



Western Riverside Council of Governments Technical Advisory Committee

AGENDA

**Thursday, August 17, 2017
9:30 a.m.**

**County of Riverside
Administrative Center
4080 Lemon Street
5th Floor, Conference Room C
Riverside, CA 92501**

In compliance with the Americans with Disabilities Act and Government Code Section 54954.2, if special assistance is needed to participate in the Technical Advisory Committee meeting, please contact WRCOG at (951) 955-8320. Notification of at least 48 hours prior to meeting time will assist staff in assuring that reasonable arrangements can be made to provide accessibility at the meeting. In compliance with Government Code Section 54957.5, agenda materials distributed within 72 hours prior to the meeting which are public records relating to an open session agenda item will be available for inspection by members of the public prior to the meeting at 4080 Lemon Street, 3rd Floor, Riverside, CA, 92501.

The Technical Advisory Committee may take any action on any item listed on the agenda, regardless of the Requested Action.

- 1. CALL TO ORDER (Gary Nordquist, Chairman)**
- 2. ROLL CALL**
- 3. PLEDGE OF ALLEGIANCE**
- 4. PUBLIC COMMENTS**

At this time members of the public can address the Technical Advisory Committee regarding any items with the subject matter jurisdiction of the Committee that are not separately listed on this agenda. Members of the public will have an opportunity to speak on agenda items at the time the item is called for discussion. No action may be taken on items not listed on the agenda unless authorized by law. Whenever possible, lengthy testimony should be presented to the Committee in writing and only pertinent points presented orally.

- 5. SELECTION OF TECHNICAL ADVISORY COMMITTEE CHAIR, VICE-CHAIR, AND 2ND VICE-CHAIR FOR FISCAL YEAR 2017/2018**

P. 1

Requested Action:

- 1. *Select Technical Advisory Committee Chair, Vice-Chair, and 2nd Vice-Chair positions for Fiscal Year 2017/2018.***

6. CONSENT CALENDAR

All items listed under the Consent Calendar are considered to be routine and may be enacted by one motion. Prior to the motion to consider any action by the Committee, any public comments on any of the Consent Items will be heard. There will be no separate action unless members of the Committee request specific items be removed from the Consent Calendar.

- A. **Summary Minutes from the June 15, 2017, Technical Advisory Committee Special Meeting are Available for Consideration.** **P. 3**
- Requested Action:** 1. *Approve the Summary Minutes from the June 15, 2017, Technical Advisory Committee special meeting.*
- B. **Finance Department Activities Update Including Agency Audit and Upcoming Annual TUMF Compliance Review by Agencies** **Ernie Reyna** **P. 7**
- Requested Action:** 1. *Receive and file.*
- C. **Financial Report Summary Through June 2017** **Ernie Reyna** **P. 9**
- Requested Action:** 1. *Receive and file.*
- D. **Regional Streetlight Program Activities Update** **Tyler Masters** **P. 15**
- Requested Action:** 1. *Recommend the Executive Committee direct the Executive Director to negotiate and enter into a contract with Siemens for Streetlight retrofit and ongoing operations & maintenance services once jurisdictional streetlights have been acquired and retrofitted.*
- E. **Western Riverside Energy Partnership Activities Update Including Information on Additional Funding For SCE Direct Install Program** **Tyler Masters** **P. 97**
- Requested Action:** 1. *Receive and file.*
- F. **Environmental Department Activities Update** **Dolores Sanchez Badillo** **P. 99**
- Requested Action:** 1. *Receive and file.*
- G. **Amendment to the Appendix of the WRCOG Conflict of Interest Code** **Janis Leonard** **P. 103**
- Requested Action:** 1. *Recommend that the WRCOG Executive Committee Adopt WRCOG Resolution Number 39-17; A Resolution of the Executive Committee of the Western Riverside Council of Governments Amending the Conflict of Interest Code pursuant to the Political Reform Act of 1974.*
- H. **PACE Programs Activities Update** **Crystal Adams** **P. 121**
- Requested Action:** 1. *Receive and file.*

7. REPORTS / DISCUSSION

- A. Economic Development Initiative and Presentation From Riverside County EDA *Jennifer Ward, WRCOG* P. 133

Requested Action: 1. Discuss and provide direction.

- B. Transportation Uniform Mitigation Fee (TUMF) Program Activities Update *Chris Gray, WRCOG* P. 135

Requested Action: 1. Receive and file.

- C. Grant Writing Assistance Program Guidelines *Chris Tzeng, WRCOG* P. 139

Requested Action: 1. Approve the Grant Writing Assistance Program Guidelines.

- D. Community Choice Aggregation Activities Update *Barbara Spoonhour, WRCOG* P. 143

Requested Action: 1. Receive and file.

8. REPORT FROM THE EXECUTIVE DIRECTOR *Rick Bishop*

9. ITEMS FOR FUTURE AGENDAS *Members*

Members are invited to suggest additional items to be brought forward for discussion at future Technical Advisory Committee meetings.

10. GENERAL ANNOUNCEMENTS *Members*

Members are invited to announce items/activities which may be of general interest to the Technical Advisory Committee.

11. NEXT MEETING: The next Technical Advisory Committee meeting is scheduled for Thursday, September 21, 2017, at 9:30 a.m., in the County of Riverside Administrative Center, 5th Floor, Conference Room C.

12. ADJOURNMENT

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Western Riverside Council of Governments

Technical Advisory Committee

Staff Report

Subject: Selection of Technical Advisory Committee Chair, Vice-Chair, and 2nd Vice- Chair for Fiscal Year 2017/2018

Contact: Rick Bishop, Executive Director, rbishop@wrcog.us, (951) 955-8303

Date: August 17, 2017

The purpose of this item is to select Technical Advisory Committee leadership positions for Fiscal Year 2017/2018.

Requested Action:

1. Select Technical Advisory Committee Chair, Vice-Chair, and 2nd Vice-Chair positions for Fiscal Year 2017/2018.

WRCOG's Committee leadership positions are selected at the start of each fiscal year. At the 2017 General Assembly, the leadership for the Executive Committee for Fiscal Year 2017/2018 was selected as follows:

Chair: Debbie Franklin, City of Banning
 Vice-Chair: Chuck Washington, County of Riverside
 2nd Vice-Chair: Bonnie Franklin, City of Hemet

Historically, the Technical Advisory Committee positions have coincided with those of the WRCOG Executive Committee, although there are no requirements for this pattern stipulated in WRCOG's JPA or Bylaws.

Prior Action:

None.

Fiscal Impact:

None.

Attachment:

None.

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1. CALL TO ORDER

The special meeting of the Technical Advisory Committee was called to order at 9:41 a.m. by Chairman Gary Nordquist at the County of Riverside Administrative Center, 5th Floor, Conference Room C.

2. ROLL CALL

Members present:

Bonnie Johnson, City of Calimesa
Michelle Nissen, City of Eastvale
Gary Thompson, City of Jurupa Valley
Grant Yates, City of Lake Elsinore
Michelle Dawson, City of Moreno Valley
Ivan Holler, City of Murrieta
Andy Okoro, City of Norco
Richard Belmudez, City of Perris
John Russo, City of Riverside (9:49 a.m. arrival)
Rob Johnson, City of San Jacinto
Gary Nordquist, City of Wildomar (Chair)
George Johnson, County of Riverside (9:41 a.m. arrival)
Dan Fairbanks, March Joint Powers Authority

Staff present:

Steve DeBaun, Legal Counsel
Rick Bishop, Executive Director
Barbara Spoonhour, Director of Energy and Environmental Programs
Chris Gray, Director of Transportation
Christopher Tzeng, Program Manager
Daniel Ramirez-Cornejo, Staff Analyst
Cynthia Mejia, Staff Analyst
Janis Leonard, Executive Assistant

Guests present:

Ryan Baron, Best Best & Kreiger
Clint Lorimore, Building Industry Association, Riverside
David Dazlich, Building Industry Association, Riverside
Moises Lopez, City of Riverside

3. PLEDGE OF ALLEGIANCE

Michelle Nissen, City of Eastvale, led the members and guests in the Pledge of Allegiance.

4. PUBLIC COMMENTS

There were no public comments

5. CONSENT CALENDAR (Note: agenda items were taken out of order.) (R. Johnson/Thompson)
13 yes; 0 no; 0 abstention. Items 5.A – 5.B were approved by a unanimous vote of those members present. The Cities of Banning, Canyon Lake, Corona, Hemet, Menifee, and Temecula, the Eastern

Municipal Water District, the Western Municipal Water District, and the Morongo Band of Mission Indians were not present.

A. Summary Minutes from the May 18, 2017, Technical Advisory Committee meeting.

Action: 1. *Approved the Summary Minutes from the May 18, 2017, Technical Advisory Committee meeting.*

B. Legislative Activities Update

Actions: 1. *Recommended that the Executive Committee adopt an “Oppose” position for Senate Bill (SB) 649 (Hueso) and authorize the Executive Director to transmit a letter on behalf of WRCOG indicating WRCOG’s opposition for SB 649.*

2. *Recommended that the Executive Committee adopt a “Support with amendments” position for Senate Bill (SB) 242 (Skinner) and authorize the Executive Director to transmit a letter on behalf of WRCOG indicating WRCOG’s support with amendments for SB 242.*

6. REPORTS / DISCUSSION

A. Transportation Uniform Mitigation Fee (TUMF) Program Nexus Study Update and request to provide recommendation to Executive Committee on Nexus Study approval and establishment of fee structure

Christopher Gray reported that the single-family residential fee is proposed to increase by 6%; the multi-family residential fee decreases; industrial increases by 3%; the retail fee increases by 17%; and the service fee increases by 9%.

There are many ways to implement or phase-in a fee increase. The Program is on pace to collect approximately \$40M over the next year. If the Nexus Study is approved, the City of Beaumont rejoins the Program, which will generate additional revenue.

The TUMF Nexus Study Ad Hoc Committee recommends a freeze to the retail fee for two years, followed by a two-year freeze plus a two-year phase-in for the single-family land use fees. The Public Works Committee recommended a 50% phase-in of the single-family residential and retail land uses beginning July 1, 2018. The Administration & Finance Committee recommended a three-year phase-in for multi-family residential; a fee of \$7.50 / sq. ft. for retail; and directed staff to determine a blended rate for service. The single-family residential and industrial fees will remain as presented.

Staff was requested to review the active senior living calculation; a change was approved by the Executive Committee at its June 5, 2017, meeting. Member jurisdictions, as well as stakeholders from the retail and development communities, have asked for a phase-in, freezing, or reduction of fees. As part of the comprehensive fee study with regard to development, the proposed 17% increase in retail is a significant increase in development costs.

All implementation options have a fiscal impact of 5% or less on the Program. Freezing the fees would be the most impactful.

Staff is reviewing alternative means to calculate shopping center development given the various land uses. Distribution / fulfillment center calculations are being reviewed. A regional commuting study is underway to identify where Riverside County residents are traveling to work. The Riverside County Transportation Commission (RCTC) recently kicked off a study to identify a fee on logistic centers. WRCOG received a grant from the Southern California Association of Governments to research how to implement SB 743. Staff is working with the

County and RCTC to update the RIVTAM model. The Regional Active Transportation Plan is nearly complete and may be incorporated into future Nexus studies.

Committee member Gary Thompson asked how long it takes to implement any fee changes.

Steve DeBaun, WRCOG legal counsel, responded that each member jurisdiction must adopt an ordinance; the timeframe for a fee imposed is 60 days. A certain date will be indicated in the ordinances.

The Committee discussed timeframe mechanisms and options for implementation of adopted fees.

Actions: 1. *Recommended that the Executive Committee approve the 2016 TUMF Nexus Study.*

(G. Johnson/R. Johnson) 13 yes; 0 no; 0 abstention. Item 6.A.1 was approved by a unanimous vote of those members present. The Cities of Banning, Canyon Lake, Corona, Hemet, Menifee, and Temecula, the Eastern Municipal Water District, the Western Municipal Water District, and the Morongo Band of Mission Indians were not present.

2. *Recommended a three-year phase-in for single-family residential; a fee reduction to \$7.50 / sq. ft. for retail; and directed staff to determine a blended rate for service. The multi-family residential and industrial fees will remain as presented.*

(G. Johnson/Russo) 13 yes; 0 no; 0 abstention. Item 6.A.2 was approved by a unanimous vote of those members present. The Cities of Banning, Canyon Lake, Corona, Hemet, Menifee, and Temecula, the Eastern Municipal Water District, the Western Municipal Water District, and the Morongo Band of Mission Indians were not present.

B. Community Choice Aggregation Program Activities Update

Barbara Spoonhour reported that staff has recently developed a draft JPA and Bylaws, and is working on a Scope of Work for WRCOG services to the Community Choice Aggregation (CCA). A marketing firm has been selected to develop the CCA name, logo, branding, and marketing strategy. An interview panel was convened and is scheduling a second round of interviews of consulting firms to assist with the implementation of the CCA. Staff are meeting with member jurisdictions to provide updates on the Program. Ordinances are being developed and will need to be adopted by member jurisdictions. Staff is also recruiting for a CCA Director.

A governing board is anticipated to be established in October, an implementation plan is expected to be filed with the California Public Utilities Commission in October, and the Program is scheduled to launch municipal and commercial services in July 2018, with residential services to follow shortly thereafter.

Committee member Michele Nissen volunteered to participate in the development of the CCA name, logo, branding, and marketing strategy.

Action: 1. *Requested that member jurisdictions forward the draft CCA Joint Powers Agreement and Bylaws to its respective City Attorneys for review and comment.*

(Belmudez/Nissen) 13 yes; 0 no; 0 abstention. Item 6.B was approved by a unanimous vote of those members present. The Cities of Banning, Canyon Lake, Corona, Hemet, Menifee, Temecula, the Eastern Municipal Water District, the Western Municipal Water District, and the Morongo Band of Mission Indians were not present.

7. REPORT FROM THE EXECUTIVE DIRECTOR

Rick Bishop thanked member jurisdictions for their hard work on the TUMF Nexus Study update. General Assembly is sold out.

8. ITEMS FOR FUTURE AGENDAS

There were no items for future agendas.

9. GENERAL ANNOUNCEMENTS

Christopher Gray announced that the Urban Land Institute is holding an event on June 21, 2017, on the future of retail.

Michelle Nissen announced the City of Eastvale's annual Picnic in the Park event scheduled for June 23 – 25, 2017.

The Committee congratulated George Johnson on his new position.

10. NEXT MEETING

The next regular Technical Advisory Committee meeting is scheduled for Thursday, July 20, 2017, at 9:30 a.m., in the County of Riverside Administrative Center, 5th Floor, Conference Room C.

11. ADJOURNMENT

The meeting of the Technical Advisory Committee adjourned at 10:43 a.m.



Western Riverside Council of Governments

Technical Advisory Committee

Staff Report

Subject: Finance Department Activities Update Including Agency Audit and Upcoming Annual TUMF Compliance Review by Agencies

Contact: Ernie Reyna, Chief Financial Officer, ereyna@wrcog.us, (951) 955-8432

Date: August 17, 2017

The purpose of this item is to provide an update on the financial audit of Fiscal Year (FY) 2016/2017 and the upcoming annual TUMF compliance review for FY 2016/2017.

Requested Action:

1. Receive and file.

FY 2016/2017 financial audit

Auditors from Rogers, Anderson, Malody, & Scott (RAMS) have concluded the interim portion of the financial audit and up next is final fieldwork, which is anticipated to occur during the week of August 28, 2017. Included in the fieldwork will be the wrap up of payroll, accounts payable, and the trial balance of WRCOG. The final Comprehensive Annual Financial Report is expected to be issued no later than November 15, 2017, and will be reviewed by the Finance Directors' Committee. It will then be presented at the November or December 2017 Administration & Finance Committee meeting, with the Executive Committee receiving the report no later than its January 8, 2018, meeting.

Annual TUMF review of participating agencies

WRCOG is currently contacting member agency staff and setting up reviews of TUMF activities for FY 2016/2017. The reviews provide WRCOG an opportunity to meet with staff that are assigned to TUMF, including planning, public works, and finance staff. During the review, WRCOG will randomly select remittance reports and test that the correct land use type has been used and calculated properly. The TUMF review is expected to be completed by December, with reports being issued to City Managers around January.

Prior Action:

August 7, 2017: The Executive Committee received report.

Fiscal Impact:

This item is informational only; therefore, there is no fiscal impact.

Attachment:

None.

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Western Riverside Council of Governments Technical Advisory Committee

Staff Report

Subject: Financial Report Summary Through June 2017

Contact: Ernie Reyna, Chief Financial Officer, ereyna@wrcog.us, (951) 955-8432

Date: August 17, 2017

The purpose of this item is to provide a monthly summary of WRCOG's financial statements in the form of combined Agency revenues and costs.

Requested Action:

1. Receive and file.

Attached for Committee review is the Financial Report summary through June 2017.

Prior Action:

August 7, 2017: The Executive Committee received report.

Fiscal Impact:

This item is informational only; therefore there is no fiscal impact.

Attachment:

1. Financial Report summary – June 2017.

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Item 6.C

Financial Report Summary Through
June 2017

Attachment 1

Financial Report summary –
June 2017

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Western Riverside Council of Governments
Monthly Budget to Actuals
For the Month Ending June 30, 2017

		Approved 6/30/2017 Budget	Thru 6/30/2017 Actual	Remaining 6/30/2017 Budget
Revenues				
40001	Member Dues	309,410	306,410	3,000
40008	Gov Relation-Revenue	2,200,000	-	2,200,000
42001	Other Revenue	-	8,544	(8,544)
42004	General Assembly	300,000	198,350	101,650
40601	WRCOG HERO	1,963,735	1,221,983	741,752
40602	SCE Phase II	57,000		57,000
40603	CA HERO	7,615,461	5,840,266	1,775,195
40605	The Gas Company Partnership	62,000	58,654	3,346
40606	SCE WRELP	4,692	77,698	(73,006)
40607	WRCOG HERO Commercial	27,500	64,278	(36,778)
40609	SCE Phase III	10,643	10,634	9
40611	WRCOG HERO Recording Revenue	335,555	264,212	71,343
40612	CA HERO Recording Revenue	1,301,300	1,157,684	143,616
40614	Active Transportation	200,000	50,254	149,746
41201	Solid Waste	107,915	98,163	9,752
41401	Used Oil Opportunity Grants	290,227	288,820	1,407
41402	Air Quality-Clean Cities	228,000	150,500	77,500
40616	CCA Revenue	247,950	102,095	145,855
40617	Energy Admin Revenue	31,678	30,000	1,678
41701	LTF	701,300	701,250	50
43001	Commercial/Service - Admin (4%)	37,074	83,668	(46,594)
43002	Retail - Admin (4%)	142,224	134,965	7,259
43003	Industrial - Admin (4%)	128,446	179,186	(50,739)
43004	Residential/Multi/Single - Admin (4%)	1,067,271	179,186	888,086
43005	Multi-Family - Admin (4%)	224,983	96,026	128,957
43001	Commercial/Service	889,786	2,025,491	(1,135,705)
43002	Retail	3,413,375	3,239,164	174,211
43003	Industrial	3,082,710	4,299,547	(1,216,837)
43004	Residential/Multi/Single	25,614,514	22,339,926	3,274,588
43005	Multi-Family	5,399,595	2,304,629	3,094,966
	Total Revenues	61,037,038	45,403,316	15,525,416
Expenditures				
Wages and Benefits				
60001	Wages & Salaries	2,379,171	2,278,569	100,602
61000	Fringe Benefits	578,219	525,083	53,136
	Total Wages and Benefits	2,957,390	2,803,652	153,738
General Operations				
63000	Overhead Allocation	1,520,636	1,391,625	129,011
65101	General Legal Services	566,612	726,255	(159,643)
65401	Audit Fees	25,000	23,879	1,121
65505	Bank Fees	25,500	162,642	(137,142)
65507	Commissioners Per Diem	46,950	59,700	(12,750)
65530	Interest Expense	-	110,526	(110,526)
73001	Office Lease	145,000	136,576	8,424
73003	WRCOG Auto Fuels Expense	678	580	98
73004	WRCOG Auto Maint Expense	33	59	(26)
73101	Special Mail Svcs	1,500	1,028	472
73102	Parking Validations	4,380	4,315	65
73104	Staff Recognition	1,200	681	519
73107	Event Support	187,278	118,151	69,127
73108	General Supplies	22,128	16,117	6,011
73109	Computer Supplies	8,937	5,989	2,948
73110	Computer Software	13,818	24,696	(10,878)
73111	Rent/Lease Equipment	25,000	32,174	(7,174)
73113	Membership Dues	25,946	29,779	(3,833)
73114	Subscriptions/Publications	8,789	18,069	(9,280)
73115	Meeting Support/Services	16,646	9,564	7,082
73116	Postage	5,759	4,853	906
73117	Other Household Expenditures	5,205	5,748	(543)
73118	COG Partnership Agreement	40,000	23,947	16,053
73119	Storage	16,000	6,671	9,329
73120	Printing Services	20,786	234	20,552
73122	Computer Hardware	4,000	1,148	2,852
73126	EV Charging Equipment	49,605	60,490	(10,885)
73201	Communications-Regular	2,000	5,771	(3,771)

Western Riverside Council of Governments
Monthly Budget to Actuals
For the Month Ending June 30, 2017

		Approved 6/30/2017 Budget	Thru 6/30/2017 Actual	Remaining 6/30/2017 Budget
73203	Communications-Long Distance	1,200	227	973
73204	Communications-Cellular	12,462	12,316	146
73206	Communications-Comp Sv	42,558	61,397	(18,839)
73209	Communications-Web Site	15,600	1,694	13,906
73301	Equipment Maintenance - General	8,407	12,496	(4,089)
73302	Equipment Maintenance - Computers	14,264	29,521	(15,257)
73405	Insurance - General/Business Liason	73,740	75,125	(1,385)
73407	WRCOG Auto Insurance	1,570	1,498	72
73502	County RCIT	2,500	800	1,700
73506	CA HERO Recording Fee	1,636,855	1,314,325	322,530
73601	Seminars/Conferences	23,405	16,189	7,217
73605	General Assembly	300,000	95,962	204,038
73611	Travel - Mileage Reimbursement	23,174	20,147	3,027
73612	Travel - Ground Transportation	9,212	4,662	4,551
73613	Travel - Airfare	23,369	16,336	7,033
73620	Lodging	19,016	14,105	4,911
73630	Meals	12,107	8,730	3,377
73640	Other Incidentals	17,368	12,577	4,791
73650	Training	12,200	3,119	9,081
73703	Supplies/Materials	34,851	4,474	30,377
73704	Newspaper Ads	21,863	12,200	9,663
73706	Radio & TV Ads	53,833	73,133	(19,300)
73801	Staff Education Reimbursement	25,000	2,500	22,500
XXXXX	TUMF Projects	38,399,980	49,437,987	(11,038,007)
85101	Consulting Labor	3,519,374	2,941,026	578,348
85102	Consulting Expenses	238,733	9,535	229,198
85180	BEYOND Expenditures	1,618,186	430,392	1,187,794
90101	Computer Equipment/Software	40,790	32,208	8,582
90501	Office Improvements	27,654	3,276	24,378
Total General Operations		52,937,417	55,660,031	(2,722,614)
Total Expenditures		55,894,807	58,463,683	(2,568,876)





Western Riverside Council of Governments

Technical Advisory Committee

Staff Report

Subject: Regional Streetlight Program Activities Update

Contact: Tyler Masters, Program Manager, tmasters@wrcog.us, (951) 955-8378

Date: August 17, 2017

The purpose of this item is to provide the Committee with an update on the steps that member jurisdictions are taking to acquire their streetlights and participate in the Program, provide a financing update on the financing documents, and inform the Committee on the status of the Streetlight O&M RFP / LED lighting RFQ process.

Requested Action:

1. Recommend the Executive Committee direct the Executive Director to negotiate and enter into a contract with Siemens for Streetlight retrofit and ongoing operations & maintenance services once jurisdictional streetlights have been acquired and retrofitted.

WRCOG's Regional Streetlight Program will assist member jurisdictions with the acquisition and retrofit of their Southern California Edison (SCE)-owned and operated streetlights. The Program has three phases, which include: 1) streetlight inventory; 2) procurement and retrofitting of streetlights; and 3) ongoing operations and maintenance. The overall goal of the Program is to provide significant cost savings to the member jurisdictions.

Background

At the direction of the Executive Committee, WRCOG has developed a Regional Streetlight Program that will allow jurisdictions (and Community Service Districts) to purchase streetlights within their boundaries that are currently owned / operated by SCE. Once the streetlights are owned by the member jurisdiction, the lamps will then be retrofitted to Light Emitting Diode (LED) technology to provide more economical operations (i.e., lower maintenance costs, reduced energy use, and improvements in public safety). Local control of the streetlight system allows jurisdictions opportunities to enable future revenue generating opportunities such as digital-ready networks, and telecommunications and information technology strategies.

The goal of the Program is to provide cost-efficiencies for local jurisdictions through the purchase, retrofit, and maintenance of streetlights within jurisdictional boundaries, without the need of additional jurisdictional resources. As a regional Program, WRCOG is working with jurisdictions to move through the acquisition process, develop financing recommendations, develop / update regional and community-specific streetlight standards, and implement a regional operations and maintenance agreement that will increase the level of service currently being provided by SCE.

Regional Streetlight acquisition update

The following jurisdictions have approved City Council action / direction to acquire the SCE-owned streetlights in their jurisdiction's boundaries (this accounts for approximately 47,000 of the 55,000 acquirable streetlights in the subregion):

October 18, 2016 / March 21, 2017: City of Moreno Valley
 January 24, 2017: City of Lake Elsinore
 February 15, 2017: City of Menifee
 February 28, 2017: City of Temecula
 March 7, 2017: City of Murrieta
 March 8, 2017: City of Wildomar
 March 13, 2017: Jurupa Community Services District
 March 14, 2017: City of Hemet
 March 28, 2017: City of Perris
 March 28, 2017: City of San Jacinto
 April 12, 2017: City of Eastvale

Next Steps: To date, the 11 WRCOG jurisdictions listed above have approved a Purchase and Sales Agreement. Once executed by the jurisdiction, SCE will package the Agreement and transmit it to the California Public Utilities Commission (CPUC). Once SCE submits the package, the CPUC approval process can take up to 12 months (depending on valuation price). Jurisdictions with estimated streetlight sales prices exceeding \$5 million will move forward in the CPUC as a “full filing,” which requires CPUC action and can take upwards of six to 12 months for approval. For jurisdictions with estimated streetlights sales prices of under \$5 million, those will move forward in the CPUC as an “advice filing,” and can be administratively approved within two to six months.

The table below provides the status for each participating jurisdiction involved with the Program. This timeline is tentative and will depend on the review that is being done within the City, SCE, and the CPUC.

Acquisition Process	Amendment Executed	SCE review	SCE sends to CPUC	CPUC approval date	SCE transition start	Phase 1 transition (retrofit start)	Phase 2 (if needed)	Phase 3 (if needed)
Retrofit, O&M, LED fixture, and financing GOALS				Retrofit, O&M service selection GOAL	Finance Closing and LED selection GOAL	LED fixture delivery date GOAL		
Example City	Start date	+ 30 days	+ 30 days	+ 45 days (120 for full)	+ 60 days	+ 30 days	+ 30 days	+ 30 days
Eastvale	7/26/2017	complete	8/25/2017	10/9/2017	12/8/2017	1/7/2018		
Hemet	TBD	complete						
Jurupa Community Services District	7/20/2017	complete	8/19/2017	10/3/2017	12/2/2017	1/1/2018	1/31/2018	3/2/2018
Lake Elsinore	8/9/2017	complete	9/8/2017	10/23/2017	12/22/2017	1/21/2018	2/20/2018	
Menifee	8/1/2017	complete	8/31/2017	10/15/2017	12/14/2017	1/13/2018	2/12/2018	3/14/2018
Moreno Valley	TBD	complete						
Murrieta	7/27/2017	complete	8/26/2017	10/10/2017	12/9/2017	1/8/2018	2/7/2018	3/9/2018
Perris	8/8/2017	9/7/2017	10/7/2017	11/21/2017	1/20/2018	2/19/2018	3/21/2018	
San Jacinto	8/7/2017	9/6/2017	10/6/2017	11/20/2017	1/19/2018	2/18/2018		
Temecula	7/24/2017	complete	8/23/2017	12/21/2017	2/19/2018	3/21/2018	4/20/2018	5/20/2018
Wildomar	7/24/2017	8/23/2017	9/22/2017	11/6/2017	1/5/2018	2/4/2018		
One phase = 3,000/poles/month								

Recently, WRCOG staff and its financial advisor (PFM) held finance meetings with the jurisdictions moving forward with streetlight acquisition to provide an update on the regional financing option that Bank of America can provide to interested member jurisdictions. During these meetings, WRCOG staff and PFM informed jurisdictional staff about the draft leasing documents that will be distributed to them for upcoming City Council / Board approval, as well as informing the jurisdictions about their updated cash flow models, which take into account the funding amount that each jurisdiction will need to purchase the streetlights, retrofit to LED, operate and maintain the streetlights, and implement a re-lamp reserve for future LED lighting.

Financing update

In March 2016, WRCOG, with support from its financial advisor, released a Request for Bids (RFB) to identify financing institutions with the opportunity to finance the costs of both streetlight acquisition and LED retrofit, and services associated with each. In September 2016, WRCOG’s Executive Committee recommended - for jurisdictions interested in using financing for the acquisition and retrofitting of streetlights - to utilize Banc of

America Public Capital Corporation (BAPCC), which was deemed most responsive by WRCOG staff and its financial advisor during the bid process for being able to provide the most competitive financing for the Regional Streetlight Program.

PFM and WRCOG staff have worked with BAPCC this past year to develop the following financing structure:

Structure	Equipment Leaser Purchase Agreement
Lessee	Jurisdiction
Lessor	Banc of America Public Capital Corp
Security	Security interest in the equipment being financed will be evidenced by filing a UCC-1 Financing Statement with respect to the equipment
Term	Up to 15 years, plus installation period not to exceed 12 months
Financed Amount	Amount adequate to purchase and retrofit to LED all streetlights and any reasonable related soft costs.
Indicative Interest Rate	Based on the average life U.S Treasury Rate Swap plus a spread. *Taxable rate recommended
Payments	Semi-annual payments of principal and interest
Option Prepayment	In whole on a payment date after the 5 th anniversary of the closing date with a 2% premium
Optional payments in addition to Principal & Interest	Program established: Operation & Maintenance including administration, re-lamp reserve
Revenue Generation	Unrestricted by lessor

*Taxable rate recommended to retain revenue potential due to revenue generation restrictions on tax-exempt financing and SB 649.

On July 27, 2017, WRCOG and PFM staff provided an update to the Finance Directors' Committee on the regional financing available for each jurisdiction. This financing opportunity covers the cost of acquiring the streetlight from SCE, the cost of retrofit streetlights to LED, and all services associated with both acquisition and retrofit of the streetlight systems.

Additional information on the financing structure and associated agreements will be provided to WRCOG's Committees for review within the coming months.

Request for Proposal (RFP) for streetlight retrofit and operations & maintenance

On March 10, 2017, WRCOG released an RFP for streetlight retrofit and operations & maintenance of the lighting fixtures that are going to be acquired on behalf of the participating jurisdictions. With several jurisdictions moving forward with acquisition, SCE will no longer provide operations or maintenance on the acquired poles. SCE will continue to maintain the underground wiring that connects these streetlights to SCE's grid; however, the jurisdiction will own, and need to maintain and operate, the streetlight fixture and pole from the base of the pole up.

WRCOG sought a vendor that would provide cost effective retrofit, operation, and maintenance needs to support the transition of current streetlight technologies (high and low-pressure sodium vapor) lights to LED lighting, maintain / respond to streetlight knockdown / damaged poles, keeping in account economies of scales, and increasing the level of services to the participating jurisdictions in Western Riverside County. The selected vendor will work with WRCOG and jurisdictional staff to provide supplemental assistance with the recording documents of each streetlight, installation of housing shields, complying with all state mandated laws, and coordinating with the removal and disposal of any existing luminaire heads / hazardous materials.

WRCOG received seven responses to the RFP. WRCOG staff, PFM, and representatives from four member jurisdictions comprised the Evaluation Committee. The Evaluation Committee reviewed the proposals, and interviewed the top proposers during the week of June 19, 2017. A second round of interviews was held the week of July 24, 2017, with the top two candidates to ensure they fully understand the online work order management system that WRCOG, jurisdictional staff, and residents throughout Western Riverside County will

have access to in order to submit work order requests for streetlight maintenance. The Evaluation Committee is recommending Siemens provide streetlight retrofit, operations, and maintenance services to interested member jurisdictions within Western Riverside County.

LightSuite Outdoor Lighting Resource Update

LightSuite is a package of seven outdoor lighting resources developed to help interested member jurisdictions with implementation / regulation of outdoor lighting within their community. This package was created through the analysis of the Streetlight Demonstration Area that was held in the City of Hemet, analysis of existing lighting regulations, and analysis and incorporation of recommendations of LED technologies by Palomar Mountain, CalTech, and the American Medical Association. The Streetlight Demonstration Area had over 150 lighting fixtures from 12 different lighting manufactures. WRCOG hosted five guided tours to identify attendees' preference in lighting. Attendees from these tours included elected officials, city staff, astronomers, lighting specialists, and residents throughout Riverside and San Bernardino Counties.

The LightSuite contains the following seven components:

- **LightSuite 1:** Specification LED Lighting fixtures for New and Relocated Street Lighting Systems
 - o Provides a review of specifications for the selection of new and relocated LED street lighting systems.
- **LightSuite 2:** Design Standards for New or Relocated Street lighting
 - o Provides a review of standards for street lighting.
- **LightSuite 3:** Specifications of LED Lighting fixtures for Replacement of Cobra head Street Lighting Systems
 - o Suggested specification sheets for replacement of legacy high intensity discharge street lighting systems.
- **LightSuite 4:** Design Standards for LED Replacement Street Lighting
 - o Provides information on standards for street lighting that will help mitigate light pollution, reduce energy consumption, and minimizing light trespass.
- **LightSuite 5:** Proposed Riverside County Ordinance 655P Regulating Outdoor Lighting
 - o Ordinance that helps to provide regulations for outdoor lighting.
- **LightSuite 6:** Proposed Modernization of Riverside County Ordinance No. 915P Regulating Outdoor Lighting
 - o Ordinance that illustrates requirements for outdoor lighting, health, property and residential areas.
- **LightSuite 7:** Suggested Community Outdoor Lighting Ordinance
 - o Illustrates goals to promote and protect public health, safety, welfare, and quality of life by establishing regulations for outdoor lighting.

The LightSuite package is intended to provide template lighting design standards for local jurisdictions to use, as related to existing streetlight system retrofits and new development installations. The package is not intended to recommend one manufacturer over another, but simply to demonstrate the manufacturers that provided products and technologies for the Demonstration Area that met the minimum standards identified as part of the LightSuite.

On August 10, 2017, WRCOG staff presented the Final Draft LightSuite package to the Planning Directors and Public Works Directors Committees. Both Committees received the original draft document in March and May 2017 to solicit comments; no direct comments from either of the Committees was received. However, discussion on the draft document did occur at both Committee meetings and this input was included into the Final Draft. Staff is requesting that the Technical Advisory Committee review and provide any additional comments on the Final Draft by August 28, 2017, so that staff can have the Executive Committee finalize the document at its September 11, 2017, meeting. Upon finalization of the document, staff will distribute it to with

the member jurisdictions for their future use in development of outdoor lighting standards, ordinances, and future plans and development.

In addition, the document will be used as a guide for the selection of LED fixtures. Staff is developing a Request for Quotation (RFQ) for the selection of LED fixtures that will be installed once a jurisdiction acquires the streetlights. It is anticipated that the RFQ would be released shortly after the September Executive Committee meeting.

Prior Actions:

<u>August 10, 2017:</u>	The Public Works' Committee received report.
<u>August 10, 2017:</u>	The Planning Directors' Committee received report.
<u>July 27, 2017:</u>	The Finance Directors' Committee received report.
<u>July 10, 2017:</u>	The Executive Committee received report.

Fiscal Impact:

Activities for the Regional Streetlight Program are included in the Agency's adopted Fiscal Year 2017/2018 Budget.

Attachment:

1. Draft LightSuite.

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Item 6.D

Regional Streetlight Program
Activities Update

Attachment 1

Draft LightSuite

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Streetlight Program



WRCOG LightSuite For Outdoor Lighting Regulations

August 1, 2017

Introduction

Most communities have some sort of outdoor lighting regulation. Older regulations tend to focus on preventing objectionable light trespass and overlighting of sites, but more recently ordinances strive to prevent environmental impacts and to preserve dark skies at night for astronomy and star-gazing. The urgency of creating modernized lighting regulations recently increased dramatically with the 2016 announcement by the American Medical Association of its concern about the impact on human health and the environment caused by some types of LED lighting.

