

PLANNING COMMISSION AGENDA

City Council Chambers
1015 Chittenden Avenue
Corcoran, CA 92312

Monday, February 8, 2016
5:30 P.M.

Public Inspection: A detailed Planning Commission packet is available for review at Corcoran City Hall, located at 832 Whitley Avenue

Notice of ADA Compliance: In compliance with the Americans with Disabilities Act, if you need assistance to participate in this meeting, please contact the City Clerks office at (559) 992-2151 ext. 235.

Public Comment: Members of the audience may address the Planning Commission on non-agenda items; however, in accordance with Government Code Section 54954.2, the Planning Commission may not (except in very specific instances) take action on an item not appearing on the posted agenda.

This is just the time for members of the public to comment on any matter within the jurisdiction of the Corcoran Planning Commission. Planning Commission will ask that you keep your comments brief and positive. Creative criticism, presented with appropriate courtesy, is welcome.

After receiving recognition from the chair, speaker will walk to the podium and state name and address and proceed with comments. Each speaker will be limited to five (5) minutes.

ROLL CALL

Chairman:

Dennis Tristao

Vice-Chairman:

David Bega

Commissioner:

Clarence Cryer

Commissioner:

Mike Graville

Commissioner:

David Jarvis

Commissioner:

Al Kessler

Commissioner:

Ron Subia

Commissioner:

Troy Van Velson

FLAG SALUTE

1. PUBLIC DISCUSSION

2. APPROVAL OF MINUTES

2.1 Approval of minutes of the Planning Commission meeting on January 11, 2016

3. RE-ORGANIZATION

3.1 Election of Chairman

3.2 Election of Vice-Chairman

3.4 Selection of Planning Commission Representative and Alternate for the Traffic Advisory Commission.

4. **PUBLIC HEARING** - None

5. **STAFF REPORTS**

5.1 Workshop on Sustainable Energy Road Map

6. **MATTERS FOR PLANNING COMMISSION**

6.1 Information Items

6.2 Staff Referrals - *Items of Interest (Non-action items the Commission may wish to discuss)*

6.3 Committee Reports - None

7. **ADJOURNMENT**

I certify that I caused this Agenda of the Corcoran Planning Commission meeting to be posted at the City Council Chambers, 1015 Chittenden Avenue on February 4, 2016.



Kevin J. Tromborg
Community Development Director

MINUTES
CORCORAN PLANNING COMMISSION
REGULAR MEETING
MONDAY, JANUARY 11, 2016

The regular session of the Corcoran Planning Commission was called to order by Chairman Dennis Tristao, in the City Council Chambers, 1015 Chittenden Avenue, Corcoran, CA at 5:30 P.M.

ROLL CALL

Commissioners present: Bega, Jarvis, Kessler and Tristao
Cryer arrived at 6:05 pm
Alternate present: Subia
Commissioners absent: Graville and Van Velson
Staff present: Kevin Tromborg and Ma. Josephine Lindsey
Press present: Jeanette Todd, "The Corcoran Journal"
Also present: Rick Joyner, City Engineer and Jennie Barkinskaya, Farley Law Firm

FLAG SALUTE

The flag salute was led by Dennis Tristao.

A quorum was declared in the presence of five (5) out of seven (8) Commissioners.

1. PUBLIC DISCUSSION – None

2. APPROVAL OF MINUTES

Following Commission discussion, a **motion** was made by Subia and seconded by Bega to approve the minutes of June 8, 2015. Motion carried by the following vote:

AYES: Bega, Cryer, Graville, Jarvis, Kessler, Subia, Van Velson and Tristao

NOES: None

ABSTAIN: None

ABSENT: Cryer, Graville and Van Velson

3. RE-ORGANIZATION - None

4. PUBLIC HEARING

4.1 Public Hearing to discuss Tentative Parcel Map 15-01: Niles Avenue (034-090-020) was declared open at 5:35 p.m. Tromborg made the report. There being no written or oral testimony, the hearing was declared closed at 5: 50 p.m.

Following Planning Commission discussion, a motion was made by Jarvis seconded by Bega to approve Resolution 16-02, Tentative Parcel Map 15-01: Niles Avenue (034-090-020), Niles Avenue, Corcoran, CA 93212. Motion carried by the following vote:

AYES: Bega, Jarvis, Kessler, Subia, and Tristao
NOES: None
ABSTAIN: None
ABSENT: Cryer, Graville and Van Velson

4.2 Public Hearing to discuss Conditional Use Permit 15-02: 1805 Dairy Avenue (032-200-032) was declared open at 5:52 p.m. Tromborg made the report. There being no written or oral testimony, the hearing was declared closed at 6:15 p.m.

Following Planning Commission discussion, a motion was made by Bega seconded by Subia to approve Resolution No. 16-01, Conditional Use Permit application No. 15-02: Finding of public convenience or necessity and permit to sell alcoholic beverages for on-site consumption within restaurant located at 1825 Dairy Ave., Corcoran, CA 93212. Motion carried by the following vote:

AYES: Bega, Cryer, Jarvis, Kessler, Subia and Tristao
NOES:
ABSTAIN:
ABSENT: Graville and Van Velson,

4 STAFF REPORTS

5.1 Tromborg gave an update on Sustainable Energy Roadmap (SER) and Sustainable Energy Survey for information of the Planning Commission for information of the Commission. Next meeting on February will include workshop regarding the survey.

6. MATTERS FOR COMMISSION

6.1 Commission received the following information items:

- Summary report on Community Development Year 2015
- Proposed revision to the Zoning Code i.e. Water efficiency ordinance, Drought tolerance landscaping, Barking dog used as a security in a commercial zone, RV parking in the front yard
- Property Assessed Clean Energy (PACE) Program
- Blueprint Integration Tool

6.2 Commission received referral item on Planning Commissioners Academy scheduled on March 2-4, 2016 at San Ramon Marriott.

6.3 Committee Reports - None

8. **ADJOURNMENT**

At 6:55 P.M., the meeting was adjourned to the next regularly scheduled meeting of Monday, February 8, 2016 at 5:30 P.M. in the Corcoran City Council Chambers 1015 Chittenden Avenue, Corcoran, CA 93212.

APPROVED:

Dennis Tristao
Planning Commission Chairman

ATTEST:

Kevin J. Tromborg
Community Development Director

Approved on: _____

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**STAFF REPORT
ITEM #: 5.1**

MEMORANDUM

TO: Planning Commission

FROM: Kevin Tromborg, Community Development Director

DATE: February 4, 2016 **MEETING DATE:** February 8, 2016

SUBJECT: Sustainable Energy Roadmap (SER)

Discussion: The Sustainable Energy Roadmap is an 18 month effort that was launched in January of 2015, sponsored by the California Strategic Growth Council to invite and bring together San Joaquin Valley governments, regional planning agencies and communities together as they pursue goals related to smart growth, transportation, conservation and land use. The program's objective is to leverage an intentional process and set of tools to support agencies adoption and practice of clean energy and sustainable development goals. The process starts with Corcoran's baseline and benchmark which is our existing policies, standards and programs. The following steps will include working with Staff and the Planning Commission to identify relevant goals related to energy efficiency and conservation. To design a roadmap for action that promotes long term emissions reductions through planning and program adoption and to codify the goals in a roadmap that is publicly accessible. With adopted policies the application and receiving of grants for transportation, economic development, planning and land use is streamlined.

ACTION AREA	ID	Top Priority?	RENEWABLE ENERGY & STORAGE GOALS (Please indicate if this is one of your top 5 objectives by choosing "yes" from the dropdown menu in the column on the left.)	We have already achieved this goal (Please provide details.)	We have not achieved this goal, but would like to explore (Please provide any relevant progress.)	We have not achieved this goal, and are not interested	City Notes	Optony Onboarding Comments	Roadmap Call Item (Initial status followup; Change of initial status; Technical assistance offered)	"Initial Status" value, if different from template	"Action Taken" value, if different from template	"Guidance" value, if different from template guidance (character limit = N/A)	Call notes
POLICY	POL1		Establish a renewable energy target for municipal facilities or offset a portion of municipal electricity usage with green power.		New police department will be solar powered. Working out a deal to get 10 city water wells on solar panels as well. Existing public facilities, none of which are solar powered at this time, but are looking at it seriously and would like to have many public facilities solar powered within the next 2 years.			Will include in initial status, but looking for a concrete target to be set	recommend setting concrete target				"Status Update: Looking into putting solar on City Hall. Looking into parking lot installations. Recommend setting a concrete target
	POL2		Explore implementation of a community choice aggregation program.		X			Are there others in the region that would be interested in this?					
	POL3		Create renewable portfolio standard for municipal electric utility in line with the state		X		Not relevant	N/A, we assume?					
PERMITTING	P1		Adopt standardized permitting application forms for various small-scale renewable energy and energy storage systems.		X								
	P2		Provide an overview of the permitting and inspection process for locally relevant types of renewable energy systems.		X			Opportunity for AB2188 TA?	Need more clarification on what has been done to comply with AB2188.				
	P3		Place a cap on permitting fees for residential renewable energy systems, or base fees on cost recovery.	Fees based on cost recovery				Need to verify.					
	P4		Implement expedited permitting measures for qualifying systems utilizing standardized application forms.	Have already streamlined permitting but do not yet have a written the ordinance. Due to small staff, they can't do over the counter permits. Try to get permits out within 24-48 hours.				OTC permits is the expectation here, but it seems they are limited by staff.					Status update: Achieved. Has streamlined solar permitting, and will be bringing on ordinance in February.
	Z1		Incorporate renewable energy goals and strategies into long-term planning documents, such as General Plans.		Zoning code enhancement and General Plan encourages efficient business but does not require it. Overlaps with Kings County to do a joint Housing Element and is in the process of working on that right now. General Plan last updated in 2005 and adopted in 2006. The enhancement (adopted 2014) was a general plan enhancement and not an update. Should be available online (if it isn't, it should be shortly).			GP doesn't necessarily have to require implementation of renewables, but it should outline high-level goals and strategies.	GP addresses efficiency, but how does it address renewables within the municipal portfolio?				Not a near-term goal. Recommended that City looks through SER resources as they update GP - The next update is not in the near term

