	0.5
Lantana hybrids	hybrid lantana	Moderate	0.5
Lantana montevidensis (sellowiana)	trailing lantana	Moderate	0.5
Lantana "New Gold"	New Gold lantana	Moderate	0.5
Lonicera japonica	Japanese honeysuckle	Moderate	0.5
Malephora spp.	ice plant (Maleophora)	Low	0.2
Myoporum parvifolium & cvs.	myoporum	Moderate	0.5
Oenothera speciosa (O. berlandieri)	Mexican evening primrose	Moderate	0.5
Oenothera stubbei	Baja evening primrose	Low	0.2
Parthenocissus quinquefolia	Virginia creeper	Moderate	0.5
Parthenocissus tricuspidata	Boston ivy	Moderate	0.5
Potentilla verna	spring cinquefoil	Moderate	0.5
Rosa hybrids..ground covers	carpet roses	Moderate	0.5
Rosmarinus cvs.	trailing rosemary	Moderate	0.5
Santolina spp.	lavender cotton	Low	0.2
Teucrium chamaedrys	germander	Moderate	0.5
Thymus spp. and cvs.	thyme	Moderate	0.5
Trachelospermum asiaticum	Asian star jasmine	Moderate	0.5
Trachelospermum jasminoides	star jasmine	Moderate	0.5
Verbena peruviana	Peruvian verbena	Moderate	0.5
Verbena rigida	vervain	Moderate	0.5
Verbena stricta	hoary vervain	Moderate	0.5
Verbena tenera (pulchella)	rock verbena	Moderate	0.5
Verbena tenuisecta	moss verbena	Moderate	0.5
Vinca minor	periwinkle	Moderate	0.5
Wedelia trilobata	trailing daisy	Moderate	0.5
Zinnia grandiflora	prairie zinnia	Low	0.2

Perennials

Botanical Name	Common Name	Water Use	Plant Factor
Achillea millefolium (non-native hybrids)	yarrow (non-native hybrids)	Low	0.2
Achillea millefolium (CA native cultivars)	yarrow	Low	0.2
Agave attenuata (and thin-leaved relatives) (Ca native and non-native)	agave	Low	0.2
Ailanthus altissima	tree of heaven	Low	0.2
Argemone corymbosa	prickly poppy	Low	0.2
Aristida purpurea	purple three-awn	Low	0.2
Asclepias (CA native species)	milk/silk weed	Low	0.2
Asclepias subulata	desert milkweed	Low	0.2
Baileya multiradiata	desert marigold	Low	0.2
Berlandiera lyrata	chocolate scented daisy	Low	0.2
Bulbine frutescens	stalked bulbine	Low	0.2
Echinopsis spp. (Trichocereus spp.)	torch cactus	Low	0.2
Eriogonum spp. (CA native and non-native spp.)	buckwheat	Low	0.2
Euphorbia antisyphilitica	candelilla	Low	0.2
Melampodium leucanthum	blackfoot daisy	Low	0.2
Nolina spp. (CA natives and non-natives)	bear grass	Low	0.2
Oenothera caespitosa	tufted (white) evening primrose	Low	0.2
Oenothera stubbei	Baja evening primrose	Low	0.2
Penstemon SW native spp. and cvs.	penstemon (SW natives)	Low	0.2
Perovskia spp. & cvs.	Russian sage	Low	0.2
Poliomintha longiflora	Rosemary mint	Low	0.2
Portulacaria afra & cvs.	elephant"s food	Low	0.2
Psilostrophe tagetina	paper flower	Low	0.2
Romneya coulteri	Matilija poppy	Low	0.2
Ruellia brittoniana	Mexican petunia	Low	0.2
Salvia dorrii	purple sage	Low	0.2
Santolina spp.	lavender cotton	Low	0.2
Tetraneuris acaulis (Hymenoxys acaulis)	stemless four-nerve daisy	Low	0.2
Tetraneuris scaposa	four-nerve daisy	Low	0.2
Thymophylla acerosa (Dyssodia acerosa)	shrubby dogweed	Low	0.2

Thymophylla pentachaeta (Dyssodia pentachaeta)	golden fleece	Low	0.2
Verbena gooddingii (Glandularia gooddingii)	Goodding verbena	Low	0.2
Zinnia acerosa	desert zinnia	Low	0.2
Zinnia grandiflora	prairie zinnia	Low	0.2
Adiantum spp. (shade) CA native and non-native	maidenhair fern	Moderate	0.5
Agastache coccinea pink	agastache	Moderate	0.5
Ajuga reptans (shade)	carpet bugle	Moderate	0.5
Aquilegia spp. (CA native and non-native spp.)	columbine	Moderate	0.5
Armeria maritima	sea pink	Moderate	0.5
Artemisia spp. (herbaceous)	angel"s hair	Moderate	0.5
Asclepias tuberosa	orange milkweed	Moderate	0.5
Asparagus aethiopicus and cvs. (A. densiflorus)	asparagus fern	Moderate	0.5
Aspidistra elatior (shade)	cast iron plant	Moderate	0.5
Calibrachoa cvs	million bells	Moderate	0.5
Calylophus drummondiana	Texas primrose	Moderate	0.5
Calylophus hartwegii	Sierra sundrop	Moderate	0.5
Carex divulsa (sold as C. tumulicola)	European gray sedge	Moderate	0.5
Carex tumulicola	Berkeley sedge	Moderate	0.5
Catharanthus roseus	Madagascar periwinkle	Moderate	0.5
Centaurea cineraria	dusty miller (cineraria)	Moderate	0.5
Centranthus ruber	red valerian	Moderate	0.5
Conoclinium greggii "Boothill"	blue mist flower	Moderate	0.5
Coreopsis auriculata "Nana"	dwarf coreopsis	Moderate	0.5
Coreopsis grandiflora	large flower tickseed	Moderate	0.5
Coreopsis lanceolata	lanceleaf tickseed	Moderate	0.5
Coreopsis rosea	pink tickseed	Moderate	0.5
Coreopsis verticillata cvs.	threadleaf coreopsis	Moderate	0.5
Dianella tasmanica (shade in desert)	Tasman flax lily	Moderate	0.5
Dianthus spp.	pink/carnation	Moderate	0.5
Dietes bicolor and cvs	fortnight lily	Moderate	0.5
Dietes iridioides and cvs.	fortnight lily	Moderate	0.5
Echinacea spp.	cone flower	Moderate	0.5
Epilobium spp.(Zauschneria) and cvs.	California fuchsia	Moderate	0.5
Equisetum spp. (native and non-native spp.)	horsetail	Moderate	0.5
Erigeron divergens	native fleabane	Moderate	0.5
Erigeron karvinskianus	fleabane	Moderate	0.5
Erysimum "Bowles Mauve"	Bowles Mauve wallflower	Moderate	0.5

Eupatorium spp.	mistflower	Moderate	0.5
Euryops pectinatus	euryops/shrub daisy	Moderate	0.5
Euryops pectinatus viridis	green euryops	Moderate	0.5
Gaillardia x grandiflora and cultivars	blanket flower	Moderate	0.5
Gaura lindheimeri and cvs.	gaura	Moderate	0.5
Geranium spp.	cranesbill	Moderate	0.5
Glandularia aristigera and cvs (Verbena tenuisecta)	South American rock vervain	Moderate	0.5
Helianthus maximiliani	Maximilian sunflower	Moderate	0.5
Hemerocallis spp.	day lily	Moderate	0.5
Heuchera sanguinea	coral bells	Moderate	0.5
Hibiscus moscheutos & cvs.	mallow rose	Moderate	0.5
Iris germanica	bearded iris	Moderate	0.5
Kniphofia spp. and cvs.	poker plant	Moderate	0.5
Kniphofia uvaria hybrids and cvs.	red hot poker	Moderate	0.5
Leptosyne maritima (Coreopsis maritima)	sea dahlia	Moderate	0.5
Leucanthemum X superbum (Chrysanthemum maximum)	Shasta daisy	Moderate	0.5
Liatris spicata	gay feather	Moderate	0.5
Liriope spp.	lilyturf	Moderate	0.5
Manfreda spp.	manfreda	Moderate	0.5
Mirabilis jalapa	four o"clock	Moderate	0.5
Monarda didyma	scarlet bee balm	Moderate	0.5
Nepeta spp.	catmint/catnip	Moderate	0.5
Nephrolepis cordifolia (SHADE IN DESERT)	southern sword fern	Moderate	0.5
Nephrolepis exaltata SHADE	Boston fern	Moderate	0.5
Oenothera speciosa (O. berlandieri)	Mexican evening primrose	Moderate	0.5
Ophiopogon clarkei SHADE in desert	Clark lily turf	Moderate	0.5
Ophiopogon jaburan SHADE in desert	giant lily turf	Moderate	0.5
Ophiopogon japonicus SHADE in desert	mondo grass	Moderate	0.5
Ophiopogon planiscapus var. nigrescens SHADE in desert	black mondo grass	Moderate	0.5
Penstemon garden hybrids	penstemon (hybrids)	Moderate	0.5
Ratibida columnifera	Mexican hat	Moderate	0.5
Salvia coccinea	Texas sage	Moderate	0.5
Salvia farinacea and cvs.	Mealy cup sage	Moderate	0.5
Salvia greggii & hybrids	autumn sage	Moderate	0.5
Salvia officinalis and cvs.	garden/kitchen sage	Moderate	0.5

Stachys byzantina	lamb"s ears	Moderate	0.5
Symphotrichum praealtum (Aster praealtum)	Rodney"s aster	Moderate	0.5
Tagetes lemmonii	mountain marigold	Moderate	0.5
Tagetes lucida	Mexican tarragon	Moderate	0.5
Teucrium chamaedrys	germander	Moderate	0.5
Thunbergia battiscombei	thunbergia (battiscombei)	Moderate	0.5
Thymus spp. and cvs.	thyme	Moderate	0.5
Tulbaghia fragrans	sweet garlic	Moderate	0.5
Tulbaghia violacea	society garlic	Moderate	0.5
Verbena bonariensis	verbena (bonariensis)	Moderate	0.5
Verbena hybrids	garden verbena	Moderate	0.5
Verbena peruviana	Peruvian verbena	Moderate	0.5
Verbena rigida	vervain	Moderate	0.5
Verbena stricta	hoary vervain	Moderate	0.5
Verbena Tapien hybrids	Tapien verbena	Moderate	0.5
Verbena tenera (pulchella)	rock verbena	Moderate	0.5
Verbena tenuisecta	moss verbena	Moderate	0.5
Vinca major	periwinkle	Moderate	0.5
Vinca minor	periwinkle	Moderate	0.5
Wedelia trilobata	trailing daisy	Moderate	0.5
Agave americana (and thick-leaved relatives)(CA native and non-native	agave	Very Low	0.05
Mammillaria geminispina	cactus	Very Low	0.05
Mammillaria melanocentra	cactus	Very Low	0.05
Psilostrophe cooperi	paper flower	Very Low	0.05
Salvia "Gayle Nielson" (also Trident as registered trademark name)	Gayle Nielson/Trident sage	Very Low	0.05
Sphaeralcea spp. (CA native and non-native spp.)	desert/globe mallow	Very Low	0.05

Shrubs

Botanical Name	**Common Name**	**Water Use**	**Plant Factor**
Abutilon palmeri	Indian mallow	Moderate	0.5
Acacia constricta	whitethorn acacia	Low	0.2
Acacia craspedocarpa	leatherleaf acacia	Low	0.2
Acacia greggii	catclaw acacia	Low	0.2
Acacia pennatula	pennatula acacia	Low	0.2

Acacia redolens	prostrate acacia	Low	0.2
Acanthus mollis (shade in the desert) (dormant in summer in CV)	bear"s breech	Moderate	0.5
Achillea millefolium (non-native hybrids)	yarrow (non-native hybrids)	Low	0.2
Achillea millefolium (CA native cultivars)	yarrow	Low	0.2
Agave americana (and thick-leaved relatives)(CA native and non-native	agave	Very Low	0.05
Agave attenuata (and thin-leaved relatives) (Ca native and non-native)	agave	Low	0.2
Aloysia macrostachya	aloysia	Low	0.2
Aloysia triphylla	lemon verbena	Low	0.2
Ambrosia deltoidea	triangleleaf bursage	Low	0.2
Ambrosia dumosa	white bursage	Low	0.2
Ambrosia monogyra (Hymenoclea monogyra)	burrow bush	Very Low	0.05
Amorpha fruticosa	false indigobush	Moderate	0.5
Anisacanthus spp.	desert honeysuckle	Low	0.2
Arbutus unedo	strawberry tree	Moderate	0.5
Artemisia arborescens	large wormwood	Moderate	0.5
Artemisia filifolia	sand sagebrush	Very Low	0.05
Artemisia "Powis Castle"	Powis Castle sagebrush	Moderate	0.5
Artemisia spp. (shrubby)	sagebrush	Low	0.2
Artemisia tridentata	big sagebrush	Low	0.2
Atriplex semibaccata	Australian saltbush	Low	0.2
Baccharis "Centennial"	Centennial baccharis	Low	0.2
Baccharis pilularis cvs.	dwarf coyote brush	Moderate	0.5
Baccharis salicifolia	mule fat	Moderate	0.5
Baccharis sarothroides	desert broom	Low	0.2
Baccharis "Starn"	Starn coyote brush	Low	0.2
Bahiopsis deltoidea (Viguiera deltoidea)	goldeneye	Low	0.2
Bambusa spp.	bamboo (Bambusa)	Moderate	0.5
Berberis aquifolium (Mahonia)	Oregon grape	Moderate	0.5
Berberis aquifolium "Compacta" (partial shade in South Inland)	compact Oregon grape holly	Moderate	0.5
Berberis aquifolium var. repens (shade)	creeping mahonia	Moderate	0.5
Berberis bealei (Mahonia bealei)	leatherleaf mahonia	Moderate	0.5

Berberis "Golden Abundance" (Mahonia)	golden abundance mahonia	Moderate	0.5
Berberis nevinii	Nevin mahonia	Moderate	0.5
Berberis pinnata & cvs. (Mahonia pinnata)	California holly grape	Moderate	0.5
Buddleja alternifolia	fountain butterfly bush	Moderate	0.5
Buddleja davidii and hybrids	butterfly bush	Moderate	0.5
Buddleja marrubiifolia	woolly butterfly bush	Low	0.2
Buxus microphylla japonica	Japanese boxwood	Moderate	0.5
Buxus sempervirens	English boxwood	Moderate	0.5
Caesalpinia gilliesii	desert bird of paradise	Low	0.2
Caesalpinia mexicana	Mexican bird of paradise	Low	0.2
Caesalpinia pulcherrima (deciduous in desert)	dwarf poinciana	Low	0.2
Calliandra "Sierra Star"	fairy duster hybrid	Low	0.2
Calliandra californica	Baja fairy duster	Low	0.2
Calliandra eriophylla	fairy duster	Low	0.2
Callistemon "Little John"	Little John bottlebrush	Moderate	0.5
Cephalocereus spp.	old man cactus	Low	0.2
Ceratostigma abyssinicum	African plumbago	Moderate	0.5
Ceratostigma griffithii	Burmese plumbago	Moderate	0.5
Cercocarpus betuloides	mountain ironwood	Very Low	0.05
Chaenomeles cvs.	flowering quince	Low	0.2
Chamaerops humilis	Mediterranean fan palm	Moderate	0.5
Chrysactinia mexicana	damianita daisy	Low	0.2
Chrysothamnus nauseosus	rabbit brush	Very Low	0.05
Cistus spp. and cvs.	rockrose	Moderate	0.5
Cleome isomeris	bladder pod	Low	0.2
Cneoridium dumosum	bushrue	Low	0.2
Coleogyne ramosissima	blackbrush	Very Low	0.05
Condea emoryi (Hyptis emoryi)	desert lavender	Low	0.2
Convolvulus cneorum	bush morning glory	Low	0.2
Cordia parvifolia	little leaf cordia	Low	0.2
Cotinus coggygria	smoke tree	Low	0.2
Cotoneaster spp. (shrubs)	cotoneaster	Moderate	0.5
Cuphea hyssopifolia	false heather	Moderate	0.5
Cuphea llavea	bat-faced cuphea	Moderate	0.5
Cycas revoluta	sago palm	Moderate	0.5
Dalea bicolor	dalea (bicolor)	Low	0.2
Dalea frutescens	black dalea	Low	0.2
Dalea pulchra	indigo/pea bush	Low	0.2
Dalea versicolor	dalea (versicolor)	Low	0.2

Dasylirion spp.	desert spoon	Low	0.2
Dioon spp.	Mexican cycad	Moderate	0.5
Dodonaea viscosa	hopseed bush	Moderate	0.5
Dodonaea viscosa "Purpurea"	purple hopseed bush	Moderate	0.5
Duranta erecta (D. repens)	sky flower	Moderate	0.5
Elaeagnus pungens	silverberry	Moderate	0.5
Elaeagnus x ebbingei	Ebbinge"s silverberry	Moderate	0.5
Encelia farinosa	brittle bush	Very Low	0.05
Ephedra nevadensis	Nevada ephedra	Very Low	0.05
Ephedra viridis	green mormon tea	Very Low	0.05
Eremophila maculata	spotted emu bush	Low	0.2
Eremophila racemosa	Easter egg bush	Low	0.2
Eremophila x "Summertime Blue"	Summertime Blue emu	Low	0.2
Ericameria laricifolia	turpentine bush	Low	0.2
Eriobotrya "Coppertone"	coppertone loquat	Moderate	0.5
Eriodictyon tomentosum	woolly yerba santa	Very Low	0.05
Eriogonum fasciculatum and cvs. (not listed above)	California buckwheat	Very Low	0.05
Eriogonum spp. (CA native and non-native spp.)	buckwheat	Low	0.2
Espostoa lanata	Peruvian old man cactus	Low	0.2
Euonymus japonicus	evergreen euonymus	Moderate	0.5
Euryops pectinatus	euryops/shrub daisy	Moderate	0.5
Euryops pectinatus viridis	green euryops	Moderate	0.5
Fallugia paradoxa	Apache plume	Low	0.2
Ferocactus spp. (CA native and non-native spp.)	barrel cactus	Low	0.2
Forestiera pubescens	desert olive	Low	0.2
Fouquieria macdougalii	Mexican tree ocotillo	Low	0.2
Fouquieria splendens	ocotillo	Very Low	0.05
Gutierrezia sarothrae	matchweed	Very Low	0.05
Hamelia patens	Texas firecracker bush	Moderate	0.5
Hesperaloe campanulata	bell flower hesperaloe	Low	0.2
Hesperaloe funifera	Coahuilan hesperaloe	Low	0.2
Hesperaloe nocturna	seven-son flower	Low	0.2
Hesperaloe parviflora	red/ yellow yucca	Low	0.2
Hesperoyucca spp. (Yucca whipplei, Yucca californica)	yucca	Low	0.2
Heteromeles arbutifolia	toyon	Low	0.2
Hibiscus rosa-sinensis	Chinese hibiscus	Moderate	0.5
Ilex cornuta "Burfordii"	Burford holly	Moderate	0.5
Ilex vomitoria	yaupon	Moderate	0.5

Ilex x altaclarensis "Wilsonii"	Wilson holly	Moderate	0.5
Isocoma spp. (Haplopappus)	goldenbush	Very Low	0.05
Jasminum mesnyi	primrose jasmine	Moderate	0.5
Juniperus californica	California juniper	Low	0.2
Juniperus spp.	juniper	Moderate	0.5
Justicia californica (Beloperone californica)	chuparosa	Low	0.2
Justicia spicigera	Mexican honeysuckle	Low	0.2
Kerria japonica	Japanese rose	Moderate	0.5
Kolkwitzia amabilis	beauty bush	Moderate	0.5
Krascheninnikovia lanata	winterfat	Low	0.2
Lantana camara & cvs.	lantana	Moderate	0.5
Lantana montevidensis (sellowiana)	trailing lantana	Moderate	0.5
Larrea tridentata	creosote	Very Low	0.05
Lavandula spp. & cvs.	lavender	Moderate	0.5
Leonotis leonurus	lion"s tail	Moderate	0.5
Leucophyllum langmaniae "Lynn"s legacy"	Lynn"s everblooming texas sage	Low	0.2
Leucophyllum spp. & cvs.	purple sage, Texas ranger etc.	Low	0.2
Ligustrum japonicum	Japanese privet	Moderate	0.5
Lobelia laxiflora	Mexican lobelia	Moderate	0.5
Lycium fremontii	wolfberry	Low	0.2
Mahonia oiwakensis (M. lomariifolia)	Chinese holly grape	Moderate	0.5
Malpighia glabra	Barbados cherry	Moderate	0.5
Myoporum parvifolium & cvs.	myoporum	Moderate	0.5
Myrtus communis	true myrtle	Moderate	0.5
Nandina domestica	heavenly bamboo	Moderate	0.5
Nandina domestica "Purpurea"	heavenly bamboo (Nana)	Moderate	0.5
Nerium oleander & cvs.	oleander	Moderate	0.5
Nolina spp. (CA natives and non-natives)	bear grass	Low	0.2
Opuntia spp. & cvs. (CA natives and non-natives)	prickly pear/cholla	Very Low	0.05
Osmanthus spp.	sweet olive/osmanthus	Moderate	0.5
Pachycereus marginatus	Mexican fence post cactus	Very Low	0.05
Pedilanthus bracteatus	tall slipper plant	Low	0.2
Pedilanthus macrocarpus	slipper plant	Low	0.2
Peritoma arborea (Isomeris arborea)	bladderpod	Low	0.2
Perovskia spp. & cvs.	Russian sage	Low	0.2
Phlomis fruticosa	Jerusalem sage	Moderate	0.5

Photinia serratifolia (P. serrulata)	Chinese photinia	Moderate	0.5
Photinia x fraseri	Fraser photinia	Moderate	0.5
Phyllostachys spp.	bamboo (Phyllostachys)	Moderate	0.5
Pinus mugo	mugo pine	Moderate	0.5
Pittosporum tobira and cvs.	mock orange	Moderate	0.5
Pluchea sericea	Coville arrow weed	Low	0.2
Plumbago scandens	summer snow	Moderate	0.5
Podocarpus macrophyllus	yew pine	Moderate	0.5
Portulacaria afra & cvs.	elephant"s food	Low	0.2
Prunus fasciculata	desert almond	Very Low	0.05
Psilostrophe cooperi	paper flower	Very Low	0.05
Psilostrophe tagetina	paper flower	Low	0.2
Punica granatum & cultivars	dwarf pomegranate	Moderate	0.5
Quercus berberidifolia	California scrub oak	Low	0.2
Quercus dumosa	Nutall"s scrub oak	Low	0.2
Quercus turbinella	shrub live oak	Low	0.2
Rhaphiolepis indica & cvs	Indian hawthorne	Moderate	0.5
Rhus ovata	sugar bush	Low	0.2
Rhus typhina	staghorn sumac	Low	0.2
Romneya coulteri	Matilija poppy	Low	0.2
Rosa hybrids..bush	rose	Moderate	0.5
Rosa rugosa	Japanese rose	Moderate	0.5
Rosa woodsii subsp. ultramontana	mountain wood rose	Moderate	0.5
Rosmarinus cvs.	trailing rosemary	Moderate	0.5
Rosmarinus officinalis	rosemary	Moderate	0.5
Ruellia brittoniana	Mexican petunia	Low	0.2
Ruellia "Little Katie"	dwarf ruellia	Low	0.2
Ruellia peninsularis	Baja ruellia	Low	0.2
Russelia equisetiformis	coral fountain	Moderate	0.5
Sabal spp.	palmetto	Moderate	0.5
Salvia "Allen Chickering"	Allen Chickering sage	Low	0.2
Salvia apiana	white sage	Low	0.2
Salvia chamaedryoides	blue sage	Moderate	0.5
Salvia clevelandii & hybrids	salvia Cleveland/Alan Chickering etc.	Low	0.2
Salvia dorrii	purple sage	Low	0.2
Salvia "Gayle Nielson" (also Trident as registered trademark name)	Gayle Nielson/Trident sage	Very Low	0.05
Salvia greggii & hybrids	autumn sage	Moderate	0.5
Salvia leucophylla and cvs.	purple sage	Moderate	0.5

Salvia officinalis and cvs.	garden/kitchen sage	Moderate	0.5
Sambucus spp. (CA native and non-native spp.)	elderberry	Moderate	0.5
Santolina spp.	lavender cotton	Low	0.2
Senecio cineraria (Jacobaea maritima)	dusty miller	Moderate	0.5
Senna armata (Cassia armata)	spicy senna	Very Low	0.05
Senna artemisioides (Cassia artemisioides)	feathery cassia/senna	Low	0.2
Senna covesii	desert senna	Very Low	0.05
Senna lindheimeriana (Cassia lindheimeriana)	Lindheimer"s senna/cassia	Low	0.2
Senna nemophila (Cassia nemophila)	desert cassia	Low	0.2
Senna phyllodinea (Cassia phyllodinea)	silver leaf cassia/senna	Low	0.2
Senna sturtii (Cassia sturtii)	Sturt"s cassia/senna	Low	0.2
Senna wislizeni (Cassia wislizeni)	shrubby senna	Low	0.2
Simmondsia chinensis	jojoba	Low	0.2
Sophora secundiflora	Texas mountain laurel	Low	0.2
Sorbus aucuparia	European mountain ash	Moderate	0.5
Spartium junceum	Spanish broom	Very Low	0.05
Spiraea spp. (CA native and non native spp.)	spiraea	Moderate	0.5
Strelitzia reginae (shade in desert)	bird of paradise	Moderate	0.5
Styrax redivivus (S. californicus, S. fulvescens))	snowdrop bush	Moderate	0.5
Syringa hybrids (including Descanso hybrids)	lilac	Moderate	0.5
Syringa vulgaris	lilac	Moderate	0.5
Syringa x persica	Persian lilac	Moderate	0.5
Tagetes lemmonii	mountain marigold	Moderate	0.5
Tagetes lucida	Mexican tarragon	Moderate	0.5
Taxus baccata	English yew	Moderate	0.5
Taxus baccata "Fastigiata"	Irish yew	Moderate	0.5
Tecoma "Crimson Flare"	yellow bells	Moderate	0.5
Tecoma fulva spp. guarume (T."Orange Jubilee"	Orange Jubilee tecoma	Moderate	0.5
Tecoma stans	yellow bells	Moderate	0.5
Tecoma "Sunrise"	Sunrise tecoma	Moderate	0.5
Tecomaria capensis	cape honeysuckle	Moderate	0.5
Teucrium chamaedrys	germander	Moderate	0.5
Teucrium fruticans	bush germander	Moderate	0.5
Thuja occidentalis	American arborvitae	Moderate	0.5
Trachelospermum asiaticum	Asian star jasmine	Moderate	0.5

Trachelospermum jasminoides	star jasmine	Moderate	0.5
Trixis californica	trixis	Low	0.2
Ungnadia speciosa	Mexican buckeye	Low	0.2
Vauquelinia californica	Arizona rosewood	Low	0.2
Vauquelinia corymbosa var. heterodon	narrow leaf rosewood	Low	0.2
Viburnum tinus	laurustinus	Moderate	0.5
Viguiera parishii	desert goldeneye	Low	0.2
Wedelia texana (Zexmenia hispida)	hairy wedelia	Low	0.2
Weigela florida	weigela	Moderate	0.5
Xylosma congestum	shiny xylosma	Moderate	0.5
Yucca aloifolia	Spanish bayonet	Low	0.2
Yucca baccata	banana yucca	Very Low	0.05
Yucca brevifolia	Joshua tree	Very Low	0.05
Yucca decipiens	palma China	Very Low	0.05
Yucca elata	soaptree yucca	Very Low	0.05
Yucca faxoniana	giant white yucca	Very Low	0.05
Yucca filamentosa & cvs.	Adam"s needle	Low	0.2
Yucca glauca	soapweed yucca	Low	0.2
Yucca gloriosa	Spanish dagger	Low	0.2
Yucca recurvifolia	curve leaf yucca	Low	0.2
Yucca rigida	blue yucca	Very Low	0.05
Yucca rostrata	beaked yucca	Very Low	0.05
Yucca rupicola	twisted yucca	Low	0.2
Yucca schidigera (Y. californica, Y. mohavensis)	Mojave yucca	Very Low	0.05
Yucca schottii	mountain yucca	Very Low	0.05
Yucca thompsoniana	Thompson"s yucca	Very Low	0.05

Ornamental Trees

Botanical Name	**Common Name**	**Water Use**	**Plant Factor**
Acacia constricta	whitethorn acacia	Low	0.2
Acacia craspedocarpa	leatherleaf acacia	Low	0.2
Acacia greggii	catclaw acacia	Low	0.2
Acacia pennatula	pennatula acacia	Low	0.2
Arbutus unedo	strawberry tree	Moderate	0.5
Azara microphylla	box leaf azara	Moderate	0.5
Bauhinia macrantha	Chihuahua orchid tree	Moderate	0.5
Brachychiton populneus	bottle tree	Moderate	0.5

Brahea armata	blue hesper palm	Moderate	0.5
Brahea edulis	Guadalupe palm	Moderate	0.5
Butia odorata (B. capitata)	pindo palm	Moderate	0.5
Celtis pallida	desert hackberry	Low	0.2
Celtis reticulata	western hackberry	Low	0.2
Cercis occidentalis	western redbud	Moderate	0.5
Chilopsis linearis	desert willow	Moderate	0.5
Cotinus coggygria	smoke tree	Low	0.2
Cupressus sempervirens	Italian cypress	Moderate	0.5
Dioon spp.	Mexican cycad	Moderate	0.5
Eysenhardtia orthocarpa	kidneywood	Low	0.2
Havardia pallens (Pithecellobium pallens)	tenaza	Low	0.2
Hesperocyparis stephensonii (Cupressus arizonica ssp. arizonica, C. arizonica var. glabra))	Cuyamaca cypress	Low	0.2
Juniperus scopulorum cvs.	Rocky Mountain juniper	Moderate	0.5
Juniperus spp.	juniper	Moderate	0.5
Lagerstroemia spp., hybrids and cvs.	crape myrtle	Moderate	0.5
Olneya tesota	desert ironwood	Low	0.2
Parkinsonia aculeata	Mexican palo verde/ Jerusalem thorn	Low	0.2
Parkinsonia floridum	Blue Palo Verde	Low	0.2
Parkinsonia microphyllum	Little leaf palo verde	Low	0.2
Phoenix dactylifera	date palm	Moderate	0.5
Photinia serratifolia (P. serrulata)	Chinese photinia	Moderate	0.5
Phyllostachys spp.	bamboo (Phyllostachys)	Moderate	0.5
Podocarpus henkelii	long leaf yellow wood	Moderate	0.5
Prosopis alba	Argentine mesquite	Low	0.2
Prosopis glandulosa (P. chilensis)	Chilean mesquite	Low	0.2
Prosopis glandulosa var. torreyana	honey mesquite	Low	0.2
Prosopis hybrids and cvs.	prosopis hybrids	Low	0.2
Prosopis juliflora	Arizona mesquite	Low	0.2
Prosopis pubescens	screwbean mesquite	Low	0.2
Prosopis velutina	velvet mesquite	Low	0.2
Prunus caroliniana	Carolina laurel cherry	Moderate	0.5
Prunus spp. edible	apricot	Moderate	0.5
Prunus spp. edible	nectarine	Moderate	0.5
Prunus spp. edible	nectarine (low chill)	Moderate	0.5
Prunus spp. edible	peach	Moderate	0.5
Prunus spp. edible	peach (low chill)	Moderate	0.5

Prunus spp. edible	plum	Moderate	0.5
Prunus spp. edible	plum (low chill)	Moderate	0.5
Prunus spp. peach	flowering peach	Moderate	0.5
Prunus spp. plum	flowering plum	Moderate	0.5
Punica granatum	pomegranate	Moderate	0.5
Pyrus kawakamii	evergreen pear	Moderate	0.5
Rhaphiolepis "Majestic Beauty"	majestic beauty	Moderate	0.5
Rhus lanceolata	prairie flameleaf sumac	Low	0.2
Rhus typhina	staghorn sumac	Low	0.2
Sabal spp.	palmetto	Moderate	0.5
Syagrus romanzoffiana (Arecastrum romanzoffiana)	queen palm	Moderate	0.5
Tecoma stans	yellow bells	Moderate	0.5
Trachycarpus fortunei	windmill palm	Moderate	0.5
Washingtonia filifera	California fan palm	Moderate	0.5

Canopy Trees

Botanical Name	**Common Name**	**Water Use**	**Plant Factor**
Albizia julibrissin	silk tree	Moderate	0.5
Allocasuarina verticillata (Casuarina stricta)	coast beefwood	Moderate	0.5
Calocedrus decurrens	incense cedar	Moderate	0.5
Carya illinoensis	pecan	Moderate	0.5
Casuarina cunninghamiana	river she-oak	Moderate	0.5
Catalpa speciosa	western catalpa	Moderate	0.5
Cedrus atlantica	Atlas cedar	Moderate	0.5
Cedrus deodara	deodar cedar	Moderate	0.5
Celtis australis	European hackberry	Moderate	0.5
Celtis occidentalis	common hackberry	Moderate	0.5
Celtis sinensis	Chinese hackberry	Moderate	0.5
Cordia boissieri	Texas olive	Low	0.2
Cordia parvifolia	little leaf cordia	Low	0.2
Diospyros kaki	Japanese persimmon	Moderate	0.5
Eucalyptus microtheca	coolibah	Moderate	0.5
Eucalyptus nicholii	Nichol"s willow leaf peppermint	Moderate	0.5
Eucalyptus polyanthemos	silver dollar gum	Moderate	0.5
Eucalyptus rudis	flooded gum	Moderate	0.5

Eucalyptus sideroxylon	red iron bark	Moderate	0.5
Fraxinus angustifolia "Raywood" (F. oxycarpa)	Raywood ash	Moderate	0.5
Fraxinus "Moraine"	moraine ash	Moderate	0.5
Fraxinus uhdei	evergreen ash	Moderate	0.5
Fraxinus velutina	Arizona ash	Moderate	0.5
Fraxinus velutina "Modesto"	Modesto ash	Moderate	0.5
Geijera parviflora	Australian willow	Moderate	0.5
Ginkgo biloba	maiden hair tree	Moderate	0.5
Gleditsia triacanthos	honey locust	Low	0.2
Hesperocyparis arizonica (Cupressus arizonica)nomen. unresolved	Arizona cypress	Low	0.2
Koelreuteria paniculata	golden rain tree	Moderate	0.5
Laurus nobilis	sweet bay	Moderate	0.5
Laurus "Saratoga"	Saratoga laurel	Moderate	0.5
Ligustrum lucidum	glossy privet	Moderate	0.5
Liquidambar styraciflua	sweet gum	Moderate	0.5
Malus hybrids	crabapple	Moderate	0.5
Malus spp.(edible)	apple	Moderate	0.5
Malus spp.(edible) e.g"Anna" (low chill variety for low desert)	apple	Moderate	0.5
Melia azedarach	chinaberry	Low	0.2
Morus alba	white mulberry	Moderate	0.5
Picea glauca	Alberta spruce	Moderate	0.5
Picea pungens	Colorado spruce	Moderate	0.5
Pinus brutia	Calabrian pine	Moderate	0.5
Pinus brutia ssp. eldarica	eldarica pine	Moderate	0.5
Pinus canariensis	Canary Island pine	Moderate	0.5
Pinus coulteri	Coulter pine	Moderate	0.5
Pinus edulis	pinyon pine	Low	0.2
Pinus halepensis	Aleppo pine	Moderate	0.5
Pinus monophylla	single leaf pinyon pine	Low	0.2
Pinus nigra	Austrian black pine	Moderate	0.5
Pinus patula	Jelecote pine	Moderate	0.5
Pinus pinea	Italian stone pine	Moderate	0.5
Pinus roxburghii	chir pine	Moderate	0.5
Pinus thunbergii	Japanese black pine	Moderate	0.5
Pistacia chinensis	Chinese pistache	Moderate	0.5
Pistacia x "Red Push"	red push pistache	Moderate	0.5
Pittosporum tobira and cvs.	mock orange	Moderate	0.5
Podocarpus macrophyllus	yew pine	Moderate	0.5
Populus "Mohavensis"	Mohave poplar	Moderate	0.5

