



ORANGE COUNTY FIRE AUTHORITY

AGENDA

Pursuant to the Brown Act, this meeting also constitutes a meeting of the Board of Directors.

EXECUTIVE COMMITTEE REGULAR MEETING Thursday, March 23, 2017 5:30 P.M.

**Regional Fire Operations and Training Center
Board Room
1 Fire Authority Road
Irvine, CA 92602**

This Agenda contains a brief general description of each item to be considered. Except as otherwise provided by law, no action or discussion shall be taken on any item not appearing on the following Agenda. Unless legally privileged, all supporting documents, including staff reports, and any writings or documents provided to a majority of the Executive Committee after the posting of this agenda are available for review at the Orange County Fire Authority Regional Fire Operations & Training Center, 1 Fire Authority Road, Irvine, CA 92602 or you may contact Sherry A.F. Wentz, Clerk of the Authority, at (714) 573-6040 Monday through Thursday, and every other Friday from 8 a.m. to 5 p.m. and available online at <http://www.ocfa.org>

If you wish to speak before the Fire Authority Executive Committee, please complete a Speaker Form identifying which item(s) you wish to address. Please return the completed form to the Clerk of the Authority prior to being heard before the Committee. Speaker Forms are available at the counters of both entryways of the Board Room.



In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, you should contact the Clerk of the Authority at (714) 573-6040.

CALL TO ORDER

INVOCATION by OCFA Chaplain Robert Benoun

PLEDGE OF ALLEGIANCE by Director Muller

ROLL CALL

1. PRESENTATIONS

No items.

REPORT FROM THE BUDGET AND FINANCE COMMITTEE CHAIR**PUBLIC COMMENTS**

Resolution No. 97-024 established rules of decorum for public meetings held by the Orange County Fire Authority. Resolution No. 97-024 is available from the Clerk of the Authority.

Any member of the public may address the Committee on items within the Committee's subject matter jurisdiction but which are not listed on this agenda during PUBLIC COMMENTS. However, no action may be taken on matters that are not part of the posted agenda. We request comments made on the agenda be made at the time the item is considered and that comments be limited to three minutes per person. Please address your comments to the Committee as a whole, and do not engage in dialogue with individual Committee Members, Authority staff, or members of the audience.

The Agenda and Minutes are now available through the Internet at www.ocfa.org. You can access upcoming agendas on the Monday before the meeting. The minutes are the official record of the meeting and are scheduled for approval at the next regular Executive Committee meeting.

CLOSED SESSION**CS1. CONFERENCE WITH LEGAL COUNSEL–ANTICIPATED LITIGATION**

Authority: Government Code Section 54956.9(d)(2) – Significant Exposure to Litigation (2 cases)

CLOSED SESSION REPORT**2. MINUTES****A. Minutes from the February 23, 2017, Regular Executive Committee Meeting**

Submitted by: Sherry Wentz, Clerk of the Authority

Recommended Action:

Approve as submitted.

3. CONSENT CALENDAR

All matters on the consent calendar are considered routine and are to be approved with one motion unless a Committee Member or a member of the public requests separate action on a specific item.

A. Monthly Investment Reports

Submitted by: Tricia Jakubiak, Treasurer

Budget and Finance Committee Recommendation: *APPROVE*

Recommended Action:

Receive and file the reports.

B. Medical Director – Salary Range Adjustment

Submitted by: Brigitte Gibb, Director/Human Resources Division

Recommended Action:

Approve the proposed Medical Director monthly salary range of \$8,923.20 - \$14,185.60.

C. New Classification Specification and Salary Range for Emergency Command Center Manager

Submitted by: Brigitte Gibb, Director/Human Resources Division

Recommended Action:

Approve the proposed Emergency Command Center Manager classification specification and monthly salary range of \$7,832.93 - \$12,445.33.

D. Blanket Order Contract Extension for Full Service Tire Contract

Submitted by: Mike Schroeder, Assistant Chief/Support Services Department

Recommended Action:

1. Approve and authorize the Purchasing Manager to increase the current blanket order contract by \$75,000 (to cover current and anticipated orders through the end of March, 2017).
2. Approve and authorize the Purchasing Manager to extend the annual blanket order contract with Parkhouse Tire, Inc., in the initial amount of \$400,000, with an annual escalation factor up to ten percent to allow for a combination of volume and pricing changes utilizing the NASPO Valuepoint cooperative contract through March 31, 2019.

E. Approval of Contract Amendment County-wide Wildfire Protection Plan

Submitted by: Lori Smith, Assistant Chief/Community Risk Reduction Department

Recommended Action:

Approve and authorize the Purchasing Manager to increase the Wildland Resource Management contract (B01635) by \$19,900 for a new not to exceed amount of \$113,960.

END OF CONSENT CALENDAR**4. DISCUSSION CALENDAR****A. March 2017 Legislative Report**

Submitted by: Dave Thomas, Assistant Chief/Operations Department

Recommended Action:

Direct OCFA Staff to advise and provide input ensuring SB 302 (D-Mendoza) does not negatively impact revenues allocated to OCFA.

B. Award of RFP JA2148 Cardiac Monitor/Defibrillators and Automated External Defibrillators

Submitted by: Dave Thomas, Assistant Chief/Operations Department

Recommended Actions:

1. Authorize the Purchasing Manager to issue a purchase order for the initial purchase of 120 cardiac monitor units and 180 automated external defibrillators (AED) units including accessories and supplies to Zoll, in the amount of \$3,128,247.20 (amount includes trade in credit of \$917,045 and end of year incentive discount of \$175,000, if purchase order is issued by 03/31/17).
2. Authorize the Purchasing Manager to issue a blanket order for a five-year term to Zoll, for the as-needed purchase of consumable supplies and accessories for a not to exceed amount of \$1,426,304.60 over the five-year term (\$285,260.92 annually).
3. Authorize the Purchasing Manager to utilize the contract pricing for future budgeted purchases of cardiac monitors and AED units during the five-year term, so long as the pricing is based on the Best and Final Offer pricing, which Zoll has agreed to hold throughout the term of the contract.

C. Discussion of Member Agency Financial Equity Issues and Potential Liability of Member Agencies Upon Withdrawal from OCFA or Upon Expiration of OCFA's Joint Powers Agreement and Requests Made by City of Irvine and County of Orange for OCFA to Engage in Discussions and Negotiations regarding Financial Equity Issues; Potential Formation of an Equity Ad Hoc Committee

Submitted by: Lori Zeller, Assistant Chief/Business Services Department

Recommended Action:

Review the proposed agenda item and recommend that the Board of Directors:

1. Reaffirm Board's prior May 26, 2016, direction rescinding the formation of a 2016 Equity Ad Hoc Committee, noting it is at the discretion of the two agencies, County of Orange and City of Irvine, to deliberate the issue of equity and, when appropriate, present proposed options to the Board of Directors.
2. Reaffirm Board's prior September 22, 2016, direction to forward the topics relating to member agency obligation for pension liabilities to the Pension Ad Hoc Committee.
3. Receive oral status report from the Pension Ad Hoc Committee Chair.

COMMITTEE MEMBER COMMENTS

ADJOURNMENT – The next regular meeting of the Executive Committee is scheduled for Thursday, April 27, 2017, at 5:30 p.m.

AFFIDAVIT OF POSTING

I hereby certify under penalty of perjury under the laws of the State of California, that the foregoing Agenda was posted in the lobby, front gate public display case, and website of the Orange County Fire Authority, Regional Fire Operations and Training Center, 1 Fire Authority Road, Irvine, CA, not less than 72 hours prior to the meeting. Dated this 16th day of March 2017.

Sherry A.F. Wentz, CMC
Clerk of the Authority

UPCOMING MEETINGS:

Human Resources Committee Meeting	Tuesday, April 4, 2017, 12 noon
Budget and Finance Committee Meeting	Wednesday, April 12, 2017, 12 noon
Claims Settlement Committee Meeting	Thursday, April 27, 2017, 5:00 p.m.
Executive Committee Meeting	Thursday, April 27, 2017, 5:30 p.m.

AGENDA ITEM NO. 1A

There are no supportive materials
for Presentation Item No. 1A

MINUTES ORANGE COUNTY FIRE AUTHORITY

**Executive Committee Regular Meeting
Thursday, February 23, 2017
5:30 P.M.**

**Regional Fire Operations and Training Center
Board Room
1 Fire Authority Road
Irvine, CA 92602**

CALL TO ORDER

Chair Swift called the regular meeting of the Orange County Fire Authority Executive Committee to order at 5:31 p.m. on February 23, 2017.

INVOCATION

Chaplain Robert George offered the invocation.

PLEDGE OF ALLEGIANCE

Director Spitzer led the assembly in the Pledge of Allegiance to our Flag.

ROLL CALL

Present: Carol Gamble, Rancho Santa Margarita
Noel Hatch, Laguna Woods
Joe Muller, Dana Point
Ed Sachs, Mission Viejo
Dave Shawver, Stanton
Todd Spitzer, County of Orange
Elizabeth Swift, Buena Park

Absent: Gene Hernandez, Yorba Linda

Also present were:

Fire Chief Jeff Bowman
Assistant Chief Mike Schroeder
Assistant Chief Brian Young
General Counsel David Kendig

Assistant Chief Dave Thomas
Assistant Chief Lori Smith
Human Resources Director Brigitte Gibb
Clerk of the Authority Sherry Wentz

1. PRESENTATIONS

No items.

REPORT FROM THE BUDGET AND FINANCE COMMITTEE CHAIR (F: 12.02A6)

Budget and Finance Committee Chair Sachs reported at the February 8, 2017, meeting the Committee voted unanimously to send the Monthly Investment Reports and the Second Quarter Financial Newsletter to the Executive Committee for its approval. The Committee voted unanimously by acclamation; Director Sachs as Chair and Director Muller as Vice Chair of the Budget and Finance Committee for the ensuing term.

PUBLIC COMMENTS (F: 12.02A3)

Stephen Wontrobski, Mission Viejo resident, addressed Workers' Compensation fraud.

2. MINUTES

A. Minutes from the January 26, 2017, Special Executive Committee Meeting (F: 12.02A2)

On motion of Director Hatch and second by Vice Chair Sachs, the Executive Committee voted to approve the Minutes of the January 26, 2017, Special Executive Committee Meeting as submitted. Director Shawver was recorded as an abstention, due to his absence from the meeting.

3. CONSENT CALENDAR (Agenda Items 3C and 3D were pulled for separate consideration)

A. Monthly Investment Reports (F: 11.10D2)

On motion of Director Spitzer and second by Director Shawver, the Executive Committee voted unanimously by those present to receive and file the Monthly Investment Reports.

B. Second Quarter Financial Newsletter (F: 15.07)

On motion of Director Spitzer and second by Director Shawver, the Executive Committee voted unanimously by those present to receive and file the report.

C. Award of RFP JA2148 Cardiac Monitor/Defibrillators and Automated External Defibrillators (F: 19.09D1)

Director Spitzer pulled this item from the Consent Calendar to inquire into the negotiated terms and conditions of the proposed contract.

On motion of Director Spitzer and second by Vice Chair Sachs, the Executive Committee voted unanimously by those present to direct staff to bring the item back at the March 23, 2017, meeting and to engage in concurrent discussions with the recommended vendor and the second ranked vendor.

D. Payroll/Accounts Payable Manager Revised Classification Specification and Salary Range Adjustment (F: 17.18)

Stephen Wontrobski, Mission Viejo resident, pulled this item from the Consent Calendar with comments addressing firefighter salaries.

On motion of Vice Chair Sachs and second by Director Spitzer, the Executive Committee voted unanimously by those present to approve the Payroll/Accounts Payable Manager Revised Classification Specification and Salary Range Adjustment.

E. Request for Special Procurement For Maintenance & Advanced Technical Support of “TheHIVE” (F: 19.08A2a2)

On motion of Director Spitzer and second by Director Shawver, the Executive Committee voted unanimously by those present to approve and authorize the Purchasing Manager to establish a new three-year blanket order with 6th Street Consulting utilizing the special procurement provision in the Purchasing Ordinance for ongoing periodic software maintenance and updates, and as-needed advanced technical support for the OCFA SharePoint Intranet TheHIVE (through February 29, 2020), for an amount not to exceed \$74,250 (\$24,750 annually).

END OF CONSENT CALENDAR

4. DISCUSSION CALENDAR

A. 2017/18 OCFA Legislative Policy Guidelines (F: 11.10F)

Assistant Chief Dave Thomas introduced Legislative Analyst Jay Barkman who provided the 2017/18 Legislative Policy Guidelines.

Stephen Wontrobski, Mission Viejo resident, spoke in opposition to Senate Bill 302.

On motion of Director Spitzer and second by Director Hatch, the Executive Committee voted unanimously by those present to adopt the 2017/18 OCFA Legislative Policy Guidelines excluding Policy Guideline 2.2 to be considered by a separate motion, and direct staff to identify legislation for the Executive Committee to adopt positions of support or opposition.

On motion of Vice Chair Sachs and second by Director Shawver, the Executive Committee voted by those present to adopt and amend Legislative Policy Guideline 2.2 to state: "Oppose expansion or addition of new presumptive injuries or illnesses." Directors Hatch and Spitzer voted in opposition.

COMMITTEE MEMBER COMMENTS (F: 12.02A4)

Director Hatch thanked those who attended the meeting and stated the meeting had great input and exchange.

Director Shawver reported as Chair of the Human Resources Committee, this organization carefully monitors all workers' compensation claims and follows the law and governmental process.

Director Spitzer announced the funeral service date of March 3, for Whittier Police Officer Keith Wayne Boyer, at Calvary Chapel in Downey; and addressed civil disobedience.

Chair Swift reported attending the OCFA's 9th Annual Best and Bravest Awards Dinner sharing that there was an amazing turnout, and noted all who were given awards were deserving.

CLOSED SESSION

No items.

ADJOURNMENT – Chair Swift adjourned the meeting at 7:10 p.m. The next regular meeting of the Executive Committee is scheduled for Thursday, March 23, 2017, at 5:30 p.m.

Sherry A.F. Wentz, CMC
Clerk of the Authority



Orange County Fire Authority
AGENDA STAFF REPORT

Executive Committee Meeting
March 23, 2017

Agenda Item No. 3A
Consent Calendar

Monthly Investment Reports

Contact(s) for Further Information

Tricia Jakubiak, Treasurer Treasury & Financial Planning	triciajakubiak@ocfa.org	714.573.6301
Jane Wong, Assistant Treasurer	janewong@ocfa.org	714.573.6305

Summary

This agenda item is a routine transmittal of the monthly investment reports submitted to the Committee in compliance with the investment policy of the Orange County Fire Authority and with Government Code Section 53646.

Prior Board/Committee Action

Budget and Finance Committee Recommendation: *APPROVE*

At its regular March 8, 2017, meeting, the Budget and Finance Committee reviewed and unanimously recommended approval of this item.

RECOMMENDED ACTION(S)

Receive and file the reports.

Impact to Cities/County

Not Applicable.

Fiscal Impact

Not Applicable.

Background

Attached is the final monthly investment report for the month ended January 31, 2017. A preliminary investment report as of February 17, 2017, is also provided as the most complete report that was available at the time this agenda item was prepared.

Attachment(s)

Final Investment Report – January 2017/Preliminary Report – February 2017

Orange County Fire Authority Monthly Investment Report



Final Report – January 2017

Preliminary Report – February 2017



Monthly Investment Report Table of Contents

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Orange County Fire Authority

Final Investment Report

January 31, 2017



EXECUTIVE SUMMARY

Portfolio Activity & Earnings

During the month of January 2017, the size of the portfolio decreased significantly by \$39.2 million to \$169.0 million. Significant receipts for the month included various apportionments of property taxes, intergovernmental contract and grant payments, a cash contract payment and other charges for current services totaling \$17.4 million. Significant disbursements for the month included two biweekly payrolls which were approximately \$11.7 million each with related benefits. Significant disbursements also included a payment to OCERS in the amount of \$31.7 million for the prepayment of the retirement cost for fiscal year 2017/18. Total January cash outflows for operating expenditures and the prepayment to OCERS amounted to approximately \$57.3 million. The portfolio's balance is expected to decrease further in the following month as there are no major receipts scheduled for February.

In January, the portfolio's yield to maturity (365-day equivalent) increased by 10 basis points to 0.76%. The effective rate of return rose by 8 basis points to 0.66% for the month and edged up by 1 basis point to 0.61% for the fiscal year-to-date. The average maturity of the portfolio lengthened slightly by 5 days to 83 days to maturity.

Economic News

The U.S. economy continued to grow moderately in January 2017. Employment conditions remained solid with a strong jobs report for January. There were a total of 227,000 new jobs created in January, beating expectations. The unemployment rate, on the other hand, edged up slightly by 1 basis point to 4.8%, though still at a low level. Consumer confidence measures were slightly mixed but stayed high. Retail sales picked up in January and were stronger than expected. Both manufacturing and non-manufacturing activities continued expanding in January. The CPI (Consumer Price Index) increased more than expected; however, longer-term inflation remained low. Housing activity strengthened and prices continued to rise. Industrial production reversed and dropped for the month. On February 1, 2017, at the second day of the Federal Open Market Committee meeting, the Fed voted to keep the federal funds rate at a target range of 0.50% to 0.75%. The Committee also upgraded its outlook on the economy. With the recently improved economic activity, some economists call for a possible rate hike at the Fed's next scheduled meeting in March.



BENCHMARK COMPARISON AS OF JANUARY 31, 2017

3 Month T-Bill: 0.52%

1 Year T-Bill: 0.83%

6 Month T-Bill: 0.62%

LAIF: 0.75%

OCFA Portfolio: 0.66%

PORTFOLIO SIZE, YIELD, & DURATION

	<u><i>Current Month</i></u>	<u><i>Prior Month</i></u>	<u><i>Prior Year</i></u>
<i>Book Value-</i>	\$168,999,058	\$208,213,220	\$176,489,384
<i>Yield to Maturity (365 day)</i>	0.76%	0.66%	0.58%
<i>Effective Rate of Return</i>	0.66%	0.58%	0.52%
<i>Days to Maturity</i>	83	78	227



ORANGE COUNTY FIRE AUTHORITY
Portfolio Management
Portfolio Summary
January 31, 2017

Orange County Fire Authority
1 Fire Authority Road
Irvine, Irvine, CA 92602
(714)573-6301

(See Note 1 on page 9)

(See Note 2 on page 9)

Investments	Par Value	Market Value	Book Value	% of Portfolio	Term	Days to Maturity	YTM/C 360 Equiv.	YTM/C 365 Equiv.
Money Mkt Mutual Funds/Cash	7,800,979.62	7,800,979.62	7,800,979.62	4.64	1	1	0.001	0.001
Federal Agency Coupon Securities	39,000,000.00	38,956,690.00	39,018,510.69	23.20	1,091	274	1.239	1.256
Federal Agency Disc. -Amortizing	37,000,000.00	36,968,000.00	36,967,695.00	21.98	89	59	0.526	0.534
Treasury Discounts -Amortizing	20,000,000.00	19,986,700.00	19,985,333.34	11.88	92	50	0.508	0.515
Local Agency Investment Funds	64,402,032.95	64,364,925.98	64,402,032.95	38.29	1	1	0.741	0.751
Investments	168,203,012.57	168,077,295.60	168,174,551.60	100.00%	284	83	0.747	0.758
Cash and Accrued Interest								
Passbook/Checking (not included in yield calculations)	708,923.81	708,923.81	708,923.81		1	1	0.000	0.000
Accrued Interest at Purchase		10,000.00	10,000.00					
Subtotal		718,923.81	718,923.81					
Total Cash and Investments	168,911,936.38	168,796,219.41	168,893,475.41		284	83	0.747	0.758

Total Earnings	January 31 Month Ending	Fiscal Year To Date
Current Year	108,035.49	558,811.57
Average Daily Balance	193,523,988.69	154,807,365.93
Effective Rate of Return	0.66%	0.61%

"I certify that this investment report accurately reflects all pooled investments and is in compliance with the investment policy adopted by the Board of Directors to be effective on January 1, 2017. A copy of this policy is available from the Clerk of the Authority. Sufficient investment liquidity and anticipated revenues are available to meet budgeted expenditure requirements for the next thirty days and the next six months."

Patricia Jakubiak, Treasurer

Cash and Investments with GASB 31 Adjustment:

Book Value of Cash & Investments before GASB 31 (Above)

\$ 168,893,475.41

GASB 31 Adjustment to Books (See Note 3 on page 9)

\$ 105,582.35

Total

\$ 168,999,057.76

ORANGE COUNTY FIRE AUTHORITY

Portfolio Management

Portfolio Details - Investments

January 31, 2017

(See Note 1 on page 9)

(See Note 2 on page 9)

CUSIP	Investment #	Issuer	Average Balance	Purchase Date	Par Value	Market Value	Book Value	Stated Rate	YTM/C 365	Days to Maturity	Maturity Date
Money Mkt Mutual Funds/Cash											
SYS528	528	Federated Treasury Obligations			7,800,979.62	7,800,979.62	7,800,979.62	0.001	0.001	1	
Subtotal and Average			13,770,149.28		7,800,979.62	7,800,979.62	7,800,979.62		0.001	1	
Federal Agency Coupon Securities											
3133EFJP3	869	Federal Farm Credit Bank	Callable Anytime	10/15/2015	10,000,000.00	9,965,800.00	10,000,000.00	1.100	1.054	621	10/15/2018
3134G7FK2	863	Fed Home Loan Mtg Corp		06/30/2015	9,000,000.00	8,991,090.00	9,000,000.00	1.100	1.065	415	03/23/2018
3136G3PX7	908	Fed Natl Mtg Assoc	Callable 3-13-17	12/21/2016	10,000,000.00	9,989,000.00	10,004,801.83	1.750	1.542	40	12/13/2019
3130AAA40	902	Fed Home Loan Bank	Callable 3-9-17	12/20/2016	10,000,000.00	10,010,800.00	10,013,708.86	2.000	1.345	36	03/09/2020
Subtotal and Average			39,025,177.26		39,000,000.00	38,956,690.00	39,018,510.69		1.256	274	
Federal Agency Disc. -Amortizing											
313385DL7	904	Fed Home Loan Bank		12/21/2016	10,000,000.00	9,992,800.00	9,992,562.50	0.525	0.540	51	03/24/2017
313385EA0	907	Fed Home Loan Bank		12/21/2016	10,000,000.00	9,990,400.00	9,990,250.00	0.540	0.556	65	04/07/2017
313385BS4	909	Fed Home Loan Bank		01/13/2017	8,000,000.00	7,999,200.00	7,999,060.00	0.470	0.483	9	02/10/2017
313385FU5	910	Fed Home Loan Bank		01/19/2017	9,000,000.00	8,985,600.00	8,985,822.50	0.530	0.546	107	05/19/2017
Subtotal and Average			56,387,668.09		37,000,000.00	36,968,000.00	36,967,695.00		0.534	59	
Treasury Discounts -Amortizing											
912796KT5	903	US Treasury Bill		12/21/2016	10,000,000.00	9,989,600.00	9,988,083.34	0.550	0.566	78	04/20/2017
912796KJ7	906	US Treasury Bill		12/21/2016	10,000,000.00	9,997,100.00	9,997,250.00	0.450	0.463	22	02/23/2017
Subtotal and Average			19,981,166.67		20,000,000.00	19,986,700.00	19,985,333.34		0.515	50	
Local Agency Investment Funds											
SYS336	336	Local Agency Invstmt Fund			64,402,032.95	64,364,925.98	64,402,032.95	0.751	0.751	1	
Subtotal and Average			64,359,827.39		64,402,032.95	64,364,925.98	64,402,032.95		0.751	1	
Total and Average			193,523,988.69		168,203,012.57	168,077,295.60	168,174,551.60		0.758	83	

ORANGE COUNTY FIRE AUTHORITY
Portfolio Management
Portfolio Details - Cash
January 31, 2017

CUSIP	Investment #	Issuer	Average Balance	Purchase Date	Par Value	Market Value	Book Value	Stated Rate	YTM/C 365	Days to Maturity
Money Mkt Mutual Funds/Cash										
SYS10033	10033	Revolving Fund		07/01/2016	20,000.00	20,000.00	20,000.00		0.000	1
SYS4	4	Union Bank		07/01/2016	688,923.81	688,923.81	688,923.81		0.000	1
Average Balance			0.00	Accrued Interest at Purchase		10,000.00	10,000.00			1
				Subtotal		718,923.81	718,923.81			
Total Cash and Investments			193,523,988.69		168,911,936.38	168,796,219.41	168,893,475.41		0.758	83

“We visualize problems and solutions
through the eyes of those we serve.”



ORANGE COUNTY FIRE AUTHORITY
Aging Report
By Maturity Date
As of February 1, 2017

Orange County Fire Authority
 1 Fire Authority Road
 Irvine, CA 92602
 (714)573-6301

					Maturity Par Value	Percent of Portfolio	Current Book Value	Current Market Value
Aging Interval:	0 days	(02/01/2017 - 02/01/2017)	4 Maturities	0 Payments	72,911,936.38	43.17%	72,911,936.38	72,874,829.41
Aging Interval:	1 - 30 days	(02/02/2017 - 03/03/2017)	2 Maturities	0 Payments	18,000,000.00	10.66%	17,996,310.00	17,996,300.00
Aging Interval:	31 - 60 days	(03/04/2017 - 04/02/2017)	1 Maturities	0 Payments	10,000,000.00	5.92%	9,992,562.50	9,992,800.00
Aging Interval:	61 - 91 days	(04/03/2017 - 05/03/2017)	2 Maturities	0 Payments	20,000,000.00	11.83%	19,978,333.34	19,980,000.00
Aging Interval:	92 - 121 days	(05/04/2017 - 06/02/2017)	1 Maturities	0 Payments	9,000,000.00	5.32%	8,985,822.50	8,985,600.00
Aging Interval:	122 - 152 days	(06/03/2017 - 07/03/2017)	0 Maturities	0 Payments	0.00	0.00%	0.00	0.00
Aging Interval:	153 - 183 days	(07/04/2017 - 08/03/2017)	0 Maturities	0 Payments	0.00	0.00%	0.00	0.00
Aging Interval:	184 - 274 days	(08/04/2017 - 11/02/2017)	0 Maturities	0 Payments	0.00	0.00%	0.00	0.00
Aging Interval:	275 - 365 days	(11/03/2017 - 02/01/2018)	0 Maturities	0 Payments	0.00	0.00%	0.00	0.00
Aging Interval:	366 - 1095 days	(02/02/2018 - 02/01/2020)	3 Maturities	0 Payments	29,000,000.00	17.17%	29,004,801.83	28,945,890.00
Aging Interval:	1096 - 1825 days	(02/02/2020 - 01/31/2022)	1 Maturities	0 Payments	10,000,000.00	5.93%	10,013,708.86	10,010,800.00
Aging Interval:	1826 days and after	(02/01/2022 -)	0 Maturities	0 Payments	0.00	0.00%	0.00	0.00
Total for			14 Investments	0 Payments		100.00	168,883,475.41	168,786,219.41



NOTES TO PORTFOLIO MANAGEMENT REPORT

- Note 1: Market value of the LAIF investment is calculated using a fair value factor provided by LAIF. The MUFG Union Bank (formerly Union Bank) Trust Department provides market values of the remaining investments.
- Note 2: Book value reflects the cost or amortized cost before the GASB 31 accounting adjustment.
- Note 3: GASB 31 requires governmental entities to report investments at fair value in the financial statements and to reflect the corresponding unrealized gains/ (losses) as a component of investment income. The GASB 31 adjustment is recorded only at fiscal year end. The adjustment for June 30, 2016 includes an increase of \$39,825 to the LAIF investment and an increase of \$65,757 to the remaining investments.
- Note 4: The Federated Treasury Obligations money market mutual fund functions as the Authority's sweep account. Funds are transferred to and from the sweep account to/from OCFA's checking account in order to maintain a target balance of \$1,000,000 in checking. Since this transfer occurs at the beginning of each banking day, the checking account sometimes reflects a negative balance at the close of the banking day. The negative closing balance is not considered an overdraft since funds are available in the money market mutual fund. The purpose of the sweep arrangement is to provide sufficient liquidity to cover outstanding checks, yet allow that liquidity to be invested while payment of the outstanding checks is pending.



Local Agency Investment Fund (LAIF)

As of January 31, 2017, OCFA has \$64,402,033 invested in LAIF. The fair value of OCFA's LAIF investment is calculated using a participant fair value factor provided by LAIF on a quarterly basis. The fair value factor as of December 31, 2016 is 0.999423823. When applied to OCFA's LAIF investment, the fair value is \$64,364,926 or (\$37,107) below cost. Although the fair value of the LAIF investment is lower than cost, OCFA can withdraw the actual amount invested at any time.

LAIF is included in the State Treasurer's Pooled Money Investment Account (PMIA) for investment purposes. The PMIA market valuation at January 31, 2017 is included on the following page.