ACTION AREA	ID	Top Priority?	TRANSPORTATION & LAND USE GOALS (Please indicate if this is one of your top 5 objectives by choosing "yes" from the dropdown menu in the column on the left.)	We have already achieved this goal (Please provide details.)	We have not achieved this goal, but would like to explore (Please provide any relevant progress.)	We have not achieved this goal, and are not interested	City Notes	CEG General Roadmap Comments	Roadmap Call Item (Initial status followup; Change of initial status)	"Initial Status" value, if different from template	"Action Taken" value, if different from template	"Guidance" value, if different from template guidance (character limit = N/A)	Call notes	Action Item
POLICY	POL1		Adopt a fleet purchasing policy to replace existing municipal fleet vehicles with low-emission vehicles.		<p>Have fleet of city vehicles and buses. 90% are not energy efficient. They recently bought 2 Priuses. For the most part the fleet is not energy efficient but they would like to move towards a more green compliant vehicles in their fleet.</p> <p>Applying for a grant to get a couple EV charging stations in City Parking lot that would also be open to the public. San Joaquin Valley Air Quality Control Board -</p>			Warrants more details, and close work with the City. This is such a great area for technical assistance; easy to provide, and substantial public benefits.					<p>Every time a vehicle is replaced, the City looks for the most efficient model possible.</p> <p>Josephine is working with public works on a fleet replacement policy</p> <p>No TA necessary</p>	
	POL2		Adopt a commuter benefits ordinance and/or telecommuting policy for municipal employees.		X									
PERMITTING	PL1		Adopt a standardized permitting application form and procedure for electric vehicle charging stations for individually zoned end-uses.		X			Should focus here, good opportunity to work with several other jurisdictions involved in this issue.						

ACTION AREA	ID	Top Priority?	TRANSPORTATION & LAND USE GOALS (Please indicate if this is one of your top 5 objectives by choosing "yes" from the dropdown menu in the column on the left.)	We have already achieved this goal (Please provide details.)	We have not achieved this goal, but would like to explore (Please provide any relevant progress.)	We have not achieved this goal, and are not interested	City Notes	CEG General Roadmap Comments	Roadmap Call Item (Initial status followup; Change of initial status)	"Initial Status" value, if different from template	"Action Taken" value, if different from template	"Guidance" value, if different from template guidance (character limit = N/A)	Call notes	Action Item
	z1 ★		Integrate transportation-related smart growth goals and strategies into long-term planning documents, such as General Plans.		Zoning code enhancement and General Plan encourages efficient business but does not require it. Overlaps with Kings County to do a joint Housing Element and is in the process of working on that right now. General Plan last updated in 2005 and adopted in 2006. The General Plan was amended/enhanced in 2014 (not considered an update). Involved bike and walk routes (sustainable walkways), economic element, zoning code update. Should be available online (if it isn't, it should be shortly).			Sounds like they have accomplished this objective as well as are "in process" of implementing. Is the City interested in any TA specific to this objective?						
PLANNING/ ZONING	zz ★		Update local building and zoning codes to require electric vehicle charging station prewiring in new construction and major retrofits.		X			We may make this our primary focus; perfect.					Trying to get a sense of what the demand is for new charging stations. Need to do more research before deciding whether an ordinance is required. Help with creating ordinance for charging stations on new multi-family builds	Considering ordinance to require EV charging stations for all new builds

ACTION AREA	ID	Top Priority?	TRANSPORTATION & LAND USE GOALS (Please indicate if this is one of your top 5 objectives by choosing "yes" from the dropdown menu in the column on the left.)	We have already achieved this goal (Please provide details.)	We have not achieved this goal, but would like to explore (Please provide any relevant progress.)	We have not achieved this goal, and are not interested	City Notes	CEG General Roadmap Comments	Roadmap Call Item (Initial status followup; Change of initial status)	"Initial Status" value, if different from template	"Action Taken" value, if different from template	"Guidance" value, if different from template guidance (character limit = N/A)	Call notes	Action Item
	Z3		Incorporate adequate infrastructure to provide safe and efficient pedestrian and bicycle transit opportunities.	The enhancement (adopted 2014) was a general plan enhancement and not an update. Involved bike and walk routes (sustainable walkways), economic element, zoning code update.				No need to push this as earlier thought. We do need to review the enhancement carefully.						
	Z4		Ensure that community members, including low-income residents, have close access to public transportation.		X									
	Z5 *		Update zoning code to encourage transit-oriented development and urban infill.		X			While an excellent area, due to the other areas they identify, this may be a second tier issue due to the time and complexity involved (unless it is a higher priority for the City)	Small size of Corcoran doesn't lend itself to this.				City is too small to focus on this	
FINANCING	F1		Promote financial incentives to increase government and private purchases of electric and alternative fuel vehicles.		X									
	F2		Ensure electric vehicle charging stations are eligible under local Property Assessed Clean Energy (PACE) program.		X			The City has no active residential, multifamily or commercial PACE financing program						

ACTION AREA	ID	Top Priority?	SOCIAL EQUITY GOALS (Please indicate if this is one of your top 5 objectives by choosing "yes" from the dropdown menu in the column on the left.)	We have already achieved this goal (Please provide details.)	We have not achieved this goal, but would like to explore (Please provide any relevant progress.)	We have not achieved this goal, and are not interested	City Notes	SEI Onboarding Comments	Roadmap Call Item (Initial status followup; Change of initial status; Technical assistance offered)	"Initial Status" value, if different from template	"Action Taken" value, if different from template	"Guidance" value, if different from template guidance (character limit = N/A)	Call notes
	POL1 ★		Encourage local employment and job creation through municipal contracting.	Always encourage using local vendors. Isolated city 16 miles from anything.				How does the City encourage using local vendors?		The City encourages using local vendors, and seeks to create more local employment and job creation through municipal contracting.			
POLICY	POL2 ★		Promote participatory planning and environmental justice community inclusion in the policy-making process.		X				This has always been a challenge area for the city. Formal process for this. Flyers, mass mailer. Depends on the ordinance. Works with Self Help Enterprises - CBG and Home Rehabs (WX and HVAC) - SHE helps to get word out. West Hills CCD, Sequoias, Proteous				
	POL3		Enact measures to protect and improve local air quality.		X								
	POL4 ★		Ensure public has access to data regarding the presence of environmental hazards as well as channels for emergency notification.		Have a standardized emergency response network, would have to look into it more					The City has a standardized emergency response network in place, and is working towards ensuring that the public has access to data regarding the presence of environmental hazards as well as channels for emergency notification.			

	POL5	Ensure compliance and enforcement of federal, state, and local environmental and air quality regulations.		X									
PLANNING/ ZONING	Z1	Update zoning codes to provide for access to green spaces in disadvantaged communities.		X									
	Z2	Update zoning and permitting standards to restrict highly polluting facilities in proximity to residential areas and water resources.		X									
FINANCING	F1 ★	Promote clean energy financing and utility assistance programs that are accessible to disadvantaged communities.		X									
MARKET DEVELOPMENT	M1 ★	Ensure disadvantaged communities receive current clean energy policy and program information through culturally-sensitive channels.			Try to notify as many people (especially when it involves fines) in English and Spanish. But not every ordinance that is passed is advertised outside of when it is passed. Do have members at City Council that speak Spanish and would be able to field questions from Spanish speaking residents.					The City is seeking to ensure disadvantaged communities receive current clean energy policy and program information through culturally-sensitive channels.			
	M2	Ensure disadvantaged communities have access to emergency weather shelters.		X									
WORKFORCE DEVELOPMENT	WFD1 ★	Foster and promote local and regional green job training and placement pathways.			Partner with Proteus and College of the Sequias.					The City partners with Proteus and College of the Sequias to foster and promote local and regional green job training and placement pathways. The City seeks to establish more training and placement pathways.			