Riverside County is one of the first governing bodies in the world to restrict outdoor lighting to preserve the dark night sky. While the intent was primarily to benefit the Palomar Observatory, it also served to maintain one of the largest areas of dark skies in populated areas of Southern California, considered by many to be a significant contribution to quality of life in the County. But the original ordinances have been rendered obsolete by LED technology. In fact, LED lighting is now being installed throughout the County and without modern regulations, years of care and concern will be quickly undone by the careless installation of LED's that don't meet the recommendations of the AMA

As part of the WRCOG LED Street Lighting Conversion project, a group of modern lighting regulation documents, called the LightSuite, has been developed for use by WRCOG member communities and Riverside County. In addition to ensuring that all LED lighting complies with AMA recommendations, LightSuite modernizes all existing ordinances and coordinates them with State of California outdoor lighting regulations put in place since 2006. Properly implemented, LightSuite will help improve planning, permitting and enforcement in every community

In addition, the technical aspects of LightSuite have been reviewed by Cal Tech's principal astronomers and scientists and determined to be consistent with best practices to mitigate light pollution that could affect the work of Palomar Observatory.

Regulating Outdoor Lighting

In California, outdoor lighting became restricted by the California Code of Regulations on January 1, 2006. Title 24 Part 1 instituted a statewide lighting zone system. It has default zones for the entire state, but communities can change the zones throughout their jurisdiction. Title 24 Part 6, the Energy Efficiency standards, restrict the amount of light by limited power (watts) and energy per zone and need – including, to a certain extent, signs. Title 24, Part 11, CAL Green, the statewide sustainability code, restricts upward light, glare and off-site impacts per the lighting zone using the BUG (Backlight Uplight Glare) rating system for outdoor lighting. **Communities already have these tools** to regulate lighting through planning, permitting and inspection of all new buildings as well as for renovations, remodeling and additions.

But Title 24 alone is not adequate. It does not restrict residential lighting in specific important ways that have been proven to be needed for communities to resolve the common complaints among neighbors. It does not restrict streetlights. Communities must individually develop or modernize and implement several standards and regulations:

1. A **lighting ordinance** regulating lighting for buildings, site development such as parking lots and walkways, and other uses of outdoor lighting other than streets or signs.
2. A **design standard** that specifies the design of street lighting for developer projects that will become part of the community lighting system.
3. **Street lighting standards** for new roadways and intersections and for maintaining or revising existing street lighting.
4. **Specifications** for all LED street lighting products.

The WRCOG LightSuite

This suite of proposed ordinances and standards is provided free of charge for use by WRCOG communities and includes the following:

- LightSuite 1 - Specification of LED Lighting fixtures for New and Relocated Street Lighting Systems
- Light Suite 2 – Design Standards for New or Relocated Street Lighting
- LightSuite 3 – Specifications of LED Lighting fixtures for Replacement of Cobrahead Street Lighting Systems
- LightSuite 4 – Design Standards for LED Replacement Street Lighting
- LightSuite 5 – Proposed Riverside County Ordinance 655P Regulating Outdoor Lighting
- LightSuite 6 – Proposed Modernization of Riverside County Ordinance 915P Regulating Outdoor Lighting
- LightSuite 7 – Suggested Community Outdoor Lighting Ordinance

For questions concerning the WRCOG LightSuite or the LED Street Light Program, feel free to contact Tyler Masters, WRCOG Project Manager, at tmasters@wrcog.us.

WRCOG LightSuite 1 Specification of LED Lighting fixtures for New and Relocated Street Lighting Systems	<u>4</u>
WRCOG LightSuite 2 Design Standards for New or Relocated Street Lighting	<u>19</u>
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**SPECIFICATION OF LED LIGHTING FIXTURES FOR NEW AND RELOCATED STREET
LIGHTING SYSTEMS**

PART 1 – GENERAL

1.1. SCOPE

Luminaires to be used for new and relocated LED street lighting systems.

1.2. REFERENCES

The publications listed below form a part of this specification to the extent referenced. Publications are referenced within the text by their basic designation only. Versions listed shall be superseded by updated versions as they become available.

A. American National Standards Institute (ANSI)

1. C136.2-2004 (or latest), American National Standard for Roadway and Area Lighting Equipment—Luminaire Voltage Classification
2. C136.10-2010 (or latest), American National Standard for Roadway and Area Lighting Equipment - Locking-Type Photocontrol Devices and Mating Receptacle Physical and Electrical Interchangeability and Testing
3. C136.15-2011 (or latest), American National Standard for Roadway and Area Lighting Equipment – Luminaire Field Identification
4. C136.22-2004 (R2009 or latest), American National Standard for Roadway and Area Lighting Equipment – Internal Labeling of Luminaires
5. C136.25-2009 (or latest), American National Standard for Roadway and Area Lighting Equipment – Ingress Protection (Resistance to Dust, Solid Objects and Moisture) for Luminaire Enclosures
6. C136.31-2010 (or latest), American National Standard for Roadway Lighting Equipment – Luminaire Vibration
7. C136.37-2011 (or latest), American National Standard for Roadway and Area Lighting Equipment - Solid State Light Sources Used in Roadway and Area Lighting.

- B. American Society for Testing and Materials International (ASTM)
 - 1. B117-09 (or latest), Standard Practice for Operating Salt Spray (Fog) Apparatus
 - 2. D1654-08 (or latest), Standard Test Method for Evaluation of Painted or Coated Specimens Subjected to Corrosive Environments
 - 3. D523-08 (or latest), Standard Test Method for Specular Gloss
 - 4. G154-06 (or latest), Standard Practice for Operating Fluorescent Light Apparatus for UV Exposure of Nonmetallic Materials
- C. Council of the European Union (EC)
 - 1. RoHS Directive 2002/95/EC, on the restriction of the use of certain hazardous substances in electrical and electronic equipment
- D. Federal Trade Commission (FTC)
 - 1. Green Guides, 16 CFR Part 260, Guides for the Use of Environmental Marketing Claims
- E. Illuminating Engineering Society of North America (IESNA or IES)
 - 1. DG-21-15, Design Guide for Residential Lighting
 - 2. DG-4-03 (or latest), Design Guide for Roadway Lighting Maintenance
 - 3. HB-10-11 (or latest), IES Lighting Handbook, 10th Edition
 - 4. LM-50-99 (or latest), IESNA Guide for Photometric Measurement of Roadway Lighting Installations
 - 5. IES RES-1-16, Measure and Report on Luminaire Dirt Depreciation (LDD) in LED Luminaires for Street and Roadway Lighting Applications
 - 6. LM-61-06 (or latest), Approved Guide for Identifying Operating Factors Influencing Measured Vs. Predicted Performance for Installed Outdoor High Intensity Discharge (HID) Luminaires
 - 7. LM-79-08 (or latest), IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products
 - 8. LM-80-08 (or latest), IESNA Approved Method for Measuring Lumen Maintenance of LED Light Sources
 - 9. RP-8-14 ANSI / IESNA American National Standard Practice for Roadway Lighting
 - 10. RP-16-10 (or latest), ANSI/IES Nomenclature and Definitions for Illuminating Engineering
 - 11. TM-3-95 (or latest), A Discussion of Appendix E - "Classification of Luminaire Lighting Distribution," from ANSI/IESNA RP-8-83
 - 12. TM-15-11 (or latest), Luminaire Classification System for Outdoor Luminaires
 - 13. TM-21-11 (or latest), Projecting Long Term Lumen Maintenance of LED Light Sources.

- F. Institute of Electrical and Electronics Engineers (IEEE)
 - 1. IEEE C62.41.2-2002 (or latest), IEEE Recommended Practice on Characterization of Surges in Low-Voltage (1000 V and less) AC Power Circuits
 - 2. ANSI/IEEE C62.45-2002 (or latest), IEEE Recommended Practice on Surge Testing for Equipment Connected to Low-Voltage (1000 V and Less) AC Power Circuits
- G. National Electrical Manufacturers Association (NEMA)
 - 1. ANSI/NEMA/ANSI C78.377-2008 (or latest), American National Standard for the Chromaticity of Solid State Lighting Products
- H. National Fire Protection Association (NFPA)
 - 1. NFPA-70-14 – National Electrical Code (NEC)
- I. Underwriters Laboratories (UL)
 - 1. 1449, Surge Protective Devices
 - 2. 1598, Luminaires and Poles
 - 3. 8750, Light Emitting Diode (LED) Equipment for Use in Lighting Products
- J. City Standards for Street Lighting
- K. Southern California Edison
 - 1. Standards for services to customer-owned street lighting systems
 - 2. Standard specifications for Public Works Construction (Greenbook) (latest edition), Subsections 700 and 701 and all included cross references.

1.3. RELATED DOCUMENTS

- A. LightSuite 2, Design Standards for New and Relocated Street Lighting Systems.

1.4. DEFINITIONS

- A. Lighting terminology used herein is defined in IES RP-16. See referenced documents for additional definitions.
 - 1. Exception: The term “driver” is used herein to broadly cover both drivers and power supplies, where applicable.
 - 2. Clarification: The term “LED light source(s)” is used herein per IES LM-80 to broadly cover LED package(s), module(s), and array(s).

1.5. QUALITY ASSURANCE

- A. Before approval and purchase, furnish luminaire sample(s) identical to product configuration(s) submitted for inspection. Furnish IES LM-79 testing of luminaire sample(s) to verify performance is within manufacturer-reported tolerances.
- B. After installation, Owner may perform IES LM-50 field measurements to verify performance requirements outlined in Table A, considering measurement uncertainties outlined in IES LM-61.

1.6. LIGHTING SYSTEM PERFORMANCE

A. Energy Conservation

1. Lighting Controls

- a. See separate controls specification identified in section 1.2 above, if applicable.
- b. See section 2.1-B below for driver control interface and performance requirements.
- c. See section 2.1-K below for photocontrol receptacle requirements.

B. Photometric Requirements

1. Luminaires shall meet the general criteria provided in the body of this specification and the criteria for each luminaire type defined in Table A.

1.7. REQUIRED SUBMITTALS FOR EACH LUMINAIRE TYPE DEFINED IN TABLE A AND EACH PROPOSED MANUFACTURER

A. Use Table D attached hereto for each proposed luminaire.

B. General submittal content shall include

1. Completed Appendix E submittal form
2. Luminaire cutsheets
3. Cutsheets for LED light sources
4. Cutsheets for LED driver(s)
 - a. If dimmable LED driver is specified, provide diagrams illustrating light output and input power as a function of control signal.
5. Cutsheets for surge protection device, if applicable
6. Instructions for installation and maintenance
7. Summary of luminaire recycled content and recyclability per the FTC Green Guides, expressed by percentage of luminaire weight

C. LM-79 luminaire photometric report(s) shall be produced by the test laboratory and include

1. Name of test laboratory
 - a. The test laboratory must hold National Voluntary Laboratory Accreditation Program (NVLAP) accreditation for the IES LM-79 test procedure.
2. Report number
3. Date
4. Complete luminaire catalog number
 - a. Provide explanation if catalog number in test report(s) does not match catalog number of luminaire submitted
 - i. Clarify whether discrepancy does not affect performance, e.g., in the case of differing luminaire housing color.
 - ii. If nominal performance of submitted and tested products differ, submit additional LM-79 report(s) and derivation as indicated in Appendix C.
5. Description of luminaire, LED light source(s), and LED driver(s)
6. Goniophotometry
7. Colorimetry

8. IES TM-21-11 calculations that derive the lumen maintenance (lamp lumen depreciation or LLD) factor applied to photometric calculations specified herein. TM-21 calculations must apply to the maximum LED case temperature from ISTMT, shall not extrapolate beyond six times the duration of available LM-80 test data, and submitted in the spreadsheet format of the ENERGY STAR TM-21 calculator.
- D. Predicted dirt depreciation per IES RES-1-16 Page 72 Tables 7 and 8 for the optical system used.
- E. Computer-generated point-by-point photometric analysis of maintained photopic light levels.
 1. Calculations shall be for maintained values, i.e. Light Loss Factor (LLF) < 1.0, where $LLF = LLD \times LDD \times LATF$, and
 - a. Lamp Lumen Depreciation (LLD)
 - i. Shall be 0.8 (L_{80}) for all luminaires
 - b. Luminaire Dirt Depreciation (LDD) per IES RES-1-16 and assuming 5-year cleaning cycle.
 - c. Luminaire Ambient Temperature Factor (LATF) = 1.00
 2. Use of IES HB-10 mesopic multipliers
 - a. Shall be disallowed herein, by assuming an S/P ratio of 1.00 for all luminaires.
 3. Calculation/measurement points shall be per IES RP-8.
 4. Software shall be AGI32 using roadway methods and insofar as possible, on representative sections of all planned new or relocated designs.
- F. Summary of Joint Electron Devices Engineering Council (JEDEC) or Japan Electronics and Information Technology Industries (JEITA) reliability testing performed for LED packages
- G. Summary of reliability testing performed for LED driver(s)
- H. Written product warranty as per section 1.7 below
- I. Safety certification and file number
 1. Applicable testing bodies are determined by the US Occupational Safety Health Administration (OSHA) as Nationally Recognized Testing Laboratories (NRTL) and include: CSA (Canadian Standards Association), ETL (Edison Testing Laboratory), and UL (Underwriters Laboratory).

1.8. WARRANTY

- A. Provide a minimum ten-year warranty covering maintained integrity and functionality of
 - 1. Luminaire housing, wiring, and connections
 - 2. LED light source(s)
 - a. Negligible light output from more than 10 percent of the LED packages constitutes luminaire failure.
 - 3. LED driver(s)
 - a. Failure to dim if connected to a control system and using proper components constitutes luminaire failure
- B. Warranty period shall begin upon installation, or as negotiated by owner such as in the case of an auditable asset management system.
- C. Warranty to provide for replacement of product with new product of equivalent appearance, CCT, CRI, and photometric performance.
- D. Upon request prior to approval, manufacturer may be required to provide proof of financial viability which may include any information deemed necessary to determine the manufacturer's ability to fully service their warranty.

PART 2 – PRODUCTS

2.1. LUMINAIRES

- A. General Requirements
 - 1. Luminaires shall be as specified for each type in Table B.
 - 2. Luminaire shall have an external label per ANSI C136.15
 - 3. Luminaire shall have an internal label per ANSI C136.22.
 - 4. Nominal luminaire input wattage shall account for nominal applied voltage and any reduction in driver efficiency due to sub-optimal driver loading.
 - 5. Luminaires shall start and operate in -20°C to +40°C ambient.
 - 6. Electrically test fully assembled luminaires before shipment from factory.
 - 7. Effective Projected Area (EPA) of the luminaire shall not exceed the EPA of the luminaire being replaced.
 - 8. Luminaires shall be designed for ease of component replacement and end-of-life disassembly.
 - 9. Luminaires shall be rated for the ANSI C136.31 Vibration Level indicated in Table A.
 - 10. LED light source(s) and driver(s) shall be RoHS compliant.
 - 11. Transmissive optical components shall be applied in accordance with OEM design guidelines to ensure suitability for the thermal/mechanical/chemical environment.

B. Driver

1. Rated case temperature shall be suitable for operation in the luminaire operating in the ambient temperatures indicated in section 2.1-A above.
2. Shall accept the voltage or voltage range indicated in Table A at 50/60 Hz, and shall operate normally for input voltage fluctuations of plus or minus 10 percent.
3. Shall have a minimum Power Factor (PF) of 0.90 at full input power and across specified voltage range.
4. Control signal interface
 - a. Luminaire types indicated "Required" in Table A shall accept a control signal as specified via separate controls specification referenced in section 1.2 above, e.g., for dimming.
 - b. Luminaire types indicated "Not Required" in Table A need not accept a control signal.

C. Electrical transient and surge immunity

1. Luminaire shall meet the "Elevated" requirements in Appendix D. Manufacturer shall indicate on submittal form (Appendix E) whether failure of the electrical immunity system can possibly result in disconnect of power to luminaire.

D. Electromagnetic interference

1. Shall have a maximum Total Harmonic Distortion (THD) of 20% at full input power and across specified voltage range.
2. Shall comply with FCC 47 CFR part 15 non-consumer RFI/EMI standards.

E. Electrical safety testing

1. Luminaire shall be listed for wet locations by an OSHA NRTL.
2. Luminaires shall have locality-appropriate governing mark and certification.

F. Painted or finished luminaire components exposed to the environment

1. Shall exceed a rating of six per ASTM D1654 after 1000hrs of testing per ASTM B117.
2. The coating shall exhibit no greater than 30% reduction of gloss per ASTM D523, after 500 hours of QUV testing at ASTM G154 Cycle 6.

G. Thermal management

1. Mechanical design of protruding external surfaces (heat sink fins) for shall facilitate hose-down cleaning and discourage debris accumulation.
2. Liquids or other moving parts shall be clearly indicated in submittals, shall be consistent with product testing, and shall be subject to review by Owner.

H. IES TM-15 limits for Backlight, Uplight, and Glare (BUG Ratings) shall be as specified for each luminaire type in Table A.

1. Calculation of BUG Ratings shall be for initial (worst-case) values, i.e., Light Loss Factor (LLF) = 1.0.

I. Minimum Color Rendering Index (CRI): 70.

- J. Correlated Color Temperature (CCT)
 - 1. Nominal 2700K (3000K for certain applications only).
 - 2. Allowable 2580 to 2870K per IES LM-79.
 - 3. Allowable -.006 to .006 D_{uv} per IES LM-79.
- K. The following shall be in accordance with corresponding sections of ANSI C136.37
 - 1. Wiring and grounding
 - a. All internal components shall be assembled and pre-wired using modular electrical connections.
 - 2. Mounting provisions
 - a. Specific configurations are indicated in Table A
 - 3. Terminal blocks for incoming AC lines
 - 4. Photo control receptacle
 - 5. Latching and hinging
 - 6. Ingress protection
- L. Luminaire Construction
 - 1. Weight
 - a. The net weight of each luminaires less than 46 (21 kg) pounds including mounting devices and backlight shields.
 - 2. Housing
 - a. Tool-less entry
 - b. Die-cast aluminum alloy meeting ASTM Specification A380. Alternate materials may be considered but shall be submitted to the Owner for review and approval.
 - c. Encloses the mounting hardware, LED arrays, control receptacle, terminal board, and electronic driver.
 - d. Includes a surface to facilitate leveling with a spirit level.
 - e. Integral heat sink characteristics, such that all enclosed components will operate within their designed operating temperatures under expected service conditions. No external or removable heat shields or heat sinks are permitted.
 - f. Designed to encourage water shedding.
 - g. Designed to minimize dirt and bug accumulation on the optic surface.
 - h. Permanently affixed easily-viewable nameplate inside of each luminaire housing containing the manufacturer's name, manufacturer's catalog number, date of manufacture (month and year), plant location, input power consumption, driver output current, IEC IP Rating, correlated color temperature (CCT), IES light distribution type, IESNA TM-15 BUG ratings, and serial number.

- i. City approved luminescent name plate meeting American National Standard for Roadway and Area Lighting Equipment-Luminaire Field Identification (ANSI C136.15-2015) shall be permanently affixed on the exterior of the Luminaire to be visible from the ground.
- 3. Mounting Provisions.
 - a. Standard heavy gauge slip fitter clamping assembly suitable for secure attachment over the end of a nominal two 2" IP (2.375" OD) steel pipe with an approved means of clamping it firmly in mounting bracket. The slip fitter mounting clamp must contain an approved shield around the pipe entrance to block the entry of birds.
 - b. Leveling adaptor to permit at least 15 degrees of correction to level luminaire with respect to normal to photometric nadir (straight down).
 - c. Adaptor fittings for nominal 1.5 inch IP, 1.75 inch IP, 2.25 inch IP and 2.5 inch IP mast arms.
- 4. Access Door-Panel.
 - a. Die-cast aluminum door-panel composed of aluminum alloy A380. Alternate materials may be considered but shall be submitted to the Owner for review and approval.
 - b. Provides access to the terminal strip and LED driver.
 - c. Hinged to the luminaire housing and suitably latched and fastened at the closing end.
 - d. Easily removed.
 - e. Captive hardware for the hinge and fastening devices.
- 5. Hardware.
 - a. Machine screws, locknuts, pins and set screws necessary to make a firm assembly, and for its secure attachment to the mast arm, must be furnished in place.
 - b. Hardware must be of stainless steel, zinc plated steel, copper silicon alloy or other non-corrosive metal, and where necessary must be suitably plated to prevent electrolytic action by contact with dissimilar metals.
- 6. Finish.
 - a. Polyester powder coat with a minimum 2.0 mil thickness.
 - b. Surface texture and paint quality subject to approval.
 - c. Color must be as specified in the order.
 - d. Finish must exceed a rating of six per ASTM D1654 after 1000 hours of testing per ASTM B117.
 - e. The coating must exhibit no greater than 30% reduction of gloss per ASTM D523 after 500 hours of QUV testing at ASTM G154 Cycle 6.

7. Ingress Protection.
 - a. Electric compartment housing must have an ingress protection rating of IP54 or better as described in ANSI C136.25-2013.
 - b. The optical system must have a minimum rating of IP 66.
 - c. Listed for wet locations by a U.S. Occupational Safety Health Administration (OSHA) Nationally Recognized Laboratory (NRTL) and have a safety certification and file number indicating compliance with UL 1598.
8. LED Optical Arrays
 - a. Factory installed.
 - b. No required field adjustment for specified photometric performance.
9. Terminal Block
 - a. High grade molded plastic of the barrier or safety type.
 - b. Within the water tight part of the housing in a readily accessible location.
 - c. Pre-wired to all luminaire components
 - d. Copper plated clamp-type pressure connector approved type for "line" connections, to accommodate wire sizes from #14 to #6 A.W.G.
 - e. Internal component connections either the screw-clamp or quick disconnect type.

2.2. PRODUCT MANUFACTURERS AND PRODUCTS

- A. Specific products proposed for a project should be submitted using Table D along with a physical sample.
- B. Specify products and companies meeting project requirements.
- C. Optimize performance for the existing conditions.

2.3. MANUFACTURER SERVICES

- A. The manufacturer shall provide full support for the project including, but not limited to, AGI-32 lighting calculations, required tests and certifications, and all other services necessary to permit products to be applied as intended by these specifications.
- B. The manufacturer shall notify the contractor immediately of product changes and bulletins and provide new specifications and test reports.
- C. Manufacturer or local sales representative shall provide installation and troubleshooting support in person and shall identify the name of a factory trained sales agent in Riverside County to service the Project.

TABLE A
Deleted.

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TABLE B

RECOMMENDED PHOTOMETRIC PERFORMANCE REQUIREMENTS

(Coordinate with LightSuite 4 Decisions)

Less than 5 Kilolumens

	Type II	Type III	Type IV
Street-side Coefficient of Utilization ³	67% min.		
Backlight (B)	0 or 1		
Uplight (U)	0		
Glare (G)	0 or 1		
House Side Shield Required ¹	If B1, otherwise by request		
Cul-de-sac shield required ²	By request		

Nominal 5 to 7.5 Kilolumens

	Type II	Type III	Type IV
Street-side Coefficient of Utilization ³	73% min.	70% min.	63% min.
Backlight (B)	0 or 1		
Uplight (U)	0		
Glare (G)	0 or 1		
House Side Shield Required ¹	If B1, otherwise by request		
Cul-de-sac shield required ²	Yes		

Nominal 7.5 to 12.5 Kilolumens

	Type II	Type III	Type IV
Street-side Coefficient of Utilization ³	76% min.	74% min.	70% min.
Backlight (B)	0, 1 or 2		
Uplight (U)	0		
Glare (G)	0, 1, or 2	0, 1, 2 or 3	0, 1, 2 or 3
House Side Shield Required ¹	If B2, otherwise by request		
Cul-de-sac shield required ²	Yes		

Nominal 12.5 to 17.5 Kilolumens

	Type II	Type III	Type IV
Street-side Coefficient of Utilization ³	80% min.	76% min.	75% min.
Backlight (B)	0, 1 or 2		
Uplight (U)	0		
Glare (G)	0, 1, or 2	0, 1, 2 or 3	0, 1, 2 or 3
House Side Shield Required ¹	If B2 or B3; otherwise by request		
Cul-de-sac shield required ²	Yes		

Footnotes for all luminaires

- ¹ If installed on a residential street or residential collector; optional to install by request by Owner or as additional service
- ² If installed on a residential cul-de-sac or L intersection
- ³ Without detachable shields

THERE IS NO TABLE C

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TABLE D
PRODUCT SUBMITTAL FORM

Luminaire Type ¹		
Manufacturer		
Model number		
Housing finish color		
Tenon nominal pipe size (inches)		
Nominal luminaire weight (lb)		
Nominal luminaire EPA (ft ²)		
Nominal input voltage (V)		
ANSI vibration test level	☐ Level 1 (Normal)	☐ Level 2 (bridge/overpass)
Nominal BUG Ratings		
Make/model of LED light source(s)		
Make/model of LED driver(s)		
Dimmability	☐ Dimmable	☐ Not dimmable
Control signal interface		
Upon electrical immunity system failure	☐ Possible disconnect	☐ No possible disconnect
Thermal management	☐ Moving parts	☐ No moving parts
Lumen maintenance testing duration (hr)		
Reported lumen maintenance life (hr) ²		
Warranty period (yr)		
Parameter	Nominal value	Tolerance (%)
Initial photopic output (lm)		
Maintained photopic output (lm)		
Lamp lumen depreciation		
Initial input power (W)		
Maintained input power (W)		
Initial LED drive current (mA)		
Maintained LED drive current (mA)		
Drive current used		
In-situ LED T _c (°C)		
CCT (K)		
Additional product description		

¹ See Table A, and attach supporting documentation as required.

² Value shall be no less than as specified in section 1.6-C, and shall not exceed six times the testing duration indicated in the row above. Value shall be consistent with values submitted in the rows below for maintained light output, maintained input power, and maintained drive current.

DESIGN STANDARDS FOR NEW OR RELOCATED STREET LIGHTING

Section 1. INTENT

The purpose of this Standard is to provide standards for street lighting that will:

- A. Provide high quality street lighting for the community meeting or exceeding minimum national recommendations.
- B. Help mitigate light pollution, reduce skyglow and improve the nighttime environment for astronomy and the Palomar Observatory and the overall enjoyment of the naturally dark night sky;
- C. Minimize adverse offsite impacts of lighting such as light trespass, and obtrusive light.
- D. Help protect human health and wellness and the natural environment from the adverse effects of man-made outdoor lighting.
- E. Conserve energy and resources to the greatest extent possible.

Section 2. CONFORMANCE WITH APPLICABLE LAWS, CODES, REGULATIONS and STANDARDS

All street lighting shall be installed in conformance with the provisions of this standard and the applicable provisions of the standards of the community regulating the installation of such fixtures, the California Building Code Title 24 Part 1, the California Electrical Code Title 24 Part 3, the California Building Energy Efficiency Standards Title 24 Part 6, the California Sustainability Standards Title 24 Part 11 "CalGreen", and all other applicable requirements.

Section 3. SCOPE

This standard shall apply to the construction, alteration, movement, enlargement, replacement and installation of street lighting and its related electrical service throughout the community including but not limited to:

- A. Street lighting for public streets, roadways, alleys and other rights of way including walkways and bikeways.
- B. Street lighting for private roadways, walkways and bikeways.
- C. Street lighting for private developments where the street lighting will be deeded to the community at some time in the future.

Exceptions to Section 3

- 1. Facilities, sites or roadways under the sole jurisdiction of the Federal or State Governments or within the jurisdiction of a sovereign nation.
- 2. Lighting specifically governed by a Federal or State regulation or statute.

3. Lighting subject to the terms of a Special Plan approved by the community.

Section 4. ALTERNATE MATERIALS AND METHODS OF INSTALLATION.

This standard is not intended to prevent the use of any design, material or method of installation not expressly forbidden, provided any such alternate has been approved if it:

- A. Provides at least approximate equivalence to the applicable specific requirements of this standard; and
- B. Is otherwise satisfactory and complies with the intent of this standard.

Section 5. DEFINITIONS.

- A. **Street Lighting** means luminaire(s), installed outdoors, and used to illuminate a street or roadway and/or any part of the public right of way including but not limited to, sidewalks, bikeways, alleys, intersections, ramps, underpasses, overpasses, curbs, medians, or shoulders.
- B. **Street** means major, collector and local roads where pedestrians and bicyclists are generally present.
- C. **Roadway** means, freeways, expressways, limited access roads, and roads on which pedestrians, cyclists and parked vehicles are generally not present.
- D. **Residential Street** means a street that is exclusively serving residential properties and for which the posted speed limit is 25 mph (40 kph) or less.
- E. **Luminaire** means a complete illuminating device, lighting fixture or other device that emits light, consisting of light source(s) together with the parts designed to distribute the light, to position and protect the light source(s), to regulate the electrical power, and to connect the light sources to the power supply.
- F. **IES** means the Illuminating Engineering Society of North America.
- G. **RP-8** means the current version of the IES Recommended Practice for Roadway Lighting, RP-8.
- H. **RP-22** means the current version of the IES Recommended Practice for Tunnel Lighting RP-22.
- I. **DG-21** means the current version of the IES Design Guide for Residential Street Lighting.
- J. **TM-15** means the current version of the IES Technical Memorandum, Luminaire Classification System for Outdoor Luminaires

- K. **Palomar Zone A** is established by Riverside County Ordinance 655 and means all properties and land uses in plan view within the circular area fifteen (15) miles in radius centered on Palomar Observatory.
- L. **Palomar Zone B** is established by Riverside County Ordinance 655 and means all properties and land uses in plan view the circular ring area between by two circles, one forty-five (45) miles in radius centered on Palomar Observatory, and the other the perimeter of Zone A.
- M. **Palomar Zone C** means the remainder of Riverside County outside of the perimeter of Zone B.
- N. **BUG rating of an outdoor luminaire** means the ranking of the luminaire using a photometric report to establish the Backlight (B), Uplight (U) and Glare (G) ranking per IES TM-15.
- O. **LED** means light emitting diode solid state lighting source.
- P. **Dedicated LED** means a luminaire with a hard-wired LED light generating module and a separate driver.
- Q. **Photometric Report** means a complete photometric report from a NVLAP certified test laboratory.
- R. **AASHTO** means the American Association of State Highway Traffic Officials.

Section 6. TITLE 24 LIGHTING ZONES

- A. For the purposes of complying California Code of Regulations, Title 24, Part 1, Section 10-114 and Title 24, Part 11, Section 5.106.8, Zone A as defined above shall be Lighting Zone 1 (LZ-1), Zone B as defined above shall be Lighting Zone 2 (LZ-2). The balance of the County shall be LZ-2 or LZ-3 per the statewide default zones or as set by the community.
- B. The community shall establish a method for applicant(s) to request and to set a different lighting zone per Title 24, Part 1 Section 10-114 for a specific parcel or project.

Section 7. GENERAL REQUIREMENTS.

- A. Streetlights shall utilize dedicated LED luminaries and shall be designed per these Standards, field inspected and approved prior to requesting energizing or acceptance.
- B. All wiring for street lighting shall be underground, per these standards and these specifications for power to be supplied from community owned service points from the utility.
- C. Street lighting on private roads shall be constructed per these Standards.

- D. Street lighting shall be designed and installed per the Title 24 Lighting Zones as described herein.
- E. Street lighting shall be fully shielded and emit no uplight (BUG rating U=0).

Exception to Section 7. (D.) Decorative street lights not meeting the BUG requirements for the Lighting Zone in which they are proposed and having uplight (BUG rating U≠0) are not permitted except by Special Plan or special permission of the community.

Section 8. ILLUMINATING ENGINEERING REQUIREMENTS FOR NEW STREET LIGHTING INSTALLATIONS

- A. Scope
 - 1. All streets and roadways unless otherwise directed by community.
 - 2. Walkways and sidewalks directly associated with streets and roadways to be illuminated.
- B. Not in scope
 - 1. Walkways and bikeways not directly associated with a street or roadway.
 - 2. Service roads for public facilities and parks, unless otherwise directed by community.
- C. Street and Roadway lighting requirements
 - 1. Lighting for all streets and roadways shall be per RP-8.
 - 2. The community shall establish whether the street to be lighted is a “major”, “collector”, or “local” for the purposes of designing street lighting.
 - 3. The pedestrian area classification shall be “LOW” conflict except for the following:
 - a. Within ¼ mile (400 m) of the property line of any school, library, city hall, retail shopping districts senior center, park, bus stop or hospital, the pedestrian area classification shall be “MEDIUM”.
 - b. Within 1/8 mile (200 m) of any transit station, the pedestrian area classification shall be “HIGH”
 - c. As determined by community.

EXCEPTION TO Section 8. (A.)

- 1) In Zone A and Lighting Zone 1 (LZ-1), for residential streets, street lighting shall be limited to (1) light at each residential street or residential street/residential minor collector intersection and (1) light mod block per DG-21. There shall be no requirements to meet illuminance, luminance or uniformity requirements.

Lighting for walkways and sidewalks may be incidental because of the street lights.

- 2) Exception 1 to Section 8. (A.), may be applied to any residential street with the approval of community.

D. Intersection lighting requirements

1. Unless otherwise permitted by community, provide at least four pedestrian crossing safety lights at each signaled intersection.
2. Light levels shall be per RP-8.
3. The pedestrian area classification shall be the highest of any of the intersecting streets or roadways within 1/8 mile (200m) of the intersection.

EXCEPTION to Section 8. (D.)

- 1) Partial lighting for isolated intersections per RP-8 when permitted by community.

E. Other lighting requirements

1. The following shall be illuminated per RP-8 unless otherwise directed by community.
 - a. Railroad grade crossings
 - b. Overpasses and bridges
 - c. Roundabouts
 - d. Ramps and similar elements
2. The pedestrian area classification shall be the highest of any of the connecting streets or roadways.
3. Tunnels and underpasses shall be illuminated per RP-22.

F. Chromaticity

1. Per Table 8-1.

	Palomar Zone A and Lighting Zone LZ-1	Palomar Area B and C and Lighting Zones LZ-2 through LZ-4
Maximum Color Temperature		
Intersection Safety Lights	2700K	2700K or 3000K
Highways, Arterials and Major Collectors	2700K	2700K or 3000K
Minor Collectors and Streets	2700K	2700K
Residential Streets	2700K	2700K

Table 8-1. Maximum Allowed Color Temperature Per Lighting Zones

Application Notes

- A. 2700K has been tested and accepted by WRCOG for intersection safety lights and highways, arterials and major collectors.
- B. Per IES there no significant difference in any performance characteristic involving safety or security between 2700K and 3000K.
- C. 2700K causes less light pollution per lumen than does 3000K.

Section 9. PRODUCT SPECIFICATIONS

- A. Luminaires shall comply with the current WRCOG LightSuite 1, Specification of LED Cobrahead Luminaires for New and Relocated Street Lighting Systems.
- B. Design shall include selection of luminaires, poles, mast arms, and other components affecting the performance of the street lighting system.
- C. Poles, mast arms, bases, electrification and all other parts of the street lighting system shall meet engineering standards of the community.

Application Note: LightSuite 4 Table 7-2 suggests a system for minimizing the number of different types of luminaires (SKU's) in order to simplify product ordering, replacement and stock management.

Section 10.SUBMITTALS FOR APPROVAL

A. Plan(s) of the proposed lighting installation clearly identifying:

1. The criteria for each roadway segment, intersection, and other elements as required in Section 8. (C.), (D.), and (E.), above. Information affecting criteria selection, such as proximity to a school or transit stop shall be included. Calculations representing typical stretches of roadways or streets may be permitted for each condition of Lighting Zone, pedestrian area classification, posted speed or other differences.
2. The AASHTO pavement type(s), e.g. R1, R2, etc.
3. Point-by point lighting calculations on a grid not larger than 2.5' x 2.5' (.75m x .75m).
4. Calculation summaries showing average, minimum, and maximum values and ratios as contained in the tables of criteria in RP-8.
5. Calculations to include roadways, intersections, walkways, and all other parts of the project for which criteria were developed under Section 9. (A.) 1.
6. Schedule of luminaires including mounting height, mast arm length, and pole base locations.

B. Specifications for each luminaire to include:

1. Product datasheet.
2. Photometric report.
 - a. Must clearly indicate BUG rating per TM-15.
3. Drawing of pole or standard including base details.
4. Drawing of mast arm if used.
5. Datasheet for driver and surge suppressor.
6. Datasheet for photocell.

END OF SECTION

**SPECIFICATIONS OF LED LIGHTING FIXTURES FOR REPLACEMENT OF COBRAHEAD
STREET LIGHTING SYSTEMS**

PART 1 – GENERAL

1.9. SCOPE

Luminaires to be used for replacement of legacy high intensity discharge street lighting systems.

1.10. REFERENCES

The publications listed below form a part of this specification to the extent referenced.

Publications are referenced within the text by their basic designation only. Versions listed shall be superseded by updated versions as they become available.