Fair Value Including Accrued Interest	\$	73,854,108,265.75
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Page 11



Orange County Fire Authority
Preliminary Investment Report
February 17, 2017



ORANGE COUNTY FIRE AUTHORITY
Portfolio Management
Portfolio Summary
February 17, 2017

Orange County Fire Authority
1 Fire Authority Road
Irvine, Irvine, CA 92602
(714)573-6301

(See Note 1 on page 18)

(See Note 2 on page 18)

Investments	Par Value	Market Value	Book Value	% of Portfolio	Term	Days to Maturity	YTM/C 360 Equiv.	YTM/C 365 Equiv.
Money Mkt Mutual Funds/Cash	2,327,617.92	2,327,617.92	2,327,617.92	1.46	1	1	0.001	0.001
Federal Agency Coupon Securities	39,000,000.00	38,965,580.00	39,010,434.18	24.43	1,091	257	1.239	1.256
Federal Agency Disc. -Amortizing	34,000,000.00	33,972,860.00	33,970,343.76	21.27	102	59	0.540	0.548
Treasury Discounts -Amortizing	20,000,000.00	19,991,500.00	19,990,055.56	12.52	92	33	0.508	0.515
Local Agency Investment Funds	64,402,032.95	64,364,925.98	64,402,032.95	40.33	1	1	0.741	0.751
Investments	159,729,650.87	159,622,483.90	159,700,484.37	100.00%	300	80	0.780	0.791
Cash and Accrued Interest								
Passbook/Checking (not included in yield calculations)	605,522.49	605,522.49	605,522.49		1	1	0.000	0.000
Accrued Interest at Purchase		10,000.00	10,000.00					
Subtotal		615,522.49	615,522.49					
Total Cash and Investments	160,335,173.36	160,238,006.39	160,316,006.86		300	80	0.780	0.791

Total Earnings	February 17 Month Ending	Fiscal Year To Date
Current Year	55,198.04	614,009.61
Average Daily Balance	165,925,131.94	155,622,029.81
Effective Rate of Return	0.71%	0.62%

"I certify that this investment report accurately reflects all pooled investments and is in compliance with the investment policy adopted by the Board of Directors to be effective on January 1, 2017. A copy of this policy is available from the Clerk of the Authority. Sufficient investment liquidity and anticipated revenues are available to meet budgeted expenditure requirements for the next thirty days and the next six months."

Patricia Jakubiak, Treasurer

Cash and Investments with GASB 31 Adjustment:

Book Value of Cash & Investments before GASB 31 (Above)

\$ 160,316,006.86

GASB 31 Adjustment to Books (See Note 3 on page 18)

\$ 105,582.35

Total

\$ 160,421,589.21

ORANGE COUNTY FIRE AUTHORITY

Portfolio Management

Portfolio Details - Investments

February 17, 2017

(See Note 1 on page 18) (See Note 2 on page 18)

CUSIP	Investment #	Issuer	Average Balance	Purchase Date	Par Value	Market Value	Book Value	Stated Rate	YTM/C 365	Days to Maturity	Maturity Date
Money Mkt Mutual Funds/Cash											
SYS528	528	Federated Treasury Obligations			2,327,617.92	2,327,617.92	2,327,617.92	0.001	0.001	1	
Subtotal and Average			8,432,111.45		2,327,617.92	2,327,617.92	2,327,617.92		0.001	1	
Federal Agency Coupon Securities											
3133EFJP3	869	Federal Farm Credit Bank	Callable Anytime	10/15/2015	10,000,000.00	9,967,900.00	10,000,000.00	1.100	1.054	604	10/15/2018
3134G7FK2	863	Fed Home Loan Mtg Corp		06/30/2015	9,000,000.00	8,992,080.00	9,000,000.00	1.100	1.065	398	03/23/2018
3136G3PX7	908	Fed Natl Mortg Assoc	Callable 3-13-17	12/21/2016	10,000,000.00	10,000,300.00	10,002,858.23	1.750	1.542	23	12/13/2019
3130AAA40	902	Fed Home Loan Bank	Callable 3-9-17	12/20/2016	10,000,000.00	10,005,300.00	10,007,575.95	2.000	1.345	19	03/09/2020
Subtotal and Average			39,014,234.89		39,000,000.00	38,965,580.00	39,010,434.18		1.256	257	
Federal Agency Disc. -Amortizing											
313385DL7	904	Fed Home Loan Bank		12/21/2016	10,000,000.00	9,995,800.00	9,995,041.67	0.525	0.540	34	03/24/2017
313385EA0	907	Fed Home Loan Bank		12/21/2016	10,000,000.00	9,993,600.00	9,992,800.00	0.540	0.556	48	04/07/2017
313385FU5	910	Fed Home Loan Bank		01/19/2017	9,000,000.00	8,988,660.00	8,988,075.00	0.530	0.546	90	05/19/2017
313385FD3	911	Fed Home Loan Bank		02/15/2017	5,000,000.00	4,994,800.00	4,994,427.09	0.535	0.551	75	05/04/2017
Subtotal and Average			34,088,919.32		34,000,000.00	33,972,860.00	33,970,343.76		0.548	59	
Treasury Discounts -Amortizing											
912796KT5	903	US Treasury Bill		12/21/2016	10,000,000.00	9,991,800.00	9,990,680.56	0.550	0.566	61	04/20/2017
912796KJ7	906	US Treasury Bill		12/21/2016	10,000,000.00	9,999,700.00	9,999,375.00	0.450	0.463	5	02/23/2017
Subtotal and Average			19,987,833.34		20,000,000.00	19,991,500.00	19,990,055.56		0.515	33	
Local Agency Investment Funds											
SYS336	336	Local Agency Invstmt Fund			64,402,032.95	64,364,925.98	64,402,032.95	0.751	0.751	1	
Subtotal and Average			64,402,032.95		64,402,032.95	64,364,925.98	64,402,032.95		0.751	1	
Total and Average			165,925,131.94		159,729,650.87	159,622,483.90	159,700,484.37		0.791	80	

ORANGE COUNTY FIRE AUTHORITY
Portfolio Management
Portfolio Details - Cash
February 17, 2017

CUSIP	Investment #	Issuer	Average Balance	Purchase Date	Par Value	Market Value	Book Value	Stated Rate	YTM/C 365	Days to Maturity
Money Mkt Mutual Funds/Cash										
SYS10033	10033	Revolving Fund		07/01/2016	20,000.00	20,000.00	20,000.00		0.000	1
SYS4	4	Union Bank		07/01/2016	585,522.49	585,522.49	585,522.49		0.000	1
Average Balance			0.00	Accrued Interest at Purchase		10,000.00	10,000.00			1
				Subtotal		615,522.49	615,522.49			
Total Cash and Investments			165,925,131.94		160,335,173.36	160,238,006.39	160,316,006.86		0.791	80

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ORANGE COUNTY FIRE AUTHORITY
Aging Report
By Maturity Date
As of February 18, 2017

Orange County Fire Authority
1 Fire Authority Road
Irvine, CA 92602
(714)573-6301

					Maturity Par Value	Percent of Portfolio	Current Book Value	Current Market Value
Aging Interval:	0 days	(02/18/2017 - 02/18/2017)	4 Maturities	0 Payments	67,335,173.36	42.00%	67,335,173.36	67,298,066.39
Aging Interval:	1 - 30 days	(02/19/2017 - 03/20/2017)	1 Maturities	0 Payments	10,000,000.00	6.24%	9,999,375.00	9,999,700.00
Aging Interval:	31 - 60 days	(03/21/2017 - 04/19/2017)	2 Maturities	0 Payments	20,000,000.00	12.47%	19,987,841.67	19,989,400.00
Aging Interval:	61 - 91 days	(04/20/2017 - 05/20/2017)	3 Maturities	0 Payments	24,000,000.00	14.95%	23,973,182.65	23,975,260.00
Aging Interval:	92 - 121 days	(05/21/2017 - 06/19/2017)	0 Maturities	0 Payments	0.00	0.00%	0.00	0.00
Aging Interval:	122 - 152 days	(06/20/2017 - 07/20/2017)	0 Maturities	0 Payments	0.00	0.00%	0.00	0.00
Aging Interval:	153 - 183 days	(07/21/2017 - 08/20/2017)	0 Maturities	0 Payments	0.00	0.00%	0.00	0.00
Aging Interval:	184 - 274 days	(08/21/2017 - 11/19/2017)	0 Maturities	0 Payments	0.00	0.00%	0.00	0.00
Aging Interval:	275 - 365 days	(11/20/2017 - 02/18/2018)	0 Maturities	0 Payments	0.00	0.00%	0.00	0.00
Aging Interval:	366 - 1095 days	(02/19/2018 - 02/18/2020)	3 Maturities	0 Payments	29,000,000.00	18.09%	29,002,858.23	28,960,280.00
Aging Interval:	1096 - 1825 days	(02/19/2020 - 02/17/2022)	1 Maturities	0 Payments	10,000,000.00	6.24%	10,007,575.95	10,005,300.00
Aging Interval:	1826 days and after	(02/18/2022 -)	0 Maturities	0 Payments	0.00	0.00%	0.00	0.00
Total for			14 Investments	0 Payments		100.00	160,306,006.86	160,228,006.39



NOTES TO PORTFOLIO MANAGEMENT REPORT

- Note 1: Market value of the LAIF investment is calculated using a fair value factor provided by LAIF. The MUFG Union Bank Trust Department provides market values of the remaining investments.
- Note 2: Book value reflects the cost or amortized cost before the GASB 31 accounting adjustment.
- Note 3: GASB 31 requires governmental entities to report investments at fair value in the financial statements and to reflect the corresponding unrealized gains/ (losses) as a component of investment income. The GASB 31 adjustment is recorded only at fiscal year end. The adjustment for June 30, 2016 includes an increase of \$39,825 to the LAIF investment and an increase of \$65,757 to the remaining investments.
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GLOSSARY

INVESTMENT TERMS

Basis Point. Measure used in quoting yields on bonds and notes. One basis point is .01% of yield.

Book Value. This value may be the original cost of acquisition of the security, or original cost adjusted by the amortization of a premium or accretion of a discount. The book value may differ significantly from the security's current value in the market.

Commercial Paper. Unsecured short-term promissory notes issued by corporations, with maturities ranging from 2 to 270 days; may be sold on a discount basis or may bear interest.

Coupon Rate. Interest rate, expressed as a percentage of par or face value, that issuer promises to pay over lifetime of debt security.

Discount. The amount by which a bond sells under its par (face) value.

Discount Securities. Securities that do not pay periodic interest. Investors earn the difference between the discount issue price and the full face value paid at maturity. Treasury bills, bankers' acceptances and most commercial paper are issued at a discount.

Effective Rate of Return. Rate of return on a security, based on its purchase price, coupon rate, maturity date, and the period between interest payments.

Federal Agency Securities. Securities issued by agencies such as the Federal National Mortgage Association and the Federal Farm Credit Bank. Though not general obligations of the US Treasury, such securities are sponsored by the government and therefore have high credit ratings. Some are issued on a discount basis and some are issued with coupons.

Federal Funds. Funds placed in Federal Reserve banks by depository institutions in excess of current reserve requirements. These depository institutions may lend fed funds to each other overnight or on a longer basis. They may also transfer funds among each other on a same-day basis through the Federal Reserve banking system. Fed Funds are considered to be immediately available funds.

Fed Funds Rate. The interest rate charged by one institution lending federal funds to another.

Federal Open Market Committee. The branch of the Federal Reserve Board that determines the direction of monetary policy.

Local Agency Investment Fund (LAIF). A California State Treasury fund which local agencies may use to deposit funds for investment and for reinvestment with a maximum of \$50 million for any agency (*excluding bond funds, which have no maximum*). It offers high liquidity because

deposits can be converted to cash in 24 hours and no interest is lost. Interest is paid quarterly and the State's administrative fee cannot exceed 1/4 of a percent of the earnings.

Market value. The price at which the security is trading and could presumably be purchased or sold.

Maturity Date. The specified day on which the issuer of a debt security is obligated to repay the principal amount or face value of security.

Money Market Mutual Fund. Mutual funds that invest solely in money market instruments (short-term debt instruments, such as Treasury bills, commercial paper, bankers' acceptances, repurchase agreements and federal funds).

Par. Face value or principal value of a bond typically \$1,000 per bond.

Rate of Return. The amount of income received from an investment, expressed as a percentage. A *market rate of return* is the yield that an investor can expect to receive in the current interest-rate environment utilizing a buy-and-hold to maturity investment strategy.

Treasury Bills. Short-term U.S. government non-interest bearing debt securities with maturities of no longer than one year. The yields on these bills are monitored closely in the money markets for signs of interest rate trends.

Treasury Notes. Intermediate U.S. government debt securities with maturities of one to 10 years.

Treasury bonds. Long-term U.S. government debt securities with maturities of 10 years or longer.

Yield. Rate of return on a bond.

Yield-to-maturity. Rate of return on a bond taking into account the total annual interest payments, the purchase price, the redemption value and the amount of time remaining until maturity.

ECONOMIC TERMS

Conference Board Consumer Confidence Index A survey that measures how optimistic or pessimistic consumers are with respect to the economy in the near future.

Consumer Price Index (CPI). A measure that examines the weighted average of prices of a basket of consumer goods and services, such as transportation, food and medical care. Changes in CPI are used to assess price changes associated with the cost of living.

Durable Goods Orders. An economic indicator released monthly that reflects new orders placed with domestic manufacturers for delivery of factory durable goods such as autos and appliances in the near term or future.

Gross Domestic Product. The monetary value of all the finished goods and services produced within a country's borders in a specific time period. It includes all of private and public consumption, government outlays, investments and exports less imports that occur within a defined territory.

Industrial Production. An economic indicator that is released monthly by the Federal Reserve Board. The indicator measures the amount of output from the manufacturing, mining, electric and gas industries.

ISM Institute for Supply Management (ISM) Manufacturing Index. A monthly index that monitors employment, production inventories, new orders and supplier deliveries.

ISM Non-manufacturing Index. An index based on surveys of non-manufacturing firms' purchasing and supply executives. It tracks economic data for the service sector.

Leading Economic Index. A monthly index used to predict the direction of the economy's movements in the months to come. The index is made up of 10 economic components, whose changes tend to precede changes in the overall economy.

National Federation of Independent Business Small Business Optimism Index. An index based on surveys of small business owners' plans and expectations regarding employment, capital, inventories, economic improvement, credit conditions, expansion, and earnings trends in the near term or future.

Producer Price Index. An index that measures the average change over time in the selling prices received by domestic producers for their output.

University of Michigan Consumer Sentiment Index. An index that measures the overall health of the economy as determined by consumer opinion. It takes into account an individual's feelings toward his or her own current financial health, the health of the economy in the short term and the prospects for longer term economic growth.



Orange County Fire Authority
AGENDA STAFF REPORT

Executive Committee Meeting
March 23, 2017

Agenda Item No. 3B
Consent Calendar

Medical Director – Salary Range Adjustment

Contact(s) for Further Information

Brigette Gibb, Director
Human Resources Division

brigettegibb@ocfa.org

714.573.6353

Summary

This item seeks Executive Committee approval of the Medical Director salary range adjustment.

Prior Board/Committee Action

Not applicable.

RECOMMENDED ACTION(S)

Approve the proposed Medical Director monthly salary range of \$8,923.20 - \$14,185.60.

Impact to Cities/County

Not Applicable.

Fiscal Impact

Not Applicable.

Background

The Orange County Fire Authority's previous Medical Director separated employment in April 2016. Following a national search, for which twelve candidates applied, we were unable to reach an employment agreement with any of the top candidates. This was due, in part, to the maximum of our salary range being insufficient to meet candidates' needs. In an effort to enhance recruitment effectiveness, staff recommends the maximum of the monthly salary range for Medical Director be increased from \$13,312 to the top of the administrative managers' monthly salary range, which is currently \$14,185.60.

Attachment(s)

Medical Director Classification Specification



ORANGE COUNTY FIRE AUTHORITY

CLASS SPECIFICATIONS

JOB TITLE: Medical Director

REPORTS TO: Battalion Chief –
Emergency Medical Services

FLSA: Exempt

SUPERVISES: Varies

CLASS CODE: 1540

DEPARTMENT: Operations

CLASS SUMMARY:

Incumbent is responsible for performing professional level work in planning and training activities and programs with health and medical components; providing direction for fire service medical issues; providing medical consultation to major support functions; and providing on-scene medical oversight and patient care on selected incidents.

DISTINGUISHING CHARACTERISTICS:

The Medical Director is a stand-alone classification. The Medical Director is distinguished from other classifications by its responsibility for applying specialized medical knowledge to assure safety in field emergency medical services operations; for making decisions and providing expert consultation within the chain of command on a broad range of medical considerations; and for providing direct patient care in extraordinary circumstances which requires specialized knowledge, skills or equipment.

ESSENTIAL FUNCTIONS: (These duties are intended to be representative sample of the duties performed by the class.)

In consultation with the EMS Battalion Chief and EMS Coordinator, will provide medical oversight and expertise to EMS Operations, including providing medical oversight and information to planning and operations personnel.

Assists Operations Training Section on operations training topics with EMS, medical and health components; provides medical oversight and assists Nurse/Educators with EMS education curriculum development; provides direct EMS classroom and skills instruction and indirect education and briefings.

Provides medical oversight and expertise to continuous quality improvement (CQI) programs by reviewing and analyzing EMS effectiveness, system trends, and needs in an effort to ensure EMS system excellence; develops and assists in the formulation of policies and procedures; and participates in call reviews with nurse/educators, firefighter/paramedics, and firefighter/EMT's; assists in problem solving in field clinical decision making.



ORANGE COUNTY FIRE AUTHORITY

CLASS SPECIFICATIONS

JOB TITLE: Medical Director

Serves as a liaison with medical directors and administrators of the Orange County Healthcare Agency/EMS, base hospitals, regional trauma centers, paramedic receiving hospitals, acute care facilities, paramedic training institutions and professional medical groups; attends EMS administrative and oversight committee meetings such as Base Hospital Physician Directors, County Paramedic Advisory Committee, Regional Paramedic Advisory Committee, Drug and Equipment Advisory Group, Orange County Fire Chiefs EMS Section and Fire CQI Subcommittee, California Fire Chiefs Association EMS Section, emergency medicine residency programs, law enforcement agencies, and exercise planning groups. Within the OCFA, participates in EMS programs and serves on the EMS Project Team; is the designated liaison with the Occupational Medicine provider to facilitate firefighter care following injuries or illnesses; provides direction to the EMS Section for the provision of immunizations, tuberculin skin tests, or other medications as needed to OCFA employees in compliance with recommendations from State and Local regulatory agencies, and/or the IAFC/IAFF Fitness-Wellness Initiative; serves as a liaison with the IAFF/IAFC Fitness/Wellness Initiative Program Manager.

Provides medical advice, prescriptions, and medications as needed to OCFA employees in compliance with recommendations from State and Local regulatory agencies, and/or the IAFC/IAFF Fitness-Wellness Initiative.

Assists EMS Coordinator/Designated Officer with decisions involving risk assessment, post exposure prophylaxis and treatment of occupational infectious disease exposures; assists Risk Management/Safety Officer/Respiratory Program Manager with medical and health components of OSHA Respiratory Protection Standard; provides input to Safety and Occupational Health Project Team with regard to firefighter safety and health issues.

Provides expert medical expertise and information to the Hazardous Materials Response Team and Hazardous Materials Support Services on issues of environmental and clinical toxicology in administration, planning, training and operations; participates in annual San Onofre Nuclear Generating Station exercises; is liaison with Orange County cities participating in the Metropolitan Medical Response System, with the California Poison Control System and with associated technical consultants.

Acts as Medical Team Manager and Medical Director to US&R CA TF-5 in accordance with DHS/FEMA standards; including maintaining certifications in the Medical Specialist Course and Rescue Systems. Serves on OCFA US&R Project Team

Participates in planning and execution of multi-casualty exercises; serves on the Weapons of Mass Destruction (WMD) Project Team and maintains familiarity with current trends and countermeasures to chemical, biological, radiological, nuclear and explosive hazards; is liaison with Orange County Environmental Health, Orange County Public Health, Orange County Public Health Laboratory, Orange County Sheriff Terrorism Early Warning Group and Orange County Sheriff Bomb Squad on medical and multi-casualty issues.



ORANGE COUNTY FIRE AUTHORITY

CLASS SPECIFICATIONS

JOB TITLE: Medical Director

Provides medical duties within the ICS Medical Unit or as Medical Unit Leader on extended incidents to provide medical care and rehabilitation of firefighters on scene of extended incidents.

Assists Emergency Communications Center (ECC) and EMS staff and administration on Emergency Medical Dispatch (EMD) training, education and CQI; is liaison with ECC administration on issues of medical dispatch strategies and pre-arrival instructions.

Assists Corporate Communications/Public Information Officer (PIO) as a technical specialist on emergency services medical and health issues.

Performs other duties of a similar nature.

MINIMUM QUALIFICATIONS:

EDUCATION AND EXPERIENCE (position requirements at entry):

Medical Doctor (MD), completion of an accredited emergency medicine residency program and continuing Emergency Medicine Board certification; completion of an EMS Fellowship or a minimum of 5 years clinical emergency medicine practice.

LICENSES AND CERTIFICATIONS (position requirements at entry):

- Physicians and Surgeons License (without restriction);
- Drug Enforcement Agency License;
- Valid California Driver's License.

KNOWLEDGE (position requirements at entry):

Knowledge of:

- Management and supervisory principles;
- Emergency medical care procedures and practices;
- Design, operation, regulatory and legal aspects of an out-of-hospital emergency medical services system;
- Training of basic and advanced life support out-of-hospital emergency care providers
- Applicable Federal, State, and Local regulations, protocols, policies, and procedures;
- Adult learning theory;
- Continuous Quality Improvement principles;
- Budget principles;
- Communicable diseases.



ORANGE COUNTY FIRE AUTHORITY

CLASS SPECIFICATIONS

JOB TITLE: Medical Director

SKILLS (position requirements at entry):

Skill in:

- Monitoring and evaluating employees;
- Prioritizing and assigning work;
- Training employees on work methods;
- Developing and implementing CQI programs;
- Reviewing and analyzing section programs and effectiveness;
- Ensuring compliance with applicable regulations, protocols, policies, procedures, and standards;
- Evaluating and selecting equipment and supplies;
- Selection of paramedic training candidates;
- Monitoring contract employees;
- Communication, interpersonal skills as applied to interaction with coworkers, supervisor, the general public, etc. sufficient to exchange or convey information and to receive work direction;
- Using computers and computer software programs; using small equipment such as digital cameras, document scanners;
- Using specialized medical equipment;
- Using specialized firefighting equipment such as SCBA's, SAR's PAPR's, APR, personal protective equipment, and small hand tools.

PHYSICAL REQUIREMENTS:

Positions in this class typically require: driving, fingering, feeling, talking, hearing, seeing and repetitive motions; and climbing, stooping, balancing, kneeling, crouching, crawling, reaching, standing, walking, pushing, pulling, lifting.

Medium Work: Exerting up to 50 pounds of force occasionally, and/or up to 20 pounds of force frequently, and/or 10 pounds of force constantly to move objects.

WORKING CONDITIONS:

Incumbents may be subjected to blood and other bodily fluids, extreme temperatures, and travel.



ORANGE COUNTY FIRE AUTHORITY

CLASS SPECIFICATIONS

JOB TITLE: Medical Director

NOTE:

The above job description is intended to represent only the key areas of responsibilities; specific position assignments will vary depending on the needs of the department.

Classification History:

Draft prepared by OCFA Human Resources, Date: 1/2/04

Final prepared by OCFA Human Resources, Date: 1/9/04

Revised, Date: 12/1/04

Human Resources Director Review:

Zenovy Jakymiw _____ Date: _____

Adopted by Board of Directors:



Orange County Fire Authority
AGENDA STAFF REPORT

Executive Committee Meeting
March 23, 2017

Agenda Item No. 3C
Consent Calendar

New Classification Specification and Salary Range for
Emergency Command Center Manager

Contact(s) for Further Information

Brigette Gibb, Director
Human Resources Division

brigettegibb@ocfa.org

714.573.6353

Summary

This item seeks Executive Committee approval for the creation of an Emergency Command Center Manager classification specification and monthly salary range of \$7,832.93 - \$12,445.33.

Prior Board/Committee Action

Not applicable.

RECOMMENDED ACTION(S)

Approve the proposed Emergency Command Center Manager classification specification and monthly salary range of \$7,832.93 - \$12,445.33.

Impact to Cities/County

Not Applicable.

Fiscal Impact

Not Applicable.

Background

The current management of the Emergency Command Center (ECC) is assigned to a Battalion Chief. Battalion Chiefs in staff assignments, such as this, are rotated to new assignments (staff or field) approximately every two years or promote out of the assignment. Since 2010, the ECC has had five different Battalion Chiefs assume management responsibility.

The Emergency Command Center Manager classification specification has been created with the intent to hire a non-safety manager who will oversee the ECC. It is anticipated that a non-safety manager will be able to provide long-term stability and management of personnel within the ECC and create a promotional opportunity for communications employees.

Attachment(s)

Emergency Command Center Proposed Classification Specification



ORANGE COUNTY FIRE AUTHORITY

CLASS SPECIFICATIONS

Job Title: Emergency Command Center Manager

REPORTS TO: Assistant or Division Chief FLSA: Exempt

SUPERVISES: Varies

CLASS CODE:

DEPARTMENT: Emergency Command Center

CLASS SUMMARY:

Incumbents are responsible for supervising and coordinating the activities and operations of the Emergency Command Center within the Authority; coordinating assigned activities with other sections, outside agencies, and the general public; and providing highly responsible and complex staff assistance to an Assistant or Division Chief.

DISTINGUISHING CHARACTERISTICS:

The Emergency Command Center Manager is the fourth level in the emergency communications series. The Emergency Command Center Manager is distinguished from the Senior Fire Communications Supervisor by its responsibility for overall operations and management of the emergency communications function in the Authority.

ESSENTIAL FUNCTIONS: (These duties are intended to be representative sample of the duties performed by the class.)

Coordinates the organization, staffing and operational activities of the Emergency Command Center including the radio dispatch system, telephone report system, telephone/radio call recording system, and fire alarm system; administers computer-aided dispatch center operations providing emergency dispatching and radio communications on a 24-hour, 7-day-a-week basis.

Supervises Senior Fire Communications Supervisors, Fire Communications Supervisors, Administrative Assistants, and Administrative Fire Captains.

Participates in the development and implementation of goals, objectives, policies, and priorities for the Authority's communications and dispatch services, programs, and activities; recommends and implements resulting policies and procedures.

Identifies opportunities for improving service delivery methods and procedures; identifies resource needs; reviews with appropriate management staff; implements improvements.

Directs, coordinates, and reviews the work plan for the Emergency Command Center; assigns work activities and projects; monitors work flow; reviews and evaluates work products, methods, and procedures; meets with staff to identify and resolve problems.



ORANGE COUNTY FIRE AUTHORITY

CLASS SPECIFICATIONS

Job Title: Emergency Command Center Manager

Participates in the selection of Emergency Command Center personnel; provides or coordinates staff training; works with employees to correct deficiencies; implements discipline and termination procedures.

Participates in the development and administration of the Emergency Command Center budget; forecasts funds needed for staffing, equipment, materials, and supplies; monitors and approves expenditures; recommends adjustments as necessary.

Administers and supervises programs for the maintenance, update, and repair of the Authority's communication and dispatch systems; maintains liaison between other bureaus, vendors, contractors, and consultants; negotiates vendor and service contracts.

Makes presentations to members of the community to discuss and develop recommendations to resolve problems; investigates and responds to citizen complaints and inquiries; personally conducts highly complex or sensitive investigations.

Participates in developing and conducting training programs on techniques, methods, and/or operations in fire communications.

Coordinates Emergency Command Center activities with those of other divisions and outside agencies and organizations.

Provides staff assistance to management staff; participates on a variety of committees; prepares and presents staff reports and other correspondence as appropriate and necessary.

Attends and participates in professional group meetings; maintains awareness of new trends and developments in the field of fire communications; incorporates new developments as appropriate into programs.

Performs other duties of a similar nature or level.

MINIMUM QUALIFICATIONS:

EDUCATION AND EXPERIENCE (position requirements at entry): High School Diploma supplemented by specialized training in emergency dispatch and college level course work in business administration or a related field and five years of responsible emergency communications, dispatch, and information technology experience including two years of administrative and/or supervisory experience.