**PLANNING COMMISSION UPDATES
PENDING FURTHER ACTION or RESOLUTION BY STAFF**

DATE	INFORMATIO ITEM	STATUS
02/08/16	State mandated revision to Ordinance 615 Drought Tolerance Landscape	For presentation to City Council in March
02/08/16	Building Department Activity January 2016	
March 2-4	Planning Commissioners Academy	

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STAFF REPORT INFORMATION ITEM

MEMORANDUM

TO: Planning Commission

FROM: Kevin Tromborg: Community Development Director

DATE: February 4, 2016

MEETING DATE: February 8, 2016

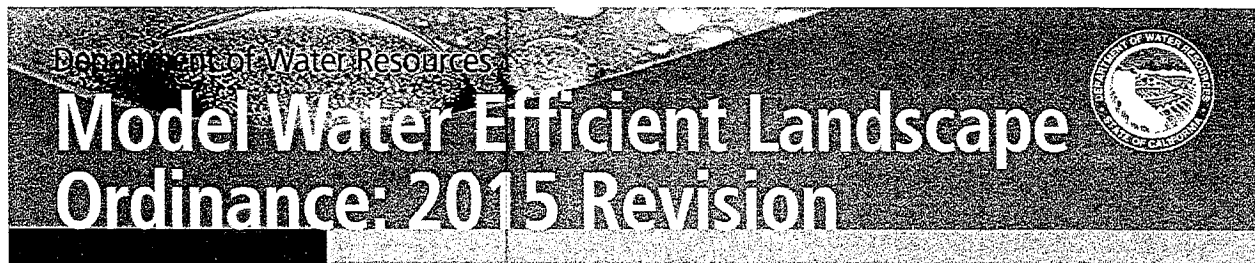
SUBJECT: Model Water Efficient Landscape Ordinance 615 Revisions

Discussion:

The Water Conservation in Landscaping Act of 2006 (Assembly Bill 1881) required cities and counties to adopt landscape water conservation ordinances. Local agencies had until 2010 to adopt the Department of Water Resources Water efficient Landscape Ordinance or adopt their own ordinance. The City of Corcoran adopted ordinance 615 in October of 2010 that mirrored the DWR template ordinance.

On April 1, 2015, Governor Brown signed Executive order (EO B-29-15). The order was directed to the Department of Water Resources to revise the current Model Water Efficient Landscape Ordinance that was approved and mandated in 2009. On July 15, 2015 the revisions were approved by The California Water Commission.

Attached is information regarding the revisions that will be required on the new ordinance. Community Development Staff will be bringing the revised ordinance to the City Council in March. Also provided is City of Corcoran Ordinance 615.



Governor Brown's Drought Executive Order of April 1, 2015 (EO B-29-15) directed DWR to update the State's Model Water Efficient Landscape Ordinance (Ordinance) through expedited regulation. The California Water Commission approved the revised Ordinance on July 15, 2015.

Which Projects are Subject to the Ordinance?

New development projects that include landscape areas of 500 sq. ft. or more are subject to the Ordinance. This applies to residential, commercial, industrial and institutional projects that require a permit, plan check or design review. The previous landscape size threshold for new development projects ranged from 2500 sq. ft. to 5000 sq. ft.

The size threshold for existing landscapes that are being rehabilitated has not changed, remaining at 2500 sq. ft. Only rehabilitated landscapes that are associated with a building or landscape permit, plan check, or design review are subject to the Ordinance.

When Does the Ordinance Go into Effect?

Local agencies (cities and counties) 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. Local agencies working together to develop a regional ordinance have until February 1, 2016 to adopt, but they are still subject to the December 2015 reporting requirements (see *Reporting Requirements* below). If a local agency does not take action on a water efficient landscape ordinance by the specified dates, the State's Ordinance becomes effective by default.

What are the Significant Revisions?

More Efficient Irrigation Systems

- Dedicated landscape water meters or submeters are required for residential landscapes over 5000 sq. ft. and non-residential landscapes over 1000 sq. ft.
- Irrigation systems are required to have pressure regulators and master shut-off valves.
- All irrigation emission devices must meet the national standard stated in the Ordinance to ensure that only high efficiency sprinklers are installed.
- Flow sensors that detect and report high flow conditions due to broken pipes and/or popped sprinkler heads are required for landscape areas greater than 5000 sq. ft.
- The minimum width of areas that can be overhead irrigated was changed from 8 feet to 10 feet; areas less than 10 feet wide must be irrigated with subsurface drip or other technology that produces no over spray or runoff.

Incentives for Graywater Usage

Landscapes under 2500 sq. ft. that are irrigated entirely with graywater or captured rainwater are subject only to the irrigation system requirements of Appendix D, Prescriptive Compliance Option.

Improvements in Onsite Stormwater Capture

Friable soil is required in planted areas to maximize water retention and infiltration. Four yards of compost per 1000 sq. ft. of area must be incorporated. Other recommended measures for increasing onsite stormwater retention are listed in the Ordinance.

Limiting the Portion of Landscapes that can be Planted with High Water Use Plants

The maximum amount of water that can be applied to a landscape is reduced from 70% of the reference evapotranspiration (ET_o) to 55% for residential landscape projects, and to 45% of ET_o for non-residential projects. This water allowance reduces the landscape area that can be planted with high water use plants such as cool season turf. For residential projects, the coverage of high water use plants is reduced from 33% to 25% of the landscaped area. In non-residential landscapes, planting with high water use plants is not feasible. However, unchanged in the Ordinance is the extra water allowance made for non-residential areas when used for specific functional areas, such as recreation and edible gardens. Extra water allowance is also made for landscapes irrigated with recycled water, as was the case in the previous ordinance.

The irrigation efficiency of devices used to irrigate landscapes is one of the factors that goes into determining the maximum amount of water allowed. Rather than having one default irrigation efficiency for the entire site, the revised Ordinance allows the irrigation efficiency to be entered for each area of the landscape. The site-wide irrigation efficiency of the previous ordinance was 0.71; the revised Ordinance defines the irrigation efficiency of drip as 0.81 and that of overhead spray as 0.75.

Median strips cannot be landscaped with high water use plants, precluding the use of cool season turf. Also because of the requirement to irrigate areas less than ten feet wide with subsurface irrigation or other means that produces no runoff or overspray, the use of cool season turf in parkways is limited.

Reporting Requirements

All local agencies will report on the implementation and enforcement of their ordinances to DWR by December 31, 2015. Local agencies developing a regional ordinance will report on their adopted regional ordinance by March 1, 2016. Reporting for all agencies will be due by January 31st of each year thereafter.

Prescriptive Checklist Option for Landscapes under 2500 sq. ft.

Projects with landscape areas under 2500 sq. feet may comply with the performance requirements of the Ordinance or conform to the prescriptive measures contained in Appendix D. Many will find that the Appendix D checklist simplifies compliance.

How Much Water Will Be Saved?

DWR estimates that a typical California landscape will use 12,000 gallons less a year, or 20 percent less than allowed by the 2009 ordinance. Commercial landscapes will cut water use by 35%. Over the next three years, it is predicted that 472,000 new homes associated with 20,000 acres of landscape will be built in California. With proper implementation and enforcement by local agencies, the Ordinance will lead to substantial water savings.

How Can I Get Additional Assistance?

In Fall 2015, DWR will release a guidance document to accompany the Ordinance. Training workshops for local agency staff and landscape professionals will be held throughout the State.

Contact Information:

Julie Saare-Edmonds, DWR Senior Environmental Scientist at Julie.Saare-Edmonds@water.ca.gov or (916) 651-9676

APPROVED

COPY

ORDINANCE NO. 615

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF CORCORAN ADDING
TITLE 7, CHAPTER 8, OF THE CITY CODE OF THE CITY OF CORCORAN –
ENTITLED WATER EFFICIENT LANDSCAPE DESIGN AND INSTALLATION

THE CITY COUNCIL OF THE CITY OF CORCORAN DOES ORDAIN AS FOLLOWS:

Title 7, Chapter 8 of the City Code of the City of Corcoran is added to read as follows:

WATER EFFICIENT LANDSCAPE DESIGN AND INSTALLATION:

Adding the following sections:

Sections:

- 7-8-1.0 Statement of purpose.
- 7-8-2.0 Applicability.
- 7-8-2.1 Permits and Fees.
- 7-8-2.2 Authorization to Design a Landscape.
- 7-8-3.0 Definitions.
- 7-8-4.0 Implementation.
- 7-8-5.0 Landscape Documentation Package Submittal Requirements.
- 7-8-6.0 Water Efficient Landscape Worksheet.
- 7-8-7.0 Soil Management Report.
- 7-8-8.0 Grading Plan.
- 7-8-9.0 Landscape Design Plan.
- 7-8-10.0 Irrigation Design Plan.
- 7-8-11.0 Certificate of Completion.
- 7-8-12.0 Irrigation Scheduling.
- 7-8-13.0 Landscape and Irrigation Maintenance Schedule.
- 7-8-14.0 Irrigation Audit, Irrigation Survey and Irrigation Water Analysis (New and Rehabilitated Landscapes).
- 7-8-15.0 Irrigation Efficiency.
- 7-8-16.0 Recycled Water.
- 7-8-17.0 Stormwater Management
- 7-8-18.0 Public Education.
- 7-8-19.0 Irrigation Audit, Irrigation Survey and Irrigation Water Use Analysis (Existing Landscapes)
- 7-8-20.0 Water Waste Prevention.