- A. American National Standards Institute (ANSI)
 - 3. C136.2-2004 (or latest), American National Standard for Roadway and Area Lighting Equipment—Luminaire Voltage Classification
 - 4. C136.10-2010 (or latest), American National Standard for Roadway and Area Lighting Equipment - Locking-Type Photocontrol Devices and Mating Receptacle Physical and Electrical Interchangeability and Testing
 - 5. C136.15-2011 (or latest), American National Standard for Roadway and Area Lighting Equipment – Luminaire Field Identification
 - 6. C136.22-2004 (R2009 or latest), American National Standard for Roadway and Area Lighting Equipment – Internal Labeling of Luminaires
 - 7. C136.25-2009 (or latest), American National Standard for Roadway and Area Lighting Equipment – Ingress Protection (Resistance to Dust, Solid Objects and Moisture) for Luminaire Enclosures
 - 8. C136.31-2010 (or latest), American National Standard for Roadway Lighting Equipment – Luminaire Vibration
 - 9. C136.37-2011 (or latest), American National Standard for Roadway and Area Lighting Equipment - Solid State Light Sources Used in Roadway and Area Lighting
- B. American Society for Testing and Materials International (ASTM)
 - 10. B117-09 (or latest), Standard Practice for Operating Salt Spray (Fog) Apparatus
 - 11. D1654-08 (or latest), Standard Test Method for Evaluation of Painted or Coated Specimens Subjected to Corrosive Environments
 - 12. D523-08 (or latest), Standard Test Method for Specular Gloss
 - 13. G154-06 (or latest), Standard Practice for Operating Fluorescent Light Apparatus for UV Exposure of Nonmetallic Materials
- C. Council of the European Union (EC)
 - a. RoHS Directive 2002/95/EC, on the restriction of the use of certain hazardous substances in electrical and electronic equipment
- D. Federal Trade Commission (FTC)
 - a. Green Guides, 16 CFR Part 260, Guides for the Use of Environmental Marketing Claims
- E. Illuminating Engineering Society of North America (IESNA or IES)

- a. DG-21-15, Design Guide for Residential Lighting
- b. DG-4-03 (or latest), Design Guide for Roadway Lighting Maintenance
- c. HB-10-11 (or latest), IES Lighting Handbook, 10th Edition
- d. LM-50-99 (or latest), IESNA Guide for Photometric Measurement of Roadway Lighting Installations
- e. IES RES-1-16, Measure and Report on Luminaire Dirt Depreciation (LDD) in LED Luminaires for Street and Roadway Lighting Applications
- f. LM-61-06 (or latest), Approved Guide for Identifying Operating Factors Influencing Measured Vs. Predicted Performance for Installed Outdoor High Intensity Discharge (HID) Luminaires
- g. LM-79-08 (or latest), IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products
- h. LM-80-08 (or latest), IESNA Approved Method for Measuring Lumen Maintenance of LED Light Sources
- i. RP-8-14 ANSI / IESNA American National Standard Practice for Roadway Lighting
- j. RP-16-10 (or latest), ANSI/IES Nomenclature and Definitions for Illuminating Engineering
- k. TM-3-95 (or latest), A Discussion of Appendix E - "Classification of Luminaire Lighting Distribution," from ANSI/IESNA RP-8-83
- l. TM-15-11 (or latest), Luminaire Classification System for Outdoor Luminaires
- m. TM-21-11 (or latest), Projecting Long Term Lumen Maintenance of LED Light Sources
- F. Institute of Electrical and Electronics Engineers (IEEE)
 - a. IEEE C62.41.2-2002 (or latest), IEEE Recommended Practice on Characterization of Surges in Low-Voltage (1000 V and less) AC Power Circuits
 - b. ANSI/IEEE C62.45-2002 (or latest), IEEE Recommended Practice on Surge Testing for Equipment Connected to Low-Voltage (1000 V and Less) AC Power Circuits
- G. National Electrical Manufacturers Association (NEMA)
 - a. ANSI/NEMA/ANSI C78.377-2008 (or latest), American National Standard for the Chromaticity of Solid State Lighting Products
- H. National Fire Protection Association (NFPA)
 - a. NFPA-70-14 – National Electrical Code (NEC)
- I. Underwriters Laboratories (UL)
 - a. 1449, Surge Protective Devices
 - b. 1598, Luminaires and Poles
 - c. 8750, Light Emitting Diode (LED) Equipment for Use in Lighting Products
- J. City Standards for Street Lighting
- K. Southern California Edison
 - a. Standards for services to customer-owned street lighting systems
 - b. Standard specifications for Public Works Construction (Greenbook) (latest edition), Subsections 700 and 701 and all included cross references.

1.11. RELATED DOCUMENTS

- A. LightSuite 2, Design Standards for New and Relocated Street Lighting Systems.

1.12. DEFINITIONS

- A. Lighting terminology used herein is defined in IES RP-16. See referenced documents for additional definitions.
 - 1. Exception: The term “driver” is used herein to broadly cover both drivers and power supplies, where applicable.
 - 2. Clarification: The term “LED light source(s)” is used herein per IES LM-80 to broadly cover LED package(s), module(s), and array(s).

1.13. QUALITY ASSURANCE

- A. Before approval and purchase, furnish luminaire sample(s) identical to product configuration(s) submitted for inspection. Furnish IES LM-79 testing of luminaire sample(s) to verify performance is within manufacturer-reported tolerances.
- B. After installation, Owner may perform IES LM-50 field measurements to verify performance requirements outlined in Table A, considering measurement uncertainties outlined in IES LM-61.

1.14. LIGHTING SYSTEM PERFORMANCE

A. Energy Conservation

1. Lighting Controls

- a. See separate controls specification identified in section 1.2 above, if applicable.
- b. See section 2.1-B below for driver control interface and performance requirements.
- c. See section 2.1-K below for photocontrol receptacle requirements.

B. Photometric Requirements

1. Luminaires shall meet the general criteria provided in the body of this specification and the criteria for each luminaire type defined in Table A.

1.15. REQUIRED SUBMITTALS FOR EACH LUMINAIRE TYPE DEFINED IN TABLE A AND EACH PROPOSED MANUFACTURER

A. Use Table D attached hereto for each proposed luminaire.

B. General submittal content shall include

1. Completed Appendix E submittal form
2. Luminaire cutsheets
3. Cutsheets for LED light sources
4. Cutsheets for LED driver(s)
 - a. If dimmable LED driver is specified, provide diagrams illustrating light output and input power as a function of control signal.
5. Cutsheets for surge protection device, if applicable
6. Instructions for installation and maintenance
7. Summary of luminaire recycled content and recyclability per the FTC Green Guides, expressed by percentage of luminaire weight

C. LM-79 luminaire photometric report(s) shall be produced by the test laboratory and include

1. Name of test laboratory
 - a. The test laboratory must hold National Voluntary Laboratory Accreditation Program (NVLAP) accreditation for the IES LM-79 test procedure.
2. Report number
3. Date
4. Complete luminaire catalog number
 - a. Provide explanation if catalog number in test report(s) does not match catalog number of luminaire submitted
 - i. Clarify whether discrepancy does not affect performance, e.g., in the case of differing luminaire housing color.
 - ii. If nominal performance of submitted and tested products differ, submit additional LM-79 report(s) and derivation as indicated in Appendix C.
5. Description of luminaire, LED light source(s), and LED driver(s)
6. Goniophotometry
7. Colorimetry

8. IES TM-21-11 calculations that derive the lumen maintenance (lamp lumen depreciation or LLD) factor applied to photometric calculations specified herein. TM-21 calculations must apply to the maximum LED case temperature from ISTMT, shall not extrapolate beyond six times the duration of available LM-80 test data, and submitted in the spreadsheet format of the ENERGY STAR TM-21 calculator.
- D. Predicted dirt depreciation per IES RES-1-16 Page 72 Tables 7 and 8 for the optical system used.
- E. Computer-generated point-by-point photometric analysis of maintained photopic light levels.
 1. Calculations shall be for maintained values, i.e. Light Loss Factor (LLF) < 1.0, where $LLF = LLD \times LDD \times LATF$, and
 - a. Lamp Lumen Depreciation (LLD)
 - ii. Shall be 0.8 (L_{80}) for all luminaires
 - b. Luminaire Dirt Depreciation (LDD) per IES RES-1-16 and assuming 5-year cleaning cycle.
 - c. Luminaire Ambient Temperature Factor (LATF) = 1.00
 2. Use of IES HB-10 mesopic multipliers
 - a. Shall be disallowed herein, by assuming an S/P ratio of 1.00 for all luminaires.
 3. Calculation/measurement points shall be per IES RP-8.
 4. Software shall be AGI32 using roadway methods and insofar as possible, on WRCOG standard test designs.
- F. Summary of Joint Electron Devices Engineering Council (JEDEC) or Japan Electronics and Information Technology Industries (JEITA) reliability testing performed for LED packages
- G. Summary of reliability testing performed for LED driver(s)
- H. Written product warranty as per section 1.7 below
- I. Safety certification and file number
 1. Applicable testing bodies are determined by the US Occupational Safety Health Administration (OSHA) as Nationally Recognized Testing Laboratories (NRTL) and include: CSA (Canadian Standards Association), ETL (Edison Testing Laboratory), and UL (Underwriters Laboratory).

1.16. WARRANTY

- A. Provide a minimum ten-year warranty covering maintained integrity and functionality of
 - 1. Luminaire housing, wiring, and connections
 - 2. LED light source(s)
 - a. Negligible light output from more than 10 percent of the LED packages constitutes luminaire failure.
 - 3. LED driver(s)
 - a. Failure to dim if connected to a control system and using proper components constitutes luminaire failure
- B. Warranty period shall begin upon installation, or as negotiated by owner such as in the case of an auditable asset management system.
- C. Warranty to provide for replacement of product with new product of equivalent appearance, CCT, CRI, and photometric performance.
- D. Upon request prior to approval, manufacturer may be required to provide proof of financial viability which may include any information deemed necessary to determine the manufacturer's ability to fully service their warranty.

PART 2 – PRODUCTS

2.4. LUMINAIRES

- A. General Requirements
 - 1. Luminaires shall be as specified for each type in Table B.
 - 2. Luminaire shall have an external label per ANSI C136.15
 - 3. Luminaire shall have an internal label per ANSI C136.22.
 - 4. Nominal luminaire input wattage shall account for nominal applied voltage and any reduction in driver efficiency due to sub-optimal driver loading.
 - 5. Luminaires shall start and operate in -20°C to +40°C ambient.
 - 6. Electrically test fully assembled luminaires before shipment from factory.
 - 7. Effective Projected Area (EPA) of the luminaire shall not exceed the EPA of the luminaire being replaced.
 - 8. Luminaires shall be designed for ease of component replacement and end-of-life disassembly.
 - 9. Luminaires shall be rated for the ANSI C136.31 Vibration Level indicated in Table A.
 - 10. LED light source(s) and driver(s) shall be RoHS compliant.
 - 11. Transmissive optical components shall be applied in accordance with OEM design guidelines to ensure suitability for the thermal/mechanical/chemical environment.

B. Driver

1. Rated case temperature shall be suitable for operation in the luminaire operating in the ambient temperatures indicated in section 2.1-A above.
2. Shall accept the voltage or voltage range indicated in Table A at 50/60 Hz, and shall operate normally for input voltage fluctuations of plus or minus 10 percent.
3. Shall have a minimum Power Factor (PF) of 0.90 at full input power and across specified voltage range.
4. Control signal interface
 - a. Luminaire types indicated "Required" in Table A shall accept a control signal as specified via separate controls specification referenced in section 1.2 above, e.g., for dimming.
 - b. Luminaire types indicated "Not Required" in Table A need not accept a control signal.

C. Electrical transient and surge immunity

1. Luminaire shall meet the "Elevated" requirements in Appendix D. Manufacturer shall indicate on submittal form (Appendix E) whether failure of the electrical immunity system can possibly result in disconnect of power to luminaire.

D. Electromagnetic interference

1. Shall have a maximum Total Harmonic Distortion (THD) of 20% at full input power and across specified voltage range.
2. Shall comply with FCC 47 CFR part 15 non-consumer RFI/EMI standards.

E. Electrical safety testing

1. Luminaire shall be listed for wet locations by an OSHA NRTL.
2. Luminaires shall have locality-appropriate governing mark and certification.

F. Painted or finished luminaire components exposed to the environment

1. Shall exceed a rating of six per ASTM D1654 after 1000hrs of testing per ASTM B117.
2. The coating shall exhibit no greater than 30% reduction of gloss per ASTM D523, after 500 hours of QUV testing at ASTM G154 Cycle 6.

G. Thermal management

1. Mechanical design of protruding external surfaces (heat sink fins) for shall facilitate hose-down cleaning and discourage debris accumulation.
2. Liquids or other moving parts shall be clearly indicated in submittals, shall be consistent with product testing, and shall be subject to review by Owner.

H. IES TM-15 limits for Backlight, Uplight, and Glare (BUG Ratings) shall be as specified for each luminaire type in Table A.

1. Calculation of BUG Ratings shall be for initial (worst-case) values, i.e., Light Loss Factor (LLF) = 1.0.

I. Minimum Color Rendering Index (CRI): 70.

- J. Correlated Color Temperature (CCT)
 - 1. Nominal 2700K (3000K for certain applications only).
 - 2. Allowable 2580 to 2870K per IES LM-79.
 - 3. Allowable -.006 to .006 D_{uv} per IES LM-79.
- K. The following shall be in accordance with corresponding sections of ANSI C136.37
 - 1. Wiring and grounding
 - a. All internal components shall be assembled and pre-wired using modular electrical connections.
 - 2. Mounting provisions
 - a. Specific configurations are indicated in Table A
 - 3. Terminal blocks for incoming AC lines
 - 4. Photocontrol receptacle
 - 5. Latching and hinging
 - 6. Ingress protection
- L. Luminaire Construction
 - 1. Weight
 - a. The net weight of each luminaires less than 46 (21 kg) pounds including mounting devices and backlight shields.
 - 2. Housing
 - a. Tool-less entry
 - b. Die-cast aluminum alloy meeting ASTM Specification A380. Alternate materials may be considered but shall be submitted to the Owner for review and approval.
 - c. Encloses the mounting hardware, LED arrays, control receptacle, terminal board, and electronic driver.
 - d. Includes a surface to facilitate leveling with a spirit level.
 - e. Integral heat sink characteristics, such that all enclosed components will operate within their designed operating temperatures under expected service conditions. No external or removable heat shields or heat sinks are permitted.
 - f. Designed to encourage water shedding.
 - g. Designed to minimize dirt and bug accumulation on the optic surface.
 - h. Permanently affixed easily-viewable nameplate inside of each luminaire housing containing the manufacturer's name, manufacturer's catalog number, date of manufacture (month and year), plant location, input power consumption, driver output current, IEC IP Rating, correlated color temperature (CCT), IES light distribution type, IESNA TM-15 BUG ratings, and serial number.
 - i. City approved luminescent name plate meeting American National Standard for Roadway and Area Lighting Equipment-Luminaire Field Identification (ANSI C136.15-2015) shall be permanently affixed on the exterior of the Luminaire to be visible from the ground. In addition, the name plate shall indicate nominal lumen package rounded to the nearest thousand lumens, e.g. 2800 lumens would read as "3KL" and 11200 lumens would read as "11KL".

3. Mounting Provisions.

- a. Standard heavy gauge slip fitter clamping assembly suitable for secure attachment over the end of a nominal two 2" IP (2.375" OD) steel pipe with an approved means of clamping it firmly in mounting bracket. The slip fitter mounting clamp must contain an approved shield around the pipe entrance to block the entry of birds.
- b. Leveling adaptor to permit at least 15 degrees of correction to level luminaire with respect to normal to photometric nadir (straight down).
- c. Adaptor fittings for nominal 1.5 inch IP, 1.75 inch IP, 2.25 inch IP and 2.5 inch IP mast arms.

4. Access Door-Panel.

- a. Die-cast aluminum door-panel composed of aluminum alloy A380. Alternate materials may be considered but shall be submitted to the Owner for review and approval.
- b. Provides access to the terminal strip and LED driver.
- c. Hinged to the luminaire housing and suitably latched and fastened at the closing end.
- d. Easily removed.
- e. Captive hardware for the hinge and fastening devices.

5. Hardware.

- a. Machine screws, locknuts, pins and set screws necessary to make a firm assembly, and for its secure attachment to the mast arm, must be furnished in place.
- b. Hardware must be of stainless steel, zinc plated steel, copper silicon alloy or other non-corrosive metal, and where necessary must be suitably plated to prevent electrolytic action by contact with dissimilar metals.

6. Finish.

- a. Polyester powder coat with a minimum 2.0 mil thickness.
- b. Surface texture and paint quality subject to approval.
- c. Color must be as specified in the order.
- d. Finish must exceed a rating of six per ASTM D1654 after 1000 hours of testing per ASTM B117.
- e. The coating must exhibit no greater than 30% reduction of gloss per ASTM D523 after 500 hours of QUV testing at ASTM G154 Cycle 6.

7. Ingress Protection.
 - a. Electric compartment housing must have an ingress protection rating of IP54 or better as described in ANSI C136.25-2013.
 - b. The optical system must have a minimum rating of IP 66.
 - c. Listed for wet locations by a U.S. Occupational Safety Health Administration (OSHA) Nationally Recognized Laboratory (NRTL) and have a safety certification and file number indicating compliance with UL 1598.
8. LED Optical Arrays
 - a. Factory installed.
 - b. No required field adjustment for specified photometric performance.
9. Terminal Block
 - a. High grade molded plastic of the barrier or safety type.
 - b. Within the water tight part of the housing in a readily accessible location.
 - c. Pre-wired to all luminaire components
 - d. Copper plated clamp-type pressure connector approved type for "line" connections, to accommodate wire sizes from #14 to #6 A.W.G.
 - e. Internal component connections either the screw-clamp or quick disconnect type.

2.5. PRODUCT MANUFACTURERS AND APPROVED PRODUCTS

- A. Approved manufacturers are listed in Table A.
- B. Select products to replace existing luminaires using Tables A and B, including application notes, as recommended in LightSuite 4.
- C. Specific products proposed for a specific project should be submitted using Table C along with a physical sample.
- D. Optimize performance for the existing conditions. For illuminating engineering, WRCOG will provide access to AGI32 models to determine best possible performance under common circumstances found throughout Western Riverside County.

2.6. MANUFACTURER SERVICES

- A. The manufacturer shall provide full support for the project including, but not limited to, AGI-32 lighting calculations, required tests and certifications, and all other services necessary to permit products to be applied as intended by these specifications.
- B. The manufacturer shall notify the contractor immediately of product changes and bulletins and provide new specifications and test reports.
- C. Manufacturer or local sales representative shall provide installation and troubleshooting support in person and shall identify the name of a factory trained sales agent in Riverside County to service the Project.

TABLE A
APPROVED MANUFACTURERS OF LIGHTING PRODUCTS
Section deleted.

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TABLE B
MINIMUM PHOTOMETRIC PERFORMANCE REQUIREMENTS

Less than 5 Kilolumens

	Type II	Type III	Type IV
Street-side Coefficient of Utilization ³	67% min.		
Backlight (B)	0 or 1		
Uplight (U)	0		
Glare (G)	0 or 1		
House Side Shield Required ¹	If B1, otherwise by request		
Cul-de-sac shield required ²	By request		

Nominal 5 to 7.5 Kilolumens

	Type II	Type III	Type IV
Street-side Coefficient of Utilization ³	73% min.	70% min.	63% min.
Backlight (B)	0 or 1		
Uplight (U)	0		
Glare (G)	0 or 1		
House Side Shield Required ¹	If B1, otherwise by request		
Cul-de-sac shield required ²	Yes		

Nominal 7.5 to 12.5 Kilolumens

	Type II	Type III	Type IV
Street-side Coefficient of Utilization ³	76% min.	74% min.	70% min.
Backlight (B)	0, 1 or 2		
Uplight (U)	0		
Glare (G)	0, 1, or 2	0, 1, 2 or 3	0, 1, 2 or 3
House Side Shield Required ¹	If B2, otherwise by request		
Cul-de-sac shield required ²	Yes		

Nominal 12.5 to 17.5 Kilolumens

	Type II	Type III	Type IV
Street-side Coefficient of Utilization ³	80% min.	76% min.	75% min.
Backlight (B)	0, 1 or 2		
Uplight (U)	0		
Glare (G)	0, 1, or 2	0, 1, 2 or 3	0, 1, 2 or 3
House Side Shield Required ¹	If B2 or B3; otherwise by request		
Cul-de-sac shield required ²	Yes		

Footnotes for all luminaires

- ¹ If installed on a residential street or residential collector; optional to install by request by Owner or as additional service
- ² If installed on a residential cul-de-sac or L intersection
- ³ Without detachable shields

TABLE C
PRODUCT SUBMITTAL FORM

Luminaire Type ³		
Manufacturer		
Model number		
Housing finish color		
Tenon nominal pipe size (inches)		
Nominal luminaire weight (lb)		
Nominal luminaire EPA (ft ²)		
Nominal input voltage (V)		
ANSI vibration test level	☐ Level 1 (Normal)	☐ Level 2 (bridge/overpass)
Nominal BUG Ratings		
Make/model of LED light source(s)		
Make/model of LED driver(s)		
Dimmability	☐ Dimmable	☐ Not dimmable
Control signal interface		
Upon electrical immunity system failure	☐ Possible disconnect	☐ No possible disconnect
Thermal management	☐ Moving parts	☐ No moving parts
Lumen maintenance testing duration (hr)		
Reported lumen maintenance life (hr) ⁴		
Warranty period (yr)		
Parameter	Nominal value	Tolerance (%)
Initial photopic output (lm)		
Maintained photopic output (lm)		
Lamp lumen depreciation		
Initial input power (W)		
Maintained input power (W)		
Initial LED drive current (mA)		
Maintained LED drive current (mA)		
Drive current used		
In-situ LED T _c (°C)		
CCT (K)		
Additional product description		

END OF SECTION

³ See Table A, and attach supporting documentation as required.

⁴ Value shall be no less than as specified in section 1.6-C, and shall not exceed six times the testing duration indicated in the row above. Value shall be consistent with values submitted in the rows below for maintained light output, maintained input power, and maintained drive current.

DESIGN STANDARDS FOR LED REPLACEMENT STREET LIGHTING

Section 1. INTENT

The purpose of this Standard is to provide standards for street lighting that will:

- A. Provide a high-quality conversion of existing street lighting that insofar as possible maintains essential qualities of the existing installation.
- B. Typically allow for reduced energy consumption of the existing street lighting by at least 50% compared to the existing legacy lighting system.
- C. Equip each luminaire with the means to communicate to a community-wide lighting network.
- D. Help mitigate light pollution, reduce skyglow and improve the nighttime environment for astronomy and the Palomar Observatory and the overall enjoyment of the naturally dark night sky;
- E. Minimize adverse offsite impacts of lighting such as light trespass, and obtrusive light.
- F. Help protect human health and wellness and the natural environment from the adverse effects of man-made outdoor lighting.

Section 2. CONFORMANCE WITH APPLICABLE LAWS, CODES, REGULATIONS and STANDARDS

All street lighting shall be installed in conformance with the provisions of this standard and the applicable provisions of the standards of the community regulating the installation of such fixtures, the California Building Code Title 24 Part 1, the California Electrical Code Title 24 Part 3, the California Building Energy Efficiency Standards Title 24 Part 6, the California Sustainability Standards Title 24 Part 11 "CalGreen", and all other applicable requirements.

Section 3. SCOPE

This standard shall apply the conversion of legacy street lighting systems employing high intensity discharge (HID) lighting sources to light-emitting diode (LED) light sources for:

- A. Street lighting for public streets, roadways, alleys and other rights of way including walkways and bikeways.
- B. Street lighting for private roadways, walkways and bikeways.
- C. Street lighting for private developments where the street lighting will be deeded to the community at some time in the future.

Exceptions to Section 3

- 1. Facilities, sites or roadways under the sole jurisdiction of the Federal or State Governments or within the jurisdiction of a sovereign nation.

2. Lighting specifically governed by a Federal or State regulation or statute.
3. Lighting subject to the terms of a Special Plan approved by the community.

Section 4. ALTERNATE MATERIALS AND METHODS OF INSTALLATION.

This standard is not intended to prevent the use of any design, material or method of installation not expressly forbidden, provided any such alternate has been approved if it:

- A. Provides at least approximate equivalence to the applicable specific requirements of this standard; and
- B. Is otherwise satisfactory and complies with the intent of this standard.

Section 5. DEFINITIONS.

- A. **Street lights** means luminaire(s), installed outdoors, and used to illuminate a street or roadway and/or any part of the public right of way including but not limited to, sidewalks, bikeways, alleys, intersections, ramps, overpasses, curbs, medians, or shoulders.
- B. **Street** means major, collector and local roads where pedestrians and bicyclists are generally present.
- C. **Roadway** means, freeways, expressways, limited access roads, and roads on which pedestrians, cyclists and parked vehicles are generally not present.
- D. **Residential street** means a street that is exclusively serving residential properties and for which the posted speed limit is 25 mph (40 kph) or less.
- E. **Luminaire** means a complete illuminating device, lighting fixture or other device that emits light, consisting of light source(s) together with the parts designed to distribute the light, to position and protect the light source(s), to regulate the electrical power, and to connect the light sources to the power supply.
- F. **Legacy luminaire** means an existing cobrahead luminaire using a high intensity discharge light source including high pressure sodium (HPS), low pressure sodium (LPS), metal halide (MH), ceramic metal halide (CMH), or mercury vapor (MV).
- G. **IES** means the Illuminating Engineering Society of North America.
- H. **RP-8** means the current version of the IES Recommended Practice for Roadway Lighting, RP-8.
- I. **RP-22** means the current version of the IES Recommended Practice for Tunnel Lighting RP-22.
- J. **DG-21** means the current version of the IES Design Guide for Residential Street Lighting.
- K. **TM-15** means the current version of the IES Technical Memorandum, Luminaire Classification System for Outdoor Luminaires

- L. **Palomar Zone A** is established by Riverside County Ordinance 655 and means all properties and land uses in plan view within the circular area fifteen (15) miles in radius centered on Palomar Observatory.
- M. **Palomar Zone B** is established by Riverside County Ordinance 655 and means all properties and land uses in plan view the circular ring area between by two circles, one forty-five (45) miles in radius centered on Palomar Observatory, and the other the perimeter of Zone A.
- N. **Palomar Zone C** means the remainder of Riverside County outside of the perimeter of Zone B.
- O. **BUG rating of an outdoor luminaire** means the ranking of the luminaire using a photometric report to establish the Backlight (B), Uplight (U) and Glare (G) ranking per IES TM-15.
- P. **LED** means light emitting diode solid state lighting source.
- Q. **Dedicated LED** means a luminaire with a hard-wired LED light generating module and a separate driver.
- R. **Photometric Report** means a complete photometric report from a NVLAP certified test laboratory.
- S. **AASHTO** means the American Association of State Highway Traffic Officials.
- T. **Roadway lighting distribution types as defined by IES**
- a. **Type I** is a long, narrow symmetrical distribution having a preferred lateral width of 15 degrees in the cone of maximum candlepower. Typically, luminaires are located in the center of a roadway, such as in a median, where the mounting height is approximately equal to the roadway width on either side.
 - b. **Type II** is a mildly asymmetric distribution is used for wide walkways, on ramps and entrance roadways, and narrow streets. Typically, the width of the roadway does not exceed 1.75 times the mounting height.
 - c. **Type III** is an asymmetric distribution commonly used for lighting streets and roadways. Typically, the width of the roadway does not exceed 2.75 times the mounting height.
 - d. **Type IV** is the most asymmetric distribution, commonly used for intersection safety lighting and extremely wide roadways. Typically, the width of the roadway does not exceed 3.75 times the mounting height.

Section 6. TITLE 24 LIGHTING ZONES

- A. For the purposes of complying California Code of Regulations, Title 24, Part 1, Section 10-114 and Title 24, Part 11, Section 5.106.8, Zone A as defined above shall be Lighting Zone 1 (LZ-1), Zone B as defined above shall be Lighting Zone 2 (LZ-2). The balance of the County shall be LZ-2 or LZ-3 per the statewide default zones or as set by the community.
- B. The community shall establish a method for applicant(s) to request and to set a different lighting zone per Title 24, Part 1 Section 10-114 for a specific parcel or project.

Section 7. DESIGN OF REPLACEMENT LIGHTING

A. General

1. Obtain a GIS computer database of the community's street lighting system. Determine the extent to which the database is acceptably accurate for the determinations to be made in this section. If necessary, devise an alternative course of action acceptable to the community.
2. Determine whether any street lights are made unnecessary by an immediately adjacent street light. Typical situations include intersections where intersection safety lights were added after the street light system was already in place. As approved by the community, identify redundant lighting for removal.
3. Determine whether the community currently has street lighting standards, and determine the extent to which they are met.
4. Review the current lighting system's performance relative to RP-8. Discuss and determine the desired outcome with the community.
 - a. If the existing lighting system does not meet RP-8, it is unlikely that simply replacing legacy luminaires with LED luminaires will bring an existing installation into compliance without changing pole locations, mounting heights, or mast arm lengths.
 - b. If the existing lighting system exceeds RP-8, determine whether reducing light levels to RP-8 is acceptable.
5. Review a map of the community with the community. Make and confirm determinations of characteristics in RP-8 (regardless of whether complying or not) that are to be used to determine lighting levels, including but not limited to:
 - a. Which are streets and which are roadways.
 - b. Which streets and roadways are "major", "collector", or "local" as defined by RP-8.
 - c. Where pedestrian conflict levels are low, medium or high.

- d. Which streets are adjacent to or share the ROW with mass transit stops or bicycle paths.
 - e. Other considerations used to establish lighting requirements at the discretion of the community
 6. For each legacy luminaire in the system, determine the appropriate LED replacement per Section 7. (D.) or (E.) below.
- B. Street lighting shall be fully shielded and emit no uplight (BUG rating U=0).
- C. Street lighting chromaticity shall be determined from Table 7-1.
- D. Typical procedure for selecting appropriate LED luminaires without RP-8 compliance.
 1. Determine each legacy luminaire's primary characteristics
 - a. Light Source
 - b. Wattage of lamp
 - c. Photometric type (e.g. type II medium, type III short, etc.)
 2. Determine whether replacement is to be type a, b, or c as follows:
 - a. Most energy efficiency – recommended for most applications, generally maintains existing minimum light levels, improves uniformity. Typically considered acceptable when replacing HPS or LPS legacy systems with 2700K or 3000K LED lighting.
 - b. Compromise between energy efficiency and higher light levels – recommended for certain applications where the pedestrian area classification or some other factor suggests a modestly higher light level.
 - c. Most lighting - provides average light levels higher than existing lighting – in locations where community needs transcend energy and cost savings.

Application Notes:

- Most WRCOG communities should use types (a.) for most of their luminaires to maximize payback.
 - Kilolumen classification system takes lumen maintenance into account.
3. For intersection safety lighting, type IV luminaires may be considered in place of existing Type III or Type II.
 4. Note nominal LED kilolumen classifications in Table 7-2. To minimize the number of different luminaires to stock and maintain, this system is based on

nominal lumen packages for up to six lumen package groups (Small, Medium Small, Medium, Medium High, High, and Very High).

5. Select nominal LED luminaire kilolumens of matching photometric type from Table 7-3, column (a), (b), or (c).

EXCEPTION TO Section 7. (D.)

In Zone A and Lighting Zone 1 (LZ-1), for residential streets, street lighting shall be limited to (1) light at each residential street or residential street/residential minor collector intersection and (1) light mod block per DG-21. There shall be no requirements to meet illuminance, luminance or uniformity requirements. Lighting for walkways and sidewalks may be incidental because of the street lights. This exception may be applied to any residential street with the approval of community.

- E. Procedure for selecting appropriate LED luminaires where RP-8 or another similar standard is preferred or required.

1. Refer to LightSuite 2

Table 7-1. Maximum Allowed Color Temperature Per Lighting Zones

	Palomar Zone A and Lighting Zone LZ-1	Palomar Area B and C and Lighting Zones LZ-2 through LZ-4
Maximum Color Temperature		
Intersection Safety Lights	2700K	2700K or 3000K
Highways, Arterials and Major Collectors	2700K	2700K or 3000K
Minor Collectors and Streets	2700K	2700K
Residential Streets	2700K	2700K

Application Notes

- a) 2700K has been tested and accepted by WRCOG for intersection safety lights and highways, arterials and major collectors.
- b) Per IES there no significant difference in any performance characteristic involving safety or security between 2700K and 3000K.
- c) 2700K causes less light pollution per lumen than does 3000K.

TABLE 7-2

SUGGESTED KILOLUMEN (KL) CLASS REPLACEMENT LUMINAIRE SYSTEM FOR MINIMUM TYPES (SKU's) OF LED LUMINAIRES

Light Output LED Kilolumen (KL) Class	Application Group (a.)	Application Group (b.)	Application Group (c.)
Low (L)	Nominal 2 KL (~20 watt)	Nominal 2.5 KL (~25 watt)	Nominal 3 KL (~30 watt)
Medium low (ML)	Nominal 4.5 KL	Nominal 6 KL	Nominal 7.5 KL

	(~45 watt)	(~60 watt)	(~75 watt)
Medium (M)	Nominal 7.5 KL (~75 watt)	Nominal 10 KL (~100 watt)	Nominal 12.5 KL (~125 watt)
Medium High (MH)	Nominal 10 KL (~100 watt)	Nominal 12.5 KL (~125 watt)	Nominal 15 KL (~150 watt)
High (H)	Nominal 12.5 KL (~125 watt)	Nominal 15 KL (~150 watt)	Nominal 17.5KL (~175 watt)
Very High (VH)	Nominal 17.5 KL (~175 watt)	Nominal 20 KL (~200 watt)	Nominal 25 KL (~250 watt)

Application Notes

- Wattage values assume 100 luminaire lumens per watt. Efficacy of products will probably increase over time, reducing the watts for each KL package and increasing the energy savings.

TABLE 7-3

RECOMMENDED NOMINAL DIRECT CONVERSION LED LUMINAIRE WHEN REPLACING EXISTING LEGACY LUMINAIRES

Refer to application notes, below and Section 7. (D.)

Incumbent Legacy Luminaire ¹				LED KL Class ⁵ of Replacement Luminaire			Approx. Watts Saved Each		
Source	Lamp Watts	System Watts ²	Luminaire Lumens ³	(a.)	(b.)	(c.)	(a.)	(b.)	(c.)
Low Pressure Sodium (LPS)	35	63	3360	L	L	L	43	38	33
	55	84	5600	L	L	L	64	59	54
	90	131	9450	ML	ML	ML	86	71	56
	135	182	15750	M	M	M	107	82	57
	180	229	23100	MH	MH	MH	129	104	79
High Pressure Sodium (HPS)	70	83	4060	L	L	L	63	58	53
	100	117	6650	ML	ML	ML	72	57	42
	150	193	11200	M	M	M	118	93	68
	200	246	15400	MH	MH	MH	146	121	96
	250	313	19250	H	H	H	188	163	138
	400	485	35000	VH	VH	VH	310	285	235
Metal Halide (MH)	70	90	3960	L	L	L	70	65	60
	100	129	6120	ML	ML	ML	84	69	54
	175	210	10800	M	M	M	135	110	85
	250	295	15800	MH	MH	MH	195	170	145
	400	458	27300	H	H	H	333	308	283
Mercury Vapor (MV)	100	120	2880	L	L	L	100	95	90
	175	205	6040	L	L	L	185	180	175
	250	285	9000	ML	ML	ML	240	225	210
	400	454	16500	MH	MH	MH	354	329	304

Footnotes

- ¹ Most street luminaires in Western Riverside County are either LPS or HPS.
- ² Lamp + Ballast watts
- ³ Initial lamp lumens x luminaire efficiency (approximate, varies with fixture type)
- ⁴ Nominal luminaire watts (Total of LED and driver)
- ⁵ See Table 7-3

Application Notes

- Column (a.) will produce the fastest payback and is recommended for community projects in which the purchase cost of light poles must be amortized.
- This conversion table is suggested for general purpose use in replacing legacy lighting systems with 2700K to 3000K LED's available in the winter of 2016-2017. To adjust for future improvement in luminous efficacy, be sure to provide approximately the same number of LED lumens. LED watts are typical for products available in spring, 2017.
- LED luminaire lumens are generally lower than legacy luminaires because of the ability of LED optical systems to achieve a greater percentage of utilization than legacy luminaires.
- Acceptable results will generally occur if care is taken to replace luminaire distribution types (e.g. Type III medium) with like.

- All values are nominal and represent average expected outcomes. Differences of less than 15-20% are probably not significant for this table.
- Use of this table does not ensure compliance with IES RP-8-14. In many cases, pole height, mast arm length and/or pole spacing may not permit compliance with RP-8-14 regardless of existing legacy source luminaires. If compliance with RP-8-14 is required, lighting calculations will be necessary and may result in different LED luminaire watts and lumens. Analysis using WRCOG standard AGI32 street models is recommended. See LightSuite 3 for recommended illuminating engineering standards.
- Lumen maintenance of the legacy light source as compared to LED lighting has been considered for each lamp type. Some legacy light sources have less lumen depreciation than others.

Section 8. PRODUCT SPECIFICATIONS

- A. Luminaires shall comply with the current WRCOG LightSuite 3, Specification of LED Products for Replacement of Cobrahead Street Lighting Luminaires.