Pyrus calleryana cultivars	Callery pear	Moderate	0.5
Pyrus communis	edible pear	Moderate	0.5
Quercus dumosa	Nutall"s scrub oak	Low	0.2
Quercus fusiformis	escarpment live oak	Low	0.2
Quercus gambelii	Gambel oak	Low	0.2
Quercus ilex	holly oak	Moderate	0.5
Quercus macrocarpa	burr oak	Moderate	0.5
Quercus muehlenbergii	chinquapin oak	Low	0.2
Quercus suber	cork oak	Low	0.2
Quercus texana	Texas red oak	Low	0.2
Quercus virginiana	southern live oak	Moderate	0.5
Quercus wislizeni	interior live oak	Moderate	0.5
Quercus x Heritage	Heritage oak	Moderate	0.5
Robinia x ambigua	locust	Moderate	0.5
Sambucus spp. (CA native and non-native spp.)	elderberry	Moderate	0.5
Schinus polygamus	Peruvian pepper tree	Low	0.2
Searsia lancea (Rhus lancea)	African sumac	Moderate	0.5
Sophora secundiflora	Texas mountain laurel	Low	0.2
Sorbus aucuparia	European mountain ash	Moderate	0.5
Styphnolobium japonicum ((Sophora japonica)	Japanese pagoda tree	Moderate	0.5
Styrax japonicus	Japanese snowbell	Moderate	0.5
Taxus baccata	English yew	Moderate	0.5
Taxus baccata "Fastigiata"	Irish yew	Moderate	0.5
Ulmus crassifolia	cedar elm	Moderate	0.5
Ulmus parvifolia	Chinese evergreen elm	Moderate	0.5
Ulmus pumila	Siberian elm	Moderate	0.5
Ungnadia speciosa	Mexican buckeye	Low	0.2
Vitex agnus-castus	chaste tree	Low	0.2
X Chitalpa tashkentensis	chitalpa	Low	0.2
Zelkova serrata	saw leaf zelkova	Moderate	0.5
Ziziphus jujuba	Chinese jujube	Moderate	0.5

Vines

Botanical Name	**Common Name**	**Water Use**	**Plant Factor**
Ampelopsis brevipedunculata	blueberry creeper	Moderate	0.5
Bignonia capreolata	cross vine	Moderate	0.5
Campsis spp.	trumpet creeper	Moderate	0.5

Clematis armandii	evergreen clematis	Moderate	0.5
Clematis hybrids and cvs.	clematis	Moderate	0.5
Euonymus fortunei radicans	winter creeper	Moderate	0.5
Fallopia baldschuanica (Polygonum aubertii)	fleeceflower	Moderate	0.5
Ficus pumila (repens)	creeping fig	Moderate	0.5
Gelsemium sempervirens	Carolina jessamine	Moderate	0.5
Lonicera hildebrandiana	giant Burmese honeysuckle	Moderate	0.5
Lonicera japonica	Japanese honeysuckle	Moderate	0.5
Lonicera sempervirens	trumpet honeysuckle	Moderate	0.5
Lonicera x americana	Americana honeysuckle	Moderate	0.5
Macfadyena unguis-cati	cat"s claw	Low	0.2
Parthenocissus quinquefolia	Virginia creeper	Moderate	0.5
Parthenocissus tricuspidata	Boston ivy	Moderate	0.5
Rosa banksiae	Lady Banks rose	Moderate	0.5
Rosa "Cecile Brunner"	Cecile Brunner rose	Moderate	0.5
Tecomaria capensis	cape honeysuckle	Moderate	0.5
Thunbergia alata	black eyed susan	Moderate	0.5
Trachelospermum asiaticum	Asian star jasmine	Moderate	0.5
Trachelospermum jasminoides	star jasmine	Moderate	0.5
Vitis californica	California wild grape	Moderate	0.5
Vitis girdiana	desert grape	Moderate	0.5
Vitis labrusca	American grape	Moderate	0.5
Vitis "Roger"s Red"	Roger"s Red grape	Moderate	0.5
Vitis vinifera	European grape	Moderate	0.5
Wisteria spp.	wisteria	Moderate	0.5

Bamboo

Botanical Name	**Common Name**	**Water Use**	**Plant Factor**
Bambusa spp.	bamboo (Bambusa)	Moderate	0.5
Phyllostachys spp.	bamboo (Phyllostachys)	Moderate	0.5

Bulbs

Botanical Name	Common Name	Water Use	Plant Factor
Allium spp. mostly from CA or Mediterranean	allium	Low	0.2
Calochortus spp.	Mariposa lily	Very Low	0.2
Lilium columbianum	Columbia lily	Moderate	0.5
Lilium formosanum	Formosan lily	Moderate	0.5
Lilium humboldtii	Humboldt lily	Moderate	0.5
Lilium pardalinum	leopard lily and Wiggins lily	Moderate	0.5
Lilium parryi	lemon lily	Moderate	0.5
Lilium parvum	alpine lily	Moderate	0.5
Lilium tigrinum	tiger lily	Moderate	0.5
Lilium wallichianum	wallichianum lily	Moderate	0.5
Ranunculus spp. (winter growing)	Persian ranunculus	Moderate	0.5
Zephyranthes candida	white rain lily	Low	0.2
Zephyranthes spp.	zephyr flower	Low	0.2

Grass

Botanical Name	Common Name	Water Use	Plant Factor
Andropogon gerardii	big bluestem	Low	0.2
Andropogon scoparius	little bluestem	Low	0.2
Aristida purpurea	purple three-awn	Low	0.2
Bouteloua curtipendula	sideoats grama	Low	0.2
Bouteloua gracilis and cvs.	blue grama	Low	0.2
Calamagrostis x acutiflora cvs. e.g. Karl Foerster	feather reed grass	Moderate	0.5
Festuca californica and cvs.	California fescue	Moderate	0.5
Festuca glauca	blue fescue	Moderate	0.5
Festuca ovina and cvs.	sheep fescue	Moderate	0.5
Festuca "Siskiyou Blue"	Siskiyou Blue fescue	Moderate	0.5
Hilaria rigida (Pleuraphis rigida)	big galleta grass	Moderate	0.5
Muhlenbergia capillaris and cvs.	hairy awn muhly	Moderate	0.5

Muhlenbergia dumosa	bamboo muhly	Moderate	0.5
Muhlenbergia emersleyi	bull grass	Moderate	0.5
Muhlenbergia lindheimeri	Lindheimer muhly	Moderate	0.5
Muhlenbergia porteri	bush muhly	Moderate	0.5
Muhlenbergia rigens	deer grass	Moderate	0.5
Muhlenbergia rigida "Nashville"	Nashville deer grass	Moderate	0.5
Panicum virgatum and cvs.	switch grass	Moderate	0.5
Pennisetum x advena (P. setaceum hybrids)	purple/burgundy fountain grass	Moderate	0.5
Saccharum ravennae (Erianthus ravennae)	plume grass	Moderate	0.5
Schizachyrium scoparium	little bluestem	Low	0.2
Sporobolus airoides	alkalai sacaton	Low	0.2
Sporobolus wrightii	big sacaton	Low	0.2
Stipa hymenoides (Oryzopsis hymenoides)	Indian rice grass	Low	0.2
Stipa tenuissima (Nassella tenuissima)	Mexican feather grass	Low	0.2
Zoysia tenuifolia	Mascarene grass	Moderate	0.5

Palm & Cycad

Botanical Name	Common Name	Water Use	Plant Factor
Brahea armata	blue hesper palm	Moderate	0.5
Brahea edulis	Guadalupe palm	Moderate	0.5
Butia odorata (B. capitata)	pindo palm	Moderate	0.5
Chamaerops humilis	Mediterranean fan palm	Moderate	0.5
Cycas revoluta	sago palm	Moderate	0.5
Dioon spp.	Mexican cycad	Moderate	0.5
Phoenix canariensis	Canary Island date palm	Moderate	0.5
Sabal spp.	palmetto	Moderate	0.5
Syagrus romanzoffiana (Arecastrum romanzoffiana)	queen palm	Moderate	0.5
Trachycarpus fortunei	windmill palm	Moderate	0.5
Washingtonia filifera	California fan palm	Moderate	0.5

Succulents

Botanical Name	Common Name	Water Use	Plant Factor
Dasylirion spp.	desert spoon	Low	0.2
Echinopsis spp. (Trichocereus spp.)	torch cactus	Low	0.2
Euphorbia antisyphilitica	candelilla	Low	0.2
Ferocactus spp. (CA native and non-native spp.)	barrel cactus	Low	0.2
Fouquieria macdougalii	Mexican tree ocotillo	Low	0.2
Fouquieria splendens	ocotillo	Very Low	0.05
Hesperaloe campanulata	bell flower hesperaloe	Low	0.2
Hesperaloe funifera	Coahuilan hesperaloe	Low	0.2
Hesperaloe nocturna	seven-son flower	Low	0.2
Hesperaloe parviflora	red/ yellow yucca	Low	0.2
Hesperoyucca spp. (Yucca whipplei, Yucca californica)	yucca	Low	0.2
Mammillaria geminispina	cactus	Very Low	0.05
Mammillaria melanocentra	cactus	Very Low	0.05
Opuntia spp. & cvs. (CA natives and non-natives)	prickly pear/cholla	Very Low	0.05
Pachycereus marginatus	Mexican fence post cactus	Very Low	0.05
Pedilanthus bracteatus	tall slipper plant	Low	0.2

Pedilanthus macrocarpus	slipper plant	Low	0.2
Portulacaria afra & cvs.	elephant"s food	Low	0.2
Yucca aloifolia	Spanish bayonet	Low	0.2
Yucca baccata	banana yucca	Very Low	0.05
Yucca brevifolia	Joshua tree	Very Low	0.05
Yucca decipiens	palma China	Very Low	0.05
Yucca elata	soaptree yucca	Very Low	0.05
Yucca faxoniana	giant white yucca	Very Low	0.05
Yucca filamentosa & cvs.	Adam"s needle	Low	0.2
Yucca glauca	soapweed yucca	Low	0.2
Yucca gloriosa	Spanish dagger	Low	0.2
Yucca recurvifolia	curve leaf yucca	Low	0.2
Yucca rigida	blue yucca	Very Low	0.05
Yucca rostrata	beaked yucca	Very Low	0.05
Yucca rupicola	twisted yucca	Low	0.2
Yucca schidigera (Y. californica, Y. mohavensis)	Mojave yucca	Very Low	0.05
Yucca schottii	mountain yucca	Very Low	0.05
Yucca thompsoniana	Thompson"s yucca	Very Low	0.05

entering into the loan contract. For investor–owned utilities, meetings or hearings held by the Public Utilities Commission may serve as Project Feasibility Meetings.

(b) Before a Project Feasibility Meeting, the supplier shall:

(1) Make available information describing the project in a form and location that will enable the water users to review it and to make appropriate comments. The information must be made available for a period of at least fifteen days before the Project Feasibility Meeting.

(2) Establish a date for the meeting agreeable to the Department and Department of Health Services.

(3) Notify the Department, the Department of Health Services and appropriate county health agencies in writing at least twenty calendar days before the meeting, and notify all water users and the local news media in writing at least fifteen calendar days before the meeting. The notice shall state: the date, time, location, and purpose of the meeting and the location of information describing the project for review by the water users. Sample notice forms will be provided by the Department.

(4) Obtain a meeting place of sufficient size and at a convenient location to accommodate the anticipated attendance.

(c) The agenda of the meeting shall include the following matters: (1) A discussion of applicable public health and water works standards, existing and potential health hazards associated with the water system, how the proposed project will bring the system to minimum health standards, and alternative solutions to the problem. (2) The supplier shall describe the proposed project in detail, using maps, charts, and other illustrative devices, if appropriate. The discussion shall include the costs, sources of funds, the amount of the loan–grant commitment, and changes in water costs resulting from the project.

(3) A representative of the State may describe the Act, the State's role in its administration and the Department's recommendation regarding the supplier's loan application. Persons present at the meeting shall be permitted to ask questions regarding all subjects discussed at the meeting.

(d) If no representative of the Department is present at the meeting, the supplier shall submit an official written report to the Department describing the meeting and its outcome including the results of any vote taken.

NOTE: Authority cited: Section 13834, Water Code. Reference: Section 13834, Water Code.

§ 489.1. Plans and Specifications.

Before commencing construction, each Supplier shall provide detailed plans and specifications to the Department of Health Services for review and approval by a registered Civil Engineer employed by the Department of Health Services. Unless otherwise authorized in writing by the Department of Health Services, the supplier shall not commence construction without written notification from the Department of Health Services that the plans and specifications have been approved.

NOTE: Authority cited: Section 13834, Water Code. Reference: Section 13837, Water Code.

§ 489.2. Certification of Completion.

Department of Health Services shall inspect the completed project and if satisfied that the project has been completed in accordance with approved plans and specifications, shall provide the supplier and the Department with written certification to that effect.

NOTE: Authority cited: Section 13834, Water Code. Reference: Section 13834, Water Code.

Chapter 2.6. Weather Resources Management [Repealed]

NOTE: Authority cited: Sections 161, 401, 403 and 6078, Water Code. Reference: Sections 401, 402 and 403, Water Code and Sections 21000 et seq., Public Resources Code.

HISTORY

1. New Subchapter 2.6 (Articles 1–5, Sections 490–495.03, not consecutive) filed 9–28–79; effective thirtieth day thereafter (Register 79, No. 39).
2. Repealer of Subchapter 2.6 (Articles 1–5, Sections 490–495.03, not consecutive, not previously repealed by OAL Order of Repeal) filed 6–5–86; effective thirtieth day thereafter (Register 86, No. 23). For prior history, see Register 85, No. 26; 81, Nos. 40 and 38; and 80, No. 7.

Chapter 2.7. Model Water Efficient Landscape Ordinance

§ 490. Purpose.

(a) The State Legislature has found:

(1) that the waters of the state are of limited supply and are subject to ever increasing demands;

(2) that the continuation of California's economic prosperity is dependent on the availability of adequate supplies of water for future uses;

(3) that 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) that 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) that landscape design, installation, maintenance and management can and should be water efficient;

(6) that 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 or unreasonable method of use.

(b) Consistent with the legislative findings, the purpose of this model ordinance is to:

(1) promote the values and benefits of 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 as an upper limit for water use and reduce water use to the lowest practical amount;

(5) promote the benefits of consistent landscape ordinances with neighboring local and regional agencies;

(6) encourage local agencies and water purveyors to use economic incentives that promote the efficient use of water, such as implementing a tiered–rate structure; and

(7) encourage local agencies to designate the necessary authority that implements and enforces the provisions of the Model Water Efficient Landscape Ordinance or its local landscape ordinance.

(c) Landscapes that are planned, designed, installed, managed and maintained with the watershed based approach can improve California's environmental conditions and provide benefits and realize sustainability goals. Such landscapes will make the urban environment resilient in the face of climatic extremes. Consistent with the legislative findings and purpose of the Ordinance, conditions in the urban setting will be improved by:

(1) Creating the conditions to support life in the soil by reducing compaction, incorporating organic matter that increases water retention, and promoting productive plant growth that leads to more carbon storage, oxygen production, shade, habitat and esthetic benefits.

(2) Minimizing energy use by reducing irrigation water requirements, reducing reliance on petroleum based fertilizers and pesticides, and planting climate appropriate shade trees in urban areas.

(3) Conserving water by capturing and reusing rainwater and graywater wherever possible and selecting climate appropriate plants that need minimal supplemental water after establishment.

(4) Protecting air and water quality by reducing power equipment use and landfill disposal trips, selecting recycled and locally sourced materi-

als, and using compost, mulch and efficient irrigation equipment to prevent erosion.

(5) Protecting existing habitat and creating new habitat by choosing local native plants, climate adapted non–natives and avoiding invasive plants. Utilizing integrated pest management with least toxic methods as the first course of action.

NOTE: Authority cited: Section 65593, Government Code; and sections 11 and 30, Governor's Exec. Order No. B–29–15 (April 1, 2015). Reference: Sections 65591, 65593 and 65596, Government Code; and section 11, Governor's Exec. Order No. B–29–15 (April 1, 2015).

HISTORY

1. New chapter 2.7 (sections 490–495) filed 7–31–92; operative 7–31–92 (Register 92, No. 32).
2. Amendment of section and NOTE filed 9–10–2009; operative 9–10–2009 pursuant to Government Code section 11343.4 (Register 2009, No. 37).
3. Amendment of subsections (a)(4) and (b)(1)–(2), new subsections (c)–(c)(5) and amendment of NOTE filed 9–15–2015; operative 9–15–2015. Exempt from OAL review and submitted to OAL for printing only pursuant to Governor's Executive Order No. B–29–15 (4–1–2015) (Register 2015, No. 38).

§ 490.1. Applicability.

(a) After December 1, 2015, and consistent with Executive Order No. B–29–15, this ordinance shall apply to all of the following landscape projects:

(1) new construction projects with an aggregate landscape area equal to or greater than 500 square feet requiring a building or landscape permit, plan check or design review;

(2) rehabilitated landscape projects with an aggregate landscape area equal to or greater than 2,500 square feet requiring a building or landscape permit, plan check, or design review;

(3) existing landscapes limited to Sections 493, 493.1 and 493.2; and

(4) cemeteries. Recognizing the special landscape management needs of cemeteries, new and rehabilitated cemeteries are limited to Sections 492.4, 492.11, and 492. 12; and existing cemeteries are limited to Sections 493, 493.1, and 493.2.

(b) For local land use agencies working together to develop a regional water efficient landscape ordinance, the reporting requirements of this ordinance shall become effective December 1, 2015 and the remainder of this ordinance shall be effective no later than February 1, 2016.

(c) Any project with an aggregate landscape area of 2,500 square feet or less may comply with the performance requirements of this ordinance or conform to the prescriptive measures contained in Appendix D.

(d) For projects using treated or untreated graywater or rainwater captured on site, any lot or parcel within the project that has less than 2500 sq. ft. of landscape and meets the lot or parcel's landscape water requirement (Estimated Total Water Use) entirely with treated or untreated graywater or through stored rainwater captured on site is subject only to Appendix D section (5).

(e) This ordinance does not apply to:

(1) registered local, state or federal historical sites;

(2) ecological restoration projects that do not require a permanent irrigation system;

(3) mined–land reclamation projects that do not require a permanent irrigation system; or

(4) existing plant collections, as part of botanical gardens and arboretums open to the public.

NOTE: Authority cited: Section 65595, Government Code; and sections 11 and 30, Governor's Exec. Order No. B–29–15 (April 1, 2015). Reference: Section 65596, Government Code; and section 11, Governor's Exec. Order No. B–29–15 (April 1, 2015).

HISTORY

1. New section filed 9–10–2009; operative 9–10–2009 pursuant to Government Code section 11343.4 (Register 2009, No. 37).
2. Amendment of section and NOTE filed 9–15–2015; operative 9–15–2015. Exempt from OAL review and submitted to OAL for printing only pursuant to Governor's Executive Order No. B–29–15 (4–1–2015) (Register 2015, No. 38).

§ 491. Definitions.

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

(a) "applied water" means the portion of water supplied by the irrigation system to the landscape.

(b) "automatic irrigation controller" means a timing device used to remotely control valves that operate an irrigation system. Automatic irrigation controllers are able to self–adjust and schedule irrigation events using either evapotranspiration (weather–based) or soil moisture data.

(c) "backflow prevention device" means a safety device used to prevent pollution or contamination of the water supply due to the reverse flow of water from the irrigation system.

(d) "Certificate of Completion" means the document required under Section 492.9.

(e) "certified irrigation designer" means a person certified to design irrigation systems by an accredited academic institution, a professional trade organization or other program such as the US Environmental Protection Agency's WaterSense irrigation designer certification program and Irrigation Association's Certified Irrigation Designer program.

(f) "certified landscape irrigation auditor" means a person certified to perform landscape irrigation audits by an accredited academic institution, a professional trade organization or other program such as the US Environmental Protection Agency's WaterSense irrigation auditor certification program and Irrigation Association's Certified Landscape Irrigation Auditor program.

(g) "check valve" or "anti–drain valve" means a valve located under a sprinkler head, or other location in the irrigation system, to hold water in the system to prevent drainage from sprinkler heads when the sprinkler is off.

(h) "common interest developments" means community apartment projects, condominium projects, planned developments, and stock cooperatives per Civil Code Section 1351.

(i) "compost" means the safe and stable product of controlled biologic decomposition of organic materials that is beneficial to plant growth.

(j) "conversion factor (0.62)" means the number that converts acre–inches per acre per year to gallons per square foot per year.

(k) "distribution uniformity" means the measure of the uniformity of irrigation water over a defined area.

(*l*) "drip irrigation" means any non–spray low volume irrigation system utilizing emission devices with a flow rate measured in gallons per hour. Low volume irrigation systems are specifically designed to apply small volumes of water slowly at or near the root zone of plants.

(m) "ecological restoration project" means a project where the site is intentionally altered to establish a defined, indigenous, historic ecosystem.

(n) "effective precipitation" or "usable rainfall" (Eppt) means the portion of total precipitation which becomes available for plant growth.

(o) "emitter" means a drip irrigation emission device that delivers water slowly from the system to the soil.

(p) "established landscape" means the point at which plants in the landscape have developed significant root growth into the soil. Typically, most plants are established after one or two years of growth.

(q) "establishment period of the plants" means the first year after installing the plant in the landscape or the first two years if irrigation will be terminated after establishment. Typically, most plants are established after one or two years of growth. Native habitat mitigation areas and trees may need three to five years for establishment.

(r) "Estimated Total Water Use" (ETWU) means the total water used for the landscape as described in Section 492.4.

(s) "ET adjustment factor" (ETAF) means a factor of 0.55 for residential areas and 0.45 for non–residential areas, 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. The ETAF for new and existing (non–rehabilitated) Special Landscape Areas shall not exceed 1.0. The ETAF for existing non–rehabilitated landscapes is 0.8.

(t) "evapotranspiration rate" means the quantity of water evaporated from adjacent soil and other surfaces and transpired by plants during a specified time.

(u) "flow rate" means the rate at which water flows through pipes, valves and emission devices, measured in gallons per minute, gallons per hour, or cubic feet per second.

(v) "flow sensor" means an inline device installed at the supply point of the irrigation system that produces a repeatable signal proportional to flow rate. Flow sensors must be connected to an automatic irrigation controller, or flow monitor capable of receiving flow signals and operating master valves. This combination flow sensor/controller may also function as a landscape water meter or submeter.

(w) "friable" means a soil condition that is easily crumbled or loosely compacted down to a minimum depth per planting material requirements, whereby the root structure of newly planted material will be allowed to spread unimpeded.

(x) "Fuel Modification Plan Guideline" means guidelines from a local fire authority to assist residents and businesses that are developing land or building structures in a fire hazard severity zone.

(y) "graywater" means untreated wastewater that has not been contaminated by any toilet discharge, has not been affected by infectious, contaminated, or unhealthy bodily wastes, and does not present a threat from contamination by unhealthful processing, manufacturing, or operating wastes. "Graywater" includes, but is not limited to, wastewater from bathtubs, showers, bathroom washbasins, clothes washing machines, and laundry tubs, but does not include wastewater from kitchen sinks or dishwashers. Health and Safety Code Section 17922.12.

(z) "hardscapes" means any durable material (pervious and non–pervious).

(aa) "hydrozone" means a portion of the landscaped area having plants with similar water needs and rooting depth. A hydrozone may be irrigated or non–irrigated.

(bb) "infiltration rate" means the rate of water entry into the soil expressed as a depth of water per unit of time (e.g., inches per hour).

(cc) "invasive plant species" means species of plants not historically found in California that spread outside cultivated areas and can damage environmental or economic resources. Invasive species may be regulated by county agricultural agencies as noxious species. Lists of invasive plants are maintained at the California Invasive Plant Inventory and USDA invasive and noxious weeds database.

(dd) "irrigation audit" means an in–depth evaluation of the performance of an irrigation system conducted by a Certified Landscape Irrigation Auditor. An irrigation audit includes, but is not limited to: inspection, system tune–up, system test with distribution uniformity or emission uniformity, reporting overspray or runoff that causes overland flow, and preparation of an irrigation schedule. The audit must be conducted in a manner consistent with the Irrigation Association's Landscape Irrigation Auditor Certification program or other U.S. Environmental Protection Agency "Watersense" labeled auditing program.

(ee) "irrigation efficiency" (IE) means 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 irrigation efficiency for purposes of this ordinance are 0.75 for overhead spray devices and 0.81 for drip systems.

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

(gg) "irrigation water use analysis" means an analysis of water use data based on meter readings and billing data.

(hh) "landscape architect" means a person who holds a license to practice landscape architecture in the state of California Business and Professions Code, Section 5615.

(ii) "landscape area" means all the planting areas, turf areas, and water features in a landscape design plan subject to the Maximum Applied Water Allowance calculation. The landscape area does not include footprints of buildings or structures, sidewalks, driveways, parking lots, decks, patios, gravel or stone walks, other pervious or non–pervious hardscapes, and other non–irrigated areas designated for non–development (e.g., open spaces and existing native vegetation).

(jj) "landscape contractor" means a person licensed by the state of California to construct, maintain, repair, install, or subcontract the development of landscape systems.

(kk) "Landscape Documentation Package" means the documents required under Section 492.3.

(*ll*) "landscape project" means total area of landscape in a project as defined in "landscape area" for the purposes of this ordinance, meeting requirements under Section 490.1.

(mm) "landscape water meter" means an inline device installed at the irrigation supply point that measures the flow of water into the irrigation system and is connected to a totalizer to record water use.

(nn) "lateral line" means the water delivery pipeline that supplies water to the emitters or sprinklers from the valve.

(oo) "local agency" means a city or county, including a charter city or charter county, that is responsible for adopting and implementing the ordinance. The local agency is also responsible for the enforcement of this ordinance, including but not limited to, approval of a permit and plan check or design review of a project.

(pp) "local water purveyor" means any entity, including a public agency, city, county, or private water company that provides retail water service.

(qq) "low volume irrigation" means the application of irrigation water at low pressure through a system of tubing or lateral lines and low–volume emitters such as drip, drip lines, and bubblers. Low volume irrigation systems are specifically designed to apply small volumes of water slowly at or near the root zone of plants.

(rr) "main line" means the pressurized pipeline that delivers water from the water source to the valve or outlet.

(ss) "master shut–off valve" is an automatic valve installed at the irrigation supply point which controls water flow into the irrigation system. When this valve is closed water will not be supplied to the irrigation system. A master valve will greatly reduce any water loss due to a leaky station valve.

(tt) "Maximum Applied Water Allowance" (MAWA) means the upper limit of annual applied water for the established landscaped area as specified in Section 492.4. It is based upon the area's reference evapotranspiration, the ET Adjustment Factor, and the size of the landscape area. The Estimated Total Water Use shall not exceed the Maximum Applied Water Allowance. Special Landscape Areas, including recreation areas, areas permanently and solely dedicated to edible plants such as orchards and vegetable gardens, and areas irrigated with recycled water are subject to the MAWA with an ETAF not to exceed 1.0. MAWA = (ETo) (0.62) [(ETAF x LA) + ((1–ETAF) x SLA)]

(uu) "median" is an area between opposing lanes of traffic that may be unplanted or planted with trees, shrubs, perennials, and ornamental grasses.

(vv) "microclimate" means the climate of a small, specific area that may contrast with the climate of the overall landscape area due to factors such as wind, sun exposure, plant density, or proximity to reflective surfaces.

(ww) "mined–land reclamation projects" means any surface mining operation with a reclamation plan approved in accordance with the Surface Mining and Reclamation Act of 1975.

(xx) "mulch" means any organic material such as leaves, bark, straw, compost, or inorganic mineral materials such as rocks, gravel, or decomposed granite left loose and applied to the soil surface for the beneficial purposes of reducing evaporation, suppressing weeds, moderating soil temperature, and preventing soil erosion.

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

(zz) "non–residential landscape" means landscapes in commercial, institutional, industrial and public settings that may have areas designated for recreation or public assembly. It also includes portions of common areas of common interest developments with designated recreational areas.

(aaa) "operating pressure" means the pressure at which the parts of an irrigation system are designed by the manufacturer to operate.

(bbb) "overhead sprinkler irrigation systems" or "overhead spray irrigation systems" means systems that deliver water through the air (e.g., spray heads and rotors).

(ccc) "overspray" means the irrigation water which is delivered beyond the target area.

(ddd) "parkway" means the area between a sidewalk and the curb or traffic lane. It may be planted or unplanted, and with or without pedestrian egress.

(eee) "permit" means an authorizing document issued by local agencies for new construction or rehabilitated landscapes.

(fff) "pervious" means any surface or material that allows the passage of water through the material and into the underlying soil.

(ggg) "plant factor" or "plant water use factor" is a factor, when multiplied by ETo, estimates the amount of water needed by plants. For purposes of this ordinance, the plant factor range for very low water use plants is 0 to 0.1, the plant factor range for low water use plants is 0.1 to 0.3, the plant factor range for moderate water use plants is 0.4 to 0.6, and the plant factor range for high water use plants is 0.7 to 1.0. Plant factors cited in this ordinance are derived from the publication "Water Use Classification of Landscape Species". Plant factors may also be obtained from horticultural researchers from academic institutions or professional associations as approved by the California Department of Water Resources (DWR).

(hhh) "project applicant" means the individual or entity submitting a Landscape Documentation Package required under Section 492.3, to request a permit, plan check, or design review from the local agency. A project applicant may be the property owner or his or her designee.

(iii) "rain sensor" or "rain sensing shutoff device" means a component which automatically suspends an irrigation event when it rains.

(jjj) "record drawing" or "as–builts" means 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.

(kkk) "recreational area" means areas, excluding private single family residential areas, designated for active play, recreation or public assembly in parks, sports fields, picnic grounds, amphitheaters or golf course tees, fairways, roughs, surrounds and greens.

(*lll*) "recycled water," "reclaimed water," or "treated sewage effluent water" means treated or recycled waste water of a quality suitable for nonpotable uses such as landscape irrigation and water features. This water is not intended for human consumption.

(mmm) "reference evapotranspiration" or "ETo" means a standard measurement of environmental parameters which affect the water use of plants. ETo is expressed in inches per day, month, or year as represented in Appendix A, and is an estimate of the evapotranspiration of a large field of four– to seven–inch tall, cool–season grass that is well watered. Reference evapotranspiration is used as the basis of determining the Maximum Applied Water Allowances so that regional differences in climate can be accommodated.

(nnn) "Regional Water Efficient Landscape Ordinance" means a local Ordinance adopted by two or more local agencies, water suppliers and other stakeholders for implementing a consistent set of landscape provisions throughout a geographical region. Regional ordinances are strongly encouraged to provide a consistent framework for the landscape industry and applicants to adhere to.

(ooo) "rehabilitated landscape" means any relandscaping project that requires a permit, plan check, or design review, meets the requirements of Section 490.1, and the modified landscape area is equal to or greater than 2,500 square feet.

(ppp) "residential landscape" means landscapes surrounding single or multifamily homes.

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

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

(sss) "soil texture" means the classification of soil based on its percentage of sand, silt, and clay.

(ttt) "Special Landscape Area" (SLA) means an area of the landscape dedicated solely to edible plants, recreational areas, areas irrigated with recycled water, or water features using recycled water.

(uuu) "sprinkler head" or "spray head" means a device which delivers water through a nozzle.

(vvv) "static water pressure" means the pipeline or municipal water supply pressure when water is not flowing.

(www) "station" means an area served by one valve or by a set of valves that operate simultaneously.

(xxx) "swing joint" means an irrigation component that provides a flexible, leak–free connection between the emission device and lateral pipeline to allow movement in any direction and to prevent equipment damage.

(yyy) "submeter" means a metering device to measure water applied to the landscape that is installed after the primary utility water meter.

(zzz) "turf" means a ground cover surface of mowed grass. Annual bluegrass, Kentucky bluegrass, Perennial ryegrass, Red fescue, and Tall fescue are cool–season grasses. Bermudagrass, Kikuyugrass, Seashore Paspalum, St. Augustinegrass, Zoysiagrass, and Buffalo grass are warm–season grasses.

(aaaa) "valve" means a device used to control the flow of water in the irrigation system.

(bbbb) "water conserving plant species" means a plant species identified as having a very low or low plant factor.

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

(dddd) "watering window" means the time of day irrigation is allowed.

(eeee) "WUCOLS" means the Water Use Classification of Landscape Species published by the University of California Cooperative Extension and the Department of Water Resources 2014.

NOTE: Authority cited: Section 65595, Government Code; and sections 11 and 30, Governor's Exec. Order No. B–29–15 (April 1, 2015). Reference: Sections 65592 and 65596, Government Code; and section 11, Governor's Exec. Order No. B–29–15 (April 1, 2015).

HISTORY

1. New section filed 7–31–92; operative 7–31–92 (Register 92, No. 32).
2. Amendment of section and NOTE filed 9–10–2009; operative 9–10–2009 pursuant to Government Code section 11343.4 (Register 2009, No. 37).
3. Amendment of section and NOTE filed 9–15–2015; operative 9–15–2015. Exempt from OAL review and submitted to OAL for printing only pursuant to Governor's Executive Order No. B–29–15 (4–1–2015) (Register 2015, No. 38).

§ 492. Provisions for New Construction or Rehabilitated Landscapes.

(a) A local agency may designate by mutual agreement, another agency, such as a water purveyor, to implement some or all of the requirements contained in this ordinance. Local agencies may collaborate with water purveyors to define each entity's specific responsibilities relating to this ordinance.

NOTE: Authority cited: Section 65595, Government Code; and sections 11 and 30, Governor's Exec. Order No. B–29–15 (April 1, 2015). Reference: Section 65596,

Government Code; and section 11, Governor's Exec. Order No. B–29–15 (April 1, 2015).

HISTORY

1. New section filed 7–31–92; operative 7–31–92 (Register 92, No. 32).
2. Amendment of section heading, repealer and new section and amendment of NOTE filed 9–10–2009; operative 9–10–2009 pursuant to Government Code section 11343.4 (Register 2009, No. 37).
3. Amendment of section and NOTE filed 9–15–2015; operative 9–15–2015. Exempt from OAL review and submitted to OAL for printing only pursuant to Governor's Executive Order No. B–29–15 (4–1–2015) (Register 2015, No. 38).

§ 492.1. Compliance with Landscape Documentation Package.

(a) Prior to construction, the local agency shall:

(1) provide the project applicant with the ordinance and procedures for permits, plan checks or design reviews;

(2) review the Landscape Documentation Package submitted by the project applicant;

(3) approve or deny the Landscape Documentation Package;

(4) issue a permit or approve the plan check or design review for the project applicant; and

(5) upon approval of the Landscape Documentation Package, submit a copy of the Water Efficient Landscape Worksheet to the local water purveyor.

(b) Prior to construction, the project applicant shall:

(1) submit a Landscape Documentation Package to the local agency.

(c) Upon approval of the Landscape Documentation Package by the local agency, the project applicant shall:

(1) receive a permit or approval of the plan check or design review and record the date of the permit in the Certificate of Completion;

(2) submit a copy of the approved Landscape Documentation Package along with the record drawings, and any other information to the property owner or his/her designee; and

(3) submit a copy of the Water Efficient Landscape Worksheet to the local water purveyor.

NOTE: Authority cited: Section 65595, Government Code. Reference: Section 65596, Government Code.

HISTORY

1. New section filed 9–10–2009; operative 9–10–2009 pursuant to Government Code section 11343.4 (Register 2009, No. 37).

§ 492.2. Penalties.

(a) A local agency may establish and administer penalties to the project applicant for non–compliance with the ordinance to the extent permitted by law.

NOTE: Authority cited: Section 65595, Government Code. Reference: Section 65596, Government Code.

HISTORY

1. New section filed 9–10–2009; operative 9–10–2009 pursuant to Government Code section 11343.4 (Register 2009, No. 37).

§ 492.3. Elements of the Landscape Documentation Package.

(a) The Landscape Documentation Package shall include the following six (6) elements:

(1) project information;

(A) date

(B) project applicant

(C) project address (if available, parcel and/or lot number(s))

(D) total landscape area (square feet)

(E) project type (e.g., new, rehabilitated, public, private, cemetery, homeowner–installed)

(F) water supply type (e.g., potable, recycled, well) and identify the local retail water purveyor if the applicant is not served by a private well

(G) checklist of all documents in Landscape Documentation Package

(H) project contacts to include contact information for the project applicant and property owner

(I) applicant signature and date with statement, "I agree to comply with the requirements of the water efficient landscape ordinance and submit a complete Landscape Documentation Package".

(2) Water Efficient Landscape Worksheet;

(A) hydrozone information table

(B) water budget calculations

1. Maximum Applied Water Allowance (MAWA)
2. Estimated Total Water Use (ETWU)

(3) soil management report;

(4) landscape design plan;

(5) irrigation design plan; and

(6) grading design plan.

NOTE: Authority cited: Section 65595, Government Code. Reference: Section 65596, Government Code.

HISTORY

1. New section filed 9–10–2009; operative 9–10–2009 pursuant to Government Code section 11343.4 (Register 2009, No. 37).

§ 492.4. Water Efficient Landscape Worksheet.