The ordinance in its entirety is attached as Exhibit "A". All other provisions of Title 7 of said code shall be and remain in full force and effect.

EFFECTIVE DATE. The foregoing ordinance shall take effect thirty (30) days from the date of the passage hereof. Prior to the expiration of fifteen (15) days from the passage hereof a certified copy of this ordinance shall be posted in the office of the City Clerk pursuant to Government

Code section 36933(c)(1) and a summary shall be published once in the Corcoran Journal, a newspaper printed and published in the City of Corcoran, State of California, together with the names of the Council members voting for and against the same.

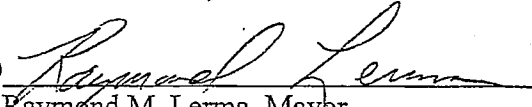
THE FOREGOING ORDINANCE was introduced at a regular meeting of the City Council of the City of Corcoran held on the 20th day of September, 2010. PASSED AND ADOPTED by the City Council of the City of Corcoran at a regular meeting thereof held on the 4th day of October, 2010, by the following vote:

AYES: Councilmembers: Haile, Wadsworth, and Lerma

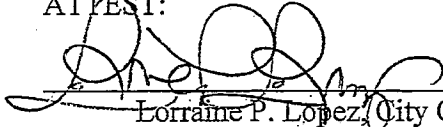
NOES: None

ABSENT: Councilmembers: Baltierra, and Hanshew

APPROVED


Raymond M. Lerma, Mayor

ATTEST:


Lorraine P. Lopez, City Clerk

CLERKS CERTIFICATE

City of Corcoran }
County of Kings } ss.
State of California }

I, Lorraine P. Lopez, hereby certify that the foregoing is a full, true and correct copy of an ordinance passed and adopted by the City Council of the City of Corcoran at a regular meeting held on the 4th day of October, 2010, by the vote as set forth therein.

DATED: October 6, 2010

ATTEST:

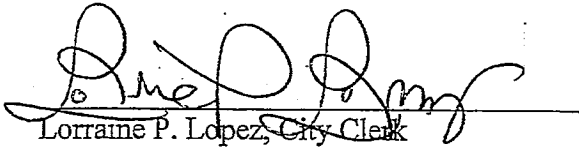

Lorraine P. Lopez, City Clerk

EXHIBIT "A"

TITLE 7 CHAPTER 8 WATER EFFICIENT LANDSCAPE DESIGN AND INSTALLATION

Sections:

- 7-8-1.0 Statement of purpose.
- 7-8-2.0 Applicability.
- 7-8-2.1 Permits and Fees.
- 7-8-2.2 Authorization to Design a Landscape.
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- 7-8-9.0 Landscape Design Plan.
- 7-8-10.0 Irrigation Design Plan.
- 7-8-11.0 Certificate of Completion.
- 7-8-12.0 Irrigation Scheduling.
- 7-8-13.0 Landscape and Irrigation Maintenance Schedule.
- 7-8-14.0 Irrigation Audit, Irrigation Survey and Irrigation Water Analysis (New and Rehabilitated Landscapes).
- 7-8-15.0 Irrigation Efficiency.
- 7-8-16.0 Recycled Water.
- 7-8-17.0 Stormwater Management
- 7-8-18.0 Public Education.
- 7-8-19.0 Irrigation Audit, Irrigation Survey and Irrigation Water Use Analysis (Existing Landscapes)
- 7-8-20.0 Water Waste Prevention.

Section 7-8-1.0: Statement of purpose:

The purpose of these regulations is to establish standards and procedures for landscape designs and installations which are publicly and privately owned and maintained. The intent of these regulations is to develop guidelines for landscapes which utilize reasonable amounts of water and maintain design freedom. To this end, the regulations call for reduced water consumption, responsible landscape design, water efficient landscape irrigation practices and responsible landscape maintenance. These regulations are hereby incorporated by this reference into the city's existing procedures for checking landscape and irrigation plans as part of the building permit process.

Section 7-8-2.0: Applicability:

After January 1, 2010, these regulation shall be applicable to all of the following landscape projects:

- A. New construction and rehabilitation landscapes for public agency projects and private development projects with a landscape area equal to or greater than 2,500 square feet requiring a building, or landscape permit; plan check or plan review
- B. New construction and rehabilitated landscapes which are developer installed in single family and multi-family projects with a landscape area equal to or greater than 2,500 square feet requiring a building or landscaping permit; plan check or plan review.
- C. New construction landscapes which are homeowner provided and/or homeowner hired in single family and multi-family residential projects with a total project landscape area equal to or greater than 5,000 square feet requiring a building or landscape permit; plan check or plan review.
- D. Existing landscapes are limited to 7-8-19 and 7-8-20.
- E. New and rehabilitated cemeteries are limited to Sections 7-8-6, 7-8-13, and 7-8-14, and existing cemeteries are limited to Sections 7-8-19 and 7-8-20.
- F. Projects that are exempt from this ordinance are the following:
 1. Register local, state or federal historical sites;
 2. Ecological restoration projects that do not require a permanent irrigation system; Mined-land reclamation projects that do not require a permanent irrigation system; or
 3. Plant collections as part of botanical gardens and arboretums open to the public

Additionally, the Community Development Director may exempt any project from specific regulation due to specific conditions associated with the project so long as the project is in substantial compliance with the regulations.

Section 7-8-2.1: Permits and Fees:

A landscape permit shall be required for all landscape projects as outlined in Section 7-8-20. Fees for landscape permits shall be set by City Council resolution.

Section 7-8-2.2: Authorized to Design a Landscape:

- A. Landscape Architect. Must hold a professional license to practice landscape architecture. May perform professional services for the purpose of landscape preservation, development and enhancement, such as consultation, investigation, reconnaissance, research, planning, design, preparation of drawings, construction documents and specifications, and responsible construction observation. (Business and Professions Code, Section 5615)
- B. Architect. Must hold a professional license to practice architecture. May offer, perform, or be in responsible control of professional services which require the skills of an architect in the planning of sites. (Business and Professions Code, Section 5500.1 and 5641.3)

C. Professional Engineers. Must hold professional registration to practice engineering. May perform professional services as defined under Business and Professions Code, Section 5615, as long as the work is incidental to an engineering project. (Business and Professions Code, Section 5615, 5641.3 and 6701 et seq.)

D. Landscape Contractors. Must hold a C-27 Landscaping Contractor's license. May design systems and facilities for work to be performed and supervised by that contractor. (Business and Professions Code, Section 5641.4 and 7027.5 and California Code of Regulations, Title 16, Division 8, Section 832.27)

E. Nurserypersons. Must hold a license to sell nursery stock. May prepare planting plans or drawings as an adjunct to merchandizing nursery stock and related products. (Business and Professions Code, Section 5641.2 and Food and Agriculture Code, Section 6721 et seq.)

F. Unlicensed Persons. The unlicensed persons noted below may perform services as described:

1. Landscape/Garden Designers, etc. May prepare plans, drawings and specifications for the selection, placement or use of plants for single family dwellings; may prepare drawings for the conceptual design and placement of tangible objects and landscape features; may NOT prepare construction documents, details or specification for tangible landscape objects or landscape features; and may NOT prepare grading and drainage plans for the alteration of sites.

2. Personal Property Owners (Home Owners). May prepare any plans, drawings or specifications for any one or two family dwelling property owned by that person.

3. Golf course Architect. May engage in the practice of, or offer to practice as, a golf course architect. May perform professional services such as consultation, investigation, reconnaissance, research, design, preparation of drawings and specifications and responsible supervision, where the dominant purpose of such service is the design of a golf course; in accordance with accepted professional standards of public health and safety.

4. Irrigation Consultants. May engage in the practice of, or offer to practice as an irrigation consultant. May perform consultation, investigation, reconnaissance, research, design, preparation of drawings and specifications and responsible supervision, where the dominant purpose of such service is the design of landscape irrigation, in accordance with accepted professional standards of public health and safety.

(The applicable statutes which govern the above unlicensed categories are Business and Professions Code, Section 5641, 5641.1, 5641.5, and 5641.6)

Section 7-8-3.0: Definitions:

For the purposes of this chapter, certain words and phrases used in this chapter are defined as follows:

“APPLIED WATER” means the portion of water supplied by the irrigation system to the landscape.