Section 9. SUBMITTALS FOR APPROVAL

- A. Plan(s) of the proposed lighting installation clearly identifying:
1. The criteria for each roadway segment, intersection, and other elements as required in Section 8. (C.), (D.), and (E.), above. Information affecting criteria selection, such as proximity to a school or transit stop shall be included. Calculations representing typical stretches of roadways or streets may be permitted for each condition of Lighting Zone, pedestrian area classification, posted speed or other differences.
 2. The AASHTO pavement type(s), i.e. R1, R2, R3, or R4.
 3. Point-by point lighting calculations on a grid not larger than 2.5' x 2.5' (.75m x .75m).
 4. Calculation summaries showing average, minimum, and maximum values and ratios as contained in the tables of criteria in RP-8.
 5. Calculations to include roadways, intersections, walkways, and all other parts of the project for which criteria were developed under Section 9. (A.) 1.
 6. Schedule of luminaires including mounting height, mast arm length, and pole base locations.
- B. Specifications for each luminaire to include:
1. Product datasheet.
 2. Photometric report.
 - a. Must clearly indicate BUG rating per TM-15.
 3. Drawing of pole or standard including base details.

4. Drawing of mast arm if used.
5. Datasheet for driver and surge suppressor.
6. Datasheet for photocell.

END OF SECTION

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Section 1. INTENT

The purpose of this Ordinance is to provide regulations for outdoor lighting that will:

- a. Ensure adequate outdoor illumination can be provided.
- b. Help mitigate light pollution, reduce skyglow and improve the nighttime environment for astronomy and the Palomar Observatory and the overall enjoyment of the naturally dark night sky;
- c. Minimize adverse offsite impacts of lighting such as light trespass, and obtrusive light.
- d. Help protect human health and wellness and the natural environment from the adverse effects of man-made outdoor lighting.
- e. Conserve energy and resources to the greatest extent possible.

Section 2. CONFORMANCE WITH APPLICABLE LAWS, CODES, REGULATIONS and ORDINANCES.

All outdoor luminaires shall be installed in conformance with the provisions of this ordinance and the applicable provisions of the ordinances of the County of Riverside regulating the installation of such fixtures, the California Building Code Title 24 Part 2, the California Electrical Code Title 24 Part 3, the California Building Energy Efficiency Standards Title 24 Part 6, the California Sustainability Standards Title 24 Part 11 "CalGreen", and all other applicable requirements.

Section 3. SCOPE

The provisions of this code apply to the construction, alteration, movement, enlargement, replacement and installation of outdoor lighting throughout the unincorporated areas of Riverside County, including but not limited to:

- A. Lighting on private property, such structures, areas, features, security and advertising.
- B. Lighting for private roadways, walkways and bikeways.
- C. Lighting for public property such as structures, areas, features, security and advertising.

Exceptions to Section 3

1. Facilities, sites or roadways under the sole jurisdiction of the Federal or State Governments or within the jurisdiction of a sovereign nation.
2. Lighting specifically governed by a Federal or State regulation or statute.
3. Lighting subject to the terms of a special plan approved by the County.

Section 4.

APPROVED MATERIALS AND METHODS OF INSTALLATION.

This ordinance is not intended to prevent the use of any design, material or method of installation not specifically forbidden, provided any such alternate has been approved. The Planning Director may approve any such proposed alternate if it:

- A. Provides at least approximate equivalence to the applicable specific requirements of this ordinance; and
- B. Is otherwise satisfactory and complies with the intent of this ordinance.

Section 5. DEFINITIONS.

- A. **Luminaire** means a complete illuminating device, lighting fixture or other device that emits light, consisting of light source(s) together with the parts designed to distribute the light, to position and protect the light source(s), to regulate the electrical power, and to connect the light sources to the power supply.
- B. **Outdoor luminaire** means a luminaire, whether permanently installed or portable, that is installed outdoors, whether completely or partly exposed or under a canopy, and used for general or task illumination for any of the following applications:
 1. Lighting for and around buildings and structures.
 2. Lighting for parks and recreational facilities.
 3. Parking lots and garages.
 4. Landscape lighting.
 5. Outdoor advertising displays and other signs.
 6. General area lighting for commerce, industry or security.
 7. Street and roadway lighting.
 8. Walkway, bikeway and lighting.
- C. **Class I lighting** means all outdoor luminaires used for but not limited to outdoor sales or eating areas, assembly or repair area, outdoor advertising displays and other signs, recreational facilities and other similar applications when color rendition is important.
- D. **Class II lighting** means all outdoor lighting used for but not limited to illumination for walkways, private roadways and streets, equipment yards, parking lot and outdoor security when color rendering is not important.
- E. **Class III lighting** means that lighting not meeting Class I or Class II purposes and used primarily for decorative effects. Examples of Class III lighting include, but are not limited to, the illumination of flag poles, trees, fountains, statuary, and building walls.
- F. **Planning Director** means the Director of Planning of the County of Riverside or representative(s) designated by the Planning Director.
- G. **IES** means the Illuminating Engineering Society of North America.

- H. **Zone A** means the circular area fifteen (15) miles in radius centered on Palomar Observatory.
- I. **Zone B** means the circular ring area defined by two circles, one forty-five (45) miles in radius centered on Palomar Observatory, and the other the perimeter of Zone A.
- J. **Zone C** means the remainder of the County outside of the perimeter of Zone B.
- K. **Individual** means any private individual, tenant, lessee, owner or any commercial entity, including, but not limited to, companies, partnerships, joint ventures or corporations.
- L. **Installed** means any installation of outdoor luminaires after the effective date of this ordinance. Projects with construction plans approved by the County prior to the effective date of this ordinance are excluded from installation in compliance with this ordinance.
- M. **BUG rating of an outdoor luminaire** means the ranking of the luminaire using a photometric report to establish the Backlight (B), Uplight (U) and Glare (G) ranking according to IES TM-15-11.
- N. **Fully Shielded Luminaire** means an outdoor luminaire where no light is emitted at or above an angle of 90 degrees above the nadir as evidenced by a photometric test report from a NVLAP accredited testing laboratory in which the uplight value (U) is 0. Any structural part of the luminaire providing shielding shall be permanently attached.
- O. **Partly Shielded luminaire** means outdoor luminaires that have a U (uplight) rating between 1 and 4.
- P. **Unshielded luminaire** means outdoor luminaires that are not Fully Shielded or Partly Shielded and have a U (uplight) rating of 5 or no rating at all.
- Q. **Outdoor Advertising Display** means advertising structures and signs used for outdoor advertising purposes, not including onsite advertising signs, as further defined and permitted in Article XIX of Ordinance No. 348.
- R. **Outdoor Recreational Facilities** means public or private facilities designed and equipped for the conduct of sports, leisure time activities and other customary and usual recreational activities. Outdoor recreational facilities include, but are not limited to, fields for softball, baseball, football, soccer, and any other field sports, courts for tennis, basketball, volleyball, handball and other court sports, for which the level of play according to IES RP-6-15 Section 4.4 is Class III or Class IV.
- S. **Outdoor Sports Facilities** include fields for softball, baseball, football, soccer, and other field sports, courts for tennis, basketball, volleyball, handball and other court sports, and outdoor stadiums in which the level of play, according to RP-6-15 Section 4.4 is Class I or Class II.
- T. **Lamp or source.** Generic term for a man-made source of light. In the context of this Code, a lamp is the user-replaceable electrically powered light bulb, fluorescent or neon tube, or LED light source.
- U. **LED** means light emitting diode solid state lighting source.
 - 1. **LED Hybrid** means a dedicated LED luminaire employing LED devices of two or more different colors, typically a white LED and a colored LED. For the purposes of this Ordinance, the white LED shall not exceed 3000K and the other color LED(s) must be green, amber, orange and/or red. Blue or violet LEDs are not permitted.

- 2. **LED Amber** means an LED luminaire employing amber or yellow colored LED devices.
- 3. **Filtered LED (FLED)** means a dedicated LED luminaire employing white LED devices and has a permanently affixed color filter to remove blue light and giving the appearance of an amber or yellow-green light.
- V. **Curfew** means a time established for listed lighting systems to be automatically extinguished.
- W. **Dedicated LED** means a luminaire with a hard-wired LED light generating module and a separate driver.
- X. **Outdoor Luminaire Light Output** means the amount of light, measured in lumens, generated by a luminaire. The luminaire lumens shall be the rated lumens of the luminaire according to a photometric report from a NVLAP certified test laboratory.

Section 6.

TITLE 24 LIGHTING ZONES

For the purposes of complying California Code of Regulations, Title 24, Part 1, Section 10-114 and Title 24, Part 6, Section 140.7, Zone A as defined above shall be Lighting Zone 1 (LZ-1), Zone B as defined above shall be Lighting Zone 2 (LZ-2) . The balance of the County shall be LZ-2 or LZ-3 per the statewide default zones.

The Planning Director shall establish a method for applicant(s) to request and for the Planning Director to set a different lighting zone per Title 24, Part 1 Section 10-114 for a specific parcel or project.

Section 7.

GENERAL REQUIREMENTS.

Light sources are restricted by lighting zone according to the following Tables:

TABLE 7-1 Class I Lighting (color rendering is important)

ALL LUMINAIRES SHALL BE FULLY SHIELDED			
Source	Zone A and LZ-1	Zone B and/or LZ-2	Zone C and/or LZ-3
LED >3000K	Not allowed	Not allowed	Not allowed
LED 3000K	Allowed	Allowed	Allowed
LED 2700K or less	Allowed	Allowed	Allowed
Incandescent or 2700K or lower LED replacement lamps	Allowed	Allowed	Allowed
LED amber, hybrid or filtered	Allowed ¹	Allowed ¹	Allowed ¹
Metal halide, fluorescent, compact fluorescent, induction	Not allowed	Allowed if 3000K or less	Allowed if 3000K or less
High pressure sodium	Allowed ¹	Allowed ¹	Allowed ¹
Low pressure sodium	Allowed ²	Allowed ²	Allowed ²
Neon or cold cathode	Not allowed	Not allowed	Not allowed
Other light sources ³	Not allowed	Not allowed	Not allowed

Notes

- ¹ Not recommended due to poor color rendering
- ² Not recommended – source is obsolete and has no color rendering
- ³ For light sources not listed, applicants may appeal as provided under Section 3.

TABLE 7-2 Class II Lighting (color rendering is not important)

ALL LUMINAIRES SHALL BE FULLY SHIELDED			
Source	Zone A and LZ-1	Zone B and LZ-2	Zone C and LZ-3 or 4
LED >3000K	Not allowed	Not allowed	Not allowed
LED 3000K	Not allowed	Allowed	Allowed
LED 2700K or less	Allowed	Allowed	Allowed
Incandescent or 2700K or lower LED replacement lamps	Allowed	Allowed	Allowed
LED amber, hybrid or filtered	Allowed	Allowed	Allowed
Metal halide, fluorescent, compact fluorescent, induction	Not allowed	Not allowed	Not allowed
High pressure sodium	Allowed	Allowed	Allowed
Low pressure sodium	Allowed ¹	Allowed ¹	Allowed ¹
Neon or cold cathode	Not allowed	Not allowed	Not allowed
Other light sources ²	Not allowed	Not allowed	Not allowed

Notes

- ¹ Not recommended – source is obsolete and has no color rendering
² For light sources not listed, applicants may appeal as provided under Section 3.

TABLE 7-3 Class III Lighting (decorative lighting)

LUMINAIRES SHALL BE FULLY SHIELDED EXCEPT AS NOTED			
Source	Zone A and LZ-1	Zone B and LZ-2	Zone C and LZ-3 or 4
LED >3000K	Not allowed	Not allowed	Not allowed
LED 3000K	Not allowed	Allowed	Allowed
LED 2700K or less	Allowed	Allowed	Allowed
LED amber, hybrid or filtered	May be partly shielded or unshielded up to 450 lumens	May be partly shielded or unshielded up to 600 lumens	May be partly shielded or unshielded up to 1000 lumens
Incandescent or 2700K or lower LED replacement lamps			
Metal halide, fluorescent, compact fluorescent, induction	Not allowed	Not allowed	Not allowed
High pressure sodium	Allowed	Allowed	Allowed
Low pressure sodium ¹	Allowed ¹	Allowed ¹	Allowed ¹
Neon or cold cathode	Not allowed	Not allowed	Not allowed
Other light sources ²	Not allowed	Not allowed	Not allowed

Notes

- ¹ Not recommended – source is obsolete and has no color rendering
² For light sources not listed, applicants may appeal as provided under Section 3.

Section 8.**SUBMISSION OF PLANS AND EVIDENCE OF COMPLIANCE.**

The application for any required County approval for work involving nonexempt outdoor luminaires shall include evidence that the proposed work will comply with this ordinance. The submission shall contain, but not be limited to, the following:

- A. The location of the site where the outdoor luminaires will be installed;
- B. Plans indicating the location and type of fixtures on the premises;
- C. A description of the outdoor luminaires, including, but not limited to, manufacturer's catalog cuts and drawings.
- D. Photometric reports from a NVLAP accredited laboratory indicating luminaire light source type, color temperature, and BUG rating.

The above required plans and descriptions shall be sufficiently complete to enable the County to readily determine whether compliance with the requirements of this ordinance will be secured. If such plans and descriptions cannot enable this ready determination, by reason of the nature or configuration of the devices, fixtures or lamps proposed, the applicant shall submit further evidence of compliance enabling such determination.

Section 9.
PROHIBITIONS.

- A. All lighting shall be off between 11:00 p.m. and one hour before sunrise, except as follows:
1. Motion sensors may be used for Class I lighting after 11:00 p.m.
 2. Class II lighting may remain on all night but shall employ motion sensors to turn lights off or dim lights when there is no motion after 11:00 p.m.
 3. On-premise advertising signs shall only be illuminated while the business facility is open to the public
 4. Outdoor advertising displays may remain lighted until midnight.
 5. Outside sales, commercial, assembly, repair, and industrial areas shall only be lighted when such areas are actually in use.
 6. Outdoor recreational facilities may remain lighted to complete recreational activities that are in progress and under illumination in conformance with this ordinance at 11:00 p.m.
- B. Operation of searchlights or aerial lasers for advertising purposes is prohibited.
- C. All external sign and billboard lighting shall be top-down. Bottom mounted signs are prohibited. Signs shall comply with the sign code.
- D. Use of mercury vapor lamps is prohibited.

Section 10.
PERMANENT EXCEPTIONS.

- A. Nonconformance. All outdoor luminaires existing and legally installed prior to the effective date of this ordinance are exempt from the requirements of this ordinance except that:
1. When existing luminaries are reconstructed or replaced, such reconstruction or replacement shall be in compliance with this ordinance.
 2. Sections 9 b, c, d and e regarding hours of operation shall apply.
- B. Fossil Fuel Light. All outdoor luminaires producing light directly by combustion of fossil fuels (such as kerosene lanterns, and gas lamps) are exempt from the requirements of this ordinance.
- C. Holiday Decorations. Lights used for holiday decorations are exempt from the requirements of this ordinance.

D. Outdoor Sports Facilities may employ either:

- a. Up to 6000K LED lighting systems provided (1) the lighting system employs shielding to completely prevent uplight; (2) the lighting is controlled by motion sensors or from a control booth; and (3) the lighting is dimmable and designed to use the least amount of light necessary for the activity; and (4) the lighting system has a fixed curfew of 11:00PM that can be overridden from the control booth.
- b. Up to 5700K Metal halide lighting systems provided (1) the lighting system employs shielding to completely prevent uplight; (2) the lighting is controlled from a control booth and does not automatically turn on; (3) the lighting system has a fixed curfew of 11:00PM that can be overridden from the control booth.

Section 11.
TEMPORARY EXEMPTIONS.

- A. Information Required. Any individual may submit a written request to the Planning Director for a temporary exemption from the requirements of this ordinance. The filing fee for the temporary exemption shall be \$50.00. The Request for Temporary Exemption shall contain the following information:
1. Name, address and telephone number of the applicant;
 2. Location of the outdoor luminaires for which the exemption is requested;
 3. Specific exemption(s) requested;
 4. Use of the outdoor luminaires involved;
 5. Duration of the requested exemption(s);
 6. Type of outdoor light fixture to be used, including the light source and color temperature, total lumen output, character of the shielding, if any;
 7. Previous temporary exemptions, if any;
 8. Such other data and information as may be required by the Planning Director. The Planning Director shall have ten (10) business days from the date of receipt of the Request for Temporary Exemption to approve or disapprove the request. The applicant will be notified of the decision in writing.
- B. Duration of Approval. The exemption shall be valid for not more than thirty (30) consecutive days from the date of issuance of approval. Exemptions are renewable for a period of not more than fifteen (15) consecutive days. Requests for renewal of a temporary exemption shall be processed in the same manner as the original request. No outdoor luminaires shall be exempted from this ordinance for more than forty-five days during any twelve (12) month period.

Exception to Section 11 (B.): An exemption for portable lighting for construction shall be valid for one year and may be renewable on an annual basis.

- C. Appeals. An applicant or any interested person may file an appeal from the decision of the Planning Director within 10 days of the date of mailing of the notice of decision to the applicant. The appellant may appeal that decision, in writing, to the Board of Supervisors, on forms provided by the Planning Department, which shall be accompanied by a filing fee of \$25.00. Upon receipt of a completed appeal, the Clerk of the Board shall set the matter for hearing before the Board of Supervisors not less than five days nor more than 30 days thereafter and shall give written notice of the hearing to the appellant and the Planning Director. The Board of Supervisors shall render its decision within 30 days following the close of the hearing on the appeal.

Section 12. EMERGENCY EXEMPTIONS.

This ordinance shall not apply to portable temporary lighting used by law enforcement or emergency services personnel to protect life or property.

Section 13. CONFLICTS.

Where any provision of the statutes, codes or laws of the United States of America or the State of California conflicts with any provision of this ordinance, the most restrictive shall apply unless otherwise required by law.

Section 14. VIOLATIONS AND PENALTIES.

It shall be unlawful for any individual to operate, erect, construct, enlarge, alter, replace, move, improve, or convert any lighting structure, or cause the same to be done, contrary to or in violation of any provision of this ordinance.

Any individual violating any provision of this ordinance shall be deemed guilty of an infraction or misdemeanor as hereinafter specified. Such individual shall be deemed guilty of a separate offense for each and every day or portion thereof during which any violation of any of the provisions of this ordinance is committed, continued, or permitted.

Any individual convicted of a violation of this ordinance shall be (1) guilty of an infraction offense and punished by a fine not exceeding one hundred dollars (\$100) for a first violation: (2) guilty of an infraction offense and punished by a fine not exceeding two hundred fifty dollars (\$250) for a second violation on the same site and perpetrated by the same individual. The third and any additional violations on the same site and perpetrated by the same individual shall constitute a misdemeanor offense and shall be punishable by a fine not exceeding one thousand dollars (\$1,000) or six months in jail, or both. Payment of any penalty herein shall not relieve an individual from the responsibility for correcting the violation.

Section 15.
VIOLATIONS CONSTITUTE PUBLIC NUISANCE.

Any lighting structure erected, constructed, enlarged, altered, replaced, moved, improved, or converted contrary to the provisions of this ordinance shall be, and the same is hereby declared to be, unlawful and a public nuisance and subject to abatement in the manner provided by law. Any failure, refusal or neglect to obtain a permit as required by this ordinance shall be prima facie evidence of the fact that a public nuisance has been committed in connection with the erection, construction, enlargement, alteration, replacement, improvement, or conversion of a lighting structure erected, constructed, enlarged, altered, repaired, moved, improved, or converted contrary to the provisions of this ordinance.

Section 16.
SEVERABILITY.

If any provision of this ordinance or the application thereof to any individual or circumstance is invalid, the invalidity shall not affect other provisions or applications of this ordinance which can be given effect without the invalid provision or application, and to this end the provisions of this ordinance are severable.

Section 17.
EFFECTIVE DATE.

This ordinance shall take effect and be in force thirty (30) days after the date of its adoption.

PROPOSED MODERNIZATION OF RIVERSIDE COUNTY ORDINANCE NO.915P REGULATING
OUTDOOR LIGHTING

Proposed changes are underlined and in bold.

The Board of Supervisors of the County of Riverside ordains as follows:

Section 1. FINDINGS

The Board of Supervisors finds that inadequately shielded outdoor lighting results in a waste of natural resources and **causes** light trespass. The Board of Supervisors further finds that ~~at certain levels, light trespass, and associated glare, may jeopardize the health, safety or general welfare of Riverside County residents and degrade their quality of life.~~ **The Board of Supervisors also finds that these concerns are sufficiently different from the negative impacts of light pollution that are currently regulated by Ordinance 655 to warrant this specific Ordinance.**

Section 2. PURPOSE

The purpose of this Ordinance is to provide minimum requirements for outdoor lighting in order to reduce light trespass, and to protect the health, property, and well-being of residents in the unincorporated areas of the County.

Section 3. AUTHORITY

This Ordinance is adopted pursuant to the Board of Supervisors' police power as set forth under Article XI, section 7 of the California Constitution.

Section 4. DEFINITIONS

As used in this Ordinance, the following terms shall have the following meanings:

- a. Adequately shielded. ~~Shielding of an outdoor luminaire by opaque components or materials, such that light rays are limited to the parcel of origin and the light source is not visible from another property or public right-of-way.~~ A luminaire using a combination of internal or attached shielding and/or aiming to control light radiation onto the property on which is it located.
- b. Glare. Light emitting from an outdoor luminaire that causes ~~reduced vision or momentary blindness.~~ visual disability or discomfort.
- c. Light source (lamp). An electrical bulb, tube, diode, or other device that produces artificial light or illumination.
- d. ~~Light trespass.~~ **Trespassing Light.** Light falling across a property line onto another lot or parcel of land or onto a public right-of-way. The presence of ~~light trespass~~ **trespassing light** shall be determined in accordance with Section 7 of this Ordinance.

e. Luminaire. A complete lighting unit consisting of one or more lamps, **LED arrays or other light sources**, ~~the lamp~~ **light source mounting** or holder, any reflector or lens, and any other components or accessories.

f. Outdoor Luminaire. ~~Outdoor luminaires~~, A luminaire, whether permanent or portable, including general light fixtures, searchlights, spotlights, and floodlights; and the light cast by such fixtures installed outdoors.

Section 5. STANDARD

- a. All outdoor luminaires ~~in~~ shall be located, adequately shielded, and directed such that no direct light falls outside the parcel of origin, or onto the public right-of-way, **except as allowed in Section 7.** Outdoor luminaires shall not blink, flash, or rotate.

EXCEPTION TO Section 5.(a.). Less than fully shielded decorative luminaires permitted by Ordinance 655 Table 7-3.

- b. **All outdoor luminaires shall be rated 3000K or less correlated color temperature (CCT).**

EXCEPTION TO Section 5(b.) New luminaires shall comply with Ordinance 655.

- c. **All outdoor luminaires shall be turned off or dimmed at least 50% after a curfew time, defined as the later of either (1) 10:00PM or (2) 1 hour after the close of business. Luminaires may be controlled by motion sensors after curfew.**

Section 6. EXEMPTIONS

The following outdoor luminaires shall be exempt from the provisions of this Ordinance when properly installed and in compliance with all County ordinances:

- a. Luminaires used or otherwise required by law enforcement or other emergency personnel.
- b. Luminaires used to illuminate publicly-owned property, including but not limited to, parks, recreation areas, schools, streets, street signs and sidewalks.
- c. Luminaires used to illuminate authorized public and private monuments.
- d. Luminaires authorized by a provision of state or federal law as long as that lighting conforms to the requirements of the state or federal law.
- e. Luminaires used for holiday decoration.
- f. Luminaires producing light directly by the combustion of fossil fuels (such as kerosene lanterns, and gas lamps).
- g. Neon luminaires.
- h. Luminaires used to illuminate agricultural activities, operations or facilities as defined in Section 5 of Riverside County Ordinance No. 625.

- i. Luminaires used to illuminate for parking areas and other outdoor spaces directly serving a facility operating 24 hours are not required to be turned down or off as required under Section 5 (c.).
- j. Luminaires used to illuminate sports courts and fields, provided that they are equipped with controls to prevent operation after 10PM Sunday through Thursday and 11PM Friday and Saturday.

Section 7. DETERMINATION OF LIGHT TRESPASS

A determination of light trespass shall be made by observation of the allegedly non-conforming luminaire(s) measurement of the allegedly trespassing light onto from the complaining party's property. A "complaining party" may be either an owner or occupant of private property or a public entity. Trespassing light occurs when the amount of light measured at the property line in any plane caused by one or more luminaires exceeds the following limits:

<u>Maximum Light Limit</u>	<u>Pre-curfew</u>	<u>Post-curfew</u>
<u>Onto any residential property, in-patient health care facility, dormitory, hotel or motel</u>	<u>3 lux (0.3 foot-candle)</u>	<u>1 lux (0.1 foot-candle)</u>
<u>Onto any non-residential property or public right of way</u>	<u>8 lux (0.8 foot-candle)</u>	<u>3 lux (0.3 foot-candle)</u>

Section 8. SECURITY LIGHTING

Security lighting solely triggered by motion or noise shall be allowed subject to all of the provisions of this Ordinance except Section 5 (c.).

Section 9. NON-CONFORMING OUTDOOR LUMINAIRES

Outdoor luminaires existing on the effective date of this Ordinance that do not meet the requirements as set forth herein shall be brought into compliance or removed as follows:

- a. Within three (3) months of the effective date of this Ordinance, where redirection of the light fixture is feasible and will bring the light fixture into compliance; or
- b. Within six (6) months of the effective date of this Ordinance, in all other cases.

Section 10. COMPLIANCE METHODS

Outdoor luminaires not meeting the standards of Section 5 be brought into compliance in any of the following ways:

- a. Redirection of the luminaire;
- b. Shielding of the light source;
- c. Redesign or relocation of the luminaire;
- d. Replacement of the luminaire with a conforming luminaire; or

- e. Removal of the luminaire.

Section 11. ENFORCEMENT

The Riverside County Sheriff and Code Enforcement Departments shall have the primary responsibility for enforcing this Ordinance.

Section 12. VIOLATIONS AND PENALTIES

Any person who violates any provision of this Ordinance once or twice within a one hundred and eighty (180) day period shall be guilty of an infraction. Any person who violates any provision of this Ordinance more than twice within a one hundred and eighty (180) day period shall be guilty of a misdemeanor. Each day a violation is committed or allowed to continue shall constitute a separate offense and shall be punishable as such. Penalties shall not exceed the following amounts.

- a. For the first violation within a one hundred and eighty (180) day period the minimum mandatory fine shall be one hundred dollars (\$100).
- b. For the second violation within a one hundred and eighty (180) day period the minimum mandatory fine shall be two hundred and fifty dollars (\$250).
- c. For any further violations within a one hundred and eighty (180) day period the minimum mandatory fine shall be five hundred dollars (\$500) or imprisonment in the County jail for a period not exceeding six (6) months, or both.

Section 13. CONFLICT BETWEEN ORDINANCE REQUIREMENTS

This Ordinance shall neither replace the requirements of the zoning Ordinance or any other County ordinances, including but not limited to County Ordinance No. 655, nor supersede the terms of any private Covenants, Conditions and Restrictions (CC&Rs). However, when there is a conflict in the requirements of this and any other ordinance, the more stringent requirements shall apply. The County of Riverside does not enforce private CC&Rs.

Section 14. SEVERABILITY.

If any provision of this Ordinance or the application thereof to any person or circumstance, is held invalid, such invalidity shall not affect the remainder of the Ordinance or the application of such provision(s) to other persons or circumstances.

Section 15. SAVINGS CLAUSE

The adoption of this Ordinance shall not in any manner affect the prosecution of ordinance violations, which violations were committed prior to the effective date of this Ordinance, nor be construed as a waiver of any permit, license, penalty or penal provisions applicable to such violations. The provisions of this Ordinance, insofar as they are substantially the same as ordinance provisions previously adopted by Riverside County relating to the same subject matter, shall be construed as restatements and continuations, and not as new enactments.

Section 16. EFFECTIVE DATE

This Ordinance shall take effect 30 days after its adoption.

DRAFT

SUGGESTED COMMUNITY OUTDOOR LIGHTING ORDINANCE

Section 1. Purpose.

The purpose of this ordinance is to implement the goals of the General Plan and protect and promote public health, safety, welfare, and quality of life by establishing regulations and a process for review of outdoor lighting that will accomplish the following:

A. Protect against light pollution in all its forms, thereby reclaiming the ability to view the night sky and thereby help preserve the quality of life and scenic value of this desirable visual resource;

B. Help protect and enhance human health and wellness and wildlife habitation and migration by minimizing light pollution and its impact on all forms of life, consistent with the June 2016 position on outdoor lighting by the American Medical Association.

C. Promote lighting practices and systems to conserve energy, decrease dependence on fossil fuels and limit greenhouse gas emissions consistent with the California Global Warming Solutions Act and other applicable state and federal law.

D. Ensure that sufficient lighting can be provided where needed to promote safety and security on public and private property, and to allow for reasonable lighting for commercial properties and activities,

E. Provide easily understood regulations for residential lighting that help minimize obtrusive light and mitigate neighbor-to-neighbor lighting issues;

F. Provide practical regulations for non-residential lighting that are consistent with the California Code of Regulations, Title 24, Parts 1, 2, 6 and 11.

G. Allow reasonable flexibility in the style of lighting fixtures and the technology used to generate and control light; and,

H. Permit appropriate lighting employing historic and current technology, evolving advancements, energy use and economic needs.

Section 2. Applicability

A. Except as described below, all outdoor lighting installed or modified after the date of effect of this Ordinance shall comply with these requirements. This includes, but is not limited to, new lighting, replacement lighting, additions and alterations, or any other lighting whether attached to structures, poles, the earth, or any other location, including lighting installed by any third party.

Exception to Section 2. (A.): Any lighting-specific requirements in the following shall take precedence over this ordinance.

- a. Specific use permit.
- b. Federal, state, or county laws or regulations.

Exemptions from Section 2. (A.) The following are not regulated by this Ordinance:

1. Indoor lighting.
2. Lighting within public right-of-way or easement for the principal purpose of illuminating streets, roads, sidewalks, walkways, bikeways, bridges, tunnels and other public means of conveyance and travel.
3. Lighting permitted prior to the effective date of this Ordinance
4. Lighting solely for signs (lighting for signs is regulated by the Sign Ordinance).

5. Repairs to existing luminaires, but not including new replacement luminaires or modifications to existing luminaires.
 6. Temporary lighting for one-time events.
 7. Underwater lighting in swimming pools and other water features.
 8. Temporary lighting and seasonal lighting, except that temporary lighting and seasonal lighting are not permitted in or within 100 feet (30.5 meters) of Public Open Space.
 9. Short-term lighting associated with activities authorized by a valid temporary use permit, special event permit or film permit.
 10. Construction or emergency lighting provided such lighting is temporary and is discontinued immediately upon completion of the construction work or abatement of the emergency necessitating said lighting.
- B. Applications for land use entitlements after the effective date of this ordinance shall include compliance with this chapter as a condition of approval.

Section 3. General Requirements for all Outdoor Lighting.

- A. **Compliance with State Code** All lighting and controls shall comply with the California Title 24 California Code of Regulations, Title 24, Parts 1, 2, 6 and 11.
- B. **Shielding** All luminaires shall be fully shielded and shall not emit light into the upper hemisphere around the luminaire once installed. Support and mounting systems for luminaires shall not allow post-installation adjustments that could defeat compliance of this requirement.

Exceptions to Section 3. (A.)

- a. Decorative lighting as permitted herein.
 - b. Landscape lighting as permitted herein.
 - c. Architectural floodlighting and outlining as permitted herein.
- C. **Turned off or reduced after curfew** Automated control systems, such as motion sensors, astronomic timer switches and lighting control systems, shall be used to meet the curfew requirements of 17.41.050 and the technical and energy efficiency requirements of California Code of Regulations Title 20 Section 1605.1(I) and Title 24 Part 6 Sections 130.2, 140.7 and 150.1. Manual initiation switches are permitted as long as they do not defeat the automatic shut off function.

Exceptions to Section 3. (B.)

- a. Egress lighting as required by Title 24 Part 2 Section 1006.
 - b. Lighting for facilities having 24 hour operations or business.
 - c. Lighting required for accessibility.
 - d. Lighting required by statute, law or ordinance to operate all night.
 - e. One luminaire per residence that illuminates the address or apartment number.
 - f. Lighting by special permit.
- D. **Lighting Color (Chromaticity).** The correlated color temperature of all outdoor lighting shall be 3000 Kelvin or less, with tolerance within the ANSI standard C78.377 of LED sources.

Exceptions to 17.41.040 (C.)

- a. Amber sources necessary to protect beach and environmentally sensitive habitat areas, as determined by the planning director.

- b. Legally required monochromatic light sources including but not limited to, aviation obstruction lighting, traffic signal lighting, and marine lighting
 - c. As allowed by a special use permit.
- E. **Prevention of Light Trespass** All lighting shall be designed and implemented to mitigate light trespass onto adjacent properties. The maximum allowable light trespass shall be per Table 1 and Table 2.
- F. **Lighting Not Permitted** None of the following are permitted except by special permit:
 - 1. Dynamic lighting, such as moving lights, color changing lighting,
 - 2. Luminaires exceeding 500,000 peak candelas or 500,000 lumens
 - 3. Laser lighting
 - 4. Unshielded lighting such as string lights, light rope, neon lighting, or LED tubing.
 - 5. Lighting within Public Open Space areas.

Section 4. Lighting Zones

- A. **Lighting Zones** The Planning Director shall develop and maintain a lighting zone map of the community identifying the following zones as defined and required by the California Code of Regulations, Title 24, Part 1, Section 10-114 as follows:
 - Lighting Zone 0 (Zero)**, which shall include Environmentally Sensitive Habitat Area (ESHA), Public Open Space (POS) Area, and other areas within the community that are undeveloped or intended to be preserved in a natural state and for which lighting is only provided for safety or to meet applicable Federal, State or community requirements.
 - Lighting Zone 1 (One)**, which shall include all areas of the community that are adjacent to Lighting Zone 0, rural in character, and/or which are determined by the Planning Director to be suitable for low levels of exterior lighting at night.
 - Lighting Zone 2 (Two)**, which shall include all areas of the community that are semi-urban or urban in character, and/or which are determined by the Planning Director to be suitable needs for modest levels of exterior lighting at night.
 - Lighting Zone 3 (Three)**, which shall include all areas of the City that are urban in character or have high night light level requirements for specific property uses which are determined by the Planning Director to be suitable needs for medium to high levels of exterior lighting at night.
 - Lighting Zone 4 (Four)** shall not be used in the community except by special permit.
- B. **Posting of Zoning Map** The Lighting Zone Map shall be posted on the Web Site of the City and made available to the public.
- C. **Administration of Lighting Zones** The Planning Director shall develop a process to review proposed changes and appeals to the Lighting Zone map, which shall be approved

by City Council. Approved changes and appeals shall be updated onto the Lighting Zone Map. The Planning Director shall notify the California Energy Commission according to California Code of Regulations, Title 24, Part 1, Section 10-144(d).

Section 5. Lighting Zone Specific Lighting Requirements

- A. **Applicability** In addition to the foregoing, all outdoor lighting must meet the following requirements per Lighting Zone and whether the property being lighted is residential or non-residential. Residential properties shall comply with Table 1 and non-residential properties shall comply with Table 2 as described below. For the purposes of these requirements, multi-family residential properties of 8 domiciles or more shall be considered non-residential.
- B. **Curfew**
1. **Residential lighting** All exterior lighting shall be extinguished at the curfew time by an automatic shut off device. Motion sensor controlled lighting may be used after curfew if it is fully shielded and located within 10 feet of a building entrance.
 2. **Non-residential lighting** All exterior lighting shall be extinguished or dimmed 50% at the curfew time under the control of an automatic device. Motion sensor controlled lighting may be used to turn on or increase the light level for fully shielded lighting at building entrances, exits, parking lots and walkways.
- C. **Maximum Lumens** For a dedicated fluorescent, LED or HID luminaire, the allowed maximum rated lumens per a photometric report or manufacturer's product literature. For a line voltage socket luminaire or a low voltage socket luminaire, the rated lumens of the lamp installed in it.
- D. **Maximum Mounting Height** The maximum mounting height above adjacent grade. See Figure 2.
- Exception 1 to 17.41.060 (D):** There is no maximum mounting height for fully recessed luminaires.
- Exception 1 to 17.41.060 (D):** For multi-story residential buildings and motels with exterior entrance doors, the maximum mounting height shall be 8 feet above adjacent floor unless recessed into an adjacent ceiling, soffit or overhang.
- E. **Landscape lighting** Landscape lighting is permitted per Table 1 and Table 2. Downlight only means that the luminaire emits no light above 90 degrees relative to nadir (no light upwards). Shielded uplight means a luminaire aimed upward within 30 degrees of straight up that employs a baffle or louver to prevent glare. See Figure 3.
- F. **Architectural Floodlighting and Outlining** The use of lighting to illuminate building facades, statuary, and similar edifices for appearance or other needs not involving visual tasks such as walking or driving may be permitted in lighting zones 2 and 3 if all the following conditions are met:
1. A plan and rendering is submitted for review and approval by the Planning Director.

2. The amount of exposed light sources does not exceed 20,000 lumens per acre of the site.
3. The average illumination of a façade or edifice shall not exceed 5 footcandles (50 lux).
4. Such lighting shall be extinguished at curfew.

No such lighting may be used without a permit, and shall not be allowed in lighting zones 0 and 1 under any conditions.