(a) A project applicant shall complete the Water Efficient Landscape Worksheet in Appendix B which contains information on the plant factor, irrigation method, irrigation efficiency, and area associated with each hydrozone. Calculations are then made to show that the evapotranspiration adjustment factor (ETAF) for the landscape project does not exceed a factor of 0.55 for residential areas and 0.45 for non–residential areas, exclusive of Special Landscape Areas. The ETAF for a landscape project is based on the plant factors and irrigation methods selected. The Maximum Applied Water Allowance is calculated based on the maximum ETAF allowed (0.55 for residential areas and 0.45 for non–residential areas) and expressed as annual gallons required. The Estimated Total Water Use (ETWU) is calculated based on the plants used and irrigation method selected for the landscape design. ETWU must be below the MAWA.

(1) In calculating the Maximum Applied Water Allowance and Estimated Total Water Use, a project applicant shall use the ETo values from the Reference Evapotranspiration Table in Appendix A. For geographic areas not covered in Appendix A, use data from other cities located nearby in the same reference evapotranspiration zone, as found in the CIMIS Reference Evapotranspiration Zones Map, Department of Water Resources, 1999.

(b) Water budget calculations shall adhere to the following requirements:

(1) The plant factor used shall be from WUCOLS or from horticultural researchers with academic institutions or professional associations as approved by the California Department of Water Resources (DWR). The plant factor ranges from 0 to 0.1 for very low water using plants, 0.1 to 0.3 for low water use plants, from 0.4 to 0.6 for moderate water use plants, and from 0.7 to 1.0 for high water use plants.

(2) All water features shall be included in the high water use hydrozone and temporarily irrigated areas shall be included in the low water use hydrozone.

(3) All Special Landscape Areas shall be identified and their water use calculated as shown in Appendix B.

(4) ETAF for new and existing (non–rehabilitated) Special Landscape Areas shall not exceed 1.0.

NOTE: Authority cited: Section 65595, Government Code; and sections 11 and 30, Governor's Exec. Order No. B–29–15 (April 1, 2015). Reference: Section 65596, Government Code; and section 11, Governor's Exec. Order No. B–29–15 (April 1, 2015).

HISTORY

1. New section filed 9–10–2009; operative 9–10–2009 pursuant to Government Code section 11343.4 (Register 2009, No. 37).
2. Amendment of section and NOTE filed 9–15–2015; operative 9–15–2015. Exempt from OAL review and submitted to OAL for printing only pursuant to Governor's Executive Order No. B–29–15 (4–1–2015) (Register 2015, No. 38).

§ 492.5. Soil Management Report.

(a) In order to reduce runoff and encourage healthy plant growth, a soil management report shall be completed by the project applicant, or his/her designee, as follows:

(1) Submit soil samples to a laboratory for analysis and recommendations.

(A) Soil sampling shall be conducted in accordance with laboratory protocol, including protocols regarding adequate sampling depth for the intended plants.

(B) The soil analysis shall include:

1. soil texture;
2. infiltration rate determined by laboratory test or soil texture infiltration rate table;
3. pH;
4. total soluble salts;
5. sodium;
6. percent organic matter; and
7. recommendations.

(C) In projects with multiple landscape installations (i.e. production home developments) a soil sampling rate of 1 in 7 lots or approximately 15% will satisfy this requirement. Large landscape projects shall sample at a rate equivalent to 1 in 7 lots.

(2) The project applicant, or his/her designee, shall comply with one of the following:

(A) 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

(B) If significant mass grading is planned, the soil analysis report shall be submitted to the local agency as part of the Certificate of Completion.

(3) The soil analysis report shall be made available, in a timely manner, to the professionals preparing the landscape design plans and irrigation design plans to make any necessary adjustments to the design plans.

(4) The project applicant, or his/her designee, shall submit documentation verifying implementation of soil analysis report recommendations to the local agency with Certificate of Completion.

NOTE: Authority cited: Section 65595, Government Code; and sections 11 and 30, Governor's Exec. Order No. B–29–15 (April 1, 2015). Reference: Section 65596, Government Code; and section 11, Governor's Exec. Order No. B–29–15 (April 1, 2015).

HISTORY

1. New section filed 9–10–2009; operative 9–10–2009 pursuant to Government Code section 11343.4 (Register 2009, No. 37).
2. Amendment of subsection (a)(1)(B), new subsection (a)(1)(C) and amendment of NOTE filed 9–15–2015; operative 9–15–2015. Exempt from OAL review and submitted to OAL for printing only pursuant to Governor's Executive Order No. B–29–15 (4–1–2015) (Register 2015, No. 38).

§ 492.6. Landscape Design Plan.

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

(1) Plant Material

(A) 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. Methods to achieve water efficiency shall include one or more of the following:

1. protection and preservation of native species and natural vegetation;
2. selection of water–conserving plant, tree and turf species, especially local native plants;
3. selection of plants based on local climate suitability, disease and pest resistance;
4. selection of trees based on applicable local tree ordinances or tree shading guidelines, and size at maturity as appropriate for the planting area; and
5. selection of plants from local and regional landscape program plant lists.
6. selection of plants from local Fuel Modification Plan Guidelines.

(B) Each hydrozone shall have plant materials with similar water use, with the exception of hydrozones with plants of mixed water use, as specified in Section 492.7(a)(2)(D).

(C) Plants shall be selected and planted appropriately based upon their adaptability to the climatic, geologic, and topographical conditions of the project site. Methods to achieve water efficiency shall include one or more of the following:

1. use the Sunset Western Climate Zone System which takes into account temperature, humidity, elevation, terrain, latitude, and varying degrees of continental and marine influence on local climate;
2. recognize the horticultural attributes of plants (i.e., mature plant size, invasive surface roots) to minimize damage to property or infrastructure [e.g., buildings, sidewalks, power lines]; allow for adequate soil volume for healthy root growth; and
3. consider the solar orientation for plant placement to maximize summer shade and winter solar gain.

(D) 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).

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

(F) A landscape design plan for projects 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 materials and highly flammable mulches. Refer to the local Fuel Modification Plan guidelines.

(G) The use of invasive plant species, such as those listed by the California Invasive Plant Council, is strongly discouraged.

(H) The architectural guidelines of a common interest development, which include 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.

(2) Water Features

(A) Recirculating water systems shall be used for water features.

(B) Where available, recycled water shall be used as a source for decorative water features.

(C) Surface area of a water feature shall be included in the high water use hydrozone area of the water budget calculation.

(D) Pool and spa covers are highly recommended.

(3) Soil Preparation, Mulch and Amendments

(A) Prior to the planting of any materials, compacted soils shall be transformed to a friable condition. On engineered slopes, only amended planting holes need meet this requirement.

(B) Soil amendments shall be incorporated according to recommendations of the soil report and what is appropriate for the plants selected (see Section 492.5).

(C) For landscape installations, compost at a rate of a minimum of four cubic yards per 1,000 square feet of permeable area shall be incorporated to a depth of six inches into the soil. Soils with greater than 6% organic matter in the top 6 inches of soil are exempt from adding compost and tilling.

(D) A minimum three inch (3") layer of mulch shall be applied on all exposed soil surfaces of planting areas except in turf areas, creeping or rooting groundcovers, or direct seeding applications where mulch is contraindicated. To provide habitat for beneficial insects and other wildlife, up to 5 % of the landscape area may be left without mulch. Designated insect habitat must be included in the landscape design plan as such.

(E) Stabilizing mulching products shall be used on slopes that meet current engineering standards.

(F) The mulching portion of the seed/mulch slurry in hydro–seeded applications shall meet the mulching requirement.

(G) Organic mulch materials made from recycled or post–consumer shall take precedence over inorganic materials or virgin forest products unless the recycled post–consumer organic products are not locally available. Organic mulches are not required where prohibited by local Fuel Modification Plan Guidelines or other applicable local ordinances.

(b) The landscape design plan, at a minimum, shall:

(1) delineate and label each hydrozone by number, letter, or other method;

(2) identify each hydrozone as low, moderate, high water, or mixed water use. Temporarily irrigated areas of the landscape shall be included in the low water use hydrozone for the water budget calculation;

(3) identify recreational areas;

(4) identify areas permanently and solely dedicated to edible plants;

(5) identify areas irrigated with recycled water;

(6) identify type of mulch and application depth;

(7) identify soil amendments, type, and quantity;

(8) identify type and surface area of water features;

(9) identify hardscapes (pervious and non–pervious);

(10) identify location, installation details, and 24–hour retention or infiltration capacity of any applicable stormwater best management practices that encourage on–site retention and infiltration of stormwater. Project applicants shall refer to the local agency or regional Water Quality Control Board for information on any applicable stormwater technical requirements. Stormwater best management practices are encouraged in the landscape design plan and examples are provided in Section 492.16.

(11) identify any applicable rain harvesting or catchment technologies as discussed in Section 492.16 and their 24–hour retention or infiltration capacity;

(12) identify any applicable graywater discharge piping, system components and area(s) of distribution;

(13) contain the following statement: "I have complied with the criteria of the ordinance and applied them for the efficient use of water in the landscape design plan"; and

(14) bear the signature of a licensed landscape architect, licensed landscape contractor, or any other person authorized to design a landscape. (See Sections 5500.1, 5615, 5641, 5641.1, 5641.2, 5641.3, 5641.4, 5641.5, 5641.6, 6701, 7027.5 of the Business and Professions Code, Section 832.27 of Title16 of the California Code of Regulations, and Section 6721 of the Food and Agriculture Code.).

NOTE: Authority cited: Section 65595, Government Code; and sections 11 and 30, Governor's Exec. Order No. B–29–15 (April 1, 2015). Reference: Section 65596, Government Code; Section 1351, Civil Code; and section 11, Governor's Exec. Order No. B–29–15 (April 1, 2015).

HISTORY

1. New section filed 9–10–2009; operative 9–10–2009 pursuant to Government Code section 11343.4 (Register 2009, No. 37).
2. Amendment of section and NOTE filed 9–15–2015; operative 9–15–2015. Exempt from OAL review and submitted to OAL for printing only pursuant to Governor's Executive Order No. B–29–15 (4–1–2015) (Register 2015, No. 38).

§ 492.7. Irrigation Design Plan.

(a) This section applies to landscaped areas requiring permanent irrigation, not areas that require temporary irrigation solely for the plant establishment period. For the efficient use of water, an irrigation system shall meet all the requirements listed in this section and the manufacturers' 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 design criteria shall be submitted as part of the Landscape Documentation Package.

(1) System

(A) Landscape water meters, defined as either a dedicated water service meter or private submeter, shall be installed for all non–residential irrigated landscapes of 1,000 sq. ft. but not more than 5,000 sq.ft. (the level at which Water Code 535 applies) and residential irrigated landscapes of 5,000 sq. ft. or greater. A landscape water meter may be either:

1. a customer service meter dedicated to landscape use provided by the local water purveyor; or

2. a privately owned meter or submeter.

(B) Automatic irrigation controllers utilizing either evapotranspiration or soil moisture sensor data utilizing non–volatile memory shall be required for irrigation scheduling in all irrigation systems.

(C) If the water pressure is below or exceeds the recommended pressure of the specified irrigation devices, the installation of a pressure regulating device is required to ensure that the dynamic pressure at each emission device is within the manufacturer's recommended pressure range for optimal performance.

1. If the static pressure is above or below the required dynamic pressure of the irrigation system, pressure–regulating devices such as inline pressure regulators, booster pumps, or other devices shall be installed to meet the required dynamic pressure of the irrigation system.

2. Static water pressure, dynamic or operating pressure, and flow reading of the water supply shall be measured at the point of connection. These pressure and flow measurements shall be conducted at the design stage. If the measurements are not available at the design stage, the measurements shall be conducted at installation.

(D) Sensors (rain, freeze, wind, etc.), either integral or auxiliary, that suspend or alter irrigation operation during unfavorable weather conditions shall be required on all irrigation systems, as appropriate for local climatic conditions. Irrigation should be avoided during windy or freezing weather or during rain.

(E) Manual shut–off valves (such as a gate valve, ball valve, or butterfly valve) shall be required, as close as possible to the point of connection of the water supply, to minimize water loss in case of an emergency (such as a main line break) or routine repair.

(F) Backflow prevention devices shall be required to protect the water supply from contamination by the irrigation system. A project applicant shall refer to the applicable local agency code (i.e., public health) for additional backflow prevention requirements.

(G) Flow sensors that detect high flow conditions created by system damage or malfunction are required for all on non–residential landscapes and residential landscapes of 5000 sq. ft. or larger.

(H) Master shut–off valves are required on all projects except landscapes that make use of technologies that allow for the individual control of sprinklers that are individually pressurized in a system equipped with low pressure shut down features.

(I) The irrigation system shall be designed to prevent runoff, low head drainage, overspray, or other similar conditions where irrigation water flows onto non–targeted areas, such as adjacent property, non–irrigated areas, hardscapes, roadways, or structures.

(J) Relevant information from the soil management plan, such as soil type and infiltration rate, shall be utilized when designing irrigation systems.

(K) The design of the irrigation system shall conform to the hydrozones of the landscape design plan.

(L) The irrigation system must be designed and installed to meet, at a minimum, the irrigation efficiency criteria as described in Section 492.4 regarding the Maximum Applied Water Allowance.

(M) All irrigation emission devices must meet the requirements set in the American National Standards Institute (ANSI) standard, American Society of Agricultural and Biological Engineers'/International Code Council's (ASABE/ICC) 802–2014 "Landscape Irrigation Sprinkler and Emitter Standard, All sprinkler heads installed in the landscape must document a distribution uniformity low quarter of 0.65 or higher using the protocol defined in ASABE/ICC 802–2014.

(N) It is highly recommended that the project applicant or local agency inquire with the local water purveyor about peak water operating demands (on the water supply system) or water restrictions that may impact the effectiveness of the irrigation system.

(O) In mulched planting areas, the use of low volume irrigation is required to maximize water infiltration into the root zone.

(P) Sprinkler heads and other emission devices shall have matched precipitation rates, unless otherwise directed by the manufacturer's recommendations.

(Q) Head to head coverage is recommended. However, sprinkler spacing shall be designed to achieve the highest possible distribution uniformity using the manufacturer's recommendations.

(R) Swing joints or other riser–protection components are required on all risers subject to damage that are adjacent to hardscapes or in high traffic areas of turfgrass.

(S) Check valves or anti–drain valves are required on all sprinkler heads where low point drainage could occur.

(T) Areas less than ten (10) feet in width in any direction shall be irrigated with subsurface irrigation or other means that produces no runoff or overspray.

(U) Overhead irrigation shall not be permitted within 24 inches of any non–permeable surface. Allowable irrigation within the setback from non–permeable surfaces may include drip, drip line, or other low flow non–spray technology. The setback area may be planted or unplanted. The surfacing of the setback may be mulch, gravel, or other porous material. These restrictions may be modified if:

1. the landscape area is adjacent to permeable surfacing and no runoff occurs; or

2. the adjacent non–permeable surfaces are designed and constructed to drain entirely to landscaping; or

3. the irrigation designer specifies an alternative design or technology, as part of the Landscape Documentation Package and clearly demonstrates strict adherence to irrigation system design criteria in Section 492.7 (a)(1)(I). Prevention of overspray and runoff must be confirmed during the irrigation audit.

(V) Slopes greater than 25% shall not be irrigated with an irrigation system with a application 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 and erosion must be confirmed during the irrigation audit.

(2) Hydrozone

(A) Each valve shall irrigate a hydrozone with similar site, slope, sun exposure, soil conditions, and plant materials with similar water use.

(B) Sprinkler heads and other emission devices shall be selected based on what is appropriate for the plant type within that hydrozone.

(C) Where feasible, trees shall be placed on separate valves from shrubs, groundcovers, and turf to facilitate the appropriate irrigation of trees. The mature size and extent of the root zone shall be considered when designing irrigation for the tree.

(D) Individual hydrozones that mix plants of moderate and low water use, or moderate and high water use, may be allowed if:

1. plant factor calculation is based on the proportions of the respective plant water uses and their plant factor; or

2. the plant factor of the higher water using plant is used for calculations.

(E) Individual hydrozones that mix high and low water use plants shall not be permitted.

(F) 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 (see Appendix B Section A). This table can also assist with the irrigation audit and programming the controller.

(b) The irrigation design plan, at a minimum, shall contain:

(1) location and size of separate water meters for landscape;

(2) location, type and size of all components of the irrigation system, including controllers, main and lateral lines, valves, sprinkler heads, moisture sensing devices, rain switches, quick couplers, pressure regulators, and backflow prevention devices;

(3) static water pressure at the point of connection to the public water supply;

(4) flow rate (gallons per minute), application rate (inches per hour), and design operating pressure (pressure per square inch) for each station;

(5) recycled water irrigation systems as specified in Section 492.14;

(6) the following statement: "I have complied with the criteria of the ordinance and applied them accordingly for the efficient use of water in the irrigation design plan"; and

(7) the signature of a licensed landscape architect, certified irrigation designer, licensed landscape contractor, or any other person authorized to design an irrigation system. (See Sections 5500.1, 5615, 5641, 5641.1, 5641.2, 5641.3, 5641.4, 5641.5, 5641.6, 6701, 7027.5 of the Business and Professions Code, Section 832.27 of Title16 of the California Code of Regulations, and Section 6721 of the Food and Agricultural Code.)

NOTE: Authority cited: Section 65595, Government Code; and sections 11 and 30, Governor's Exec. Order No. B–29–15 (April 1, 2015). Reference: Section 65596, Government Code; and section 11, Governor's Exec. Order No. B–29–15 (April 1, 2015).

HISTORY

1. New section filed 9–10–2009; operative 9–10–2009 pursuant to Government Code section 11343.4 (Register 2009, No. 37).
2. Amendment of section and NOTE filed 9–15–2015; operative 9–15–2015. Exempt from OAL review and submitted to OAL for printing only pursuant to Governor's Executive Order No. B–29–15 (4–1–2015) (Register 2015, No. 38).

§ 492.8. Grading Design Plan.

(a) For the 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.

(1) 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.

(2) To prevent excessive erosion and runoff, it is highly recommended 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.

(3) 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 design plan" and shall bear the signature of a licensed professional as authorized by law.

NOTE: Authority cited: Section 65595, Government Code. Reference: Section 65596, Government Code.

HISTORY

1. New section filed 9–10–2009; operative 9–10–2009 pursuant to Government Code section 11343.4 (Register 2009, No. 37).

§ 492.9. Certificate of Completion.

(a) The Certificate of Completion (see Appendix C for a sample certificate) shall include the following six (6) elements:

(1) project information sheet that contains:

(A) date;

(B) project name;

(C) project applicant name, telephone, and mailing address;

(D) project address and location; and

(E) property owner 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;

(A) where there have been significant changes made in the field during construction, these "as–built" or record drawings shall be included with the certification;

(B) A diagram of the irrigation plan showing hydrozones shall be kept with the irrigation controller for subsequent management purposes.

(3) irrigation scheduling parameters used to set the controller (see Section 492.10);

(4) landscape and irrigation maintenance schedule (see Section 492.11);

(5) irrigation audit report (see Section 492.12); and

(6) soil analysis report, if not submitted with Landscape Documentation Package, and documentation verifying implementation of soil report recommendations (see Section 492.5).

(b) The project applicant shall:

(1) submit the signed Certificate of Completion to the local agency for review;

(2) ensure that copies of the approved Certificate of Completion are submitted to the local water purveyor and property owner or his or her designee.

(c) The local agency shall:

(1) receive the signed Certificate of Completion from the project applicant;

(2) 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.

NOTE: Authority cited: Section 65595, Government Code; and sections 11 and 30, Governor's Exec. Order No. B–29–15 (April 1, 2015). Reference: Section 65596, Government Code; and section 11, Governor's Exec. Order No. B–29–15 (April 1, 2015).

HISTORY

1. New section filed 9–10–2009; operative 9–10–2009 pursuant to Government Code section 11343.4 (Register 2009, No. 37).
2. New subsection (a)(2)(B) and amendment of NOTE filed 9–15–2015; operative 9–15–2015. Exempt from OAL review and submitted to OAL for printing only pursuant to Governor's Executive Order No. B–29–15 (4–1–2015) (Register 2015, No. 38).

§ 492.10. Irrigation Scheduling.

(a) For the efficient use of water, all irrigation schedules shall be developed, managed, and evaluated to utilize the minimum amount of water required to maintain plant health. Irrigation schedules shall meet the following criteria:

(1) Irrigation scheduling shall be regulated by automatic irrigation controllers.

(2) Overhead irrigation shall be scheduled between 8:00 p.m. and 10:00 a.m. unless weather conditions prevent it. If allowable hours of irrigation differ from the local water purveyor, the stricter of the two shall apply. Operation of the irrigation system outside the normal watering window is allowed for auditing and system maintenance.

(3) For implementation of the irrigation schedule, particular attention must be paid to irrigation run times, emission device, flow rate, and current reference evapotranspiration, so that applied water meets the Estimated Total Water Use. Total annual applied water shall be less than or equal to Maximum Applied Water Allowance (MAWA). Actual irrigation schedules shall be regulated by automatic irrigation controllers using current reference evapotranspiration data (e.g., CIMIS) or soil moisture sensor data.

(4) Parameters used to set the automatic controller shall be developed and submitted for each of the following:

(A) the plant establishment period;

(B) the established landscape; and

(C) temporarily irrigated areas.

(5) Each irrigation schedule shall consider for each station all of the following that apply:

(A) irrigation interval (days between irrigation);

(B) irrigation run times (hours or minutes per irrigation event to avoid runoff);

(C) number of cycle starts required for each irrigation event to avoid runoff;

(D) amount of applied water scheduled to be applied on a monthly basis;

(E) application rate setting;

(F) root depth setting;

(G) plant type setting;

(H) soil type;

(I) slope factor setting;

(J) shade factor setting; and

(K) irrigation uniformity or efficiency setting.

NOTE: Authority cited: Section 65595, Government Code. Reference: Section 65596, Government Code.

HISTORY

1. New section filed 9–10–2009; operative 9–10–2009 pursuant to Government Code section 11343.4 (Register 2009, No. 37).

§ 492.11. Landscape and Irrigation Maintenance Schedule.

(a) Landscapes shall be maintained to ensure water use efficiency. A regular maintenance schedule shall be submitted with the Certificate of Completion.

(b) A regular maintenance schedule shall include, but not be limited to, routine inspection; auditing, adjustment and repair of the irrigation system and its components; aerating and dethatching turf areas; topdressing with compost, replenishing mulch; fertilizing; pruning; weeding in all landscape areas, and removing obstructions to emission devices. Operation of the irrigation system outside the normal watering window is allowed for auditing and system maintenance.

(c) Repair of all irrigation equipment shall be done with the originally installed components or their equivalents or with components with greater efficiency.

(d) A project applicant is encouraged to implement established landscape industry sustainable Best Practices for all landscape maintenance activities.

NOTE: Authority cited: Section 65595, Government Code; and sections 11 and 30, Governor's Exec. Order No. B–29–15 (April 1, 2015). Reference: Section 65596, Government Code; and section 11, Governor's Exec. Order No. B–29–15 (April 1, 2015).

HISTORY

1. New section filed 9–10–2009; operative 9–10–2009 pursuant to Government Code section 11343.4 (Register 2009, No. 37).
2. Amendment of section and NOTE filed 9–15–2015; operative 9–15–2015. Exempt from OAL review and submitted to OAL for printing only pursuant to Governor's Executive Order No. B–29–15 (4–1–2015) (Register 2015, No. 38).

§ 492.12. Irrigation Audit, Irrigation Survey, and Irrigation Water Use Analysis.

(a) All landscape irrigation audits shall be conducted by a local agency landscape irrigation auditor or a third party certified landscape irrigation auditor. Landscape audits shall not be conducted by the person who designed the landscape or installed the landscape.

(b) In large projects or projects with multiple landscape installations (i.e. production home developments) an auditing rate of 1 in 7 lots or approximately 15% will satisfy this requirement.

(c) For new construction and rehabilitated landscape projects installed after December 1, 2015, as described in Section 490.1:

(1) the project applicant shall submit an irrigation audit report with the Certificate of Completion to the local agency that may include, but is not 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;

(2) the local agency shall 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.

NOTE: Authority cited: Section 65595, Government Code; and sections 11 and 30, Governor's Exec. Order No. B–29–15 (April 1, 2015). Reference: Section 65596, Government Code; and section 11, Governor's Exec. Order No. B–29–15 (April 1, 2015).

HISTORY

1. New section filed 9–10–2009; operative 9–10–2009 pursuant to Government Code section 11343.4 (Register 2009, No. 37).
2. Amendment of section and NOTE filed 9–15–2015; operative 9–15–2015. Exempt from OAL review and submitted to OAL for printing only pursuant to Governor's Executive Order No. B–29–15 (4–1–2015) (Register 2015, No. 38).

§ 492.13. Irrigation Efficiency.

(a) For the purpose of determining Estimated Total Water Use, average irrigation efficiency is assumed to be 0.75 for overhead spray devices and 0.81 for drip system devices.

NOTE: Authority cited: Section 65595, Government Code; and sections 11 and 30, Governor's Exec. Order No. B–29–15 (April 1, 2015). Reference: Section 65596,

Government Code; and section 11, Governor's Exec. Order No. B–29–15 (April 1, 2015).

HISTORY

1. New section filed 9–10–2009; operative 9–10–2009 pursuant to Government Code section 11343.4 (Register 2009, No. 37).
2. Amendment of section and NOTE filed 9–15–2015; operative 9–15–2015. Exempt from OAL review and submitted to OAL for printing only pursuant to Governor's Executive Order No. B–29–15 (4–1–2015) (Register 2015, No. 38).

§ 492.14. Recycled Water.

(a) The installation of recycled water irrigation systems shall allow for the current and future use of recycled water.

(b) All recycled water irrigation systems shall be designed and operated in accordance with all applicable local and State laws.

(c) Landscapes using recycled water are considered Special Landscape Areas. The ET Adjustment Factor for new and existing (non–rehabilitated) Special Landscape Areas shall not exceed 1.0.

NOTE: Authority cited: Section 65595, Government Code; and sections 11 and 30, Governor's Exec. Order No. B–29–15 (April 1, 2015). Reference: Section 65596, Government Code; and section 11, Governor's Exec. Order No. B–29–15 (April 1, 2015).

HISTORY

1. New section filed 9–10–2009; operative 9–10–2009 pursuant to Government Code section 11343.4 (Register 2009, No. 37).
2. Amendment of section and NOTE filed 9–15–2015; operative 9–15–2015. Exempt from OAL review and submitted to OAL for printing only pursuant to Governor's Executive Order No. B–29–15 (4–1–2015) (Register 2015, No. 38).

§ 492.15. Graywater Systems.

(a) Graywater systems promote the efficient use of water and are encouraged to assist in on–site landscape irrigation. All graywater systems shall conform to the California Plumbing Code (Title 24, Part 5, Chapter 16) and any applicable local ordinance standards. Refer to § 490.1 (d) for the applicability of this ordinance to landscape areas less than 2,500 square feet with the Estimated Total Water Use met entirely by graywater.

NOTE: Authority cited: Section 65595, Government Code; and sections 11 and 30, Governor's Exec. Order No. B–29–15 (April 1, 2015). Reference: Section 65596, Government Code; and section 11, Governor's Exec. Order No. B–29–15 (April 1, 2015).

HISTORY

1. New section filed 9–10–2009; operative 9–10–2009 pursuant to Government Code section 11343.4 (Register 2009, No. 37).
2. Renumbering of former section 492.15 to 492.16, new section 492.15 and amendment of NOTE filed 9–15–2015; operative 9–15–2015. Exempt from OAL review and submitted to OAL for printing only pursuant to Governor's Executive Order No. B–29–15 (4–1–2015) (Register 2015, No. 38).

§ 492.16. Stormwater Management and Rainwater Retention.

(a) 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 rainwater retention and infiltration are encouraged.

(b) Project applicants shall refer to the local agency or Regional Water Quality Control Board for information on any applicable stormwater technical requirements.

(c) All planted landscape areas are required to have friable soil to maximize water retention and infiltration. Refer to § 492.6(a)(3).

(d) It is strongly recommended that landscape areas be designed for capture and infiltration capacity that is sufficient to prevent runoff from impervious surfaces (i.e. roof and paved areas) from either: the one inch, 24–hour rain event or (2) the 85th percentile, 24–hour rain event, and/or additional capacity as required by any applicable local, regional, state or federal regulation.

(e) It is recommended that storm water projects incorporate any of the following elements to improve on–site storm water and dry weather runoff capture and use:

- Grade impervious surfaces, such as driveways, during construction to drain to vegetated areas.
- Minimize the area of impervious surfaces such as paved areas, roof and concrete driveways.
- Incorporate pervious or porous surfaces (e.g., gravel, permeable pavers or blocks, pervious or porous concrete) that minimize runoff.
- Direct runoff from paved surfaces and roof areas into planting beds or landscaped areas to maximize site water capture and reuse.
- Incorporate rain gardens, cisterns, and other rain harvesting or catchment systems.
- Incorporate infiltration beds, swales, basins and drywells to capture storm water and dry weather runoff and increase percolation into the soil.
- Consider constructed wetlands and ponds that retain water, equalize excess flow, and filter pollutants.

NOTE: Authority cited: Section 65595, Government Code; and sections 11 and 30, Governor's Exec. Order No. B–29–15 (April 1, 2015). Reference: Section 65596, Government Code; and section 11, Governor's Exec. Order No. B–29–15 (April 1, 2015).

HISTORY

1. New section filed 9–10–2009; operative 9–10–2009 pursuant to Government Code section 11343.4 (Register 2009, No. 37).
2. Renumbering of former section 492.16 to section 492.17 and renumbering of former section 492.15 to new section 492.16, including amendment of section heading, section and NOTE, filed 9–15–2015; operative 9–15–2015. Exempt from OAL review and submitted to OAL for printing only pursuant to Governor's Executive Order No. B–29–15 (4–1–2015) (Register 2015, No. 38).

§ 492.17. Public Education.

(a) Publications. 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.

(1) A local agency or water supplier/purveyor shall provide information to owners of permitted renovations and new, single–family residential homes regarding the design, installation, management, and maintenance of water efficient landscapes based on a water budget.

(b) Model Homes. All model homes that are landscaped shall use signs and written information to demonstrate the principles of water efficient landscapes described in this ordinance.

(1) Signs shall be used to identify the model as an example of a water efficient landscape featuring elements such as hydrozones, irrigation equipment, and others that contribute to the overall water efficient theme. Signage shall include information about the site water use as designed per the local ordinance; specify who designed and installed the water efficient landscape; and demonstrate low water use approaches to landscaping such as using native plants, graywater systems, and rainwater catchment systems.

(2) Information shall be provided about designing, installing, managing, and maintaining water efficient landscapes.

NOTE: Authority cited: Section 65595, Government Code; and sections 11 and 30, Governor's Exec. Order No. B–29–15 (April 1, 2015). Reference: Section 65596, Government Code; and section 11, Governor's Exec. Order No. B–29–15 (April 1, 2015).

HISTORY

1. New section filed 9–10–2009; operative 9–10–2009 pursuant to Government Code section 11343.4 (Register 2009, No. 37).
2. Renumbering of former section 492.17 to new section 492.18 and renumbering of former section 492.16 to new section 492.17, including amendment of section and NOTE, filed 9–15–2015; operative 9–15–2015. Exempt from OAL review and submitted to OAL for printing only pursuant to Governor's Executive Order No. B–29–15 (4–1–2015) (Register 2015, No. 38).

§ 492.18. Environmental Review.

(a) The local agency must comply with the California Environmental Quality Act (CEQA), as appropriate.

NOTE: Authority cited: Section 21082, Public Resources Code; and sections 11 and 30, Governor's Exec. Order No. B–29–15 (April 1, 2015). Reference: Sections 21080 and 21082, Public Resources Code; and section 11, Governor's Exec. Order No. B–29–15 (April 1, 2015).

HISTORY

1. Renumbering of former section 492.17 to new section 492.18, including amendment of NOTE, filed 9–15–2015; operative 9–15–2015. Exempt from OAL review and submitted to OAL for printing only pursuant to Governor's Executive Order No. B–29–15 (4–1–2015) (Register 2015, No. 38).

§ 493. Provisions for Existing Landscapes.

(a) A local agency may by mutual agreement, designate another agency, such as a water purveyor, to implement some or all of the requirements contained in this ordinance. Local agencies may collaborate with water purveyors to define each entity's specific responsibilities relating to this ordinance.

NOTE: Authority cited: Section 65595, Government Code; and sections 11 and 30, Governor's Exec. Order No. B–29–15 (April 1, 2015). Reference: Section 65596, Government Code; and section 11, Governor's Exec. Order No. B–29–15 (April 1, 2015).

HISTORY

1. New section filed 7–31–92; operative 7–31–92 (Register 92, No. 32).
2. Repealer and new section and amendment of NOTE filed 9–10–2009; operative 9–10–2009 pursuant to Government Code section 11343.4 (Register 2009, No. 37).
3. Amendment of section and NOTE filed 9–15–2015; operative 9–15–2015. Exempt from OAL review and submitted to OAL for printing only pursuant to Governor's Executive Order No. B–29–15 (4–1–2015) (Register 2015, No. 38).

§ 493.1. Irrigation Audit, Irrigation Survey, and Irrigation Water Use Analysis.

(a) This section, 493.1, shall apply to all existing landscapes that were installed before December 1, 2015 and are over one acre in size.

(1) For all landscapes in 493.1 (a) that have a water meter, the local agency shall administer programs that may include, but not be limited to, irrigation water use analyses, irrigation surveys, and irrigation audits to evaluate water use and provide recommendations as necessary to reduce landscape water use to a level that does not exceed the Maximum Applied Water Allowance for existing landscapes. The Maximum Applied Water Allowance for existing landscapes shall be calculated as: MAWA = (0.8) (ETo) (LA) (0.62).

(2) For all landscapes in 493.1(a), that do not have a meter, the local agency shall administer programs that may include, but not be limited to, irrigation surveys and irrigation audits to evaluate water use and provide recommendations as necessary in order to prevent water waste.

(b) All landscape irrigation audits shall be conducted by a certified landscape irrigation auditor.

NOTE: Authority cited: Section 65595, Government Code; and sections 11 and 30, Governor's Exec. Order No. B–29–15 (April 1, 2015). Reference: Section 65596, Government Code; and section 11, Governor's Exec. Order No. B–29–15 (April 1, 2015).

HISTORY

1. New section filed 9–10–2009; operative 9–10–2009 pursuant to Government Code section 11343.4 (Register 2009, No. 37).
2. Amendment of subsection (a) and NOTE filed 9–15–2015; operative 9–15–2015. Exempt from OAL review and submitted to OAL for printing only pursuant to Governor's Executive Order No. B–29–15 (4–1–2015) (Register 2015, No. 38).

§ 493.2. Water Waste Prevention.

(a) Local agencies shall prevent water waste resulting from inefficient landscape irrigation by prohibiting runoff from leaving the target landscape due to low head drainage, overspray, or other similar conditions where water flows onto adjacent property, non–irrigated areas, walks, roadways, parking lots, or structures. Penalties for violation of these prohibitions shall be established locally.

(b) Restrictions regarding overspray and runoff may be modified if:

(1) the landscape area is adjacent to permeable surfacing and no runoff occurs; or

(2) the adjacent non–permeable surfaces are designed and constructed to drain entirely to landscaping.

NOTE: Authority cited: Section 65594, Government Code. Reference: Section 65596, Government Code.

HISTORY

1. New section filed 9–10–2009; operative 9–10–2009 pursuant to Government Code section 11343.4 (Register 2009, No. 37).

§ 494. Effective Precipitation.

(a) A local agency may consider Effective Precipitation (25% of annual precipitation) in tracking water use and may use the following equation to calculate Maximum Applied Water Allowance:

MAWA= (ETo – Eppt) (0.62) [(0.55 x LA) + (0.45 x SLA)] for residential areas.

MAWA= (ETo–EPPT) (0.62) [(0.45 x LA) + (0.55 x SLA)] for non–residential areas.

NOTE: Authority cited: Section 65595, Government Code; and sections 11 and 30, Governor's Exec. Order No. B–29–15 (April 1, 2015). Reference: Section 65596, Government Code; and section 11, Governor's Exec. Order No. B–29–15 (April 1, 2015).

HISTORY

1. Repealer and new section; new NOTE and new Appendices A–C filed 9–10–2009; operative 9–10–2009 pursuant to Government Code section 11343.4 (Register 2009, No. 37).
2. Amendment of section and NOTE filed 9–15–2015; operative 9–15–2015. Exempt from OAL review and submitted to OAL for printing only pursuant to Governor's Executive Order No. B–29–15 (4–1–2015) (Register 2015, No. 38).