“AUTOMATIC IRRIGATION CONTROLLER” means an automatic timing device used to remotely control valves that operate an irrigation system. Automatic irrigation controllers schedule irrigation events using either evapotranspiration (weather based) or soil moisture data.

“AMENDMENT” means any material added to the soil to alter the pH or improve the physical properties of the soil.

“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.

“CERTIFICATE OF COMPLETION” means the document required under Section 7-8-11.

“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 Water Sense 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 Water Sense irrigation designer certification program and Irrigation Association’s Certified Irrigation Designer 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 INTEREST DEVELOPMENTS” means community apartment projects, condominium projects, planned developments and stock cooperatives per Civil Code Section 1351.

“CONVERSION FACTOR (0.62)” means the number that converts acre-inches per acre per year to gallons per square foot per year.

“CONTROLLER” means an automatic timing device with enclosure, which signals remote control irrigation valves to open and close on a pre-set program.

"CYCLE" means the complete operation of an irrigation controller station.

"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 internationally altered to establish a defined, indigenous, historic ecosystem.

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

"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.

"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 or growth.

"ESTIMATED TOTAL WATER USE" (ETWU) means the total water used for the landscape as described in Section 7-8-6.0.

"ET ADJUSTMENT FACTOR" (ETAF) means a factor of 0.7 that, when applied to reference evapotranspiration, adjusts for plant factors and irrigation efficiency, two major influences upon the amount of water that needs to be applied to the landscape. A combined plant mix with a site-wide average of 0.5 is the basis of the plant factor portion of this calculation. For purposes of the ETAF, the average irrigation efficiency is 0.71. Therefore, the ET Adjustment Factor is $(0.7) = (0.5/0.71)$. ETAF for a Special Landscape Area shall not exceed 1.0. ETAF for existing non-rehabilitated landscapes is 0.8.

"EVAPOTRANSPIRATION" or "ET_o" means a standard measurement of environmental parameters which affect the water use of plants. ET_o is expressed in inches per day, month or 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. Evapotranspiration is used as the basis of determining the Maximum Applied Water Allowance so that regional differences in climate can be accommodated. The City of Corcoran's ET_o is 62.5 inches per year (per www.cimiswaterca.gov ET_o zone map dated 1999).

"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 (gpm), gallons per hour or cubic feet per second.

"GRADING" means earthwork performed to alter the natural contours of an area to be planted.

"HARDSCAPES" means any durable material (pervious and non-pervious), such as paving (decks and patios) and hard surfaces which are part of the calculated total landscape area.

"HOMEOWNER-PROVIDED LANDSCAPING" means any landscaping either installed by a private individual for a single family residence or installed by a licensed contractor hired by a homeowner. A homeowner, for purposes of this ordinance, is a person who occupies the dwelling he or she owns. This excludes speculative homes which are not owner-occupied dwellings.

"HYDROZONE" means a portion of the landscaped area having plants with similar water needs. A hydrozone may be irrigated or non-irrigated.

"IRRIGATION SYSTEM" means a complete connection of system components, including the water source, the water distribution network, and the necessary irrigation equipment.

"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).

"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. "Noxious weeds" means any weed designated by the Weed Control Regulation in the Weed Control Act and identified on a Regional-District noxious weed control list. 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.

"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 minimum average irrigation efficiency for purposes of this ordinance is 0.71. Greater irrigation efficiency can be expected from well-designed and maintained 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 any analysis of water use data based on meter readings and billing data.

“LANDSCAPE ARCHITECT” means a person who holds a license to practice landscape architect in the State of California per Business and Professionals 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 space and existing native vegetation).

“LANDSCAPE CONTRACTOR” means a person licensed by the state of California to design, construct, maintain, repair, install or subcontract the development of landscape systems.

“LANDSCAPED DOCUMENTATION PACKAGE” means the documents required under Section 7-8-5.0.

“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 7-8-5.0.

“LATERAL LINE” means the water delivery pipeline that supplies water to the emitters or sprinklers from the valve.

“LOCAL AGENCY” means the City of Corcoran that is responsible for adoption and implementing the ordinance. The City of Corcoran is also responsible for the enforcement of this ordinance including, but not limited to, approval of a building or landscape permit for a project.

“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.

“MAIN LINE” means the pressurized pipeline that delivers water from the water source to the valve or outlet.

“MAXIMUM-APPLIED WATER ALLOWANCE” (MAWA) means the upper limit of annual applied water for the established landscaped area as specified in Section 7-8-6.0. 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.

“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 materials such as leaves, bark, straw, compost, sawdust or organic mineral materials such as rocks, gravel and 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.

"NEW CONSTRUCTION" means, for the purpose of this ordinance, a new building with a landscape or other new landscape such as a park, playground or greenbelt without an associated building.

"OPERATING PRESSURE" means the pressure at which the parts of an irrigation system are designed by the manufacturer to operate.

"OVERHEAD SPRINKLER IRRIGATION SYSTEMS" means systems that deliver water through the air (e.g. spray heads and rotors).

"OVERSPRAY" means irrigation water which is delivered beyond the target area.

"PERMIT" means the authorizing document issued by local agencies for new construction or rehabilitated landscapes.

"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 ET_o , estimates the amount of water needed by plants. For purposes of this ordinance, the plant factor range for low water use plants is 0 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 Department of Water Resources 2000 publication, "Water Use Classification of Landscape Species."

"POINT OF CONNECTION" means the point at which an irrigation system connects (P.O.C.) into the public water system. This is usually near the point at which the meter is located or will be installed.

"PRECIPITATION RATE" means the rate of application of water measured in inches per hour.

"PROJECT APPLICANT" means the individual or entity submitting a Landscape Documentation package required under Section 7-8-5.0 to request a building or landscape permit from the City. A project applicant may be the property owner or his or her designee.

"RAIN SENSOR" or "RAIN SENSING SHUTOFF DEVICE" means a component which automatically suspends an irrigation event when it rains.

prevent equipment damage.
"SWING JOINT" means an irrigation component provides a flexible, leak-free connection between the emissions device and lateral pipeline to allow movement in any direction and to

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

water is not flowing.
"STATIC WATER PRESSURE" means the pipeline or municipal water supply pressure when

"SPRINKLER HEAD" means a device which delivers water through a nozzle.

playing surface.
"SPECIAL LANDSCAPE AREA" (SLA) means an area of the landscape dedicated solely to edible plants, areas irrigated with recycled water, water features and where turf provides a dedicated to active play such as parks, sports fields, golf courses and where turf provides a

"SOIL TEXTURE" means the classification of soil based on its percentage of sand, silt and clay.

moisture is detected.
"SOIL MOISTURE SENSOR" means an instrument for measuring the moisture content of the soil and capable of interruption of the irrigation cycle sensor when excessive or inadequate

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

"RIGHT-OF-WAY" means area directly adjacent to and property for use by public agencies.

activated by an automatic electric controller via an electric control wire.
"REMOTE CONTROL VALVE" means a valve (R.C.V.) in an irrigation system which is

area is equal to or greater than 2,500 square feet.
"REHABILITATED LANDSCAPE" means any re-landscaping project that requires a building or landscape permit and meets the requirements of Section 7-8-2.0 and the modified landscape.

as landscape irrigation and water features. This water is not intended for human consumption.
"RECYCLING WATER," "RECLAIMED WATER" or "TREATED SEWAGE EFFLUENT WATER" means treated or recycled waste water of a quality suitable for non-potable uses such

golf courses where turf provides a playing surface.
"RECREATIONAL AREA" means areas dedicated to active play such as parks, sports fields and

drawings marked up in the field and other data furnished by the contractor.
"RECORD DRAWING" or "AS BUILT" means a set of reproducible drawings which show significant changes in the work made during construction and which are usually based on

“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. Augustine grass, Zoysiagrass and Buffalo grass are warm-season grasses.

“TOTAL LANDSCAPE AREA” means the real property parcel area less the building footprint, driveways, walkways and parking areas. Landscape areas include water bodies (i.e., fountains, swimming pools, planting areas, ponds and hardscape as defined above) and natural areas.

“VALVE” means 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 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 onsite 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.

“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, the Department of Water Resources and the Bureau of Reclamation, 2000.

Section 7-8-4.0: Implementation:

To assure that the intent of these regulations is carried out, the applicant for a building or landscape permit is required to submit to the building department, a Landscape Documentation Package as described in Section 7-8-5.0 for review and approval by the Building Official.

During the installation of the approved landscape plan, it is the responsibility of the Community Development Department (Public Works Department for landscape improvements constructed within public property or street ways) to inspect the project to confirm that the landscaping for the project was installed in accordance with the approved plans. The landscape designer shall certify that the project is in compliance with these regulations by signing and submitting a completed Certificate of Completion. The Community Development Director, Director of Public Works, or their designated representative, may authorize the deferral of landscape completion for good and valid reasons subject to the posting of appropriate security with the City.