LICENSES AND CERTIFICATIONS (position requirements at entry):

- Possession of a valid California Class C Driver License is required at time of appointment. This classification is subject to enrollment in the California DMV Pull Notice Program, which periodically provides Risk Management with the incumbent's Driver License record and status.
- Cardiopulmonary Resuscitation Certification (CPR)



ORANGE COUNTY FIRE AUTHORITY

CLASS SPECIFICATIONS

Job Title: Emergency Command Center Manager

KNOWLEDGE (position requirements at entry):

Knowledge of:

- Operational characteristics, services, and activities of an emergency command center
- Modern and complex principles and practices of fire communications and information technology systems including computer-aided dispatch and related emergency systems
- Geographic features and streets within the area served
- Standard radio broadcasting procedures and rules
- Telecommunication trends
- Design and staffing of a public safety dispatch system
- Emergency contingency plan and available resources within local government and the private sector
- Principles of municipal budget preparation and control
- Principles of supervision, training, and performance evaluation
- Principles and procedures of record keeping
- Principles of business letter writing and report preparation
- Modern office procedures, methods, and equipment including computers
- Computer applications such as word processing, spreadsheets, and statistical databases
- Pertinent federal, state, and local laws, codes, and regulations

SKILLS (position requirements at entry):

Skill in:

- Coordinating and directing the Emergency Command Center
- Supervising, directing, and coordinating the work of lower level staff
- Selecting, supervising, training, and evaluating staff
- Recommending and implementing goals, objectives, policies, and procedures for providing emergency communication services and activities
- Understanding the organization and operation of the Authority and of outside agencies as necessary to assume assigned responsibilities
- Understanding, interpreting, and applying general and specific administrative and departmental policies and procedures as well as applicable federal, state, and local policies, laws, and regulations
- Participating in the preparation and administration of assigned budgets
- Planning and organizing work to meet changing priorities and deadlines
- Effectively representing the Emergency Command Center Division to outside individuals and agencies to accomplish the goals and objectives of the unit
- Working cooperatively with other departments, government officials, and outside agencies
- Responding tactfully, clearly, concisely, and appropriately to inquiries from the public, staff, or other agencies on sensitive issues in area of responsibility
- Researching, analyzing, and evaluating new equipment, program techniques, methods and procedures
- Operating dispatch, teletype, and other office equipment;
- Gathering and analyzing data
- Interpreting and explaining Emergency Command Center Division policies and procedures;
- Preparing clear and concise reports



ORANGE COUNTY FIRE AUTHORITY

CLASS SPECIFICATIONS

Job Title: Emergency Command Center Manager

- Communicating clearly and concisely, both orally and in writing
 - Communication, interpersonal skills as applied to interaction with coworkers, supervisor, the general public, etc. sufficient to exchange or convey information and to receive work direction and establish and maintain effective working relationships
-

PHYSICAL REQUIREMENTS:

Positions in this class may typically require: standing and sitting for prolonged periods, reaching, fingering, grasping, talking, hearing, seeing and repetitive motions.

Light Work: Exerting up to 20 pounds of force occasionally, and/or up to 10 pounds of force frequently, and/or negligible amount of force constantly to move objects. If the use of arm and/or leg controls requires exertion of forces greater than that for Sedentary Work and the worker sits most of the time, the job is rated for Light Work.

WORKING CONDITIONS:

Incumbents may be subjected to poor ventilation, extreme temperatures, inadequate lighting, workspace restrictions, intense noise and travel.

NOTE:

The above job description is intended to represent only the key areas of responsibilities; specific position assignments will vary depending on the needs of the department.

Classification History:

Draft prepared by Ralph Andersen & Associates, Date: 01/2017

Final prepared by Joshua Boudreaux, Date: 03/2017

Human Resources Director Review Brigitte Gibb: 03/2017

Adopted by Executive Committee, Date:



Orange County Fire Authority
AGENDA STAFF REPORT

Executive Committee Meeting
March 23, 2017

Agenda Item No. 3D
Consent Calendar

Blanket Order Contract Extension for Full Service Tire Contract

Contact(s) for Further Information

Mike Schroeder, Assistant Chief michaelschroeder@ocfa.org 714.573.6008
Support Services Department

Rick Oborny, Fleet Services Manager rickoborny@ocfa.org 714.573.6651

Summary

This item is submitted for approval to increase and extend the blanket order contract with Parkhouse Tire, Inc., for the purchase of tires, tubes and related services utilizing the National Association of State Procurement Officials (NASPO) Valuepoint cooperative contract.

Prior Board/Committee Action(s)

On February 26, 2015, the Board of Directors approved an increase and extension of the annual blanket order with Parkhouse Tire, Inc.

RECOMMENDED ACTION(S)

1. Approve and authorize the Purchasing Manager to increase the current blanket order contract by \$75,000 (to cover current and anticipated orders through the end of March, 2017).
2. Approve and authorize the Purchasing Manager to extend the annual blanket order contract with Parkhouse Tire, Inc., in the initial amount of \$400,000, with an annual escalation factor up to ten percent to allow for a combination of volume and pricing changes utilizing the NASPO Valuepoint cooperative contract through March 31, 2019.

Impact to Cities/County

Not Applicable.

Fiscal Impact

Funding is included in the approved FY 2016/17 budget.

Background

The Fleet Services Section is responsible for providing tires for approximately 500 vehicles and apparatus, many of which accumulate up to 7,000 miles a quarter, requiring a significant amount of preventative maintenance on the tires. As part of OCFA's ongoing repair and preventative maintenance plan, tires are inspected daily by the crews and operators, and are repaired or replaced, as needed. In an effort to eliminate potential catastrophic tire failures, Fleet Services also removes and replaces all tires which have been in service for seven years, regardless of mileage.

Blanket Order Extension

The current OCFA contract with Parkhouse Tire, Inc., was established utilizing the NASPO ValuePoint cooperative contracts MA210 and MA211, for tires, tubes, and services. These cooperative contracts resulted from a competitive solicitation issued by the State of Utah, RFP #

RT12002 and are intended to allow any public agency (with approval from the state procurement director), to enter into a Participating Addendum with the selected vendors and receive the benefit of the aggregated discounts available in the cooperative contract. The current NASPO ValuePoint cooperative contracts for tires, tubes, and services has been extended through March 31, 2019.

Blanket Order Increase

The current blanket order contract with Parkhouse Tires, which expires March 31, 2017, is overextended by approximately \$45,000. This oversight was largely due to a tremendous amount of recent activity on the blanket order and an error recently found in the way the Fleet Management System (AssetWorks) tracks invoicing. Due to a glitch in the software system, the blanket order contract appeared to show more funding than what was actually available. Fleet Services is currently working with the vendor to correct the error to prevent accidental overspending in the future. In addition to working with AssetWorks, Fleet staff are also reviewing the ordering/invoicing process to identify potential process improvements. An increase of \$75,000 to the current blanket order is requested to cover current and anticipated purchases and repairs through the end of March 2017.

Due to a number of factors including: anticipated increases in tire costs, increased number of vehicles in the fleet, new paramedic delivery platform placing more mileage on larger equipment and a very active recent fire season, an increase to the annual blanket order is requested for the upcoming renewal year.

OCFA Fleet Services is requesting approval to extend the existing blanket order contract with Parkhouse Tire Inc., for tires, tubes, and services, utilizing the NASPO ValuePoint cooperative contracts in the initial amount of \$400,000, for the renewal period of 04/01/17 – 03/31/18, with an annual escalation factor up to ten percent, if needed, for the renewal period of 04/01/18 – 03/31/19.

Attachment(s)

1. Blanket Order Summary
2. Approval Letter from the State of California DGS
3. *Participating Addendum MA211
4. *Participating Addendum MA210

*On file in the Office of the Clerk and available upon request.

**Orange County Fire Authority
Blanket Order Summary**

Parkhouse Tire Inc. – Tires, tubes, and related services

Blanket Order Number	Contract Dates for Annual Renewal Options	Original Value + Increase Revised Value	Additional Comments
B01190-5	04/1/2014 - 03/31/2015	\$ 258,700 + 50,000 \$ 308,700	On February 26, 2015, the Board of Directors approved an increase and extension of the annual blanket order with Parkhouse Tire, Inc. through March 31, 2017.
B01190-6	04/1/2015 - 03/31/2016	\$ 308,700 + 16,300 \$ 325,000	The \$16,300 (5%) increase to the contract was within management authority under the prior purchasing rules.
B01190-7	04/1/2015 - 03/31/2017	\$ 325,000 + 75,000 \$ 400,000	Staff is requesting approval to increase the current blanket order contract by \$75,000 to cover current and anticipated orders through the end of March.
B01190-8	04/1/2017 - 03/31/2018	\$ 400,000	NASPO Valuepoint cooperative contracts MA210 & MA211 for tires, tubes, and services have been extended through March 31, 2019. Staff is requesting approval to extend the annual blanket order contract with Parkhouse Tire Inc., in the initial amount of \$400,000, utilizing the NASPO Valuepoint cooperative contract through March 31, 2019.
B01190-9	04/1/2018 - 03/31/2019	\$ 400,000 + 40,000 \$ 440,000	Staff is requesting approval to include an annual escalation factor up to ten percent, if required, for the renewal period of 4/1/2018 – 3/31/2019 for anticipated volume and price increases.

February 29, 2016

James Aguila
Assistant Purchasing Agent
Orange County Fire Authority
1 Fire Authority Road
Irvine, CA 92602

Subject: NASPO ValuePoint Cooperative Purchasing Organization Contract for Tires, Tubes and Services, Participating Addendum Authorization

Dear Mr Aguila.

The Department of General Services (DGS) is in receipt of your request to enter into a Participating Addendum under the NASPO ValuePoint Cooperative Purchasing Organization Contract for Tires, Tubes and Services administered by the State of Utah. The lead sate contractors and contract numbers include:

- Goodyear (MA208)
- Bridgestone/Firestone (MA210)
- Michelin (MA211)

This letter provides written authorization to enter into a Participating Addendum with any contractor on the above mentioned list.

Your Legal Counsel should be consulted to ensure that you have the authority to enter into NASPO ValuePoint agreements and these contracts are consistent with your procurement policies and regulations.

If you have any questions or need assistance from this office, please contact the Department of General Services NASPO ValuePoint Program Manager, Steven Kobayashi at (916) 375-4607 or via email at steven.kobayashi@dgs.ca.gov.

Thank You

 For JB

Sincerely
Jim Butler
Deputy Director
Procurement Division

cc: File

PARTICIPATING ADDENDUM

[Hereinafter "Addendum"]

WESTERN STATES CONTRACTING ALLIANCE**Tires, Tubes and Services****Utah Contract # MA211**

between

MICHELIN NORTH AMERICA, INC.

[hereinafter "Contractor"]

and

The Orange County Fire Authority (OCFA)

[hereinafter "Participating State" or "Participating Entity" (if not a state)]

Participating State Contract Number: xxx

1. **Scope:** This Addendum will add the above Participating State (or Participating Entity) to purchase from the WSCA Contract for Tires, Tubes and Related Services lead by the State of Utah for use by state agencies and other entities located in the Participating State authorized by that state's statutes to utilize state contracts.
2. **Changes:** The following terms and conditions will be added to the Participating Addendum for the Participating State:
 - See attached OCFA Standard Work Order Conditions
 - Contractor (Michelin North America, Inc.) shall not be held liable for the errors or omissions of Contractors authorized independent dealers who may provide Services to Orange County Fire Authority, Orange County, California.
3. **Primary Contact:** The primary Participating State contact individual for this participating addendum is as follows:

Name: James Aguila
 Participating Entity: The Orange County Fire Authority
 Address: 1 Fire Authority Road
 City, State: Irvine, CA 92602

 Telephone: (714) 573-6647
 Fax: (714) 368-8845
 E-mail: jamesaguila@ocfa.org

4. **Authorized Dealers:** The following dealers are authorized to perform services.
"All"

This Addendum and the associated Master Agreement together with its exhibits, set forth the entire agreement between the parties with respect to the subject matter of all previous communications, representations or agreements, whether oral or written, with respect to the subject matter hereof. Terms and conditions inconsistent with, contrary or in addition to the terms and conditions of this Addendum and the Master Agreement, together with its exhibits, shall not be added to or incorporated into this Addendum or the Master Agreement and its exhibits, by any subsequent purchase order or otherwise, and any such attempts to add or incorporate such terms and conditions are hereby rejected. The terms and conditions of this Addendum and the Master Agreement and its exhibits shall prevail and govern in the case of any such inconsistent or additional terms.

IN WITNESS HEREOF, the parties have executed this Addendum as of the date of execution by both parties below.

Government Entity: Orange County Fire Authority Contractor: Michelin North America, Inc.

By: Debbie Casper

Name: Debbie Casper

Title: Purchasing and Materials Manager

Date: March 31, 2016

By: Joe O'Connor

Name: Joe O'Connor

Title: Director, Government & Military Sales

Date: April 5, 2016

Conditions: The following OCFA standard work order conditions are always applicable, and the following work order conditions are also applicable when this order provides for performance of any work. Whenever used herein "OCFA" shall mean the Orange County Fire Authority, Orange County, California.

STANDARD CONDITIONS

1. Law: This contract is governed by the laws of the state of California. The provisions of the Uniform Commercial Code shall apply except as otherwise set forth in this contract.

2. Contract: This order, when accepted by SELLER either in writing or by the shipment of any article or other commencement of performance hereunder, constitutes the entire contract between SELLER and the OCFA: no exceptions, alternates, substitutes or revisions are valid or binding on the OCFA unless authorized by the OCFA in writing. If any conditions conflict with the provisions of the written agreement, the provisions of the written agreement shall govern.

3. Delivery: Time of delivery is the essence of this contract. The OCFA reserves the right to refuse any goods and to cancel all or any part of the goods not conforming to the applicable specifications, drawings, samples or descriptions. Acceptance of any part of the order shall not bind OCFA to accept future shipments, nor deprive it of the right to return goods already accepted, at SELLER'S expense. Overshipment and undershipment shall be only as agreed to by OCFA.

4. Risk of loss: Delivery shall not be deemed to be complete until goods have been actually received and accepted by OCFA. Payment shall be made after satisfactory acceptance of shipments by OCFA.

5. Warranty: SELLER expressly warrants that the goods covered by this order are free of liens, of merchantable quality and satisfactory and safe for consumer use. Acceptance of this order shall constitute an agreement upon SELLER'S part to indemnify and hold harmless from liability, loss, damage and expense, including reasonable counsel fees, uncured or sustained by OCFA by reason of the failure of the goods to conform to such warranties, faulty work performance, negligent or unlawful acts, and non-compliance with any applicable local, State or Federal codes, ordinances, orders, or statutes including the Occupational Safety and Health Act (OSHA) and the California Industrial Safety Act. Such remedies shall be in addition to any other remedies provided by law. Contractor represents and warrants that the equipment provided under this agreement is designed to be used prior to, during, and after the calendar year 2000. The equipment provided will correctly differentiate between years that end in the same two digits, and will accurately process date/time data (including, but not limited to, calculating, comparing, and sequencing) from, into, and between the 20th and 21st centuries.

WORK ORDER CONDITIONS

13. Performance: SELLER shall perform all work diligently, carefully, and in a good and worklike manner, shall furnish all labor, supervision, machinery, equipment, materials and supplies necessary therefor, shall obtain and maintain all building and other permits and licenses required by Public authorities in connection with performance of the work, and if permitted to subcontract, shall be fully responsible for all work performed by subcontractors. SELLER shall conduct all operations in SELLER'S own name and as independent contractor, and not in the name of, or as an agent of OCFA.

14. Indemnification: Seller agrees to indemnify and hold harmless OCFA, its officers, employees and agents from any claims, demands or liability for injury to any persons or property, including contractor, its officers, employees or agents, OCFA, its officers, employees agents or other persons arising out of or resulting from SELLER'S performance under this contract, unless such injury is caused by the sole negligence or concurrent active negligence of OCFA, its officers, employees or agents. If SELLER'S negligence combines with OCFA'S negligence to cause injury, the parties agree that liability will be apportioned as determined by a court of competent jurisdiction. Neither party shall request a jury apportionment.

15. Safety/Liability Language: In connection with the performance of this contract, OCFA shall have the authority to enter the worksite at any time for the purpose of identifying the existence of conditions, either actual or threatened, that may present a danger or hazard to any and all employees. Contractor agrees that OCFA, in its sole authority and discretion, may order the immediate abatement of any and all conditions that may present an actual or threatened danger or hazard to any and all employees at the worksite.

Contractor acknowledges the provisions of Section 6400 of the Labor Code, which requires that employers shall furnish employment and a place of employment that is safe and healthful for all employees working therein.

6. Infringement: SELLER shall indemnify and defend OCFA, at SELLER'S expense against all claims, demands, suits, liability and expense on account of alleged infringement of any patent, copyright or trademark, resulting from or arising in connection with the manufacture, sale, normal use or other normal disposition of any article or material furnished hereunder.

7. Assignment: Neither this order nor any claim against OCFA arising directly or indirectly out of or in connection with this order shall be assignable by SELLER or by operation of law, nor shall SELLER subcontract any obligations hereunder, without OCFA's prior written consent.

8. Default: If SELLER or any subcontractor breaches any provision hereof, or becomes insolvent, enters bankruptcy, receivership or other like proceeding (voluntarily or involuntarily) or makes assignment for the benefit of creditors, OCFA shall have the right, in addition to any other rights it may have hereunder or by law, to terminate this order by giving SELLER written notice; whereupon (a) OCFA shall be relieved of all further obligation hereunder, except to pay the reasonable value of SELLER'S prior performance, but not more than the contracted price, and (b) OCFA may procure the articles or services from other sources and may deduct from unpaid balance due the vendor or may collect against the bond or surety, or may invoice the vendor for excess cost so paid. The price paid by OCFA shall be considered prevailing market price at the time such purchase is made.

9. Labor Disputes: Whenever any actual or potential labor dispute delays or threatens to delay the timely performance of this order, SELLER shall immediately give written notice thereof to OCFA.

10. Non-Discrimination: In the performance of the terms of any contract resulting from this order, SELLER agrees that he will not engage nor permit such subcontractors where applicable as he may employ, to engage in discrimination in the employment of persons because of race, color, sex, age, disability, national origin or ancestry, or religion of such person.

11. Termination: OCFA reserves the right to terminate this contract without penalty with cause immediately or without cause after 30 days written notice unless otherwise specified.

12. Taxes: Unless otherwise provided herein or by law, price quoted does not include California State sales or use tax.

In the event OCFA identifies the existence of any condition that presents an actual or threatened danger or hazard to any or all employees at the worksite OCFA is hereby authorized to order the immediate abatement of that actual or threatened condition pursuant to this section. OCFA may also, at its sole authority and discretion, issue an immediate stop work order to Contractor to ensure that no employee working at the worksite is exposed to a dangerous or hazardous condition. Any stop work order issued by OCFA to Contractor in accordance with the provisions of this Section shall not give rise to any claim or cause of action for delay damages by Contractor or Contractor's agents or subcontractors against OCFA.

16. Insurance: SELLER shall maintain in full force during the term of this contract the following insurance and limits not less than those specified (a) Worker's Compensation and Employers' Liability complying with any statutory requirements; (b) Comprehensive General Liability Insurance including a broad form Property Damage endorsement with a \$1,000,000 combined single limit each occurrence; (c) Comprehensive Auto Liability (including the owned, nonowned and hired automobile hazards) with a \$1,000,000 combined single limit each occurrence; (d) Contractual Liability with \$1,000,000 combined single limit each occurrence. If OCFA so desires, these limits may be increased or decreased.

17. Bill and Liens: SELLER shall pay promptly all indebtedness for labor, materials and equipment used in performance of the work. SELLER shall not permit any lien or charge to attach to the work or the premises; but if any does so attach, SELLER shall promptly procure its release and indemnify OCFA against all damages and expense incident thereto.

18. Bonds: If OCFA so desires, SELLER shall provide payment and performance bonds as required.

19. Changes: SELLER shall make no changes in the work or perform any additional work without OCFA'S specific written approval.

DEALER AGREEMENT

FOR TIRE RELATED SERVICES

The Orange County Fire Authority (OCFA) has entered into a contract with **Michelin North America, Inc.**, to provide tires and services to **OCFA** resulting from State of Utah Bid RT12002 in behalf of the Western States Contracting Alliance and other participating states. Specific independent Dealers will be authorized by **Michelin North America, Inc.** to provide tires and tire related services related to purchasing the tires (mounting tires, rotating tires, etc.). ("Dealer(s)" herein includes **Michelin North America, Inc.** authorized dealers)

This Dealer Agreement will identify the responsibilities of the Dealer for the services provided by the Dealer. Dealers will need to sign the Dealer Agreement before the Dealer will be authorized to provide services to **OCFA**. This Agreement will be effective on the last signature date below.

The Dealer agrees to the following:

1. PROFESSIONAL SERVICES.

Dealer warrants that all services shall be performed in a professional and workmanlike manner consistent with standard industry practice; and in accordance with any approved Statement of Work, if applicable. Dealer agrees to abide by all applicable laws, regulations, and industry standards when performing services for the State.

2. INSURANCE REQUIREMENTS.

The Dealer will agree to carry all insurance which may be required by federal and state laws, state and city ordinances, charters, regulations, and codes. The Dealer certifies that it has now and will continue to have in full force and effect the following certificates of insurance. Copies of the insurance certificates shall be provided to **OCFA** within ten (10) days upon request. All Insurance shall be issued by an insurance company authorized by the Insurance Department to transact business in the **State of CA**. No policy shall expire, be canceled or materially changed to effect coverage available to **OCFA** without thirty (30) days written notice to the State. The Dealer must submit a waiver of subrogation and documentation indicating the following insurance coverage:

- a. **General Liability:** a certificate of insurance evidencing insurance coverage for general liability including operations, products, and completed operations: \$1,000,000 each occurrence for bodily injury, personal injury and property damage/\$2,000,000 aggregate;
- b. **Automobile:** a certificate of insurance evidencing insurance coverage for automobile liability including owned, hired, and non-owned vehicles with a limit of \$1,000,000 each accident; \$1,000,000 uninsured motorist;
- c. **Worker compensation and employer's liability:** a certificate of insurance evidencing statutory coverage for worker's compensation coverage, injury and a limit of liability of \$1,000,000 each accident/\$1,000,000 each employee for disease;
- d. **Garage liability including Garage Keepers Legal Liability:** a certificate evidencing coverage with a minimum limit of \$250,000 each incident
- e. **Endorsements** to the policies providing the above insurance shall be obtained by the dealer, adding the following provision:
 - i. **Additional Insured's:** "OCFA, its officers, officials, employees, and volunteers are to be covered as additional insured with respect to the subject project and agreement."

3. HOLD HARMLESS.

The Dealer shall release, protect, indemnify and hold the OCFA and its officers, agencies, employees, harmless from and against any damage, cost or liability, including reasonable attorney's fees for any or all injuries to persons, property or claims arising from acts or omissions of the Dealer, its employees or subcontractors or volunteers.

4. CONTRACT WITH MICHELIN NORTH AMERICA, INC.

The Dealer agrees to abide by the terms and conditions of the Contract between **Michelin North America, Inc.** and the **Orange County Fire Authority** resulting from State of Utah Bid RT12002.

IN WITNESS WHEREOF, the authorized representatives of the parties sign and agree to the terms of this Agreement.

DEALER

Signature

Date

Name and Title of Signer
(Type or Print)

DEALER INFORMATION

Legal Status: Corporation ☒ Partnership ☐ Sole Proprietor ☐

Dealer Name: Parkhouse Tire Inc

Address: 711 S Grand Ave

City, State, Zip: Santa Ana CA 92705

Phone: 714 542-4161 Fax: 714 542 4676

Contact Name: John Gilliland

Email Address: Jgilliland@ParkhouseTire.com

Federal Tax ID #: 95-2761592



STATE OF UTAH

CONTRACT AMENDMENT

AMENDMENT # 5 to **CONTRACT # MA211** TO BE ATTACHED TO AND MADE A PART OF the above numbered contract between the **State of Utah, DAS/Division of Purchasing**, referred to as **STATE** and, **Michelin North America, Inc.**, referred to as **CONTRACTOR**.

THE PARTIES AGREE TO AMEND THE CONTRACT AS FOLLOWS:

1. Contract period:

4/1/2012 (original starting date)
3/31/2015 (current ending date)
3/31/2019 **new ending date**

2. Contract amount:

N/A (current contract amount)
N/A (amendment amount)
N/A **new contract amount**

3. Other changes: Michelin North America, Inc. WSCA/NASP Contract Pricing effective April 1, 2015 through March 31, 2016. Michelin and BF Goodrich Passenger and Light Truck tires, discount will increase to 48% from 45%. Uniroyal Passenger and Light Truck tires will remain the same at 35%. Michelin and BFG Medium truck tires, discount will increase to 52.25% from 50%. Earthmover/OTR/Industrial tires base prices lowered and the discount will increase to 38%. Agriculture tires discount 35% and AG Industrial tires discount 48% to stay the same.

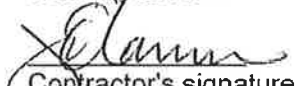
4. Effective Date of Amendment: 4/1/2015

All other conditions and terms in the original contract and previous amendments remain the same.

IN WITNESS WHEREOF, the parties sign and cause the amendment to be executed.

CONTRACTOR

STATE



Contractor's signature
Joe O'Connor

Director, Gov't & Military Sales
Type or Print Name and Title

 2/23/15

Director, Division of Purchasing

STATE OF UTAH – STATE COOPERATIVE CONTRACT
CONTRACT NUMBER MA211

1. **CONTRACTING PARTIES:** This State Cooperative Contract is between the **Division of Purchasing and General Services (State)**, 3150 State Office Building, PO Box 141061, Salt Lake City, UT 84114-1061, an agency of the State of Utah, and the following **CONTRACTOR**:

Michelin North America, Inc
Name

P.O. Box 19001
Address

Greenville SC 29602-9001
City State Zip

Federal Tax ID# 11-1724631 Vendor # _____ Commodity Codes: 86305
Vendor Contact Person: Kaye Pittman Vendor Phone #: 864 458-6030
Vendor Fax #: 864 458-5119 Vendor email address: kaye.pittman@us.michelin.com

LEGAL STATUS OF CONTRACTOR

- ☐ Sole Proprietor
☐ Non-Profit Corporation
☒ For-Profit Corporation
☐ Partnership
☐ Government Agency

2. **GENERAL PURPOSE OF CONTRACT:** The general purpose of this Contract is to provide:

Tires, tubes, and Service

3. **CONTRACT PERIOD:** Effective date 4/1/2012 Termination date 3/31/2015 unless terminated early or extended in accordance with the terms and conditions of this contract.
Renewal option: two (2) renewal options for two (2) years each

4. **PRICING AS PER THE ATTACHED PRICE LIST –WSCA Pricing Solicitation# RT12002; Michelin Government & Utility Base Price List- December 1, 2011**

PAYMENT TERMS: Net 30
DAYS REQUIRED FOR DELIVERY: 14
MINIMUM ORDER: None
FREIGHT TERMS: FOB Destination

5. **ATTACHMENT A:** Standard Terms and Conditions, Western States Contracting Alliance
ATTACHMENT B: Summary of General Contract Requirements and Information in RFP
ATTACHMENT C: Pricing Discounts and Service Pricing
ATTACHMENT D: Superseding Provisions to State cooperative

6. **DOCUMENTS INCORPORATED INTO THIS CONTRACT BY REFERENCE BUT NOT ATTACHED:**
a. All other governmental laws, regulations, or actions applicable to the goods and/or services authorized by this contract.
b. Utah State Procurement Code, Procurement Rules, CONTRACTOR'S response to Bid # RT1200, dated 11/30/2011 and Best and Final Offer dated 1/27/2012.

IN WITNESS WHEREOF, the parties sign and cause this contract to be executed.

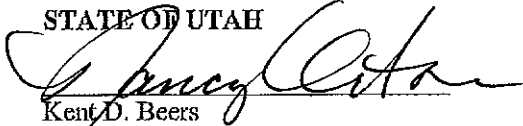
CONTRACTOR


Contractor's signature

Victor Kolsch, COO MATS
Type or Print Name and Title

3-8-12
Date

STATE OF UTAH


Kent D. Beers
Director, Division of Purchasing

3-12-2012
Date

Attachment A
Standard Contract Terms and Conditions
Western States Contracting Alliance

PARTICIPANTS: The Western States Contracting Alliance (herein WSCA) is a cooperative group contracting consortium for state government departments, institutions, agencies and political subdivisions (e.g., colleges, school districts, counties, cities, etc.,) for the states of Alaska, Arizona, California, Colorado, Hawaii, Idaho, Minnesota, Montana, Nevada, New Mexico, Oregon, South Dakota, Utah, Washington and Wyoming. Other states and their political subdivisions are also eligible to participate in WSCA contracts. Obligations under this contract are limited to those Participating States who have signed a Participating Addendum where contemplated by the solicitation. Financial obligations of Participating States are limited to the orders placed by the departments or other state agencies and institutions having available funds. Participating States incur no financial obligations on behalf of political subdivisions. Unless otherwise specified in the solicitation, the resulting award(s) will be permissive.

QUALITY ESTIMATES: WSCA does not guarantee to purchase any amount under the contract to be awarded. Estimated quantities are for the purposes of submitting proposals only and are not to be construed as a guarantee to purchase any amount.

SPECIFICATIONS: Any deviation from specifications must be clearly indicated by offeror, otherwise, it will be considered that the proposal is in strict compliance. When BRAND NAMES or manufacturers' numbers are stated in the specifications they are intended to establish a standard only and are not restrictive unless the RFP states "No substitute". Proposals will be considered on other makes, models or brands having comparable quality, style, workmanship and performance characteristics. Alternate proposals offering lower quality or inferior performance will not be considered.

ACCEPTANCE OR REJECTION OF PROPOSALS: WSCA reserves the right to accept or reject any or all proposals or parts of proposals, and to waive informalities therein.