§ 495. Reporting.

(a) Local agencies shall report on implementation and enforcement by December 31, 2015. Local agencies responsible for administering individual ordinances shall report on their updated ordinance, while those agencies developing a regional ordinance shall report on their existing ordinance. Those agencies crafting a regional ordinances shall also report on their new ordinance by March 1, 2016. Subsequently, reporting for all agencies will be due by January 31st of each year. Reports shall be submitted to the Department of Water Resources.

(b) Local agencies are to address the following:

(1) State whether you are adopting a single agency ordinance or a regional agency alliance ordinance, and the date of adoption or anticipated date of adoption.

(2) Define the reporting period. The reporting period shall commence on December 1, 2015 and the end on December 28, 2015. For local agencies crafting regional ordinances with other agencies, there shall be an additional reporting period commencing on February 1, 2016 and ending on February 28, 2016. In subsequent years, all local agency reporting will be for the calendar year.

(3) State if using a locally modified Water Efficient Landscape Ordinance (WELO) or the MWELO. If using a locally modified WELO, how is it different than MWELO, is it at least as efficient as MWELO, and are there any exemptions specified?

(4) State the entity responsible for implementing the ordinance.

(5) State number and types of projects subject to the ordinance during the specified reporting period.

(6) State the total area (in square feet or acres) subject to the ordinance over the reporting period, if available.

(7) Provide the number of new housing starts, new commercial projects, and landscape retrofits during the reporting period.

(8) Describe the procedure for review of projects subject to the ordinance.

(9) Describe actions taken to verify compliance. Is a plan check performed; if so, by what entity? Is a site inspection performed; if so, by what entity? Is a post–installation audit required; if so, by whom?

(10) Describe enforcement measures.

(11) Explain challenges to implementing and enforcing the ordinance.

(12) Describe educational and other needs to properly apply the ordinance.

NOTE: Authority cited: Section 65595, Government Code; and sections 11 and 30, Governor's Exec. Order No. B–29–15 (April 1, 2015). Reference: Section 65596, Government Code; and section 11, Governor's Exec. Order No. B–29–15 (April 1, 2015).

HISTORY

1. New section filed 9–15–2015; operative 9–15–2015. Exempt from OAL review and submitted to OAL for printing only pursuant to Governor's Executive Order No. B–29–15 (4–1–2015) (Register 2015, No. 38). For prior history, see Register 2009, No. 37.

Appendix A. Reference Evapotranspiration (ETo) Table

Appendix A - Reference Evapotranspiration (ETo) Table*

County and City	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual ETo
ALAMEDA													
Fremont	1.5	1.9	3.4	4.7	5.4	6.3	6.7	6.0	4.5	3.4	1.8	1.5	47.0
Livermore	1.2	1.5	2.9	4.4	5.9	6.6	7.4	6.4	5.3	3.2	1.5	0.9	47.2
Oakland	1.5	1.5	2.8	3.9	5.1	5.3	6.0	5.5	4.8	3.1	1.4	0.9	41.8
Oakland Foothills	1.1	1.4	2.7	3.7	5.1	6.4	5.8	4.9	3.6	2.6	1.4	1.0	39.6
Pleasanton	0.8	1.5	2.9	4.4	5.6	6.7	7.4	6.4	4.7	3.3	1.5	1.0	46.2
Union City	1.4	1.8	3.1	4.2	5.4	5.9	6.4	5.7	4.4	3.1	1.5	1.2	44.2
ALPINE													
Markleeville	0.7	0.9	2.0	3.5	5.0	6.1	7.3	6.4	4.4	2.6	1.2	0.5	40.6
AMADOR													
Jackson	1.2	1.5	2.8	4.4	6.0	7.2	7.9	7.2	5.3	3.2	1.4	0.9	48.9
Shanandoah Valley	1.0	1.7	2.9	4.4	5.6	6.8	7.9	7.1	5.2	3.6	1.7	1.0	48.8
BUTTE													
Chico	1.2	1.8	2.9	4.7	6.1	7.4	8.5	7.3	5.4	3.7	1.7	1.0	51.7
Durham	1.1	1.8	3.2	5.0	6.5	7.4	7.8	6.9	5.3	3.6	1.7	1.0	51.1
Gridley	1.2	1.8	3.0	4.7	6.1	7.7	8.5	7.1	5.4	3.7	1.7	1.0	51.9
Oroville	1.2	1.7	2.8	4.7	6.1	7.6	8.5	7.3	5.3	3.7	1.7	1.0	51.5
CALAVERAS													
San Andreas	1.2	1.5	2.8	4.4	6.0	7.3	7.9	7.0	5.3	3.2	1.4	0.7	48.8
COLUSA													
Colusa	1.0	1.7	3.4	5.0	6.4	7.6	8.3	7.2	5.4	3.8	1.8	1.1	52.8
Williams	1.2	1.7	2.9	4.5	6.1	7.2	8.5	7.3	5.3	3.4	1.6	1.0	50.8
CONTRA COSTA													
Brentwood	1.0	1.5	2.9	4.5	6.1	7.1	7.9	6.7	5.2	3.2	1.4	0.7	48.3
Concord	1.1	1.4	2.4	4.0	5.5	5.9	7.0	6.0	4.8	3.2	1.3	0.7	43.4
Courtland	0.9	1.5	2.9	4.4	6.1	6.9	7.9	6.7	5.3	3.2	1.4	0.7	48.0
Martinez	1.2	1.4	2.4	3.9	5.3	5.6	6.7	5.6	4.7	3.1	1.2	0.7	41.8
Moraga	1.2	1.5	3.4	4.2	5.5	6.1	6.7	5.9	4.6	3.2	1.6	1.0	44.9
Pittsburg	1.0	1.5	2.8	4.1	5.6	6.4	7.4	6.4	5.0	3.2	1.3	0.7	45.4
Walnut Creek	0.8	1.5	2.9	4.4	5.6	6.7	7.4	6.4	4.7	3.3	1.5	1.0	46.2
DEL NORTE													
Crescent City	0.5	0.9	2.0	3.0	3.7	3.5	4.3	3.7	3.0	2.0	0.9	0.5	27.7
EL DORADO													
Camino	0.9	1.7	2.5	3.9	5.9	7.2	7.8	6.8	5.1	3.1	1.5	0.9	47.3
FRESNO													
Clovis	1.0	1.5	3.2	4.8	6.4	7.7	8.5	7.3	5.3	3.4	1.4	0.7	51.4
Coalinga	1.2	1.7	3.1	4.6	6.2	7.2	8.5	7.3	5.3	3.4	1.6	0.7	50.9
Firebaugh	1.0	1.8	3.7	5.7	7.3	8.1	8.2	7.2	5.5	3.9	2.0	1.1	55.4
FivePoints	1.3	2.0	4.0	6.1	7.7	8.5	8.7	8.0	6.2	4.5	2.4	1.2	60.4
Fresno	0.9	1.7	3.3	4.8	6.7	7.8	8.4	7.1	5.2	3.2	1.4	0.6	51.1
Fresno State	0.9	1.6	3.2	5.2	7.0	8.0	8.7	7.6	5.4	3.6	1.7	0.9	53.7
Friant	1.2	1.5	3.1	4.7	6.4	7.7	8.5	7.3	5.3	3.4	1.4	0.7	51.3
Kerman	0.9	1.5	3.2	4.8	6.6	7.7	8.4	7.2	5.3	3.4	1.4	0.7	51.2
Kingsburg	1.0	1.5	3.4	4.8	6.6	7.7	8.4	7.2	5.3	3.4	1.4	0.7	51.6
Mendota	1.5	2.5	4.6	6.2	7.9	8.6	8.8	7.5	5.9	4.5	2.4	1.5	61.7
Orange Cove	1.2	1.9	3.5	4.7	7.4	8.5	8.9	7.9	5.9	3.7	1.8	1.2	56.7
Panoche	1.1	2.0	4.0	5.6	7.8	8.5	8.3	7.3	5.6	3.9	1.8	1.2	57.2
Parlier	1.0	1.9	3.6	5.2	6.8	7.6	8.1	7.0	5.1	3.4	1.7	0.9	52.0

Appendix A - Reference Evapotranspiration (ETo) Table*

County and City	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual ETo
FRESNO													
Reedley	1.1	1.5	3.2	4.7	6.4	7.7	8.5	7.3	5.3	3.4	1.4	0.7	51.3
Westlands	0.9	1.7	3.8	6.3	8.0	8.6	8.6	7.8	5.9	4.3	2.1	1.1	58.8
GLENN													
Orland	1.1	1.8	3.4	5.0	6.4	7.5	7.9	6.7	5.3	3.9	1.8	1.4	52.1
Willows	1.2	1.7	2.9	4.7	6.1	7.2	8.5	7.3	5.3	3.6	1.7	1.0	51.3
HUMBOLDT													
Eureka	0.5	1.1	2.0	3.0	3.7	3.7	3.7	3.7	3.0	2.0	0.9	0.5	27.5
Ferndale	0.5	1.1	2.0	3.0	3.7	3.7	3.7	3.7	3.0	2.0	0.9	0.5	27.5
Garberville	0.6	1.2	2.2	3.1	4.5	5.0	5.5	4.9	3.8	2.4	1.0	0.7	34.9
Hoopa	0.5	1.1	2.1	3.0	4.4	5.4	6.1	5.1	3.8	2.4	0.9	0.7	35.6
IMPERIAL													
Brawley	2.8	3.8	5.9	8.0	10.4	11.5	11.7	10.0	8.4	6.2	3.5	2.1	84.2
Calipatria/Mulberry	2.4	3.2	5.1	6.8	8.6	9.2	9.2	8.6	7.0	5.2	3.1	2.3	70.7
El Centro	2.7	3.5	5.6	7.9	10.1	11.1	11.6	9.5	8.3	6.1	3.3	2.0	81.7
Holtville	2.8	3.8	5.9	7.9	10.4	11.6	12.0	10.0	8.6	6.2	3.5	2.1	84.7
Meloland	2.5	3.2	5.5	7.5	8.9	9.2	9.0	8.5	6.8	5.3	3.1	2.2	71.6
Palo Verde II	2.5	3.3	5.7	6.9	8.5	8.9	8.6	7.9	6.2	4.5	2.9	2.3	68.2
Seeley	2.7	3.5	5.9	7.7	9.7	10.1	9.3	8.3	6.9	5.5	3.4	2.2	75.4
Westmoreland	2.4	3.3	5.3	6.9	8.7	9.6	9.6	8.7	6.9	5.0	3.0	2.2	71.4
Yuma	2.5	3.4	5.3	6.9	8.7	9.6	9.6	8.7	6.9	5.0	3.0	2.2	71.6
INYO													
Bishop	1.7	2.7	4.8	6.7	8.2	10.9	7.4	9.6	7.4	4.8	2.5	1.6	68.3
Death Valley Jct	2.2	3.3	5.4	7.7	9.8	11.1	11.4	10.1	8.3	5.4	2.9	1.7	79.1
Independence	1.7	2.7	3.4	6.6	8.5	9.5	9.8	8.5	7.1	3.9	2.0	1.5	65.2
Lower Haiwee Res.	1.8	2.7	4.4	7.1	8.5	9.5	9.8	8.5	7.1	4.2	2.6	1.5	67.6
Oasis	2.7	2.8	5.9	8.0	10.4	11.7	11.6	10.0	8.4	6.2	3.4	2.1	83.1
KERN													
Arvin	1.2	1.8	3.5	4.7	6.6	7.4	8.1	7.3	5.3	3.4	1.7	1.0	51.9
Bakersfield	1.0	1.8	3.5	4.7	6.6	7.7	8.5	7.3	5.3	3.5	1.6	0.9	52.4
Bakersfield/Bonanza	1.2	2.2	3.7	5.7	7.4	8.2	8.7	7.8	5.7	4.0	2.1	1.2	57.9
Bakersfield/Greenlee	1.2	2.2	3.7	5.7	7.4	8.2	8.7	7.8	5.7	4.0	2.1	1.2	57.9
Belridge	1.4	2.2	4.1	5.5	7.7	8.5	8.6	7.8	6.0	3.8	2.0	1.5	59.2
Blackwells Corner	1.4	2.1	3.8	5.4	7.0	7.8	8.5	7.7	5.8	3.9	1.9	1.2	56.6
Buttonwillow	1.0	1.8	3.2	4.7	6.6	7.7	8.5	7.3	5.4	3.4	1.5	0.9	52.0
China Lake	2.1	3.2	5.3	7.7	9.2	10.0	11.0	9.8	7.3	4.9	2.7	1.7	74.8
Delano	0.9	1.8	3.4	4.7	6.6	7.7	8.5	7.3	5.4	3.4	1.4	0.7	52.0
Famoso	1.3	1.9	3.5	4.8	6.7	7.6	8.0	7.3	5.5	3.5	1.7	1.3	53.1
Grapevine	1.3	1.8	3.1	4.4	5.6	6.8	7.6	6.8	5.9	3.4	1.9	1.0	49.5
Inyokern	2.0	3.1	4.9	7.3	8.5	9.7	11.0	9.4	7.1	5.1	2.6	1.7	72.4
Isabella Dam	1.2	1.4	2.8	4.4	5.8	7.3	7.9	7.0	5.0	3.2	1.7	0.9	48.4
Lamont	1.3	2.4	4.4	4.6	6.5	7.0	8.8	7.6	5.7	3.7	1.6	0.8	54.4
Lost Hills	1.6	2.2	3.7	5.1	6.8	7.8	8.7	7.8	5.7	4.0	2.1	1.6	57.1
McFarland/Kern	1.2	2.1	3.7	5.6	7.3	8.0	8.3	7.4	5.6	4.1	2.0	1.2	56.5
Shafter	1.0	1.7	3.4	5.0	6.6	7.7	8.3	7.3	5.4	3.4	1.5	0.9	52.1
Taft	1.3	1.8	3.1	4.3	6.2	7.3	8.5	7.3	5.4	3.4	1.7	1.0	51.2
Tehachapi	1.4	1.8	3.2	5.0	6.1	7.7	7.9	7.3	5.9	3.4	2.1	1.2	52.9
KINGS													
Caruthers	1.6	2.5	4.0	5.7	7.8	8.7	9.3	8.4	6.3	4.4	2.4	1.6	62.7

Appendix A - Reference Evapotranspiration (ETo) Table*

County and City	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual ETo
KINGS													
Corcoran	1.6	2.2	3.7	5.1	6.8	7.8	8.7	7.8	5.7	4.0	2.1	1.6	57.1
Hanford	0.9	1.5	3.4	5.0	6.6	7.7	8.3	7.2	5.4	3.4	1.4	0.7	51.5
Kettleman	1.1	2.0	4.0	6.0	7.5	8.5	9.1	8.2	6.1	4.5	2.2	1.1	60.2
Lemoore	0.9	1.5	3.4	5.0	6.6	7.7	8.3	7.3	5.4	3.4	1.4	0.7	51.7
Stratford	0.9	1.9	3.9	6.1	7.8	8.6	8.8	7.7	5.9	4.1	2.1	1.0	58.7
LAKE													
Lakeport	1.1	1.3	2.6	3.5	5.1	6.0	7.3	6.1	4.7	2.9	1.2	0.9	42.8
Lower Lake	1.2	1.4	2.7	4.5	5.3	6.3	7.4	6.4	5.0	3.1	1.3	0.9	45.4
LASSEN													
Buntingville	1.0	1.7	3.5	4.9	6.2	7.3	8.4	7.5	5.4	3.4	1.5	0.9	51.8
Ravendale	0.6	1.1	2.3	4.1	5.6	6.7	7.9	7.3	4.7	2.8	1.2	0.5	44.9
Susanville	0.7	1.0	2.2	4.1	5.6	6.5	7.8	7.0	4.6	2.8	1.2	0.5	44.0
LOS ANGELES													
Burbank	2.1	2.8	3.7	4.7	5.1	6.0	6.6	6.7	5.4	4.0	2.6	2.0	51.7
Claremont	2.0	2.3	3.4	4.6	5.0	6.0	7.0	7.0	5.3	4.0	2.7	2.1	51.3
El Dorado	1.7	2.2	3.6	4.8	5.1	5.7	5.9	5.9	4.4	3.2	2.2	1.7	46.3
Glendale	2.0	2.2	3.3	3.8	4.7	4.8	5.7	5.6	4.3	3.3	2.2	1.8	43.7
Glendora	2.0	2.5	3.6	4.9	5.4	6.1	7.3	6.8	5.7	4.2	2.6	2.0	53.1
Gorman	1.6	2.2	3.4	4.6	5.5	7.4	7.7	7.1	5.9	3.6	2.4	1.1	52.4
Hollywood Hills	2.1	2.2	3.8	5.4	6.0	6.5	6.7	6.4	5.2	3.7	2.8	2.1	52.8
Lancaster	2.1	3.0	4.6	5.9	8.5	9.7	11.0	9.8	7.3	4.6	2.8	1.7	71.1
Long Beach	1.8	2.1	3.3	3.9	4.5	4.3	5.3	4.7	3.7	2.8	1.8	1.5	39.7
Los Angeles	2.2	2.7	3.7	4.7	5.5	5.8	6.2	5.9	5.0	3.9	2.6	1.9	50.1
Monrovia	2.2	2.3	3.8	4.3	5.5	5.9	6.9	6.4	5.1	3.2	2.5	2.0	50.2
Palmdale	2.0	2.6	4.6	6.2	7.3	8.9	9.8	9.0	6.5	4.7	2.7	2.1	66.2
Pasadena	2.1	2.7	3.7	4.7	5.1	6.0	7.1	6.7	5.6	4.2	2.6	2.0	52.3
Pearblossom	1.7	2.4	3.7	4.7	7.3	7.7	9.9	7.9	6.4	4.0	2.6	1.6	59.9
Pomona	1.7	2.0	3.4	4.5	5.0	5.8	6.5	6.4	4.7	3.5	2.3	1.7	47.5
Redondo Beach	2.2	2.4	3.3	3.8	4.5	4.7	5.4	4.8	4.4	2.8	2.4	2.0	42.6
San Fernando	2.0	2.7	3.5	4.6	5.5	5.9	7.3	6.7	5.3	3.9	2.6	2.0	52.0
Santa Clarita	2.8	2.8	4.1	5.6	6.0	6.8	7.6	7.8	5.8	5.2	3.7	3.2	61.5
Santa Monica	1.8	2.1	3.3	4.5	4.7	5.0	5.4	5.4	3.9	3.4	2.4	2.2	44.2
MADERA													
Chowchilla	1.0	1.4	3.2	4.7	6.6	7.8	8.5	7.3	5.3	3.4	1.4	0.7	51.4
Madera	0.9	1.4	3.2	4.8	6.6	7.8	8.5	7.3	5.3	3.4	1.4	0.7	51.5
Raymond	1.2	1.5	3.0	4.6	6.1	7.6	8.4	7.3	5.2	3.4	1.4	0.7	50.5
MARIN													
Black Point	1.1	1.7	3.0	4.2	5.2	6.2	6.6	5.8	4.3	2.8	1.3	0.9	43.0
Novato	1.3	1.5	2.4	3.5	4.4	6.0	5.9	5.4	4.4	2.8	1.4	0.7	39.8
Point San Pedro	1.1	1.7	3.0	4.2	5.2	6.2	6.6	5.8	4.3	2.8	1.3	0.9	43.0
San Rafael	1.2	1.3	2.4	3.3	4.0	4.8	4.8	4.9	4.3	2.7	1.3	0.7	35.8
MARIPOSA													
Coulterville	1.1	1.5	2.8	4.4	5.9	7.3	8.1	7.0	5.3	3.4	1.4	0.7	48.8
Mariposa	1.1	1.5	2.8	4.4	5.9	7.4	8.2	7.1	5.0	3.4	1.4	0.7	49.0
Yosemite Village	0.7	1.0	2.3	3.7	5.1	6.5	7.1	6.1	4.4	2.9	1.1	0.6	41.4
MENDOCINO													
Fort Bragg	0.9	1.3	2.2	3.0	3.7	3.5	3.7	3.7	3.0	2.3	1.2	0.7	29.0
Hopland	1.1	1.3	2.6	3.4	5.0	5.9	6.5	5.7	4.5	2.8	1.3	0.7	40.9

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Appendix A - Reference Evapotranspiration (ETo) Table*

County and City	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual ETo
MENDOCINO													
Point Arena	1.0	1.3	2.3	3.0	3.7	3.9	3.7	3.7	3.0	2.3	1.2	0.7	29.6
Sanel Valley	1.0	1.6	3.0	4.6	6.0	7.0	8.0	7.0	5.2	3.4	1.4	0.9	49.1
Ukiah	1.0	1.3	2.6	3.3	5.0	5.8	6.7	5.9	4.5	2.8	1.3	0.7	40.9
MERCED													
Kesterson	0.9	1.7	3.4	5.5	7.3	8.2	8.6	7.4	5.5	3.8	1.8	0.9	55.1
Los Banos	1.0	1.5	3.2	4.7	6.1	7.4	8.2	7.0	5.3	3.4	1.4	0.7	50.0
Merced	1.0	1.5	3.2	4.7	6.6	7.9	8.5	7.2	5.3	3.4	1.4	0.7	51.5
MODOC													
Modoc/Alturas	0.9	1.4	2.8	3.7	5.1	6.2	7.5	6.6	4.6	2.8	1.2	0.7	43.2
MONO													
Bridgeport	0.7	0.9	2.2	3.8	5.5	6.6	7.4	6.7	4.7	2.7	1.2	0.5	43.0
MONTEREY													
Arroyo Seco	1.5	2.0	3.7	5.4	6.3	7.3	7.2	6.7	5.0	3.9	2.0	1.6	52.6
Castroville	1.4	1.7	3.0	4.2	4.6	4.8	4.0	3.8	3.0	2.6	1.6	1.4	36.2
Gonzales	1.3	1.7	3.4	4.7	5.4	6.3	6.3	5.9	4.4	3.4	1.9	1.3	45.7
Greenfield	1.8	2.2	3.4	4.8	5.6	6.3	6.5	6.2	4.8	3.7	2.4	1.8	49.5
King City	1.7	2.0	3.4	4.4	4.4	5.6	6.1	6.7	6.5	5.2	2.2	1.3	49.6
King City-Oasis Rd.	1.4	1.9	3.6	5.3	6.5	7.3	7.4	6.8	5.1	4.0	2.0	1.5	52.7
Long Valley	1.5	1.9	3.2	4.1	5.8	6.5	7.3	6.7	5.3	3.6	2.0	1.2	49.1
Monterey	1.7	1.8	2.7	3.5	4.0	4.1	4.3	4.2	3.5	2.8	1.9	1.5	36.0
Pajaro	1.8	2.2	3.7	4.8	5.3	5.7	5.6	5.3	4.3	3.4	2.4	1.8	46.1
Salinas	1.6	1.9	2.7	3.8	4.8	4.7	5.0	4.5	4.0	2.9	1.9	1.3	39.1
Salinas North	1.2	1.5	2.9	4.1	4.6	5.2	4.5	4.3	3.2	2.8	1.5	1.2	36.9
San Ardo	1.0	1.7	3.1	4.5	5.9	7.2	8.1	7.1	5.1	3.1	1.5	1.0	49.0
San Juan	1.8	2.1	3.4	4.6	5.3	5.7	5.5	4.9	3.8	3.2	2.2	1.9	44.2
Soledad	1.7	2.0	3.4	4.4	5.5	5.4	6.5	6.2	5.2	3.7	2.2	1.5	47.7
NAPA													
Angwin	1.8	1.9	3.2	4.7	5.8	7.3	8.1	7.1	5.5	4.5	2.9	2.1	54.9
Carneros	0.8	1.5	3.1	4.6	5.5	6.6	6.9	6.2	4.7	3.5	1.4	1.0	45.8
Oakville	1.0	1.5	2.9	4.7	5.8	6.9	7.2	6.4	4.9	3.5	1.6	1.2	47.7
St Helena	1.2	1.5	2.8	3.9	5.1	6.1	7.0	6.2	4.8	3.1	1.4	0.9	44.1
Yountville	1.3	1.7	2.8	3.9	5.1	6.0	7.1	6.1	4.8	3.1	1.5	0.9	44.3
NEVADA													
Grass Valley	1.1	1.5	2.6	4.0	5.7	7.1	7.9	7.1	5.3	3.2	1.5	0.9	48.0
Nevada City	1.1	1.5	2.6	3.9	5.8	6.9	7.9	7.0	5.3	3.2	1.4	0.9	47.4
ORANGE													
Irvine	2.2	2.5	3.7	4.7	5.2	5.9	6.3	6.2	4.6	3.7	2.6	2.3	49.6
Laguna Beach	2.2	2.7	3.4	3.8	4.6	4.6	4.9	4.9	4.4	3.4	2.4	2.0	43.2
Santa Ana	2.2	2.7	3.7	4.5	4.6	5.4	6.2	6.1	4.7	3.7	2.5	2.0	48.2
PLACER													
Auburn	1.2	1.7	2.8	4.4	6.1	7.4	8.3	7.3	5.4	3.4	1.6	1.0	50.6
Blue Canyon	0.7	1.1	2.1	3.4	4.8	6.0	7.2	6.1	4.6	2.9	0.9	0.6	40.5
Colfax	1.1	1.5	2.6	4.0	5.8	7.1	7.9	7.0	5.3	3.2	1.4	0.9	47.9
Roseville	1.1	1.7	3.1	4.7	6.2	7.7	8.5	7.3	5.6	3.7	1.7	1.0	52.2
Soda Springs	0.7	0.7	1.8	3.0	4.3	5.3	6.2	5.5	4.1	2.5	0.7	0.7	35.4
Tahoe City	0.7	0.7	1.7	3.0	4.3	5.4	6.1	5.6	4.1	2.4	0.8	0.6	35.5
Truckee	0.7	0.7	1.7	3.2	4.4	5.4	6.4	5.7	4.1	2.4	0.8	0.6	36.2

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Appendix A - Reference Evapotranspiration (ETo) Table*

County and City	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual ETo
PLUMAS													
Portola	0.7	0.9	1.9	3.5	4.9	5.9	7.3	5.9	4.3	2.7	0.9	0.5	39.4
Quincy	0.7	0.9	2.2	3.5	4.9	5.9	7.3	5.9	4.4	2.8	1.2	0.5	40.2
RIVERSIDE													
Beaumont	2.0	2.3	3.4	4.4	6.1	7.1	7.6	7.9	6.0	3.9	2.6	1.7	55.0
Blythe	2.4	3.3	5.3	6.9	8.7	9.6	9.6	8.7	6.9	5.0	3.0	2.2	71.4
Cathedral City	1.6	2.2	3.7	5.1	6.8	7.8	8.7	7.8	5.7	4.0	2.1	1.6	57.1
Coachella	2.9	4.4	6.2	8.4	10.5	11.9	12.3	10.1	8.9	6.2	3.8	2.4	88.1
Desert Center	2.9	4.1	6.4	8.5	11.0	12.1	12.2	11.1	9.0	6.4	3.9	2.6	90.0
Elsinore	2.1	2.8	3.9	4.4	5.9	7.1	7.6	7.0	5.8	3.9	2.6	1.9	55.0
Indio	3.1	3.6	6.5	8.3	10.5	11.0	10.8	9.7	8.3	5.9	3.7	2.7	83.9
La Quinta	2.4	2.8	5.2	6.5	8.3	8.7	8.5	7.9	6.5	4.5	2.7	2.2	66.2
Mecca	2.6	3.3	5.7	7.2	8.6	9.0	8.8	8.2	6.8	5.0	3.2	2.4	70.8
Oasis	2.9	3.3	5.3	6.1	8.5	8.9	8.7	7.9	6.9	4.8	2.9	2.3	68.4
Palm Desert	2.5	3.4	5.3	6.9	8.7	9.6	9.6	8.7	6.9	5.0	3.0	2.2	71.6
Palm Springs	2.0	2.9	4.9	7.2	8.3	8.5	11.6	8.3	7.2	5.9	2.7	1.7	71.1
Rancho California	1.8	2.2	3.4	4.8	5.6	6.3	6.5	6.2	4.8	3.7	2.4	1.8	49.5
Rancho Mirage	2.4	3.3	5.3	6.9	8.7	9.6	9.6	8.7	6.9	5.0	3.0	2.2	71.4
Ripley	2.7	3.3	5.6	7.2	8.7	8.7	8.4	7.6	6.2	4.6	2.8	2.2	67.8
Salton Sea North	2.5	3.3	5.5	7.2	8.8	9.3	9.2	8.5	6.8	5.2	3.1	2.3	71.7
Temecula East II	2.3	2.4	4.1	4.9	6.4	7.0	7.8	7.4	5.7	4.1	2.6	2.2	56.7
Thermal	2.4	3.3	5.5	7.6	9.1	9.6	9.3	8.6	7.1	5.2	3.1	2.1	72.8
Riverside UC	2.5	2.9	4.2	5.3	5.9	6.6	7.2	6.9	5.4	4.1	2.9	2.6	56.4
Winchester	2.3	2.4	4.1	4.9	6.4	6.9	7.7	7.5	6.0	3.9	2.6	2.1	56.8
SACRAMENTO													
Fair Oaks	1.0	1.6	3.4	4.1	6.5	7.5	8.1	7.1	5.2	3.4	1.5	1.0	50.5
Sacramento	1.0	1.8	3.2	4.7	6.4	7.7	8.4	7.2	5.4	3.7	1.7	0.9	51.9
Twitchell Island	1.2	1.8	3.9	5.3	7.4	8.8	9.1	7.8	5.9	3.8	1.7	1.2	57.9
SAN BENITO													
Hollister	1.5	1.8	3.1	4.3	5.5	5.7	6.4	5.9	5.0	3.5	1.7	1.1	45.1
San Benito	1.2	1.6	3.1	4.6	5.6	6.4	6.9	6.5	4.8	3.7	1.7	1.2	47.2
San Juan Valley	1.4	1.8	3.4	4.5	6.0	6.7	7.1	6.4	5.0	3.5	1.8	1.4	49.1
SAN BERNARDINO													
Baker	2.7	3.9	6.1	8.3	10.4	11.8	12.2	11.0	8.9	6.1	3.3	2.1	86.6
Barstow NE	2.2	2.9	5.3	6.9	9.0	10.1	9.9	8.9	6.8	4.8	2.7	2.1	71.7
Big Bear Lake	1.8	2.6	4.6	6.0	7.0	7.6	8.1	7.4	5.4	4.1	2.4	1.8	58.6
Chino	2.1	2.9	3.9	4.5	5.7	6.5	7.3	7.1	5.9	4.2	2.6	2.0	54.6
Crestline	1.5	1.9	3.3	4.4	5.5	6.6	7.8	7.1	5.4	3.5	2.2	1.6	50.8
Lake Arrowhead	1.8	2.6	4.6	6.0	7.0	7.6	8.1	7.4	5.4	4.1	2.4	1.8	58.6
Lucerne Valley	2.2	2.9	5.1	6.5	9.1	11.0	11.4	9.9	7.4	5.0	3.0	1.8	75.3
Needles	3.2	4.2	6.6	8.9	11.0	12.4	12.8	11.0	8.9	6.6	4.0	2.7	92.1
Newberry Springs	2.1	2.9	5.3	8.4	9.8	10.9	11.1	9.9	7.6	5.2	3.1	2.0	78.2
San Bernardino	2.0	2.7	3.8	4.6	5.7	6.9	7.9	7.4	5.9	4.2	2.6	2.0	55.6
Twentynine Palms	2.6	3.6	5.9	7.9	10.1	11.2	11.2	10.3	8.6	5.9	3.4	2.2	82.9
Victorville	2.0	2.6	4.6	6.2	7.3	8.9	9.8	9.0	6.5	4.7	2.7	2.1	66.2
SAN DIEGO													
Chula Vista	2.2	2.7	3.4	3.8	4.9	4.7	5.5	4.9	4.5	3.4	2.4	2.0	44.2
Escondido SPV	2.4	2.6	3.9	4.7	5.9	6.5	7.1	6.7	5.3	3.9	2.8	2.3	54.2
Miramar	2.3	2.5	3.7	4.1	5.1	5.4	6.1	5.8	4.5	3.3	2.4	2.1	47.1

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County and City	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual ETo
SAN DIEGO													
Oceanside	2.2	2.7	3.4	3.7	4.9	4.6	4.6	5.1	4.1	3.3	2.4	2.0	42.9
Otay Lake	2.3	2.7	3.9	4.6	5.6	5.9	6.2	6.1	4.8	3.7	2.6	2.2	50.4
Pine Valley	1.5	2.4	3.8	5.1	6.0	7.0	7.8	7.3	6.0	4.0	2.2	1.7	54.8
Ramona	2.1	2.1	3.4	4.6	5.2	6.3	6.7	6.8	5.3	4.1	2.8	2.1	51.6
San Diego	2.1	2.4	3.4	4.6	5.1	5.3	5.7	5.6	4.3	3.6	2.4	2.0	46.5
Santee	2.1	2.7	3.7	4.5	5.5	6.1	6.6	6.2	5.4	3.8	2.6	2.0	51.1
Torrey Pines	2.2	2.3	3.4	3.9	4.0	4.1	4.6	4.7	3.8	2.8	2.0	2.0	39.8
Warner Springs	1.6	2.7	3.7	4.7	5.7	7.6	8.3	7.7	6.3	4.0	2.5	1.3	56.0
SAN FRANCISCO													
San Francisco	1.5	1.3	2.4	3.0	3.7	4.6	4.9	4.8	4.1	2.8	1.3	0.7	35.1
SAN JOAQUIN													
Farmington	1.5	1.5	2.9	4.7	6.2	7.6	8.1	6.8	5.3	3.3	1.4	0.7	50.0
Lodi West	1.0	1.6	3.3	4.3	6.3	6.9	7.3	6.4	4.5	3.0	1.4	0.8	46.7
Manteca	0.9	1.7	3.4	5.0	6.5	7.5	8.0	7.1	5.2	3.3	1.6	0.9	51.2
Stockton	0.8	1.5	2.9	4.7	6.2	7.4	8.1	6.8	5.3	3.2	1.4	0.6	49.1
Tracy	1.0	1.5	2.9	4.5	6.1	7.3	7.9	6.7	5.3	3.2	1.3	0.7	48.5
SAN LUIS OBISPO													
Arroyo Grande	2.0	2.2	3.2	3.8	4.3	4.7	4.3	4.6	3.8	3.2	2.4	1.7	40.0
Atascadero	1.2	1.5	2.8	3.9	4.5	6.0	6.7	6.2	5.0	3.2	1.7	1.0	43.7
Morro Bay	2.0	2.2	3.1	3.5	4.3	4.5	4.6	4.6	3.8	3.5	2.1	1.7	39.9
Nipomo	2.2	2.5	3.8	5.1	5.7	6.2	6.4	6.1	4.9	4.1	2.9	2.3	52.1
Paso Robles	1.6	2.0	3.2	4.3	5.5	6.3	7.3	6.7	5.1	3.7	2.1	1.4	49.0
San Luis Obispo	2.0	2.2	3.2	4.1	4.9	5.3	4.6	5.5	4.4	3.5	2.4	1.7	43.8
San Miguel	1.6	2.0	3.2	4.3	5.0	6.4	7.4	6.8	5.1	3.7	2.1	1.4	49.0
San Simeon	2.0	2.0	2.9	3.5	4.2	4.4	4.6	4.3	3.5	3.1	2.0	1.7	38.1
SAN MATEO													
Hal Moon Bay	1.5	1.7	2.4	3.0	3.9	4.3	4.3	4.2	3.5	2.8	1.3	1.0	33.7
Redwood City	1.5	1.8	2.9	3.8	5.2	5.3	6.2	5.6	4.8	3.1	1.7	1.0	42.8
Woodside	1.8	2.2	3.4	4.8	5.6	6.3	6.5	6.2	4.8	3.7	2.4	1.8	49.5
SANTA BARBARA													
Betteravia	2.1	2.6	4.0	5.2	6.0	5.9	5.8	5.4	4.1	3.3	2.7	2.1	49.1
Carpenteria	2.0	2.4	3.2	3.9	4.8	5.2	5.5	5.7	4.5	3.4	2.4	2.0	44.9
Cuyama	2.1	2.4	3.8	5.4	6.9	7.9	8.5	7.7	5.9	4.5	2.6	2.0	59.7
Goleta	2.1	2.5	3.9	5.1	5.7	5.7	5.4	5.4	4.2	3.2	2.8	2.2	48.1
Goleta Foothills	2.3	2.6	3.7	5.4	5.3	5.6	5.5	5.7	4.5	3.9	2.8	2.3	49.6
Guadalupe	2.0	2.2	3.2	3.7	4.9	4.6	4.5	4.6	4.1	3.3	2.4	1.7	41.1
Lompoc	2.0	2.2	3.2	3.7	4.8	4.6	4.9	4.8	3.9	3.2	2.4	1.7	41.1
Los Alamos	1.8	2.0	3.2	4.1	4.9	5.3	5.7	5.5	4.4	3.7	2.4	1.6	44.6
Santa Barbara	2.0	2.5	3.2	3.8	4.6	5.1	5.5	4.5	3.4	2.4	1.8	1.8	40.6
Santa Maria	1.8	2.3	3.7	5.1	5.7	5.8	5.6	5.3	4.2	3.5	2.4	1.9	47.4
Santa Ynez	1.7	2.2	3.5	5.0	5.8	6.2	6.4	6.0	4.5	3.6	2.2	1.7	48.7
Sisquoc	2.1	2.5	3.8	4.1	6.1	6.3	6.4	5.8	4.7	3.4	2.3	1.8	49.2
Solvang	2.0	2.0	3.3	4.3	5.0	5.6	6.1	5.6	4.4	3.7	2.2	1.6	45.6
SANTA CLARA													
Gilroy	1.3	1.8	3.1	4.1	5.3	5.6	6.1	5.5	4.7	3.4	1.7	1.1	43.6
Los Gatos	1.5	1.8	2.8	3.9	5.0	5.6	6.2	5.5	4.7	3.2	1.7	1.1	42.9
Morgan Hill	1.5	1.8	3.4	4.2	6.3	7.0	7.1	6.0	5.1	3.7	1.9	1.4	49.5
Palo Alto	1.5	1.8	2.8	3.8	5.2	5.3	6.2	5.6	5.0	3.2	1.7	1.0	43.0