The City may establish and administer penalties to the project applicant for noncompliance with this ordinance to the extent permitted by law. The amount of these penalties shall be set by City Council resolution.

Section 7-8-5.0: Landscape Documentation Package Submittal Requirements:

Prior to construction of all new or rehabilitated landscapes, the following Landscape Documentation Package shall be submitted to the building department for plan check review and approval as part of an application for a building or landscape permit for projects identified in Section 7-8-2.0. All landscape plans and specifications shall be prepared and signed by a licensed landscape architect, a licensed landscape contractor or any other authorized landscape person shall be inserted next to their signature on such plans.

The Landscape Documentation Package shall include the following elements:

A. Project Information:

1. Date
2. Project applicant
3. Project address (if available, parcel or lot number(s))
4. Total landscape area (square feet)
5. Project type (e.g., new; rehabilitated public, private, cemetery, homeowner-installed)
6. Water supply type (e.g., public well, private well, recycled)
7. Project applicant and property owner contact information
8. Landscape Documentation Package submittal checklist, see Appendix "A"
9. Applicant signature and date with statement, "I agree to comply with the requirements of the Water Efficient Landscape Design and Installation Ordinance and submit a complete Landscape Documentation Package."

B. Water Efficient Landscape Worksheet:

1. Hydrozone information table
2. Water budget calculations
 - a. Maximum Applied Water Allowance (MAWA)
 - b. Estimated Total Water Use (ETWU)

C. Soil Management Report

D. Grading Plan

E. Landscape Design Plan

F. Irrigation Design Plan

G. Landscape improvement plans shall be drawn on sheets no larger than thirty (30) inches by forty-two (42) inches and no smaller than eighteen (18) inches by twenty-four (24) inches at a scale which shows sufficient detail to clearly interpret the plans, preferably not less than one inch equals thirty (30) feet.

Section 7-8-6.0: Water Efficient Landscape Worksheet:

A. A project applicant shall complete the following Water Efficient Landscape Worksheets as identified in Appendix "B":

1. A hydrozone information table (see Appendix "B", Section "A") for the landscape project; and
2. A water budget calculation (see Appendix "B", Section "B") for the landscape project.

B. Water budget calculations shall adhere to the following requirements:

1. Plant types shall be grouped so as to have zoned landscape areas that utilize a similar water requirement. The cumulative effect of this zoning shall be to create a moderate water consuming landscape. The zone types shall be designated low, moderate or high water use with reference to water consumptiveness. The plant factor value used shall be taken from WUCOLS (a copy of this can be obtained from the City Public Works Department). The plant factor ranges from 0 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 use 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 described below.
4. The ETAF for special landscape areas shall not exceed 1.0.

C. The Maximum Applied Water Allowance (MAWA) shall be calculated using the following equation: $MAWA = (ETo)(0.62)[(0.7 \times LA) + (0.3 \times SLA)]$ (ETo for Corcoran is 62.5 inches per year (per www.cimiswaterca.gov ETo zone map dated 1999)).

The following calculations below are hypothetical to demonstrate proper use of the equations and do not represent an existing and/or planned landscape project:

1. Example MAWA calculation: A hypothetical landscape project in Corcoran with an irrigated landscape area of 50,000 square feet without any Special Landscape Area (SLA = 0, no edible plants, recreation areas or use or recycled water). To calculate MAWA, the annual evapotranspiration (ETo) value for Corcoran is 62.5 inches (per www.cimiswaterca.gov ETo zone map dated 1999).

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

MAWA = Maximum Applied Water Allowance (gallons per year)

ETo = Annual Evapotranspiration (inches per year)

0.62 = Conversion Factor (to gallons)

0.7 = ET Adjusted Factor (ETAF)

LA = Landscape Area including SLA (square feet)

0.3 = Additional Water Allowance for SLA

SLA = Special Landscape Area (square feet)

$$MAWA = (62.5 \text{ inches})(0.62)[(0.7 \times 50,000 \text{ square feet}) + (0.3 \times 0)] = 1,356,250 \text{ gallons per year}$$

To convert from gallons per year to hundred-cubic-feet per year:

$$= 1,356,250 / 748 = 1,813 \text{ hundred-cubic-feet per year (100 cubic feet = 748 gallons)}$$

2. In this next hypothetical example, the landscape project in Corcoran has the same ETo of 62.5 inches per year (per www.cimiswaterca.gov ETo zone map dated 1999) and a total landscape area of 50,000 square feet. Within the 50,000 square foot project, there is now a 2,000 square foot area planted with edible plants. This 2,000 square foot is considered to be a Special Landscape Area (SLA).

$$\begin{aligned} \text{MAWA} &= (\text{ETo})(0.62)[(0.7 \times \text{LA}) + (0.3 \times \text{SLA})] \\ \text{MAWA} &= (62.5 \text{ inches})(0.62) [(0.7 \times 50,000 \text{ square feet}) + (0.3 \times 2,000 \text{ square feet})] \\ &= 38.75 \times [35,000 + 600] \text{ gallons per year} = 38.75 \times 35,600 \text{ gallons per year} \\ &= 1,379,500 \text{ gallons per year or } 1,844 \text{ hundred-cubic-feet per year} \end{aligned}$$

D. Estimated Total Water Use shall be calculated using the equation below. The sum of the estimated total water use calculated for all hydrozones shall not exceed MAWA.

$$\text{ETWU} = (\text{ETo})(0.62) \left[\frac{\text{PF} \times \text{HA}}{\text{IE}} \right] + \text{SLA}$$

Where:

- ETWU = Estimated Total Water Use per year (gallons)
- ETo = Annual Evapotranspiration (inches)
- PF = Plant Factor from WUCOLS
- HA = Hydrozone Area [high, medium and low water use areas] (square feet)
- SLA = Special Landscape Area (square feet)
- 0.62 = Conversion Factor
- IE = Irrigation Efficiency (minimum 0.71)

Example ETWU calculation: Landscape area is 50,000 square feet; plant water use type, plant factor and hydrozone area are shown in the table below. The ETo value is 62.5 inches per year. There are no special landscape areas (recreational area, area permanently and solely dedicated to edible plants, and area irrigated with recycled water in this example).

Hydrozone	Plant Water use Type(s)	Plant Factor (PF)*	Hydrozone Area (HA) (square feet)	PF x HA (square feet)
1	High	0.8	7,000	5,600
2	High	0.7	10,000	7,000
3	Medium	0.5	16,000	8,000
4	Low	0.3	7,000	2,100
5	Low	.02	10,000	2,000
			Sum	24,700

*Plant Factor from WUCOLS

$$\text{ETWU} = (62.5)(0.62) \left[\frac{24,700}{0.71} \right] + 0$$

= 1,348,035 gallons per year

Compare ETWU with MAWA: For this example, MAWA = (62.5)(0.62) [(0.7 x 50,000) + (0.3 x 0)] = 1,356,250 gallons per year. The ETWU (1,348,035 gallons per year) is less than MAWA (1,356,250 gallons per year). In this example, the water budget complies with the MAWA.

2. Example EETWU calculation: Total landscape area is 50,000 square feet, 2,000 square feet of which is planted with edible plants. The edible plant area is considered a Special Landscape Area (SLA). The evapotranspiration value is 62.5 inches per year. The plant type, plant factor and hydrozone area is shown in the table below.

Hydrozone	Plant Water use Type(s)	Plant Factor (PF)*	Hydrozone Area (HA) (square feet)	PF x HA (square feet)
1	High	0.8	7,000	5,600
2	High	0.7	9,000	6,300
3	Medium	0.5	15,000	7,500
4	Low	0.3	7,000	2,100
5	Low	.02	10,000	2,000
			Sum	23,500
6	SLA	1.0	2,000	2,000

*Plant Factor from WUCOLS

$$ETWU = (62.5)(0.62) \left(\frac{23,500}{0.71} \right) + 2,000$$

= 1,360,047 gallons per year

Compare ETWU with MAWA: For this example, MAWA = (62.5)(0.62) [(0.7 x 50,000) + (0.3 x 2,000)] = 38.75 x [35,000 + 600] = 38.75 x 35,600 = 1,379,500 gallons per year. The ETWU (1,360,047 gallons per year) is less than MAWA (1,379,500 gallons per year). For this example, the water budget complies with the MAWA.

7-8-7.0: Soil Management Report:

In order to reduce runoff and encourage healthy plant growth, a soil management report shall be completed, after determination by the Community Development Director, the Public Works Director or their designated representative, that conditions warrant such testing.

A. Conditions which warrant the preparation of soil tests include, without limitation:

1. Serve grading that removes substantial topsoil and exposes subsurface soil layers for new landscaping:

2. Suspected pervious land use conditions which could retard or complicate desirable plant growth conditions.

Samples of the onsite soil shall be taken after completion of rough grading work and all ancillary work that may cause compaction of the planting areas. The samples shall be submitted to a certified soil testing laboratory for analysis. The soil samples shall be taken to account for every two acres or less of landscape area and their locations shall be noted on the approved site plan. All soil samples showing adverse rates of compaction shall receive mitigation recommendations in the Soil Management Report issued by the testing laboratory.