SAMPLES: Generally, when required, samples will be specifically requested in the Request for Proposals. Samples, when required, are to be furnished free of charge. Except for those samples destroyed or mutilated in testing, samples will be returned at an offeror's request, transportation collect.

CASH DISCOUNT TERMS: Offeror may quote a cash discount based upon early payment; however, discounts offered for less than 30 days will not be considered in making the award. The date from which discount time is calculated shall be the date a correct invoice is received or receipt of shipment, whichever is later; except that if testing is performed, the date shall be the date of acceptance of the merchandise.

TAXES: Proposal prices shall be exclusive of state sales and federal excise taxes. Where the state government entities are not exempt from sales taxes on sales within their state, the contractor shall add the sales taxes on the billing invoice as a separate entry.

MODIFICATION OR WITHDRAWAL OF PROPOSALS: Proposals may be modified or withdrawn prior to the time set for the opening of proposals. After the time set for the opening of proposals, no proposal may be modified or withdrawn, unless done in response to a request for a "Best and Final Offer" from WSCA.

PATENTS, COPYRIGHTS, ETC.: The Contractor shall release, indemnify and hold the Buyer, its officers, agents and employees harmless from liability of any kind or nature, including the Contractor's use of any copyrighted or uncopyrighted composition, secret process, patented or unpatented invention, article or appliance furnished or used in the performance of this contract.

AWARD: WSCA may award multiple contracts as the result of this solicitation. Awards shall be made to the responsible offeror(s) whose proposal is determined to be the most advantageous to WSCA, taking into consideration price and the other evaluation factors set forth in the RFP.

NON-COLLUSION: By signing the proposal the offeror certifies that the proposal submitted, has been arrived at independently and has been submitted without collusion with, and without any agreement, understanding or planned

common course of action with, any other vendor of materials, supplies, equipment or services described in the Request for Proposal, designed to limit independent bidding or competition.

CANCELLATION: Unless otherwise stated in the additional terms and conditions listed in the RFP, any contract entered into as a result of this bid may be canceled by either party upon 60 days notice, in writing, prior to the effective date of the cancellation. Further, any Participating State may cancel its participation upon 30 days written notice, unless otherwise limited or stated in the additional terms and conditions listed in this solicitation. Cancellation may be in whole or in part. Any cancellation under this provision shall not effect the rights and obligations attending orders outstanding at the time of cancellation, including any right of and Purchasing Entity to indemnification by the Contractor, rights of payment for goods/services delivered and accepted, and rights attending any warranty or default in performance in association with any order. Cancellation of the contract due to Contractor default may be immediate.

DEFAULT AND REMEDIES: Any of the following events shall constitute cause for WSCA to declare Contractor in default of the contract: 1. Nonperformance of contractual requirements; 2. A material breach of any term or condition of this contract WSCA shall issue a written notice of default providing a period in which Contractor shall have an opportunity to cure. Time allowed for cure shall not diminish or eliminate Contractor's liability for liquidated or other damages. If the default remains, after Contractor has been provided the opportunity to cure, WSCA may do one or more of the following: 1. Exercise any remedy provided by law; 2. Terminate this contract and any related contracts or portions thereof; 3. Impose liquidated damages; 4. Suspend contractor from receiving future proposal solicitations.

LAWS AND REGULATIONS: Any and all supplies, services and equipment offered and furnished shall comply fully with all applicable Federal and State laws and regulations.

CONFLICT OF TERMS: In the event of any conflict between these Standard Terms and Conditions and any additional terms and conditions listed in the solicitation; the additional terms and conditions listed in the solicitation shall govern.

REPORTS: The contractor shall submit quarterly reports to the WSCA Contract Administrator showing the quantities and dollar volume of purchases by each participating entity.

HOLD HARMLESS: The contractor shall release, protect, indemnify and hold WSCA and the respective states and their officers, agencies, employees, harmless from and against any damage, cost or liability, including reasonable attorney's fees for any or all injuries to persons, property or claims for money damages arising from acts or omissions of the contractor, his employees or subcontractors or volunteers.

ORDER NUMBERS: Contract order and purchase order numbers shall be clearly shown on all acknowledgments, shipping labels, packing slips, invoices, and on all correspondence.

GOVERNING LAW: This procurement and the resulting agreement shall be governed by and construed in accordance with the laws of the state sponsoring and administering the procurement. The construction and effect of any Participating Addendum or order against the contract(s) shall be governed by and construed in accordance with the laws of the Participating Entity's State. Venue for any claim, dispute or action concerning an order placed against the contract(s) or the effect of an Participating Addendum shall be in the Purchasing Entity's State.

DELIVERY: The prices offered shall be the delivered price to any Participating State agency or political subdivision. All deliveries shall be F.O.B. destination with all transportation and handling charges paid by the contractor. Responsibility and liability for loss or damage shall remain the Contractor until final inspection and acceptance when responsibility shall pass to the Buyer except as to latent defects, fraud and Contractor's warranty obligations. The minimum shipment amount will be found in the additional terms and conditions listed in the solicitation. Any order for less than the specified amount is to be shipped with the freight prepaid and added as a separate item on the invoice. Any portion of an order to be shipped without transportation charges that is back ordered shall be shipped without charge.

WARRANTY: As used herein "Buyer" refers to any Participating State agency or political subdivision. The contractor acknowledges that the Uniform Commercial Code applies to this contract. In general, the contractor warrants that: (a) the product will do what the salesperson said it would do, (b) the product will live up to all specific claims that the manufacturer makes in their advertisements, (c) the product will be suitable for the ordinary purposes for which such product is used, (d) the product will be suitable for any *special purposes* that the Buyer has relied on the contractor's skill or judgment to consider.

AMENDMENTS: The terms of this contract shall not be waived, altered, modified, supplemented or amended in any manner whatsoever without prior written approval of the WSCA Contract Administrator.

ASSIGNMENT/SUBCONTRACT: Contractor shall not assign, sell, transfer, subcontract or sublet rights, or delegate responsibilities under this contract, in whole or in part, without the prior written approval of the WSCA Contract Administrator.

NONDISCRIMINATION: The offeror agrees to abide by the provisions of Title VI and Title VII of the Civil Rights Act of 1964 (42 USC 2000e), which prohibit discrimination against any employee or applicant for employment, or any applicant or recipient of services, on the basis of race, religion, color, or national origin; and further agrees to abide by Executive Order No. 11246, as amended, which prohibits discrimination on basis of sex; 45 CFR 90 which prohibits discrimination on the basis of age, and Section 504 of the Rehabilitation Act of 1973, or the Americans with Disabilities Act of 1990 which prohibits discrimination on the basis of disabilities. The offeror further agrees to furnish information and reports to requesting State(s), upon request, for the purpose of determining compliance with these statutes. Offeror agrees to comply with each individual state's certification requirements, if any, as stated in the additional terms and conditions listed in the solicitation. This contract may be canceled if the offeror fails to comply with the provisions of these laws and regulations. The offeror must include this provision in every subcontract relating to purchases by the States to insure that subcontractors and vendors are bound by this provision.

SEVERABILITY: If any provision of this contract is declared by a court to be illegal or in conflict with any law, the validity of the remaining terms and provisions shall not be affected; and the rights and obligations of the parties shall be construed and enforced as if the contract did not contain the particular provision held to be invalid.

INSPECTIONS: Goods furnished under this contract shall be subject to inspection and test by the Buyer at times and places determined by the Buyer. If the Buyer finds goods furnished to be incomplete or in compliance with proposal specifications, the Buyer may reject the goods and require Contractor to either correct them without charge or deliver them at a reduced price, which is equitable under the circumstances. If Contractor is unable or refuses to correct such goods within a time deemed reasonable by the Buyer, the Buyer may cancel the order in whole or in part. Nothing in this paragraph shall adversely affect the Buyer's rights including the rights and remedies associated with revocation of acceptance under the Uniform Commercial Code.

PAYMENT: Payment for completion of a contract is normally made within 30 days following the date the entire order is delivered or the date a correct invoice is received, whichever is later. After 45 days the Contractor may assess overdue account charges up to a maximum rate of one percent per month on the outstanding balance. Payments will be remitted by mail. Payments may be made via a State or political subdivision "Purchasing Card".

FORCE MAJEURE: Neither party to this contract shall be held responsible for delay or default caused by fire, riot, acts of God and/or war which is beyond that party's reasonable control. WSCA may terminate this contract after determining such delay or default will reasonably prevent successful performance of the contract.

HAZARDOUS CHEMICAL INFORMATION: The contractor will provide one set of the appropriate material safety data sheet(s) and container label(s) upon delivery of a hazardous material to the user agency. All safety data sheets and labels will be in accordance with each participating state's requirements.

FIRM PRICE: Unless otherwise stated in the additional terms and conditions listed in the solicitation for the purpose of award, offers made in accordance with this solicitation must be good and firm for a period of ninety (90) days from the date of proposal opening. Prices must remain firm for the full term of the contract.

EXTENSION OF PRICES: In the case of error in the extension of prices in the proposal, the unit prices will govern.

PROPOSAL PREPARATION COSTS: WSCA is not liable for any costs incurred by the offeror in proposal preparation.

CONFLICT OF INTEREST: The contractor certifies that it has not offered or given any gift or compensation prohibited by the state laws of any WSCA participants to any officer or employee of WSCA or participating states to secure favorable treatment with respect to being awarded this contract.

INDEPENDENT CONTRACTOR: The contractor shall be an independent contractor, and as such shall have no authorization, express or implied to bind WSCA or the respective states to any agreements, settlements, liability or

understanding whatsoever, and agrees not to perform any acts as agent for WSCA or the states, except as expressly set forth herein.

POLITICAL SUBDIVISION PARTICIPATION: Participation under this contract by political subdivisions (i.e., colleges, school districts, counties, cities, etc.,) of the Participating States shall be voluntarily determined by the political subdivision. The contractor agrees to supply the political subdivisions based upon the same terms, conditions and prices.

DEBARMENT: The contractor certifies that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction (contract) by any governmental department or agency. If the contractor cannot certify this statement, attach a written explanation for review by WSCA.

RECORDS ADMINISTRATION: The contractor will maintain, or supervise the maintenance of all records necessary to properly account for the payments made to the contractor for costs authorized by this contract. These records will be retained by the contractor for at least four years after the contract terminates, or until all audits initiated within the four years have been completed, whichever is later.

AUDIT OF RECORDS: The contractor agrees to allow WSCA, State and Federal auditors, and state agency staff access to all the records to this contract, for audit and inspection, and monitoring of services. Such access will be during normal business hours, or by appointment.

ENTITY PARTICIPATION: Use of specific WSCA cooperative contracts by state agencies, political subdivisions and other entities (including cooperatives) authorized by individual state's statutes to use state contracts are subject to the approval of the respective State Chief Procurement Official. Issues of interpretation and eligibility for participation are solely within the authority of the respective State Chief Procurement Official.

Attachment B

Summary of General Contract Requirements and Information in RFP

PURPOSE OF PRICE AGREEMENT

To provide competitive pricing for tire products and services through manufacturers' retail distribution networks to all WSCA participating states. The contracts may be used by other non-WSCA states with the authorization from the WSCA Directors and the approval of the individual state procurement directors.

LENGTH OF PRICE AGREEMENT

The Master Price Agreement will be a three (3) year Master Price Agreement. The Master Price Agreement may be extended beyond the initial term up to two (2) optional two year renewals for a maximum of seven years upon mutual agreement of the parties.

PRICE GUARANTEE PERIOD

Pricing shall be considered firm for the first 12 months of the Master Price Agreement and no change in the Manufacturers Price List (referred to as the MPL) will be accepted during that time.

Price adjustments for tires, tubes and tire services may be allowed only during the contract anniversary date or renewal period providing the adjustment is made owing to legitimate increases in the contractor's operating expenses, e.g. raw materials, fuel, taxes, labor, etc. The percentage of discount from the published MPL shall remain the same for all renewal terms of this contract.

A written request for an increase with supporting documentation e.g. updated MPL must be received by the Contract Administrator, State of Utah Division of Purchasing at least thirty (30) days prior to the effective date of the increase. Increases shall not be effective unless they are approved by the Director, State of Utah Division of Purchasing.

Price decreases or higher discounts available from the manufacturer shall be immediately passed on to the WSCA Participating States. When the manufacturer offers price reductions or higher discounts, the Contractor must notify Contract Administrator, State of Utah Division of Purchasing and must pass those discounts on to the WSCA Participating States at once.

MASTER PRICE LIST DOCUMENTS and ORDER OF PRECEDENCE

Order of Precedence

1. A Participating Entity's "Participating Addendum" (PA) Ref: 5.9 below including state specific Terms and Conditions where applicable.
2. Superseding Provisions to State Cooperative (Attachment D)
3. WSCA Standard Terms and Conditions.
4. The Solicitation.
5. Offeror's response to the Solicitation.

These documents shall be read to be consistent and complementary. Any conflict among these documents shall be resolved by giving priority to the documents in the order listed above. Contractor terms and conditions that apply to the Master Agreement are only those that are expressly accepted by the Lead State and must be in writing and attached to the Master Agreement as an Exhibit or Attachment. No other terms and conditions shall apply, including terms and conditions listed in the Contractor's response to the Solicitation, or terms listed or referenced on the Contractor's website, in the Contractor quotation/sales order or in similar documents subsequently provided by the Contractor.

ISSUING OFFICE AND WSCA CONTRACT ADMINISTRATOR

The State of Utah, Division of Purchasing has been designated by WSCA as the Lead State conducted this procurement and will manage the Price Agreement. The reference number for this Solicitation is RT12002. The WSCA Contract Administrator designated by the State of Utah, Division of Purchasing is:

Reed Taylor, Purchasing Manager
State of Utah, Division of Purchasing
3150 State Office Building, Capitol Hill
Salt Lake City, UT 84114-1061

Email: rtaylor@utah.gov
Voice: 801-538-3709
Fax: 801-538-3882

WSCA ADMINISTRATION FEE

A fee of 1/2 of 1% of the total purchases will be provided to the WSCA Contract Administrator on a quarterly basis. The check must be made payable to WSCA and sent to: Reed Taylor, Contract Administrator. A statement, submitted electronically, will be a summary report of quarterly purchases by participating WSCA states. The Administrative Fee and submitted reports are to coincide with the quarters and date ranges as outlined below:

- Quarter 1: January 1st through March 31st - due by April 30th
- Quarter 2: April 1st through June 30th - due by July 30th
- Quarter 3: July 1st through September 30th - due by October 30th
- Quarter 4: October 1st through December 31st - due by January 30th

After contract award, the Contractor will be provided, by e-mail, an Excel spreadsheet template that includes instructions, sample data and all information that must be provided.

PARTICIPATING STATE ADMINISTRATIVE FEE

Each participating State may establish and include by participating addendum, an additional Administrative Fee based on that state's own purchases, which will be disbursed directly to that participating state. Where applicable, pricing may be adjusted accordingly.

OTHER STATES REPORTING REQUIREMENTS

Each participating State may establish and include, by participating addendum, a reporting requirement for that state's own purchases, which will be provided directly to that participating State.

CONTRACT PARTICIPANTS

States listed on page 12 of the RFP indicated their intent to participate in the master price agreement(s). This Intent to Participate is not binding. Other States may participate in the Master Price Agreement(s) at any time during which the Master Price Agreement(s) is in place.

A Participating Addendum (PA) shall be executed for each contractor by the individual Participating State or Participating Entity desiring to use the Master Price Agreement. The Participating State or Participating Entity and contractor shall negotiate and agree upon any additional terms and conditions prior to the execution of a PA. States are not required to sign a PA with all awarded contractors.

ULTIMATE VENDOR/PURCHASING FORM

Some vendors may request that a form (Ultimate Vendor/Purchaser or similar title form) be signed by agencies attesting to the fact that the entity for which the tires are being purchased is a government entity and not subject to the federal excise tax. This type of documentation is required by the Federal Government in order for the tire dealer to receive reimbursement for the Federal Excise Tax paid when the tires are purchased from the manufacturer. If necessary, the use of such a form may be addressed in a state's participating addendum.

MANUFACTURER DEALER AGREEMENT FORM

In order for a dealer to be authorized to sell tires, tubes, and service under the master price agreement, each dealer must sign a Dealer Agreement Form and send it to the manufacturer. The manufacturer is responsible to insure the agreement is signed by the dealer prior to the dealer selling tires under the master price agreement. Copies of the signed dealer agreements are to be sent to the state where the dealer is located.

PRICING

Prices listed must take into consideration all inherent costs of providing the requested goods and services. The contractor agrees to pay any and all fees, including, but not limited to: fuel surcharges, delivery and transportation costs, duties, custom fees, permits, brokerage fees, licenses and registrations. The WSCA Participating States will not pay any additional charges beyond the price(s) listed in the response, unless otherwise provided for by law or expressly allowed by the terms of the solicitation.

PRODUCT GUARANTEE AND ADJUSTMENT

Tires furnished shall be guaranteed to be free from defects in workmanship and material for original tread life or 48 months whichever comes first. Any tire which fails this guarantee shall either be satisfactorily repaired by the Awarded Contractor or replaced with a new tire charging only for the mileage used based on the tread depth, or as agreed upon by the Using Agency. Allowances and replacement charges shall be based upon the Contract tire price. The Awarded Contractor shall defray all transportation costs on both the defective tire(s) and replacement tire(s). The Awarded Contractor shall provide a one (1) year warranty on all tubes and parts beginning on the date of installation, to repair and/or replace as necessary, as determined by the Using Agency, **AT NO COST TO THE USING AGENCY**. If such items are not normally warranted for one year, maintenance to supply the equivalent of a one (1) year warranty must be included in the cost. Shipping cost for returned tubes and parts warranty service **SHALL BE PAID BY THE AWARDED CONTRACTOR**.

INSURANCE REQUIREMENTS

Contractor and Approved Distributor will agree to carry all insurance which may be required by federal and state laws, state and city ordinances, charters, regulations, and codes. Concurrent with the execution of the contract for services, the Awarded Contractor and Approved Distributor will furnish a participating state the following certificates of insurance within ten (10) days upon request. Certificates shall be issued by an insurance company meeting the requirements to conduct business in the participating state. The Awarded Contractor and Approved Distributor shall name the participating State as additional insured on all insurance policies. No policy shall expire, be canceled or materially changed to effect coverage available to the State without thirty (30) days written notice to the State.

The following certificates are to be furnished with the RFP upon request.

Liability insurance: A certificate of insurance evidencing insurance coverage for general liability including contractual liability, written on a comprehensive form with coverage for personal injury and a limit of liability of at least \$1,000,000 for bodily injury, property damage and personal injury.

Worker's compensation and employer's liability: A certificate of insurance evidencing statutory coverage for worker's compensation coverage, injury and a limit of liability of \$1,000,000 for employer's liability, or a letter of certification from the industrial commission that the vendor is an authorized self insurer.

WSCA Tires, Tubes and Service Solicitation

ATTACHMENT C

MICHELIN BRAND

Pricing Discounts & Service Pricing

Contract # MA211

Solicitation Number RT12002

Bidder Name MICHELIN NORTH AMERICA, INC

Tires and Tubes Subcategory	Discount on Products			
	Percent Discount	MPL Name	MPL Date	MPL REF. Number
1. Pursuit and Performance Tires	No Bid	Government & Utility Base	Dec. 1, 2011	NA
2. Automobile/Passenger Vehicles 3. Light Duty Trucks:	40%	Government & Utility Base	Dec. 1, 2011	NA
3a. Radial	40%	Government & Utility Base	Dec. 1, 2011	NA
3b. Bias	NA			NA
4. Medium Commercial/Heavy Duty Trucks/Buses	50%	Government & Utility Base	Dec. 1, 2011	NA
5. Off Road	35%	Government & Utility Base	Dec. 1, 2011	NA
Sa. Off Road Radial	35%	Government & Utility Base	Dec. 1, 2011	NA
Sb. Off Road Bias	NA			NA
6. Agriculture/Farm	44%	Government & Utility Base	Dec. 1, 2011	NA
7. Industrial Tires	44% or 35%	Government & Utility Base	Dec. 1, 2011	NA
8. Specialty Tires	44%	Government & Utility Base	Dec. 1, 2011	NA

WSCA Pricing for Services							
	Product Sub-Category 1, 2 & 3	Product Sub-Category #4: Medium Commercial Single Duel		Product Sub-Category #5 Off Road	Product sub-Category #6 Agriculture/Farm	Product Sub-Category #7 Industrial	Product Sub-Category #8 Specialty
1. *Tire Installation w/purchase in store includes dismount of used tires and tubes (per tire)	\$10.00	\$20.00	NA	**PQL	**PQL	**PQL	**PQL
2. *Change tire, dismount and mount	\$12.00	\$36.00	**PQL	**PQL	**PQL	**PQL	**PQL

3. *Flat Repair, remove, repair and mount	\$16.00	\$44.50	**PQL	**PQL	**PQL	**PQL	**PQL
4. *Flat repair, off vehicl	\$14.00	\$30.00	**PQL	**PQL	**PQL	**PQL	**PQL
5. *Rotate mounted tires	\$10.00	\$20.00	**PQL	**PQL	**PQL	**PQL	**PQL
6. *New valve stem rubber or metal (per tire)	\$4.00	\$8.00	**PQL	**PQL	**PQL	**PQL	**PQL
7. *Wheel balanceM computer spin	\$12.00	\$30.00	**PQL	**PQL	**PQL	**PQL	**PQL
8. *Wheel balance/Valve stem combo (per	\$14.00	\$35.00	**PQL	**PQL	**PQL	**PQL	**PQL
9. Alignment services	\$30.00	**PQL	**PQL	**PQL	**PQL	**PQL	**PQL
9a. Standard two wheel alignment	\$60.00	**PQL	NA	NA	NA	NA	NA
9b. Four wheel alignment	\$75.00	**PQL	NA	NA	NA	NA	NA
9c. Bushing/cam alignment	\$40.00 L \$40.00 R	NA	NA	NA	NA	NA	NA
9d. Parts discount %from list Prices	NA	NA	NA	NA	NA	NA	NA
10. Emergency tire repair-road side assistance (per	\$82.00	\$100.00	NA	**PQL	**PQL	**PQL	**PQL
11. Studding (per tire)	\$25.00	NA	NA	NA	NA	NA	NA
12. SlpIng (per tire)	\$15.00	NA	NA	NA	NA	NA	NA
13. Used tire recycle/disposal fee (per tire)	\$5.00	\$8.00	**PQL	**PQL	**PQL	**PQL	**PQL
14. Bulk tire disposal (min. of six tons capacity	\$1,500.00 Attachment H	\$1,500.00 Attachment H	**PQL	**PQL	**PQL	**PQL	**PQL
15. *Tire pressure monitoring kit (per Tire)	**PQL	**PQL	NA	NA	NA	NA	NA

WSCA Tires, Tubes and Service Solicitation

ATTACHMENT C

UNIROYAL BRAND

Pricing Discounts & Service Pricing

Contract # MA211

Solicitation Number RT12002

Bidder Name: MICHELIN NORTH AMERICA, INC.

Tires and Tubes Subcategory	Discount on Products			
	Percent Discount	MPL Name	MPL Date	MPL REF. Number
1. Pursuit and Performance Tires	30%	Government & Utility Base	Dec. 1, 2011	NA
2. Automobile/Passenger Vehicles 3. Light Duty Trucks:	30%	Government & Utility Base	Dec. 1, 2011	NA
3a. Radial	30%	Government & Utility Base	Dec. 1, 2011	NA
3b. Bias	NA			
4. Medium Commercial/Heavy Duty Trucks/Buses	NA			
5. Off Road	NA			
5a. Off Road Radial	NA			
5b. Off Road Bias	NA			
6. Agriculture/Farm	NA			
7. Industrial Tires	NA			
8. Specialty Tires	NA			

WSCA Pricing for Services							
	Product Sub-Category 1,2 & 3	Product Sub-Category #4: Medium Commercial Single Dual		Product Sub-Category # 5 Off Road	Product Sub-Category #6 Agriculture/Farm	Product Sub-Category #7 Industrial	Product sub-Category #8 Specialty
1. * Tire Installation w/purchase in store includes dismount of	\$10.00	NA	NA	NA	NA	NA	NA

	used tires and tubes (per tire)						
2.	*Change tire, dismount and mount	\$12.00	NA	NA	NA	NA	NA
3.	*Flat Repair, remove, repair and mount	\$16.00	NA	NA	NA	NA	NA
4.	*Flat repair, off vehicle	\$14.00	NA	NA	NA	NA	NA
5.	*Rotate mounted tires (per tire)	\$10.00	NA	NA	NA	NA	NA
6.	*New valve stem rubber or metal (per tire)	\$4.00	NA	NA	NA	NA	NA
7.	*Wheel balance-computer spln balance (Per Tire)	\$12.00	NA	NA	NA	NA	NA
8.	*Wheel balance/Valve stem combo (per tire)	\$14.00	NA	NA	NA	NA	NA
9.	Alignment services	\$30.00	NA	NA	NA	NA	NA
	9a. Standard two wheel alignment	\$60.00	NA	NA	NA	NA	NA
	9b. Four wheel alignment	\$75.00	NA	NA	NA	NA	NA
	9c. Bushing/cam alignment	\$40.00L \$40.00R	NA	NA	N	NA	NA
	9d. Parts discount % from list Prices	NA	NA	NA	NA	NA	NA
10.	Emergency tire repair-road side assistance (per hour)	\$82.00	NA	NA	NA	NA	NA
11.	Studding (per tire)	\$25.00	NA	NA	NA	NA	NA
12.	Sliping (per tire)	\$15.00	NA	NA	NA	NA	NA
13.	Used tire recycle/disposal fee (per tire)	\$5.00	NA	NA	NA	NA	NA
14.	Bulk tire disposal (min. of six tons capacity)	\$1,500.00 Attachment H	NA	NA	NA	NA	NA
15.	*Tire pressure monitoring kit (per Tire)	**PQL	NA	NA	NA	NA	NA

WSCA Tires, Tubes and Service Solicitation

ATTACHMENT C

BFGOODRICH BRAND

Pricing Discounts & Service Pricing

Contract # MA211:

Solicitation Number RT12002

Bidder Name_MICHELIN NORTH AMERICA, INC.

Tires and Tubes Subcategory	Discount on Products			
	Percent Discount	MPL Name	MPL Date	MPL REF. Number
1. Pursuit and Performance Tires	40%	Government & Utility Base	Dec. 1, 2011	NA
2. Automobile/Passenger Vehicles 3. Light Duty Trucks:	40%	Government & Utility Base	Dec. 1, 2011	NA
3a. Radial	40%	Government & Utility Base	Dec. 1, 2011	NA
3b. Bias	NA			
4. Medium Commercial/Heavy Duty Trucks/Buses	NA			
5. Off Road	NA			
5a. Off Road Radial	NA			
5b. Off Road Bias	NA			
6. Agriculture/Farm	NA			
7. Industrial Tires	NA			
8. Specialty Tires	NA			

WSCA Pricing for Services							
	Product Sub-Category 1,2 & 3	Product Sub-Category #4: Medium Commercial Single Dual		Product Sub-Category # 5 Off Road	Product Sub-Category #6 Agriculture/Farm	Product Sub-Category #7 Industrial	Product sub-Category #8 Specialty
1. *Tire Installation w/purchase in store Includes dismount of	\$10.00	NA	NA	NA	NA	NA	NA

	used tires and tubes (per tire)							
2.	*Change tire, dismount and mount	\$12.00	NA	NA	NA	NA	NA	NA
3.	*Flat Repair, remove, repair and mount	\$16.00	NA	NA	NA	NA	NA	NA
4.	*Flat repair, off vehicle	\$14.00	NA	NA	NA	NA	NA	NA
5.	*Rotate mounted tires (per tire)	\$10.00	NA	NA	NA	NA	NA	NA
6.	*New valve stem rubber or metal (per tire)	\$4.00	NA	NA	NA	NA	NA	NA
7.	*Wheel balance-computer spin balance (Per Tire)	\$12.00	NA	NA	NA	NA	NA	NA
8.	*Wheel balance/Valve stem combo (per tire)	\$14.00	NA	NA	NA	NA	NA	NA
9.	Alignment services	\$30.00	NA	NA	NA	NA	NA	NA
9a.	Standard two wheel alignment	\$60.00	NA	NA	NA	NA	NA	NA
9b.	Four wheel alignment	\$75.00	NA	NA	NA	NA	NA	NA
9c.	Bushing/cam alignment	\$40.00L \$40.00R	NA	NA	N	NA	NA	NA
9d.	Parts discount % from list Prices	NA	NA	NA	NA	NA	NA	NA
10.	Emergency tire repair-road side assistance (per hour)	\$82.00	NA	NA	NA	NA	NA	NA
11.	Studding (per tire)	\$25.00	NA	NA	NA	NA	NA	NA
12.	Sliping (per tire)	\$15.00	NA	NA	NA	NA	NA	NA
13.	Used tire recycle/disposal fee (per tire)	\$5.00	NA	NA	NA	NA	NA	NA
14.	Bulk tire disposal (min. of six tons capacity)	\$1,500.00 Attachment H	NA	NA	NA	NA	NA	NA
15.	*Tire pressure monitoring kit (per Tire)	**PQL	NA	NA	NA	NA	NA	NA

ATTACHMENT D (Revised)

SUPERSEDING PROVISIONS TO STATE COOPERATIVE

WSCA RFP #RT12002 Ref: Utah Contract MA211 Michelin

The following provisions are hereby made a part of WSCA RFP #RT12002 and the resulting Contract ("MA211") and supplement all other provisions of the Contract and supersede any provision in conflict in whole or in part with the provisions set forth below:

1. ORDER OF PRECEDENCE.

Order of precedence would change to (1) Participating Addendum (PA), including state specific Terms and Conditions where applicable (2) this Attachment D (3) the WSCA Standard Terms and Conditions, (4) RFP RT12002, and (5) Contractor's response to RFP # RT12002, dated November 29, 2011.