Appendix A - Reference Evapotranspiration (ETo) Table*

County and City	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual ETo
SANTA CLARA													
San Jose	1.5	1.8	3.1	4.1	5.5	5.8	6.5	5.9	5.2	3.3	1.8	1.0	45.3
SANTA CRUZ													
De Laveaga	1.4	1.9	3.3	4.7	4.9	5.3	5.0	4.8	3.6	3.0	1.6	1.3	40.8
Green Valley Rd	1.2	1.8	3.2	4.5	4.6	5.4	5.2	5.0	3.7	3.1	1.6	1.3	40.6
Santa Cruz	1.5	1.8	2.6	3.5	4.3	4.4	4.8	4.4	3.8	2.8	1.7	1.2	36.6
Watsonville	1.5	1.8	2.7	3.7	4.6	4.5	4.9	4.2	4.0	2.9	1.8	1.2	37.7
Webb	1.8	2.2	3.7	4.8	5.3	5.7	5.6	5.3	4.3	3.4	2.4	1.8	46.2
SHASTA													
Burney	0.7	1.0	2.1	3.5	4.9	5.9	7.4	6.4	4.4	2.9	0.9	0.6	40.9
Fall River Mills	0.6	1.0	2.1	3.7	5.0	6.1	7.8	6.7	4.6	2.8	0.9	0.5	41.8
Glenburn	0.6	1.0	2.1	3.7	5.0	6.3	7.8	6.7	4.7	2.8	0.9	0.6	42.1
McArthur	0.7	1.4	2.9	4.2	5.6	6.9	8.2	7.2	5.0	3.0	1.1	0.6	46.8
Redding	1.2	1.4	2.6	4.1	5.6	7.1	8.5	7.3	5.3	3.2	1.4	0.9	48.8
SIERRA													
Downieville	0.7	1.0	2.3	3.5	5.0	6.0	7.4	6.2	4.7	2.8	0.9	0.6	41.3
Sierraville	0.7	1.1	2.2	3.2	4.5	5.9	7.3	6.4	4.3	2.6	0.9	0.5	39.6
SISKIYOU													
Happy Camp	0.5	0.9	2.0	3.0	4.3	5.2	6.1	5.3	4.1	2.4	0.9	0.5	35.1
MacDoel	1.0	1.7	3.1	4.5	5.9	7.2	8.1	7.1	5.1	3.1	1.5	1.0	49.0
Mt Shasta	0.5	0.9	2.0	3.0	4.5	5.3	6.7	5.7	4.0	2.2	0.7	0.5	36.0
Tule lake FS	0.7	1.3	2.7	4.0	5.4	6.3	7.1	6.4	4.7	2.8	1.0	0.6	42.9
Weed	0.5	0.9	2.0	2.5	4.5	5.3	6.7	5.5	3.7	2.0	0.9	0.5	34.9
Yreka	0.6	0.9	2.1	3.0	4.9	5.8	7.3	6.5	4.3	2.5	0.9	0.5	39.2
SOLANO													
Benicia	1.3	1.4	2.7	3.8	4.9	5.0	6.4	5.5	4.4	2.9	1.2	0.7	40.3
Dixon	0.7	1.4	3.2	5.2	6.3	7.6	8.2	7.2	5.5	4.3	1.6	1.1	52.1
Fairfield	1.1	1.7	2.8	4.0	5.5	6.1	7.8	6.0	4.8	3.1	1.4	0.9	45.2
Hastings Tract	1.6	2.2	3.7	5.1	6.8	7.8	8.7	7.8	5.7	4.0	2.1	1.6	57.1
Putah Creek	1.0	1.6	3.2	4.9	6.1	7.3	7.9	7.0	5.3	3.8	1.8	1.2	51.0
Rio Vista	0.9	1.7	2.8	4.4	5.9	6.7	7.9	6.5	5.1	3.2	1.3	0.7	47.0
Suisun Valley	0.6	1.3	3.0	4.7	5.8	7.0	7.7	6.8	5.3	3.8	1.4	0.9	48.3
Winters	0.9	1.7	3.3	5.0	6.4	7.5	7.9	7.0	5.2	3.5	1.6	1.0	51.0
SONOMA													
Bennett Valley	1.1	1.7	3.2	4.1	5.5	6.5	6.6	5.7	4.5	3.1	1.5	0.9	44.4
Cloverdale	1.1	1.4	2.6	3.4	5.0	5.9	6.2	5.6	4.5	2.8	1.4	0.7	40.7
Fort Ross	1.2	1.4	2.2	3.0	3.7	4.5	4.2	4.3	3.4	2.4	1.2	0.5	31.9
Healdsburg	1.2	1.5	2.4	3.5	5.0	5.9	6.1	5.6	4.5	2.8	1.4	0.7	40.8
Lincoln	1.2	1.7	2.8	4.7	6.1	7.4	8.4	7.3	5.4	3.7	1.9	1.2	51.9
Petaluma	1.2	1.5	2.8	3.7	4.6	5.6	4.6	5.7	4.5	2.9	1.4	0.9	39.6
Santa Rosa	1.2	1.7	2.8	3.7	5.0	6.0	6.1	5.9	4.5	2.9	1.5	0.7	42.0
Valley of the Moon	1.0	1.6	3.0	4.5	5.6	6.6	7.1	6.3	4.7	3.3	1.5	1.0	46.1
Windsor	0.9	1.6	3.0	4.5	5.5	6.5	6.5	5.9	4.4	3.2	1.4	1.0	44.2
STANISLAUS													
Denair	1.0	1.9	3.6	4.7	7.0	7.9	8.0	6.1	5.3	3.4	1.5	1.0	51.4
La Grange	1.2	1.5	3.1	4.7	6.2	7.7	8.5	7.3	5.3	3.4	1.4	0.7	51.2
Modesto	0.9	1.4	3.2	4.7	6.4	7.7	8.1	6.8	5.0	3.4	1.4	0.7	49.7
Newman	1.0	1.5	3.2	4.6	6.2	7.4	8.1	6.7	5.0	3.4	1.4	0.7	49.3
Oakdale	1.2	1.5	3.2	4.7	6.2	7.7	8.1	7.1	5.1	3.4	1.4	0.7	50.3

Appendix A - Reference Evapotranspiration (ETo) Table*

County and City	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual ETo
STANISLAUS													
Patterson	1.3	2.1	4.2	5.4	7.9	8.6	8.2	6.6	5.8	4.0	1.9	1.3	57.3
Turlock	0.9	1.5	3.2	4.7	6.5	7.7	8.2	7.0	5.1	3.4	1.4	0.7	50.2
SUTTER													
Nicolaus	0.9	1.6	3.2	4.9	6.3	7.5	8.0	6.9	5.2	3.4	1.5	0.9	50.2
Yuba City	1.3	2.1	2.8	4.4	5.7	7.2	7.1	6.1	4.7	3.2	1.2	0.9	46.7
TEHAMA													
Corning	1.2	1.8	2.9	4.5	6.1	7.3	8.1	7.2	5.3	3.7	1.7	1.1	50.7
Gerber	1.0	1.8	3.5	5.0	6.6	7.9	8.7	7.4	5.8	4.1	1.8	1.1	54.7
Gerber Dryland	0.9	1.6	3.2	4.7	6.7	8.4	9.0	7.9	6.0	4.2	2.0	1.0	55.5
Red Bluff	1.2	1.8	2.9	4.4	5.9	7.4	8.5	7.3	5.4	3.5	1.7	1.0	51.1
TRINITY													
Hay Fork	0.5	1.1	2.3	3.5	4.9	5.9	7.0	6.0	4.5	2.8	0.9	0.7	40.1
Weaverville	0.6	1.1	2.2	3.3	4.9	5.9	7.3	6.0	4.4	2.7	0.9	0.7	40.0
TULARE													
Alpaugh	0.9	1.7	3.4	4.8	6.6	7.7	8.2	7.3	5.4	3.4	1.4	0.7	51.6
Badger	1.0	1.3	2.7	4.1	6.0	7.3	7.7	7.0	4.8	3.3	1.4	0.7	47.3
Delano	1.1	1.9	4.0	4.9	7.2	7.9	8.1	7.3	5.4	3.2	1.5	1.2	53.6
Dinuba	1.1	1.5	3.2	4.7	6.2	7.7	8.5	7.3	5.3	3.4	1.4	0.7	51.2
Lindcove	0.9	1.6	3.0	4.8	6.5	7.6	8.1	7.2	5.2	3.4	1.6	0.9	50.6
Porterville	1.2	1.8	3.4	4.7	6.6	7.7	8.5	7.3	5.3	3.4	1.4	0.7	52.1
Visalia	0.9	1.7	3.3	5.1	6.8	7.7	7.9	6.9	4.9	3.2	1.5	0.8	50.7
TUOLUMNE													
Groveland	1.1	1.5	2.8	4.1	5.7	7.2	7.9	6.6	5.1	3.3	1.4	0.7	47.5
Sonora	1.1	1.5	2.8	4.1	5.8	7.2	7.9	6.7	5.1	3.2	1.4	0.7	47.6
VENTURA													
Camarillo	2.2	2.5	3.7	4.3	5.0	5.2	5.9	5.4	4.2	3.0	2.5	2.1	46.1
Oxnard	2.2	2.5	3.2	3.7	4.4	4.6	5.4	4.8	4.0	3.3	2.4	2.0	42.3
Piru	2.8	2.8	4.1	5.6	6.0	6.8	7.6	7.8	5.8	5.2	3.7	3.2	61.5
Port Hueneme	2.0	2.3	3.3	4.6	4.9	4.9	4.9	5.0	3.7	3.2	2.5	2.2	43.5
Thousand Oaks	2.2	2.6	3.4	4.5	5.4	5.9	6.7	6.4	5.4	3.9	2.6	2.0	51.0
Ventura	2.2	2.6	3.2	3.8	4.6	4.7	5.5	4.9	4.1	3.4	2.5	2.0	43.5
YOLO													
Bryte	0.9	1.7	3.3	5.0	6.4	7.5	7.9	7.0	5.2	3.5	1.6	1.0	51.0
Davis	1.0	1.9	3.3	5.0	6.4	7.6	8.2	7.1	5.4	4.0	1.8	1.0	52.5
Esparto	1.0	1.7	3.4	5.5	6.9	8.1	8.5	7.5	5.8	4.2	2.0	1.2	55.8
Winters	1.7	1.7	2.9	4.4	5.8	7.1	7.9	6.7	5.3	3.3	1.6	1.0	49.4
Woodland	1.0	1.8	3.2	4.7	6.1	7.7	8.2	7.2	5.4	3.7	1.7	1.0	51.6
Zamora	1.1	1.9	3.5	5.2	6.4	7.4	7.8	7.0	5.5	4.0	1.9	1.2	52.8
YUBA													
Browns Valley	1.0	1.7	3.1	4.7	6.1	7.5	8.5	7.6	5.7	4.1	2.0	1.1	52.9
Brownsville	1.1	1.4	2.6	4.0	5.7	6.8	7.9	6.8	5.3	3.4	1.5	0.9	47.4

* The values in this table were derived from:

1) California Irrigation Management Information System (CIMIS);
2) Reference EvapoTranspiration Zones Map, UC Dept. of Land, Air & Water Resources and California Dept of Water Resources 1999; and
3) Reference Evapotranspiration for California, University of California, Department of Agriculture and Natural Resources (1987) Bulletin 1922;
4) Determining Daily Reference Evapotranspiration, Cooperative Extension UC Division of Agriculture and Natural Resources (1987), Publication Leaflet 21426

HISTORY

1. New Appendix A filed 9–10–2009; operative 9–10–2009 pursuant to Government Code section 11343.4 (Register 2009, No. 37).
2. Repealer and new Appendix A filed 9–15–2015; operative 9–15–2015. Exempt from OAL review and submitted to OAL for printing only pursuant to Governor's Executive Order No. B–29–15 (4–1–2015) (Register 2015, No. 38).

Appendix B — Sample Water Efficient Landscape Worksheet.

WATER EFFICIENT LANDSCAPE WORKSHEET

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

Reference Evapotranspiration (ETo) _____

Hydrozone # /Planting Description[a]	Plant Factor (PF)	Irrigation Method[b]	Irrigation Efficiency (IE)[c]	ETAF (PF/IE)	Landscape Area (sq. ft,)	ETAF x Area	Estimated Total Water Use (ETWU)[e]
Regular Landscape Areas							
				Totals	(A)	(B)	
Special Landscape Areas							
				1			
				1			
				1			
				Totals	(C)	(D)	
						ETWU Total	
				Maximum Allowed Water Allowance (MAWA)[e]			

[a] ***Hydrozone #/Planting Description***
E.g
1.) front lawn
2) low water use plantings
3) medium water use planting

[b] ***Irrigation Method***
overhead spray
or drip

[c] ***Irrigation Efficiency***
0.75 for spray head
0.81 for drip

[d] ***ETWU*** **(Annual Gallons Required) =**
Eto x 0.62 x ETAF x Area
where 0.62 is a conversion factor that converts acre-inches per acre per year to gallons per square foot per year.

[e] ***MAWA (Annual Gallons Allowed)*** = *(Eto) (0.62) [(ETAF x LA) + ((1-ETAF) x SLA)]*
where 0.62 is a conversion factor that converts acre-inches per acre per year to gallons per square foot per year, LA is the total landscape area in square feet, SLA is the total special landscape area in square feet, and ETAF is .55 for residential areas and 0.45 for non-residential areas.

ETAF Calculations

Regular Landscape Areas

Total ETAF x Area	(B)
Total Area	(A)
Average ETAF	**B ÷ A**

Average ETAF for Regular Landscape Areas must be 0.55 or below for residential areas, and 0.45 or below for non-residential areas.

All Landscape Areas

Total ETAF x Area	(B+D)
Total Area	(A+C)
Sitewide ETAF	**(B+D) ÷ (A+C)**

HISTORY

1. New Appendix B filed 9–10–2009; operative 9–10–2009 pursuant to Government Code section 11343.4 (Register 2009, No. 37).
2. Repealer and new Appendix B filed 9–15–2015; operative 9–15–2015. Exempt from OAL review and submitted to OAL for printing only pursuant to Governor's Executive Order No. B–29–15 (4–1–2015) (Register 2015, No. 38).

Appendix C — Sample Certificate of Completion.

CERTIFICATE OF COMPLETION

This certificate is filled out by the project applicant upon completion of the landscape project.

PART 1. PROJECT INFORMATION SHEET

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

Project Address and Location:

Street Address		Parcel, tract or lot number, if available.
City		Latitude/Longitude (optional)
State	Zip Code	

Property Owner or his/her designee:

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

Property Owner

"I/we certify that I/we have received copies of all the documents within the Landscape Documentation Package and the Certificate of Completion and that it is our responsibility to see that the project is maintained in accordance with the Landscape and Irrigation Maintenance Schedule."

_____

Property Owner Signature Date

Please answer the questions below:

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 that a copy of the Water Efficient Landscape Worksheet (including the Water Budget Calculation) was submitted to the local water purveyor_____

PART 2. CERTIFICATION OF INSTALLATION ACCORDING TO THE LANDSCAPE DOCUMENTATION PACKAGE

"I/we certify that based upon periodic site observations, the work has been completed in accordance with the ordinance and that the landscape planting and irrigation installation conform with the criteria and specifications of the approved Landscape Documentation Package."

Signature*	Date	
Name (print)	Telephone No.	
	Fax No.	
Title	Email Address	
License No. or Certification No.		
Company	Street Address	
City	State	Zip Code

*Signer of the landscape design plan, signer of the irrigation plan, or a licensed landscape contractor.

PART 3. IRRIGATION SCHEDULING

Attach parameters for setting the irrigation schedule on controller per ordinance Section 492.10.

PART 4. SCHEDULE OF LANDSCAPE AND IRRIGATION MAINTENANCE

Attach schedule of Landscape and Irrigation Maintenance per ordinance Section 492.11.

PART 5. LANDSCAPE IRRIGATION AUDIT REPORT

Attach Landscape Irrigation Audit Report per ordinance Section 492.12.

PART 6. SOIL MANAGEMENT REPORT

Attach soil analysis report, if not previously submitted with the Landscape Documentation Package per ordinance Section 492.6.

Attach documentation verifying implementation of recommendations from soil analysis report per ordinance Section 492.6.

HISTORY

1. New Appendix C filed 9–10–2009; operative 9–10–2009 pursuant to Government Code section 11343.4 (Register 2009, No. 37).
2. Repealer and new Appendix C filed 9–15–2015; operative 9–15–2015. Exempt from OAL review and submitted to OAL for printing only pursuant to Governor's Executive Order No. B–29–15 (4–1–2015) (Register 2015, No. 38).

Appendix D — Prescriptive Compliance Option.

(a) This appendix contains prescriptive requirements which may be used as a compliance option to the Model Water Efficient Landscape Ordinance.

(b) Compliance with the following items is mandatory and must be documented on a landscape plan in order to use the prescriptive compliance option:

(1) Submit a Landscape Documentation Package which includes the following elements:

(A) date

(B) project applicant

(C) project address (if available, parcel and/or lot number(s))

(D) total landscape area (square feet), including a breakdown of turf and plant material

(E) project type (e.g., new, rehabilitated, public, private, cemetery, homeowner–installed)

(F) water supply type (e.g., potable, recycled, well) and identify the local retail water purveyor if the applicant is not served by a private well

(G) contact information for the project applicant and property owner

(H) applicant signature and date with statement, "I agree to comply with the requirements of the prescriptive compliance option to the MWELO".

(2) Incorporate compost at a rate of at least four cubic yards per 1,000 square feet to a depth of six inches into landscape area (unless contra–indicated by a soil test);

(3) Plant material shall comply with all of the following:

(A) For residential areas, install climate adapted plants that require occasional, little or no summer water (average WUCOLS plant factor 0.3) for 75% of the plant area excluding edibles and areas using recycled water; For non–residential areas, install climate adapted plants that require occasional, little or no summer water (average WUCOLS plant factor 0.3) for 100% of the plant area excluding edibles and areas using recycled water;

(B) A minimum three inch (3") layer of mulch shall be applied on all exposed soil surfaces of planting areas except in turf areas, creeping or rooting groundcovers, or direct seeding applications where mulch is contraindicated.

(4) Turf shall comply with all of the following:

(A) Turf shall not exceed 25% of the landscape area in residential areas, and there shall be no turf in non–residential areas;

(B) Turf shall not be planted on sloped areas which exceed a slope of 1 foot vertical elevation change for every 4 feet of horizontal length;

(C) Turf is prohibited in parkways less than 10 feet wide, unless the parkway is adjacent to a parking strip and used to enter and exit vehicles. Any turf in parkways must be irrigated by sub–surface irrigation or by other technology that creates no overspray or runoff.

(5) Irrigation systems shall comply with the following:

(A) Automatic irrigation controllers are required and must use evapotranspiration or soil moisture sensor data and utilize a rain sensor.

(B) Irrigation controllers shall be of a type which does not lose programming data in the event the primary power source is interrupted.

(C) Pressure regulators shall be installed on the irrigation system to ensure the dynamic pressure of the system is within the manufacturers recommended pressure range.

(D) Manual shut–off valves (such as a gate valve, ball valve, or butterfly valve) shall be installed as close as possible to the point of connection of the water supply.

(E) All irrigation emission devices must meet the requirements set in the ANSI standard, ASABE/ICC 802–2014. "Landscape Irrigation Sprinkler and Emitter Standard," All sprinkler heads installed in the landscape must document a distribution uniformity low quarter of 0.65 or higher using the protocol defined in ASABE/ICC 802–2014.

(F) Areas less than ten (10) feet in width in any direction shall be irrigated with subsurface irrigation or other means that produces no runoff or overspray.

(6) For non–residential projects with landscape areas of 1,000 sq. ft. or more, a private submeter(s) to measure landscape water use shall be installed.

(c) At the time of final inspection, the permit applicant must provide the owner of the property with a certificate of completion, certificate of installation, irrigation schedule and a schedule of landscape and irrigation maintenance.

History

1. New Appendix D filed 9–15–2015; operative 9–15–2015. Exempt from OAL review and submitted to OAL for printing only pursuant to Governor's Executive Order No. B–29–15 (4–1–2015) (Register 2015, No. 38).

Chapter 2.7.1. Flood Protection Corridor Program of the Costa–Machado Water Act of 2000

§ 497.1. Scope.

(a) These regulations implement Sections 79035 through 79044, and 79044.9 in Article 2.5 of Chapter 5 of Division 26 of the Water Code, which Division is the Costa–Machado Water Act of 2000. They establish a process for funding acquisition of property rights and related activities for flood protection corridor projects undertaken by the Department of Water Resources directly or through grants to local public agencies or nonprofit organizations.

(b) The Flood Protection Corridor Program is statewide in scope. Within the geographic scope of the CALFED Bay–Delta Program, funds in the subaccount for this program shall be used for projects that, to the greatest extent possible, are consistent with the CALFED long–term plan identified in the Programmatic Record of Decision of August 28, 2000.

NOTE: Authority cited: Sections 8300, 12580 and 79044.9, Water Code; 2000 Cal. Stat. Ch. 52, Item No. 3860–101–6005; 2001 Cal. Stat. Ch. 106, Item No. 3860–001–0001, Provision 3; and 2002 Cal. Stat. Ch. 379, Item No. 3860–101–6005. Reference: Sections 79037, 79043, 79044 and 79044.9, Water Code

History

1. New chapter 2.7.1 (sections 497.1–497.12) and section filed 8–19–2003; operative 8–19–2003 pursuant to Government Code section 11343.4 (Register 2003, No. 34).

§ 497.2. Definitions.

The words used in this chapter have meanings set forth as follows:

(a) "A List" means the preferred priority list of projects described in Section 497.6.

(b) "Applicant" means an entity that is acting as the principal party making an application for funding under the provisions of the Costa–Machado Water Act of 2000.

(c) "B List" means the reserve priority list of projects described in Section 497.6.

(d) "CEQA" means the California Environmental Quality Act, Public Resources Code Sections 21000 *et seq.*

(e) "Department" means the California Department of Water Resources.

(f) "Director" means the Director of the Department of Water Resources.

(g) "FEMA" means the Federal Emergency Management Agency.

(h) "Fully funded" with respect to a grant project means funded to the full amount of the requested funds or to the funding limit, whichever is less.

(i) "Grant application form" means the Department's form entitled "Flood Protection Corridor Program Project Evaluation Criteria and Competitive Grant Application Form" dated April 9, 2003 and incorporated herein by this reference.

(j) "Local public agency" means any political subdivision of the State of California, including but not limited to any county, city, city and county, district, joint powers agency, or council of governments.

(k) "Milestone" means a time when a significant portion of a project is completed, as defined in the contract as a time for disbursement of grant funds.

(*l*) "Nonprofit organization" means an organization that does not operate for profit and has no official governmental status, including but not limited to clubs, societies, neighborhood organizations, advisory councils, conservation organizations and privately run local community conservation corps.

(m) "Program" means the Flood Protection Corridor Program established by Water Code Division 26, Chapter 5, Article 2.5.

(n) "Property interest" means any right in real property, including easement, fee title, and any other kind of right acquired by legally binding means.

(o) "Project" means all planning, engineering, acquisition of real property interests, construction and related activities undertaken to implement a discrete action undertaken under the program pursuant to Water Code Section 79037.

(p) "Sponsor" means an applicant who has received grant funding through the application process described in these regulations.

(q) "Subaccount" means the Flood Protection Corridor Subaccount created by Water Code Section 79035(a).

NOTE: Authority cited: Sections 8300, 12580 and 79044.9, Water Code. Reference: Sections 79035, 70937, 79038(a) and 79043, Water Code; and Sections 21000 *et seq.*, Public Resources Code.

HISTORY

1. New section filed 8–19–2003; operative 8–19–2003 pursuant to Government Code section 11343.4 (Register 2003, No. 34).

§ 497.3. Program Management Process.

The Department selects, approves, funds, and monitors projects funded by grants under the program. The process of managing the program includes these steps:

(a) The Department shall appoint and maintain a Project Evaluation Team composed of Department staff and other consulting governmental agencies. The Department may request consultation with any appropriate government agency, including but not limited to the Department of Conservation, the Department of Fish and Game, the Department of Food and Agriculture, the Office of Emergency Services, and the CALFED Bay–Delta Program.

(b) Local public agencies or nonprofit organizations qualified under Section 497.4 may apply for program grants for projects at such times as the Department may designate. Applications for proposed projects shall be submitted in response to a solicitation issued by the Department. As long as uncommitted funds remain available to fund new projects, the Department shall solicit proposals at least once per calendar year. The time period for submitting applications shall be 90 days from the date notice is given by the Department that project proposals are being solicited. Notices shall be provided to cities, counties, flood control districts, reclamation districts, and other local government entities that manage flood plains and flood control projects. The Department will also provide notice to nonprofit organizations with interest in flood management issues, and shall send notice to all individuals and organizations that have requested notice of the opportunity to submit applications. Notices may be given by mail, electronic mail, website posting, or any other method that provides easy access and prompt availability. Projects shall meet the requirements of Section 497.5. Applications shall meet the requirements of Section 497.7.

(c) The Project Evaluation Team shall review each application and evaluate the subject project within 60 days of the close of the specified submittal period, or within 60 days of receipt of requested additional information, whichever is later.

(d) The Project Evaluation Team shall notify the Department to request the applicant to provide additional information within 30 days of the Department's request if:

(1) The project appears potentially eligible but is missing information needed to evaluate the merits of the project, or

(2) Additional information is needed to evaluate the merits of the project in comparison to others received.

(e) If the requested additional information cannot be provided in 30 days, the applicant may refile its application with the additional information at the Department's next solicitation of proposals.

(f) When a proposal that meets minimum qualifications is complete and all requested additional information has been supplied, the Project Evaluation Team shall complete the evaluation of the project including recommending its place on a priority list as described in Section 497.6.

(g) After each solicitation of proposals, Department staff, using the evaluations and recommended priorities of the Project Evaluation Team, shall recommend projects, priority, and amounts per project to be funded and submit the recommendations to the Director for approval of the priority lists. Department staff may recommend:

[The next page is 38.15.]

PLANNING COMMISSION RESOLUTION NO. 2015-010

A RESOLUTION OF THE PLANNING COMMISSION OF THE TOWN OF APPLE VALLEY, CALIFORNIA, RECOMMENDING THAT THE TOWN COUNCIL ADOPT DEVELOPMENT CODE AMENDMENT NO. 2015-006 AMENDING TITLE 9 "DEVELOPMENT CODE" OF THE TOWN OF APPLE VALLEY MUNICIPAL CODE, BY AMENDING CHAPTER 9.75 "WATER CONSERVATION/LANDSCAPING REGULATIONS.

WHEREAS, Title 9 "Development Code" of the Municipal Code of the Town of Apple Valley was adopted by the Town Council on April 27, 2010; and

WHEREAS, Title 9 (Development Code) of the Municipal Code of the Town of Apple Valley has been previously modified by the Town Council on the recommendation of the Planning Commission; and

WHEREAS, specific changes are proposed to Title 9 "Development Code" of the Town of Apple Valley Municipal Code by amending Chapter 9.75; and,

WHEREAS, on October 23, 2015, Development Code Amendment No. 2015-006 was duly noticed in the Apple Valley News, a newspaper of general circulation within the Town of Apple Valley; and

WHEREAS, Staff has determined that the project is not subject to the California Environmental Quality Act (CEQA) pursuant to Section 15061(b)(3) of the State Guidelines to Implement CEQA, which states that the activity is covered by the general rule that CEQA applies only to projects that have the potential for causing a significant effect on the environment. Where it can be seen with certainty that there is no possibility that the activity in question, the proposed Code Amendment, may have a significant effect on the environment, the activity is not subject to CEQA; and

WHEREAS, on November 4, 2015 the Planning Commission of the Town of Apple Valley conducted a duly noticed and advertised the public hearing on Development Code Amendment No. 2015-006, receiving testimony from the public; and

WHEREAS, Development Code Amendment No. 2015-006 is consistent with Title 9 "Development Code" of the Municipal Code of the Town of Apple Valley and shall promote the health, safety and general welfare of the citizens of the Town of Apple Valley.

NOW, THEREFORE, BE IT RESOLVED that in consideration of the evidence presented at the public hearing, and for the reasons discussed by the

Commissioners at said hearing, the Planning Commission of the Town of Apple Valley, California, does hereby resolve, order and determine as follows and recommends that the Town Council make the following findings and take the following actions:

Section 1. Find that the changes proposed by Development Code Amendment No. 2015-006 are consistent with the Goals and Policies of the Town of Apple Valley adopted General Plan.

Section 2. The project is not subject to the California Environmental Quality Act (CEQA) pursuant to Section 15061(b)(3) of the State Guidelines to Implement CEQA, which states that the activity is covered by the general rule that CEQA applies only to projects that have the potential for causing a significant effect on the environment. Where it can be seen with certainty that there is no possibility that the activity in question, the proposed Code Amendment, may have a significant effect on the environment, the activity is not subject to CEQA.

Section 3. Amend the Development Code Section 9.75 "Water Conservation/Landscaping Regulations" as follows:

CHAPTER 9.75 WATER CONSERVATION/LANDSCAPING REGULATIONS

9.75.010 PURPOSE

The purpose of this Chapter is to provide minimum water conservation and landscape development standards which will promote the general welfare of Apple Valley residents through the provision of an outdoor environment which will:

A. Use water efficiently without waste by setting a Maximum Applied Water Allowance as an upper limit for water use and reduce water use to the lowest practical amount**.**
B. Create aesthetically pleasing views and vistas along public streets.
C. Complement and enhance the functional and aesthetic design of new building and site development projects so as to protect and enhance property values.
D. Use water conservation designs that create a mini-oasis concept, where plants and turf are concentrated in areas near buildings where they may be enjoyed at a pedestrian level.
E. Provide visual screening of parking, service and storage areas.
F. Mitigate the adverse impacts of higher intensity land uses upon lower intensity uses through the provision of needed landscape buffers.
G. Promote water conservation by restricting the use of turf and ornamental water features and requiring the utilization of low water use plant materials.
H. Promote climate modifications for enhancement of pedestrian environment at street frontages, parking lots and building facades.
I. Provide maximum shade on ground surfaces to reduce the "urban heat island effect" produced by large expanses of unprotected paved areas.

9.75.020 APPLICABILITY

A. All persons owning, developing or maintaining property subject to the provisions of this Chapter shall comply with all applicable provisions contained herein. The landscape standards and requirements established by this Chapter shall apply to all new developments that require the approval of a building permit, site development plan or Development Permit.
B. No Building Permit shall be approved or issued unless the Planning Division finds that the project satisfies the criteria set forth in this Chapter.
C. Cemeteries shall only be required to provide scheduled irrigation based on CIMIS (California Irrigation Management Information System) or conduct water audits every three (3) years with strict adherence to the recommendations in the water audit. CIMIS and water audits shall be submitted to the water serving entity for compliance.
D. This Chapter does not apply to the following:

1. Registered local, state or federal historical sites;
2. Ecological restoration projects that do not require a permanent irrigation system;
3. Mined-land reclamation projects that do not require a permanent irrigation system; or
4. Existing plant collections, as part of botanical gardens and arboretums open to the public.

E. The provisions California Code of Regulations Title 23, Division 2, Chapter 2.7 "Model Water Efficient Landscape Ordinance (MWELO)", which may be amended from time to time are made part of this Chapter by reference with the same force and effect as if the provisions therein were specifically and fully set out herein, excepting that when the provisions of this chapter are more restrictive than conflicting State provisions, this chapter shall prevail.

9.75.030 DEFINITIONS

Application Rate means the depth of water applied to a given area, usually measured in inches per hour.

Applied Water means the portion of water supplied by the irrigation system to the landscape.

Automatic Irrigation Controller means a timing device used to remotely control valves that operate an irrigation system. Automatic irrigation controllers are able to self-adjust and schedule irrigation events using either evapotranspiration (weather-based) or soil moisture data.

Backflow Prevention Device means a safety device used to prevent pollution or contamination of the water supply due to the reverse flow of water from the irrigation system.

Bubbler Emitter – See Low Volume Irrigation Systems

Certified Irrigation Designer means a person certified to design irrigation systems by an accredited academic institution, a professional trade organization or other program such as the US Environmental Protection Agency's WaterSense irrigation designer certification program and Irrigation Association's Certified Irrigation Designer program.

Certified Landscape Irrigation Auditor means a person certified to perform landscape irrigation audits by an accredited academic institution, a professional trade organization or other program such as the US Environmental Protection Agency's WaterSense irrigation auditor certification program and Irrigation Association's Certified Landscape Irrigation Auditor program.

Check Valve or anti-drain valve means a valve located under a sprinkler head, or other location in the irrigation system, to hold water in the system to prevent drainage from sprinkler heads when the sprinkler is off.

Common Open Space means the land within or serving as a part of a development, not individually owned or dedicated for public use, which is designed and intended for the common use or enjoyment of the residents of the development and may include such complementary structures and improvements as are necessary and appropriate.

Compost means the safe and stable product of controlled biologic decomposition of organic materials that is beneficial to plant growth.

Conversion Factor (0.62) means the number that converts acre-inches per acre per year to gallons per square foot per year.

Distribution Uniformity means the measure of the uniformity of irrigation water over a defined area.

Drip Emitter – See Low Volume Irrigation System.

Drip Irrigation means any non-spray low volume irrigation system utilizing emission devices with a flow rate measured in gallons per hour. Low volume irrigation systems are specifically designed to apply small volumes of water slowly at or near the root zone of plants.

Ecological Restoration Project means a project where the site is intentionally altered to establish a defined, indigenous, historic ecosystem.

Effective Precipitation or Usable Rainfall (EPPT) means the portion of total precipitation which becomes available for plant growth.

Electric Automatic Controllers refers to time clocks that have the capabilities of multi-programming and multiple start times in order to control amount of water applied to landscaping.

Emitter means a drip irrigation emission device that delivers water slowly from the system to the soil.

Established Landscaping means the point at which new plants in the landscape have developed roots into the soil adjacent to the root ball.

Establishment Period means the first year after installing the plant in the landscape.

Estimated Total Water Use (ETWU) is the estimated water needs calculated and based on the plants used and irrigation method selected for the landscape design. The ETWU must be below the Maximum Applied Water Allowance.

ET Adjustment Factor (ETAF) means a factor of 0.55 for residential areas and 0.45 for non-residential areas, 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. The ETAF for new and existing (non-rehabilitated) Special Landscape Areas shall not exceed 1.0. The ETAF for existing non-rehabilitated landscapes is 0.8.

Evapotranspiration Rate means the quantity of water evaporated from adjacent soil and other surfaces and transpired by plants during a specified time.

Flow Rate means the rate at which water flows through pipes, valves and emission devices, measured in gallons per minute, gallons per hour, or cubic feet per second.

Flow Sensor means an inline device installed at the supply point of the irrigation system that produces a repeatable signal proportional to flow rate. Flow sensors must be connected to an automatic irrigation controller, or flow monitor capable of receiving flow signals and operating master valves. This combination flow sensor/controller may also function as a landscape water meter or submeter.