B. The Soil Management Report must provide the following information:

1. Soil texture;
2. Infiltration rate determined by laboratory testing or soil texture infiltration rate table;
3. Ph;
4. Total soluble salts;
5. Sodium;
6. Percent organic material; and
7. Recommendations.

C. The project applicant shall comply with one of the following:

1. If significant mass grading is not planned, the Soil Analysis Report shall be submitted to the city as part of the Landscape Documentation Package;
2. If significant mass grading is planned, the Soil Analysis Report shall be submitted to the city 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 necessary adjustments to the design plans.
4. The project applicant shall submit documentation verifying implementation of Soil Analysis Report recommendations to the City with Certificate of Completion.

7-8-8.0: Grading Plan:

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 to the Building Official as part of the Landscape Documentation Package. A comprehensive grading plan prepared by a civil engineer for other agency permits satisfies this requirement.

A. The project applicant shall submit a Landscape Grading Plan that includes finished configurations and elevations of the landscape area including:

1. Height of graded slopes;
2. Drainage patterns;
3. Pad elevations;
4. Finish grade; and

5. Stormwater retention improvements, if applicable.

B. To prevent excessive erosion and runoff, it is highly recommended that project applicants:

1. Grad so that all irrigation and normal rainfall remains within property lines and does not drain onto non-permeable hardscapes;
2. Avoid disruption of natural drainage patterns and undisturbed soil; and
3. Avoid soil compaction in landscape areas.

The Grading Design Plan shall contain the following statement: "I have complied with the criteria of the Water Efficient Landscape Design and Installation Ordinance and applied them accordingly for the efficient use of water in the grading design" and bear the signature of a licensed professional as authorized by law.

7-8-9.0 Landscape Design Plan:

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 Document Package:

A. Plant Material:

1. Any plant may be selected for the landscape providing the Estimated Total Water Use in the landscape area does not exceed the maximum Applied Water Allowance. To encourage the efficient use of water, the following is highly recommended:

- a. Protection and preservation of native species and natural vegetation;
- b. Selection of water conserving plant and turf species;
- c. Selection of plants based on disease and pest resistance;
- d. Selection of trees based on applicable local tree ordinances or tree shading guidelines; and
- e. Selection of plants from local and regional landscape program plant lists.

2. 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 7-8-1 B.4.

3. Plants shall be selected and planted appropriately based upon their adaptability to the climatic, geologic and topographical condition of the project site. To encourage the efficient use of water, the following is highly recommended:

- a. 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;
- b. 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); and

c. Consider the solar orientation for plant placement to maximize summer shade and winter solar gain.

4. Turf is not allowed on slopes greater than 25 percent where the toe of the slope is adjacent to an impermeable hardscape and where 25 percent means 1 foot of vertical elevation change for every 4 feet of horizontal length (rise divided by run x 100 = slope percent).

5. A Landscape Design Plan for projects in fire-prone areas shall address fire safety and prevention. Avoid fire-prone plant materials and highly flammable mulches.

6. The architectural guidelines of a Common Interest Development (which includes community apartment projects, condominiums, planned developments and stock cooperatives) shall not prohibit or include conditions that have the effect of prohibiting the use of low-water use plants as a group.

B. Water Features:

1. Reticulating water systems shall be used for water features.

2. Where available, recycled water shall be used as a source for decorative water features.

3. Surface area of water feature shall be included in the high water use hydrozone area for the Water Budget Calculation.

4. Pool and spa covers are highly recommended.

C. Mulch and Amendments:

1. A minimum two inch (2") 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.

2. Stabilizing mulching products shall be used on slopes.

3. The mulching portion of the seed/mulch slurry in hydro-seeded applications shall meet the mulching requirement.

4. Soil amendments shall be incorporated according to recommendations of the soil report and what is appropriate for the plants selected (see Section 7-8-7.0)

D. 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 irrigate areas of the landscape shall be included in the low water use hydrozone for the water budget calculations;

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, types and quantity;

8. Identify type and surface area of water features;
9. Identify hardscapes (pervious and non-pervious);
10. Identify location and installation details of any applicable stormwater best management practices that encourage onsite retention and infiltration of stormwater. Stormwater best management practices are encouraged in the landscape design plan and examples include, but are not limited to:
 - a. Infiltration beds, swales and basins that allow water to collect and soak into the ground;
 - b. Constructed wetlands and retention ponds that retain water, handle excess flow and filter pollutants; and
 - c. Pervious or porous surfaces (e.g., permeable pavers or blocks, pervious or porous concrete, etc.) that minimize runoff.
11. Identify any applicable rain harvesting or catching technologies (e.g., rain gardens, cisterns, etc.);
12. Contain the following statement, “I have complied with the criteria of the Water Efficient Landscape Design and Installation Ordinance and applied them for the efficient use of water in the Landscape design Plan”; and
13. Bear the signature of a licensed landscape architect, licensed landscape contractor or any other person authorized to design a landscape.

7-8-10.0 Irrigation Design Plan:

For the efficient use of water, an irrigation system shall meet all the requirements listed in this section and the manufacturer’s 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 to the Building Official as part of the Landscape Documentation Package.

A. System:

1. Dedicated landscape water meters are highly recommended on landscape areas smaller than 5,000 square feet to facilitate water management.
2. Automatic irrigation controllers utilizing either evapotranspiration or soil moisture sensor data shall be required for irrigation scheduling in all irrigation systems.
3. The irrigation system shall be designed to ensure that the dynamic pressure at each emission device is within the manufacturer’s recommended pressure range for optimal performance.
 - a. 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.
 - b. 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.

4. 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 avoided during windy or freezing weather or during rain.
5. Manual shut-off valves (such as 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.
6. 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 City Standards and Specifications for additional backflow prevention requirements.
7. High flow sensors that detect and report high flow conditions created by system damage or malfunction are recommended.
8. 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.
9. Relevant information from the Soil Management Plan, such as soil type and infiltration rate, shall be utilized when designing irrigation systems.
10. The design of the irrigation system shall conform to the hydrozones of the Landscape Design Plan.
11. The irrigation system must be designed and installed to meet, at a minimum, the irrigation efficiency criteria as described in Section 7-8-6.0 regarding the Maximum Applied Water Allowance.
12. It is highly recommended that the project applicant inquire with the City about peak water operating demands (on the water supply system) or water restrictions that may impact the effectiveness of the irrigation system.
13. In-mulched planning areas, the use of low volume irrigation is required to maximize water infiltration into the root zone.
14. Sprinkler head and other emission devices shall have matched precipitation rates , unless otherwise directed by the manufacturer's recommendations.
15. Head to head coverage is recommendations. However, sprinkler spacing shall be designed to achieve the highest possible distribution uniformity using the manufacturer's recommendations.
16. Swing joints or other riser-protection components are required on all risers subject to damage that are adjacent to high traffic areas.
17. Check valves or anti-drain valves are required for all irrigation systems.
18. Narrow or irregularly shaped areas, including turf, less than seven (7) feet in width in any direction shall be irrigated with subsurface irrigation or low volume irrigation system.
19. 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:
 - a. The landscape area is adjacent to permeable surfacing and no runoff occurs; or
 - b. The adjacent non-permeable surfaces are designed and constructed to drain entirely to landscaping; or

c. 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 7-8-1.0. Prevention of overspray and runoff must be confirmed during the irrigation audit.

20. Slopes greater than 25 percent shall not be irrigated with an irrigation system with a precipitation rate exceeding 0.75 inches per hour. This restriction may be modified if the landscape designer specifies an alternative design or technology as part of the Landscape Documentation Package and clearly demonstrates no runoff or erosion will occur. Prevention of runoff and erosion must be confirmed during the irrigation audit.

B. 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 plan type within that hydrozone.
3. Where feasible, trees shall be placed on separate valves from shrubs, groundcovers and turf.
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.

5. Individual hydrozones that mix high and low water use plants shall not be permitted.
6. 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.
7. The Irrigation Design Plan, at a minimum, shall contain:

- a. Location and size of separate water meters for landscape;
- b. 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;
- c. Static water pressure at the point of connection to the public water supply;
- d. Flow rate (gallons per minute), application rate (inches per hour) and design operating pressure (pressure per square inch) for each station;
- e. Recycled water irrigation systems as specified in Section 7-8-16.
- f. The following statement: "I have complied with the criteria of the Water Efficient Landscape Design and installation Ordinance and applied them accordingly for the efficient use of water in the Irrigation Design Plan"; and

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

7-8-11.0 Certificate of Completion:

A. The Certification of Completion (see Appendix "C") shall include the following six 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 landscaper 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 drawing shall be included with the certification.
 - b.
3. Irrigation scheduling parameters used to set the controller (see Section 7-8-12).
4. Landscape and irrigation maintenance schedule (see Section 7-8-13).
5. Irrigation audit report (see Section 7-8-14).
6. Soil analysis report, if not submitted with Landscape Documentation Package and documentation verifying implementation of soil report recommendations (see Section 7-8-7).