2. PATENTS, COPYRIGHTS, ETC.

Notwithstanding anything in this Contract to the contrary, Contractor warrants that the Products described herein and the sale or use of such Products, will not infringe or contribute to the infringement of any United States or foreign patent, trademark, copyright or corresponding right, and Contractor agrees to indemnify, hold harmless and protect Customer its parent, affiliated and subsidiary companies, its and their successors and assigns, from and against all losses, damages, liabilities, claims, costs, demands and suit at law or equity, including coverage of any reasonable attorney's fees, to the extent resulting from actual infringement of any patents, trademarks, copyrights or corresponding rights pertaining to the Products subject to this Agreement.

3. INDEMNIFICATION/HOLD HARMLESS.

(a) Indemnification/Hold Harmless as required by the Terms and Conditions in the original Request for Proposal and made part of the Contract shall be in full force and effect. The Contractor shall defend all actions brought upon such matters to be indemnified hereunder and pay all costs and expenses incidental thereto, but the Buyer shall have the right, at its option, to participate in the defense of any such action without relieving the Contractor of any obligation hereunder. Any Contractor submitted exclusions from a warranty or limit on this indemnification shall not apply, except to the extent a wrongful act or negligence under (1) (c) below is the cause of claim for personal property or personal injury damage.

(b) Any contractor submitted exclusions form a warranty or limit on this indemnification shall not apply to any reasonably foreseeable use of the tires by the participating State ("State") under the Contract. Also, there shall be no exclusion from warranty for commercial or governmental use of the tires.

(c) Notwithstanding any of the above, to the extent there is personal property or personal injury damage incurred as a primary result of the wrongful acts or negligence of the State, its agents, employees and anyone for whom the 'state is liable (i.e. customer abuse, modifications not executed by the Contractor, improper or insufficient maintenance, improper operation, or normal wear and tear under normal usage), Contractor shall not be liable for such resulting damage.

(c) Notwithstanding anything else in the Contract, Contractor agrees to indemnify and hold harmless the buyer (State) only from and against any and all damages, and liabilities, including reasonable attorneys' fees which arise out of injury or damage proximately caused by defective workmanship or materials in products manufactured by contractor and sold to the Buyer pursuant to this Contract. Contractor shall not be liable in any way for any errors or omissions by Contractor's authorized independent dealers or franchisees that may provide Service to Buyer.

4. OTHER SERVICE PROVIDERS

(a) Buyer recognizes that Contractor is providing services under this Contract through its own contracts with affiliated installers and authorized distributors.

(b) The parties agree that the independent Dealers ("Dealers" herein shall mean Contractor's independent dealers) shall be responsible for the liabilities, insurance requirements, and warranties directly related for their actions and for the services they perform.

5. ASSIGNMENT OF CONTRACT

Contractor shall not assign, sell, transfer, subcontract or sublet rights, or delegate responsibilities under this contract, in whole or in part, without the prior written approval of the WSCA Contract Administrator.

Notwithstanding the foregoing, nothing herein shall prohibit the supply of products or service pursuant to this Contract by Contractor's authorized independent dealers, franchisees or affiliates.

6. FORCE MAJEURE

Neither party to this contract shall be held responsible for delay or default caused by fire, riot, acts of God and /or war which is beyond that party's reasonable control. WSCA may terminate this contract after determining such delay or default will reasonably prevent successful performance of the contract.

Except for payment obligations, the Parties shall not be liable for a failure to perform that arises from causes or events beyond their reasonable control and without their fault or negligence. Neither Party will be liable for any failure or excusable delay in performing its obligations under the Agreement if such failure or excusable delay is due to unusually severe weather, strikes or labor disputes, natural disasters, fire, civil disturbance, terrorist attack, epidemic, war, or acts of God Contractor may suspend performance of its obligations under this Contract without obligation to WSCA during the occurrence of any excusable delay. Each party must inform the other in writing with proof of receipt within ten (10) business days of the existence of a force majeure event.

7. WARRANTY

In general, the contractor Standard written limited warranty shall apply for defects in materials and workmanship and will also warrant that (a) the product will be suitable for the ordinary purposes for which such product is used, and (b) when Contractor has listed exclusions in their submitted Warranties regarding replacing the worn or defective tires due to the tires being rotated within a specific mileage or timeframe, the exclusions will not apply if the lack of tire rotation did not reasonably affect the wear or defects on the tire.

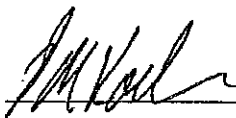
8. FUTURE TAX/FEE INCREASES OR ENACTMENTS

All taxes billed to Customer under this contract are subject to increases or decrease from time to time to compensate for any tax, excise, or levy upon the products sold, or upon the manufacture, sales, transportation, or delivery of them or whenever any tax, excise, levy, law or governmental regulation has the effect, directly or indirectly, of increasing the cost of manufacture, sales, or delivery. If any government action or laws or regulation should have the effect of establishing a new tax or fee that is imposed on the transactions covered under this contract, Contractor has the right to bill Customer for the new or increased taxes or fees as they become due under the applicable law

IN WITNESS WHEREOF, the parties sign and agree to the terms in Attachment D.

CONTRACTOR

STATE OF UTAH

 3-8-12

Signature

Date

 3-12-2012

Signature

Date

VICTOR Koelsch, COO MATT

Name and Title of Signer

(Type or Print)

Nancy Orton, Asst. Dir.

Name and Title of Signer

(Type or Print)



STATE OF UTAH COOPERATIVE CONTRACT AMENDMENT

AMENDMENT # **4**
CONTRACT # **MA 211**
Original Starting Date: **04/01/2012**
Expiration Date : **03/31/2015**

TO BE ATTACHED AND MADE PART OF the specified contract by and between the State of Utah Division of Purchasing and

Michelin North America, Inc
(Referred to as CONTRACTOR)

BOTH PARTIES AGREE TO AMEND THE CONTRACT AS FOLLOWS: Lowered the net price on some of the Michelin and Uniroyal passenger and light truck tires by 5% to 14%. Added some new BFGoodrich passenger and light truck tires.

Amended Expiration Date: **N/A**
Effective Date of Amendment: **11/20/2014**

Please provide the following contact information.

	Name	Phone Number	Email Address
General Contact	Kaye Pittman	864-458-6030	Kaye.pittman@us.michelin.com
Sales Contact	Kaye Pittman	864-458-6030	Kaye.pittman@us.michelin.com
Quarterly Report Contact	Kaye Pittman	864-458-6030	Kaye.pittman@us.michelin.com

All other terms and conditions in the original contract remain the same.
IN WITNESS WHEREOF, the parties sign and cause this contract to be executed.

CONTRACTOR

STATE OF UTAH

Kaye Pittman

11/18/2014
Date

Contractor's Signature

Kent Beers
for Kent Beers, Director
State of Utah Division of Purchasing

12.3.14
Date

Kaye Pittman

Contractor's Name (Print)

Government Contracts Specialist

Title (Print)

Purchasing Agent

Reed Taylor

Phone #

(801) 538-3709

e-mail

rtaylor@utah.gov

Fax #

(801) 538-3882

10/27/2008



STATE OF UTAH COOPERATIVE CONTRACT AMENDMENT

AMENDMENT # **3**
CONTRACT # **MA 211**
Original Starting Date: **04/01/2012**
Expiration Date : **03/31/2015**

TO BE ATTACHED AND MADE PART OF the specified contract by and between the State of Utah Division of Purchasing and

Michelin North America, Inc
(Referred to as CONTRACTOR)

BOTH PARTIES AGREE TO AMEND THE CONTRACT AS FOLLOWS:

Amended Expiration Date: **N/A**
Effective Date of Amendment: **08/1/2014**
REVISED 07/24/2014: ADDED NEW MICHELIN PREMIER AS TIRES AND
BFG COMMERCIAL T/A ALL-SEASON 2 TIRES ☐

Please provide the following contact information.

	Name	Phone Number	Email Address
General Contact	Kaye Pittman	864-458-6030	Kaye.pittman@us.michelin.com
Sales Contact	Kaye Pittman	864-458-6030	Kaye.pittman@us.michelin.com
Quarterly Report Contact	Kaye Pittman	864-458-6030	Kaye.pittman@us.michelin.com

All other terms and conditions in the original contract remain the same.
IN WITNESS WHEREOF, the parties sign and cause this contract to be executed.

CONTRACTOR

STATE OF UTAH

Kaye Pittman

7/28/2014

Contractor's Signature

Date

Kent Beers
Kent Beers, Director
State of Utah Division of Purchasing

8/1/14

Date

Kaye Pittman

Contractor's Name (Print)

Government Contracts Specialist

Title (Print)

Purchasing Agent

Reed Taylor

Phone #

(801) 538-3709

e-mail

rtaylor@utah.gov

Fax #

(801) 538-3882

10/27/2008



STATE OF UTAH COOPERATIVE CONTRACT AMENDMENT

AMENDMENT # **2**
CONTRACT # **MA 211**
Original Starting Date: **04/01/2012**
Expiration Date : **03/31/2015**

TO BE ATTACHED AND MADE PART OF the specified contract by and between the State of Utah Division of Purchasing and

Michelin North America, Inc
(Referred to as CONTRACTOR)

BOTH PARTIES AGREE TO AMEND THE CONTRACT AS FOLLOWS:

Amended Expiration Date: **N/A**
Effective Date of Amendment: **04/1/2014**
Description: 2014 Price List is in effect 4/1/2014.

Please provide the following contact information.

	Name	Phone Number	Email Address
General Contact	Kaye Pittman	864-458-6030	Kaye.pittman@us.michelin.com
Sales Contact	Kaye Pittman	864-458-6030	Kaye.pittman@us.michelin.com
Quarterly Report Contact	Kaye Pittman	864-458-6030	Kaye.pittman@us.michelin.com

All other terms and conditions in the original contract remain the same.
IN WITNESS WHEREOF, the parties sign and cause this contract to be executed.

CONTRACTOR

STATE OF UTAH

Kaye Pittman **3/12/14**
Contractor's Signature Date

Kent Beers **3.12.14**
for Kent Beers, Director Date
State of Utah Division of Purchasing

Kaye Pittman

Contractor's Name (Print)

Government Contract Specialist

Title (Print)

Purchasing Agent

Reed Taylor

Phone #

(801) 538-3709

e-mail

rtaylor@utah.gov

Fax #

(801) 538-3882

10/27/2008



STATE OF UTAH COOPERATIVE CONTRACT AMENDMENT

AMENDMENT # **1**
CONTRACT # **MA 211**
Original Starting Date: **04/01/2012**
Expiration Date : **03/31/2015**

TO BE ATTACHED AND MADE PART OF the specified contract by and between the State of Utah Division of Purchasing and

Michelin North America, Inc
(Referred to as CONTRACTOR)

BOTH PARTIES AGREE TO AMEND THE CONTRACT AS FOLLOWS:

Amended Expiration Date: **N/A**
Effective Date of Amendment: **04/1/2013**

Description: The contract is amended to increase the discounts off the list price in all categories of tires except Michelin Medium Commercial Tires: Michelin and BF Goodrich Pass. & Light Truck from 40% to 45%; Uniroyal Pass & Light Truck from 30% to 35%; BFG Comm. Truck from 46% to 50%; Earthmovers/OTR/ Industrial from 35% to 37%; and Agricultural/Farm from 44% to 48%. The new pricing will be taken from the January 1, 2013 government & Utility Base Price List.

Please provide the following contact information.

	Name	Phone Number	Email Address
General Contact	Kaye Pittman	864-458-6030	Kaye.pittman@us.michelin.com
Sales Contact	Kaye Pittman	864-458-6030	Kaye.pittman@us.michelin.com
Quarterly Report Contact	Kaye Pittman	864-458-6030	Kaye.pittman@us.michelin.com

All other terms and conditions in the original contract remain the same.
IN WITNESS WHEREOF, the parties sign and cause this contract to be executed.

CONTRACTOR

STATE OF UTAH



March 8, 2013

Contractor's Signature

Date

Kent .Beers, Director
State of Utah Division of Purchasing

Date

Chris Novak

Contractor's Name (Print)

Director, Government Commercial & Military Sales

Title (Print)

Purchasing Agent

Reed Taylor

Phone #

(801) 538-3709

e-mail

rtaylor@utah.gov

Fax #

(801) 538-3882

10/27/2008

PARTICIPATING ADDENDUM

[Hereinafter "Addendum"]

WESTERN STATES CONTRACTING ALLIANCE

Tires, Tubes and Services

Utah Contract # MA210

between

BRIDGESTONE AMERICAS TIRE OPERATIONS, LLC

[hereinafter "Contractor"]

and

The Orange County Fire Authority (OCFA)

[hereinafter "Participating State" or "Participating Entity" (if not a state)]

Participating State Contract Number: xxx

1. **Scope:** This Addendum will add the above Participating State (or Participating Entity) to purchase from the WSCA Contract for Tires, Tubes and Related Services lead by the State of Utah for use by state agencies and other entities located in the Participating State authorized by that state's statutes to utilize state contracts.
2. **Changes:** The following terms and conditions will be added to the Participating Addendum for the Participating State:
 - See attached OCFA Standard Work Order Conditions (excluding Section 5-Warranty & Section 14-Indemnification which will be replaced by the following):
 - Bridgestone Americas Tire Operation's standard warranty will apply and supersede OCFA's Standard Work Order Conditions Section 5 – Warranty.
 - 14. Indemnification: SELLER agrees to indemnify and hold harmless OCFA, its officers, employees and agents from any claims, demands or liability for injury to any persons or property, including SELLER, its officers, employees or agents, OCFA, its officers, employees, agents, or other persons arising out of or resulting from SELLER's performance under this contract, unless such injury is caused by the sole negligence concurrent active negligence of OCFA, its officers, employees or agents. If SELLER'S negligence combines with OCFA's negligence to cause injury, the parties agree that liability will be apportioned as determined by a court of competent jurisdiction. Neither party shall request a jury appointment. All products shall be delivered, and services rendered, by SELLER's network of authorized dealers. SELLER's network consists of company-owned stores and independent dealers that shall have signed a dealer agreement indicating a desire to provide goods and services under the contract. The parties acknowledge and agree that independent dealers shall not constitute "subcontractors" or "agents" and that SELLER shall not indemnify for, or be liable or otherwise responsible for actions, inactions or omissions of independent authorized dealers or in any way warrant the services performed by independent authorized dealers. SELLER shall serve as the primary point of contact to assist in communication between independent dealers and the State on matters relating to performance of this contract.
3. **Primary Contact:** The primary Participating State contact individual for this participating addendum is as follows:

Name:	James Aguila
Participating Entity:	The Orange County Fire Authority
Address:	1 Fire Authority Road
City, State:	Irvine, CA 92602
Telephone:	(714) 573-6647
Fax:	(714) 368-8845
E-mail:	jamesaguila@ocfa.org

4. Authorized Dealers: The following dealers are authorized to perform services.

"All"

This Addendum and the associated Master Agreement together with its exhibits, set forth the entire agreement between the parties with respect to the subject matter of all previous communications, representations or agreements, whether oral or written, with respect to the subject matter hereof. Terms and conditions inconsistent with, contrary or in addition to the terms and conditions of this Addendum and the Master Agreement, together with its exhibits, shall not be added to or incorporated into this Addendum or the Master Agreement and its exhibits, by any subsequent purchase order or otherwise, and any such attempts to add or incorporate such terms and conditions are hereby rejected. The terms and conditions of this Addendum and the Master Agreement and its exhibits shall prevail and govern in the case of any such inconsistent or additional terms.

IN WITNESS HEREOF, the parties have executed this Addendum as of the date of execution by both parties below.

Government Entity:

Orange County Fire Authority

By: 

Name: James Aguila

Title: Assistant Purchasing Agent

Date: May 2, 2016

Contractor:

Bridgestone Americas Tire Operations, LLC

By: 

Name: Linda Alberstadt

Title: Mgr. P.R. Govt, LT Fleet

Date: 5-4-16

Conditions: The following OCFA standard work order conditions are always applicable, and the following work order conditions are also applicable when this order provides for performance of any work. Whenever used herein "OCFA" shall mean the Orange County Fire Authority, Orange County, California.

STANDARD CONDITIONS

1. Law: This contract is governed by the laws of the state of California. The provisions of the Uniform Commercial Code shall apply except as otherwise set forth in this contract.

2. Contract: This order, when accepted by SELLER either in writing or by the shipment of any article or other commencement of performance hereunder, constitutes the entire contract between SELLER and the OCFA: no exceptions, alternates, substitutes or revisions are valid or binding on the OCFA unless authorized by the OCFA in writing. If any conditions conflict with the provisions of the written agreement, the provisions of the written agreement shall govern.

3. Delivery: Time of delivery is the essence of this contract. The OCFA reserves the right to refuse any goods and to cancel all or any part of the goods not conforming to the applicable specifications, drawings, samples or descriptions. Acceptance of any part of the order shall not bind OCFA to accept future shipments, nor deprive it of the right to return goods already accepted, at SELLER'S expense. Overshipment and undershipment shall be only as agreed to by OCFA.

4. Risk of loss: Delivery shall not be deemed to be complete until goods have been actually received and accepted by OCFA. Payment shall be made after satisfactory acceptance of shipments by OCFA.

5. Warranty: SELLER expressly warrants that the goods covered by this order are free of liens, of merchantable quality and satisfactory and safe for consumer use. Acceptance of this order shall constitute an agreement upon SELLER'S part to indemnify and hold harmless from liability, loss, damage and expense, including reasonable counsel fees, uncured or sustained by OCFA by reason of the failure of the goods to conform to such warranties, faulty work performance, negligent or unlawful acts, and non-compliance with any applicable local, State or Federal codes, ordinances, orders, or statutes including the Occupational Safety and Health Act (OSHA) and the California Industrial Safety Act. Such remedies shall be in addition to any other remedies provided by law. Contractor represents and warrants that the equipment provided under this agreement is designed to be used prior to, during, and after the calendar year 2000. The equipment provided will correctly differentiate between years that end in the same two digits, and will accurately process date/time data (including, but not limited to, calculating, comparing, and sequencing) from, into, and between the 20th and 21st centuries.

WORK ORDER CONDITIONS

13. Performance: SELLER shall perform all work diligently, carefully, and in a good and worklike manner, shall furnish all labor, supervision, machinery, equipment, materials and supplies necessary therefor, shall obtain and maintain all building and other permits and licenses required by Public authorities in connection with performance of the work, and if permitted to subcontract, shall be fully responsible for all work performed by subcontractors. SELLER shall conduct all operations in SELLER'S own name and as independent contractor, and not in the name of, or as an agent of OCFA.

14. Indemnification: Seller agrees to indemnify and hold harmless OCFA, its officers, employees and agents from any claims, demands or liability for injury to any persons or property, including contractor, its officers, employees or agents, OCFA, its officers, employees agents or other persons arising out of or resulting from SELLER'S performance under this contract, unless such injury is caused by the sole negligence or concurrent active negligence of OCFA, its officers, employees or agents. If SELLER'S negligence combines with OCFA'S negligence to cause injury, the parties agree that liability will be apportioned as determined by a court of competent jurisdiction. Neither party shall request a jury apportionment.

15. Safety/Liability Language: In connection with the performance of this contract, OCFA shall have the authority to enter the worksite at any time for the purpose of identifying the existence of conditions, either actual or threatened, that may present a danger or hazard to any and all employees. Contractor agrees that OCFA, in its sole authority and discretion, may order the immediate abatement of any and all conditions that may present an actual or threatened danger or hazard to any and all employees at the worksite.

Contractor acknowledges the provisions of Section 6400 of the Labor Code, which requires that employers shall furnish employment and a place of employment that is safe and healthful for all employees working therein.

6. Infringement: SELLER shall indemnify and defend OCFA, at SELLER'S expense against all claims, demands, suits, liability and expense on account of alleged infringement of any patent, copyright or trademark, resulting from or arising in connection with the manufacture, sale, normal use or other normal disposition of any article or material furnished hereunder.

7. Assignment: Neither this order nor any claim against OCFA arising directly or indirectly out of or in connection with this order shall be assignable by SELLER or by operation of law, nor shall SELLER subcontract any obligations hereunder, without OCFA's prior written consent.

8. Default: If SELLER or any subcontractor breaches any provision hereof, or becomes insolvent, enters bankruptcy, receivership or other like proceeding (voluntarily or involuntarily) or makes assignment for the benefit of creditors, OCFA shall have the right, in addition to any other rights it may have hereunder or by law, to terminate this order by giving SELLER written notice; whereupon (a) OCFA shall be relieved of all further obligation hereunder, except to pay the reasonable value of SELLER'S prior performance, but not more than the contracted price, and (b) OCFA may procure the articles or services from other sources and may deduct from unpaid balance due the vendor or may collect against the bond or surety, or may invoice the vendor for excess cost so paid. The price paid by OCFA shall be considered prevailing market price at the time such purchase is made.

9. Labor Disputes: Whenever any actual or potential labor dispute delays or threatens to delay the timely performance of this order, SELLER shall immediately give written notice thereof to OCFA.

10. Non-Discrimination: In the performance of the terms of any contract resulting from this order, SELLER agrees that he will not engage nor permit such subcontractors where applicable as he may employ, to engage in discrimination in the employment of persons because of race, color, sex, age, disability, national origin or ancestry, or religion of such person.

11. Termination: OCFA reserves the right to terminate this contract without penalty with cause immediately or without cause after 30 days written notice unless otherwise specified.

12. Taxes: Unless otherwise provided herein or by law, price quoted does not include California State sales or use tax.

In the event OCFA identifies the existence of any condition that presents an actual or threatened danger or hazard to any or all employees at the worksite OCFA is hereby authorized to order the immediate abatement of that actual or threatened condition pursuant to this section. OCFA may also, at its sole authority and discretion, issue an immediate stop work order to Contractor to ensure that no employee working at the worksite is exposed to a dangerous or hazardous condition. Any stop work order issued by OCFA to Contractor in accordance with the provisions of this Section shall not give rise to any claim or cause of action for delay damages by Contractor or Contractor's agents or subcontractors against OCFA.

16. Insurance: SELLER shall maintain in full force during the term of this contract the following insurance and limits not less than those specified (a) Worker's Compensation and Employers' Liability complying with any statutory requirements; (b) Comprehensive General Liability Insurance including a broad form Property Damage endorsement with a \$1,000,000 combined single limit each occurrence; (c) Comprehensive Auto Liability (including the owned, nonowned and hired automobile hazards) with a \$1,000,000 combined single limit each occurrence; (d) Contractual Liability with \$1,000,000 combined single limit each occurrence. If OCFA so desires, these limits may be increased or decreased.

17. Bill and Liens: SELLER shall pay promptly all indebtedness for labor, materials and equipment used in performance of the work. SELLER shall not permit any lien or charge to attach to the work or the premises; but if any does so attach, SELLER shall promptly procure its release and indemnify OCFA against all damages and expense incident thereto.

18. Bonds: If OCFA so desires, SELLER shall provide payment and performance bonds as required.

19. Changes: SELLER shall make no changes in the work or perform any additional work without OCFA'S specific written approval.

DEALER AGREEMENT

FOR TIRE RELATED SERVICES

The Orange County Fire Authority (OCFA) has entered into a contract with **Bridgestone Americas Tire Operations, LLC**, to provide tires and services to **OCFA** resulting from State of Utah Bid RT12002 in behalf of the Western States Contracting Alliance and other participating states. Specific independent Dealers will be authorized by **Bridgestone Americas Tire Operations, LLC** to provide tires and tire related services related to purchasing the tires (mounting tires, rotating tires, etc.). ("Dealer(s)" herein includes **Bridgestone Americas Tire Operations, LLC** authorized dealers)

This Dealer Agreement will identify the responsibilities of the Dealer for the services provided by the Dealer. Dealers will need to sign the Dealer Agreement before the Dealer will be authorized to provide services to **OCFA**. This Agreement will be effective on the last signature date below.

The Dealer agrees to the following:

1. PROFESSIONAL SERVICES.

Dealer warrants that all services shall be performed in a professional and workmanlike manner consistent with standard industry practice; and in accordance with any approved Statement of Work, if applicable. Dealer agrees to abide by all applicable laws, regulations, and industry standards when performing services for the State.

2. INSURANCE REQUIREMENTS.

The Dealer will agree to carry all insurance which may be required by federal and state laws, state and city ordinances, charters, regulations, and codes. The Dealer certifies that it has now and will continue to have in full force and effect the following certificates of insurance. Copies of the insurance certificates shall be provided to **OCFA** within ten (10) days upon request. All Insurance shall be issued by an insurance company authorized by the Insurance Department to transact business in the **State of CA**. No policy shall expire, be canceled or materially changed to effect coverage available to **OCFA** without thirty (30) days written notice to the State. The Dealer must submit a waiver of subrogation and documentation indicating the following insurance coverage:

- a. **General Liability:** a certificate of insurance evidencing insurance coverage for general liability including operations, products, and completed operations: \$1,000,000 each occurrence for bodily injury, personal injury and property damage/\$2,000,000 aggregate;
- b. **Automobile:** a certificate of insurance evidencing insurance coverage for automobile liability including owned, hired, and non-owned vehicles with a limit of \$1,000,000 each accident; \$1,000,000 uninsured motorist;
- c. **Worker compensation and employer's liability:** a certificate of insurance evidencing statutory coverage for worker's compensation coverage, injury and a limit of liability of \$1,000,000 each accident/\$1,000,000 each employee for disease;
- d. **Garage liability including Garage Keepers Legal Liability:** a certificate evidencing coverage with a minimum limit of \$250,000 each incident
- e. **Endorsements** to the policies providing the above insurance shall be obtained by the dealer, adding the following provision:
 - i. **Additional Insured's:** "OCFA, its officers, officials, employees, and volunteers are to be covered as additional insured with respect to the subject project and agreement."

3. HOLD HARMLESS.

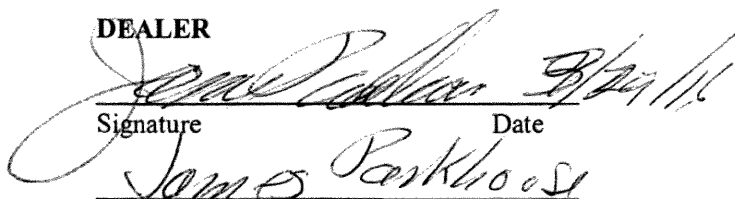
The Dealer shall release, protect, indemnify and hold the OCFA and its officers, agencies, employees, harmless from and against any damage, cost or liability, including reasonable attorney's fees for any or all injuries to persons, property or claims arising from acts or omissions of the Dealer, its employees or subcontractors or volunteers.

4. CONTRACT WITH BRIDGESTONE AMERICAS TIRE OPERATIONS, LLC

The Dealer agrees to abide by the terms and conditions of the Contract between **Bridgestone Americas Tire Operations, LLC** and the **Orange County Fire Authority** resulting from State of Utah Bid RT12002.

IN WITNESS WHEREOF, the authorized representatives of the parties sign and agree to the terms of this Agreement.

DEALER



Signature

Date

Name and Title of Signer
(Type or Print)

DEALER INFORMATION

Legal Status: Corporation ☒ Partnership ☐ Sole Proprietor ☐

Dealer Name: Parkhouse Tire Inc

Address: 711 S Grand Ave

City, State, Zip: Santa Ana CA 92705

Phone: 714 542 4161 Fax: 714 542 4676

Contact Name: John Gilliland

Email Address: kgilliland@parkhousetire.com

Federal Tax ID #: 95



STATE OF UTAH COOPERATIVE CONTRACT AMENDMENT

AMENDMENT # 4

CONTRACT # MA210

Original Starting Date:
04/01/2012

Expiration Date: 03/31/2019

TO BE ATTACHED AND MADE PART OF the specified contract by and between the State of Utah Division of Purchasing and

**BRIDGESTONE AMERICAS TIRE
OPERATIONS, LLC**
(Referred to as CONTRACTOR)

BOTH PARTIES AGREE TO AMEND THE CONTRACT AS FOLLOWS:

Amended Expiration Date: **SAME**

Effective Date of Amendment:

Potential Renewal Options Remaining:

The contract is amended to: **Price decrease of 4.39% from April 1, 2016 through March 31, 2017.**

Please provide the following contact information.