Friable means a soil condition that is easily crumbled or loosely compacted down to a minimum depth per planting material requirements, whereby the root structure of newly planted material will be allowed to spread unimpeded.

Fuel Modification Plan Guideline means guidelines from a local fire authority to assist residents and businesses that are developing land or building structures in a fire hazard severity zone.

Graywater means untreated wastewater that has not been contaminated by any toilet discharge, has not been affected by infectious, contaminated, or unhealthy bodily wastes, and does not present a threat from contamination by unhealthful processing, manufacturing, or operating wastes. “Graywater” includes, but is not limited to, wastewater from bathtubs, showers, bathroom washbasins, clothes washing machines, and laundry tubs, but does not include wastewater from kitchen sinks or dishwashers. Health and Safety Code Section 17922.12.

Hardscapes shall mean any durable material (pervious and non-pervious) such as concrete and/or inorganic decorative landscape materials, including but not limited to, stones, boulders, cobbles, pavers, decorative concrete, etc.

Hydrozone means a portion of the landscaped area having plants with similar water needs and rooting depth. A hydrozone may be irrigated or non-irrigated. Hydrozones are categorized as low, moderate, high water, or mixed water use. Temporarily irrigated areas of the landscape shall be included in the low water use hydrozone for the water budget calculation.

Infiltration Rate means the rate of water entry into the soil expressed as a depth of water per unit of time (inches per hour).

Interior Open Space is that open space enclosed by line extensions of the exterior walls of one or more buildings constructed on a common building site.

Invasive Plant Species means species of plants not historically found in California that spread outside cultivated areas and can damage environmental or economic resources. Invasive species may be regulated by county agricultural agencies as noxious species. Lists of invasive plants are maintained at the California Invasive Plant Inventory and USDA invasive and noxious weeds database.

Irrigation Audit means an in-depth evaluation of the performance of an irrigation system conducted by a Certified Landscape Irrigation Auditor. An irrigation audit includes, but is not limited to: inspection, system tune-up, system test with distribution uniformity or emission uniformity, reporting overspray or runoff that causes overland flow, and preparation of an irrigation schedule. The audit must be conducted in a manner consistent with the Irrigation Association's Landscape Irrigation Auditor Certification program or other U.S. Environmental Protection Agency "Watersense" labeled auditing program.

Irrigation Efficiency means 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 for overhead spray devices and 0.81 for drip systems .

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

Irrigation Water Use Analysis means an analysis of water use data based on meter readings and billing data.

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

Landscape Area means all the planting areas, turf areas, and water features in a landscape design plan subject to the Maximum Applied Water Allowance calculation. The landscape area does not include footprints of buildings or structures, sidewalks, driveways, parking lots, decks, patios, gravel or stone walks, other pervious or non-pervious hardscapes, and other non-irrigated areas designated for non-development (e.g., open spaces and existing native vegetation).

Landscape Contractor means a person licensed by the state of California to construct, maintain, repair, install, or subcontract the development of landscape systems.

Landscaping means all living plants such as trees, shrubs, vines, vegetative ground cover, organic or inorganic materials, earthen berms, walls, walkways, plazas, courtyards, lighting, benches, trash containers, ponds, fountains, sculptures, and other site furnishings creating an attractive environment. It also includes decorative materials such as bark, rock or stone which are allowed to be used in conjunction with live material planting beds.

Landscape Plan. A graphic representation of the development of a site that illustrates the nature, design, and location of all landscaping and irrigation elements and materials.

Landscape Water Meter means an inline device installed at the irrigation supply point that measures the flow of water into the irrigation system and is connected to a totalizer to record water use.

Lateral Line means the water delivery pipeline that supplies water to the emitters or sprinklers from the valve.

Low Volume Irrigation systems means the application of irrigation water at low pressure through a system of tubing or lateral lines and low-volume emitters such as drip, drip lines, and bubblers. Low volume irrigation systems are specifically designed to apply small volumes of water slowly at or near the root zone of plants.

Low Water Use Plant Material means trees, shrubs and ground covers that survive with a limited amount of supplemental water, as identified in the Approved Plant list.

Main Line is the pressurized pipeline that delivers water from the water source to a valve or outlet.

Master Shut-Off Valve is an automatic valve installed at the irrigation supply point which controls water flow into the irrigation system. When this valve is closed water will not be supplied to the irrigation system. A master valve will greatly reduce any water loss due to a leaky station valve.

Maximum Applied Water Allowance (MAWA) means the upper limit of annual applied water for the established landscaped area as specified in Section 492.4. It is based upon the area's reference evapotranspiration, the ET Adjustment Factor, and the size of the landscape area. The Estimated Total Water Use shall not exceed the Maximum Applied Water Allowance. Special Landscape Areas, including recreation areas, areas permanently and solely dedicated to edible plants such as orchards and vegetable gardens, and areas irrigated with recycled water are subject to the MAWA with an ETAF not to exceed 1.0. MAWA = (ETo) (0.62) [(ETAF x LA) + ((1-ETAF) x SLA)]. The ETo factor for Apple Valley is 66.2 and the ETAF is 0.55 for residential and 0.45 for non-residential.

Median is an area between opposing lanes of traffic that may be unplanted or planted with trees, shrubs, perennials, and ornamental grasses.

Micro Sprinkler - See Low Volume Irrigation Systems.

Microclimate means the climate of a small, specific area that may contrast with the climate of the overall landscape area due to factors such as wind, sun exposure, plant density, or proximity to reflective surfaces.

Mined-Land Reclamation Projects means any surface mining operation with a reclamation plan approved in accordance with the Surface Mining and Reclamation Act of 1975.

Mulch means any organic material such as leaves, bark, straw, compost or inorganic mineral material such as pebbles, stones, gravel and decorative sand or decomposed granite left loose and applied to the soil surface to reduce evaporation suppressing weeds, moderating soil temperature, and preventing soil erosion.

Native Plants means plants that are : (1) Indigenous to the desert region of California, Nevada and/or Arizona; and (2) Native to the southwestern United States and northern Mexico and (3) are low to minimal water users.

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

Non-Residential Landscape means landscapes in commercial, institutional, industrial and public settings that may have areas designated for recreation or public assembly. It also includes portions of common areas of common interest developments with designated recreational areas.

Operating Pressure means the pressure at which the parts of an irrigation system are designed by the manufacturer to operate.

Overdraft shall mean that situation wherein the current total annual consumptive use of water in the Mojave Basin Area exceeds the long-term average annual natural water supply to the Basin Area or Sub Area.

Overhead Sprinkler Irrigation Systems or Overhead Spray Irrigation Systems means systems that deliver water through the air (e.g., spray heads and rotors).

Overspray shall mean the water, which is delivered beyond the landscaped area, wetting pavements, walks, structures or other non-landscaped areas.

Parkway means the area of a public street that lies between the curb and the adjacent property line or physical boundary definition such as fences or walls, which is used for landscaping and/or passive recreational purposes.

Pervious means any surface or material that allows the passage of water through the material and into the underlying soil.

Plant Factor Or Plant Water Use Factor is a factor, when multiplied by ETo, estimates the amount of water needed by plants. For purposes of this ordinance, the plant factor range for very low water use plants is 0 to 0.1, the plant factor range for low water use plants is 0.1 to 0.3, the plant factor range for moderate water use plants is 0.4 to 0.6, and the plant factor range for high water use plants is 0.7 to 1.0. Plant factors cited in this ordinance are derived from the publication "Water Use Classification of Landscape Species". Plant factors may also be obtained from horticultural researchers from academic institutions or professional associations as approved by the California Department of Water Resources (DWR).

Qualified Professional means a person who has been certified by his or her professional organization or a person who has demonstrated knowledge and is locally recognized as qualified around Landscape Architects due to long time experience.

Rain Sensor or Rain Shutoff Device shall mean a system which automatically shuts off the irrigation system when it rains.

Reclaimed Water, Recycled Water, or Treated Sewage Effluent Water, means treated or recycled waste water of a quality suitable for nonpotable uses such as landscape irrigation and water features. This water is not intended for human consumption.

Recreation Areas means areas, excluding private single family residential areas, designated for active play, recreation or public assembly in parks, sports fields, picnic grounds, amphitheaters or golf course tees, fairways, roughs, surrounds and greens.

Reference Evapotranspiration (ETo) means a standard measurement of environmental parameters which affect the water use of plants. The ETo for Apple Valley is 66.2 inches per year, and is an estimate of the evapotranspiration of a large field of four- to seven-inch tall, cool-season grass that is well watered. Reference evapotranspiration is used as the basis of determining the Maximum Applied Water Allowances so that regional differences in climate can be accommodated.

Rehabilitated Landscape means any relandscaping project that requires a permit, plan check, or design review, and the modified landscape area is equal to or greater than 2,500 square feet.

Residential Landscape means landscapes surrounding single or multifamily homes.

Run Off means water which is not absorbed by the soil or landscape to which it is applied and flows from the area. For example: Run off may result from water that is applied at too great a rate (application rate exceeds infiltration rate), or when there is a severe slope.

Salvaged/Harvested Water. Storm water collected for landscape use.

Soil Moisture Sensing Device or Soil Moisture Sensor means a device that measures the amount of water in the soil. The device may also suspend or initiate an irrigation event.

Soil Texture means the classification of soil based on its percentage of sand, silt, and clay.

Special Landscape Area (SLA) means an area of the landscape dedicated solely to edible plants, recreational areas, areas irrigated with recycled water, or water features using recycled water.

Sprinkler Head shall mean a device which sprays water through a nozzle.

Static Water Pressure means the pipeline or municipal water supply pressure when water is not flowing.

Station shall mean an area served by one valve or by a set of valves that operate simultaneously.

Swing Joint means an irrigation component that provides a flexible, leak-free connection between the emission device and lateral pipeline to allow movement in any direction and to prevent equipment damage.

Submeter means a metering device to measure water applied to the landscape that is installed after the primary utility water meter.

Turf shall mean a surface layer of earth containing mowed grass with its roots.

Valve shall mean a device used to control the flow of water in the irrigation system.

Water Conserving Plant Species means a plant species identified as having a very low or low plant factor.

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

Water Waste shall mean any unreasonable or non-beneficial use of water or any unreasonable method or use of water, including but expressly not limited to, the specific uses, conditions, actions or omissions prohibited or restricted by the Ordinance, as hereinafter set forth.

Watering Window means the time of day irrigation is allowed.

WUCOLS means the Water Use Classification of Landscape Species published by the University of California Cooperative Extension and the Department of Water Resources 2014.

Xeriscape Landscaping. A water conservation concept that stresses the use of the appropriate plant material and irrigation techniques which are well suited for the local micro-climate. This concept incorporates native plants, selected hardscapes, and proper planting and irrigation techniques that improve the overall water efficiency of a landscape system.

Zone means an area served by one valve, sometimes referred to as a Station.

9.75.040 PROCESSING PROCEDURES AND SUBMITTAL REQUIREMENTS

As a condition of approval for any development proposal, the applicant shall submit a landscape documentation package to the Planning Division that include the following:

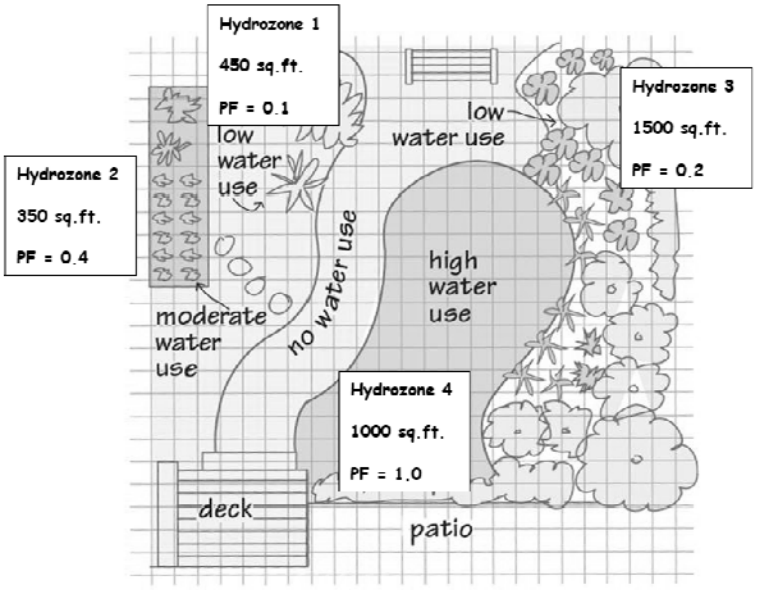
A. Landscape Plans. Plans submitted for residential development are not required to be prepared by a licensed Landscape Architect. All non-residential development requires a California licensed Landscape Architect, Architect, Landscape Contractor (within the scope of his/her license) or Certified Irrigation Designer shall prepare the landscape plans. All landscape plans submitted by the applicant shall be fully dimensioned and drawn at a minimum scale of one (1) inch equals thirty (30) feet (maximum sheet size 30" X 42") and contain the following information:

1. Date
2. Project applicant
3. Project address (if available, parcel and/or lot number(s))
4. Total landscape area (square feet), including a breakdown of turf and plant material
5. Project type (e.g., new, rehabilitated, public, private, cemetery, homeowner-installed)
6. Water supply type (e.g., potable, recycled, well) and identify the local retail water purveyor if the applicant is not served by a private well
7. Contact information for the project applicant and property owner
8. Applicant signature and date with statement, "I agree to comply with the requirements of the prescriptive compliance option to the MWELO" or for landscape area over 2,500 square feet , include the statement, "I agree to comply with the requirements of the water efficient landscape ordinance and submit a complete Landscape Documentation Package".
9. A table containing Lot size and breakdown of square feet with total percentage of lot area occupied by each of the following:
- ***a.*** Buildings;
- ***b.*** Paved areas;
- ***c.*** Irrigated landscape area
- ***d.*** Irrigated Turf area; and
- ***e.*** Hardscape area

10. A table listing the plant material including the plant symbols, common and botanical names, plant factor, sizes, spacing (if applicable), quantities, required guarantee and other remarks as appropriate to describe the plant selection. Table shall also include symbols and description of all inorganic materials schedule including type of materials (i.e. decomposed granite, river rock, Arizona stone, etc.).
11. Show all existing and proposed buildings, roof overhangs and other structures, paved areas, landscaped areas (including non-irrigated areas), power poles, fire hydrants, water meters, light standards, streets, street names, signs, fences/walls, water features (including pools and ponds), storm water retention/detention areas and other permanent features to be added and/or retained on site;
12. Show the location of existing and proposed plant materials. If required, to be preserved in place, indicated by botanical name and variety, common name, size and location. The location of all plant material shall be shown on the plan at approximately two-thirds the mature size of the plant material.
13. A diagram showing the amount of shading that the landscaping is expected to provide at its maturity with sun at its apex.
14. Additional Requirements. Landscape areas with an average WUCOL Plant Factor exceeding 0.3 and/or landscape areas that exceed 2,500 square feet, shall also include the following on the Landscape Plan:

- ***a.*** Delineate and label each hydrozone by number, letter, or other method;

b. Identify each hydrozone as low, moderate, high water, or mixed water use. Temporarily irrigated areas of the landscape shall be included in the low water use hydrozone for the water budget calculation.



Source: Santa Clara Valley Water District, "Rules of Thumb for Water-Wise Gardening"

c. Identify recreational areas.

d. Identify areas permanently and solely dedicated to edible plants;

e. Identify areas irrigated with recycled water;

f. Identify type of mulch and application depth (three (3)-inch minimum within all planting areas);

g. Identify soil amendments, type, and quantity;

h. Identify type and surface area of water features.

i. Identify any applicable rain harvesting or catchment technologies and its 24-hour retention or infiltration capacity.

j. Identify any applicable graywater discharge piping, system components and area(s) of distribution.

k. Attach a completed Water Efficient Landscape Worksheet with hydrozone information table and water budget calculations.

l. Soils Management Report. In order to reduce runoff and encourage healthy plant growth, a soil management report shall be completed by the project applicant, or his/her designee, as follows:

1) Submit soil samples to a laboratory for analysis and recommendations.

2) Soil sampling shall be conducted in accordance with laboratory protocol, including protocols regarding adequate sampling depth for the intended plants.

3) The soil analysis shall include:

a) Soil texture;
b) Infiltration rate determined by laboratory test or soil texture infiltration rate table;
c) Ph;
d) Total soluble salts;
e) Sodium;
f) Percent organic matter; and
g) Recommendations.

4) In projects with multiple landscape installations (i.e. production home developments) a soil sampling rate of 1 in 7 lots or approximately 15% will satisfy this requirement. Large landscape projects shall sample at a rate equivalent to 1 in 7 lots.

5) The project applicant, or his/her designee, shall comply with one of the following:

a) 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

b) If significant mass grading is planned, the soil analysis report shall be submitted to the local agency as part of the Certificate of Completion.

6) The soil analysis report shall be made available, in a timely manner, to the professionals preparing the landscape design plans and irrigation design plans to make any necessary adjustments to the design plans.

7) The project applicant, or his/her designee, shall submit documentation verifying implementation of soil analysis report recommendations to the local agency with Certificate of Completion.

B. Irrigation Design Plan. All irrigation plans shall contain the following minimum information:

1. Location and size of separate water meters for landscape, if applicable.
2. Location, type and size of all components of the irrigation system, including controllers, main and lateral lines, valves, sprinkler heads, moisture sensing devices, rain switches, quick couplers, pressure regulators, and backflow prevention devices;
3. A table including the manufacturer and a description of all parts use in the irrigation plan.
4. Details of the backflow prevention devices, valves, sprinkler heads, controllers, etc.
5. Static water pressure at the point of connection to the public water supply;
6. Flow rate (gallons per minute), application rate (inches per hour), and design operating pressure (pressure per square inch) for each station;
7. Recycled water irrigation systems, if any;
8. The following statement: "I have complied with the criteria of the ordinance and applied them accordingly for the efficient use of water in the irrigation design plan"; and
9. The signature of a licensed landscape architect, certified irrigation designer, licensed landscape contractor, or any other person authorized to design an irrigation system.

C. Additional requirements. Landscape areas with an average WUCOL Plant Factor exceeding 0.3 and/or landscape areas that exceed 2,500 square feet, shall also provide the following documentation upon submittal:

1. Water Efficient Landscape Worksheet;

a. Hydrozone information table
b. Water budget calculations
1) Maximum Applied Water Allowance (MAWA)
2) Estimated Total Water Use (ETWU)

2. Soil management report;
3. Grading design plan.

D. Project Completion. Landscape areas 500 square feet or greater shall submit the following to the Planning Division prior to the project's final inspection for occupancy:

1. ***A Certificate of Completion*** shall be provided to the Planning Division, local water purveyor and the property owner or his or her designee. containing the following information:

a. Project information sheet that contains:
1) date;
2) project name;
3) project applicant name, telephone, and mailing address;
4) project address and location; and
5) property owner name, telephone, and mailing address;

b. 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;

c. Where there have been significant changes made in the field during construction, these "as-built" or record drawings shall be included with the certification;

d. A diagram of the irrigation plan showing hydrozones shall be kept with the irrigation controller for subsequent management purposes.

e. Irrigation scheduling parameters used to set the controller

2. Landscape and irrigation maintenance schedule. Landscapes shall be maintained to ensure water use efficiency. A regular maintenance schedule shall be submitted with the Certificate of Completion.

a. A regular maintenance schedule shall include, but not be limited to, routine inspection; auditing, adjustment and repair of the irrigation system and its components; aerating and dethatching turf areas; topdressing with compost, replenishing mulch; fertilizing; pruning; weeding in all landscape areas, and removing obstructions to emission devices. Operation of the irrigation system outside the normal watering window is allowed for auditing and system maintenance.

b. Repair of all irrigation equipment shall be done with the originally installed components or their equivalents or with components with greater efficiency.

c. A project applicant is encouraged to implement established landscape industry sustainable Best Practices for all landscape maintenance activities.

3. **Irrigation Audit, Irrigation Survey, and Irrigation Water Use Analysis.**

a. All landscape irrigation audits shall be conducted by a local agency landscape irrigation auditor or a third party certified landscape irrigation auditor. Landscape audits shall not be conducted by the person who designed the landscape or installed the landscape.

b. In large projects or projects with multiple landscape installations (i.e. production home developments) an auditing rate of 1 in 7 lots or approximately 15% will satisfy this requirement.

c. The project applicant shall submit an irrigation audit report with the Certificate of Completion to the Planning Division that may include, but is not 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;

9.75.050 WATER CONSERVING LANDSCAPE DESIGN STANDARDS

For the efficient use of water, a landscape shall be carefully designed and planned for the intended function of the project. All landscape design plans must meet the following design criteria:

A. Use only those plants officially approved on the currently adopted plant list or alternative plants as approved by the Director.

B. Any plant from the list may be selected for the landscape, providing the Estimated Total Water Use in the landscape area does not exceed the Maximum Applied Water Allowance.

C. Turf Limitations on New Landscaping Projects.

1. Turf shall not exceed twenty-five (25) percent of the total landscape in any residential areas.

2. Except for Special Landscape Areas, the use of turf for non-residential uses is prohibited.

3. 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).

4. Turf is prohibited within public rights-of-way, including parkways.

D. Each zone (hydrozone) shall have plant materials with similar water use.

E. Water Features

a) Recirculating water systems shall be used for water features.
b) Where available, recycled water shall be used as a source for decorative water features.
c) Surface area of a water feature shall be included in the high water use hydrozone area of the water budget calculation.
d) Pool and spa covers are highly recommended.

F. High water use plants, characterized by a plant factor of 0.7 to 1.0, are prohibited in street medians or right-of-way.

G. The use of invasive plant species, such as those listed by the California Invasive Plant Council, is strongly discouraged.

H. Artificial turf/plants are not limited.

I. Compacted soils, including areas of caliches, shall be transformed to a friable condition. On engineered slopes, only amended planting holes need meet this requirement.

J. Add soil additives within landscape areas to increase the water holding capacity of the soil and improve the health of the plants. For landscape installations, compost at a rate of a minimum of four cubic yards per 1,000 square feet of permeable area shall be incorporated to a depth of six inches into the soil. Soils with greater than 6% organic matter in the top 6 inches of soil are exempt from adding compost and tilling.

K. Cover final soil surfaces with organic or inorganic mulches to insulate against soil temperature extremes and conserve moisture. A minimum three inch (3″) layer of mulch shall be applied on all exposed soil surfaces of planting areas except in turf areas, creeping or rooting groundcovers, or direct seeding applications where mulch is contraindicated.

L. ***Unity and Continuity*** Landscape unity and continuity may be significantly enhanced through the selection of a dominant tree and shrub species. Such dominance shall be established by making the selected species clearly in the majority of sixty (60) percent or more.

M. ***Tree and Shrub Placement in Proximity to Fire Hydrant.*** Trees, as measured from trunk center, shall be placed a minimum of five (5) feet from fire hydrants. Shrubs, as measured from their mature perimeter, shall be located a minimum of five (5) feet from the rear of a fire hydrant. In no case shall any material other than groundcover be placed between the street or roadway and within fifteen (15) feet of either side or front of a fire hydrant (Figure 9.75.020-A).

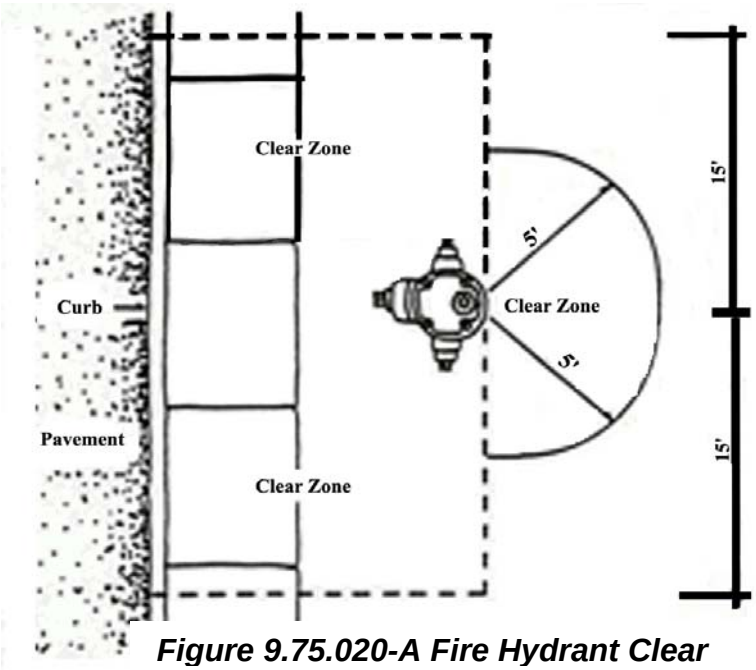


Figure 9.75.020-A Fire Hydrant Clear

N. Ground Surface Treatment

1. ***Pre-Treatment of Ground Surfaces Required.*** A mesh weed barrier shall be applied to the ground prior to the placement of natural surface materials (decomposed granite, gravel, crushed rock, river run rock, etc.) in any landscaped area to prevent weed growth.
2. ***Inorganic Ground Cover.*** Inorganic ground covers (decomposed granite, crushed stone, etc.) shall be of a natural color harmonious with other site and architectural materials and shall be installed to a minimum depth of two (2) inches.
3. ***Plant Cover/Dust Control.*** Unless otherwise provided for within this Chapter, all portions of a development site (including future building pads) not occupied by buildings, structures, paved improvements, and required landscape areas shall be temporarily landscaped with plant materials in accordance with this Chapter or treated with an appropriate inorganic ground cover and maintained in a weed and dust free condition.

O. Plant Massing. The massing of trees and shrubs into groups containing three (3) or more plants is required unless standards elsewhere within this Chapter require only a single element, e.g., single trees within parking lot planter islands. Planting of single shrub specimens, unless used to repeat an element already established within a massed planting within the same visual area, is prohibited.

P. Plant Groupings (Hydrozones). The grouping of plant species commonly found together in natural associations or of common environmental requirements (soil type, water, sun exposure, temperature limitations, etc.) is required.

Q. Plant Spacing. In order to foster a more natural look, an uneven spacing of plants is required unless such plants are being used to create a massed shrub or groundcover bed. The spacing of shrubs shall be sufficient to allow plants to reach their natural mature size and form.

R. Consistency with Existing Streetscape Standards. Street frontage landscaping shall be consistent with any previously adopted specific streetscape standards.

9.75.060 LANDSCAPE AREA AND MATERIAL REQUIREMENTS

A. Landscape Area Requirements for Residential Tracts, Multi-family Residential and All Non-Residential Development.

All portions of a development site not utilized for building development, service areas, paved or improved storage areas, parking, driveways, etc., shall be landscaped. Minimum areas of landscaping are as follows:

1. Front Building Setback/Street Right-of-Way Areas. All front building setback and street right-of-way areas located between on-site improvements and the back of existing or future public sidewalks or street curbs, except needed access driveways, shall be fully landscaped, unless otherwise provided for in this Development Code.

2. Parking Lot Area. The following landscaping standards apply to parking lots (Figure 9.75.020-A, B and C):

a. In order to reduce the "heat island effect" of large expanses of unprotected paved areas, a minimum of thirty (30) percent of the interior parking surface of all parking lots shall be shaded at the maturity of the landscaping.

b. Provide a minimum of one (1) tree (minimum fifteen (15) gallon size when planted) for each seven (7) parking spaces located so as to visually disrupt long rows of parking spaces, trees may be clustered where appropriate.

c. A thirty-six to forty-two (36-42)-inch high decorative masonry wall, hedge or landscaped berm, as measured from the finished grade of the parking area, shall also be used adjacent to public rights-of-way to screen the parking area. The height of the screening wall or berm may be reduced when the parking lot is below grade. Horizontal and vertical variations in the design of screening walls are required where the length of such walls exceed forty (40) feet. Said variations are subject to Planning Staff approval.

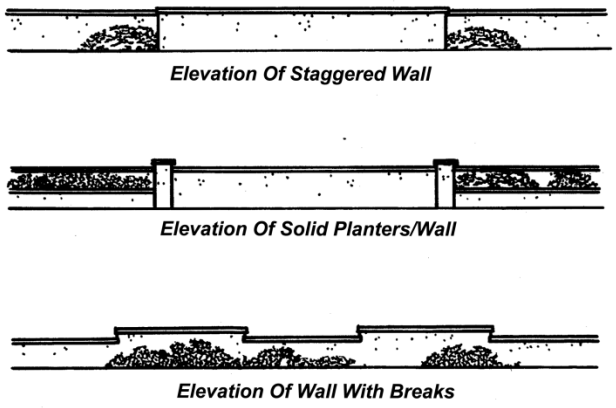


Figure 9.75.020-A Recommended Design Features and Materials

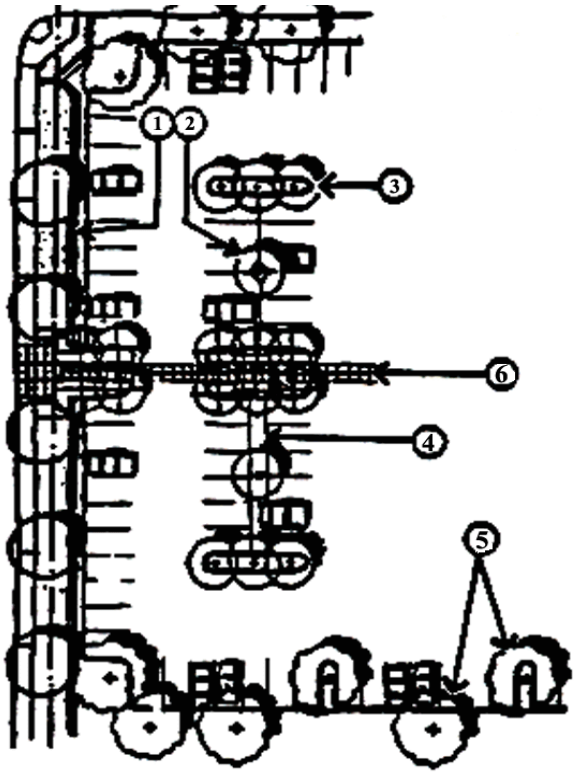
d. A minimum of five (5) percent of the interior parking surface area of all parking lots shall be landscaped. Such percentage may be achieved by combining the following:

1) Planter islands a minimum of five (5) feet in width shall be located at the ends of all rows of parking stalls between the last stall and any drive aisle. Where drive aisles are curved, alternative dimensions with similar area may be approved (Figure 9.75.020-B); and

2) Planter islands, shall be uniformly distributed throughout the interior parking area, and protected by raised curbs (Figure 9.75.020-B); or

3) Planter strips, located between double rows of parking stalls, shall be a minimum of four (4) feet in width. Each parking stall may overhang two (2) feet into this area (Figure 9.75.020-B).

Figure 9.75.020-B Planter Islands/Strips



LEGEND
1 30" - 42" Block wall and/or berm.
2 Minimum 6' square tree well.
3 Minimum 6'x18' end of row planter island.
4 Planter strips a mimimum of 4' in width between double rows.
5 Minimum one tree per each 7 uninterrupted parking stalls.
6 Special paving at pedestrian circulation areas.

e. Trees within parking lots shall be kept trimmed to a minimum clear canopy height of six (6) feet for visual safety.

f. A landscaped strip with a minimum width of ten (10) feet shall be provided where parking lots are adjacent to a public right-of-way or residential uses or districts, unless otherwise provided for in this Code.

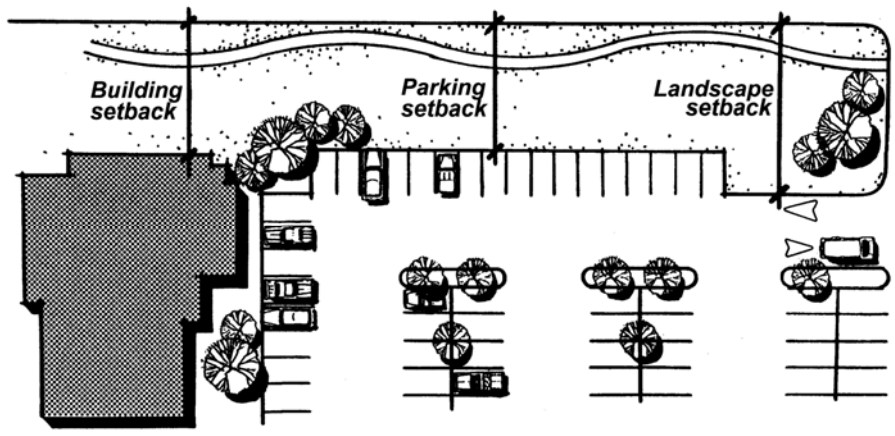


Figure 9.75.020-C Landscape Areas

3. Landscape Buffers/Perimeter Landscape Strips

a. Landscape Buffers. When providing a buffer between commercial/industrial and residential uses or districts the following features are required:

1) Landscaping shall include one (1) tree for each 200 square feet of required landscape area. Said tree shall be a minimum fifteen (15) gallon size when planted, twenty (20) percent of such required trees shall be twenty-four (24)-inch box size; and

2) A six (6)-foot decorative masonry wall reflecting the design, material, and color of the primary structures within the project, excluding approved gate openings; and

3) Evergreen trees a minimum of six (6) feet in height planted at a maximum spacing of twenty (20) feet on center and shrubs planted at a rate of five (5) per one hundred linear feet.

4. Front Building Setback Area. Landscaping in the front building setback area shall be provided at a minimum rate of one (1) tree and six (6) shrubs per thirty (30) linear feet of frontage plus sufficient groundcover plantings to provide combined shrub and ground coverage of fifty (50) percent of the total landscaped area. Trees and shrubs may be grouped, but gaps between groupings of plants shall not exceed forty (40) feet.

5. Other Perimeter Areas. Landscaping in other perimeter areas shall be provided at a minimum rate of one (1) tree and six (6) shrubs per forty (40) linear feet plus sufficient groundcover plantings to provide combined shrub and ground coverage of forty (40) percent of the total landscaped area, except where screening is required. Trees shall be a minimum fifteen (15) gallon size when planted, twenty (20) percent of which shall be twenty-four (24) inch box size. Trees and shrubs may be grouped, but gaps between groupings of plants shall not exceed fifty (50) feet.

B. Landscape Improvement Requirements. The following minimum landscape improvements are required within the following landscape areas:

1. Single-Family Residential Tracts and Multi-Family Residential Developments

a. Common open space/retention areas, A minimum of one (1) tree and six (6) shrubs per 500 square feet of open space plus such additional vegetative ground cover as is necessary to cover a minimum of fifty (50) percent of the total landscaped area with shrubs, ground cover and turf in accordance with subsection 9.75.9020.I above.

b. Arterial and collector street rights-of-way. Arterial and collector street rights-of-way adjacent to and within single and multi-family residential developments shall be landscaped at a rate of one (1) tree and three (3) shrubs per 30 linear feet plus such vegetative ground cover necessary to cover a minimum of forty (40) percent of the total landscaped area with shrubs and ground cover. Turf is prohibited within public rights-of-way.

2. Commercial/Office/Institutional Developments. One (1) tree and six (6) shrubs per 500 square feet of interior open space plus such additional ground cover which, upon maturity, will cover a minimum of fifty (50) percent of all interior open space surfaces. The inclusion of turf is subject to the limitations established in subsection 9.75.020.I above.

3. Industrial Developments. One (1) tree and six (6) shrubs per 750 square feet of interior open space plus such additional vegetative ground cover which, upon maturity, will cover a minimum of forty (40) percent of all interior open space surfaces. The inclusion of turf is subject to the limitations established in subsection 9.75.020.I above.

4. Grading in the Front Building Setback. Front setback areas shall be graded in a manner which creates natural and pleasing ground forms in accordance with the following guidelines:

a. A maximum of fifty (50) percent of the front building setback area may be used for storm water retention;

b. Soil excavated to create needed retention basins shall, within the slope limitations established below, be used to create complementary earth mounds elsewhere within the same front building setback area;

c. Earth mounds with a maximum slope ratio of four to one (4:1), horizontal to vertical, shall be located and designed to minimize street views into retention basins;

d. Grading and other site preparation shall preclude the run-off of rain and/or irrigation water from landscaped surfaces onto paved surfaces.

5. Finished Grade Surfaces. All landscaped areas shall be graded so that finish grade surfaces of all nonliving materials (i.e., decomposed granite, crushed rock, mulch, and the like) are at least one and one-half (11/2) inches below concrete or other paved surfaces.

6. Protection of Landscaped Areas. Landscaped areas adjacent to vehicular drives or parking areas shall be protected by a six (6)-inch vertical curb. Areas surfaced with different materials (i.e. lawn and decomposed granite) shall be separated by masonry, wood, or mowing strips.