Section 6. Plan Review and Permitting

- A. **Plan Review** All outdoor lighting installations or installations involving new lighting or the modification, alteration, or replacement of outdoor lighting shall submit plans and related information as listed below and receive a permit prior to proceeding with any work.
1. Plans depicting the proposed luminaires.
 2. Product specification data such as manufacturer's data sheets for each luminaire and control device(s) or systems being used.
 3. For non-residential properties, signed pages of required documents for Title 24 – Part 6 Section 140.7 and Title 24 – Part 11 Section 5.106.8 demonstrating compliance.
 4. Details, elevations, summaries or calculations as required to demonstrate compliance with this Ordinance.
- B. **Alternative Means and Methods** Deviations from the lighting standards provided in this chapter may be approved pursuant to a site plan review in accordance with Section 17.62.40. The request shall state the circumstances and conditions relied upon for the site plan review and shall be accompanied by accurate plans and a legal description of the subject property. In addition, the following information shall be submitted:
1. Plans depicting the proposed light fixtures;
 2. Detailed description of the circumstances which necessitate the deviation;
 3. Details on the use of the proposed light fixtures for which the deviation is requested, including the type of outdoor light fixture(s) to be used, the total light output and character of the shielding, if any; and
 4. Such other data and information as may be required by the planning director.
- C. **Appeals** The site plan review may be granted if the community makes the following findings:
1. There are special circumstances or conditions applying to the land, buildings or outdoor light fixtures for which the site plan review is sought, which are peculiar to the project and do not apply generally to the land, buildings, or

outdoor light fixtures in the surrounding area.

2. The strict application of this chapter would deprive the applicant of the reasonable use of the land or buildings, and the proposed deviation is the most restrictive means that will accomplish the purpose.
3. The proposed deviation will achieve the purpose and intent of this chapter, including light trespass, and will not adversely affect neighborhood character or the public health, safety or welfare.
4. The proposed project will not be contrary to or in conflict with the general purposes and intent of this title, nor the goals, objectives and policies of the general plan.

Section 7. Lighting Allowed by Temporary Use Permit Only (RESERVED)

Section 8. Conflicts with other Laws

In the event the provisions in this Ordinance conflict with other laws, this Ordinance shall be applied in a manner intended to carry out all provisions of law to the maximum extent feasible. When there is an irreconcilable conflict between the provisions of this Ordinance and the provisions of federal or state law, the provisions of federal or state law shall prevail over the provisions contained in this Ordinance only to the extent necessary to avoid a violation of those other laws or code provisions.

Section 9. Application of Ordinance to Legal Non-Conforming Lighting.

A. Amortization. A property owner shall comply with the requirements of this Ordinance by (date.) Any non-compliant lighting still in place after this compliance deadline shall become and remain extinguished. A property owner may apply for an extension of this deadline by submitting a request to the planning director thirty days before the compliance deadline detailing why an extension is needed. Any non-compliant lighting shall remain extinguished while the request is pending. Upon demonstration of good cause for providing a property owner additional time to comply with the requirements of this section, the planning director may extend the property owner's time to comply and/or may require a plan for compliance that required partial compliance in advance of full compliance. For purposes of this section, the term "good cause" shall mean a significant financial or other hardship which warrants an extension or conditional extension of the time limit for compliance established herein. In no instance, shall the planning director issue an extension of the compliance period in excess of one year's time. The planning director's decision shall be appealable.

B. Change of Use. If a property with non-compliant lighting changes use, then all outdoor lighting shall be brought into compliance with this chapter before the new use begins. Any uncorrected non-compliant lighting shall be removed or remain extinguished.

C. Resumption of Use after Abandonment. If a property with non-compliant lighting is abandoned for a period of six months or more, then all outdoor lighting shall be brought into compliance with this chapter before any resumption of use of the property occurs. Any uncorrected non-compliant lighting shall be removed or remain extinguished.

Section 10. Enforcement and Penalties. (RESERVED)

Section 11. Definitions.

For the purposes of this Chapter only, the following words and phrases are defined as follows:

1. “Curfew” means the time of day when lighting restrictions, based on zoning district, are in effect.
2. “Directional lighting” means methods of directing light downward, rather than upward or outward, with the intention of directing light where it is needed.
3. “Fully shielded” means a light fixture constructed and installed in such a manner that all light emitted by the fixture, either directly from the lamp or a diffusing element, or indirectly by reflection or refraction from any part of the luminaire, is projected below the horizontal plane through the fixture’s lowest light-emitting part.
4. “Glare” means lighting entering the eye directly from a light fixture or indirectly from reflective surfaces that causes visual discomfort or reduced visibility.
5. “Hardscape” means permanent surface improvements to the site including parking lots, driveways, entrances, curbs, ramps, stairs, steps, medians, walkways and non-vegetated landscaping that is 10 feet or less in width, that are made of materials such as, but not limited to, concrete, asphalt, stone and gravel.
6. “Lamp” means, in generic terms, a source of optical radiation (i.e., “light”), often called a “bulb” or “tube”. Examples include incandescent, fluorescent, high-intensity discharge (HID) lamps, and low pressure sodium (LPS) lamps, as well as light-emitting diode (LED) modules and arrays.
7. “Light pollution” means the material adverse effect of artificial light including, but not limited to, glare, light trespass, sky glow, energy waste, compromised safety and security, and impacts on the nocturnal environment, including light sources that are left on when they no longer serve a useful function.
8. “Light trespass” means light that falls beyond the property it is located on. Permissible levels of light trespass shall be limited to those specific, quantitative thresholds of light intensity set forth in Tables 1 and 2. Light trespass shall be measured in the vertical plane of the property line on which the lighting in question is located. Field measurements to determine light trespass compliance shall not include the effect of light produced by street lights or other lighting not produced by luminaires under the jurisdiction of this Ordinance or produced by luminaires on other properties.
9. “Lumen” means the unit of measure used to quantify the amount of visible light produced by a lamp or emitted from a luminaire (as distinct from “watt,” a measure of power consumption).
10. “Luminaire” means outdoor electrically powered illuminating devices, including a light source, outdoor reflective or refractive surfaces, lenses, electrical connectors and

components, and all parts used to mount the assembly, distribute the light and/or protect the lamp, whether permanently installed or portable.

11. "Seasonal lighting" means lighting installed and operated in connection with holidays or traditions. Seasonal lighting must be temporary lighting as defined herein and removed within 30 days of the date of installation, and shall not be re-installed within the same calendar year.
12. "Sky glow" means the brightening of the nighttime sky that results from scattering and reflection of artificial light by moisture and dust particles in the atmosphere. Sky glow is caused by light directed or reflected upwards or sideways and reduces one's ability to view the night sky.
13. "Temporary lighting" means lighting that (a) employs a cord and plug and is not permanently wired and (b) is installed and removed when the temporary need is over, not to exceed 30 days without a special use permit.
14. "Shielded Uplighting" means landscape lighting illuminating trees and landscape features employing an extended tube baffle or louver and aimed at least 60 degrees above horizontal.
15. "Outlining" means exposed light sources attached to structures for the primary purpose of attraction, branding or decoration.
16. "Dynamic lighting" means lighting that flashes, chases, changes color, or changes intensity for any purpose other than serving as a traffic signal, safety light, or aviation or marine marker.
17. "Light trespass" means light from one property also lighting an adjacent property. The amount of trespass is calculated and measured in the vertical plane at 5' above grade at the property line of the site on which the light(s) is located. If the adjacent property is a public street or sidewalk, then the point at which trespassing light is calculated and measured shall be the center of the public property or right-of-way between the property on which the light originates and any adjacent property.

Section 12 Tables

Continued on Next Page

Table 1 – Residential Lighting Limits

Restriction	Lighting Zone 0 (Zero)	Lighting Zone 1 (One)	Lighting Zone 2 (Two)	Lighting Zone 3 (Three)
Curfew	1 hour after sunset	11:00PM	11:00PM	11:00PM
Maximum lumens per fully shielded luminaire	600 Must be 2700K or lower	900	900	900
Unshielded and decorative lighting	None allowed	One per residence not to exceed 300 lumens	Two per residence not to exceed 300 lumens	Three per residence not to exceed 600 lumens
Maximum mounting height above adjacent grade	8 feet	12 feet	12 feet	15 feet
Landscape lighting	None allowed	Downlight only not to exceed 300 lumens	Downlight and/or shielded uplight not to exceed 450 lumens per luminaire	Downlight and/or shielded uplight not to exceed 600 lumens per luminaire
Maximum landscape lighting lumens per acre	0	6000	12000	18000
Maximum allowable light trespass pre-curfew	0	0.1 footcandle (1 lux)	0.2 footcandle (2 lux)	0.5 footcandle (5 lux)

Table 2 – Non Residential and Multi-family Residential Lighting Limits

Restriction	Lighting Zone 0 (Zero)	Lighting Zone 1 (One)	Lighting Zone 2 (Two)	Lighting Zone 3 (Three)
Curfew	1 hour after sunset	11:00PM	11:00PM	11:00PM
Maximum lumens per fully shielded luminaire	600	2500	5000	15000
Unshielded and decorative lighting	None allowed	None allowed	Maximum 600 lumens per luminaire not to exceed 12000 lumens per acre.	Maximum 900 lumens per luminaire not to exceed 18000 lumens per acre
Maximum mounting height above adjacent grade	8 feet	20 feet	25 feet	35 feet
Landscape lighting	None allowed	Downlight only not to exceed 450 lumens	Downlight and/or shielded uplight not to exceed 600 lumens per luminaire	Downlight and/or shielded uplight not to exceed 900 lumens per luminaire
Maximum landscape lighting lumens per acre	0	9000	12000	18000
Maximum allowable light trespass pre-curfew	0	0.1 footcandle (1 lux)	0.2 footcandle (2 lux)	0.5 footcandle (5 lux)

END OF ORDINANCE



Western Riverside Council of Governments Technical Advisory Committee

Staff Report

Subject: Western Riverside Energy Partnership Activities Update Including Information on Additional Funding for SCE Direct Install Program

Contact: Tyler Masters, Program Manager, tmasters@wrcog.us, (951) 955-8378

Date: August 17, 2017

The purpose of this item is to provide the Committee with information on additional funding for SCE's Direct Install Program and to provide an update on an upcoming workshop hosted by both SCE & SoCal Gas.

Requested Action:

1. Receive and file.
-

The Western Riverside Energy Partnership (WREP) responds to Executive Committee direction for WRCOG, Southern California Edison (SCE), and SoCal Gas to seek ways to improve marketing and outreach to the WRCOG subregion regarding energy efficiency. WREP is designed to assist local governments set an example for their communities to increase energy efficiency, reduce greenhouse gas emissions, increase renewable energy usage, and improve air quality.

2017 Direct Install (DI) Program

SCE's DI Program can help municipal facilities and businesses identify ways to save electricity by having trained energy efficiency contractors perform energy consultations and recommend improvements that can help buildings use less energy and reduce utility bills. In coordination with SCE, WREP is working with its member jurisdictions to promote SCE's DI Program at municipal facilities. The DI Program provides interested jurisdictions with a no-cost energy consultation and installation of identified energy measures. Qualified measures include, in addition to interior LED lights, plug load occupancy sensor, open / close LED signage, and lighting occupancy sensor (wall mounted).

Participation in this Program is simple. Interested jurisdictions first provide a list of their current facilities and their respective SCE account number to SCE's DI contractor. Upon receiving the list, SCE will coordinate with jurisdictional staff to schedule an energy consultation. Each consultation takes only a few minutes per facility to identify all eligible energy efficiency measures. After the consultation findings have been compiled and reported to SCE, the DI contractor will schedule a date to come back and install the approved energy efficiency measures.

For 2017, SCE allocated over \$2 million in funding for its service area to provide energy efficiency consultations and installation of interior LED lights, which are only available at municipal facilities throughout SCE territory. WRCOG staff is working with jurisdictional staff to identify interest in participating in the Program and develop a list of municipal facilities for inclusion in the Program.

SCE's DI Program is also available to qualified commercial businesses that use under 200 kWh. For information on the Program, please visit [SCE's Direct Install Program](#).

Recent DI involvement: In June 2017, the City of Moreno Valley received audits for 12 of their municipal facilities. Over 3,000 interior LED lighting measures were identified and approved for installation. SCE and its DI team will coordinate with City staff to identify a date for installation of these identified measures within the coming months.

WRCOG staff will continue to coordinate with the interested member jurisdictions to schedule audits and receive identified energy efficiency measures.

2017 Local Government All Partners Meeting

On October 2, 2017, SCE and SoCal Gas will be hosting the 2017 Local Government All Partners meeting from 8:30 a.m. – 3:00 p.m. at SCE's Energy Education Center (6090 Irwindale Avenue, Irwindale, CA). Last year's Local Government All Partners Meeting was held at SoCal Gas' facility and provided the attendees with information on Zero Net Energy Buildings, energy efficiency projects that can be administered by the local government partnerships, and business plan highlights from the California Public Utilities Commission (CPUC) Energy Division and Investor Owned Utilities (IOU).

This year's event looks to do the same as both utilities prepare to inform local government partnerships such as WREP and its partner jurisdictions, with information on new energy efficiency projects that can be administered during 2018. In addition to learning about new and existing energy programs, this meeting will allow representatives from various Partnerships to learn about best practices that have been applied within their jurisdiction to grow the field of energy efficiency. This half-day event is offered at no-cost to local government staff and Partnership implementers.

To register for the 2017 Local Government All Partners Meeting, [click here](#).

Prior Action:

August 7, 2017: The Executive Committee received report.

Fiscal Impact:

This item is informational only; therefore, there is no fiscal impact.

Attachment:

None.



Western Riverside Council of Governments

Technical Advisory Committee

Staff Report

Subject: Environmental Department Activities Update

Contact: Dolores Badillo, Senior Analyst, dbadillo@wrcog.us, (951) 955-8306

Date: August 17, 2017

The purpose of this item is to provide an update on the Used Oil and Filter Exchange Program and events, and the progress of WRCOG's Pilot Litter Program being conducted in the City of Lake Elsinore.

Requested Action:

1. Receive and file.

WRCOG's Solid Waste Program assists member jurisdictions with addressing state mandates, specifically Assembly Bill AB 939 (1989), which required 25% and 50% diversion of waste from landfills by 1995 and 2000, respectively. While certain aspects of AB 939 have been modified over the years with legislation defining what materials counted towards diversion and how to calculate the diversion rate for jurisdictions, the intent of the bill remains. Each year, a jurisdiction must file an Electronic Annual Report (EAR) with CalRecycle on the jurisdictions' achievements in meeting and maintaining the diversion requirements. The Solid Waste Program also has a Regional Used Oil component which is designed to assist member jurisdictions in educating and promoting proper recycling and disposal of used oil, oil filters, and household hazardous waste (HHW) to the community.

AB 939 Electronic Annual Reports (EAR)

The EAR describes the progress a jurisdiction has made in achieving the requirements of the Integrated Waste Management Act (AB 939, Chapter 1095, Statutes of 1989) and the Per Capita Disposal Measurement Act of 2008 (Chapter 343, Statutes of 2008 [Wiggins, SB 1016]). The EAR includes the numbers used to calculate a per capita disposal rate plus all required supporting documentation and attachments of any required documentation to support changes to those numbers. The EAR also includes a status on any planned and/or implemented solid waste diversion programs and facilities. These reports are due this year on August 1st.

For calendar year 2016, WRCOG staff prepared and submitted EARs for 11 jurisdictions: Banning, Calimesa, Canyon Lake, Corona, Lake Elsinore, Murrieta, Norco, Perris, San Jacinto, Temecula, and Wildomar. These reports described the progress each jurisdiction had made in achieving the requirements of AB 939. The reports included numbers used to calculate a per capita disposal rate plus all required supporting documentation. It also included a status report on planned and implemented solid waste, diversion programs and facilities, as well as planned or implemented revisions to approved solid waste documents. WRCOG works with local waste haulers in completing these reports. Questions on the EARs can be addressed to Dolores Badillo, Senior Analyst, at (951) 955-8306 or dbadillo@wrcog.us.

Used Oil Payment Program

Background: The California Oil Recycling Enhancement Act provides funding to cities and counties for establishing and maintaining local used oil collection programs to encourage recycling and proper disposal of

used oil and oil filters. CalRecycle recently released the funding notices to jurisdictions regarding the Used Oil Payment Program - 8 (OPP 8) funding. For the past 20 years, WRCOG has successfully administered the used oil and filter and HHW regional programs on behalf of requesting member jurisdictions. Currently, the Cities of Banning, Calimesa, Canyon Lake, Eastvale, Hemet, Jurupa Valley, Lake Elsinore, Murrieta, Norco, San Jacinto, Temecula, and Wildomar are participating in the Program.

WRCOG's Used Oil and Oil Filter Exchange events help educate and facilitate the proper recycling of used motor oil and used oil filters. The primary objective of hosting the events is to educate "Do It Yourself" (DIY) individuals who change their own oil, promoting the recycling of used oil and oil filters; therefore, an auto parts store is a great venue to hold these events. In addition to promoting used oil / oil filter recycling, staff informs the DIYer about the County-wide HHW Collection Program in which residents can drop-off other automotive and household hazardous products for free. WRCOG staff recently participated in the below Used Oil events in the subregion.

Used oil and oil filter exchange event

On July 8, 2017, the Environmental team traveled to the City of Hemet for an outreach event, encouraging the proper recycling used motor oil. Staff provided used motor oil information to DIYers who change their own motor oil. WRCOG was on hand to discuss further recycling such as oil filters, which still contain 10% of oil from oil changes. In discussions, many residents indicated that they do not recycle their oil filter, saying they did not know oil filters could be recycled. Members of the public were encouraged to bring the oil and filters back to where they bought, such as an O'Reilly's auto parts. The team spoke to nearly 60 customers about where to take their HHW such as paint, aerosol cans, and electronic waste. Staff also provided information on the safe disposal of expired medicine. Free oil filters were distributed. In addition, staff handed out fliers on free backyard composting classes. The community was motivated by the event and asked that WRCOG continue spreading awareness and to inform them of future events. Staff collected contact information from most who attended.



City of Hemet residents at the Used Oil and Oil Filter Exchange



Over sixty area residents attended the City of Hemet's July 2017 Used Oil Event. WRCOG staff Kyle Rodriguez and Hugo Rios managed the the morning activities.

Upcoming Used Oil and Oil Filter Exchange events

The following is a list of Used Oil and Oil Filter Exchange events that are presently scheduled. To request an event for your jurisdiction please contact Kyle Rodriguez, Staff Analyst, at (951) 955-8328 or krodriguez@wrcog.us.

Date	Event	Location	Time
8/12/2017	City of Riverside Used Oil Event	O'Reilly Auto Parts 1691 University Ave.	9 am – 1 pm
8/26/2017	City of Lake Elsinore Used Oil Event	AutoZone 32231 Mission Trail	9 am – 12 pm
9/9/2017	City of Riverside Used Oil Event	O'Reilly Auto Parts 3790 Jurupa Ave.	9 am – 1 pm

WRCOG pilot and regional litter initiative

City of Lake Elsinore Pilot Litter Program: In 2016, WRCOG partnered with the City of Lake Elsinore to start taking action regarding the issue of litter and properly disposing waste. From local Main Street business visits to high school and elementary school visits, the problem of littering is being communicated throughout the community. Over 25 business have been visited and \$450.00 has been donated to Lake Elsinore Unified School District's three comprehensive schools. The goal is to encourage and educate students, staff and teachers about keeping the local and global environment clean and healthy.

WRCOG's Pilot Litter Program with the City of Lake Elsinore has six significant elements: community education, business outreach, marketing, signage, and staffing. This summer the Clean LE team continues to work on the aspects of staffing and marketing. Using social media, posts will be made daily regarding smart tips to reduce waste in places that range from landfills to city streets. Summer Clean Teams are being organized to work with the City's Public Works Department. The City is continuing its tradition of reaching out to Lake Elsinore Unified School District students to provide community clean up support along with other community service programs. Volunteer hours are available for high school students needing to complete community service requirements.



Lake Elsinore's Pilot Litter Program was enhanced with the addition of the Adopt-A-Highway Program. A section of east and west bound Highway 74 has been secured as "adopted" and includes two clean ups each month for two years. The pending contract is expected to be signed in August 2017.

For the current Fiscal Year, staff will be expanding the Pilot Program to another jurisdiction in the subregion. For jurisdictions interested in taking advantage of this opportunity, please contact Dolores Badillo, Senior Analyst, at (951) 955-8306 or dbadillo@wrcog.us.

Prior Action:

August 7, 2017: The Executive Committee received report.

Fiscal Impact:

Used Oil Program activities are included in the Fiscal Year 2017/2018 Agency Budget, under the Environment Department.

Attachment:

None.



Western Riverside Council of Governments Technical Advisory Committee

Staff Report

Subject: Amendment to the Appendix of the WRCOG Conflict of Interest Code

Contact: Janis Leonard, Administrative Services Manager, jleonard@wrcog.us, (951) 955-8320

Date: August 17, 2017

The purpose of this item is to request that the Executive Committee approve a new position that must be designated, approve the revision of titles of existing positions, and approve the correction to the assignment of Disclosure Categories for a position.

Requested Action:

1. Adopt WRCOG Resolution Number 39-17; A Resolution of the Executive Committee of the Western Riverside Council of Governments Amending the Conflict of Interest Code pursuant to the Political Reform Act of 1974.

A review of the WRCOG Conflict of Interest Code is performed every two years. Substantive changes to the current Code require an amendment. One title has been added within the list of Designated Positions. The newly designated title will be required to provide an annual Form 700, Statement of Economic Interest, beginning April 1, 2018.

WRCOG Title added:

Administrative Services Manager

Correction to the assignment of Disclosure Categories for a position:

Program Manager, Accounting

Revision of titles of existing positions:

From System Administrator to IT Administrator

From Staff Analyst to Staff Analyst ALL

From Technician to Technician, General

Prior Action:

October 3, 2016: The Executive Committee adopted WRCOG Resolution Number 32-16; A Resolution of the Executive Committee of the Western Riverside Council of Governments Amending the Conflict of Interest Code pursuant to the Political Reform Act of 1974.

Fiscal Impact:

This item is informational only; therefore there is no fiscal impact.

Attachments:

1. Conflict of Interest Code for the Western Riverside Council of Governments (Redline version).
2. Notice of Intention to Amend the Conflict of Interest Code of the Western Riverside Council of Governments.
3. WRCOG Resolution Number 39-17; A Resolution of the Executive Committee of the Western Riverside Council of Governments Amending the Conflict of Interest Code Pursuant to the Political Reform Act of 1974 (with attached Legislative Version (Show Changes Made) of the Appendix).

Item 6.G

Amendment to the Appendix of the
WRCOG Conflict of Interest Code

Attachment 1

Conflict of Interest Code for the
Western Riverside Council of
Governments (Redline version)

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Legislative Version
(Shows changes made)

CONFLICT OF INTEREST CODE

OF THE

WESTERN RIVERSIDE

COUNCIL OF GOVERNMENTS

CONFLICT OF INTEREST CODE **OF THE** **WESTERN RIVERSIDE COUNCIL OF GOVERNMENTS**

(Amended ~~October 3, 2016~~September 11, 2017)

The Political Reform Act, (Gov. Code § 81000, et seq.), requires state and local government agencies to adopt and promulgate conflict of interest codes. The Fair Political Practices Commission has adopted a regulation (2 Cal. Code of Regs. § 18730), that contains the terms of a standard conflict of interest code which can be incorporated by reference in an agency's code. After public notice and hearing Section 18730 may be amended by the Fair Political Practices Commission to conform to amendments in the Political Reform Act. Therefore, the terms of 2 California Code of Regulations section 18730 and any amendments to it duly adopted by the Fair Political Practices Commission are hereby incorporated by reference. This incorporation page, Regulation 18730 and the attached Appendix designating positions and establishing disclosure categories, shall constitute the conflict of interest code of the **Western Riverside Council of Governments ("WRCOG")**.

All officials and designated positions required to submit a statement of economic interests shall file their statements with the **Executive Assistant Administrative Services Manager** as WRCOG's Filing Officer. The **Executive Assistant Administrative Services Manager** shall make and retain a copy of all statements filed by Members of the Executive Committee, the Executive Director and the Treasurer, and forward the originals of such statements to the Clerk of the Board of Supervisors. The **Executive Assistant Administrative Services Manager** shall retain the originals of the statements of all other officials and designated positions and make all retained statements available for public inspection and reproduction during regular business hours. (Gov. Code Section 81008.)

APPENDIX
CONFLICT OF INTEREST CODE
OF THE
WESTERN RIVERSIDE COUNCIL OF GOVERNMENTS

(Amended ~~September 11, 2017~~October 3, 2016)

PART “A”
OFFICIALS WHO MANAGE PUBLIC INVESTMENTS

WRCOG Officials who manage public investments, as defined by 2 Cal. Code of Regs. § 18700.3(b), are NOT subject to WRCOG’s Code, but must file disclosure statements under Government Code Section 87200 et seq. [Regs. § 18730(b)(3)] These positions are listed here for informational purposes only.

It has been determined that the positions listed below are officials who manage public investments¹:

Executive Committee Members, including ex-officio non-voting members
Executive Director
Treasurer
Chief Financial Officer
Investment Consultant

¹ Individuals holding one of the above-listed positions may contact the Fair Political Practices Commission for assistance or written advice regarding their filing obligations if they believe that their position has been categorized incorrectly. The Fair Political Practices Commission makes the final determination whether a position is covered by § 87200.

-APP. A-1-

BBK – ~~October 2016~~August 2017

DESIGNATED POSITIONS
GOVERNED BY THE CONFLICT OF INTEREST CODE

<u>DESIGNATED POSITIONS'</u> <u>TITLE OR FUNCTION</u>	<u>DISCLOSURE CATEGORIES</u> <u>ASSIGNED</u>
<u>Administrative Services Manager</u>	<u>5</u>
Deputy Executive Director	1, 2
Director of Energy & Environmental Programs	2, 5
Director of Government Relations	4
Director of Transportation	1, 2
Fiscal Analyst	4
General Counsel	1, 2
Program Manager, Accounting	1 , 4
Program Manager, Administration	2, 3, 5
Program Manager, Environmental	5
Program Manager, HERO	2, 3, 5
Program Manager, Transportation	1, 2
Program Manager, TUMF	1, 2
Staff Analyst <u>(ALL)</u>	5
System-IT Administrator	5
Technician, <u>General</u>	5

**MEMBERS OF BOARDS,
COMMITTEES AND COMMISSIONS**

<u>DESIGNATED POSITIONS'</u>	<u>DISCLOSURE CATEGORIES</u>
<u>TITLE OR FUNCTION</u>	<u>ASSIGNED</u>
Finance Directors' Committee	1, 2
Planning Directors' Committee	2, 3, 5
<u>DESIGNATED POSITIONS'</u>	<u>DISCLOSURE CATEGORIES</u>
<u>TITLE OR FUNCTION</u>	<u>ASSIGNED</u>

**MEMBERS OF BOARDS,
COMMITTEES AND COMMISSIONS (Cont'd)**

Public Works Committee	2, 3, 5
Solid Waste Committee	2, 5
Technical Advisory Committee	1, 2

Consultants and New Positions²

² Individuals serving as a consultant as defined in FPPC Reg 18700.3(a) or in a new position created since this Code was last approved that makes or participates in the making of decisions must file under the broadest disclosure set forth in this Code subject to the following limitation:

The Executive Director may determine that, due to the range of duties or contractual obligations, it is more appropriate to assign a limited disclosure requirement. A clear explanation of the duties and a statement of the extent of the disclosure requirements must be in a written document. (Gov. Code Sec. 82019; FPPC Regulations 18219 and 18734.). The Executive Director's determination is a public record and shall be retained for public inspection in the same manner and location as this Conflict of Interest Code. (Gov. Code Sec. 81008.)

PART “B”

DISCLOSURE CATEGORIES

The disclosure categories listed below identify the types of economic interests that the designate position must disclose for each disclosure category to which he or she is assigned.³ “Investment” means financial interest in any business entity (including a consulting business or other independent contracting business) and are reportable if they are either located in or doing business in the jurisdiction, are planning to do business in the jurisdiction, or have done business during the previous two years in the jurisdiction of WRCOG.

Category 1: All investments and business positions in business entities, and sources of income, including gifts, loans and travel payments, that are located in, do business in or that own real property in the jurisdiction of WRCOG.

Category 2: All interests in real property which is located in whole or in part within, or not more than two (2) miles outside, the jurisdiction of WRCOG.

Category 3: All investments and business positions in business entities, and sources of income, including gifts, loans and travel payments, that are engaged in land development, construction or the acquisition or sale of real property in within the jurisdiction of WRCOG.

Category 4: All investments and business positions in business entities, and sources of income, including gifts, loans and travel payments, that provide services, products, materials, machinery, vehicles or equipment of a type purchased or leased by WRCOG.

Category 5: All investments and business positions in business entities, and sources of income, including gifts, loans and travel payments, that provide services, products, materials, machinery, vehicles or equipment of a type purchased or leased by the designated position’s department, unit or division.

³ This Conflict of Interest Code does not require the reporting of gifts from outside this agency’s jurisdiction if the source does not have some connection with or bearing upon the functions or duties of the position. (Reg. 18730.1)

Item 6.G

Amendment to the Appendix of the
WRCOG Conflict of Interest Code

Attachment 2

Notice of Intention to Amend the Conflict of
Interest Code of the Western Riverside
Council of Governments

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NOTICE OF INTENTION TO AMEND THE CONFLICT OF INTEREST CODE OF THE WESTERN RIVERSIDE COUNCIL OF GOVERNMENTS

NOTICE IS HEREBY GIVEN that the Executive Committee of the Western Riverside Council of Governments (“WRCOG”) intends to amend WRCOG’s Conflict of Interest Code (the “Code”) pursuant to Government Code section 87306.

The Appendix of the Code designates those employees, members, officers, and consultants who make or participate in the making of decisions and are subject to the disclosure requirements of WRCOG’s Code. WRCOG’s proposed amendment includes a new position that must be designated, revises titles of existing positions, and corrects the assignment of Disclosure Categories for a position.

The proposed amended Code will be considered by the Executive Committee on September 11, 2017, at 2:00 p.m. at the Riverside County Administrative Center – Board Hearing Room, 4080 Lemon Street, Riverside, California. Any interested person may be present and comment at the public meeting or may submit written comments concerning the proposed amendment. Any comments or inquiries should be directed to the attention of Janis Leonard, Administrative Services Manager, Western Riverside Council of Governments, 4080 Lemon Street, 3rd Floor, MS 1032, Riverside, CA, 92501-3609; (951) 955-8320. Written comments must be submitted no later than September 11, 2017, at 2:00 p.m.

The proposed amended Code may be reviewed at, and copies obtained from, the office of the Administrative Services Manager during regular business hours.

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Item 6.G

Amendment to the Appendix of the
WRCOG Conflict of Interest Code

Attachment 3

WRCOG Resolution Number 39-17; A
Resolution of the Executive Committee of
the Western Riverside Council of
Governments Amending the Conflict of
Interest Code Pursuant to the Political
Reform Act of 1974 (with attached
Legislative Version (Show Changes Made)
of the Appendix)

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Western Riverside Council of Governments

County of Riverside • City of Banning • City of Beaumont • City of Calimesa • City of Canyon Lake • City of Corona • City of Eastvale • City of Hemet
City of Jurupa Valley • City of Lake Elsinore • City of Menifee • City of Moreno Valley • City of Murrieta • City of Norco • City of Perris • City of Riverside
City of San Jacinto • City of Temecula • City of Wildomar • Eastern Municipal Water District • Western Municipal Water District • Morongo Band of Mission
Indians • Riverside County Superintendent of Schools

RESOLUTION NUMBER 39-17

A RESOLUTION OF THE EXECUTIVE COMMITTEE OF THE WESTERN RIVERSIDE COUNCIL OF GOVERNMENTS AMENDING THE CONFLICT OF INTEREST CODE PURSUANT TO THE POLITICAL REFORM ACT OF 1974

WHEREAS, the State of California enacted the Political Reform Act of 1974, Government Code Section 81000 et seq. (the "Act"), which contains provisions relating to conflicts of interest which potentially affect all officers, employees and consultants of the Western Riverside Council of Governments ("WRCOG") and requires all public agencies to adopt and promulgate a Conflict of Interest Code; and

WHEREAS, the Executive Committee adopted a Conflict of Interest Code (the "Code") for WRCOG which was amended on October 3, 2016, in compliance with the Act; and

WHEREAS, subsequent changed circumstances within WRCOG have made it advisable and necessary pursuant to Sections 87306 and 87307 of the Act to amend and update WRCOG's Code; and

WHEREAS, the potential penalties for violation of the provisions of the Act are substantial and may include criminal and civil liability, as well as equitable relief which could result in WRCOG being restrained or prevented from acting in cases where the provisions of the Act may have been violated; and

WHEREAS, notice of the time and place of a public meeting on, and of consideration by the Executive Committee of, the proposed amended Code was provided each affected designated position and publicly posted for review at the County Administrative Offices at 4080 Lemon Street, Riverside, California; and

WHEREAS, a public meeting was held upon the proposed amended Code at a regular meeting of the Executive Committee of WRCOG on September 11, 2017, at which all present were given an opportunity to be heard on the proposed amended Code.

NOW, THEREFORE, the Executive Committee of the Western Riverside Council of Governments does hereby **RESOLVE** as follows:

Section 1. The Executive Committee does hereby adopt the proposed amended Conflict of Interest Code, a copy of which is attached hereto and shall be on file with the Administrative Services Manager and available to the public for inspection and copying during regular business hours.

Section 2. The said amended Code shall be submitted to the Board of Supervisors of the County of Riverside for approval.

Section 3. The said amended Code shall become effective immediately upon approval by the Riverside County Board of Supervisors.

PASSED AND ADOPTED by the Executive Committee of the Western Riverside Council of Governments on September 11, 2017.

Debbie Franklin, Chair
WRCOG Executive Committee

Rick Bishop, Secretary
WRCOG Executive Committee

Approved as to form:

Steven DeBaun
WRCOG Legal Counsel

AYES: _____ NOES: _____ ABSENT: _____ ABSTAIN: _____



Western Riverside Council of Governments Technical Advisory Committee

Staff Report

Subject: PACE Programs Activities Update

Contact: Crystal Adams, Program Manager, cadams@wrcog.us, (951) 955-8312

Date: August 17, 2017

The purpose of this item is to provide the Committee with an update on the PACE Programs that WRCOG oversees under its PACE umbrella. This includes the HERO Program, SAMAS PACE, CaliforniaFIRST, and Spruce PACE.

Requested Action:

1. Receive and file.

WRCOG's Property Assessed Clean Energy (PACE) Programs provide financing to property owners to implement a range of energy saving, renewable energy, and water conserving improvements to their homes and businesses. Improvements must be permanently fixed to the property and must meet certain criteria to be eligible for financing. Financing is paid back through a lien placed on the property tax bill. The HERO Program was initiated in December 2011 and has been expanded (an effort called "California HERO") to allow for jurisdictions throughout the state to join WRCOG's Program and allow property owners in these jurisdictions to participate. As part of WRCOG's PACE Program umbrella which provides for additional PACE providers to operate programs under WRCOG oversight in the subregion, the CaliforniaFIRST Program has launched and the Spruce PACE Programs is anticipated to launch in summer 2017.

Overall HERO Program activities update

Residential: As of this writing, 132,766 applications in both the WRCOG and California HERO Programs have been approved to fund more than \$8.1 billion in eligible renewable energy, energy efficiency and water efficiency projects (attachments 1 & 2).

WRCOG Subregion: Over 24,000 projects, totaling nearly \$475 million, have been completed.

The table below provides a summary of the total estimated economic and environmental impacts for projects completed in both the WRCOG and the California HERO Programs to date:

Economic and Environmental Impacts Calculations	
KW Hours Saved – Annually	678 GWh
GHG Reductions – Annually	175,870 Tons
Gallons Saved – Annually	470 Million
\$ Saved – Annually	\$89 Million
Projected Annual Economic Impact	\$2.7 Billion
Projected Annual Job Creation/Retention	13,326 Jobs

The table below provides a summary of the types of projects completed in both the WRCOG and the California HERO Programs:

Project Data	
HVAC	30.8%
Windows / Doors	20.2%
Solar	18.7%
Roofing	10.7%
Landscape	8.4%

HERO underwriting criteria change

On August 7, 2017, the Executive Committee approved changes to the HERO Program underwriting criteria. HERO's current underwriting criteria include determining that the mortgage-related debt on the property must have at least 10% equity in the property to participate and that the property owner can enter into an assessment to bring the property value, plus the assessment, to 100% of the property value. The approved change now sets the Combined Loan to Value (CLTV) not to exceed 97.5% of the value of the property. This is in line with Fannie Mae and Freddie Mac current underwriting standards. With this change, there will more homeowners that can access the Program but also creates a guardrail by preventing a property owner from going underwater on their property.

There is pending legislation (Senate Bill 242), which is anticipated to require PACE Programs to add an "ability to pay" underwriting criteria to its Programs. Staff and Renovate America wanted to make the Committee members aware of this and to let the Committee members know that Renovate America will begin asking property owners during the application process to state their monthly income. This is a data gathering activity that staff and Renovate America will use to work with the PACE Ad Hoc Committee (in the future) on developing specific "ability to pay" criteria.

CaliforniaFIRST update

As of August 3, 2017, CaliforniaFIRST has received 288 applications in the WRCOG subregion under WRCOG's PACE umbrella. Out of these applications, 195 have been approved and 34 projects have been completed for a total of \$1,040,904. Additionally, there are 31 projects that are nearly complete that would total an additional \$1,088,324 in financed installations.