	Name	Phone Number	Email Address
General Contact	Vicky Dunbar	615-937-3693	dunbarvicky@bfusa.com
Sales Contact	Kyle Hartz	773-420-6209	hartzkyle@bfusa.com
Quarterly Report Contact	Candace Stevenson	615-937-3288	stevensoncan@bfusa.com

All other terms and conditions of the contract, including those previously modified, shall remain in full force and effect.
IN WITNESS WHEREOF, the parties sign and cause this contract to be executed.

CONTRACTOR

STATE OF UTAH

Linda Alberstadt 3-30-16
Contractor's Signature Date

[Signature] 3/30/2014
Kent Beers Director Date
State of Utah Division of Purchasing

Linda Alberstadt

Contractor's Name (Print)

AMENDMENT REVIEWED BY:

Chad Hinds

Manager, Purchase Resale, Light Truck
Fleet, Military, Government
Title (Print)

Purchasing Agent	Phone #	e-mail	Fax #	Contract #
Chad Hinds	(801) 538-1287	chinds@utah.gov	(801) 538-3882	MA210

10/3/2014



STATE COOPERATIVE CONTRACT
State of Utah, Division of Purchasing & General Services

AMENDMENT # 3 to CONTRACT # MA210

TO BE ATTACHED TO AND MADE A PART OF the above numbered contract between the State of Utah, Division of Purchasing & General Services, referred to as STATE, and, Bridgestone Americas Tire Operations, LLC, referred to as Contractor.

THE PARTIES AGREE TO AMEND THE CONTRACT AS FOLLOWS:

4/1/2012 (original starting date of contract)

3/31/2015 (current ending date)

3/31/2019 **new ending date**

Other changes to the contract include: New Price Schedules for 2015-2016.

Effective Date of Amendment: 4/1/2015

The State of Utah Terms and Conditions still apply to the Contract. All other conditions and terms in the original contract and Amendments remain the same.

IN WITNESS WHEREOF, the parties sign and cause the amendment to be executed.

CONTRACTOR

Linda Alberstadt

Contractor's signature

Linda Alberstadt

Type or Print Name and Title

3-3-15

Date

STATE

[Signature]

Director, Division of Purchasing & Gen. Svs.

3.4.2015

Date

STATE OF UTAH – STATE COOPERATIVE CONTRACT
CONTRACT NUMBER MA210

1. **CONTRACTING PARTIES:** This State Cooperative Contract is between the **Division of Purchasing and General Services (State)**, 3150 State Office Building, PO Box 141061, Salt Lake City, UT 84114-1061, an agency of the State of Utah, and the following **CONTRACTOR**:

Bridgestone Americas Tire Operations, LLC
Name

525 Marriott Dr
Address

Nashville TN 37214-0991
City State Zip

Federal Tax ID# 88-335067 Vendor # _____ Commodity Codes: 86305
Vendor Contact Person: Vicky Dunbar Vendor Phone #: 615 937-3693
Vendor Fax #: 615 493-0000 Vendor email address: dunbarvicky@bfusa.com

LEGAL STATUS OF CONTRACTOR

- ☐ Sole Proprietor
☐ Non-Profit Corporation
☒ For-Profit Corporation
☐ Partnership
☐ Government Agency

2. **GENERAL PURPOSE OF CONTRACT:** The general purpose of this Contract is to provide:

Tires, tubes, and Service

3. **CONTRACT PERIOD:** Effective date 4/1/2012 Termination date 3/31/2015 unless terminated early or extended in accordance with the terms and conditions of this contract.
Renewal option: two (2) renewal options for two (2) years each

4. **PRICING AS PER THE ATTACHED PRICE LIST** –Bridgestone/Firestone 2012 Government Catalog Pricing
PAYMENT TERMS: Net 30
DAYS REQUIRED FOR DELIVERY: 30
MINIMUM ORDER: None
FREIGHT TERMS: FOB Destination

5. **ATTACHMENT A:** Standard Terms and Conditions, Western States Contracting Alliance
ATTACHMENT B: Summary of General Contract Requirements and Information in RFP
ATTACHMENT C: Pricing Discounts and Service Pricing
ATTACHMENT D: Superseding Provisions to State cooperative

6. **DOCUMENTS INCORPORATED INTO THIS CONTRACT BY REFERENCE BUT NOT ATTACHED:**
a. All other governmental laws, regulations, or actions applicable to the goods and/or services authorized by this contract.
b. Utah State Procurement Code, Procurement Rules, CONTRACTOR'S response to Bid # RT1200, dated 11/30/2011 and Best and Final Offer dated 1/27/2012.

IN WITNESS WHEREOF, the parties sign and cause this contract to be executed.

CONTRACTOR

Linda Alberstadt
Contractor's signature

Linda Alberstadt
Type or Print Name and Title
Mgr, DR, Military + Govt
3-9-12
Date

STATE OF UTAH

Kent D. Beers
for Kent D. Beers
Director, Division of Purchasing

3-9-2012
Date

Attachment A
Standard Contract Terms and Conditions
Western States Contracting Alliance

PARTICIPANTS: The Western States Contracting Alliance (herein WSCA) is a cooperative group contracting consortium for state government departments, institutions, agencies and political subdivisions (e.g., colleges, school districts, counties, cities, etc.) for the states of Alaska, Arizona, California, Colorado, Hawaii, Idaho, Minnesota, Montana, Nevada, New Mexico, Oregon, South Dakota, Utah, Washington and Wyoming. Other states and their political subdivisions are also eligible to participate in WSCA contracts. Obligations under this contract are limited to those Participating States who have signed a Participating Addendum where contemplated by the solicitation. Financial obligations of Participating States are limited to the orders placed by the departments or other state agencies and institutions having available funds. Participating States incur no financial obligations on behalf of political subdivisions. Unless otherwise specified in the solicitation, the resulting award(s) will be permissive.

QUALITY ESTIMATES: WSCA does not guarantee to purchase any amount under the contract to be awarded. Estimated quantities are for the purposes of submitting proposals only and are not to be construed as a guarantee to purchase any amount.

SPECIFICATIONS: Any deviation from specifications must be clearly indicated by offeror, otherwise, it will be considered that the proposal is in strict compliance. When BRAND NAMES or manufacturers' numbers are stated in the specifications they are intended to establish a standard only and are not restrictive unless the RFP states "No substitute". Proposals will be considered on other makes, models or brands having comparable quality, style, workmanship and performance characteristics. Alternate proposals offering lower quality or inferior performance will not be considered.

ACCEPTANCE OR REJECTION OF PROPOSALS: WSCA reserves the right to accept or reject any or all proposals or parts of proposals, and to waive informalities therein.

SAMPLES: Generally, when required, samples will be specifically requested in the Request for Proposals. Samples, when required, are to be furnished free of charge. Except for those samples destroyed or mutilated in testing, samples will be returned at an offeror's request, transportation collect.

CASH DISCOUNT TERMS: Offeror may quote a cash discount based upon early payment; however, discounts offered for less than 30 days will not be considered in making the award. The date from which discount time is calculated shall be the date a correct invoice is received or receipt of shipment, whichever is later; except that if testing is performed, the date shall be the date of acceptance of the merchandise.

TAXES: Proposal prices shall be exclusive of state sales and federal excise taxes. Where the state government entities are not exempt from sales taxes on sales within their state, the contractor shall add the sales taxes on the billing invoice as a separate entry.

MODIFICATION OR WITHDRAWAL OF PROPOSALS: Proposals may be modified or withdrawn prior to the time set for the opening of proposals. After the time set for the opening of proposals, no proposal may be modified or withdrawn, unless done in response to a request for a "Best and Final Offer" from WSCA.

PATENTS, COPYRIGHTS, ETC.: The Contractor shall release, indemnify and hold the Buyer, its officers, agents and employees harmless from liability of any kind or nature, including the Contractor's use of any copyrighted or uncopyrighted composition, secret process, patented or unpatented invention, article or appliance furnished or used in the performance of this contract.

AWARD: WSCA may award multiple contracts as the result of this solicitation. Awards shall be made to the responsible offeror(s) whose proposal is determined to be the most advantageous to WSCA, taking into consideration price and the other evaluation factors set forth in the RFP.

NON-COLLUSION: By signing the proposal the offeror certifies that the proposal submitted, has been arrived at independently and has been submitted without collusion with, and without any agreement, understanding or planned common course of action with, any other vendor of materials, supplies, equipment or services described in the Request for Proposal, designed to limit independent bidding or competition.

ASSIGNMENT/SUBCONTRACT: Contractor shall not assign, sell, transfer, subcontract or sublet rights, or delegate responsibilities under this contract, in whole or in part, without the prior written approval of the WSCA Contract Administrator.

NONDISCRIMINATION: The offeror agrees to abide by the provisions of Title VI and Title VII of the Civil Rights Act of 1964 (42 USC 2000e), which prohibit discrimination against any employee or applicant for employment, or any applicant or recipient of services, on the basis of race, religion, color, or national origin; and further agrees to abide by Executive Order No. 11246, as amended, which prohibits discrimination on basis of sex; 45 CFR 90 which prohibits discrimination on the basis of age, and Section 504 of the Rehabilitation Act of 1973, or the Americans with Disabilities Act of 1990 which prohibits discrimination on the basis of disabilities. The offeror further agrees to furnish information and reports to requesting State(s), upon request, for the purpose of determining compliance with these statutes. Offeror agrees to comply with each individual state's certification requirements, if any, as stated in the additional terms and conditions listed in the solicitation. This contract may be canceled if the offeror fails to comply with the provisions of these laws and regulations. However, the Dealer Agreement, signed by dealers with each participating state, relating to this master agreement will satisfy the "nondiscrimination" term and condition".

SEVERABILITY: If any provision of this contract is declared by a court to be illegal or in conflict with any law, the validity of the remaining terms and provisions shall not be affected; and the rights and obligations of the parties shall be construed and enforced as if the contract did not contain the particular provision held to be invalid.

INSPECTIONS: Goods furnished under this contract shall be subject to inspection and test by the Buyer at times and places determined by the Buyer. If the Buyer finds goods furnished to be incomplete or in compliance with proposal specifications, the Buyer may reject the goods and require Contractor to either correct them without charge or deliver them at a reduced price, which is equitable under the circumstances. If Contractor is unable or refuses to correct such goods within a time deemed reasonable by the Buyer, the Buyer may cancel the order in whole or in part. Nothing in this paragraph shall adversely affect the Buyer's rights including the rights and remedies associated with revocation of acceptance under the Uniform Commercial Code.

PAYMENT: Payment for completion of a contract is normally made within 30 days following the date the entire order is delivered or the date a correct invoice is received, whichever is later. After 45 days the Contractor may assess overdue account charges up to a maximum rate of one percent per month on the outstanding balance. Payments will be remitted by mail. Payments may be made via a State or political subdivision "Purchasing Card".

FORCE MAJEURE: Neither party to this contract shall be held responsible for delay or default caused by fire, riot, acts of God and/or war which is beyond that party's reasonable control. WSCA may terminate this contract after determining such delay or default will reasonably prevent successful performance of the contract.

HAZARDOUS CHEMICAL INFORMATION: The contractor will provide one set of the appropriate material safety data sheet(s) and container label(s) upon delivery of a hazardous material to the user agency. All safety data sheets and labels will be in accordance with each participating state's requirements.

FIRM PRICE: Unless otherwise stated in the additional terms and conditions listed in the solicitation for the purpose of award, offers made in accordance with this solicitation must be good and firm for a period of ninety (90) days from the date of proposal opening. Prices must remain firm for the full term of the contract.

EXTENSION OF PRICES: In the case of error in the extension of prices in the proposal, the unit prices will govern.

PROPOSAL PREPARATION COSTS: WSCA is not liable for any costs incurred by the offeror in proposal preparation.

CONFLICT OF INTEREST: The contractor certifies that it has not offered or given any gift or compensation prohibited by the state laws of any WSCA participants to any officer or employee of WSCA or participating states to secure favorable treatment with respect to being awarded this contract.

INDEPENDENT CONTRACTOR: The contractor shall be an independent contractor, and as such shall have no authorization, express or implied to bind WSCA or the respective states to any agreements, settlements, liability or understanding whatsoever, and agrees not to perform any acts as agent for WSCA or the states, except as expressly set forth herein.

CANCELLATION: Unless otherwise stated in the additional terms and conditions listed in the RFP, any contract entered into as a result of this bid may be canceled by either party upon 60 days notice, in writing, prior to the effective date of the cancellation. Further, any Participating State may cancel its participation upon 30 days written notice, unless otherwise limited or stated in the additional terms and conditions listed in this solicitation. Cancellation may be in whole or in part. Any cancellation under this provision shall not effect the rights and obligations attending orders outstanding at the time of cancellation, including any right of and Purchasing Entity to indemnification by the Contractor, rights of payment for goods/services delivered and accepted, and rights attending any warranty or default in performance in association with any order. Cancellation of the contract due to Contractor default may be immediate.

DEFAULT AND REMEDIES: Any of the following events shall constitute cause for WSCA to declare Contractor in default of the contract: 1. Nonperformance of contractual requirements; 2. A material breach of any term or condition of this contract WSCA shall issue a written notice of default providing a period in which Contractor shall have an opportunity to cure. Time allowed for cure shall not diminish or eliminate Contractor's liability for liquidated or other damages. If the default remains, after Contractor has been provided the opportunity to cure, WSCA may do one or more of the following: 1. Exercise any remedy provided by law; 2. Terminate this contract and any related contracts or portions thereof; 3. Impose liquidated damages; 4. Suspend contractor from receiving future proposal solicitations.

LAWS AND REGULATIONS: Any and all supplies, services and equipment offered and furnished shall comply fully with all applicable Federal and State laws and regulations.

CONFLICT OF TERMS: In the event of any conflict between these Standard Terms and Conditions and any additional terms and conditions listed in the solicitation; the additional terms and conditions listed in the solicitation shall govern.

REPORTS: The contractor shall submit quarterly reports to the WSCA Contract Administrator showing the quantities and dollar volume of purchases by each participating entity.

HOLD HARMLESS: The contractor shall release, protect, indemnify and hold WSCA and the respective states and their officers, agencies, employees, harmless from and against any damage, cost or liability, including reasonable attorney's fees for any or all injuries to persons, property or claims for money damages arising from acts or omissions of the contractor, his employees or subcontractors or volunteers.

ORDER NUMBERS: Contract order and purchase order numbers shall be clearly shown on all acknowledgments, shipping labels, packing slips, invoices, and on all correspondence.

GOVERNING LAW: This procurement and the resulting agreement shall be governed by and construed in accordance with the laws of the state sponsoring and administering the procurement. The construction and effect of any Participating Addendum or order against the contract(s) shall be governed by and construed in accordance with the laws of the Participating Entity's State. Venue for any claim, dispute or action concerning an order placed against the contract(s) or the effect of an Participating Addendum shall be in the Purchasing Entity's State.

DELIVERY: The prices offered shall be the delivered price to any Participating State agency or political subdivision. All deliveries shall be F.O.B. destination with all transportation and handling charges paid by the contractor. Responsibility and liability for loss or damage shall remain the Contractor until final inspection and acceptance when responsibility shall pass to the Buyer except as to latent defects, fraud and Contractor's warranty obligations. The minimum shipment amount will be found in the additional terms and conditions listed in the solicitation. Any order for less than the specified amount is to be shipped with the freight prepaid and added as a separate item on the invoice. Any portion of an order to be shipped without transportation charges that is back ordered shall be shipped without charge.

WARRANTY: As used herein "Buyer" refers to any Participating State agency or political subdivision. The contractor acknowledges that the Uniform Commercial Code applies to this contract. In general, the contractor warrants that: (a) the product will do what the salesperson said it would do, (b) the product will live up to all specific claims that the manufacturer makes in their advertisements, (c) the product will be suitable for the ordinary purposes for which such product is used, (d) the product will be suitable for any *special purposes* that the Buyer has relied on the contractor's skill or judgment to consider.

AMENDMENTS: The terms of this contract shall not be waived, altered, modified, supplemented or amended in any manner whatsoever without prior written approval of the WSCA Contract Administrator.

POLITICAL SUBDIVISION PARTICIPATION: Participation under this contract by political subdivisions (i.e., colleges, school districts, counties, cities, etc.,) of the Participating States shall be voluntarily determined by the political subdivision. The contractor agrees to supply the political subdivisions based upon the same terms, conditions and prices.

DEBARMENT: The contractor certifies that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction (contract) by any governmental department or agency. If the contractor cannot certify this statement, attach a written explanation for review by WSCA.

RECORDS ADMINISTRATION: The contractor will maintain, or supervise the maintenance of all records necessary to properly account for the payments made to the contractor for costs authorized by this contract. These records will be retained by the contractor for at least four years after the contract terminates, or until all audits initiated within the four years have been completed, whichever is later.

AUDIT OF RECORDS: The contractor agrees to allow WSCA, State and Federal auditors, and state agency staff access to all the records to this contract, for audit and inspection, and monitoring of services. Such access will be during normal business hours, or by appointment.

ENTITY PARTICIPATION: Use of specific WSCA cooperative contracts by state agencies, political subdivisions and other entities (including cooperatives) authorized by individual state's statutes to use state contracts are subject to the approval of the respective State Chief Procurement Official. Issues of interpretation and eligibility for participation are solely within the authority of the respective State Chief Procurement Official.

Attachment B

Summary of General Contract Requirements and Information in RFP

PURPOSE OF PRICE AGREEMENT

To provide competitive pricing for tire products and services through manufacturers' retail distribution networks to all WSCA participating states. The contracts may be used by other non-WSCA states with the authorization from the WSCA Directors and the approval of the individual state procurement directors.

LENGTH OF PRICE AGREEMENT

The Master Price Agreement will be a three (3) year Master Price Agreement. The Master Price Agreement may be extended beyond the initial term up to two (2) optional two year renewals for a maximum of seven years upon mutual agreement of the parties.

PRICE GUARANTEE PERIOD

Pricing shall be considered firm for the first 12 months of the Master Price Agreement and no change in the Manufacturers Price List (referred to as the MPL) will be accepted during that time.

Price adjustments for tires, tubes and tire services may be allowed only during the contract anniversary date or renewal period providing the adjustment is made owing to legitimate increases in the contractor's operating expenses, e.g. raw materials, fuel, taxes, labor, etc. The percentage of discount from the published MPL shall remain the same for all renewal terms of this contract.

A written request for an increase with supporting documentation e.g. updated MPL must be received by the Contract Administrator, State of Utah Division of Purchasing at least thirty (30) days prior to the effective date of the increase. Increases shall not be effective unless they are approved by the Director, State of Utah Division of Purchasing.

Price decreases or higher discounts available from the manufacturer shall be immediately passed on to the WSCA Participating States. When the manufacturer offers price reductions or higher discounts, the Contractor must notify Contract Administrator, State of Utah Division of Purchasing and must pass those discounts on to the WSCA Participating States at once.

MASTER PRICE LIST DOCUMENTS and ORDER OF PRECEDENCE

Order of Precedence

1. A Participating Entity's "Participating Addendum" (PA) Ref: 5.9 below including state specific Terms and Conditions where applicable.
2. Superseding Provisions to State Cooperative (Attachment D)
3. WSCA Standard Terms and Conditions.
4. The Solicitation.
5. Offeror's response to the Solicitation.

These documents shall be read to be consistent and complementary. Any conflict among these documents shall be resolved by giving priority to the documents in the order listed above. Contractor terms and conditions that apply to the Master Agreement are only those that are expressly accepted by the Lead State and must be in writing and attached to the Master Agreement as an Exhibit or Attachment. No other terms and conditions shall apply, including terms and conditions listed in the Contractor's response to the Solicitation, or terms listed or referenced on the Contractor's website, in the Contractor quotation/sales order or in similar documents subsequently provided by the Contractor.

ISSUING OFFICE AND WSCA CONTRACT ADMINISTRATOR

The State of Utah, Division of Purchasing has been designated by WSCA as the Lead State conducted this procurement and will manage the Price Agreement. The reference number for this Solicitation is RT12002. The WSCA Contract Administrator designated by the State of Utah, Division of Purchasing is:

Reed Taylor, Purchasing Manger
State of Utah, Division of Purchasing
3150 State Office Building, Capitol Hill
Salt Lake City, UT 84114-1061

Email: rtaylor@utah.gov
Voice: 801-538-3709
Fax: 801-538-3882

WSCA ADMINISTRATION FEE

A fee of 1/2 of 1% of the total purchases will be provided to the WSCA Contract Administrator on a quarterly basis. The check must be made payable to WSCA and sent to: Reed Taylor, Contract Administrator. A statement, submitted electronically, will be a summary report of quarterly purchases by participating WSCA states. The Administrative Fee and submitted reports are to coincide with the quarters and date ranges as outlined below:

- Quarter 1: January 1st through March 31st - due by April 30th
- Quarter 2: April 1st through June 30th - due by July 30th
- Quarter 3: July 1st through September 30th - due by October 30th
- Quarter 4: October 1st through December 31st - due by January 30th

After contract award, the Contractor will be provided, by e-mail an Excel spreadsheet template that includes instructions, sample date and all information that must be provided.

PARTICIPATING STATE ADMINISTRATIVE FEE

Each participating State may establish and include by participating addendum, an additional Administrative Fee based on that state's own purchases, which will be disbursed directly to that participating state. Where applicable, pricing may be adjusted accordingly.

OTHER STATES REPORTING REQUIREMENTS

Each participating State may establish and include, by participating addendum, a reporting requirement for that state's own purchases, which will be provided directly to that participating State.

CONTRACT PARTICIPANTS

States listed on page 12 of the RFP indicated their intent to participate in the master price agreement(s). This Intent to Participate is not binding. Other States may participate in the Master Price Agreement(s) at any time during which the Master Price Agreement(s) is in place.

A Participating Addendum (PA) shall be executed for each contractor by the individual Participating State or Participating Entity desiring to use the Master Price Agreement. The Participating State or Participating Entity and contractor shall negotiate and agree upon any additional terms and conditions prior to the execution of a PA. States are not required to sign a PA with all awarded contractors.

ULTIMATE VENDOR/PURCHASING FORM

Some vendors may request that a form (Ultimate Vendor/Purchaser or similar title form) be signed by agencies attesting to the fact that the entity for which the tires are being purchased is a government entity and not subject to the federal excise tax. This type of documentation is required by the Federal Government in order for the tire dealer to receive reimbursement for the Federal Excise Tax paid when the tires are purchased from the manufacturer. If necessary, the use of such a form may be addressed in a state's participating addendum.

MANUFACTURER DEALER AGREEMENT FORM

In order for a dealer to be authorized to sell tires, tubes, and service under the master price agreement, each dealer must sign a Dealer Agreement Form and send it to the manufacturer. The manufacturer is responsible to insure the agreement is signed by the dealer prior to the dealer selling tires under the master price agreement. Copies of the signed dealer agreements are to be sent to the state where the dealer is located.

PRICING

Prices listed must take into consideration all inherent costs of providing the requested goods and services. The contractor agrees to pay any and all fees, including, but not limited to: fuel surcharges, delivery and transportation costs, duties, custom fees, permits, brokerage fees, licenses and registrations. The WSCA Participating States will not pay any additional charges beyond the price(s) listed in the response, unless otherwise provided for by law or expressly allowed by the terms of the solicitation.

PRODUCT GUARANTEE AND ADJUSTMENT

Tires furnished shall be guaranteed to be free from defects in workmanship and material for original tread life or 48 months whichever comes first. Any tire which fails this guarantee shall either be satisfactorily repaired by the Awarded Contractor or replaced with a new tire charging only for the mileage used based on the tread depth, or as agreed upon by the Using Agency. Allowances and replacement charges shall be based upon the Contract tire price. The Awarded Contractor shall defray all transportation costs on both the defective tire(s) and replacement tire(s). The Awarded Contractor shall provide a one (1) year warranty on all tubes and parts beginning on the date of installation, to repair and/or replace as necessary, as determined by the Using Agency, **AT NO COST TO THE USING AGENCY**. If such items are not normally warranted for one year, maintenance to supply the equivalent of a one (1) year warranty must be included in the cost. Shipping cost for returned tubes and parts warranty service **SHALL BE PAID BY THE AWARDED CONTRACTOR**.

INSURANCE REQUIREMENTS

Contractor and Approved Distributor will agree to carry all insurance which may be required by federal and state laws, state and city ordinances, charters, regulations, and codes. Concurrent with the execution of the contract for services, the Awarded Contractor and Approved Distributor will furnish a participating state the following certificates of insurance within ten (10) days upon request. Certificates shall be issued by an insurance company meeting the requirements to conduct business in the participating state. The Awarded Contractor and Approved Distributor shall name the participating State as additional insured on all insurance policies. No policy shall expire, be canceled or materially changed to effect coverage available to the State without thirty (30) days written notice to the State.

The following certificates are to be furnished with the RFP upon request.

Liability insurance: A certificate of insurance evidencing insurance coverage for general liability including contractual liability, written on a comprehensive form with coverage for personal injury and a limit of liability of at least \$1,000,000 for bodily injury, property damage and personal injury.

Worker's compensation and employer's liability: A certificate of insurance evidencing statutory coverage for worker's compensation coverage, injury and a limit of liability of \$1,000,000 for employer's liability, or a letter of certification from the industrial commission that the vendor is an authorized self insurer.

WSCA Tires, Tubes and Service Solicitation

ATTACHMENT C

Pricing Discounts & Service Pricing

Contract # MA210 Ref: Utah Bid RT12002

Bidder Name Bridgestone Americas Tire Operations, LLC

Tires and Tubes Subcategory	Discount on Products			
	Percent Discount	MPL Name	MPL Date	MPL REF. Number
1. Pursuit and Performance Tires	20%	1/1/2012 Confidential Government Catalog	1/1/12	
2. Automobile/Passenger Vehicles	20%	1/1/2012 Confidential Government Catalog		
3. Light Duty Trucks:	20%			
3a. Radial	20%	1/1/2012 Confidential Government Catalog	1/1/12	
3b. Bias	20%			
4. Medium Commercial/Heavy Duty Trucks/Buses	BS 25% FS 30%	1/1/2012 Confidential Government Catalog	1/1/12	
5. Off Road				
5a. Off Road Radial	20%	1/1/2012 Confidential Government Catalog	1/1/12	
5b. Off Road Bias	20%	1/1/2012 Confidential Government Catalog	1/1/12	
6. Agriculture/Farm	15%	1/1/2012 Confidential Government Catalog	1/1/12	
7. Industrial Tires	15%	1/1/2012 Confidential Government Catalog	1/1/12	
8. Specialty Tires	N/A	No Bid	No Bid	

B. Enter your fixed pricing for each of the services listed below. If any service listed is not provided, then enter NA.

WSCA Pricing for Services					
	Product	Product Sub-	Product Sub-	Product Sub-	Product sub-

	Sub- Category 1,2 & 3	Category #4: Medium Commercial Single Dual		Category # 5 Off Road	Category #6 Agriculture/Farm	Sub- Category #7 Industrial	Category #8 Specialty
1. *Tire Installation w/purchase in store Includes dismount of used tires and tubes (per tire)	3.00	LCP	LCP	LCP	LCP	LCP	No Bid
2. *Change tire, dismount and mount	7.00	LCP	LCP	LCP	LCP	LCP	No Bid
3. *Flat Repair, remove, repair and mount	13.00	LCP	LCP	LCP	LCP	LCP	No Bid
4. *Flat repair, off vehicle	10.00	LCP	LCP	LCP	LCP	LCP	No Bid
5. *Rotate mounted tires (per tire)	3.50	LCP	LCP	LCP	LCP	LCP	No Bid
6. *New valve stem rubber or metal (per tire)	3.00	LCP	LCP	LCP	LCP	LCP	No Bid
7. *Wheel balance- computer spin balance (Per Tire)	9.50	LCP	LCP	LCP	LCP	LCP	No Bid
8. *Wheel balance/Valve stem combo (per tire)	12.50	LCP	LCP	LCP	LCP	LCP	No Bid
9. Alignment services		LCP	LCP	LCP	LCP	LCP	No Bid
9a. Standard two wheel alignment	70.00	LCP	LCP	LCP	LCP	LCP	No Bid
9b. Four wheel alignment	70.00	LCP	LCP	LCP	LCP	LCP	No Bid
9c. Bushing/cam alignment	LCP	LCP	LCP	LCP	LCP	LCP	No Bid
9d. Parts discount % from list Prices		LCP	LCP	LCP	LCP	LCP	No Bid
10. Emergency tire repair-road side assistance (per hour)	LCP	LCP	LCP	LCP	LCP	LCP	No Bid
11. Studding (per tire)	15.00	LCP	LCP	LCP	LCP	LCP	No Bid
12. Siping (per tire)	LCP	LCP	LCP	LCP	LCP	LCP	No Bid
13. Used tire recycle/dispos al fee (per tire)	3.00	LCP	LCP	LCP	LCP	LCP	No Bid
14. Bulk tire disposal (min.	LCP	LCP	LCP	LCP	LCP	LCP	No Bid

of six tons capacity)							
15. *Tire pressure monitoring kit (per Tire)	8.00	LCP	LCP	LCP	LCP	LCP	No Bid

ATTACHMENT D (Revised)

SUPERSEDING PROVISIONS TO STATE COOPERATIVE

WSCA RFP #RT12002 Ref: Utah Contract MA210

The following provisions are hereby made a part of WSCA RFP #RT12002 and the resulting Contract ("the Contract") and supplement all other provisions of the Contract and supersede any provision in conflict in whole or in part with the provisions set forth below:

1. ORDER OF PRECEDENCE.

Order of precedence would change to (1) Participating Addendum (PA), including state specific Terms and Conditions where applicable (2) this Attachment D (3) the WSCA Standard Terms and Conditions, (4) RFP RT12002, and (5) Contractor's response to RFP # 12002 dated November 29, 2011.