C. Landscape Requirements for Single-Family In-fill Development. The following minimum landscape improvements are required within the following landscape areas:

1. The minimum landscaped area shall be determined as follows:

a. Front yard - 25% of the land area within the required front yard setback or 5,000 square feet, whichever is less.

b. Street Side yard - 25% of the land area within the required street side yard setback or 2,500 square feet, whichever is less. This area can further be reduced with the installation of a solid wall or fence, then only the strip of land between the wall or fence and public right of way shall be landscaped.

2. Minimize the removal of native vegetation and incorporate these plants into the final landscape design.

3. The required landscape areas shall include a mix of organic and inorganic materials (i.e., gravel, crushed rock, river run rock, etc.). Decomposed granite is not a permitted ground cover within any irrigated, landscaped area.

4. A minimum of four (4) yards of compost per 1,000 square feet of irrigated landscaped area is required.

5. A mesh weed barrier is required prior to the placement of inorganic ground cover.

6. In all areas, imported, inorganic ground cover shall be installed to a minimum depth of two (2) inches.

7. In order to minimize run-off and increase water infiltration, areas identified with high caliche concentrations will require excavation, to a level below the caliche, prior to landscape installation.

8. Xeriscape landscaping is required for all front yards, street side yards. The use of turf is strongly discouraged.

9. The use of turf may not exceed twenty-five (25) percent of the total landscaped area.

10. Low water use plants and low volume irrigations systems are to be used on all additional landscape areas.

11. The use of artificial turf is not limited.

12. A minimum of one (1) tree and ten (10) shrubs shall be required per fifty (50) feet of street frontage.

13. Minimum size shall be five (5) gallon shrubs and fifteen (15) gallon trees.

14. Fifty (50) percent of trees shall be canopy trees as defined within the Section 9.75.050 "Approved Plant List".

15. Grouping of plants with similar water needs is required.

16. Uneven spacing is required to create a natural look.

17. ***Deferment of Landscape Installation Provisions.*** No Building Permit shall be approved or issued unless the Planning Division finds that the project satisfies the criteria set forth in this Chapter. Residential infill lots not built and permitted to the owner of the property is exempt from this requirement, provided that a deposit of an amount adopted by Council Resolution is submitted prior to issuance of building permits. For this exemption, a landscape plan implementing the criteria of this Chapter must be submitted and approved by the Planning Division prior to occupancy of the residence. The property owner is required to install the approved landscaping within six (6) months from the date of occupancy. Failure to complete the approved landscaping in said time frame will result in forfeiting the deposit to the Town and having the non-compliance of landscape requirements forwarded to the Code Enforcement Division for legal action. One extension of time not to exceed six (6) months may be approved at the discretion of the Director for special circumstances.

9.75.070 IRRIGATION DESIGN STANDARDS

This section applies to landscaped areas requiring permanent irrigation, not areas that require temporary irrigation solely for the plant establishment period. For the efficient use of water, an irrigation system shall meet all the requirements listed in this section and the manufacturers' 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 design criteria shall be submitted as part of the Landscape Documentation Package.

A. Automatic irrigation controllers are required and must use evapotranspiration or soil moisture sensor data and utilize a rain sensor. Sensors (rain, freeze, wind, etc.), either integral or auxiliary, that suspend or alter irrigation operation during unfavorable weather conditions shall be required on all irrigation systems, as appropriate for local climatic conditions. Irrigation should be avoided during windy or freezing weather or during rain.

B. Irrigation controllers shall be of a type which does not lose programming data in the event the primary power source is interrupted.

C. Pressure regulators shall be installed on the irrigation system to ensure the dynamic pressure of the system is within the manufacturers recommended pressure range.

D. Manual shut-off valves (such as a gate valve, ball valve, or butterfly valve) shall be installed as close as possible to the point of connection of the water supply to minimize water loss in case of an emergency (such as a main line break) or routine repair.

E. Backflow prevention devices shall be required to protect the water supply from contamination by the irrigation system. A project applicant shall refer to the applicable local agency code (i.e., public health) for additional backflow prevention requirements.

F. Flow sensors that detect high flow conditions created by system damage or malfunction are required for all on non-residential landscapes and residential landscapes of 5000 sq. ft. or larger.

G. Master shut-off valves are required on all projects except landscapes that make use of technologies that allow for the individual control of sprinklers that are individually pressurized in a system equipped with low pressure shut down features.

H. All irrigation emission devices must meet the requirements set in the ANSI standard, ASABE/ICC 802-2014. "Landscape Irrigation Sprinkler and Emitter Standard," All sprinkler heads installed in the landscape must document a distribution uniformity low quarter of 0.65 or higher using the protocol defined in ASABE/ICC 802-2014.

I. The irrigation system shall be designed to prevent runoff, low head drainage, overspray, or other similar conditions where irrigation water flows onto non-targeted areas, such as adjacent property, non-irrigated areas, hardscapes, roadways, or structures.

J. Relevant information from the soil management plan, such as soil type and infiltration rate, shall be utilized when designing irrigation systems.

K. The design of the irrigation system shall conform to the hydrozones of the landscape design plan.

L. The irrigation system must be designed and installed to meet, at a minimum, the irrigation efficiency criteria as described in the submitted Water Efficient Landscape Worksheet and the Maximum Applied Water Allowance.

M. Areas less than ten (10) feet in width in any direction shall be irrigated with subsurface irrigation or other means that produces no runoff or overspray.

N. In mulched planting areas, the use of low volume irrigation is required to maximize water infiltration into the root zone.

O. Sprinkler heads and other emission devices shall have matched precipitation rates, unless otherwise directed by the manufacturer's recommendations.

P. Head to head coverage is recommended. However, sprinkler spacing shall be designed to achieve the highest possible distribution uniformity using the manufacturer's recommendations.

Q. Swing joints or other riser-protection components are required on all risers subject to damage that are adjacent to hardscapes or in high traffic areas of turfgrass.

R. Check valves or anti-drain valves are required on all sprinkler heads where low point drainage could occur.

S. For non-residential projects with landscape areas of 1,000 sq. ft. or residential irrigated landscapes of 5,000 sq. ft. or greater, a submeter(s), to measure landscape water use shall be installed. The submeter may be privately owned or provided by the water purveyor,

T. At the time of final inspection, the permit applicant must provide the owner of the property with a certificate of completion, certificate of installation, irrigation schedule and a schedule of landscape and irrigation maintenance.

U. It is highly recommended that the project applicant or local agency inquire with the local water purveyor about peak water operating demands (on the water supply system) or water restrictions that may impact the effectiveness of the irrigation system.

V. Overhead irrigation shall not be permitted within 24 inches of any non-permeable surface. Allowable irrigation within the setback from non-permeable surfaces may include drip, drip line, or other low flow non-spray technology. The setback area may be planted or unplanted. The surfacing of the setback may be mulch, gravel, or other porous material. These restrictions may be modified if:

1. The landscape area is adjacent to permeable surfacing and no runoff occurs; or
2. The adjacent non-permeable surfaces are designed and constructed to drain entirely to landscaping; or
3. The irrigation designer specifies an alternative design or technology, as part of the Landscape Documentation Package and clearly demonstrates strict adherence to irrigation system design criteria in Section 492.7 (a)(1)(I). Prevention of overspray and runoff must be confirmed during the irrigation audit.

W. Slopes greater than 25% shall not be irrigated with an irrigation system with a application 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 and erosion must be confirmed during the irrigation audit.

X. Hydrozone

1. Each valve shall irrigate a hydrozone with similar site, slope, sun exposure, soil conditions, and plant materials with similar water use.

2. Sprinkler heads and other emission devices shall be selected based on what is appropriate for the plant type within that hydrozone.

3. Where feasible, trees shall be placed on separate valves from shrubs, groundcovers, and turf to facilitate the appropriate irrigation of trees. The mature size and extent of the root zone shall be considered when designing irrigation for the tree.

4. Individual hydrozones that mix plants of moderate and low water use, or moderate and high water use, may be allowed if:

- ***a.*** Plant factor calculation is based on the proportions of the respective plant water uses and their plant factor; or
- ***b.*** The plant factor of the higher water using plant is used for calculations.
- ***c.*** Individual hydrozones that mix high and low water use plants shall not be permitted.
- ***d.*** 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 (see Appendix B Section A). This table can also assist with the irrigation audit and programming the controller.

Y. Irrigation Scheduling. For the efficient use of water, all irrigation schedules shall be developed, managed, and evaluated to utilize the minimum amount of water required to maintain plant health. Irrigation schedules shall meet the following criteria:

1. Irrigation scheduling shall be regulated by automatic irrigation controllers.

2. Overhead sprinkler irrigation shall be scheduled to operate during the months of May through October, between the hours of 6:00 P.M. and 9:00 A.M. and during the remaining months of November through April, between the hours of 9:00 A.M. and 3:00 P.M. to reduce water loss from wind and evaporation and to avoid ice during winter months. Drip irrigation and subterranean devices shall not be subject to this water window.

3. For implementation of the irrigation schedule, particular attention must be paid to irrigation run times, emission device, flow rate, and current reference evapotranspiration, so that applied water meets the Estimated Total Water Use. Total annual applied water shall be less than or equal to Maximum Applied Water Allowance (MAWA). Actual irrigation schedules shall be regulated by automatic irrigation controllers using current reference evapotranspiration data (e.g., CIMIS) or soil moisture sensor data.

4. Parameters used to set the automatic controller shall be developed and submitted for each of the following:

- ***a.*** the plant establishment period;
- ***b.*** the established landscape; and
- ***c.*** temporarily irrigated areas.

5. Each irrigation schedule shall consider for each station all of the following that apply:

- ***a.*** irrigation interval (days between irrigation);
- ***b.*** irrigation run times (hours or minutes per irrigation event to avoid runoff);
- ***c.*** number of cycle starts required for each irrigation event to avoid runoff;
- ***d.*** amount of applied water scheduled to be applied on a monthly basis;
- ***e.*** application rate setting;
- ***f.*** root depth setting;
- ***g.*** plant type setting;
- ***h.*** soil type;
- ***i.*** slope factor setting;
- ***j.*** shade factor setting; and

k. irrigation uniformity or efficiency setting.

9.75.080 ENFORCEMENT/REPORTING.

A. The Town shall 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.

B. All existing landscapes that were installed before December 1, 2015 and are over one acre in size, that have a water meter, the Town, or other designated authority, shall administer programs that may include, but not be limited to, irrigation water use analyses, irrigation surveys, and irrigation audits to evaluate water use and provide recommendations as necessary to reduce landscape water use to a level that does not exceed the Maximum Applied Water Allowance for existing landscapes.

C. For landscapes that do not have a meter, the Town, or other designated authority, shall administer programs that may include, but not be limited to, irrigation surveys and irrigation audits to evaluate water use and provide recommendations as necessary in order to prevent water waste.

D. All landscape irrigation audits shall be conducted by a certified landscape irrigation auditor.

9.75.090 PUBLIC EDUCATION *(AMENDED ORD. 326)*

The Town of Apple Valley shall make available information about water efficient landscaping to water users throughout the community. The Town will also use public education to encourage users to conserve water through voluntary compliance. In addition to education, the Town may use enforcement measures to curb water waste.

A. Information shall be provided to new homeowners about designing, installing and maintaining water efficient landscapes.

B. Model Homes. All model homes that are landscaped shall use signs and written information to demonstrate the principles of water efficient landscapes described in this ordinance as follows:

1. Signs shall be used to identify the model as an example of a water efficient landscape featuring elements such as hydrozones, irrigation equipment, and others that contribute to the overall water efficient theme. Signage shall include information about the site water use as designed per the local ordinance; specify who designed and installed the water efficient landscape; and demonstrate low water use approaches to landscaping such as using native plants, graywater systems, and rainwater catchment systems.

2. Information shall be provided about designing, installing, managing, and maintaining water efficient landscapes.

9.75.100 APPROVED PLANT LIST

All landscape shall strive to maximize the use of native species as provided in the approved plant list in this Section or as approved by the Director. Where native material is not appropriate for the intended use or appearance, plant species that are regionally adapted and non-invasive may be used with the approval of the Director. *SOURCE: UNIVERSITY OF CALIFORNIA WATER USE CLASSIFICATION OF LANDSCAPE SPECIES (WUCOLS IV).*

Ground Cover

Botanical Name	Common Name	Water Use	Plant Factor
Abelia x grandiflora and cvs.	glossy abelia	Moderate	0.5
Acacia redolens	prostrate acacia	Low	0.2

Achillea millefolium (non-native hybrids)	yarrow (non-native hybrids)	Low	0.2
Achillea millefolium (CA native cultivars)	yarrow	Low	0.2
Ajuga reptans (shade)	carpet bugle	Moderate	0.5
Artemisia spp. (herbaceous)	angel"s hair	Moderate	0.5
Artemisia spp. (shrubby)	sagebrush	Low	0.2
Atriplex CA native species	saltbush	Low	0.2
Baccharis pilularis cvs.	dwarf coyote brush	Moderate	0.5
Baccharis "Starn"	Starn coyote brush	Low	0.2
Berberis aquifolium "Compacta" (partial shade in South Inland)	compact Oregon grape holly	Moderate	0.5
Berberis aquifolium var. repens (shade)	creeping mahonia	Moderate	0.5
Cerastium tomentosum	snow in summer	Moderate	0.5
Cistus spp. and cvs.	rockrose	Moderate	0.5
Convolvulus mauritanicus	ground morning glory	Moderate	0.5
Cotoneaster horizontalis	rock cotoneaster	Moderate	0.5
Cotoneaster spp.(ground covers)	cotoneaster	Moderate	0.5
Cuphea llavea	bat-faced cuphea	Moderate	0.5
Cytisus x kewensis	Kew broom	Moderate	0.5
Dalea capitata	dalea (capitata)	Moderate	0.5
Dalea greggii	trailing indigo bush	Low	0.2
Euonymus fortunei	purple winter creeper	Moderate	0.5
Fragaria spp. (CA native and non-natives species)	strawberry	Moderate	0.5
Gazania spp.	gazania	Moderate	0.5
Geranium spp.	cranesbill	Moderate	0.5
Juniperus spp.	juniper	Moderate	0.5
Lantana camara & cvs.	lantana	Moderate	0.5
Lantana hybrids	hybrid lantana	Moderate	0.5
Lantana montevidensis (sellowiana)	trailing lantana	Moderate	0.5
Lantana "New Gold"	New Gold lantana	Moderate	0.5
Lonicera japonica	Japanese honeysuckle	Moderate	0.5
Malephora spp.	ice plant (Maleophora)	Low	0.2
Myoporum parvifolium & cvs.	myoporum	Moderate	0.5
Oenothera speciosa (O. berlandieri)	Mexican evening primrose	Moderate	0.5

Oenothera stubbei	Baja evening primrose	Low	0.2
Parthenocissus quinquefolia	Virginia creeper	Moderate	0.5
Parthenocissus tricuspidata	Boston ivy	Moderate	0.5
Potentilla verna	spring cinquefoil	Moderate	0.5
Rosa hybrids..ground covers	carpet roses	Moderate	0.5
Rosmarinus cvs.	trailing rosemary	Moderate	0.5
Santolina spp.	lavender cotton	Low	0.2
Teucrium chamaedrys	germander	Moderate	0.5
Thymus spp. and cvs.	thyme	Moderate	0.5
Trachelospermum asiaticum	Asian star jasmine	Moderate	0.5
Trachelospermum jasminoides	star jasmine	Moderate	0.5
Verbena peruviana	Peruvian verbena	Moderate	0.5
Verbena rigida	vervain	Moderate	0.5
Verbena stricta	hoary vervain	Moderate	0.5
Verbena tenera (pulchella)	rock verbena	Moderate	0.5
Verbena tenuisecta	moss verbena	Moderate	0.5
Vinca minor	periwinkle	Moderate	0.5
Wedelia trilobata	trailing daisy	Moderate	0.5
Zinnia grandiflora	prairie zinnia	Low	0.2

Perennials

Botanical Name	**Common Name**	**Water Use**	**Plant Factor**
Achillea millefolium (non-native hybrids)	yarrow (non-native hybrids)	Low	0.2
Achillea millefolium (CA native cultivars)	yarrow	Low	0.2
Agave attenuata (and thin-leaved relatives) (Ca native and non-native)	agave	Low	0.2
Ailanthus altissima	tree of heaven	Low	0.2
Argemone corymbosa	prickly poppy	Low	0.2
Aristida purpurea	purple three-awn	Low	0.2
Asclepias (CA native species)	milk/silk weed	Low	0.2
Asclepias subulata	desert milkweed	Low	0.2
Baileya multiradiata	desert marigold	Low	0.2
Berlandiera lyrata	chocolate scented daisy	Low	0.2
Bulbine frutescens	stalked bulbine	Low	0.2
Echinopsis spp. (Trichocereus spp.)	torch cactus	Low	0.2

Eriogonum spp. (CA native and non-native spp.)	buckwheat	Low	0.2
Euphorbia antisyphilitica	candelilla	Low	0.2
Melampodium leucanthum	blackfoot daisy	Low	0.2
Nolina spp. (CA natives and non-natives)	bear grass	Low	0.2
Oenothera caespitosa	tufted (white) evening primrose	Low	0.2
Oenothera stubbei	Baja evening primrose	Low	0.2
Penstemon SW native spp. and cvs.	penstemon (SW natives)	Low	0.2
Perovskia spp. & cvs.	Russian sage	Low	0.2
Poliomintha longiflora	Rosemary mint	Low	0.2
Portulacaria afra & cvs.	elephant"s food	Low	0.2
Psilostrophe tagetina	paper flower	Low	0.2
Romneya coulteri	Matilija poppy	Low	0.2
Ruellia brittoniana	Mexican petunia	Low	0.2
Salvia dorrii	purple sage	Low	0.2
Santolina spp.	lavender cotton	Low	0.2
Tetraneuris acaulis (Hymenoxys acaulis)	stemless four-nerve daisy	Low	0.2
Tetraneuris scaposa	four-nerve daisy	Low	0.2
Thymophylla acerosa (Dyssodia acerosa)	shrubby dogweed	Low	0.2
Thymophylla pentachaeta (Dyssodia pentachaeta)	golden fleece	Low	0.2
Verbena gooddingii (Glandularia gooddingii)	Goodding verbena	Low	0.2
Zinnia acerosa	desert zinnia	Low	0.2
Zinnia grandiflora	prairie zinnia	Low	0.2
Adiantum spp. (shade) CA native and non-native	maidenhair fern	Moderate	0.5
Agastache coccinea pink	agastache	Moderate	0.5
Ajuga reptans (shade)	carpet bugle	Moderate	0.5
Aquilegia spp. (CA native and non-native spp.)	columbine	Moderate	0.5
Armeria maritima	sea pink	Moderate	0.5
Artemisia spp. (herbaceous)	angel"s hair	Moderate	0.5
Asclepias tuberosa	orange milkweed	Moderate	0.5
Asparagus aethiopicus and cvs. (A. densiflorus)	asparagus fern	Moderate	0.5
Aspidistra elatior (shade)	cast iron plant	Moderate	0.5
Calibrachoa cvs	million bells	Moderate	0.5
Calylophus drummondiana	Texas primrose	Moderate	0.5
Calylophus hartwegii	Sierra sundrop	Moderate	0.5
Carex divulsa (sold as C. tumulicola)	European gray sedge	Moderate	0.5

Carex tumulicola	Berkeley sedge	Moderate	0.5
Catharanthus roseus	Madagascar periwinkle	Moderate	0.5
Centaurea cineraria	dusty miller (cineraria)	Moderate	0.5
Centranthus ruber	red valerian	Moderate	0.5
Conoclinium greggii "Boothill"	blue mist flower	Moderate	0.5
Coreopsis auriculata "Nana"	dwarf coreopsis	Moderate	0.5
Coreopsis grandiflora	large flower tickseed	Moderate	0.5
Coreopsis lanceolata	lanceleaf tickseed	Moderate	0.5
Coreopsis rosea	pink tickseed	Moderate	0.5
Coreopsis verticillata cvs.	threadleaf coreopsis	Moderate	0.5
Dianella tasmanica (shade in desert)	Tasman flax lily	Moderate	0.5
Dianthus spp.	pink/carnation	Moderate	0.5
Dietes bicolor and cvs	fortnight lily	Moderate	0.5
Dietes iridioides and cvs.	fortnight lily	Moderate	0.5
Echinacea spp.	cone flower	Moderate	0.5
Epilobium spp.(Zauschneria) and cvs.	California fuchsia	Moderate	0.5
Equisetum spp. (native and non-native spp.)	horsetail	Moderate	0.5
Erigeron divergens	native fleabane	Moderate	0.5
Erigeron karvinskianus	fleabane	Moderate	0.5
Erysimum "Bowles Mauve"	Bowles Mauve wallflower	Moderate	0.5
Eupatorium spp.	mistflower	Moderate	0.5
Euryops pectinatus	euryops/shrub daisy	Moderate	0.5
Euryops pectinatus viridis	green euryops	Moderate	0.5
Gaillardia x grandiflora and cultivars	blanket flower	Moderate	0.5
Gaura lindheimeri and cvs.	gaura	Moderate	0.5
Geranium spp.	cranesbill	Moderate	0.5
Glandularia aristigera and cvs (Verbena tenuisecta)	South American rock vervain	Moderate	0.5
Helianthus maximiliani	Maximilian sunflower	Moderate	0.5
Hemerocallis spp.	day lily	Moderate	0.5
Heuchera sanguinea	coral bells	Moderate	0.5
Hibiscus moscheutos & cvs.	mallow rose	Moderate	0.5
Iris germanica	bearded iris	Moderate	0.5
Kniphofia spp. and cvs.	poker plant	Moderate	0.5
Kniphofia uvaria hybrids and cvs.	red hot poker	Moderate	0.5
Leptosyne maritima (Coreopsis maritima)	sea dahlia	Moderate	0.5
Leucanthemum X superbum (Chrysanthemum maximum)	Shasta daisy	Moderate	0.5
Liatris spicata	gay feather	Moderate	0.5
Liriope spp.	lilyturf	Moderate	0.5

Manfreda spp.	manfreda	Moderate	0.5
Mirabilis jalapa	four o"clock	Moderate	0.5
Monarda didyma	scarlet bee balm	Moderate	0.5
Nepeta spp.	catmint/catnip	Moderate	0.5
Nephrolepis cordifolia (SHADE IN DESERT)	southern sword fern	Moderate	0.5
Nephrolepis exaltata SHADE	Boston fern	Moderate	0.5
Oenothera speciosa (O. berlandieri)	Mexican evening primrose	Moderate	0.5
Ophiopogon clarkei SHADE in desert	Clark lily turf	Moderate	0.5
Ophiopogon jaburan SHADE in desert	giant lily turf	Moderate	0.5
Ophiopogon japonicus SHADE in desert	mondo grass	Moderate	0.5
Ophiopogon planiscapus var. nigrescens SHADE in desert	black mondo grass	Moderate	0.5
Penstemon garden hybrids	penstemon (hybrids)	Moderate	0.5
Ratibida columnifera	Mexican hat	Moderate	0.5
Salvia coccinea	Texas sage	Moderate	0.5
Salvia farinacea and cvs.	Mealy cup sage	Moderate	0.5
Salvia greggii & hybrids	autumn sage	Moderate	0.5
Salvia officinalis and cvs.	garden/kitchen sage	Moderate	0.5
Stachys byzantina	lamb"s ears	Moderate	0.5
Symphotrichum praealtum (Aster praealtum)	Rodney"s aster	Moderate	0.5
Tagetes lemmonii	mountain marigold	Moderate	0.5
Tagetes lucida	Mexican tarragon	Moderate	0.5
Teucrium chamaedrys	germander	Moderate	0.5
Thunbergia battiscombei	thunbergia (battiscombei)	Moderate	0.5
Thymus spp. and cvs.	thyme	Moderate	0.5
Tulbaghia fragrans	sweet garlic	Moderate	0.5
Tulbaghia violacea	society garlic	Moderate	0.5
Verbena bonariensis	verbena (bonariensis)	Moderate	0.5
Verbena hybrids	garden verbena	Moderate	0.5
Verbena peruviana	Peruvian verbena	Moderate	0.5
Verbena rigida	vervain	Moderate	0.5
Verbena stricta	hoary vervain	Moderate	0.5
Verbena Tapien hybrids	Tapien verbena	Moderate	0.5
Verbena tenera (pulchella)	rock verbena	Moderate	0.5
Verbena tenuisecta	moss verbena	Moderate	0.5
Vinca major	periwinkle	Moderate	0.5
Vinca minor	periwinkle	Moderate	0.5

Wedelia trilobata	trailing daisy	Moderate	0.5
Agave americana (and thick-leaved relatives)(CA native and non-native	agave	Very Low	0.05
Mammillaria geminispina	cactus	Very Low	0.05
Mammillaria melanocentra	cactus	Very Low	0.05
Psilostrophe cooperi	paper flower	Very Low	0.05
Salvia "Gayle Nielson" (also Trident as registered trademark name)	Gayle Nielson/Trident sage	Very Low	0.05
Sphaeralcea spp. (CA native and non-native spp.)	desert/globe mallow	Very Low	0.05

Shrubs

Botanical Name	**Common Name**	**Water Use**	**Plant Factor**
Abutilon palmeri	Indian mallow	Moderate	0.5
Acacia constricta	whitethorn acacia	Low	0.2
Acacia craspedocarpa	leatherleaf acacia	Low	0.2
Acacia greggii	catclaw acacia	Low	0.2
Acacia pennatula	pennatula acacia	Low	0.2
Acacia redolens	prostrate acacia	Low	0.2
Acanthus mollis (shade in the desert) (dormant in summer in CV)	bear"s breech	Moderate	0.5
Achillea millefolium (non-native hybrids)	yarrow (non-native hybrids)	Low	0.2
Achillea millefolium (CA native cultivars)	yarrow	Low	0.2
Agave americana (and thick-leaved relatives)(CA native and non-native	agave	Very Low	0.05
Agave attenuata (and thin-leaved relatives) (Ca native and non-native)	agave	Low	0.2
Aloysia macrostachya	aloysia	Low	0.2
Aloysia triphylla	lemon verbena	Low	0.2
Ambrosia deltoidea	triangleleaf bursage	Low	0.2
Ambrosia dumosa	white bursage	Low	0.2
Ambrosia monogyra (Hymenoclea monogyra)	burrow bush	Very Low	0.05
Amorpha fruticosa	false indigobush	Moderate	0.5
Anisacanthus spp.	desert honeysuckle	Low	0.2
Arbutus unedo	strawberry tree	Moderate	0.5
Artemisia arborescens	large wormwood	Moderate	0.5
Artemisia filifolia	sand sagebrush	Very Low	0.05

Artemisia "Powis Castle"	Powis Castle sagebrush	Moderate	0.5
Artemisia spp. (shrubby)	sagebrush	Low	0.2
Artemisia tridentata	big sagebrush	Low	0.2
Atriplex semibaccata	Australian saltbush	Low	0.2
Baccharis "Centennial"	Centennial baccharis	Low	0.2
Baccharis pilularis cvs.	dwarf coyote brush	Moderate	0.5
Baccharis salicifolia	mule fat	Moderate	0.5
Baccharis sarothroides	desert broom	Low	0.2
Baccharis "Starn"	Starn coyote brush	Low	0.2
Bahiopsis deltoidea (Viguiera deltoidea)	goldeneye	Low	0.2
Bambusa spp.	bamboo (Bambusa)	Moderate	0.5
Berberis aquifolium (Mahonia)	Oregon grape	Moderate	0.5
Berberis aquifolium "Compacta" (partial shade in South Inland)	compact Oregon grape holly	Moderate	0.5
Berberis aquifolium var. repens (shade)	creeping mahonia	Moderate	0.5
Berberis bealei (Mahonia bealei)	leatherleaf mahonia	Moderate	0.5
Berberis "Golden Abundance" (Mahonia)	golden abundance mahonia	Moderate	0.5
Berberis nevinii	Nevin mahonia	Moderate	0.5
Berberis pinnata & cvs. (Mahonia pinnata)	California holly grape	Moderate	0.5
Buddleja alternifolia	fountain butterfly bush	Moderate	0.5
Buddleja davidii and hybrids	butterfly bush	Moderate	0.5
Buddleja marrubiifolia	woolly butterfly bush	Low	0.2
Buxus microphylla japonica	Japanese boxwood	Moderate	0.5
Buxus sempervirens	English boxwood	Moderate	0.5
Caesalpinia gilliesii	desert bird of paradise	Low	0.2
Caesalpinia mexicana	Mexican bird of paradise	Low	0.2
Caesalpinia pulcherrima (deciduous in desert)	dwarf poinciana	Low	0.2
Calliandra "Sierra Star"	fairy duster hybrid	Low	0.2
Calliandra californica	Baja fairy duster	Low	0.2
Calliandra eriophylla	fairy duster	Low	0.2
Callistemon "Little John"	Little John bottlebrush	Moderate	0.5
Cephalocereus spp.	old man cactus	Low	0.2
Ceratostigma abyssinicum	African plumbago	Moderate	0.5
Ceratostigma griffithii	Burmese plumbago	Moderate	0.5
Cercocarpus betuloides	mountain ironwood	Very Low	0.05

Chaenomeles cvs.	flowering quince	Low	0.2
Chamaerops humilis	Mediterranean fan palm	Moderate	0.5
Chrysactinia mexicana	damianita daisy	Low	0.2
Chrysothamnus nauseosus	rabbit brush	Very Low	0.05
Cistus spp. and cvs.	rockrose	Moderate	0.5
Cleome isomeris	bladder pod	Low	0.2
Cneoridium dumosum	bushrue	Low	0.2
Coleogyne ramosissima	blackbrush	Very Low	0.05
Condea emoryi (Hyptis emoryi)	desert lavender	Low	0.2
Convolvulus cneorum	bush morning glory	Low	0.2
Cordia parvifolia	little leaf cordia	Low	0.2
Cotinus coggygria	smoke tree	Low	0.2
Cotoneaster spp. (shrubs)	cotoneaster	Moderate	0.5
Cuphea hyssopifolia	false heather	Moderate	0.5
Cuphea llavea	bat-faced cuphea	Moderate	0.5
Cycas revoluta	sago palm	Moderate	0.5
Dalea bicolor	dalea (bicolor)	Low	0.2
Dalea frutescens	black dalea	Low	0.2
Dalea pulchra	indigo/pea bush	Low	0.2
Dalea versicolor	dalea (versicolor)	Low	0.2
Dasylirion spp.	desert spoon	Low	0.2
Dioon spp.	Mexican cycad	Moderate	0.5
Dodonaea viscosa	hopseed bush	Moderate	0.5
Dodonaea viscosa "Purpurea"	purple hopseed bush	Moderate	0.5
Duranta erecta (D. repens)	sky flower	Moderate	0.5
Elaeagnus pungens	silverberry	Moderate	0.5
Elaeagnus x ebbingei	Ebbinge"s silverberry	Moderate	0.5
Encelia farinosa	brittle bush	Very Low	0.05
Ephedra nevadensis	Nevada ephedra	Very Low	0.05
Ephedra viridis	green mormon tea	Very Low	0.05
Eremophila maculata	spotted emu bush	Low	0.2
Eremophila racemosa	Easter egg bush	Low	0.2
Eremophila x "Summertime Blue"	Summertime Blue emu	Low	0.2
Ericameria laricifolia	turpentine bush	Low	0.2
Eriobotrya "Coppertone"	coppertone loquat	Moderate	0.5
Eriodictyon tomentosum	woolly yerba santa	Very Low	0.05
Eriogonum fasciculatum and cvs. (not listed above)	California buckwheat	Very Low	0.05
Eriogonum spp. (CA native and non-native spp.)	buckwheat	Low	0.2
Espostoa lanata	Peruvian old man cactus	Low	0.2
Euonymus japonicus	evergreen euonymus	Moderate	0.5

Euryops pectinatus	euryops/shrub daisy	Moderate	0.5
Euryops pectinatus viridis	green euryops	Moderate	0.5
Fallugia paradoxa	Apache plume	Low	0.2
Ferocactus spp. (CA native and non-native spp.)	barrel cactus	Low	0.2
Forestiera pubescens	desert olive	Low	0.2
Fouquieria macdougalii	Mexican tree ocotillo	Low	0.2
Fouquieria splendens	ocotillo	Very Low	0.05
Gutierrezia sarothrae	matchweed	Very Low	0.05
Hamelia patens	Texas firecracker bush	Moderate	0.5
Hesperaloe campanulata	bell flower hesperaloe	Low	0.2
Hesperaloe funifera	Coahuilan hesperaloe	Low	0.2
Hesperaloe nocturna	seven-son flower	Low	0.2
Hesperaloe parviflora	red/ yellow yucca	Low	0.2
Hesperoyucca spp. (Yucca whipplei, Yucca californica)	yucca	Low	0.2
Heteromeles arbutifolia	toyon	Low	0.2
Hibiscus rosa-sinensis	Chinese hibiscus	Moderate	0.5
Ilex cornuta "Burfordii"	Burford holly	Moderate	0.5
Ilex vomitoria	yaupon	Moderate	0.5
Ilex x altaclarensis "Wilsonii"	Wilson holly	Moderate	0.5
Isocoma spp. (Haplopappus)	goldenbush	Very Low	0.05
Jasminum mesnyi	primrose jasmine	Moderate	0.5
Juniperus californica	California juniper	Low	0.2
Juniperus spp.	juniper	Moderate	0.5
Justicia californica (Beloperone californica)	chuparosa	Low	0.2
Justicia spicigera	Mexican honeysuckle	Low	0.2
Kerria japonica	Japanese rose	Moderate	0.5
Kolkwitzia amabilis	beauty bush	Moderate	0.5
Krascheninnikovia lanata	winterfat	Low	0.2
Lantana camara & cvs.	lantana	Moderate	0.5
Lantana montevidensis (sellowiana)	trailing lantana	Moderate	0.5
Larrea tridentata	creosote	Very Low	0.05
Lavandula spp. & cvs.	lavender	Moderate	0.5
Leonotis leonurus	lion"s tail	Moderate	0.5
Leucophyllum langmaniae "Lynn"s legacy"	Lynn"s everblooming texas sage	Low	0.2
Leucophyllum spp. & cvs.	purple sage, Texas ranger etc.	Low	0.2
Ligustrum japonicum	Japanese privet	Moderate	0.5
Lobelia laxiflora	Mexican lobelia	Moderate	0.5

Lycium fremontii	wolfberry	Low	0.2
Mahonia oiwakensis (M. lomariifolia)	Chinese holly grape	Moderate	0.5
Malpighia glabra	Barbados cherry	Moderate	0.5
Myoporum parvifolium & cvs.	myoporum	Moderate	0.5
Myrtus communis	true myrtle	Moderate	0.5
Nandina domestica	heavenly bamboo	Moderate	0.5
Nandina domestica "Purpurea"	heavenly bamboo (Nana)	Moderate	0.5
Nerium oleander & cvs.	oleander	Moderate	0.5
Nolina spp. (CA natives and non-natives)	bear grass	Low	0.2
Opuntia spp. & cvs. (CA natives and non-natives)	prickly pear/cholla	Very Low	0.05
Osmanthus spp.	sweet olive/osmanthus	Moderate	0.5
Pachycereus marginatus	Mexican fence post cactus	Very Low	0.05
Pedilanthus bracteatus	tall slipper plant	Low	0.2
Pedilanthus macrocarpus	slipper plant	Low	0.2
Peritoma arborea (Isomeris arborea)	bladderpod	Low	0.2
Perovskia spp. & cvs.	Russian sage	Low	0.2
Phlomis fruticosa	Jerusalem sage	Moderate	0.5
Photinia serratifolia (P. serrulata)	Chinese photinia	Moderate	0.5
Photinia x fraseri	Fraser photinia	Moderate	0.5
Phyllostachys spp.	bamboo (Phyllostachys)	Moderate	0.5
Pinus mugo	mugo pine	Moderate	0.5
Pittosporum tobira and cvs.	mock orange	Moderate	0.5
Pluchea sericea	Coville arrow weed	Low	0.2
Plumbago scandens	summer snow	Moderate	0.5
Podocarpus macrophyllus	yew pine	Moderate	0.5
Portulacaria afra & cvs.	elephant"s food	Low	0.2
Prunus fasciculata	desert almond	Very Low	0.05
Psilostrophe cooperi	paper flower	Very Low	0.05
Psilostrophe tagetina	paper flower	Low	0.2
Punica granatum & cultivars	dwarf pomegranate	Moderate	0.5
Quercus berberidifolia	California scrub oak	Low	0.2
Quercus dumosa	Nutall"s scrub oak	Low	0.2
Quercus turbinella	shrub live oak	Low	0.2
Rhaphiolepis indica & cvs	Indian hawthorne	Moderate	0.5
Rhus ovata	sugar bush	Low	0.2
Rhus typhina	staghorn sumac	Low	0.2
Romneya coulteri	Matilija poppy	Low	0.2
Rosa hybrids..bush	rose	Moderate	0.5