The table below provides a summary of the types of projects completed in the CaliforniaFIRST Program:

Project Data	
HVAC	13.9%
Windows/Doors	13.9%
Solar	47.2%
Roofing	11.1%
Landscape	8.3%

Additional PACE providers in the subregion

The Executive Committee has authorized WRCOG to bring in the PACE Funding Program under the WRCOG PACE Programs umbrella. Staff is currently in discussion with the Program Administrator to confirm details and anticipates launching the PACE Funding Program in the 4th Quarter of 2017.

By administering multiple PACE Programs (in addition to HERO), WRCOG is implementing the Executive Committee's direction to be responsive to the desire among some jurisdictions to allow multiple programs in

order to spur competition and provide more PACE choices for residents. Programs operating under WRCOG's umbrella are required to adopt and implement the same extensive consumer protections that WRCOG imposes on the HERO Program. To date, the Executive Committee has also approved both the CaliforniaFIRST and Spruce PACE Programs to operate under WRCOG's PACE umbrella.

While WRCOG is taking on additional PACE Providers, member jurisdictions will always retain the right to include or exclude additional PACE Providers who are not participating under the WRCOG umbrella.

With the Executive Committee's actions to adopt these additional Providers, the Programs will be automatically able to operate in each member jurisdiction, unless a jurisdiction takes action to prohibit their inclusion. If a jurisdiction desires NOT to have additional providers, it must adopt a resolution to opt out of the Program. This opt out resolution is available by contacting Crystal Adams, Program Manager, at cadams@wrcog.us.

Prior Action:

August 7, 2017: The Executive Committee 1) authorized the Executive Director to amend the WRCOG HERO Program Report, the WRCOG HERO Program Handbook, and the California HERO Program Handbook to reflect the underwriting criteria change to lower the maximum combined loan to value limit to 97% and remove the minimum equity threshold; 2) adopted WRCOG Resolution Number 38-17; A Resolution of the Executive Committee of the Western Riverside Council of Governments making certain representations and authorizing the placement of assessments on the tax roll in Shasta County, and 3) supported the Administration & Finance Committee's recommendation to direct and authorize the Executive Director to enter into contract negotiations and execute any necessary documents to include PACE Funding under WRCOG's PACE umbrella.

Fiscal Impact:

HERO revenues and expenditures for the WRCOG and California HERO Programs are allocated in the Fiscal Year 2017/2018 Budget under the Energy Department.

Attachments:

1. WRCOG snapshot.
2. California HERO snapshot.

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Item 6.H

PACE Programs Activities Update

Attachment 1

WRCOG snapshot

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20,686

Homes Improved

12/14/2011

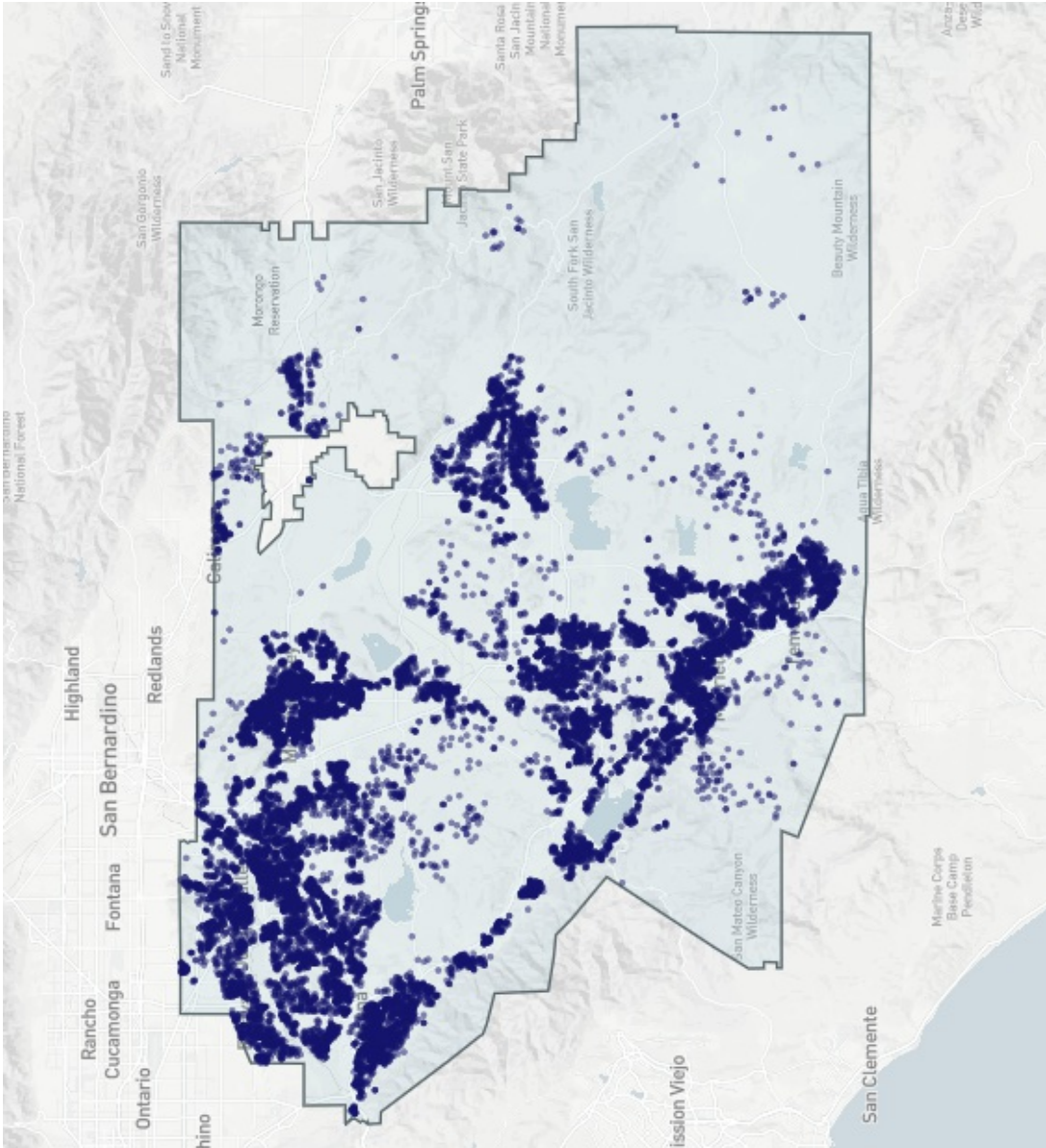
HERO Launch Date

460,994

Housing Count

01/01/2011 - 08/04/2017

Report Range



Improvements

Type	Total Installed	Bill Savings
Energy	27.9K	\$319M
Solar	13.2K	\$557M
Water	1,924	\$16.3M

Lifetime Impact

Applications Submitted	57.0K
Applications Approved	38.9K
Funded Amount	\$473M
Economic Stimulus	\$819M
Jobs Created	4,016
Energy Saved	3.42B kWh
Emissions Reduced	923K tons
Water Saved	1.74B gal

Learn how these numbers are calculated at <https://www.herogov.com/faq>

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Item 6.H

PACE Programs Activities Update

Attachment 2

California HERO snapshot

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45,220

Homes Improved

02/10/2014

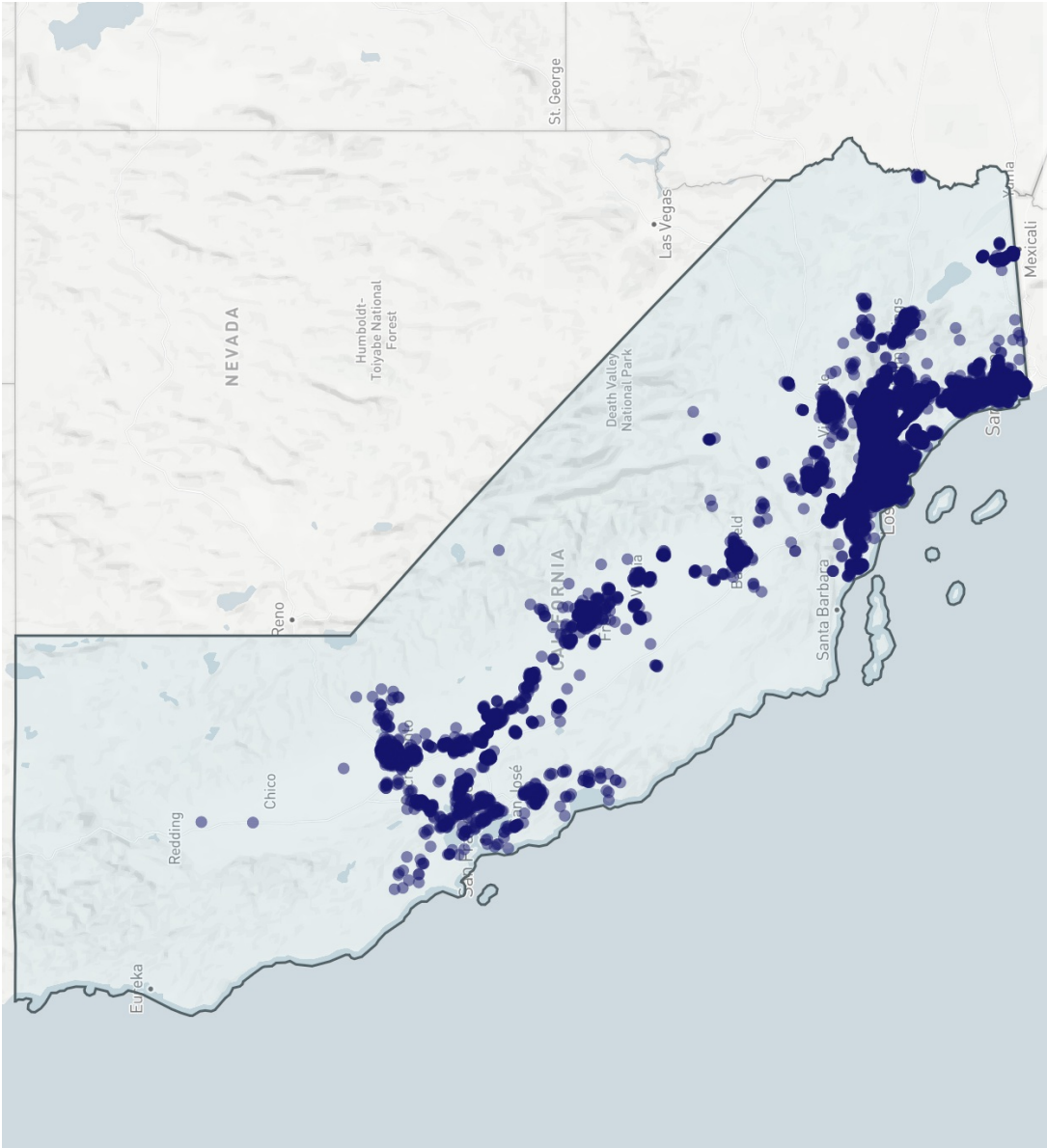
HERO Launch Date

5,895,167

Housing Count

02/10/2014 - 08/04/2017

Report Range



Type	Total Installed	Bill Savings
Energy	64.4K	\$776M
Solar	25.3K	\$1.18B
Water	4,768	\$40.8M

Lifetime Impact

Applications Submitted	127K
Applications Approved	93.8K
Funded Amount	1.10B
Economic Stimulus	\$1.90B
Jobs Created	9,298
Energy Saved	7.00B kWh
Emissions Reduced	1.85M tons
Water Saved	4.32B gal

Learn how these numbers are calculated at <https://www.herogov.com/faq>

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Western Riverside Council of Governments

Technical Advisory Committee

Staff Report

Subject: Economic Development Initiative and Presentation from Riverside County EDA

Contact: Jennifer Ward, Director of Government Relations, jward@wrcog.us, (951) 955-0186

Date: August 17, 2017

The purpose of this item is to familiarize members with the services and resources available through the Riverside County Economic Development Agency (EDA) for the purpose of both educating member jurisdictions generally on EDA activities and to inform future decision making regarding the WRCOG Economic Development Initiative.

Requested Action:

1. Discuss and provide direction.

Background

In 2016, through various discussions by the WRCOG Agency Carryover Funds Ad Hoc Committee, Administration & Finance Committee, and Executive Committee, \$250,000 of the Fiscal Year 2015/2016 Agency Carryover Funds were identified for desired use on an Economic Development Initiative. The purpose of the Initiative, as it was discussed, is to address challenges associated with attracting economic development opportunities to the subregion.

In February 2017, representatives from the University of California, Riverside (UCR), Center for Economic Forecasting and Development provided a presentation to the Administration & Finance Committee proposing an economic development vitality report to collect and analyze critical data at both the subregional and local levels, for the purpose of informing the future development of the Initiative. The proposed report would be an expansion of a study UCR is performing on behalf of EDA, and includes accessing sensitive, market-specific data provided by the State. At that meeting, the Committee directed staff to continue discussions of potential projects with economic development staff from local jurisdictions, UCR, and EDA.

In May 2017, EDA, UCR, WRCOG, and member jurisdiction economic development stakeholders, convened to discuss economic development, focusing on the proposed vitality report. At the conclusion of the meeting, it was decided that staff would arrange for a presentation from the County EDA regarding their current and planned work in the arena to ensure there would be no duplication of work.

EDA presentation

At the August 17, 2017, meeting, Carrie Harmon, Deputy Director, Riverside County EDA, will provide an overview of EDA's available services and resources.

Potential next steps & direction for staff

To further discussion on WRCOG's Economic Development Initiative and generally explore our role in regional economic development efforts, staff is proposing four potential options on how to effectively use the \$250,000

set aside, which include (presented in no particular order of preference):

1. Regional Branding & Marketing: This effort would attempt to develop a unique brand for Western Riverside County and use this brand to market potential businesses with tailored attraction and retention strategies.
2. Regional Economic Baseline: UCR would develop a detailed economic data set for each City using confidential data provided by the California Economic Development Department. This data set would inform member agencies on current conditions and near-term trends. Member agencies could use this information to tailor future economic development strategies and have a benchmark to evaluate the effectiveness of these strategies.
3. Regional Commuting Study: This effort would conduct a comprehensive survey of Riverside County residents commuting out of Riverside County to work in Orange, San Bernardino, San Diego, and Los Angeles Counties. A key aspect of this study would be the evaluation of types of industries and specific businesses where these employees are leaving the region to work, who could then be targeted to relocate into Riverside County to reduce the amount of workers we “export” out to these adjacent counties.
4. Economic Development Best Practices Workbook: As part of this study, WRCOG would compile a workbook of Best Practices suitable for the region, which member agencies would then use to facilitate development as they saw fit. This effort would also require a significant outreach effort to verify that none of the anticipated strategies are currently being implemented.

Staff anticipates that each of these efforts individually could require the entire \$250,000, which means that implementation of one approach would preclude the others unless additional funding is identified. To date, no clear preference has emerged on how to allocate these funds. Staff is reluctant to undertake any of these efforts without a clear consensus among our member agencies and as such, is requesting feedback and recommendations from the Technical Advisory Committee members. This feedback will then be shared with a second convening of regional economic development directors (September 2017, date TBD) and with the Administration & Finance Committee for further direction at its next meeting.

Prior Action:

None.

Fiscal Impact:

Funding for the Economic Development Initiative has been programmed accordingly under the Fiscal Year 2016/2017 Agency Budget, in the General Fund.

Attachment:

None.



Western Riverside Council of Governments

Technical Advisory Committee

Staff Report

Subject: Transportation Uniform Mitigation Fee (TUMF) Program Activities Update

Contact: Christopher Gray, Director of Transportation, cgray@wrcog.us, (951) 955-8304

Date: August 17, 2017

The purpose of this item is to provide Committee members with a summary of recent activities related to the TUMF Program including the TUMF Program Ad Hoc Committee, adjustments to the retail and service fees, and the TUMF Ordinance.

Requested Action:

1. Receive and file.

WRCOG's TUMF Program is a regional fee program designed to provide transportation and transit infrastructure that mitigates the impact of new growth in Western Riverside County. Each of WRCOG's member jurisdictions and the March JPA participates in the Program through an adopted ordinance, collects fees from new development, and remits the fees to WRCOG. WRCOG, as administrator of the TUMF Program, allocates TUMF to the Riverside County Transportation Commission (RCTC), groupings of jurisdictions – referred to as TUMF Zones – based on the amounts of fees collected in these groups, and the Riverside Transit Agency (RTA). The TUMF Nexus Study is intended to satisfy the requirements of California Government Code Chapter 5 Section 66000-66008 (also known as the California Mitigation Fee Act), which governs imposing development impact fees in California. The Study establishes a nexus, or reasonable relationship, between the development impact fee's use and the type of project for which the fee is required. The TUMF Program is a development impact fee and is subject to the California Mitigation Fee Act (AB 1600, Govt. Code § 6600), which mandates that a Nexus Study be prepared to demonstrate a reasonable and rational relationship between the fee and the proposed improvements for which the fee is used. AB 1600 also requires the regular review and update of the Program and Nexus Study to ensure the validity of the Program. The last TUMF Program Update was completed in July 2017.

TUMF Program Ad Hoc Committee

In early 2017, the Executive Committee formed a TUMF Program Ad Hoc Committee to review a number of topics ranging from administration of the Program to fee calculations issues.

Administration of the TUMF Program: Staff provided a presentation regarding the history of the TUMF Program. Staff discussed the initial decision-making processes that influenced the development of the TUMF Program, linkages to Measure A, the desire for local control over revenues, cost-efficiencies that were built into the Program as it relates to the distribution of administrative and programming responsibilities, and zone structures and funding allocations. Discussion was held on whether it would be more efficient to have the Riverside County Transportation Commission (RCTC) administer the TUMF Program. The consensus of the group was that the Program in its current form could not be administered by RCTC more efficiently as it would require RCTC to add staff, which would duplicate the work that WRCOG currently does so there would be no net change, if the current structure is kept.

Ad Hoc Committee members unanimously indicated that they believed that given the information reviewed and issues discussed, there is no compelling reason to continue considering the matter of moving TUMF to RCTC. The Technical Advisory Committee subsequently took a similar action.

TUMF Zone process: Staff provided a presentation on the development of the TUMF Zones as they currently function today. Staff believed it was prudent to provide the Ad Hoc Committee members this genesis of the zone process as part of the top down review of the TUMF Program. Some current challenges of the zone process that were presented were that the zones were created before incorporation of a number of jurisdictions and that there are two smaller zones that have not generated significant TUMF revenue in the last several years.

Staff reviewed a number of options for the Ad Hoc Committee members to review and the consensus of the group was to leave the current TUMF Zone process as it functions today.

Exemption options for local serving retail and service uses: Based on the analysis of available data, staff developed potential options for the Ad Hoc Committee and Executive Committee to review and consider regarding an exemption. The preferred option of the Ad Hoc Committee was to exempt the first 3,000 square feet of retail and service uses. This option would provide a 3,000 square feet exemption to all retail and service uses, not only to those uses that are 3,000 square feet and below. As the retail and service sectors go through cycles, the need to expand an existing use often comes up. This option would provide a benefit to those uses that are taking a risk to provide more economic development and are proposing to expand their use.

This option is not necessarily an exemption, as member jurisdictions would reduce retail square footage by 3,000 square feet for all retail and service projects. This approach would exempt the first 3,000 square feet of retail and service space. Therefore, if a project is less than 3,000 square feet, no TUMF is paid. If a project is more than 3,000 square feet, the fee is reduced. A component in the TUMF Calculation Handbook would be developed for clarification and direction.

The Ad Hoc Committee requested that staff identify a method to allow this option to be implemented expeditiously and also conduct outreach efforts with member jurisdiction staff to facilitate its implementation. The Ad Hoc Committee also discussed the need to monitor this approach and provide a report within one year on its implementation and any recommended changes.

At the August 7, 2017, meeting, the Executive Committee approved the preferred option selected by the Ad Hoc Committee and directed staff to update the TUMF Calculation Handbook to include a component that would reduce the overall square footage of retail and service developments by 3,000 square feet. Staff was also directed to continue outreach to member jurisdictions and stakeholders regarding this approach and staff will provide an update to the Executive Committee within one year on the status of the approach.

TUMF Network facilities: Staff anticipates convening an additional TUMF Ad Hoc Committee meeting in the coming months to discuss a number of topics as they relate to the facilities included in the TUMF Network. Staff anticipates that the Ad Hoc Committee will be asked to consider the following:

1. Should the types of TUMF-eligible projects be expanded to include rail transit, signal coordination, and active transportation projects?
2. Should there be a formal process at the Zone level to approve the TUMF network?
3. Should the criteria to add projects be updated?
4. Should there be formal criteria to designate projects as Regional Arterials for funding purposes?
5. Should there be criteria to determine how "feasible" a project is?

Staff anticipates that the Ad Hoc Committee would provide general direction, which would then be taken back to the Public Works Committee to draft updates to the Administrative Plan.

2016 TUMF Nexus Study

On July 10, 2017, the Executive Committee approved the 2016 TUMF Nexus Study, which included comprehensive updates to the growth forecast, TUMF Network, and unit cost assumptions. The Executive Committee approved the 2016 Nexus Study and recommended TUMF participating jurisdictions update their fees by amending their applicable TUMF Ordinances to reflect changes in the TUMF Network and the costs to construct facilities. The proposed Ordinance provides the legal basis for a revised TUMF schedule. The actual TUMF schedule will be established through the TUMF Resolution. For reference, below is the TUMF schedule that was approved by the Executive Committee.

Land Use type	November 1 – June 30, 2019	July 1, 2019 – June 30, 2020	After July 1, 2020
Single-family residential	\$8,873	\$9,146	\$9,418
Multi-family residential	\$6,134	\$6,134	\$6,134
Industrial	\$1.77	\$1.77	\$1.77
Retail	\$7.50	\$7.50	\$7.50
Service	\$4.56	\$4.56	\$4.56
Class A & B Office	\$2.19	\$2.19	\$2.19

Staff distributed the TUMF Ordinance / Resolution to member jurisdictions on July 11, 2017, for member jurisdictions to review and present to Council / Board of Supervisors for review and approval. As of this writing the City of Temecula has adopted the Ordinance through first reading. The following jurisdictions have currently scheduled meetings to adopt the Ordinance: Banning, Beaumont, Calimesa, Corona, Eastvale, Hemet, Jurupa Valley, Lake Elsinore, Menifee, Murrieta, Norco, Perris, San Jacinto, and the County of Riverside. Staff is working with the remaining jurisdictions to determine the dates that the TUMF Ordinance will be presented for review.

Staff is also scheduling individual meetings with member jurisdictions and workshops to provide updates on the 2016 TUMF Nexus Study and any other TUMF-related items. Meetings have been held or scheduled with the following jurisdictions: Banning, Corona, Temecula.

Prior Actions:

August 7, 2017: The Executive Committee 1) directed staff to update the TUMF Fee Calculation Handbook to exempt the first 3,000 square feet of Retail and Service uses (both for new development and for modifications to existing development) from TUMF assessments to address local serving Retail and Service uses; 2) directed staff to update the TUMF Administrative Plan to reflect this approach; 3) directed staff to conduct outreach with member agencies to implement this approach; and 4) directed staff to report back on implementation within one year, specifically regarding implementation challenges, if any, among stakeholders and jurisdictions and the fiscal impacts from implementation of this policy.

July 25, 2017: The TUMF Ad Hoc Committee 1) concluded that Option #4 was preferable but also supported Option #3 as well; 2) requested that staff identify a method to allow this option to be implemented expeditiously and also conduct outreach efforts with jurisdiction staff to facilitate its implementation; 3) discussed the need to monitor this approach and provide a report within one year on its implementation and any recommended changes.

July 10, 2017: The Executive Committee directed staff to develop a recommendation to exempt local serving retail and service uses from TUMF within 30 days, and provide ordinance language for the retail TUMF reduction.

Fiscal Impact:

Transportation related activities are included in the Agency's adopted Fiscal Year 2016/2017 Budget under the Transportation Department.

Attachment:

None.



Western Riverside Council of Governments

Technical Advisory Committee

Staff Report

Subject: Grant Writing Assistance Program Guidelines

Contact: Chris Tzeng, Program Manager, tzeng@wrcog.coq.ca.us, (951) 955-8379

Date: August 17, 2017

The purpose of this item is to approve the proposed Grant Writing Assistance Program Guidelines WRCOG would like to commence in order to provide direct assistance to its member jurisdictions.

Requested Action:

1. Approve the Grant Writing Assistance Program Guidelines.

With the increased availability of certain competitive funding, WRCOG identified a need to assist our local agencies with the preparation and submission of grant applications. WRCOG has set aside funds to assist and is proposing to create a Grant Writing Assistance Program to assist member jurisdictions on an as-needed basis as funding is available. WRCOG convened a Focus Group for two meetings to discuss the parameters and guidelines for the program and drafted Guidelines based off input from the Focus Group members and Committee members. The Program Guidelines was provided at the March Planning Directors' Committee (PDC) and Public Works Committee (PWC) meetings for review and comment and brought forth at their May meetings for approval.

WRCOG Grant Writing Assistance Program Guidelines

Background: WRCOG has received requests to assist member jurisdictions in preparing proposals for grant opportunities, especially the Caltrans Active Transportation Plan. WRCOG has identified short-term funds to commence a Grant Writing Assistance Program for its member jurisdictions. In order to create a program that best assists WRCOG's member jurisdictions, WRCOG staff convened a Focus Group of member jurisdiction staff to provide feedback on program specifics, which are summarized in this document. WRCOG is proposing these Guidelines for the Grant Writing Assistance Program funds to be reviewed by the Committee structure and approved by the Executive Committee.

WRCOG released a Request for Proposals (RFP) in March 2017 for consultants to serve on a "bench" to provide grant writing assistance to WRCOG member jurisdictions. The bench of consultants will be made available to member jurisdictions on a first-come, first-served basis when grant opportunities for the selected programs become available. The consultants will assist jurisdictions with the grant application process only. The following consultants were selected to assist our member agencies with grant preparation:

- Alta Planning + Design
- Blais & Associates
- KTUA
- National Community Renaissance
- WSP

Focus Group: WRCOG convened a Focus Group to examine the Program details and logistics, since no such program has been undertaken before, and to gather input and feedback from the member jurisdictions that would be utilizing the Program. WRCOG requested two members from the Public Works Committee, Dan York (City of Wildomar) and Nelson Nelson (City of Corona), and two members from the Planning Directors' Committee, Richard Sandzimier (City of Moreno Valley) and Steven Weiss (formerly of the County of Riverside). WRCOG also included staff from the Riverside County Transportation Commission (RCTC), which has indicated that it is also looking into implementing a similar program for grant opportunities that deal with capital projects; including RCTC in the Focus Group ensures there are no duplicative efforts. The Focus Group met twice – in November 2016 and February 2017 – to first establish details and logistics, and then to provide feedback for the Guidelines.

Guidelines: The guidelines below define the parameters of the Program, including the following items:

1. Eligible grants
2. Expectation of member agencies accepting assistance
3. Linkage to other WRCOG programs
4. Screening process
5. Process to request grant writing assistance

#1 - Eligible grants: For this pilot round of the Program, WRCOG is proposing to focus on a few main grant opportunities. Proposed grants are as follows:

- Active Transportation Program
- Caltrans Sustainable Transportation Planning Grant Program
- Affordable Housing and Sustainable Communities (AHSC) Program
- Clean Cities related grants
- New planning grant opportunities

To maintain flexibility with the Program, new planning grant opportunities are included so that other planning grant opportunities may be considered. It was discussed at length that planning grants are not as plentiful as infrastructure / transportation (implementation / capital improvement) grants. Therefore, this category will provide assistance if any grant opportunities that focus on planning grants become available – such as ones that help fund General Plans, Specific Plans, or Community Plans. Based on previous experiences, WRCOG believes planning grant applications are not as resource intensive as infrastructure applications, thus allowing Program funds to be utilized efficiently. The Program is not intended to assist on infrastructure grant opportunities, i.e., TIGER, HSIP, FASTLANE, etc.

Clean Cities grants would be for Clean Cities Coalition members only and focus on any grant opportunities related to Clean Cities activities, such as electric vehicle charging stations and City / County Fleet purchasing. Funds for assistance with these grants will be allocated from Coalition Program funds. WRCOG administers the Coalition on behalf of the jurisdictions and agencies that pay member dues, and would like to increase the Coalition's effectiveness by assisting Coalition member agencies attain grant funding.

#2 - Expectation of member agency accepting assistance: WRCOG member agencies must submit a formal request to WRCOG for grant writing assistance. WRCOG will only authorize a Consultant on the "bench" to provide assistance if a WRCOG member agency submits a formal request to WRCOG for the eligible grant opportunities listed above.

In order for the Program to run effectively and utilize funds efficiently, the member agency accepting grant writing assistance must agree to the following:

- Define project parameters and provide consultant a basic project description
- Dedicate sufficient resources:
 - o Attain all the necessary material on the information checklist provided by the consultant
 - o Attend kick-off meeting to ensure consultant has needed information to prepare grant application
 - o Respond to inquiries from the consultant in a timely manner

- Be the responsible party for grant submittal, including signatory on application and actual submittal of the application

It is expected that once the member agency is awarded the assistance on a grant application, and the consultant is selected to assist, all parties will conduct a kick-off meeting to discuss the proposal and attain necessary information to begin work on the grant application. The consultant will prepare the grant application, and all necessary exhibits, tables, etc., for review by the member agency staff. The member agency will then provide comments to be addressed by the consultant, and the consultant will then revise the application based on comments provided. Finally, the consultant will provide the member agency staff with a final draft for review and submittal.

#3 - Linkage to other WRCOG programs: After careful deliberation, the Focus Group identified specific criteria for projects to qualify for assistance through the Program. First, grant proposals receiving assistance must show a nexus to the core components of WRCOG's Sustainability Framework. The Sustainability Framework is a foundational document for planning in Western Riverside County as it consists of six core components adopted by the Executive Committee, a body made up of elected officials from every WRCOG member agency. In addition, grant proposals must also show a nexus to a regionally significant plan, such as WRCOG's Subregional Climate Action Plan (CAP), the Western Riverside County Active Transportation Plan, and/or the RCTC Long-Range Plan. Lastly, a grant proposal is preferred to be multi-jurisdictional, but is not mandatory – this is to align with many grant opportunities that favor larger, regional projects. These criteria are proposed for the initial phase of the Program to ensure WRCOG and its member agencies show positive returns from funding for the Grant Writing Assistance Program.

#4 - Screening process: In order to ensure funds for the Program are utilized effectively and efficiently, a screening application will be created to assess projects. This screening process is meant to ensure Program criteria, as outlined above, is met. It also will evaluate if the proposed project is the preferred multi-jurisdictional and "innovative" project. After it is determined that a proposed project meets the criteria, WRCOG staff will follow-up with the applicant and work with the applicant to select an appropriate pre-approved consultant to begin assisting on the grant application.

#5 - Process to request grant writing assistance:

1. WRCOG member agency submits a formal request for grant writing assistance on a specific grant. WRCOG will leave it to the discretion of this member agency how this request is made, whether it is through the elected body, WRCOG representative, or other party to act on behalf of the City. WRCOG will assume that if it receives a request for assistance from a member agency representative, that representative is authorized to act on behalf of the member agency.
2. WRCOG staff will review the applications within seven calendar days and determine whether the request meets the guidelines, as noted above.
3. If the applicant meets the criteria set in these Guidelines, WRCOG will work with the applicant to select a proper consultant from the list of pre-approved consultants.
4. Kick-off meeting will be held with agency and consultant.

The criteria set in these Guidelines, which will be included on the application, serve as basic standards for proposals to be evaluated. The selection of proposals for grant writing assistance will be at the discretion of WRCOG based on available funding, and WRCOG reserves the right to decide the proposals that receive grant writing assistance.

Tentatively, there will be a soft limit on the assistance each jurisdiction receives – no jurisdiction will receive assistance on more than two grants. This is a soft limit as it will be based on the number of applications received.

Nothing in this Program will be construed as limiting member agencies from hiring other consultants to prepare grants on their behalf.

Prior Action:

May 11, 2017: The Planning Directors' Committee and Public Works Committee approved Grant Writing Assistance Program Guidelines.

Fiscal Impact:

This item is included in the Agency's adopted Fiscal Year 2016/2017 Budget under the Transportation Department.

Attachment:

None.



Western Riverside Council of Governments Technical Advisory Committee

Staff Report

Subject: Community Choice Aggregation Activities Update

Contact: Barbara Spoonhour, Director of Community Choice Aggregation Development, bspoonhour@wrcog.us, (951) 955-8313

Date: August 17, 2017

The purpose of this item is to provide the Committee with an update on the status of the examination of a potential CCA for the subregion.

Requested Action:

1. Receive and file.

Community Choice Aggregation (CCA) allows cities and counties to aggregate their buying power to secure electrical energy supply contracts on a region-wide basis. In California, CCA (Assembly Bill 117) was chaptered in September 2002 and allows for local jurisdictions to form a CCA for this purpose. Several local jurisdictions throughout California are pursuing the formation of CCAs as a way to lower energy costs and/or provide a "greener" energy supply. WRCOG's Executive Committee has directed staff to pursue the feasibility of CCA for Western Riverside County. WRCOG, the San Bernardino Council of Governments (SBCOG), and the Coachella Valley Association of Governments (CVAG) have funded a joint, two-county feasibility study in response to the Executive Committee's direction; the study has recently been completed and was presented to the Committee previously.

Branding, marketing and outreach: On July 12, 2017, the Administration & Finance Committee approved a contract with a local marketing firm, The Creative Bar, to provide branding and marketing. Since CCAs are relatively new for the subregion, outreach and marketing to the local jurisdictions, as well as to the community, is an important component for moving forward.

In working with The Creative Bar to develop the CCA's identity, staff has identified "Western Community Energy: Your Neighborhood Power Authority" as its preferred name.

Staff will be working with The Creative Bar on a logo and to develop easy-to-understand Fact Sheets and other informational materials to use to educate the jurisdictions and community on the Program.

Template Joint Powers and Bylaws document update: On August 7, 2017, the Executive Committee received a report and approved templates of the JPA and Bylaws documents (attachments 1 and 2) for jurisdictions to have as informational documents that can be used to respond to the question of governance with the potential CCA. Staff had previously released these documents for jurisdictions to send to their respective legal counsels for review and comment. Staff received comments from five member jurisdictions, and provided responses to the questions / comments to the Executive Committee (attachment 3).

The action of the Executive Committee regarding the template JPA and Bylaws documents is designed so that staff can move forward with scheduling introductory meetings with member jurisdictions. Using these template documents respond to the general question of governance of the CCA (through a separate JPA); the templates

are purposely general in order to allow the JPA members the ability to revise and fine tune as they desire; it is not a final document. It is important to note that action by the Executive Committee does not bind WRCOG nor its member jurisdictions into joining the CCA. That action must be taken by each member jurisdiction.

The timeline for implementation serves as an iteration of next steps and anticipated schedule for WRCOG staff to adhere to as it moves CCA activities forward while at the same time providing informational briefings to member jurisdictions. Staff understands the importance of educational outreach for WRCOG to undertake with its members and is working to schedule meetings to present information and background, etc., during Study Sessions, individual meetings, and/or Council / Board meetings. Once a jurisdiction indicates that it is interested in moving forward, staff will work with it on joining the CCA in a more focused manner.

Proposed CCA staffing services: Based on a recommendation provided from the CCA Ad Hoc Committee, Administration & Finance Committee, and the Executive Committee, the proposed JPA, "Western Community Energy," (a separate entity from WRCOG) will initially operate under an administrative management agreement between the CCA and WRCOG for the provision of staffing and agency oversight services for as long as the CCA desires. Staff has worked with BB&K to develop the attached Scope of Services (attachment 4), which ultimately will be finalized by the future CCA Board.

CCA operational service assistance: WRCOG released an RFP for CCA Operational Service Assistance, which closed on April 6, 2017. The RFP was written in a manner whereby respondents could provide bids on all aspects of CCA operation for a potentially fully outsourced scenario. WRCOG and CVAG received nine proposals and interviewed six firms on May 23, 2017. On June 26, 2017, WRCOG and CVAG held a second interview with the proposers and recommended that the Executive Committee authorize the Executive Director to enter into negotiations and contracts for CCA operational services with The Energy Authority (TEA), with the addition of EES Consulting; the Executive Committee approved the recommended actions on August 7, 2017.

TEA and its subconsultants were recommended for their expertise and experience with implementing CCAs in California (Peninsula Clean Energy, Redwood Coast Energy Authority, and Silicon Valley Clean Energy, to name a few), its ability to provide upfront capital and credit, and for establishing a team that will reduce the need for WRCOG to hire additional staff during the initial start-up. EES Consulting is being recommended for its expertise in regulatory filings, rate setting, and development of the Integrated Resource Plan.

The TEA proposal anticipates one-time upfront costs of approximately \$400,000, with an estimated annual operating expense between \$5 million and \$8 million for its services. Through the agreement between WRCOG and the CCA, WRCOG will be able to utilize unallocated PACE funds to finance initial costs; these costs would be recouped through the implementation of the CCA.