2. PATENTS, COPYRIGHTS, ETC.

Notwithstanding anything in this Contract to the contrary, Contractor warrants that the Products described herein and the sale or use of such Products, will not infringe or contribute to the infringement of any United States or foreign patent, trademark, copyright or corresponding right, and Contractor agrees to indemnify, hold harmless and protect Customer its parent, affiliated and subsidiary companies, its and their successors and assigns, from and against all losses, damages, liabilities, claims, costs, demands and suit at law or equity, including coverage of any reasonable attorney's fees, to the extent resulting from actual infringement of any patents, trademarks, copyrights or corresponding rights pertaining to the Products subject to this Agreement.

3. INDEMNIFICATION/HOLD HARMLESS.

(a) Indemnification/Hold Harmless as required by the Terms and Conditions in the original Request for Proposal and made part of the Contract shall be in full force and effect, except that with respect to subcontractors or volunteers of contractor, section 4 hereof shall apply. The Contractor shall defend all actions brought upon such matters to be indemnified hereunder and pay all costs and expenses incidental thereto, but the Buyer shall have the right, at its option, to participate in the defense of any such action without relieving the Contractor of any obligation hereunder; however, the contractor shall direct and control such defense.

(b) The following clause will apply only as it relates to the indemnification/Hold Harmless issues specifically for personal injury and property damage claims: Any Contractor submitted exclusions limiting this indemnification shall not apply to any reasonable "Foreseeable Use" of the tires by the Participating State ("State") under the Contract. "Foreseeable Use" is defined as general driving that a reasonable person would identify as reasonable foreseeable for the tires and the vehicles with driving adjustments for weather conditions. For Off-Highway Tires, the "Foreseeable Use" would include reasonable foreseeable driving in off-highway terrain that a reasonable person would identify as reasonable foreseeable for the tires and the vehicles being used. In addition, Contractor's submitted limited warranty shall apply to commercial and government use.

(c) Notwithstanding any of the above, to the extent there is personal property or personal injury damage incurred as a primary result of the wrongful acts or negligence of the State, its agents, employees

and anyone for whom the State is liable (i.e. customer abuse, modifications not executed by the Contractor, improper or insufficient maintenance, improper operation, or normal wear and tear under normal usage), the indemnification/hold harmless and defense obligations of contractor shall not apply. For clarification, each of the contractor and the state shall be responsible for any such personal property or personal injury damage to the extent caused by each respective party's actions.

4. OTHER SERVICE PROVIDERS

(a) Buyer recognizes that Contractor is providing services under this Contract through its own contracts with affiliated dealers, various installers and independent dealers. Contractor is responsible and liable to the Buyer for the wrongful acts or negligence of its "Affiliated Dealers". For purposes of this Addendum D, "Affiliated Dealers" mean the tire retailers owned and operated by Contractor.

(b) The parties agree that the independent dealers ("Dealers" herein shall mean Contractor's independent dealers") shall be responsible for the liabilities, insurance requirements, and warranties directly related for their actions and for the services they perform.

5. ASSIGNMENT OF CONTRACT

Contractor shall not assign, sell, transfer, subcontract or sublet rights, or delegate responsibilities under this contract, in whole or in part, without the prior written approval of the WSCA Contract Administrator.

Notwithstanding the foregoing, nothing herein shall prohibit the supply of products or service pursuant to this Contract by Contractor's authorized independent dealers, franchisees or affiliates.

6. FORCE MAJEURE

Neither party to this contract shall be held responsible for delay or default caused by fire, riot, acts of God and /or war which is beyond that party's reasonable control. WSCA may terminate this contract after determining such delay or default will reasonably prevent successful performance of the contract.

Except for payment obligations, the Parties shall not be liable for a failure to perform that arises from causes or events beyond their reasonable control and without their fault or negligence. Neither Party will be liable for any failure or excusable delay in performing its obligations under the Agreement if such failure or excusable delay is due to unusually severe weather, strikes or labor disputes, natural disasters, fire, civil disturbance, terrorist attack, epidemic, war, or acts of God Contractor may suspend performance of its obligations under this Contract without obligation to WSCA during the occurrence of any excusable delay. Each party must inform the other in writing with proof of receipt within ten (10) business days of the existence of a force majeure event.

7. WARRANTY

In general, the contractor Standard written limited warranty shall apply for defects in materials and workmanship and will also warrant that (a) the product will be suitable for the ordinary purposes for which such product is used, and (b) when Contractor has listed exclusions in their submitted Warranties regarding replacing the worn or defective tires due to the tires being rotated within a specific mileage or timeframe, the exclusions will not apply if the lack of tire rotation did not reasonably affect the wear or defects on the tire.

8. FUTURE TAX/FEE INCREASES OR ENACTMENTS

All taxes billed to Customer under this contract are subject to increases or decrease from time to time to compensate for any tax, excise, or levy upon the products sold, or upon the manufacture, sales, transportation, or delivery of them or whenever any tax, excise, levy, law or governmental regulation has the effect, directly or indirectly, of increasing the cost of manufacture, sales, or delivery. If any government action or laws or regulation should have the effect of establishing a new tax or fee that is imposed on the transactions covered under this contract, Contractor has the right to bill Customer for the new or increased taxes or fees as they become due under the applicable law

IN WITNESS WHEREOF, the parties sign and agree to the terms in Attachment D.

CONTRACTOR

STATE OF UTAH

Linda Alberstadt 3-9-12

Signature

Date

Linda Alberstadt

Mgr, PR, Military + Govt

Name and Title of Signer

(Type or Print)

Nancy Orton 3-9-12

Signature

Date

Nancy Orton, Assistant Director

Name and Title of Signer

(Type or Print)



Orange County Fire Authority
AGENDA STAFF REPORT

Executive Committee Meeting
March 23, 2017

Agenda Item No. 3E
Consent Calendar

Approval of Contract Amendment
County-wide Wildfire Protection Plan

Contact(s) for Further Information

Lori Smith, Assistant Chief Community Risk Reduction Department	lorismith@ocfa.org	714.573.6016
Brian Norton, Battalion Chief	briannorton@ocfa.org	714.573.6171

Summary

This agenda item is submitted for approval to increase the contract with Wildland Resource Management to perform an outreach and education with homeowners located within the wildland urban interface of Orange County utilizing remaining grant funds received from the State Responsibility Area Fire Prevention Fund (SRAFPF).

Prior Board/Committee Action(s)

On March 26, 2015, the Board of Directors accepted a grant amount of \$110,000 from the SRAFPF Grant Program.

RECOMMENDED ACTION(S)

Approve and authorize the Purchasing Manager to increase the Wildland Resource Management contract (B01635) by \$19,900 for a new not to exceed amount of \$113,960.

Impact to Cities/County

Not Applicable.

Fiscal Impact

Remaining funds are available from the SRAFPF Grant received in FY 2014/15.

Background

In 2015, OCFA received a SRAFPF grant in the amount of \$110,000 to complete a county-wide State Responsibility Area (SRA) Community Wildfire Protection Plan. A Request for Proposal (RFP #RO2061) was issued for development of a County-wide Wildfire Protection Plan (CWPP) and three proposals were received. A contract was awarded to Wildland Resource Management, in the amount of \$89,560, which was within the amount delegated to OCFA management for contract award and, therefore, did not require Executive Committee approval. As a result of the competitive solicitation process, the final contract award for the CWPP was less than the original project estimate provided in the grant request, leaving a remaining balance of \$20,440 available from the SRAFPF Grant.

During the preparation of the CWPP, the case was made to add additional Local Responsibility Area (LRA) open space to the protection plan. A contract amendment in the amount of \$4,500 was issued for gathering spatial, organizational, and environmental information specific to the

additional areas in San Clemente and Rancho Santa Margarita, developing maps of the added area, and creating an appendix specific to the added area. Because the grant was specific to State Responsibility Areas (SRA) and the areas identified in the LRA were within incorporated cities, SRAFPF grant funds were not used for the additional services. Therefore, the revised contract amount following this amendment was \$94,060, and the remaining balance of the SRAFPF Grant remained unchanged at \$20,440 (see Summary of Contract and Grant Values recapped in the matrix below).

The CWPP document is in final draft and Wildland Resource Management has fulfilled the requirements of the original contract. Staff has received a grant extension from CAL FIRE to complete proposed community outreach, as detailed in Attachment 1, utilizing the remaining SRAFPF grant funds for this additional service. Work performed under the grant must be completed by April 15, 2017, with any un-used funds being returned to the State.

Staff is requesting approval to increase the contract with Wildland Resource Management by \$19,900 for a new not to exceed amount of \$113,960. This proposed amendment requires Executive Committee approval since the revised value of the contract will exceed amounts delegated to OCFA management for professional services agreements.

Summary of Contract and Grant Values

Contract & Amendments	Amounts Funded by \$110,000 SRAFPF Grant	Amounts Funded by OCFA Budget	Total Contract Value
Original Contract	\$89,560	0	\$89,560
Amendment One	0	\$4,500	\$4,500
Proposed Amendment Two	\$19,900	0	\$19,900
Final Contract Value	\$109,460	\$4,500	\$113,960

Attachment(s)

1. Proposal to Perform Outreach and Education with Homeowners
2. *Original Professional Services Agreement (PSA)
3. *PSA Amendment One
4. *PSA Amendment Two

*On file in the office of the Clerk and available upon request.

Wildland Res Mgt
316 California Ave. #68, Reno NV 89509

(925) 944-5282
carollrice@aol.com

February 26, 2017

Rothchild Ong
Orange County Fire Authority
1 Fire Authority Road, Building C
Irvine, CA 92602

Re: Proposal to Perform Outreach and Education with Homeowners

Dear Mr. Ong:

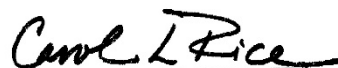
Wildland Res Mgt (WRM) is pleased to submit this proposal to the Orange County Fire Authority (OCFA) to perform outreach and education with a selected set of homeowner associations in OCFA jurisdiction.

This proposal covers two types of outreach and education targeting residents within the wildland urban interface of Orange County served by OCFA. We propose to meet with several groups that represent homeowners, as well as homeowners themselves, to promote self-empowerment and capacity to perform fire hazard reduction projects. In addition, we propose to organize an event that fosters peer-to-peer learning about the creation and management of successful fire risk reduction (through vegetation management and education). The proposed actions will culminate by April 15.

I have engaged Cheryl Miller, RLA; to assist me. We have more than 50 years of combined experience in working with homeowners to reduce wildland fire hazards. We have worked together on projects since 1993, including the development of the Orange County CWPP.

We have developed the attached scope and fee estimate to reflect the needs of this project. We believe our scope is cost-effective and ensures that all technical issues are adequately addressed. However, if the scope and cost vary from OCFA's goals, we are very prepared to discuss adjustments. We appreciate the opportunity to work with you on this important program. If you have any questions, feel free to contact me at my direct line, (925) 944-5282, or via email at carollrice@aol.com. Our team is available to begin work promptly following notice to proceed. We look forward to working with OCFA, its stakeholders and the local community on this important project.

Sincerely,



Carol L. Rice
General Manager



Proposal to Perform Outreach and Education with Homeowners

This proposal covers two types of outreach and education targeting residents within the wildland urban interface of Orange County served by OCFA. We propose to meet with several groups that represent homeowners, as well as homeowners themselves, to promote self-empowerment and capacity to perform fire hazard reduction projects. In addition, we propose to organize an event that fosters peer-to-peer learning about the creation and management of successful fire risk reduction (through vegetation management and education). The proposed actions will culminate in May, to coincide with the Wildfire Awareness Week and OCFA's open house.

Project Creation and Management – Capacity Building

This type of outreach entails meeting with approximately 5 groups. The meeting will be in the form of site visits, explorations of conditions to identify projects that are easily defined, implemented and managed. Each meeting would be no more than a couple of hours. These would be prefaced by telephone and email contacts to both prepare the participants and focus the area of the site visit. The type of outreach will be customized for each group, depending on pre-meeting contacts.

The types of groups will span groups of homeowners, homeowner associations, boards, and property management and their contractors. We will solicit suggestions from OCFA regarding the groups to engage, and consider the input of groups already involved in the CWPP.

The site visits will offer a chance to increase an awareness of their physical environment, and recognition of local organizational capacity. The site visits will raise projects they might jointly address, share of solutions for their specific community, and emphasize the importance of community-wide coordination. We will provide background to various communities about the possibilities of becoming Firewise or developing a firesafe council (if not already in place and where applicable). We will introduce the concept of “sustainable” fuel modification using native plants and succulents.

The types of projects vary, depending on the outcome of the meetings, but are aimed at small projects manageable by the homeowners, with eventual sights on larger outcomes. Projects where several homeowners work together to achieve fire hazard reduction would be preferred over one where one HOA does all the work planning and implementing the project. Projects that are already addressed by an existing CEQA review or one that could easily be reviewed would be preferred. Smaller projects might include chipping or green waste pick-up, tree limbing, or invasive plant removal.

One goal is to develop partnerships between homeowner groups and other types of organizations, such as the Laguna Canyon Foundation, or the Rancho Mission Viejo to plan and perform joint projects. Another expected outcome is a simple action plan that would serve as a basis for a mini grant so that the group gains traction working together. The action plan would identify roles and responsibilities of the parties involved, and propose a timeline for future planning actions and implementation.

Partners in Prevention

This outreach method emphasizes peer-to-peer learning. We propose organizing a gathering near the conclusion of the meetings of the various homeowner groups. Groups that have been engaged in the outreach above, along with well-established homeowner groups would be invited to share success stories and plans for future fire risk reduction work. The group is intended to extend and strengthen connections between homeowner groups, and between fire districts, and land management organizations. The homeowner groups will also learn the various resources available to them, whether it is grants, qualified vendors, or agency assistance. The theme will reinforce the fact that everyone has a role to play in wildfire prevention.

Ideally the gathering would be a luncheon (food not included in cost proposal). A representative of OCFA would kick off the event with an explanation of the goal of the meeting. The gathering would proceed with introductions, with each participant detailing their group's/organization's mission or goals.

A series of short (5-10 minutes) presentations sharing of success stories from each homeowner group would follow, with general discussion and questions with each presentation. We will seek examples of communities that have implemented a "sustainable" fuel modification program using native plants and succulents. A theme of the day would be the importance of community-wide coordination, which could lead to involvement of organizations such as insurance companies that provide discounts for managed fuels. Concluding remarks that encourage continued networking will close the meeting.

Each organization will be encouraged to bring any literature they distribute, share how they educate/inform their neighborhood, and how they plan and implement vegetation management projects.

Project Creation and Management Cost Estimate

Task	CR Labor	CM Labor	Expenses
Identify homeowner groups to invite	2	0	0
Draft and finalize invitations to meet	4	2	0
Arrange meeting venues, schedule	2	2	0
Coordinate attendee's, groups' involvement	15	15	0
Lead and coordinate 5 site visits	20	20	3000
Write up notes of meetings, distribute notes and contacts	5	10	0
Costs @ \$125/hr for CR, \$100/hr for CM	6000	4900	3000

Partners in Prevention Cost Estimate

Task	CR Labor	CM Labor	Expenses
Identify homeowner groups to invite	2	0	0
Draft and finalize invitations	4	2	0
Arrange meeting venue, schedule	2	2	0
Coordinate attendee's involvement	8	8	0
Attend and lead Partners in Prevention gathering	6	6	800
Write up notes of meeting, distribute notes and contacts	2	4	0
Costs	3000	2200	800

**ORANGE COUNTY FIRE AUTHORITY
PROFESSIONAL SERVICES AGREEMENT**

THIS AGREEMENT FOR PROFESSIONAL SERVICES ("Agreement") is made and entered into this 16th day of November, 2015, by and between the Orange County Fire Authority, a public agency, hereinafter referred to as "OCFA", and Wildland Resource Management, a Corporation, hereinafter referred to as "Firm".

RECITALS

WHEREAS, OCFA requires consulting services for the development of a Community Wildfire Protection Plan, hereinafter referred to as "Project"; and

WHEREAS, Firm has submitted to OCFA a proposal dated August 27, 2015 and a best and final offer dated November 4, 2015, in response to RFP RO2061, which is incorporated herein by this reference; and

WHEREAS, based on its experience and reputation, Firm is qualified to provide the necessary services for the Project and desires to provide such services; and

WHEREAS, OCFA desires to retain the services of Firm for the Project.

NOW, THEREFORE, in consideration of the promises and mutual agreements contained herein, OCFA agrees to employ and does hereby employ Firm and Firm agrees to provide professional services as follows:

AGREEMENT

1. PROFESSIONAL SERVICES

1.1 Scope of Services.

In compliance with all terms and conditions of this Agreement, Firm shall provide those services specified in the "Proposal" attached hereto as Exhibit "A." Firm warrants that all services shall be performed in a competent, professional and satisfactory manner in accordance with all standards prevalent in the industry. In the event of any inconsistency between the terms contained in Exhibit "A" and the terms set forth in the main body of this Agreement, the terms set forth in the main body of this Agreement shall govern.

1.2 Compliance with Law.

All services rendered hereunder shall be provided in accordance with all laws, ordinances, resolutions, statutes, rules, and regulations of OCFA and any federal, state or local governmental agency of competent jurisdiction.

1.3 Licenses and Permits.

Firm shall obtain at its sole cost and expense such licenses, permits and approvals as may be required by law for the performance of the services required by this Agreement.

1.4 Familiarity with Work.

By executing this Agreement, Firm warrants that Firm (a) has thoroughly investigated and considered the work to be performed, (b) has investigated the site of the work and become fully acquainted with the conditions there existing, (c) has carefully considered how the work should be performed, and (d) fully understands the facilities, difficulties and restrictions attending performance of the work under this Agreement. Should the Firm discover any latent or unknown conditions materially differing from those inherent in the work or as represented by OCFA, Firm shall immediately inform OCFA of such fact and shall not proceed with any work except at Firm's risk until written instructions are received from the Contract Officer.

1.5 Care of Work.

Firm shall adopt and follow reasonable procedures and methods during the term of the Agreement to prevent loss or damage to materials, papers or other components of the work, and shall be responsible for all such damage until acceptance of the work by OCFA, except such loss or damages as may be caused by OCFA's own negligence.

1.6 Additional Services.

Firm shall perform services in addition to those specified in the Proposal when directed to do so in writing by the Contract Officer, provided that Firm shall not be required to perform any additional services without compensation. Any additional compensation not exceeding ten percent (10%) of the original Agreement sum must be approved in writing by the Contract Officer. Any greater increase must be approved in writing by the Purchasing Manager.

2. TIME FOR COMPLETION

The time for completion of the services to be performed by Firm is an essential condition of this Agreement. Firm shall prosecute regularly and diligently the work of this Agreement according to the schedules set forth in Firm's proposal. Firm shall not be accountable for delays in the progress of its work caused by any condition beyond its control and without the fault or negligence of Firm. Delays shall not entitle Firm to any additional compensation regardless of the party responsible for the delay.

3. COMPENSATION OF FIRM

3.1 Compensation of Firm.

For the services rendered pursuant to this Agreement, Firm shall be compensated and reimbursed, in accordance with the terms set forth in Exhibit "A," in an amount not to exceed \$89,560.00.

3.2 Method of Payment.

In any month in which Firm wishes to receive payment, Firm shall no later than the first working day of such month, submit to OCFA in the form approved by OCFA's Director of Finance, an invoice for services rendered prior to the date of the invoice. OCFA shall pay Firm for all expenses stated thereon which are approved by OCFA consistent with this Agreement, within thirty (30) days of receipt of Firm's invoice.

3.3 Changes.

In the event any change or changes in the work is requested by OCFA, the parties hereto shall execute an addendum to this Agreement, setting forth with particularity all terms of such addendum, including, but not limited to, any additional fees. Addenda may be entered into:

A. To provide for revisions or modifications to documents or other work product or work when documents or other work product or work is required by the enactment or revision of law subsequent to the preparation of any documents, other work product or work;

B. To provide for additional services not included in this Agreement or not customarily furnished in accordance with generally accepted practice in Firm's profession.

3.4 Appropriations.

This Agreement is subject to and contingent upon funds being appropriated therefore by the OCFA Board of Directors for each fiscal year covered by the Agreement. If such appropriations are not made, this Agreement shall automatically terminate without penalty to OCFA.

4. PERFORMANCE SCHEDULE

4.1 Time of Essence.

Time is of the essence in the performance of this Agreement.

4.2 Schedule of Performance.

All services rendered pursuant to this Agreement shall be performed within the time periods prescribed in Firm's proposal, attached hereto as Exhibit "A". The extension of any time period specified in Exhibit "A" must be approved in writing by the Contract Officer.

4.3 Force Majeure.

The time for performance of services to be rendered pursuant to this Agreement may be extended because of any delays due to unforeseeable causes beyond the control and without the fault or negligence of the Firm, including, but not restricted to, acts of God or of a public enemy, acts of the government, fires, earthquakes, floods, epidemic, quarantine restrictions, riots, strikes, freight embargoes, and unusually severe weather if the Firm shall within ten (10) days of the commencement of such condition notify the Contract Officer who shall thereupon ascertain the facts and the extent of any necessary delay, and extend the time for performing the services for the period of the enforced delay when and if in the Contract Officer's judgment such delay is justified, and the Contract Officer's determination shall be final and conclusive upon the parties to this Agreement.

4.4 Term.

Unless earlier terminated in accordance with Section 8.5 of this Agreement, this Agreement shall continue in full force and effect until satisfactory completion of the services.

5. COORDINATION OF WORK

5.1 Representative of Firm.

The following principal of the Firm is hereby designated as being the principal and representative of Firm authorized to act in its behalf with respect to the work specified herein and make all decisions in connection therewith: Carol Rice, General Manager.

It is expressly understood that the experience, knowledge, capability and reputation of the foregoing principal is a substantial inducement for OCFA to enter into this Agreement. Therefore, the foregoing principal shall be responsible during the term of this Agreement for directing all activities of Firm and devoting sufficient time to personally supervise the services hereunder. The foregoing principal may not be changed by Firm without the express written approval of OCFA.

5.2 Contract Officer.

The Contract Officer shall be Brian Norton, unless otherwise designated in writing by OCFA. It shall be the Firm's responsibility to keep the Contract Officer fully informed of the progress of the performance of the services and Firm shall refer any decisions that must be made by OCFA to the Contract Officer. Unless otherwise specified herein, any approval of OCFA required hereunder shall mean the approval of the Contract Officer.

5.3 Prohibition Against Subcontracting or Assignment.

The experience, knowledge, capability and reputation of Firm, its principals and employees, were a substantial inducement for OCFA to enter into this Agreement. Therefore, Firm shall not contract with any other entity to perform in whole or in part the services required hereunder without the express written approval of OCFA. In addition, neither this Agreement nor any interest herein may be assigned or transferred, voluntarily or by operation of law, without the prior written approval of OCFA.

5.4 Independent Contractor.

Neither OCFA nor any of its employees shall have any control over the manner, mode or means by which Firm, its agents or employees, perform the services required herein, except as otherwise set forth herein. Firm shall perform all services required herein as an independent Firm of OCFA and shall remain at all times as to OCFA a wholly independent contractor with only such obligations as are consistent with that role. Firm shall not at any time or in any manner represent that it or any of its agents or employees are agents or employees of OCFA.

6. INSURANCE, INDEMNIFICATION AND BONDS

6.1 Insurance.

Firm shall procure and maintain, at its cost, and submit concurrently with its execution of this Agreement, general liability insurance including operations, products, and completed operations insurance in the amount of \$1,000,000 combined single limit for bodily injury, personal injury and property damage/\$2,000,000 aggregate; automobile insurance in the amount of \$1,000,000 each accident/\$1,000,000 uninsured motorist; professional liability insurance in the amount of \$1,000,000 each occurrence/\$2,000,000 aggregate. The general aggregate limit shall apply separately to this contract or the general aggregate limit shall be twice the required occurrence limit. An endorsement to the General Liability Policy naming OCFA, its officers, officials, employees and volunteers as additional insureds is required to be submitted with the certificate of insurance. Firm shall also carry workers' compensation insurance in accordance with California workers' compensation laws. Such insurance shall be kept in effect during the term of this Agreement. The procuring of such insurance and the

delivery of policies or certificates evidencing the same shall not be construed as a limitation of Firm's obligation to indemnify OCFA, its Firms, officers and employees. Coverage shall be provided by admitted insurers with an A.M. Best's Key Rating of at least A-VII. If Firm provides claims made professional liability insurance, Firm shall also agree in writing either (1) to purchase tail insurance in the amount required by this Agreement to cover claims made within three years of the completion of Firm's services under this Agreement, or (2) to maintain professional liability insurance coverage with the same carrier in the amount required by this Agreement for at least three years after completion of Firm's services under this Agreement. The Firm shall also be required to provide evidence to OCFA of the purchase of the required tail insurance or continuation of the professional liability policy if the service requires such coverage.

6.2 Indemnification.

The Firm shall defend, indemnify and hold harmless OCFA, its officers and employees, from and against any and all actions, suits, proceedings, claims, demands, losses, costs, and expenses, including legal costs and attorneys' fees, for injury to or death of person or persons, for damage to property, including property owned by OCFA, and for errors and omissions committed by Firm, its officers, employees and agents, arising out of or related to Firm's performance under this Agreement, except for such loss as may be caused by OCFA's own negligence or that of its officers or employees.

7. RECORDS AND REPORTS

7.1 Reports.

Firm shall periodically prepare and submit to the Contract Officer such reports concerning the performance of the services required by this Agreement as the Contract Officer shall require.

7.2 Records.

Firm shall keep such books and records as shall be necessary to properly perform the services required by this Agreement and enable the Contract Officer to evaluate the performance of such services. The Contract Officer shall have full and free access to such books and records at all reasonable times, including the right to inspect, copy, audit and make records and transcripts from such records.

7.3 Ownership of Documents.

All drawings, specifications, reports, records, documents and other materials prepared by Firm in the performance of this Agreement shall be the property of OCFA and shall be delivered to OCFA upon request of the Contract Officer or upon the termination of this Agreement, and Firm shall have no claim for further employment or additional compensation as a result of the exercise by OCFA of its full rights or

ownership of the documents and materials hereunder. Firm may retain copies of such documents for its own use. Firm shall have an unrestricted right to use the concepts embodied therein.

7.4 Release of Documents.

All drawings, specifications, reports, records, documents and other materials prepared by Firm in the performance of services under this Agreement shall not be released publicly without the prior written approval of the Contract Officer.

8. ENFORCEMENT OF AGREEMENT

8.1 California Law.

This Agreement shall be construed and interpreted both as to validity and to performance of the parties in accordance with the laws of the State of California. Legal actions concerning any dispute, claim or matter arising out of or in relation to this Agreement shall be instituted in the Superior Court of the County of Orange, State of California, or any other appropriate court in such county, and Firm covenants and agrees to submit to the personal jurisdiction of such court in the event of such action.

8.2 Waiver.

No delay or omission in the exercise of any right or remedy of a non-defaulting party on any default shall impair such right or remedy or be construed as a waiver. No consent or approval of OCFA shall be deemed to waiver or render unnecessary OCFA's consent to or approval of any subsequent act of Firm. Any waiver by either party of any default must be in writing and shall not be a waiver of any other default concerning the same or any other provision of this Agreement.

8.3 Rights and Remedies are Cumulative.

Except with respect to rights and remedies expressly declared to be exclusive in this Agreement, the rights and remedies of the parties are cumulative and the exercise by either party of one or more of such rights or remedies shall not preclude the exercise by it, at the same or different times, of any other rights or remedies for the same default or any other default by the other party.

8.4 Legal Action.

In addition to any other rights or remedies, either party may take legal action, in law or in equity, to cure, correct or remedy any default, to recover damages for any default, to compel specific performance of this Agreement, to obtain injunctive relief, a declaratory judgment, or any other remedy consistent with the purposes of this Agreement.

8.5 Termination Prior to Expiration of Term.

OCFA reserves the right to terminate this Agreement at any time, with or without cause, upon thirty (30) days written notice to Firm, except that where termination is due to the fault of the Firm and constitutes an immediate danger to health, safety and general welfare, the period of notice shall be such shorter time as may be appropriate. Upon receipt of the notice of termination, Firm shall immediately cease all services hereunder except such as may be specifically approved by the Contract Officer. Firm shall be entitled to compensation for all services rendered prior to receipt of the notice of termination and for any services authorized by the Contract Officer thereafter.

Firm may terminate this Agreement, with or without cause, upon thirty (30) days written notice to OCFA.