Rosa rugosa	Japanese rose	Moderate	0.5
Rosa woodsii subsp. ultramontana	mountain wood rose	Moderate	0.5
Rosmarinus cvs.	trailing rosemary	Moderate	0.5
Rosmarinus officinalis	rosemary	Moderate	0.5
Ruellia brittoniana	Mexican petunia	Low	0.2
Ruellia "Little Katie"	dwarf ruellia	Low	0.2
Ruellia peninsularis	Baja ruellia	Low	0.2
Russelia equisetiformis	coral fountain	Moderate	0.5
Sabal spp.	palmetto	Moderate	0.5
Salvia "Allen Chickering"	Allen Chickering sage	Low	0.2
Salvia apiana	white sage	Low	0.2
Salvia chamaedryoides	blue sage	Moderate	0.5
Salvia clevelandii & hybrids	salvia Cleveland/Alan Chickering etc.	Low	0.2
Salvia dorrii	purple sage	Low	0.2
Salvia "Gayle Nielson" (also Trident as registered trademark name)	Gayle Nielson/Trident sage	Very Low	0.05
Salvia greggii & hybrids	autumn sage	Moderate	0.5
Salvia leucophylla and cvs.	purple sage	Moderate	0.5
Salvia officinalis and cvs.	garden/kitchen sage	Moderate	0.5
Sambucus spp. (CA native and non-native spp.)	elderberry	Moderate	0.5
Santolina spp.	lavender cotton	Low	0.2
Senecio cineraria (Jacobaea maritima)	dusty miller	Moderate	0.5
Senna armata (Cassia armata)	spicy senna	Very Low	0.05
Senna artemisioides (Cassia artemisioides)	feathery cassia/senna	Low	0.2
Senna covesii	desert senna	Very Low	0.05
Senna lindheimeriana (Cassia lindheimeriana)	Lindheimer"s senna/cassia	Low	0.2
Senna nemophila (Cassia nemophila)	desert cassia	Low	0.2
Senna phyllodinea (Cassia phyllodinea)	silver leaf cassia/senna	Low	0.2
Senna sturtii (Cassia sturtii)	Sturt"s cassia/senna	Low	0.2
Senna wislizeni (Cassia wislizeni)	shrubby senna	Low	0.2
Simmondsia chinensis	jojoba	Low	0.2
Sophora secundiflora	Texas mountain laurel	Low	0.2
Sorbus aucuparia	European mountain ash	Moderate	0.5
Spartium junceum	Spanish broom	Very Low	0.05
Spiraea spp. (CA native and non native spp.)	spiraea	Moderate	0.5
Strelitzia reginae (shade in desert)	bird of paradise	Moderate	0.5
Styrax redivivus (S. californicus, S.	snowdrop bush	Moderate	0.5

fulvescens))			
Syringa hybrids (including Descanso hybrids)	lilac	Moderate	0.5
Syringa vulgaris	lilac	Moderate	0.5
Syringa x persica	Persian lilac	Moderate	0.5
Tagetes lemmonii	mountain marigold	Moderate	0.5
Tagetes lucida	Mexican tarragon	Moderate	0.5
Taxus baccata	English yew	Moderate	0.5
Taxus baccata "Fastigiata"	Irish yew	Moderate	0.5
Tecoma "Crimson Flare"	yellow bells	Moderate	0.5
Tecoma fulva spp. guarume (T."Orange Jubilee"	Orange Jubilee tecoma	Moderate	0.5
Tecoma stans	yellow bells	Moderate	0.5
Tecoma "Sunrise"	Sunrise tecoma	Moderate	0.5
Tecomaria capensis	cape honeysuckle	Moderate	0.5
Teucrium chamaedrys	germander	Moderate	0.5
Teucrium fruticans	bush germander	Moderate	0.5
Thuja occidentalis	American arborvitae	Moderate	0.5
Trachelospermum asiaticum	Asian star jasmine	Moderate	0.5
Trachelospermum jasminoides	star jasmine	Moderate	0.5
Trixis californica	trixis	Low	0.2
Ungnadia speciosa	Mexican buckeye	Low	0.2
Vauquelinia californica	Arizona rosewood	Low	0.2
Vauquelinia corymbosa var. heterodon	narrow leaf rosewood	Low	0.2
Viburnum tinus	laurustinus	Moderate	0.5
Viguiera parishii	desert goldeneye	Low	0.2
Wedelia texana (Zexmenia hispida)	hairy wedelia	Low	0.2
Weigela florida	weigela	Moderate	0.5
Xylosma congestum	shiny xylosma	Moderate	0.5
Yucca aloifolia	Spanish bayonet	Low	0.2
Yucca baccata	banana yucca	Very Low	0.05
Yucca brevifolia	Joshua tree	Very Low	0.05
Yucca decipiens	palma China	Very Low	0.05
Yucca elata	soaptree yucca	Very Low	0.05
Yucca faxoniana	giant white yucca	Very Low	0.05
Yucca filamentosa & cvs.	Adam"s needle	Low	0.2
Yucca glauca	soapweed yucca	Low	0.2
Yucca gloriosa	Spanish dagger	Low	0.2
Yucca recurvifolia	curve leaf yucca	Low	0.2
Yucca rigida	blue yucca	Very Low	0.05

Yucca rostrata	beaked yucca	Very Low	0.05
Yucca rupicola	twisted yucca	Low	0.2
Yucca schidigera (Y. californica, Y. mohavensis)	Mojave yucca	Very Low	0.05
Yucca schottii	mountain yucca	Very Low	0.05
Yucca thompsoniana	Thompson"s yucca	Very Low	0.05

Ornamental Trees

Botanical Name	**Common Name**	**Water Use**	**Plant Factor**
Acacia constricta	whitethorn acacia	Low	0.2
Acacia craspedocarpa	leatherleaf acacia	Low	0.2
Acacia greggii	catclaw acacia	Low	0.2
Acacia pennatula	pennatula acacia	Low	0.2
Arbutus unedo	strawberry tree	Moderate	0.5
Azara microphylla	box leaf azara	Moderate	0.5
Bauhinia macrantha	Chihuahua orchid tree	Moderate	0.5
Brachychiton populneus	bottle tree	Moderate	0.5
Brahea armata	blue hesper palm	Moderate	0.5
Brahea edulis	Guadalupe palm	Moderate	0.5
Butia odorata (B. capitata)	pindo palm	Moderate	0.5
Celtis pallida	desert hackberry	Low	0.2
Celtis reticulata	western hackberry	Low	0.2
Cercis occidentalis	western redbud	Moderate	0.5
Chilopsis linearis	desert willow	Moderate	0.5
Cotinus coggygria	smoke tree	Low	0.2
Cupressus sempervirens	Italian cypress	Moderate	0.5
Dioon spp.	Mexican cycad	Moderate	0.5
Eysenhardtia orthocarpa	kidneywood	Low	0.2
Havardia pallens (Pithecellobium pallens)	tenaza	Low	0.2
Hesperocyparis stephensonii (Cupressus arizonica ssp. arizonica, C. arizonica var. glabra))	Cuyamaca cypress	Low	0.2
Juniperus scopulorum cvs.	Rocky Mountain juniper	Moderate	0.5
Juniperus spp.	juniper	Moderate	0.5
Lagerstroemia spp., hybrids and cvs.	crape myrtle	Moderate	0.5
Olneya tesota	desert ironwood	Low	0.2
Parkinsonia aculeata	Mexican palo verde/ Jerusalem thorn	Low	0.2
Parkinsonia floridum	Blue Palo Verde	Low	0.2

Parkinsonia microphyllum	Little leaf palo verde	Low	0.2
Phoenix dactylifera	date palm	Moderate	0.5
Photinia serratifolia (P. serrulata)	Chinese photinia	Moderate	0.5
Phyllostachys spp.	bamboo (Phyllostachys)	Moderate	0.5
Podocarpus henkelii	long leaf yellow wood	Moderate	0.5
Prosopis alba	Argentine mesquite	Low	0.2
Prosopis glandulosa (P. chilensis)	Chilean mesquite	Low	0.2
Prosopis glandulosa var. torreyana	honey mesquite	Low	0.2
Prosopis hybrids and cvs.	prosopis hybrids	Low	0.2
Prosopis juliflora	Arizona mesquite	Low	0.2
Prosopis pubescens	screwbean mesquite	Low	0.2
Prosopis velutina	velvet mesquite	Low	0.2
Prunus caroliniana	Carolina laurel cherry	Moderate	0.5
Prunus spp. edible	apricot	Moderate	0.5
Prunus spp. edible	nectarine	Moderate	0.5
Prunus spp. edible	nectarine (low chill)	Moderate	0.5
Prunus spp. edible	peach	Moderate	0.5
Prunus spp. edible	peach (low chill)	Moderate	0.5
Prunus spp. edible	plum	Moderate	0.5
Prunus spp. edible	plum (low chill)	Moderate	0.5
Prunus spp. peach	flowering peach	Moderate	0.5
Prunus spp. plum	flowering plum	Moderate	0.5
Punica granatum	pomegranate	Moderate	0.5
Pyrus kawakamii	evergreen pear	Moderate	0.5
Rhaphiolepis "Majestic Beauty"	majestic beauty	Moderate	0.5
Rhus lanceolata	prairie flameleaf sumac	Low	0.2
Rhus typhina	staghorn sumac	Low	0.2
Sabal spp.	palmetto	Moderate	0.5
Syagrus romanzoffiana (Arecastrum romanzoffiana)	queen palm	Moderate	0.5
Tecoma stans	yellow bells	Moderate	0.5
Trachycarpus fortunei	windmill palm	Moderate	0.5
Washingtonia filifera	California fan palm	Moderate	0.5

Canopy Trees

Botanical Name	**Common Name**	**Water Use**	**Plant Factor**

Albizia julibrissin	silk tree	Moderate	0.5
Allocasuarina verticillata (Casuarina stricta)	coast beefwood	Moderate	0.5
Calocedrus decurrens	incense cedar	Moderate	0.5
Carya illinoensis	pecan	Moderate	0.5
Casuarina cunninghamiana	river she-oak	Moderate	0.5
Catalpa speciosa	western catalpa	Moderate	0.5
Cedrus atlantica	Atlas cedar	Moderate	0.5
Cedrus deodara	deodar cedar	Moderate	0.5
Celtis australis	European hackberry	Moderate	0.5
Celtis occidentalis	common hackberry	Moderate	0.5
Celtis sinensis	Chinese hackberry	Moderate	0.5
Cordia boissieri	Texas olive	Low	0.2
Cordia parvifolia	little leaf cordia	Low	0.2
Diospyros kaki	Japanese persimmon	Moderate	0.5
Eucalyptus microtheca	coolibah	Moderate	0.5
Eucalyptus nicholii	Nichol"s willow leaf peppermint	Moderate	0.5
Eucalyptus polyanthemos	silver dollar gum	Moderate	0.5
Eucalyptus rudis	flooded gum	Moderate	0.5
Eucalyptus sideroxylon	red iron bark	Moderate	0.5
Fraxinus angustifolia "Raywood" (F. oxycarpa)	Raywood ash	Moderate	0.5
Fraxinus "Moraine"	moraine ash	Moderate	0.5
Fraxinus uhdei	evergreen ash	Moderate	0.5
Fraxinus velutina	Arizona ash	Moderate	0.5
Fraxinus velutina "Modesto"	Modesto ash	Moderate	0.5
Geijera parviflora	Australian willow	Moderate	0.5
Ginkgo biloba	maiden hair tree	Moderate	0.5
Gleditsia triacanthos	honey locust	Low	0.2
Hesperocyparis arizonica (Cupressus arizonica)nomen. unresolved	Arizona cypress	Low	0.2
Koelreuteria paniculata	golden rain tree	Moderate	0.5
Laurus nobilis	sweet bay	Moderate	0.5
Laurus "Saratoga"	Saratoga laurel	Moderate	0.5
Ligustrum lucidum	glossy privet	Moderate	0.5
Liquidambar styraciflua	sweet gum	Moderate	0.5
Malus hybrids	crabapple	Moderate	0.5
Malus spp.(edible)	apple	Moderate	0.5
Malus spp.(edible) e.g"Anna" (low chill variety for low desert)	apple	Moderate	0.5
Melia azedarach	chinaberry	Low	0.2

Morus alba	white mulberry	Moderate	0.5
Picea glauca	Alberta spruce	Moderate	0.5
Picea pungens	Colorado spruce	Moderate	0.5
Pinus brutia	Calabrian pine	Moderate	0.5
Pinus brutia ssp. eldarica	eldarica pine	Moderate	0.5
Pinus canariensis	Canary Island pine	Moderate	0.5
Pinus coulteri	Coulter pine	Moderate	0.5
Pinus edulis	pinyon pine	Low	0.2
Pinus halepensis	Aleppo pine	Moderate	0.5
Pinus monophylla	single leaf pinyon pine	Low	0.2
Pinus nigra	Austrian black pine	Moderate	0.5
Pinus patula	Jelecote pine	Moderate	0.5
Pinus pinea	Italian stone pine	Moderate	0.5
Pinus roxburghii	chir pine	Moderate	0.5
Pinus thunbergii	Japanese black pine	Moderate	0.5
Pistacia chinensis	Chinese pistache	Moderate	0.5
Pistacia x "Red Push"	red push pistache	Moderate	0.5
Pittosporum tobira and cvs.	mock orange	Moderate	0.5
Podocarpus macrophyllus	yew pine	Moderate	0.5
Populus "Mohavensis"	Mohave poplar	Moderate	0.5
Pyrus calleryana cultivars	Callery pear	Moderate	0.5
Pyrus communis	edible pear	Moderate	0.5
Quercus dumosa	Nutall"s scrub oak	Low	0.2
Quercus fusiformis	escarpment live oak	Low	0.2
Quercus gambelii	Gambel oak	Low	0.2
Quercus ilex	holly oak	Moderate	0.5
Quercus macrocarpa	burr oak	Moderate	0.5
Quercus muehlenbergii	chinquapin oak	Low	0.2
Quercus suber	cork oak	Low	0.2
Quercus texana	Texas red oak	Low	0.2
Quercus virginiana	southern live oak	Moderate	0.5
Quercus wislizeni	interior live oak	Moderate	0.5
Quercus x Heritage	Heritage oak	Moderate	0.5
Robinia x ambigua	locust	Moderate	0.5
Sambucus spp. (CA native and non-native spp.)	elderberry	Moderate	0.5
Schinus polygamus	Peruvian pepper tree	Low	0.2
Searsia lancea (Rhus lancea)	African sumac	Moderate	0.5
Sophora secundiflora	Texas mountain laurel	Low	0.2
Sorbus aucuparia	European mountain ash	Moderate	0.5
Styphnolobium japonicum ((Sophora japonica)	Japanese pagoda tree	Moderate	0.5

Styrax japonicus	Japanese snowbell	Moderate	0.5
Taxus baccata	English yew	Moderate	0.5
Taxus baccata "Fastigiata"	Irish yew	Moderate	0.5
Ulmus crassifolia	cedar elm	Moderate	0.5
Ulmus parvifolia	Chinese evergreen elm	Moderate	0.5
Ulmus pumila	Siberian elm	Moderate	0.5
Ungnadia speciosa	Mexican buckeye	Low	0.2
Vitex agnus-castus	chaste tree	Low	0.2
X Chitalpa tashkentensis	chitalpa	Low	0.2
Zelkova serrata	saw leaf zelkova	Moderate	0.5
Ziziphus jujuba	Chinese jujube	Moderate	0.5

Vines

Botanical Name	**Common Name**	**Water Use**	**Plant Factor**
Ampelopsis brevipedunculata	blueberry creeper	Moderate	0.5
Bignonia capreolata	cross vine	Moderate	0.5
Campsis spp.	trumpet creeper	Moderate	0.5
Clematis armandii	evergreen clematis	Moderate	0.5
Clematis hybrids and cvs.	clematis	Moderate	0.5
Euonymus fortunei radicans	winter creeper	Moderate	0.5
Fallopia baldschuanica (Polygonum aubertii)	fleeceflower	Moderate	0.5
Ficus pumila (repens)	creeping fig	Moderate	0.5
Gelsemium sempervirens	Carolina jessamine	Moderate	0.5
Lonicera hildebrandiana	giant Burmese honeysuckle	Moderate	0.5
Lonicera japonica	Japanese honeysuckle	Moderate	0.5
Lonicera sempervirens	trumpet honeysuckle	Moderate	0.5
Lonicera x americana	Americana honeysuckle	Moderate	0.5
Macfadyena unguis-cati	cat"s claw	Low	0.2
Parthenocissus quinquefolia	Virginia creeper	Moderate	0.5
Parthenocissus tricuspidata	Boston ivy	Moderate	0.5
Rosa banksiae	Lady Banks rose	Moderate	0.5
Rosa "Cecile Brunner"	Cecile Brunner rose	Moderate	0.5
Tecomaria capensis	cape honeysuckle	Moderate	0.5
Thunbergia alata	black eyed susan	Moderate	0.5
Trachelospermum asiaticum	Asian star jasmine	Moderate	0.5
Trachelospermum jasminoides	star jasmine	Moderate	0.5

Vitis californica	California wild grape	Moderate	0.5
Vitis girdiana	desert grape	Moderate	0.5
Vitis labrusca	American grape	Moderate	0.5
Vitis "Roger"s Red"	Roger"s Red grape	Moderate	0.5
Vitis vinifera	European grape	Moderate	0.5
Wisteria spp.	wisteria	Moderate	0.5

Bamboo

Botanical Name	Common Name	Water Use	Plant Factor
Bambusa spp.	bamboo (Bambusa)	Moderate	0.5
Phyllostachys spp.	bamboo (Phyllostachys)	Moderate	0.5

Bulbs

Botanical Name	Common Name	Water Use	Plant Factor
Allium spp. mostly from CA or Mediterranean	allium	Low	0.2
Calochortus spp.	Mariposa lily	Very Low	0.2
Lilium columbianum	Columbia lily	Moderate	0.5
Lilium formosanum	Formosan lily	Moderate	0.5
Lilium humboldtii	Humboldt lily	Moderate	0.5
Lilium pardalinum	leopard lily and Wiggins lily	Moderate	0.5
Lilium parryi	lemon lily	Moderate	0.5
Lilium parvum	alpine lily	Moderate	0.5
Lilium tigrinum	tiger lily	Moderate	0.5
Lilium wallichianum	wallichianum lily	Moderate	0.5
Ranunculus spp. (winter growing)	Persian ranunculus	Moderate	0.5
Zephyranthes candida	white rain lily	Low	0.2
Zephyranthes spp.	zephyr flower	Low	0.2

Grass

Botanical Name	Common Name	Water Use	Plant Factor
Andropogon gerardii	big bluestem	Low	0.2
Andropogon scoparius	little bluestem	Low	0.2
Aristida purpurea	purple three-awn	Low	0.2
Bouteloua curtipendula	sideoats grama	Low	0.2
Bouteloua gracilis and cvs.	blue grama	Low	0.2
Calamagrostis x acutiflora cvs. e.g. Karl Foerster	feather reed grass	Moderate	0.5
Festuca californica and cvs.	California fescue	Moderate	0.5
Festuca glauca	blue fescue	Moderate	0.5
Festuca ovina and cvs.	sheep fescue	Moderate	0.5
Festuca "Siskiyou Blue"	Siskiyou Blue fescue	Moderate	0.5
Hilaria rigida (Pleuraphis rigida)	big galleta grass	Moderate	0.5
Muhlenbergia capillaris and cvs.	hairy awn muhly	Moderate	0.5
Muhlenbergia dumosa	bamboo muhly	Moderate	0.5
Muhlenbergia emersleyi	bull grass	Moderate	0.5
Muhlenbergia lindheimeri	Lindheimer muhly	Moderate	0.5
Muhlenbergia porteri	bush muhly	Moderate	0.5
Muhlenbergia rigens	deer grass	Moderate	0.5
Muhlenbergia rigida "Nashville"	Nashville deer grass	Moderate	0.5
Panicum virgatum and cvs.	switch grass	Moderate	0.5
Pennisetum x advena (P. setaceum hybrids)	purple/burgundy fountain grass	Moderate	0.5
Saccharum ravennae (Erianthus ravennae)	plume grass	Moderate	0.5
Schizachyrium scoparium	little bluestem	Low	0.2
Sporobolus airoides	alkalai sacaton	Low	0.2
Sporobolus wrightii	big sacaton	Low	0.2
Stipa hymenoides (Oryzopsis hymenoides)	Indian rice grass	Low	0.2
Stipa tenuissima (Nassella tenuissima)	Mexican feather grass	Low	0.2
Zoysia tenuifolia	Mascarene grass	Moderate	0.5

Palm & Cycad

Botanical Name	Common Name	Water Use	Plant Factor
Brahea armata	blue hesper palm	Moderate	0.5
Brahea edulis	Guadalupe palm	Moderate	0.5
Butia odorata (B. capitata)	pindo palm	Moderate	0.5
Chamaerops humilis	Mediterranean fan palm	Moderate	0.5
Cycas revoluta	sago palm	Moderate	0.5
Dioon spp.	Mexican cycad	Moderate	0.5
Phoenix canariensis	Canary Island date palm	Moderate	0.5
Sabal spp.	palmetto	Moderate	0.5
Syagrus romanzoffiana (Arecastrum romanzoffiana)	queen palm	Moderate	0.5
Trachycarpus fortunei	windmill palm	Moderate	0.5
Washingtonia filifera	California fan palm	Moderate	0.5

Succulents

Botanical Name	Common Name	Water Use	Plant Factor
Dasylirion spp.	desert spoon	Low	0.2
Echinopsis spp. (Trichocereus spp.)	torch cactus	Low	0.2
Euphorbia antisyphilitica	candelilla	Low	0.2
Ferocactus spp. (CA native and non-native spp.)	barrel cactus	Low	0.2
Fouquieria macdougalii	Mexican tree ocotillo	Low	0.2
Fouquieria splendens	ocotillo	Very Low	0.05
Hesperaloe campanulata	bell flower hesperaloe	Low	0.2
Hesperaloe funifera	Coahuilan hesperaloe	Low	0.2
Hesperaloe nocturna	seven-son flower	Low	0.2
Hesperaloe parviflora	red/ yellow yucca	Low	0.2
Hesperoyucca spp. (Yucca whipplei, Yucca californica)	yucca	Low	0.2
Mammillaria geminispina	cactus	Very Low	0.05
Mammillaria melanocentra	cactus	Very Low	0.05
Opuntia spp. & cvs. (CA natives and non-natives)	prickly pear/cholla	Very Low	0.05
Pachycereus marginatus	Mexican fence post cactus	Very Low	0.05
Pedilanthus bracteatus	tall slipper plant	Low	0.2
Pedilanthus macrocarpus	slipper plant	Low	0.2
Portulacaria afra & cvs.	elephant"s food	Low	0.2

Yucca aloifolia	Spanish bayonet	Low	0.2
Yucca baccata	banana yucca	Very Low	0.05
Yucca brevifolia	Joshua tree	Very Low	0.05
Yucca decipiens	palma China	Very Low	0.05
Yucca elata	soaptree yucca	Very Low	0.05
Yucca faxoniana	giant white yucca	Very Low	0.05
Yucca filamentosa & cvs.	Adam"s needle	Low	0.2
Yucca glauca	soapweed yucca	Low	0.2
Yucca gloriosa	Spanish dagger	Low	0.2
Yucca recurvifolia	curve leaf yucca	Low	0.2
Yucca rigida	blue yucca	Very Low	0.05
Yucca rostrata	beaked yucca	Very Low	0.05
Yucca rupicola	twisted yucca	Low	0.2
Yucca schidigera (Y. californica, Y. mohavensis)	Mojave yucca	Very Low	0.05
Yucca schottii	mountain yucca	Very Low	0.05
Yucca thompsoniana	Thompson"s yucca	Very Low	0.05

Approved and Adopted by the Planning Commission of the Town of Apple Valley this 4th day of November, 2015.

_____
Chairman Bruce Kallen

ATTEST:

I, Yvonne Rivera, Secretary to the Planning Commission of the Town of Apple Valley, California, do hereby certify that the foregoing resolution was duly and regularly adopted by the Planning Commission at a regular meeting thereof, held on the 4th day of November, 2015 by the following vote, to-wit:

AYES:
NOES:
ABSENT:
ABSTAIN:

_____
Ms. Yvonne Rivera, Planning Commission Secretary

Get a Slice of the Apple.

Agenda Item No. 5

TOWN OF APPLE VALLEY
PLANNING COMMISSION

Staff Report

AGENDA DATE: November 4, 2015

CASE NUMBER: General Plan Conformity for the Sale of Surplus Property

APPLICANT: Town of Apple Valley

PROPOSAL: To consider a General Plan Conformity Finding, pursuant to Government Code Section 65402, for the Town's disposition of one (1) parcel owned by the Town.

LOCATION: APN: 3112-251-13

ENVIRONMENTAL DETERMINATION: The General Plan conformity finding is exempt from review pursuant to Section 15312 of the CEQA guidelines as Surplus Government Property Sales.

PROJECT PLANNER: Carol Miller, Principal Planner

RECOMMENDATION: Adopt Planning Commission Resolution No. 2015-011, finding and reporting that the location, purpose and extent of the Town's disposition of real property in conformance with the Town's General Plan.

A. Project Summary: The proposed Planning Commission action consists of a General Plan conformity finding for the disposition one (1) parcel of Town land. Government Code Section 65402 requires that, prior to the sale of real property for any purpose, the planning agency of any city (Town of Apple Valley) or county, with an adopted General Plan, must report that the sale conforms to the General Plan. As described in this staff report, the proposed sale of surplus land conforms to the Town's General Plan.

B. General Plan Designations:

Project Site -	Public Facilities (P-F)
North -	Public Facilities (P-F)
South -	General Commercial (C-G)
East -	Residential Estate (R-E)
West -	General Commercial (C-G)

ANALYSIS

A. General Plan Conformance:

The subject property is approximately 4.68 acres in size and located on Outer Highway 18 just west of Standing Rock Road. The parcel has been determined not to be necessary for the Town's use.

The only issue to consider as part of this request is whether the disposition of the parcel is in conformance with the Town's General Plan. The following goals, objectives and policies pertain to the disposition and future development of the parcel:

Land Use Element

The Land Use Element establishes the vision of Apple Valley for its long-term development. The Town has carefully reviewed development patterns, and made changes to the Land Use Element where it felt that the historic pattern may need redirection. This Element reflects the Town's core values as they relate to long-term development activity. It focuses on the protection and enhancement of existing neighborhoods, and establishes goals, policies and programs to assure that development in the future enhances what already exists in Town.

The sale of the surplus parcel may result in the sale of the parcel to an individual or group that may require a General Plan Amendment to accommodate a future commercial use or if used by a governmental agency, the existing zoning designation of P-F will put the parcel to development uses consistent with the adjacent development, the Town Hall complex.

Land Use Element Goal 2

A well-planned, orderly development pattern that enhances community values, and assures development of adequate infrastructure.

Land Use Element Policy 2.A

The Town shall maintain a land use map that assures a balance of residential, commercial, industrial, open space and public lands.

The proposed sale of the surplus parcel will allow for future government uses or if a General Plan Amendment is requested, development of the parcel would be consistent with commercial development and use. All of which enhances the Town's community values and assures the development of adequate infrastructure.

Land Use Element Goal 6

Commercial development shall strengthen the local economy and enhance the quality of life.

Land Use Policy 6.B

The Town shall promote commercial developments that are capable of strengthening the local economy and enhancing the quality of life of Town residents.

The proposed sale of the surplus parcel will allow for future development that will strengthen the local economy and enhance the quality of life. The General Plan and Zoning designation will allow for the appropriate land use patterns presently found within the existing development or future commercial development if a General Plan Amendment is approved.

B. Environmental Assessment: The General Plan conformity finding is exempt from review pursuant to Section 15312 of the CEQA guidelines as Surplus Government Property Sales.

RECOMMENDATION

That the Planning Commission adopt Planning Commission Resolution No. 2015-011, finding and reporting that the location, purpose and extent of the Town's disposition of real property in conformance with the Town's General Plan.

ATTACHMENTS:

1. Planning Commission Resolution No. 2015-011

PLANNING COMMISSION RESOLUTION NO. 2015-011

A RESOLUTION OF THE PLANNING COMMISSION OF THE TOWN OF APPLE VALLEY, CALIFORNIA, FINDING THE DISPOSITION OF SURPLUS TOWN PROPERTY TO BE IN CONFORMANCE WITH THE GENERAL PLAN.

WHEREAS, on August 11, 2009 the Town Council adopted a Comprehensive General Plan Update for the Town of Apple Valley; and

WHEREAS, Government Code section 54221 mandates that parcels of real property owned by a local agency are deemed surplus property when they are no longer necessary for the local agency's use; and

WHEREAS, the Town of Apple Valley owns parcel APN: 3112-251-13 and

WHEREAS, Government Code Sections 65402(a) and (c) of the State of California requires that, prior to the disposal of real property, findings be made by the Planning Commission as to the conformity with the General Plan; and

WHEREAS, the matter for the disposition of the one (1) parcel has been submitted to the Planning Commission for its review.

NOW, THEREFORE, BE IT RESOLVED, the Planning Commission of the Town of Apple Valley, California, does hereby resolve, order and determine as follows:

Section 1. The above recitals are true and correct and are incorporated herein by this reference.

Section 2. The vacant parcel is no longer needed by the Town. Therefore, the disposition of the parcel for future development is appropriate and in conformance with the Land Use Element of the General Plan.

Section 3. The surplus parcel can now be developed to the character of the surrounding areas and the property can now be removed from the Town's holdings.

Section 4. The Planning Commission of the Town of Apple Valley does hereby resolve and find that the location, purpose, and extent of the disposition of the Town owned surplus parcel is in conformance with the goals, objectives and policies of the General Plan, as specifically set forth below:

1. Land Use Element Objective **-** The Land Use Element establishes the vision of Apple Valley for its long-term development. The Town has carefully reviewed development patterns, and made changes to the Land Use Element where it felt that the historic pattern may need redirection. This Element reflects the Town's core values as they relate to long-term development activity. It focuses on the protection and enhancement of existing neighborhoods, and establishes goals, policies and programs to assure that development in the future enhances what already exists in Town. The proposed sale of the surplus parcel will put the parcel to future development uses consistent with the existing development in the Town. The parcels have been determined not to be necessary for the Town's use.

2. Land Use Element Goal 2 **-** A well planned, orderly development pattern that enhances community values, and assures development of adequate infrastructure.

    a. *Land Use Element Policy 2.A* **-** The Town shall maintain a land use map that assures a balance of residential, commercial, industrial, open space and public lands.

3. The proposed sale of the surplus parcel allows for eventual development and use that enhances the Town's community values and assures the development of adequate infrastructure.

4. Land Use Element Goal 6 - Development shall strengthen the local economy and enhance the quality of life.

    a. *Land Use Element Policy 6.B* - The Town shall promote commercial and industrial development that are capable of strengthening the local economy and enhancing the quality of life of Town residents.

    b. The proposed sale of the surplus parcel may allow for development that will strengthen the local economy and enhance the quality of life. The proposed sale allows for development opportunities that will permit the surrounding area to develop to its full potential.

Section 5. The proposed project is categorically exempt pursuant to Section 15312, Class 12 of the California Environmental Quality Act (CEQA) which allows for the sale of surplus government property.

NOW, THEREFORE BE IT RESOLVED, that the Planning Commission hereby reports that the sale of one (1) parcel (APN: 3112-251-13), as shown on Exhibit "A", attached hereto and made a part hereof is in conformance with the Town of Apple Valley General Plan.

Approved and Adopted by the Planning Commission of the Town of Apple Valley this 4th day of November, 2015.

_____
Bruce Kallen, Chairman of the Planning Commission

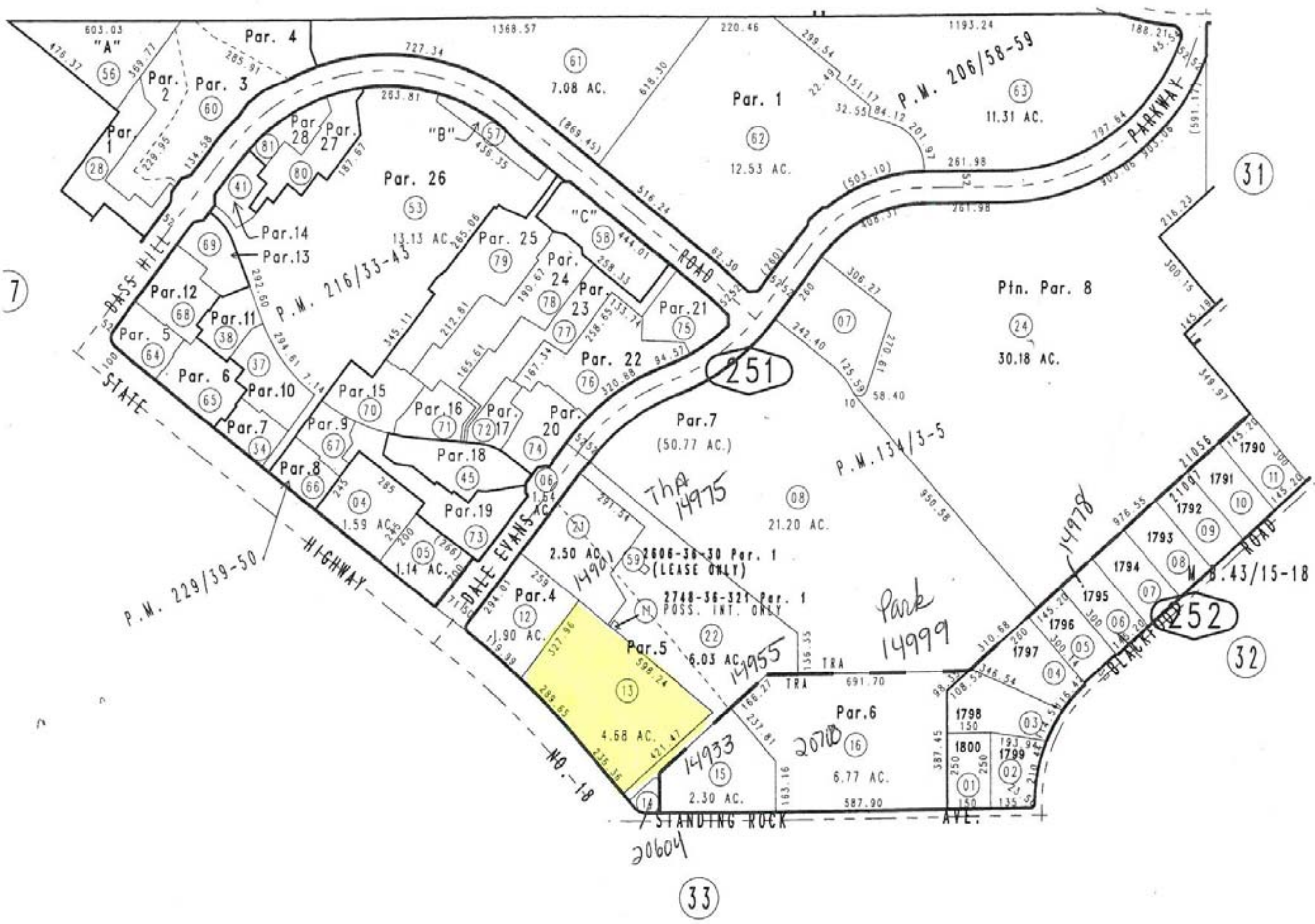
ATTEST:

I, Yvonne Rivera, Secretary to the Planning Commission of the Town of Apple Valley, California, do hereby certify that the foregoing resolution was duly and regularly adopted by the Planning Commission at a regular meeting thereof, held on the 4th day of November, 2015 by the following vote, to-wit:

_____
Ms. Yvonne Rivera, Planning Commission Secretary

AYES:
NOES:
ABSENT:
ABSTAIN:

EXHIBIT "A"


Par. 4
P.M. 206/58-59
Par. 1
12.53 AC.
11.31 AC.
7.08 AC.
Par. 26
13.13 AC.
P.M. 216/33-43
PARKWAY
ROAD
Ptn. Par. 8
30.18 AC.
Par.7
(50.77 AC.)
P.M. 134/3-5
21.20 AC.
DALE EVANS
STATE HIGHWAY NO. 18
P.M. 229/39-50
Par.4
1.90 AC.
Par.5
6.03 AC.
4.58 AC.
Par.6
6.77 AC.
2.30 AC.
STANDING ROCK AVE.
M.B. 43/15-18
251
252
31
32
33