Costs do not include the start-up costs for working capital for the power procurement, which is estimated to be between \$21 million and \$50 million, depending on the amount of customers. Only a portion of the funds (5% to 10%) will actually be needed at implementation. The remainder will be built up over time through a reserve that will be used to build credit worthiness for the CCA. This capital is needed to cover the first few months of initial operations (billing, etc.), staffing, legal, and internal operations until a revenue stream is realized through the payment of utility bills by customers. The majority of the initial funds needed for this phase of the Program will come from either bonding and/or securing a loan. Other CCAs in California have successfully secured loans for the initial capital and have been able to repay the loans within the first three years. To assist the CCA with a successful launch, utilizing TEA's credit services will assist in lowering the amount of upfront capital needed to begin operations.

The following is an overview of the services that the TEA team, along with EES Consulting, will be providing:

The Energy Authority

- Power procurement and credit support
- CAISO scheduling coordinator
- Portfolio planning & risk management
- Market & credit risk reporting
- Financial and technical analysis

Calpine

- Data management
- Call Center
- Billing administration
- Electronic data exchange
- Customer relationship management
- Reporting services

LEAN Energy

- Implementation support
- Program and policy development support

EES Consulting

- Rate setting
- Integrated Resource Plan development
- Regulatory reporting and tracking

Timeline: Staff is working to refine the proposed timeline (attachment 5) for launch of the CCA and has a goal of launching Phase 1 by July 2018, and Phase 2 in early 2019. In its initial analysis, Phase 1 would consist of municipal accounts with 5% commercial (approximately 18,000 accounts), and Phase 2 would be the remaining accounts (approximately 250,000 accounts). Upon discussions with TEA, it will be more cost effective to change those Phases into groups of participating jurisdictions, with approximately 5 to 6 jurisdictions initially joining the CCA, accounting for approximately 160,000 accounts, or 2.2 million MWs.

Under this scenario, staff would be setting jurisdictional enrollment periods (i.e., jurisdictions that joined by January 1, 2018, would launch in July 2018, and those jurisdictions that joined between January 1, 2018 and June 30, 2018, would launch in January / February 2019, and so on. This structure allows jurisdictions time to analyze or watch the implementation of the CCA to determine if it is in its best interest to join.

Staff wants to emphasize that there are no requirements for all non-municipal utility jurisdictions within the subregion to join the CCA, and did not ask the Executive Committee to make that recommendation. At this time staff looks forward to presenting CCA efforts in a variety of municipal settings.

Comments regarding CCA concerns: Recently, many jurisdictions received correspondence (attachment 6) from The American Coalition for Sustainable Communities regarding the subregion's efforts to explore a Community Choice Aggregation Program. Staff is providing its responses to the comments:

1. Comment: Exit Fee and/or Power Charge Indifference Adjustment (PCIA) is volatile and is not taken into account in the Study

WRCOG Response: *The Feasibility Study that WRCOG, Coachella Valley Associations of Governments (CVAG), and San Bernardino Council of Governments (SBCOG) conducted included very conservative numbers and did take into account the Exit Fee or PCIA.*

The California Public Utility Commission (CPUC) projects that CCAs and direct access providers will be a significant source of retail electric load in the coming years. In consideration of this shift from IOU to non-IOU provided sources of retail electricity, the CPUC has sought informal comments from the public on consumer choice and the role of the utility. In addition, the CPUC held workshops in 2016 to discuss how PCIA should be calculated and the inputs to the calculation. In early 2017, the IOUs filed a joint request with the Commission to change the PCIA rate structure, known as PAM (Portfolio Allocation Method). In furtherance of the recommendations from the PCIA workshops and in response to the IOU's PAM application, the CPUC instituted a rulemaking proceeding on June 29 to examine alternatives to the PCIA. As part of the order instituting the rulemaking, the CPUC dismissed the IOU's PAM application, but is allowing the IOUs to propose the PAM methodology as an alternative to PCIA.

Nothing has been concluded by the CPUC. The PCIA proceeding will be open until at least 2019. Although the CPUC may change the current PCIA methodology, it is unlikely to adopt the PAM alternative in light of the growth of CCA throughout the state and the State's reliance on CCA to provide

competition in the retail electricity market given the IOUs' monopoly status. Furthermore, the CCA will have at least two years under the current PCIA formula. This will allow time to accumulate a larger financial reserve to stabilize CCA rates if needed until the PCIA comes down due to expiration of older and higher cost IOU PPA contracts.

2. Comment: AB 1110 anti-REC legislation - CCAs use renewable energy certificates (RECs) as a low cost method for keeping prices low and advertising low greenhouse gas (GHG) emissions.

WRCOG Response: AB 1110 is not “anti-REC” legislation. AB 1110 and the accompanying regulations being developed by the CEC will require electricity retailers to disclose the emissions from greenhouse gases that are associated with their power sources. Retail providers, such as CCAs, cannot adjust their calculation of emissions from greenhouse gases from unbundled RECs, which in some cases could deter the purchase of unbundled RECs from unverified power sources. The WRCOG proposed CCA has not assumed unbundled RECs in the feasibility studies that have been performed. Thus, there is no impact on projected CCA cost savings.

3. Comment: The JPA document does not protect the member jurisdictions general fund

WRCOG Response: The Joint Exercise of Powers Act at Government Code section 6508.3 and Public Utilities Code section 366.2(c)(12) provide that members of a JPA, including a CCA JPA, do not take on the obligations and liabilities of the JPA unless they voluntarily assume them. This issue has been upheld by a California appellate court in the case of Tucker Land Company v. State of California, 94 Cal. App. 4th 1191 (2001) where the court held that JPA members are not personally liable for a judgment against a JPA. Thus, power resale liability are the sole responsibility of the JPA. A member agency that withdraws from a CCA JPA, however, will be responsible for any costs related to an outstanding power contract that has not been fulfilled on its behalf. Although we are unaware of any jurisdictions withdrawing from CCAs after a JPA has formed, it is likely that the member would withdraw upon the completion of all duties under the power contract, so that those costs are not paid for by the member's general fund.

Prior Actions:

August 7, 2017: The Executive Committee 1) approved the CCA Joint Powers Agreement and Bylaws template, recognizing that it is a draft document to be finalized at a later time by the CCA; 2) approved the template agreement between WRCOG and the CCA for staffing services; 3) directed and authorized the Executive Director to negotiate and enter into an agreement with The Energy Authority to provide CCA Operational Services; and 4) directed the Executive Director to negotiate an agreement with EES for rate setting and regulatory services as described herein and direct legal counsel to submit a request for an opinion from the FPCC regarding conflict of interest concerns with said contract.

July 12, 2017: The Administration & Finance Committee recommended the Executive Committee 1) approve the CCA Joint Powers Agreement and Bylaws; 2) approve the draft agreement between WRCOG and the CCA for staffing services; 3) direct and authorize the Executive Director to negotiate and enter into an agreement with The Energy Authority and EES Consulting to provide CCA Operational Services; and 4) authorize and direct the Executive Director to enter into an agreement, substantially as to form, not to exceed \$100,000 with The Creative Bar for branding and marketing services.

Fiscal Impact:

WRCOG costs associated with CCA administration would be initially paid for from existing Agency carryover funds, and would be recouped from the CCA once it becomes operational. (An agreement between WRCOG and the CCA will identify responsibilities and mechanisms for cost recovery.)

Attachments:

1. Template Joint Powers Agreement.
2. Template CCA Bylaws.
3. Response to Comments on the CCA JPA and Bylaws.
4. Draft agreement between WRCOG and the CCA.
5. Proposed Timeline.
6. Correspondence from American Coalition for Sustainable Communities.

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Item 7.D

Community Choice Aggregation
Activities Update

Attachment 1

Template CCA Joint Powers Agreement

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JOINT POWERS AGREEMENT WESTERN COMMUNITY ENERGY

(This is a template document only for purposes of discussion, recognizing that any additional information for inclusion will be determined by the future CCA members)

This Joint Powers Agreement (“**Agreement**”), effective as of _____, 2017 (“**Effective Date**”) is made and entered into pursuant to the provisions of Title 1, Division 7, Chapter 5, Article 1 (Section 6500 *et seq.*) of the California Government Code relating to the joint exercise of powers among the parties set forth in Exhibit A (“**Member Agencies**”). The term “**Member Agencies**” shall also include an incorporated municipality or county added to this Agreement in accordance with Section 3.1.

RECITALS

A. In 2002, AB 117 was signed into law allowing public agencies to aggregate the electrical load of interested consumers within their jurisdictional boundaries and purchase electricity on behalf of those consumers.

B. The Member Agencies desire to establish a separate public agency, known as the Western Community Energy (“**Authority**”), under the provisions of the Joint Exercise of Powers Act of the State of California (Government Code § 6500 *et seq.*) (“**Act**”) in order to collectively study, promote, develop, conduct, operate, and manage energy programs, and exercise any powers common to the Authority’s members to further these purposes.

C. The Member Agencies have each adopted an ordinance electing to implement through the Authority a community choice aggregation program pursuant to California Public Utilities Code § 366.2. The priority of the Authority will be the consideration of those actions necessary to implement the program.

AGREEMENT

NOW, THEREFORE, in consideration of the mutual promises, covenants, and conditions hereinafter set forth, it is agreed by and among the Member Agencies as follows:

SECTION 1. FORMATION OF AUTHORITY

1.1 Creation of Agency. Pursuant to the Joint Exercise of Powers Act, California Government Code § 6500 *et seq.* and other pertinent provisions of law, there is hereby created a public entity to be known as the Western Community Energy. The Authority shall be a public entity separate and apart from the Member Agencies.

1.2 Effective Date and Term. This Agreement shall become effective and Authority shall exist as a separate public agency on the date this Agreement is executed by at least two Member Agencies after adoption of the ordinances required by California Public Utilities Code § 366.2(c)(10). The Authority shall continue to exist, and this Agreement shall be effective, until

this Agreement is terminated in accordance with Section 5, subject to the rights of a Member Agency to withdraw from the Authority.

1.3 Member Agencies. The names, particular capacities, and addresses of the Member Agencies are shown on Exhibit A, attached hereto, as may be amended from time to time.

1.4 Purpose. The purpose of this Agreement is to establish an independent public agency in order to exercise powers common to each Member Agency to study, promote, develop, conduct, operate, and manage energy, energy efficiency and conservation, and other energy-related and climate change programs (the “**CCA Program**”), and to exercise all other powers necessary and incidental to accomplishing this purpose. The Member Agencies intend for this Agreement to be used as a contractual mechanism by which the Member Agencies are authorized to participate in the CCA Program. The Member Agencies intend that other agreements shall define the terms and conditions associated with the implementation of the CCA Program and any energy programs approved by the Authority.

1.5 Powers. The Authority shall have all powers common to the Member Agencies and such additional powers accorded to it by law. The Authority is authorized, in its own name, to exercise all powers and do all acts necessary and proper to carry out the provisions of this Agreement and fulfill its purpose, including, but not limited to, each of the following powers:

1.5.1 Serve as a forum for the consideration, study, and recommendation of energy services for the CCA Program;

1.5.2 To make and enter into any and all contracts to effectuate the purpose of this Agreement, including, but not limited to, those relating to the purchase or sale of electrical energy or attributes thereof, and related service agreements;

1.5.3 To employ agents and employees, including, but not limited to, engineers, attorneys, planners, financial consultants, and separate and apart therefrom to employ such other persons, as it deems necessary;

1.5.4 To acquire, contract, manage, maintain, and operate any buildings, works, or improvements, including, but not limited to, electric generating facilities;

1.5.5 To acquire property by eminent domain, or otherwise, except as limited by section 6508 of the Act, and to hold or dispose of property;

1.5.6 To lease any property;

1.5.7 To use and be sued in its own name;

1.5.8 To incur debts, liabilities, and obligations, including, but not limited to, loans from private lending sources pursuant to its temporary borrowing powers, such as California Government Code § 53850 *et seq.* and authority under the Act;

1.5.9 To form subsidiary or independent corporations or entities, if appropriate, to carry out energy supply and energy conservation programs, or to take advantage of legislative or regulatory changes;

1.5.10 To issue revenue bonds and other forms of indebtedness;

1.5.11 To apply for, accept, and receive all licenses, permits, grants, loans, or other assistance from any federal, state, or local agency;

1.5.12 To submit documentation and notices, register, and comply with orders, tariffs, and agreements for the establishment and implementation of the CCA Program and other energy and climate change programs;

1.5.13 To adopt rules, regulations, policies, bylaws, and procedures governing the operation of the Authority; and

1.5.14 To receive gifts, contributions, and donations of property, funds, services, and other forms of financial assistance from persons, firms, corporations, and any governmental entity.

1.6 Manner of Exercising Powers. The powers of the Authority are subject to the restrictions upon the manner of exercising power possessed by a general law city.

SECTION 2: GOVERNANCE

2.1 Board of Directors. The governing body of the Authority shall be a Board of Directors consisting of one director for each Member Agency appointed in accordance with Section 2.2.

2.2 Appointment of Directors. The governing body of each Member Agency shall appoint and designate in writing one regular Director who shall be authorized to act for and on behalf of the Member Agency on matters within the powers of the Authority. The governing body of each Member Agency shall also appoint and designate in writing one alternate Director who may vote in matters when the regular Director is absent from a Board meeting. The persons appointed and designated as the regular Director and the alternate Director shall be a member of the governing body of the Member Agency.

2.3 Terms of Office. Each regular and alternate Director shall serve at the pleasure of the governing body of the Member Agency that the Director represents, and may be removed as Director by the governing body of the Member Agency at any time. If at any time a vacancy occurs on the Board, a replacement shall be appointed by the governing body to fill the position of the previous Director within ninety (90) days of the date that such position becomes vacant.

2.4 Quorum. A majority of the Directors of the entire Board shall constitute a quorum, except that less than a quorum may adjourn a meeting from time to time in accordance with law.

2.5 Powers of the Board of Directors. The Board may exercise all the powers enumerated in this Agreement and shall conduct all business and activities of the Authority consistent with this Agreement and any bylaws, operating procedures, and applicable law.

2.6 Executive Committee. The Board may establish an executive committee consisting of a smaller number of Directors. The Board may delegate to the executive committee such authority as the Board might otherwise exercise.

2.7 Committees. The Board may establish advisory committees as the Board deems appropriate to assist the Board in carrying out its functions and implementing the purposes of this Agreement.

2.8 Director Compensation. The Board may adopt policies establishing a stipend to compensate work performed by a Director on behalf of the Authority as well as policies for the reimbursement of expenses incurred by a Director.

2.9 Voting by the Board of Directors. Each member of the Board or participating alternate shall be entitled to one vote. Action of the Board on all matters shall require an affirmative vote of a majority of all Directors present and qualified to vote constituting a quorum.

2.10 Officers.

2.10.1 Chair and Vice Chair. On an annual basis, the Directors shall select from among themselves, a Chair and a Vice-Chair. The Chair shall be the presiding officer of all Board meetings. The Vice-Chair shall serve in the absence of the Chair. The term of office of the Chair and Vice-Chair shall continue for one year. There shall be no limit on the number of terms held by either the Chair or Vice-Chair. The office of either the Chair or Vice-Chair shall be declared vacant and a new selection shall be made if: (a) the person serving dies, resigns, or the Member Agency that the person represents removes the person as its representative on the Board, or (b) the Member Agency that he or she represents withdraws from the Authority pursuant to the provisions of this Agreement.

2.10.2 Secretary. The Board shall appoint a Secretary who need not be a member of the Board. The Secretary shall be responsible for keeping the minutes of all meetings of the Board and all other official records of the Authority.

2.10.3 Treasurer/Auditor. The Board shall appoint a qualified person to act as the Treasurer and a qualified person to act as the Auditor, neither of whom need be members of the Board. If the Board so designates, and in accordance with the provisions of applicable law, a qualified person may be appointed as the Treasurer and Auditor. Such person or persons shall possess the powers of, and shall perform those functions

required of them by California Government Code §§ 6505, 6505.5, and 6505.6, and by all other applicable laws and regulations and amendments thereto.

2.11 Meetings. The Board shall provide for its regular meetings, the date, hour, and place of which shall be fixed by resolution of the Board. Regular, adjourned, and special meetings shall be called and conducted in accordance with the provisions of the Ralph M. Brown Act, California Government Code § 54950 *et seq.*

2.12 Executive Director. The Executive Director shall be the chief administrative officer of the Western Riverside Council of Governments, or whomever is appointed by the Board thereafter. Compensation shall be fixed by the Board. The powers and duties of the Executive Director shall be subject to the authority of the Board.

2.13 Initial Administration of Authority. The Authority will be initially administered by the Western Riverside Council of Governments (“**WRCOG**”), which shall provide Executive Director, staff, and consultant services to the Authority. WRCOG shall provide administrative services for three years from the Effective Date of this Agreement pursuant to a services agreement. The term and conditions of the administrative services agreement may be extended by mutual agreement of WRCOG and the Authority without further amendment of this Agreement, as set forth in the administrative services agreement.

2.14 Additional Officers and Employees. The Board shall have the power to authorize such additional officers and assistants as may be appropriate, including retaining one or more administrative service providers for planning, implementing, and administering the CCA Program. Such officers and employees may also be, but are not required to be, officers and employees of the individual Member Agencies.

2.15 Bonding Requirement. The officers or persons who have charge of, handle, or have access to any property of the Authority shall be the members of the Board, the Treasurer, the Executive Director, and any such officers or persons to be designated or empowered by the Board. Each such officer or person shall be required to file an official bond with the Authority in an amount which shall be established by the Board. Should the existing bond or bonds of any such officer be extended to cover the obligations provided herein, said bond shall be the official bond required herein. The premiums on any such bond attributable to the coverage required herein shall be the appropriate expenses of the Authority.

2.16 Audit. The records and accounts of the Authority shall be audited annually by an independent certified public accountant and copies of such audit report shall be filed with the State Controller, and each Member Agency to the Authority no later than fifteen (15) days after receipt of said audit by the Board.

SECTION 3: PARTICIPATION IN AUTHORITY AND IMPLEMENTATION OF CCA PROGRAM

3.1 Participation in Authority. An interested incorporated municipality or county may become a Member Agency of the Authority and a party to this Agreement upon satisfaction of the following:

3.1.1 Adoption of a resolution by the governing body of an incorporated municipality or county requesting participation and an intent to join the Authority;

3.1.2 Adoption of an ordinance required by California Public Utilities Code § 366.2(c)(12) and execution of all necessary CCA Program documents by an incorporated municipality or county;

3.1.3 Adoption by an affirmative vote of the Board of a resolution authorizing participation of the additional incorporated municipality or county;

3.1.4 Payment of a membership payment, if any; and

3.1.5 Satisfaction of any conditions established by the Board.

3.2 Continuing Participation. The Member Agencies acknowledge that participation in the CCA Program may change by the addition or withdrawal or termination of a Member Agency. The Member Agencies agree to participate with additional Member Agencies as may later be added. The Member Agencies also agree that the withdrawal or termination of a Member Agency shall not affect this Agreement or the remaining Member Agencies' continuing obligations under this Agreement.

3.3 Implementation of CCA Program.

3.3.1 Enabling Ordinance. Each Member Agency shall adopt an ordinance in accordance with California Public Utilities Code § 366.2(c)(12) specifying that the Member Agency intends to implement a community choice aggregation program by and through its participation in this Authority.

3.3.2 Implementation Plan. The Authority shall cause to be prepared an implementation plan meeting the requirements of California Public Utilities Code § 366.2 and any applicable regulations of the California Public Utilities Commission ("CPUC"). The Board shall approve the implementation plan prior to it being filed with the CPUC.

3.4 Authority Documents. The Member Agencies acknowledge and agree that the operations of the Authority will be implemented through various program documents and regulatory filings duly adopted by the Board, including, but not limited to, operating rules, an annual budget, and plans and policies related to the provision of the CCA Program. The Member Agencies agree to abide by and comply with the terms and conditions of all such Authority documents that may be approved or adopted by the Board.

3.5 Termination of CCA Program. Nothing contained in this Agreement shall be construed to limit the discretion of the Authority to terminate the implementation or operation of the CCA Program at any time in accordance with any applicable requirements of state law.

SECTION 4: FINANCIAL PROVISIONS

4.1 Fiscal Year. The Authority's fiscal year shall be twelve (12) months commencing July 1 of each year and ending June 30 of the succeeding year.

4.2 Treasurer. The Treasury of the member agency whose Treasurer is the Treasurer for the Authority shall be the depository for the Authority. The Treasurer of the Authority shall have custody of all funds and shall provide for strict accountability thereof in accordance with California Government Code § 6505.5 and other applicable laws. The Treasurer shall perform all of the duties required in California Government Code § 6505 *et seq.* and all other such duties as may be prescribed by the Board.

4.3 Depository & Accounting. All funds of the Authority shall be held in separate accounts in the name of the Authority and not commingled with the funds of any Member Agency or any other person or entity. Disbursement of such funds during the term of this Agreement shall be accounted for in accordance with generally accepted accounting principles applicable to governmental entities and pursuant to California Government Code § 6505 *et seq.* and other applicable laws. There shall be a strict accountability of all funds. All revenues and expenditures shall be reported to the Board. The books and records of the Authority shall be open to inspection by the Member Agencies at all reasonable times.

4.4 Budget. The Board shall establish the budget for the Authority, and may from time to time amend the budget to incorporate additional income and disbursements that might become available to the Authority for its purposes during a fiscal year.

4.5 Initial Funding of Authority. WRCOG has funded certain activities necessary to implement the CCA Program. If the program becomes operational, these initial costs shall be included in the customer charges for electric services to the extent permitted by law, and WRCOG shall be reimbursed from the payment of such charges by customers of the Authority pursuant to a reimbursement agreement between Authority and WRCOG. Prior to such reimbursement, WRCOG shall provide such documentation of costs paid as the Board may request. The Authority may establish a reasonable time period over which such costs are recovered. In the event the program does not become operational, WRCOG shall not be entitled to any reimbursement of the initial costs.

4.6 No Liability to the Member Agencies. The debts, liabilities, or obligations of the Authority shall not be the debts, liabilities, or obligations of the individual Member Agencies unless the governing board of a Member Agency agrees in writing to assume any of the debts, liabilities, or obligations of the Authority. Notwithstanding Government Code section 895.2, if the Authority is found to be liable for injury caused by a negligent or wrongful act or omission occurring in the performance of an agreement, no Member Agency is jointly or severally liable for such injury.

SECTION 5: WITHDRAWAL AND TERMINATION

5.1 Right to Withdraw. A Member Agency may withdraw its membership in the Authority, effective as of the beginning of the Authority's fiscal year, by giving no less than 180 days advance written notice of its election to do so, which notice shall be given to the Authority and each Member Agency. Withdrawal of a Member Agency shall require an affirmative vote of the Member Agency's governing board. A Member Agency that withdraws its participation in the Authority pursuant to this subsection may be subject to certain continuing liabilities as described in Section 5.4. The withdrawing Member Agency and the Authority shall execute and deliver all further instruments and documents, and take any further action that may be reasonably necessary, as determined by the Board, to effectuate the orderly withdrawal of such Member Agency.

5.2 Right to Withdraw Prior to Program Launch. After receiving bids from power suppliers, the Authority must provide to the Member Agencies the report from the electrical utility consultant retained by the Authority that compares the total estimated electrical rates that the Authority will be charging to customers as well as the estimated greenhouse gas emissions rate and the amount of estimated renewable energy used with that of the incumbent utility. If the report provides that the Authority is unable to provide total electrical rates, as part of its baseline offering, to the customers that are equal to or lower than the incumbent utility or to provide power in a manner that has a lower greenhouse gas emissions rate or uses more renewable energy than the incumbent utility, a Member Agency may immediately withdraw its membership in the Authority without any financial obligation, as long as the Member Agency provides written notice of its intent to withdraw to the Authority Board no more than thirty (30) days after receiving the report.

5.3 Involuntary Termination. Membership in the Authority may be terminated for material non-compliance with the provisions of this Agreement or any other agreement or Board operating procedure relating to the Member Agency's participation in the CCA Program upon a vote of the Board.

5.4 Continuing Liability. Except as provided by Section 5.2, upon the withdrawal or involuntary termination of a Member Agency, the Member Agency shall remain responsible for any claims, demands, damages, or liabilities arising from the Member Agency's membership or participation in the Authority through the date of its withdrawal or termination. Claims, demands, damages, or liabilities for which a withdrawing or terminated Member Agency may remain liable, include, but are not limited to, losses from the resale of power contracted for by the Authority to serve the Member Agency's load and the administrative costs associated thereto. The Authority may withhold funds otherwise owed to the Member Agency or require the Member Agency to deposit sufficient funds with the Authority, as reasonably determined by the Authority to cover the Member Agency's costs described above. Upon notice by a Member Agency that desire to withdraw from the Authority, the Authority shall notify the Member Agency of the minimum waiting period under which the Member Agency would have no costs for withdrawal if the Member Agency agrees to stay in for such period. The waiting period will be set to the minimum duration such that there are no costs transferred to remaining ratepayers.

If the Member Agency elects to withdraw from the Authority before the end of the minimum waiting period, the charge for exiting shall be set at a dollar amount that would offset the actual costs to the remaining ratepayers served by the Authority, and may not include punitive damages that exceed actual costs.

5.5 Mutual Termination. This Agreement may be terminated by mutual agreement of all the Member Agencies; provided, however, that this subsection shall not be construed as limiting the rights of a Member Agency to withdraw in accordance with Section 5.1.

5.6 Disposition of Authority Assets Upon Termination of Agreement. Upon termination of this Agreement, any surplus money or assets in possession of the Authority for use under this Agreement, after payment of all liabilities, costs, expenses, and charges incurred by the Authority, shall be returned to the then-existing Member Agencies in proportion to the contributions made by each.

SECTION 6: MISCELLANEOUS PROVISIONS

6.1 Dispute Resolution. The Member Agencies and Authority shall make efforts to settle all disputes arising out of or in connection with this Agreement. Before exercising any remedy provided by law, a Member Agency or Member Agencies and the Authority shall engage in nonbinding mediation in the manner agreed to by the Member Agency or Member Agencies and the Authority. In the event that nonbinding mediation does not resolve a dispute within 120 days after the demand for mediation is made, any Member Agency or the Authority may pursue any all remedies provided by law.

6.2 Liability of Directors, Officers, and Employees. The Directors, officers, and employees of the Authority shall use ordinary care and reasonable diligence in the exercise of their powers and in the performance of their duties pursuant to this Agreement. No current or former Director, officer, or employee will be responsible for any act or omission by another Director, officer, or employee. The Authority shall defend, indemnify, and hold harmless the individual current and former Directors, officers, and employees for any acts or omissions in the scope of their employment or duties in the manner provided by California Government Code § 995 *et seq.* Nothing in this section shall be construed to limit the defenses available under the law to the Member Agencies, the Authority, or its Directors, officers, or employees.

6.3 Indemnification. The Authority shall acquire such insurance coverage as the Board deems necessary to protect the interests of the Authority, the Member Agencies, and the Authority's ratepayers. The Authority shall indemnify, defend, and hold harmless the Member Agencies and each of their respective members board or council members, officers, agents, and employees, from any and all claims, losses, damages, costs, injuries, and liabilities of every kind arising directly or indirectly from the conduct, activities, operations, acts, and omissions of the Authority under this Agreement.

6.4 Amendment of Agreement. This Agreement may be amended in writing with the approval of not less than two-thirds (2/3) of a vote of the Member Agencies.

6.5 Assignment. Except as otherwise expressly provided in this Agreement, the rights and duties of the Member Agencies may not be assigned or delegated without the advance written consent of all other Member Agencies. Any attempt to assign or delegate such rights or duties without express written consent shall be null and void. This Agreement shall inure to the benefit of, and shall be binding upon, the successors and assigns of the Member Agencies. This section does not prohibit a Member Agency from entering into an independent agreement with another entity regarding the financing of that Member Agency's contributions to the Authority, or the disposition of proceeds which that Member Agency receives under this Agreement, so long as such independent agreement does not affect, or purport to affect, the rights and duties of the Authority or the Member Agencies under this Agreement.

6.6 Severability. If any part of this Agreement is held, determined, or adjudicated to be illegal, void, or unenforceable by a court of competent jurisdiction, the remainder of this Agreement shall be given effect to the fullest extent reasonably possible.

6.7 Further Assurances. Each Member Agency agrees to execute and deliver all further instruments and documents, and take any further action that may be reasonably necessary to effectuate the purposes of this Agreement.

6.8 Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute but one and the same instrument.

6.9 Notices. Any notice authorized or required to be given pursuant to this Agreement shall be validly given if served in writing either personally, by deposit in the United States mail, first class postage prepaid with return receipt requested, or by a recognized courier service. Notices given (a) personally or by courier service shall be conclusively deemed received at the time of delivery and receipt and (b) by mail shall be conclusively deemed given 48 hours after the deposit thereof (excluding Saturdays, Sundays and holidays) if the sender receives the return receipt. All notices shall be addressed to the office of the clerk or secretary of the Authority or Member Agency, as the case may be, or such other person designated in writing by the Authority or Member Agency. Notices given to one Member Agency shall be copied to all other Member Agencies. Notices given to the Authority shall be copied to all Member Agencies.

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[INSERT SIGNATURE PAGES]

EXHIBIT A

List of Member Agencies

TEMPLATE

TEMPLATE

Item 7.D

Community Choice Aggregation
Activities Update

Attachment 2

Template CCA Bylaws

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BYLAWS FOR THE WESTERN COMMUNITY ENERGY

(This is a template document only for purposes of discussion, recognizing that any additional information for inclusion will be determined by the future CCA members)

ARTICLE I FORMATION

These Bylaws are provided for the organization and administration of the Western Community Energy (“**Authority**”) which has been established pursuant to the Western Community Energy Authority Joint Powers Agreement (“**Agreement**”). These Bylaws supplement the Agreement.

ARTICLE II PURPOSES

The Authority is formed to study, promote, develop, conduct, operate, and manage energy and energy-related climate change programs, and to exercise all other powers necessary and incidental to accomplishing this purpose. These programs include, but are not limited to, the establishment of a Community Choice Aggregation Program known as the CCA Energy Program in accordance with the terms of the Agreement.

ARTICLE III BOARD OF DIRECTORS

Section 1. Board of Directors.

The Authority shall be governed by a Board of Directors composed of one representative of each of the Member Agencies. The Board shall have all the powers and functions as set forth in Section 1.5 of the Agreement. The governing body of each Member Agency shall appoint and designate in writing to the Authority one regular Director who shall be authorized to act for and on behalf of the Member on all matters within the power of the Authority. The governing body of each Member Agency shall also appoint and designate in writing to the Authority one alternate Director who may vote on all matters when the regular Director is absent for a Board meeting. Both the Director and the Alternate Director shall be members of the governing body of the Member Agency.

Section 2. Appointment

Each Director and Alternate Director shall serve at the pleasure of the governing body of the Member Agency that the Director represents and may be removed as Director or Alternate Director by such governing body at any time.

Section 3. Vacancy

If at any time a vacancy occurs on the Board, for whatever reason, a replacement shall be appointed by the governing body of the subject member to fill the position of the previous Director within ninety days of the date that such position becomes vacant.

Dated: 7/14/2017

ARTICLE IV

OFFICERS AND TERMS OF OFFICE

Section 1. Officers

There shall be a Chairperson, a Vice-Chairperson, a Secretary and a Treasurer.

- A. Chairperson. The Chairperson of the Authority shall be a Director. Duties of the Chairperson are to supervise the preparation of the business agenda, preside over Authority meetings, and sign all ordinances, resolutions, contracts and correspondence adopted or authorized by the Board. The term of office of the Chairperson shall be for one year.
- B. Vice-Chairperson. The Vice-Chairperson shall be a Director. The Vice-Chairperson shall perform the duties of Chairperson in the absence of such officer. The term of office of the Vice-Chairperson shall be for one year.
- C. Secretary. The Secretary will supervise the preparation of the meeting minutes and the maintenance of the records of the Authority. The term of the Secretary shall be for one year. The Secretary does not need to be a Director.
- D. Treasurer and Auditor. The Treasurer shall have custody of all the money of the Authority and shall have all of the duties and responsibilities specified in Government Code § 6505.5. The Treasurer shall report directly to the Board and shall comply with the requirements of treasurers of incorporated municipalities. The positions of Treasurer and Auditor may be combined into one position known as the Treasurer/Auditor of the Authority. Neither the Treasurer nor the Auditor needs to be a Director. The term of the Treasurer and Auditor shall be for one year. The Board may transfer the responsibilities of the Treasurer and Auditor to any person or entity permitted by law.
- E. Election of Officers. An annual meeting of the Board shall be held in [INSERT MONTH] of each year or as soon thereafter as possible to elect the officers of the Authority.
- F. Terms of Office. The elected Chairperson and Vice-Chairperson shall assume office at the close of the meeting of their election and each officer shall hold office for one year, or until his or her successor shall be elected.
- G. No Term Limits. There are no limits on the numbers of terms that an officer of the Authority may serve.
- H. Committees. The Board or the Chairperson may delegate specified functions or actions to a committee that may be established by the Board. Each duly established committee may establish any standing or ad hoc committees determined to be appropriate or

Dated: 7/14/2017

necessary. The duties and authority of all committees shall be subject to the approval and direction of the Board.

ARTICLE V MEETINGS

Section 1. Regular Meetings

The Board by resolution shall establish the date, time and meeting location of all regular meetings of the Board. Special meetings may be called upon the request of a majority of the members of the Board or by the Chairperson.

Section 2. Open Meetings

The meetings of the Board, the Executive Committee and all other committees established by the Board shall be governed by the provisions of the Ralph M. Brown Act (California Government Code § 54950 *et seq.*).

ARTICLE VII VOTING

Each member of the Board shall have one vote on all matters unless otherwise provided by the Agreement or these Bylaws. Unless the Agreement or these Bylaws require a two-thirds vote, action on all items shall be determined by a majority vote of the quorum present and voting on the item.

ARTICLE VIII POLICY REGARDING CONFIDENTIAL INFORMATION DISCLOSED DURING CLOSED SESSIONS

It is vital that members of the Board divulge certain privileged information obtained in closed sessions at the Authority to their own governing bodies meeting in closed sessions. Thus, these Bylaws adopt the policy set forth in California Government Code § 54956.96, which authorizes the disclosure of closed session information that has direct financial or liability implications for that Member Agency to the following individuals.

- A. All information received by the governing body of the Member Agency in a closed session related to the information presented to the Authority in closed session shall be confidential. However, a member of the governing body of a Member Agency, or his/her duly appointed alternate to the Authority, may disclose information obtained in a closed session that has direct financial or liability implications for that Member Agency to the following individuals:
 - 1. Legal counsel of that Member Agency for purposes of obtaining advice on whether the matter has direct financial or liability implications for that Member Agency.

2. Other members of the governing body of the Member Agency present in a closed session of that Member Agency, as well as other persons that may be invited to attend the closed session by the Member Agency's governing body.
- B. The governing body of the Member Agency, upon the advice of its legal counsel, may conduct a closed session in order to receive, discuss, and take action concerning information obtained in a closed session of the Authority pursuant to this policy.

ARTICLE IX EXECUTIVE DIRECTOR

Section 1. Duties.

In addition to those duties set forth in the Agreement, the duties of the Executive Director are:

- A. To administer all contracts.
- B. To have full charge of the administration of the business affairs of the Authority.
- C. To exercise general supervision over all property of the Authority.
- D. To accept, on behalf of the Authority, easements and other property rights and interests.
- E. To be responsible for the purchase of all supplies and equipment of the Authority.

Section 2. Contracts.

The Executive Director is authorized to contract and execute on behalf of the Authority, contracts for supplies, equipment and materials, and consultants not to exceed \$100,000.00, provided the contract relates to purposes previously approved and budgeted by the Board.

ARTICLE VIII DEBTS, LIABILITIES AND OBLIGATIONS

As provided by Section 6.2 of the Agreement, the debts, liabilities and obligations of the Authority shall not be debts, liabilities or obligations of the individual Member Agencies unless the governing board of a Member Agency agrees in writing to assume any of the debts, liabilities, or obligations of the Authority. Notwithstanding Government Code section 895.2, if the Authority is found to be liable for injury caused by a negligent or wrongful act or omission occurring in the performance of an agreement, no Member Agency is jointly or severally liable for such injury.

ARTICLE IX AMENDMENTS

These Bylaws and any amendments may be amended by the Board.

Dated: 7/14/2017

Item 7.D

Community Choice Aggregation
Activities Update

Attachment 3

Response to Comments on the CCA
JPA and Bylaws

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**COMMENTS OF WRCOG MEMBER AGENCIES
REGARDING DRAFT JOINT POWERS AGREEMENT AND BYLAWS
Updated 7/12/13 with WRCOG Administration and Finance Recommendations**

City of Hemet

1. General Overall Comment: A city should understand the politics of other member agencies because there may be differing viewpoints on climate change, and the policy actions of the JPA could require actions that are inconsistent with the member agency's individual interests.