B. The project applicant shall:

1. Submit the signed Certificate of Completion to the Building Official for review;
2. Ensure that copies of the approved Certificate of Completion are submitted to the city and property owner or his or her designee.

C. The City shall:

1. Provide notice of approval/denial within 14 days or project will be deemed approved;
2. Approve or deny the Certificate of Completion. If the Certificate of completion is denied, the Building Official shall provide information to the project applicant regarding reapplication, appeal or other assistance.

7-8-12.0 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:

- A. Irrigation scheduling shall be regulated by automatic irrigation controllers.
- B. Overhead irrigation shall be scheduled between 6:00 p.m. and 10:00 a.m. during daylight savings time unless weather conditions prevent it. Operation of irrigation system outside the normal watering window is allowed for auditing and system maintenance.
- C. 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.
- D. Parameters used to set the automatic controller shall be developed and submitted for each of the following:
 1. The plant establishment period;
 2. The established landscape; and
 3. Temporarily irrigated areas.
- E. Each irrigation schedule shall consider for each station all of the following that apply:
 1. Irrigation intervals (days between irrigation);
 2. Irrigation run times (hours or minutes per irrigation event to avoid runoff);
 3. Number of cycle starts required for each irrigation event to avoid runoff;
 4. Amount of applied water scheduled to be applied on a monthly basis;
 5. Application rate setting;
 6. Root depth setting;
 7. Plant typesetting;
 8. Soil type;
 9. Slope factor setting;
 10. Shade factor setting; and
 11. Irrigation uniformity or efficiency setting.

7-8-13.0 Landscape and Irrigation Maintenance Schedule:

Landscapes shall be maintained to ensure water use efficiency. A regular maintenance schedule shall be submitted to the Community Development Department with the Certificate of Completion.

A regular maintenance schedule shall include, but not be limited to, routine inspection, adjustment and repair of the irrigation system and its components, aerating and dethatching turf areas, 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.

Repair of all irrigation equipment shall be done with the originally installed components or their equivalents.

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

7-8-14.0 Irrigation Audit, Irrigation Survey and Irrigation Water Use Analysis (New and Rehabilitated Landscapes):

All landscape irrigation audits shall be conducted by a certified landscape irrigation auditor. For new construction and rehabilitated landscape projects installed after January 1, 2010, as described in Section 7-8-2, the following apply:

A. The project applicant shall submit an Irrigation Audit Report with the Certificate of Completion to the City that may include, but is not limited to, inspection, system tune-up, system test with distribution uniformity, reporting overspray or runoff that causes overland flow, and preparation of an irrigation schedule.

B. The city 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.

7-8-15.0 Irrigation Efficiency:

For the purpose of determining Maximum Applied Water Allowance, average irrigation efficiency is assumed to be 0.71. Irrigation systems shall be designed, maintained and managed to meet or exceed an average landscape irrigation efficiency of 0.71.

7-8-16.0 Recycled Water:

Irrigation systems and decorative water features shall use recycled water unless a written exemption has been granted by the City stating that recycled water meeting all public health codes and standards is not available and will not be available for the foreseeable future.

All recycled water irrigation systems shall be designed and operated in accordance with all applicable local and state laws.

Landscapes using recycled water are considered special landscape areas. The ET adjustment factor for special landscape areas shall not exceed 1.0.

7-8-17.0 Stormwater Management:

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 onsite retention and infiltration are encouraged.

Project applicants shall refer to the City or Regional Water Quality Control Board for information on any applicable stormwater ordinance and stormwater management plans.

Rain gardens, cisterns and other landscape features and practices that increase rainwater capture and create opportunities for infiltration and/or onsite storage are recommended.

7-8-18.0 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. Developers/builders shall provide information to owners of new, single-family residential homes regarding the design, installation, management and maintenance of 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 their 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.
2. Information shall be provided about designing, installing, managing and maintaining water efficient landscapes.

7-8-19.0 Irrigation Audit, Irrigation Survey and Irrigation Water use Analysis (Existing Landscapes):

This section shall apply to all existing landscapes that were installed before January 1, 2010 and are over one acre in size.

A. For all landscapes in 7-8-19 that have a water meter, the City shall use its best efforts to administer program 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:

$$\text{MAWA} = (0.8)(\text{ETo})(\text{LA})(0.62).$$

B. For all landscapes in 7-8-19 that do not have a water meter, the City shall use its best efforts to administer program 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.

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

7-8-20.0 Water Waste Prevention:

The city shall use its best efforts to 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 violations of those prohibitions shall be established by City Council resolution.

Restrictions regarding overspray and runoff may be modified if:

- A. The landscape area is adjacent to permeable surfacing and no runoff occurs; or
- B. The adjacent non-permeable surfaces are designed and constructed to drain entirely to landscaping.

Appendix "A"

Landscape Documentation Package Submittal Checklist

1. City of Corcoran Building Permit Application Form
2. Four (4) complete sets of drawing and documentation
3. Project information
4. Water Efficient Landscape Worksheet
5. Soil Management Report
6. Landscape Design Plan
7. Irrigation Design Plan
8. Grading Plan
9. All documents are signed per the Landscape Ordinance requirements
10. A Plan Review deposit (amount per the Fee Schedule)
11. This "Landscape Documentation Package Submittal Checklist"

Appendix "B"

Sample Water Efficient Landscape Worksheet

WATER EFFICIENT LANDSCAPE WORKSHEET

This Worksheet is filled out by the project applicant and is a requirement of the Landscape Documentation Package.

Please complete all sections (A and B) of the worksheet.

SECTION A. HYDROZONE INFORMATION TABLE

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

Hydrozone*	Zone or Value	Irrigation Method**	Area (Sq. Ft.)	% of Landscape Area
Total				100%

Appendix "B" (continued)

***Hydrozone**

HW = High Water Use Plants
MW = Moderate Water Use Plants
LW = Low Water Use Plants

****Irrigation Method**

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

SECTION B. WATER BUDGET CALCULATIONS

Section B1. Maximum Applied Water Allowance (MAWA)

The project's Maximum Applied Water Allowance shall be calculated using this equation:

$$\text{MAWA} = (\text{ET}_o)(0.62)[(0.7 \times \text{LA}) + (0.3 \times \text{SLA})]$$

Where:

MAWA = Maximum Applied Water Allowance (gallons per year)

ET_o = Annual Evapotranspiration (for Corcoran is 62.5 inches per year)

0.7 = ET Adjustment Factor (ETAf)

LA = Landscaped Area includes Special landscape Area (square feet)

0.62 = Conversion factor (to gallons per square foot)

SLA = Portion of the landscape area identified as Special Landscape Area (square feet)

0.3 = the additional ET adjustment Factor for Special Landscape Area (1.0 - .07 = 0.3)

Maximum Applied Water Allowance = _____ gallons per year

Show calculations:

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	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	
	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 City _____.

2. Date the Landscape Documentation Package was approved by the City _____.

3. Date that a copy of the Water Efficient Landscape Worksheet (including the Water Budget Calculation) was submitted to the City _____.

PART 2. CERTIFICATION OF INSTALLATION ACCORDING TO THE LANDSCAPE DOCUMENTATION PACKAGE

“I/we certify that, based upon periodic site observation, the work has been substantially 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.	
Name of Project Applicant		Fax No.	
		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

Attached parameters for setting the irrigation schedule on controller per ordinance Section 7-8-12.0.

PART 4. SCHEDULE OF LANDSCAPE AND IRRIGATION MAINTENANCE

Attached schedule of Landscape and Irrigation Maintenance per ordinance Section 7-8-13.0.

PART 5. LANDSCAPE IRRIGATION AUDIT REPORT

Attach Landscape Irrigation Audit Report per ordinance Section 7-8-14.0.

PART 6. SOIL MANAGEMENT REPORT

Attach soil analysis report if not previously submitted with the Landscape Documentation Package per ordinance Section 7-8-7.0.

Attached documentation verifying implementation of recommendations from soil analysis report per ordinance Section 7-8-7.0.

City of Corcoran

City of Corcoran Building Division

BUILDING DEPARTMENT ACTIVITY REPORT

Report Date Range : 01/01/2016 to 01/31/2016

Structure / Permit Type	# of Permits	Valuation
COMMERCIAL		
ELECTRIC PERMIT	1	35,000.00
MECHANICAL PERMIT	2	14,000.00
	3	
RESIDENTIAL		
SOLAR SYSTEM	2	31,100.00
RESIDENTIAL REPAIR	2	12,000.00
SINGLE FAMILY DWELLING	5	801,644.80
MECHANICAL PERMIT	2	1,800.00
RE-ROOF	1	10,000.00
	12	
<u>TOTALS</u>	<u>15.00</u>	<u>905,544.80</u>