WRCOG Response: *WRCOG staff notes that the proposed JPA will not direct a member agencies' energy and climate change programs within its boundaries. The JPA's primary duty is purchase electricity on behalf of member agency ratepayers that remain opted into the CCA program. Member agencies may elect to participate in other CCA related programs, as established by the Board of Directors. Thus, participation in other programs by participating member agencies would be voluntary.*

2. General JPA Comment: The proposed JPA follows the broad requirements of the Joint Exercise of Powers Act.

WRCOG Response: *The purpose language is intended to be broad. It is consistent with other CCA JPAs and allows flexibility for the JPA to offer additional programs, should the CCA Board of Directors agree, without having to amend the JPA.*

The WRCOG Administration and Finance Committee directed to leave the Purpose broad so that the new CCA Board of Directors could make the determination if it wanted to be more specific.

3. JPA Section 1.4 (Purpose): The purpose statement is broad and includes energy efficiency, conservation and climate change programs. This may need to be clarified. The JPA would have broad jurisdiction over unspecified programs, and a city should be aware of and weigh the risks of the social and political implications of this.

WRCOG Response: *The purpose language is intended to be broad. It is consistent with other CCA JPAs and allows flexibility for the JPA to offer additional programs, should the CCA Board of Directors agree, without having to amend the JPA. Some examples of potential future projects could include applying for funds from the CPUC's Energy Efficiency Program, which provides ratepayer funds to implement local projects (i.e., additional rebates, low income programs, etc.), or invest in advancing electric vehicle infrastructure. While not all member agencies may want to participate in all of the CCA JPA's programs, allowing flexibility in the JPA is recommended. The issue in this case then becomes whether and how the JPA indemnifies those non-participating agencies.*

The WRCOG Administration and Finance Committee directed to leave the Purpose broad so that the new CCA Board of Directors could make the determination if it wanted to be more specific.

4. JPA Section 2.9 (Voting):
 - a. The language should be clarified to say that that all decisions, unless a higher vote threshold is specifically required, must be by a majority of a "quorum" of the members of the board – not just a majority of those present, which could be less than a quorum.
 - b. The JPA also later provides that some decisions require a higher standard for approval, such as a vote to expel a member agency or a vote to exercise eminent domain powers within the territory of a member agency.
 - c. Expulsion should be by at least a 2/3 vote of the membership of the Board (not just a majority or 2/3 of those "present").

WRCOG Responses:

- a. *The language provided in the draft CCA JPA document is formulated from WRCOG's JPA which requires a vote of the majority of those board members present constituting a quorum. This is consistent with other CCA JPAs. The existing WRCOG JPA doesn't specify those present, but states that a vote is based on the majority of a quorum.*
- b. *We recommend adding "unless otherwise required elsewhere in this Agreement" or collapsing the voting requirements in one section. **The WRCOG Administration and Finance Committee agreed with this recommendation.***
- c. *We agree to delete the expulsion voting option.*

5. JPA Section 5.4 (Continuing Liability): There will be significant liability for the City should it desire to exit the JPA after the time period for withdrawing without penalty. Thus, withdrawal may be financially infeasible or have significant costs on Hemet residents.

WRCOG Response: *The JPA agreement provides that an exiting member can wait out the contractual time period of all energy contracts entered into on its behalf when there are no remaining financial liabilities.*

6. JPA Section 6.3 (Indemnification): The JPA doesn't take into account Government Code section 895.2 stating that when public agencies enter into an agreement they are jointly and severally liable for injury caused by a negligent or wrongful act or omission occurring in the performance of such agreement. Further states that as worded, liability for a large jurisdiction would be the same as a small jurisdiction. Recommends the committee discuss a provision that allows apportionment among members. Financing could require joint and several liability, which could be satisfied through an individual agreement among the members rather than in the JPA agreement itself.

WRCOG Response: *The statute cited governs cooperative agreements between public agencies. In non-JPA cooperative agreements the agreement's indemnity provision usually allows for the apportionment of fault between the local agencies that are parties to the agreement. Most JPAs do not have the language proposed by the commenter, however, as The Joint Exercise of Powers Act at Gov't Code § 6508.3 and CCA law at Public Utilities Code § 366.2(c)(12) provides that members of a JPA do not take on the obligations and liabilities of the JPA unless they voluntarily assume them. Case law supports this position and a Marin Clean Energy liability analysis reviewed by BB&K also supports this.*

7. JPA Section 6.4 (Amendments to Agreement): It is unclear as to the approval required for an amendment. The agreement states that "This Agreement may be amended in writing with the approval of not less than two-thirds (2/3) of a vote of the Member Agencies." It's not clear if the intent of this section is to require the governing bodies of 2/3rds of the members to approve an amendment, or if a 2/3rds vote of the entire membership of the board is all that is needed to approve an amendment.

WRCOG Response: *An amendment must be approved by 2/3 vote of the member agencies, which all have one seat on the Board. If desired, language can be modified to reflect a vote of the Board. **The WRCOG Administration and Finance Committee directed to leave this decision up to the new CCA Board of Directors' discretion.***

8. JPA Exhibit B (WRCOG Agreement): “The WRCOG service agreement is not attached, so it cannot be commented on. Since it appears that WRCOG will be staffing this JPA, my first comment above is even more important as WRCOG performs many functions related to energy conservation and climate change. Your committee should give careful consideration to this issue to ensure that the lines are not blurred between what is a WRCOG function and what is a function of this JPA. JPA costs can be recouped from ratepayers, while WRCOG costs cannot.”

WRCOG Response: *A draft Agreement (Attached) has been prepared to show that WRCOG will act as an administrator. All WRCOG costs attributable to administering the JPA that are properly accounted for can be recouped from ratepayers.*

9. Bylaws - Article II (Purpose): Same comment re: broadness of agreement purpose language.

WRCOG Response: *The purpose language is intended to be broad. It is consistent with other CCA JPAs and allows flexibility for the JPA to offer additional programs, should the CCA Board of Directors agree, without having to amend the JPA. Some examples of potential future projects could include applying for funds from the CPUC’s Energy Efficiency Program, which provides rate payer funds to implement local projects (i.e., additional rebates, low income programs, etc.), or invest in advancing electric vehicle infrastructure. The WRCOG Administration and Finance Committee directed to leave the Bylaws broad so that the new CCA Board of Directors could make the determination if it wanted to be more specific.*

10. Bylaws - Article III, Section 3 (Vacancy): Bylaws provision (90 days) is inconsistent with the agreement (30 days) in terms of how long a member agency may take to fill a vacancy.

WRCOG Response: *These sections have been changed and are synced to provide 90 days to fill vacancies.*

11. Bylaws - general comment: The bylaws are very light on detail. They don’t touch on rules of decorum or parliamentary procedure or other items typically addressed in bylaws. Many of the provisions simply restate items that are already addressed in the Agreement. This may be intentional at this early stage, but it is worth pointing out.

WRCOG Response: *Although most CCA JPA bylaws provide a general outline of the powers and procedures of a JPA, they are drafted in such a way so that the Board can later provide more specificity on policy matters without having to amend the bylaws or JPA agreement. The WRCOG Administration and Finance Committee directed to leave the Bylaws broad so that the new CCA Board of Directors could make the determination if it wanted to be more specific.*

City of Jurupa Valley

1. JPA General Comment (Initial Participants): This Agreement does not distinguish between initial participants and members joining later as most CCA agreements do. The requirements are slightly different for the two types of parties, so it is clearer to distinguish clearly between them. This is especially important if one of our clients plans to be an initial participant.

WRCOG Response: *The proposed JPA does not contain different requirements for those member agencies that initially join the JPA versus members that join after formation. The commenter cites to the Silicon Valley CCA where there are different requirements for initial participants and those members joining later, which appears to be based on initial funding contributions by the initial participants toward JPA formation. Should the proposed JPA desire to have different requirements for initial member agencies and agencies that join later, the draft JPA can be modified to reflect these differences. The WRCOG Administration and Finance Committee directed that since neither WRCOG, nor the new CCA, is requiring and/or requesting funding contributions to leave the section as written.*

2. JPA Section 2.9 (Voting): This Agreement was not always consistent about when a 2/3 vote is required and when a majority vote will suffice. Most CCAs require a super-majority for amendment of the JPA, addition of new parties, incurring debt or issuing bonds, and certain aspects of the termination process (involuntary termination or shortening the timeframe for withdrawal).

WRCOG Response: *Section 2.9 of the JPA agreement specifies that a majority vote is required for all actions taken by the Board. Section 6.4 states that a supermajority vote is required to amend the JPA agreement. A supermajority vote is not required for the addition of new parties, incurring debt or issuing bonds, or termination of or withdrawal from the JPA. The WRCOG Administration and Finance Committee directed to leave this decision to the new CCA Board of Directors.*

3. JPA Section 5 (Withdrawal and Termination): Most of the necessary terms are here, including the continued liability for members who leave the Authority, but some additional details about the process – notice to the Authority, the voting requirement for terminating, how ex-members will pay for their continuing liability, etc. – should be fleshed out.

WRCOG Response: *Section 5.1 of the draft JPA agreement provides that notice of withdrawal from the Authority shall be given no less than 180 days to the Authority and each member agency. A supermajority vote is not required for terminating the JPA. Section 5.4 of the draft JPA agreement provides for how ex-member agencies pay for continuing liability either through the withholding of funds by the JPA or by requiring the member to deposit sufficient funds with the JPA as determined by the JPA to cover the member's costs.*

4. JPA Section 5.4 (Continuing Liability): You mentioned that our cities are concerned about the potential liabilities for leaving the JPA. This agreement allows for withdrawal prior to program launch with minimal penalties. After energy has been procured by the Authority, however, a member agency who wanted to leave the JPA would be liable for any losses incurred by the Authority in trying to dispose of the excess energy that the member agency no longer requires. Depending on the size of the member agency and the market for energy at that time, this could be a significant liability. As I understand it, if the Authority bought energy at a higher price and had to sell low, the departing member would be liable for the difference. Of course, it depends on the market, and some departures might be revenue neutral and incur less liability. In other respects (operation of the CCA, etc.), members will be well shielded from liability, and if the CCA were to default on a contract, for example, there would be no recourse against the member agencies.

WRCOG Response: *The Joint Exercise of Powers Act at Gov't Code § 6508.3 and CCA law at Public Utilities Code § 366.2(c)(12) provides that members of a JPA do not take on the obligations and liabilities of the JPA unless they voluntarily assume them.*

5. JPA Section 1.5.14 (Powers): One of the powers is to receive gifts. Is this standard language for a JPA?

WRCOG Response: *Yes, many JPAs include language that provides themselves the powers to receive gifts of property or funding from other member agencies.*

6. JPA Section 2.2 (Appointment of Directors): The Board consists of all electeds, some of which may lack technical knowledge of CCA. Because electricity is an essential commodity, there is a concern that members may lack technical knowledge.

WRCOG Response: *WRCOG staff and other consultants and counsel can advise the Board on technical issues. In addition, the JPA agreement allows the Board to establish a technical advisory committee should it desire to do so.*

7. JPA Section 2.6 (Executive Committee): Because of the size of the Board, is there a need to establish an executive committee?

WRCOG Response: *The JPA agreement does not establish an Executive Committee as does the WRCOG JPA agreement. The agreement, however, allows the Board to establish one if it later determines it is in the interests of the JPA to do so.*

8. JPA Section 2.10.1 (Chair and Vice-Chair): It states a one year term but then sounds like the positions only vacate if A and/or B happen.

WRCOG Response: *A chair and vice-chair are appointed annually. The position is vacated if (a) the person serving dies, resigns, or the Member Agency that the person represents removes the person as its representative on the Board, or (b) the Member Agency that he or she represents withdraws from the Authority pursuant to the provisions of this Agreement.*

9. JPA Section 2.12 (Executive Director): How will there be compensation for the Executive Director position?

WRCOG Response: *The JPA does not specify compensation for the Executive Director. Under the proposed structure, WRCOG would serve as the administrator to the CCA and the WRCOG Executive Director would serve as the CCA Executive Director. Once the CCA has decided to hire its own staff, this is a discussion and direction that will be made by the Board.*

10. JPA Section 2.13 (Initial Administration of Authority): How was a three year term of the WRCOG administration agreement decided? It says it can be extended, but nothing about being shortened if desired.

WRCOG Response: *The three year term is proposed by WRCOG staff consistent with the RCHCA administration agreement. This allows for a sufficient time period to get the CCA up and running and provide consistency with administration. As an alternative, the JPA could be silent on the term and defer that issue to negotiation and execution of the administration agreement. This would allow additional flexibility for the CCA Board. **The WRCOG Administration and Finance Committee directed to keep the three year term language.***

11. JPA Section 3 (Participation in and Implementation of CCA): How will the transition from SCE to CCA purchasing power occurs? Is it seamless?

WRCOG Response: *Once jurisdictions join the CCA, the CCA and its data management consultants will work with SCE on identifying the accounts, number of ratepayers and size of the load that is transitioning to the CCA. This process generally takes 6 months to complete. The transition for the ratepayer is seamless and the only noticeable change will be the CCA ratepayers' SCE bill identifying the kWh charge of the CCA and the individual SCE charges for transmission and billing.*

12. JPA Section 5.2 (Right to Withdraw Prior to Program Launch): This is a very important provision.

WRCOG Response: *Agreed, this section was added to ensure member agencies can withdraw without cost prior to program launch.*

13. JPA Section 6.2 (Liability): Can a member city be sued or only the Authority?

WRCOG Response: *A member city can always be sued. Pursuant to state law, however, the debts, obligations and liabilities of the JPA are limited to the JPA unless a member agency otherwise provides written consent. In most cases, the member agencies themselves and their general funds are not liable for the acts or omissions of the JPA. Furthermore, the JPA has the obligation to indemnify the members in the event of a lawsuit against any of them. Therefore, a member agency should be*

insulated from a lawsuit and the payment of damages associated with a lawsuit, so long as the member did not agree to take on the liabilities of the JPA or acted in any willful or reckless way in its participation in the JPA and the JPA has sufficient insurance coverage or other assets to satisfy any judgment..

14. Bylaws – Art. IV, Sec. 1.E (Election of Officers): What is the month that elections will be held annually?

WRCOG Response: *This month will be filled in as the JPA formation date is identified. Presumably, the election month will be the month that the JPA is first in existence.*

15. Bylaws – Art. VIII (Policy Regarding Confidential Information During Closed Sessions): Is this same section in the WRCOG agreement? I have never reported to my Council on closed session items as I thought I couldn't. It sounds like if they have "direct financial or liability implications for the member agency", I should be reporting out in closed session. Maybe we haven't had any items that fall into that category. If this is the case for WRCOG or for that matter, the CCA, can the member agency be notified when it is appropriate to report out please?

WRCOG Response: *Yes, this section is within the WRCOG JPA. The JPA can advise members of the Board of Directors when it is appropriate to report out to their agencies on certain closed session actions.*

16. Bylaws – Art. IX, Sec. 2 (Executive Director/Contracts): The \$100,000 amount seemed high until I realized it is for already budgeted items that have been approved by the Board. Does a limit need to be set for unapproved items, such as urgency needs?

WRCOG Response: *State law requires unbudgeted expenditures to be subject to a 2/3 vote of the governing body. The Board may establish procedures for urgency expenditures, however, such that approval can be made retroactive to an emergency expenditure.*

City of Norco

17. General JPA Comments: The City Council will be interested in the interrelationship between Sections 1.5.8 (incurring of indebtedness/loans), 1.5.10 (issuance of bonded indebtedness), 2.9 (majority vote), 4.6 (debts, liabilities not Member obligations), 5.1 (withdrawal subject to continuing liabilities) and 5.4 (continuing liabilities). The JPA provides that upon a majority vote, the Authority may incur both non-bonded and bonded indebtedness, the later for a term of up to 30 years.
- The language authorizes both revenue and non-revenue bonds. As to non-revenue secured debt, can a simple majority determine to bind the Authority (and potentially its individual Members) to a long term debt service obligation?
 - As to revenue bonds, I would expect that, at least until there is an operational history, Members would have to pledge back-up security even for revenue bonds. Is the debt service repayment an obligation of the Members, notwithstanding Section 4.6? Should a simple majority be able to incur indebtedness, as opposed to a super majority of some sort?
 - Upon withdrawal, can such debt service, or any other financial obligation of the Authority be an obligation of a Member, based upon Section 5.4, which includes losses from the resale of power or other contractual/debt obligations and based upon the "include, but not limited to" language? Are resale losses or other costs an obligation of each individual Member, rather than the Authority as a whole, unrelated to withdrawal and not withstanding Section 4.6?

WRCOG Responses:

- a. *The agreement, as written, provides that a simple majority vote can authorize the issuance of debt, both revenue and non-revenue. The draft agreement can be modified to require super-majority votes should the WRCOG and future JPA membership desire. **The WRCOG Administration and Finance Committee directed to leave this decision to the new CCA Board of Directors.***
- b. *The debt service obligation would not be the indebtedness of the members unless the members expressly agree to take on the debts and liabilities of the JPA or lending their credit to the JPA for purposes of a loan or bond issuance. Losses from the resale of power would be the liability of the JPA.*
- c. *Notwithstanding the Response above, a member withdrawing from the JPA would be liable for the its share of debt service or other outstanding financial obligations, including, but not limited to, energy payments related to long term contracts that have not expired.*

2. **General JPA Comment:** Should there be a binding dispute resolution mechanism included in the JPA?

WRCOG Response: *Member agencies of WRCOG and the future JPA can decide to modify the agreement to include a binding dispute resolution. Some members, however, may desire to have a non-binding mediation provision with the option of having a court decide a controversy. **The WRCOG Administration and Finance Committee agreed to leave the dispute resolution language in place because it is consistent with WRCOG's JPA. The new CCA members can choose to later modify the language once the CCA is created***

City of Wildomar

1. **JPA Section 1.4 (Purpose):** The purpose of the Agreement is “to study, promote, develop, conduct, operate, and manage energy, energy efficiency and conservation, and other energy-related and climate change programs (“the CCA Program”).” Consider clarifying the purpose of this proposed JPA. If it is just for the operation and implementation of a Community Choice Aggregation (CCA) program, this purpose statement seems unnecessarily broad. The purpose statement could be construed in the future as giving the JPA jurisdiction over issues other than energy production and distribution. Section 1.5.12 also indicates that the JPA would be authorized to implement programs other than the CCA Program related to climate change and energy.

WRCOG Response: *The purpose language is intended to be broad. It is consistent with other CCA JPAs and allows flexibility for the JPA to offer additional programs, should the CCA Board of Directors agree, without having to amend the JPA. Some examples of potential future projects could include applying for funds from the CPUC's Energy Efficiency Program, which provides rate payer funds to implement local projects (i.e., additional rebates, low income programs, etc.), or invest in advancing electric vehicle infrastructure. While not all member agencies may want to participate in all of the CCA JPA's programs, allowing flexibility in the JPA is recommended. The issue in this case then becomes whether and how the JPA indemnifies those non-participating agencies. **The WRCOG Administration and Finance Committee directed to leave the Purpose broad so that the new CCA Board of Directors could make the determination if it wanted to be more specific.***

2. **JPA Recital C:** States that Member Agencies have adopted an ordinance per Public Utilities code 366.2. The City has not done this yet. Section 3.3.1 says each Member Agency will adopt an ordinance per Public Utility code 366.2(c)(12). Will WRCOG prepare a model ordinance for this?

WRCOG Response: *Yes, WRCOG and legal is in the process of drafting a model ordinance for cities to review and comment on.*

3. JPA Section 4.5 (Initial Funding of Authority): Is there any cost to the City to join or participate in this program?

WRCOG Response: *No, however, the JPA has language in Section 3.1.4 that the Board of Directors has the ability to add membership payments if it so desires at any time in the future. This would be an item that would need to be proposed and voted on by the CCA Board of Directors.*

4. JPA Section 6.3 (Indemnification): The agreement does not address liability of member agencies under Government Code section 895.2, which says that a when public agencies enter into an agreement they are jointly and severally liable for injury caused by a negligent or wrongful act or omission occurring in the performance of such agreement. Government Code sections 895.4 and 895.6 allow the agencies to contractually agree to indemnity and contribution provisions that allow such liability to be apportioned among the members based on their respective degree of fault giving rise to the liability. We recommend that a provision be added so that if the JPA is found to be liable in tort, no individual member agency will have to shoulder the full liability for that tort (unless, of course, that member agency was solely responsible).

WRCOG Response: *The statute cited governs cooperative agreements between public agencies in non-JPA situations. In those agreements, the indemnities usually allow for the apportionment of fault. Most JPAs do not have the language proposed by the commenter, however, as the Joint Exercise of Powers Act and CCA statutes specifically state that member agencies do not take on the liability of the JPA unless they expressly agree to it. Case law supports this position and a Marin Clean Energy liability analysis reviewed by BB&K also supports this. Staff recommends adding the suggested provision. **The WRCOG Administration and Finance Committee agreed with staff's recommendation and it is now included in the document.***

5. JPA Exhibit B (Services Agreement): Was not included.

WRCOG Response: *A draft Agreement has been prepared to show that WRCOG will act as an administrator. All WRCOG costs attributable to administering the JPA that are properly accounted for can be recouped from ratepayers.*

6. Bylaws – Art. III, Sec. 3 (Vacancy): Inconsistent with the Agreement in terms of how long a Member Agency may take to fill a vacancy. The bylaws say 90 days and the Agreement says 30.

WRCOG Response: *These sections have been synced to provide 90 days to fill vacancies.*

Eastern Municipal Water District

1. General JPA Comments: Will the CCA impact the agreements and pricing that existing businesses and public agencies have with SCE? The District has a time of use agreement with SCE. Would WRCOG have the ability to continue the existing terms/fee schedule arrangements? The provisions of the CCA allow for ratepayers to participate in the CCA program or opt out (assuming that this initial program will include both residential and nonresidential customers).

WRCOG Response: *The ability to participate in a CCA is limited by statute to cities, counties or a JPA. Water districts and other special districts cannot participate in the CCA without special legislation. Therefore, the District's time of use agreements are unaffected by the CCA. It should be noted, however, that larger institutional customers, such as businesses and industrial users will be automatically enrolled in the CCA and may have special contractual arrangements with SCE that may be disrupted by enrollment. This is the case for direct access customers that are allowed to purchase wholesale energy from providers other than SCE. It is important that the JPA identify those users prior to launch and notify them before program launch about opting out, so there is no conflict with the user's existing contractual relationships.*

2. General Bylaws Comments: As the Bylaw Amendment only includes member from an incorporated municipality or county to participate on the Board of Directors will there be a technical group or some sort of advisory group that we (as one of the largest consumers and producers of electricity in the region) could participate in?

WRCOG Response: *The JPA allows the Board to establish advisory committees on an ad hoc basis. Some CCAs establish a ratepayer or technical advisory committee in the JPA agreement and others do so through individual board action.*

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Item 7.D

Community Choice Aggregation
Activities Update

Attachment 4

Draft agreement between WRCOG
and the CCA

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IMPLEMENTATION AND MANAGEMENT SERVICES AGREEMENT
BETWEEN THE WESTERN RIVERSIDE COUNCIL OF GOVERNMENTS
AND THE [INSERT ENTITY NAME]

This Management Services Agreement (“**Agreement**”) is made and entered into by and between the Western Riverside Council of Governments (“**WRCOG**”) and the [INSERT ENTITY NAME] (“**Authority**”) and shall become effective upon the terms set forth herein. WRCOG and Authority are sometimes referred to in this Agreement individually as a “**Party**,” or collectively as “**Parties**.”

RECITALS

A. WHEREAS, WRCOG is a public agency formed by a Joint Powers Agreement (“**WRCOG JPA**”) made and entered into on the 1st day of April 1991, pursuant to Government Code section 6500 *et seq.* and other pertinent provisions of law, by and between numerous cities located within Western Riverside County and the County of Riverside; and

B. WHEREAS, the purpose of the formation of WRCOG is, among other things, to provide an agency to conduct studies and projects designed to improve and coordinate the common governmental responsibilities and services on an area-wide and regional basis through the establishment of an association of governments; and

C. WHEREAS, WRCOG now consists of the following member agencies: County of Riverside, City of Banning, City of Beaumont, City of Calimesa, City of Canyon Lake, City of Corona, City of Eastvale, City of Hemet, City of Jurupa Valley, City of Lake Elsinore, City of Menifee, City of Moreno Valley, City of Murrieta, City of Norco, City of Perris, City of Riverside, City of San Jacinto, City of Temecula, and City of Wildomar, and the following participating agencies: Eastern Municipal Water District, Western Municipal Water District, Riverside County Superintendent of Schools, and Morongo Band of Mission Indians; and

D. WHEREAS, under the WRCOG JPA, the functions of WRCOG include, among other things:

- i. Serving as a forum for consideration, study and recommendations on area-wide and regional problems; and
- ii. Assembling information helpful in the consideration of problems peculiar to Western Riverside County; and
- iii. Exploring practical avenues for intergovernmental cooperation, coordination and action in the interest of local public welfare and means of improvements in the administration of governmental services.

E. WHEREAS, WRCOG has the power to make and enter into contracts under Section 1.2.2 of the WRCOG JPA and Implementation Agreements pursuant to Article VIII of the WRCOG JPA; and

F. WHEREAS, the Authority is a public agency formed by a Joint Powers Agreement (“**Authority JPA**”) made and entered into on the ____ day of _____ 2017, pursuant to Government Code section 6500 *et seq.* and other pertinent provisions of law, by and between the County of Riverside and numerous cities located within Western Riverside County; and

G. WHEREAS, the purpose of the formation of Authority is to establish an independent public agency in order to exercise powers common to each Member Agency to study, promote, develop, conduct, operate, and manage energy, energy efficiency and conservation, and other energy-related and climate change programs related to a Community Choice Aggregation program (“**CCA Program**”), and to exercise all other powers necessary and incidental to accomplishing this purpose; and

H. WHEREAS, Authority now consists of [INSERT ENTITIES]; and

I. WHEREAS, Section 3.3 of the Authority JPA sets forth numerous powers of the Authority in carrying out its purposes, including the power to make and enter into contracts and to employ agents, consultants, attorneys and employees. Section 2.12 of the Authority JPA authorizes the Authority through its Board of Directors (“**Board**”) to appoint an Executive Director (“**Executive Director**”) and an attorney. Under Section 2.13, the Authority Board may also

contract with its member agencies for the use of employees of the member agencies on mutually agreeable terms and conditions; and

J. WHEREAS, Section 2.12 of the Authority JPA sets forth certain powers and duties of such Executive Director or other employees of the Authority to whom the Board delegates authority; and

L. WHEREAS, the Authority now desires to contract with WRCOG to provide an Executive Director and such other staff and consultants as required to assist the Authority in its obligations to implement the CCA Program to ensure a regional perspective.

AGREEMENT

NOW, THEREFORE, the Parties agree as follows:

1. APPOINTMENT OF EXECUTIVE DIRECTOR. The Authority hereby retains WRCOG, acting through its Executive Director, to serve as the Authority Executive Director and staff of the Authority to fulfill the needs and requirements of the Authority, and WRCOG agrees to provide such services through such personnel as may be required by the Authority, all upon the terms set forth below.

2. DUTIES OF WRCOG. WRCOG shall administer, coordinate, and supervise the activities of the Authority as set forth in the Authority JPA, and shall act for the Authority in accomplishing its purposes set forth in Section 3.2 of the Authority JPA. The Authority Executive Director appointed in Section 1, above, acting either individually or through such personnel as he or she shall from time to time appoint, shall have and exercise all of those powers and responsibilities of the Authority enumerated in Sections 1.5 and 2.14 of the Authority JPA and of the Authority Executive Director enumerated in Section 2.12 of the Authority JPA.

3. OTHER PERSONNEL SERVICES. The Authority Executive Director may retain and appoint additional staff as may from time to time be necessary or convenient to fulfill the needs of the Authority. Such additional staff may be retained as WRCOG employees or contractors. If such additional staff are employees of the member agencies of the Authority, an

amendment shall be required to the agreement for staffing and services between the member agency and the Authority.

4. TERM; TERMINATION. This Agreement shall be effective for a three-year term as of the effective date of the certain document entitled [INSERT AUTHORITY JPA AGREEMENT NAME], dated _____, 2017, and only upon execution by both Authority and WRCOG. Once effective, this Agreement shall continue thereafter for successive three-year terms without further action by the Authority Board or WRCOG. This agreement may be terminated at any time by either party giving the other party six (6) months prior written notice.

5. COMPENSATION. In consideration of WRCOG's performance of the services as set forth herein and retention of consultants or incurring of other costs in the performance of this Agreement the Authority shall pay to WRCOG the sums specified in Exhibit A attached hereto. Such sums shall be paid at the times and in the manner specified in Exhibit A. In the event of the early termination of this Agreement under Section 4 above, the Authority shall, with respect to fixed compensation amounts such as personnel salaries and general overhead charges, pay WRCOG a pro rata proportion of the monthly payment represented by the proportion of days of the payment month which this Agreement remains in effect.

6. INDEMNIFICATION AND INSURANCE.

A. Authority shall defend, indemnify and hold the WRCOG, its officials, officers, consultants, employees, volunteers and agents free and harmless from any and all claims, demands, causes of action, costs, expenses, liability, loss, damage or injury, in law or equity, to property or persons, including wrongful death, in any manner arising out of or in connection with this Agreement, including without limitation the payment of all consequential damages and attorneys' fees and other related costs and expenses, except for losses ultimately determined to be the result of the sole negligence or willful misconduct of WRCOG. Authority shall defend, at Authority's own cost, expense and risk, any and all such aforesaid suits, actions or other legal proceedings of every kind that may be brought or instituted against WRCOG, its directors, officials, officers, consultants, employees, agents or volunteers in any manner arising out of or in

connection with this Agreement. Authority and WRCOG shall reasonably cooperate in all aspects involving any defense made pursuant to this section. Authority shall pay and satisfy any judgment, award or decree that may be rendered against WRCOG or its directors, officials, officers, consultants, employees, agents or volunteers, in any such suit, action or other legal proceeding in any manner arising out of or in connection with this Agreement. Authority shall reimburse WRCOG and its directors, officials, officers, consultants, employees, agents and/or volunteers, for any and all legal expenses and costs, including reasonable attorneys' fees, incurred by each of them in connection therewith or in enforcing the indemnity herein provided. Authority's obligation to indemnify shall not be restricted to insurance proceeds, if any, received by the WRCOG, its directors, officials, officers, consultants, employees, agents or volunteers. This section shall survive any expiration or termination of this Agreement.

B. During the term of the Agreement, Authority shall maintain Commercial General Liability Insurance with limits not less than \$ XXXXXXXX per occurrence. The policies shall be endorsed to state that WRCOG, its directors, officials, officers and employees shall be covered as additional insured under such policy and that such policy shall be primary to any policies held by WRCOG.

7. ADMINISTRATION. The Authority Board, or designee, shall administer this Agreement on behalf of the Authority. The WRCOG Executive Committee shall administer this Agreement on behalf of the WRCOG.

8. ASSIGNMENT. This Agreement shall not be assigned by either party, in whole or in part, without the prior written consent of the other party.

9. NOTICE. A party giving notice as required in this Agreement shall provide for personal delivery of such notice or shall send such notice by United States mail, postage prepaid, to the agent and address of the other party as set forth below:

If to the Authority:

If to the WRCOG: Attn: Executive Director
4080 Lemon Street
3rd Floor, MS 1032
Riverside, CA 92501-3609
Phone: (951) 955-7985
Fax: (951) 787-7991

10. AMENDMENT; ENTIRE AGREEMENT. This Agreement represents the entire agreement between the parties with respect to personnel provided by WRCOG to the Authority. Any amendment or modification of the provisions of this Agreement must be in writing and signed by each of the parties hereto.

11. WAIVER. Any waiver by either party of a breach of any of the terms of this Agreement shall not be construed as a waiver of any succeeding breach of the same or other term of this Agreement.

12. SEVERABILITY. If any term, provision, covenant or condition of this Agreement is held by a court of competent jurisdiction to be invalid, void or unenforceable, the rest of this Agreement shall remain in full force and effect and shall in no way be affected, impaired or invalidated.

13. GOVERNING LAW AND VENUE. This Agreement and its construction and interpretation as to validity, performance and breach shall be construed under the laws of the State of California applicable to agreements both entered into and to be performed in California.

The provisions of the Government Claims Act (Government Code section 900 et seq.) shall be applicable for any disputes under this Agreement.

Venue shall be within the County of Riverside for any legal or equitable action to enforce the terms of this Agreement, to declare the rights of the parties under this Agreement, or for any action which relates to this Agreement in any manner.

14. APPROVAL/COUNTERPARTS. This Agreement must be approved by the Authority Board of Directors and WRCOG. Each party has had the opportunity to participate in drafting and preparation of this Agreement. Any construction to be made in the Agreement of any of its terms or provisions shall not be construed against any one party.

This Agreement may be executed in one or more counterparts, all of which together shall constitute one and the same Agreement.

15. CERTIFICATION OF AUTHORITY TO EXECUTE THIS AGREEMENT. WRCOG and Authority certify that the individuals signing below on behalf of the party has authority to execute this Agreement on behalf of the party, and may legally bind the party to the terms and conditions of this Agreement, and any attachments hereto.

IN WITNESS WHEREOF, the parties have executed this Agreement on the date or dates indicated below.

WESTERN RIVERSIDE COUNCIL OF
GOVERNMENTS

DATE: _____

BY: _____

NAME: _____

[INSERT ENTITY NAME]

DATE: _____

BY: _____

NAME: _____

EXHIBIT A

Compensation shall be paid to WRCOG by the Authority for the services provided under this agreement. These include:

1. The cost of the WRCOG Executive Director and other WRCOG staff while performing the services under this Agreement. Those costs shall include recapture overhead costs in the amount of the then current Indirect Cost Allocation Plan ("ICAP"), which will be updated annually. As of the date of this Agreement, WRCOG's ICAP rate is XX.XX% which was calculated using audited figures from the XX-XX Fiscal Year.

2. The reimbursement of non-employee costs incurred by WRCOG while performing the services hereunder, which may include, but not be limited to, supplies, legal services, consultant services, equipment, board member stipends and board member and staff expense reimbursements. The reimbursement of these costs will be provided at the same rate charged to WRCOG.

WRCOG shall periodically, but no more frequently than monthly nor less frequently than semiannually, provide an invoice to the Authority itemizing charges for the billing period. The Authority shall provide prompt payment to WRCOG by means of transferring funds from the Authority to WRCOG.

Item 7.D

Community Choice Aggregation
Activities Update

Attachment 5

Proposed Timeline

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Implementation and Timeline

Implementation and Timeline																															
Who	Q3 2017			Q4 2017			Q1 2018			Q2 2018			Q3 2018			Q4 2018			Q1 2019												
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Implementation and Timeline

Who

EES/BBK/WRCOG

EES/BBK/WRCOG

EES/BBK/WRCOG

EES/BBK/WRCOG

Develop monthly regulatory and legislative reports for staff and Board leadership

Closer to operations, begin deeper regulatory engagement by participation in proceedings and rulemakings at the CPUC

Register with the CPUC and obtain party status for priority regulatory proceedings

Ensure full regulatory/program compliance and related reporting

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Item 7.D

Community Choice Aggregation
Activities Update

Attachment 6

Correspondence from American
Coalition for Sustainable Communities

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Date: July 12, 2017

To: Council members considering joining or launching Community Choice Aggregation (CCA)

From: Paul Daniels, ACSC - FutureEarthUS@gmail.com

RE: *ACSC Bulletin: CCA Fatal Flaw Developments*

Dear Honorable Council Members:

Recent regulatory developments now render the economics contained in Community Choice Aggregation (CCA (CCE)) Business Plans and Feasibility Studies obsolete and potentially fatal, and may put your municipality in financial jeopardy. The two developments occurred mid-June 2017:

1) Exit fees levied by investor-owned utilities (IOUs) on all departing loads are now being litigated at the California Public Utilities Commission (CPUC). IOUs propose that these fees, known as PCIA (Power Charge Indifference Adjustment), be changed or that a new rate structure known as “PAM” (Portfolio Allocation Method) be implemented. LA CCE and ICP Business Plans’ Sensitivity Analysis state: *The level of the PCIA (and the amount of franchise surcharges) will impact the cost competitiveness of (CCA). In order to be cost-effective, (CCA) power supply costs plus PCIA and other surcharges must be lower than (IOU’s) generation rates.* The outcome of PCIA and PAM will likely not be known until mid-2018.

2) AB 1110 anti-REC legislation. CCAs use renewable energy certificates (RECs) as a low-cost method for keeping prices low and advertising low greenhouse gas (GHG) emissions. The recently released draft implementation for AB 1110, prepared by California Energy Commission, identifies that RECs can no longer be used for (misrepresented) GHG reductions and GHG emission rates. This puts CCAs on a level field with IOUs and means CCAs must procure more expensive “bundled” (true) renewable energy for their standard default product. Additionally, RECs will not be allowed in CCA’s 50% and 100% green energy products; the inherent cost issue of bundled energy is compounded by a lack of cost-effective renewable energy as CCAs enter the market en masse, as well as transmission constraints for that energy. The net is that renewable energy prices will increase significantly, changing the associated economics of CAA from what Business Plan authors could not know.

In the event that municipalities elect to join CCA in the interim, it should be noted that the JPA “financial firewall” does not protect individual municipalities from action against it by the JPA, nor insulate it from power contract resale liability, should the municipality attempt to subsequently opt out of CCA.

With respect to the above, the prudent course of action would be to delay further action on CCA until regulatory unknowns may be better quantified.

Sincerely,
Paul Daniels