8.6 Termination for Default of Firm.

If termination is due to the failure of the Firm to fulfill its obligations under this Agreement, OCFA may take over the work and prosecute the same to completion by contract or otherwise, and the Firm shall be liable to the extent that the total cost for completion of the services required hereunder exceeds the compensation herein stipulated, provided that OCFA shall use reasonable efforts to mitigate damages, and OCFA may withhold any payments to the Firm for the purpose of set-off or partial payment of the amounts owed to OCFA.

8.7 Attorneys' Fees.

If either party commences an action against the other party arising out of or in connection with this Agreement or its subject matter, the prevailing party shall be entitled to recover reasonable attorneys' fees and costs of suit from the losing party.

9. OCFA OFFICERS AND EMPLOYEES; NON-DISCRIMINATION

9.1 Non-Liability of OCFA Officers and Employees.

No officer or employee of OCFA shall be personally liable to the Firm, or any successor-in-interest, in the event of any default or breach by OCFA or for any amount which may become due to the Firm or its successor, or for breach of any obligation of the terms of this Agreement.

9.2 Covenant Against Discrimination.

Firm covenants that, by and for itself, its heirs, executors, assigns, and all persons claiming under or through them, that there shall be no discrimination or segregation in the performance of or in connection with this Agreement regarding any person or group of persons on account of race, color, creed, religion, sex, marital status,

national origin, or ancestry. Firm shall take affirmative action to insure that applicants and employees are treated without regard to their race, color, creed, religion, sex, marital status, national origin, or ancestry.

10. MISCELLANEOUS PROVISIONS

10.1 Confidentiality.

Information obtained by Firm in the performance of this Agreement shall be treated as strictly confidential and shall not be used by Firm for any purpose other than the performance of this Agreement without the written consent of OCFA.

10.2 Notice.

Any notice, demand, request, consent, approval, or communication either party desires or is required to give to the other party or any other person shall be in writing and either served personally or sent by pre-paid, first-class mail to the address set forth below. Either party may change its address by notifying the other party of the change of address in writing. Notice shall be deemed communicated forty-eight (48) hours from the time of mailing if mailed as provided in this Section.

To OCFA:

Orange County Fire Authority
Attention: Brian Norton
1 Fire Authority Road
Irvine, CA 92602

To Firm:

Wildland Resource Management
Attention: Carol Rice, General Manager
316 California Ave, #68
Reno, NV 89509-1650
United States

10.2 Integrated Agreement.

This Agreement contains all of the agreements of the parties and cannot be amended or modified except by written agreement.

10.3 Amendment.

This Agreement may be amended at any time by the mutual consent of the parties by an instrument in writing.

10.4 Severability.

In the event that any one or more of the phrases, sentences, clauses, paragraphs, or sections contained in this Agreement shall be declared invalid or unenforceable by valid judgment or decree of a court of competent jurisdiction, such invalidity or unenforceability shall not affect any of the remaining phrases, sentences, clauses, paragraphs, or sections of this Agreement, which shall be interpreted to carry out the intent of the parties hereunder.

10.5 Corporate Authority.

The persons executing this Agreement on behalf of the parties hereto warrant that they are duly authorized to execute this Agreement on behalf of said parties and that by so executing this Agreement the parties hereto are formally bound to the provisions of this Agreement.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the dates stated below.

"OCFA"

ORANGE COUNTY FIRE AUTHORITY

Date: 11-16-2015

By: Debbie Casper

Debbie Casper, Purchasing Manager

"FIRM"

Wildland Resource Management

Date: 11.9.2015

By: Carol Rice

Carol Rice, General Manager



**REQUEST FOR BEST AND FINAL OFFER
RFP RO2061 – CONSULTING SERVICES FOR
COMMUNITY WILDFIRE PROTECTION PLAN (CWPP)
DEVELOPMENT**

**DATE BEST AND FINAL OFFERS REQUESTED: [OCTOBER 29, 2015](#)
DUE DATE FOR BEST AND FINAL OFFER: [NOVEMBER 4, 2015 AT 4:00 P.M.](#)**

Your firm submitted a proposal in response to the above referenced Request for Proposal (RFP) issued by the Orange County Fire Authority.

As part of the evaluation process, the Orange County Fire Authority is exercising the right to request a best and final offer from the top ranking firm/s for further evaluation and consideration.

The purpose of the Best and Final Offer is to allow both OCFA and your firm to make any modifications to the terms of the contract before making the final decision in the award. As a result of the tabulation and the interview on October 27, 2015, Wildland Resource Management has been selected to participate in this process. The Best and Final Offer will further assist in making the final award.

On October 27, 2015, we determined that the pricing would include at least four (4) onsite visits and that adjacent communities would be included in the CWPP based on the sizes of buffer zones. Based on our discussions and the submitted Offer Page, OCFA would like to receive details on what is included in the \$2,700 additional costs listed in your offer and confirm our understanding on site visits and the buffer zones.

Please provide your response to these questions.

The Best and Final Offers must be received by the Orange County Fire Authority - Purchasing Section no later than the deadline specified above. Please submit your response to this request via e-mail to: rothchildong@ocfa.org. The Best and Final Offer will further assist in making our final recommendation. OCFA intends to use the standard Professional Services Agreement (PSA) provided in the RFP if the contract is awarded to your firm. No exceptions were identified in the submitted proposal. Please confirm that you agree to the standard terms.

Thank you for your interest in doing business with Orange County Fire Authority and the commitment you have made to perform to our expectations if awarded the contract.

Best Regards,



Rothchild Ong
Assistant Purchasing Agent

BEST AND FINAL PRICING PAGE

Wildland Resource Management provided the original pricing table shown below. Please complete the pricing schedule below and answer the questions.

CONSULTING SERVICES FOR COMMUNITY WILDFIRE PROTECTION PLAN DEVELOPMENT			
DESCRIPTION	# of Hours	Cost	BAFO Total
Task 1 – Review of Existing Information	88	\$ 12,220.00	\$ 12,220.00
Task 2 – Collection of Data and Analysis	216	\$ 24,100.00	\$ 24,100.00
Task 3 – Outreach	132	\$ 16,940.00	\$ 16,940.00
Task 4 – CWPP Development and Publication	280	\$33,600.00	\$ 33,600.00
Any additional costs		\$ 2,700.00	\$ 2,700.00
	Total Cost	\$ 89,560.00	\$ 89,560.00

- The pricing offered in your response included \$2,700.00 which was described as additional costs. OCFA would like additional information regarding what is included in this item.

Wildland Res Mgt estimated \$2,700 as travel costs to cover the air fare, rental car and lodging. This includes at least 4 on-site visits to conduct stakeholder meetings, plus trips necessary for meeting between OCFA and Wildland Res Mgt, and to present the final CWPP. Finally, these trips will be necessary to become fully familiar with the natural and built environment to be addressed by the CWPP. Please see the attached document with more text.

- Please verify that additional adjacent areas and perimeter communities based on buffer zones are to be included in the project and provide additional clarification that areas outside of OCFA's jurisdiction but fall within this buffer zone are also included.

Wildland Res Mgt will map and characterize the physical attributes of areas within a buffer outside OCFA's jurisdiction. We anticipate the width of the buffer to be the expected spotting distance (likely around 1000 feet, but if it is larger, a wider buffer will be established). The physical attributes inside the buffer zone will be described, analyzed and rated the same way as inside OCFA's jurisdiction. Any risk assessments based on these physical attributes would extend to the buffer areas. Please see the attached document with a more complete response.

- Any additional information you would like OCFA to consider.

If the entirety of the additional adjacent areas and perimeter communities are included in the buffer zone there would be overall efficiencies to simply fold them into the CWPP process as if they were within OCFA's jurisdiction. However, there are additional costs to becoming familiar with and describing the communities, identifying stakeholders and potential projects, and expanding the action plan to include the projects. If OCFA would like to include the additional adjacent areas and perimeter communities in the process from the outset, Wildland Res Mgt estimates the additional costs would be \$10,000. Wildland Res Mgt is able to perform the additional proposed scope of work.

TO THE ORANGE COUNTY FIRE AUTHORITY:

The Undersigned hereby amends the original proposal as indicated in this Best and Final Offer and shall provide the services in compliance with all terms, specifications, conditions, and amendments in the Request for Proposal which is incorporated by reference as if fully set forth herein. The representations herein are made under penalty of perjury.

Guy L. Gettle

November 3, 2015

Signature of Person Authorized to Sign

Date

Guy L. Gettle

President

Printed Name

Title


1. TRANSMITTAL LETTER

Wildland Res Mgt

316 California Ave. #68, Reno NV 89509

(925) 944-5282

carolrice@aol.com



August 26, 2015
Orange County Fire Authority
1 Fire Authority Road, Building C
Irvine, CA 92602

Re: Proposal for Consulting Service - County-wide SRA Wildfire Protection Plan

To Whom It May Concern:

Wildland Res Mgt (WRM) is pleased to submit this proposal to the Orange County Fire Authority (OCFA) to assist with preparing a County-wide Community Wildfire Protection Plan (CWPP). Our goal is to provide a comprehensive, collaborative, and user friendly plan that will assist communities, residents, and government agencies to reduce the risk of catastrophic wildfire. One way this plan will help reduce the risk of wildfire is to enable OCFA and the communities it serves - as well as local non-profit organizations involved - to obtain funding. Because having a CWPP in place is a filter for many grants, this plan will enable more funds to be allocated to Orange County. The plan will be prepared in a timeframe that will enable OCFA and its partners to submit grant applications for the 2016 SRAFPF program. Our approach will result in a CWPP that will enable other communities to be added at a later time with ease.

Benefits of the CWPP for the communities within OCFA's district will include lowering wildfire risks, creating a valuable long-term risk management tool, and minimizing environmental effects. Creating a plan that establishes a framework for these long-term benefits requires a consultant team with a proven record of creating innovative planning documents, in depth knowledge of the local communities and environmental issues, and extensive experience assessing wildfire response capabilities and risk management.

I have assembled a hand-picked team of immensely qualified fire professionals *Cheryl Miller, RLA; Esther Mandeno, Digital Mapping Solutions; Leonard Charles, LCA, and myself, Carol Rice, Wildland Res Mgt*. These recognized experts understand the physical, environmental, regulatory, and social setting of the project area and possess a wide range of relevant experience throughout California. We have over a century of combined experience in developing plans to reduce wildland fire hazards. We have worked together on projects since 1990, and have a stable working relationship. None of the companies have had significant transactional events.

Our team has collectively prepared several dozen similar wildfire protections plans and assessment tools for local and state agencies. For example, Carol Rice, assisted by C. Miller and L. Charles, prepared the CWPP for Sacramento Metropolitan Fire Department. C. Miller prepared CWPPs for both Alameda and Contra Costa County, Esther Mandeno provided GIS and mapping support for the CWPP for Yosemite West and Foresta. Leonard Charles, assisted by C. Rice, prepared a vegetation management plan for the 20,000-acre Marin Municipal Water District. A more complete list and description of past projects appears in Section 6 of this proposal.

Most of these programs and plans are already in operation, giving you assurances that our plans can be implemented. In summary, we are ready and able to hit the ground running as an integral extension of your staff.

Each member brings a wealth of knowledge that comes with a high level of education in relevant fields and years of experience.

- Carol Rice holds BS in Forestry and an MS in Wildland Fire Management and has prepared over 100 plans involving fire behavior, risk assessment, and fire ecology, in wildland urban interface areas over the last 35 years.
- Esther Mandeno holds a BS in Resource Science and a MS in Natural Resource Science, and has had training in S490 Advanced Wildland Fire Behavior Calculations, Rx310 Ecological and Social Effects of Fire, RX300 Burn Boss, plus has 20 years of experience using GIS and GPS technology in fire and natural resource management using ArcGIS Map 10.X, AutoDesk Civil 3D, QGIS, Global Mapper and Python/ArcPy.
- Cheryl Miller is a Registered Landscape Architect, with a BS and MS in this subject, and is also certified through XL Design Professional Liability Education Program. She is currently Executive Director of the Diablo Fire Safe Council, obtaining grant funding year after year. She also serves as sole staff of the Hills Emergency Forum, a group of nine collaborating agencies facing fire threats.
- Leonard Charles earned a PhD in Anthropology, focusing on cultural ecology and rural American society), and has authored more than 100 EIRs, General Plans, Land Management Plans, and Resource Management Plans.

The breadth of our team's California experience includes: dealing with socio-political issues related to fire; hazard fuel reduction planning and implementation; balancing environmental sustainability of fuel treatment actions with public safety; working within the federal, state, and local regulatory setting. The assembled team is uniquely suited to providing the needed level of expertise required to prepare an implementable CWPP.

Carol Rice recently developed the Stakeholder's Implementation Guide for the Wildland Fire Management Plan for the Nature Reserve of Orange County, with assistance from Esther Mandeno, and developed Fuel Management Standards for vegetation treatments on the Reserves. Through this process, Ms. Rice attended several COAST meetings, and is familiar with the many stakeholders' land base, issues, missions and challenges. Ms. Rice also developed fuel management treatment standards for the City of Rolling Hills, and designed with assistance from Cheryl Miller five separate guides for homeowners, followed by a contractor's workshop. Carol Rice is currently helping Panorama Environmental prepare an EIR for the installation of powerlines for SDG&E. A more complete set of resumes and statements of qualifications appears in Section 6 of this proposal.

One of the strengths of this team is its individual commitment to the project. Throughout the process, OCFA will be interfacing directly with one of the named members of the team. But

because we do not have the burden of high overhead, we can provide a high-quality product with a budget proposal that is extremely efficient.

WRM and Cheryl Miller have developed and delivered several CWPPs throughout the California. While our methodologies and approaches have evolved as our experience has grown, and each is tailored to the needs of the community, our goal in preparing a CWPP is always the same: to help reduce the potential damage from wildfire.

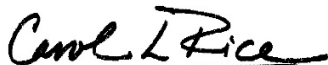
We are not just planners, we often stay with projects through implementation. Many of the plans are now being or have been updated. The experience of learning what works (and doesn't) in the implementation phase informs our plans.

SRAFPF grant. As has been the case for all CWPPs the team has prepared, the Final CWPP will comply with and satisfy guidelines and recommendations of the Healthy Forests Restoration Act, the most recent version of CAL FIRE's California Fire Plan Unit Fire Plan protocol and the SRAFPF grant, and all applicable rules and regulations of federal, state, and local governing entities. WRM will comply with all the terms of the RFP.

We have developed the attached scope and fee estimate to reflect the needs of this project. We believe our scope is cost-effective and ensures that all technical issues are adequately addressed. However, if the scope and cost vary from OCFA's goals, we are very prepared to discuss adjustments. We appreciate the opportunity to work with you on this important program. If you have any questions, feel free to contact me at my direct line, (925) 944-5282, or via email at carollrice@aol.com

Our team is available to begin work promptly following contract award. We look forward to working with OCFA, its stakeholders and the local community on this important project.

Sincerely,

A handwritten signature in black ink that reads "Carol L. Rice". The signature is fluid and cursive, with the first letters of each word being capitalized and prominent.

Carol L. Rice
General Manager

2. Firms Detailed Information

WILDLAND RES MGT

August 2015

Wildland Res Mgt is a privately-held Nevada “C” corporation (regular corporation) founded in 2013, having just celebrated its second year in operation. Our two offices are located in Reno, Nevada and Alamo, California.

The company was established for and is actively engaged in:

- Consulting services for planning and implementing community wildfire protection plans (“CWPPs”) and fire, fuel and vegetation management plans
- Consulting services to oversee implementation of plans and programs
- Research involving impacts of wildland fire and smoke contributions to climate and ecology
- Development of active fire suppression equipment and agents

Products offered by Wildland Res Mgt include:

- Site-specific fire behavior prediction and analyses of fuel treatment effectiveness
- Site-specific analysis of evacuation plans
- Fuels management plans
- Assistance in preparation of the fire and fuels sections of environmental review documents
- Vegetation and fuels management monitoring
- Interfacing for clients with fire protection, emergency services, and planning organizations
- Intellectual property license for agents and equipment technologies

“WRM” has two full-time employees and works with several firms that offer specialized services such as GIS/mapping, regional and urban planning (plus related architectural issues), fire behavior and climate modeling, and meeting facilitation. The corporation is currently performing work for four clients under contract.

During its 2 years of conducting business, Wildland Res Mgt has provided services for more than a dozen clients. The client base includes city and county governments, fire districts, park districts, universities, private landowners, homeowners groups, non-profit organizations, and developers.

WRM’s business workload outlook for the contract period will enable the company to accomplish all contract tasks with its current group of subcontractors. Staff will be added to meet any additional requirements of this contract.

APPENDIX A - OFFEROR'S INFORMATION

Please complete and/or provide all requested information. If the proposal is submitted by a corporation, please provide an additional attachment that states the names of the officers who can sign an agreement on behalf of the corporation and whether more than one officer must sign. If the proposal is by a partnership or a joint venture, state the names and addresses of all general partners and joint venture parties. If the respondent is a sole proprietorship or another entity that does business under a fictitious name, the proposal shall be in the real name of the respondent with a designation following showing "DBA (the fictitious name)," provided however, that no fictitious name shall be used unless there is a current registration with the Orange County Recorder.

The undersigned, as respondent, declares that all documents regarding this proposal have been examined and accepted and that, if awarded, will enter into a contract with the Orange County Fire Authority.

Firm's Legal Name: Wildland Res Mgt	
Firm Parent or Ownership: Sierra Protective Technologies	
Address: 316 California Ave., #68, Reno, NV 89509-1650	
Firm Telephone No. (925) 944-5282	Firm Fax NO. (925) 944-5282
Firm's Tax I.D. Number: 46-3333843	Incorporated: XX YES _____ NO _____
Legal form of company: (partnership, corporation, joint venture) Corporation	
Length of time your firm has been in business: 2 years	Length of time at current location: 2 years
Number of employees and Number of Current Clients 2 employees, 4 current clients	

Management person responsible for direct contact with the Orange County Fire Authority and service required for this Request for Proposal (RFP).

Name: Guy Gettle	Title: (925) 934-0287
Telephone No.: (925) 705-6050	E-mail: blastandfire@aol.com

Person responsible for the day-to-day servicing of the account:

Name: Carol L Rice	Title: (925) 944-5282
Telephone No.: (925) 944-5282	E-mail: carollrice@aol.com

Please indicate if you are subject to the Party and Participant disclosure requirements. Yes No XX
If yes, you are required to submit form/s (see Appendix F).

***For additional information please see page 11 "Campaign Contribution Disclosure".**

3. WORK PLAN

Our proven planning approach has led to all the CWPPs developed by our Team being approved and adopted by county and state officials, and allowed multiple jurisdictions to gain funding to implement recommendations. Specifically, the CWPP will meet the requirements of the SRAFPF grant program and other federal grant programs. The following summarizes the work that will be done.

- **Convene Decision-Makers:** We will work collaboratively with OCFA, members of COAST, the four local firesafe councils, and others to develop an all-encompassing Countywide CWPP that brings together key stakeholders to form a Core Team. The decision-makers are the three required by law: OCFA – CALFIRE, and local government (i.e. OC County), and then broadens to engage a more diverse mix (such as OCFA’s involved stakeholders), and the community.
- **Gather Data and Update the Community Base Map:** We will identify and compile all relevant data to complete the CWPP and we will design a custom online survey portal for collection of public perceptions to wildfire risk and prevention. Our Team will work with OCFA to update the community base map through the compilation of existing data layers provided by federal, state, and local agencies and non-profit groups.
- **Develop a Community Risk Assessment:** We will work with partners to develop a comprehensive risk assessment that considers hazard and risk variables. We will carry out both geographic information system (GIS) fire behavior modeling and on-site community assessments.
- **Create, manage and attend community / stakeholder meetings and workshops:** We will facilitate a community-based planning process that will allow stakeholders to identify a common vision and fire management strategy that all partners can employ and support. We will coordinate the multiple missions, and work within each partner’s mission so each can move toward a common goal and do what they do best. Through a suite of community participation methods we will invite communities to share concerns regarding fire hazards, firefighting capabilities, needed education and outreach, and identification of community values that they would like to see protected from wildfire.
- **Develop Draft Plans for Review and Feedback:** Inputs and data from the tasks above will be used in the development of a Draft CWPP, which will be provided to the Core Team for review periodically throughout its development.
- **Establish Community Priorities and Recommendations:** We will facilitate a collaborative decision-making process that leads to the development of a list of prioritized projects. Recommended projects will address both vegetative fuel treatments and projects to reduce the potential for structure ignitions.
- **Draft CWPP Development:** The Team will prepare draft sections of the CWPP for the Core Team to review and comment on throughout the planning process. Draft sections will be submitted electronically to the Core Team. We will also develop a methodology for receiving comments and make any necessary changes before finalizing the plan.
- **Develop an Action Plan:** We will establish the roles, responsibilities, funding needs and timetables in order to implement the CWPP’s projects
- **Finalize a CWPP:** We will finalize the CWPP and communicate the results to the community, key partners, and decision-makers.

Task 1: Review existing information

The Team will provide the deliverables summarized above by completing all the tasks in Section II of the RFP. Our proposed scope of work to accomplish these listed tasks plus additional work needed to satisfactorily prepare a thorough CWPP is described below.

The first step for such projects is to see what you have to work with – identify the existing information available. This data provides the framework on which to construct a successful CWPP. Developing the existing information setting allows us to identify a feasible path that decision-makers and the community at large can buy into. We will contact stakeholders at the outset to solicit relevant information and invite participation.

The Team will review and evaluate relevant policies and documents that guide fire hazard reduction activities. This will include the August 2014 Memorandum of Understanding regarding road, trails and fire break maintenance, the OCFA Vegetation Management Guideline, local Habitat Conservation Plans/Natural Communities Conservation Plans. We will compile current plans, such as the Unit Fire Plan, existing community risk reduction programs, disaster mitigation plans, general plan, specific area plans, the NROC Wildland Fire Management Plan and project-specific plans. We will also compile current and planned fuel management projects.

Through this review the Team will gain an understanding of existing conditions, in terms of the physical, social, and regulatory environment. This step will also result in identification of gaps in data or other information.

We will also review OCFA's new and expanded spatial database, seeking information on fire behavior (fuels, slope, aspect, etc.), landscape (vegetation density, defensible space), infrastructure information that influences fire response such as water (hydrant, sources), access (response time, road and utility infrastructure), existing fuelbreaks, sensitive and protected habitat, and characteristics that describe the built environment (roof, siding, utilities, etc.). Other layers for the base map would include, but are not limited to, parcel boundaries, jurisdictional boundaries, and identified critical areas, neighborhoods, and building footprint layers. Gaps in current data products will be assessed and prioritized for acquisition or development.

Task 2: Conduct Analyses

We will conduct relevant analyses that will form the basis for the CWPP. The process of conducting the analysis, along with the results will be used to involve and engage the stakeholders and community.

Coordinate Software Programs: The results of the analyses requested in the RFP will be portrayed in maps that are easily interpreted and labeled. Esther Mandeno will coordinate with OCFA regarding the software programs and analytical tools used to develop and display visual representations of the existing conditions (especially the daunting topography and fuel conditions, as well as weather events) and results of the analyses.

Establish a Series of Community Base Maps:

The Team will work with the Core Team to establish a community base map(s) through the compilation of existing data layers discovered in Task 1. Datasets will include, but not be limited to, the existing wildland urban interface (WUI) delineation, land ownership boundaries, critical human infrastructure, vegetation types at risk for large-scale fire disturbance, NCCP/HCP Reserve status,

watershed boundaries, fire history, previous fuel treatments, topographic conditions, location of suppression resources, access roads, and social or environmentally sensitive areas.

The community base map(s) will act as a visual tool with which to describe the CWPP planning process to key stakeholders and community members. The features above, along with landownership and its associated mission and policies will be conveyed to the stakeholders and community.

The framework geodatabase will use and incorporate existing countywide GIS data layers, such as historic fire perimeters, existing fuel breaks, road and utility infrastructure, fire roads, streets, sensitive habitat, and vegetation.

The WUI is the meeting point between wildland vegetation or fuels and structures. At this interface, the structure and vegetation are sufficiently close that a wildfire could spread to a structure or a structure fire could ignite vegetation. The proximity of vegetation and structures needed to spread fire varies with the vegetation (fuel) type, the siting of the structure, and the exterior characteristics (building material and design) of the structure itself. WUI is defined on a scale larger than one lot or neighborhood. WRM will work with OCFA and the Core Team to determine the criteria for the delineation, which could be a combination to such factors as vegetation density, structure proximity to wildland vegetation, land use, and parcel size.

The wildland urban interface is more than a straight line delineating wildlands from a strictly urban area. In some cases the boundary is difficult to discern due to a gradient of development that grades from small lots to larger parcels with plentiful vegetation. Sometimes the WUI includes an island of wildland inside a developed area, or a small cluster of structures in the wildlands. The first approximation of the boundary of the wildland urban interface will be a result of a geospatial analysis using such data sets as vegetation type and density, structure density, and parcel size. The approximate boundary will be confirmed and refined during the public engagement process.

We will work with the US F&WS, and CA F&WS, NROC, The Reserve at Rancho Mission Viejo, Orange County Parks, and other stakeholders to gather and refine the map layer of environmentally sensitive habitats within OCFA's jurisdiction.

The categories of the adopted Fire Hazard Severity Zones will be mapped, along with the spatial information regarding vegetation types, density and structure, slope steepness and orientation, fire history and the built environment (inhabited areas, and improvements that might be at risk from wildfire).

Conduct Fire Behavior Analyses

Once the Team has reviewed and obtained needed information in Task 1, we will conduct a series of analyses to answer such questions as:

- Where are fires most likely to start?
- Where might the most damaging fires spread to/from? What are the patterns of fire growth that are most damaging, and where might these occur?
- Where might embers cause damage to structures or challenge containment, so as to direct specific types of fuel treatments?

We will conduct a variety of fire behavior analyses using FlamMap, FARSITE, BEHAVE Plus, and other tools to identify areas of high ignition probability, fire spread patterns, maximum ember spread distance and direction. These outputs can be compared to, and/or overlaid with such information as emergency response capabilities, structure locations, roadway locations and usage and more.

The accuracy of determining fuel characteristics is critical to correct analyses; Carol Rice and Esther Mandeno will both identify possible inaccuracies and correct the data and boundaries as needed to conduct the analyses. Core Team representatives will be able to upload and/or draw on a map the location of known areas of concern, providing detailed information about the vegetation condition through shapefile attributes and/or a simple narrative. We will gather the data and incorporate any fuel model changes to the dataset.

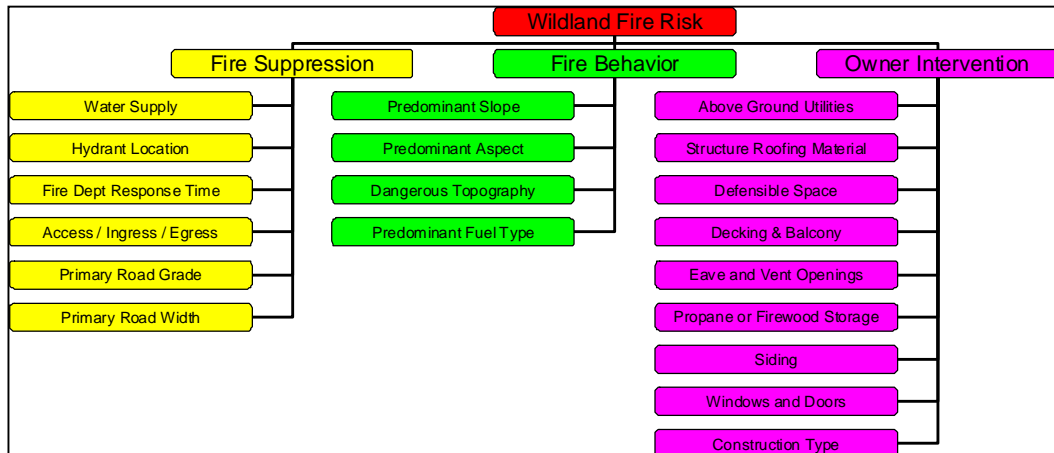
Conduct a Fire Community Risk Assessment

The Team will conduct a fire community risk assessment within the SRA areas that are most vulnerable to wildfire utilizing the outputs from the identified electronic fire behavior analysis program, combined with other spatial data, and make recommendations. The assessment will consider variables such as risk (i.e., fire history), values (i.e. people, property, natural and built resources), protection capability (i.e., firefighter response times, roads, water sources, access), and structural vulnerability (i.e., roof type, building materials, defensible space)

With each risk assessment we have conducted in the past, we learned lessons regarding complexity (keep it simple), updates, weighting, and boundary issues (some hazards affect ratings outside property boundaries). The lessons learned will inform decisions and recommendations in this project. Innovations continue to be developed plus each parcel-based risk assessment benefits from the previous one. For example, our innovations include 1) a “switch” for red flag conditions where there are enhanced ignitable features; and there is 2) a quick calculator of how many homes would be benefited from a fuel modification nearby to support “what if” to help plan locations and areas of fuel modification, and enhance the ability to track and display different layers internally and for the public. Engaging the public in the planning through the affirmation of current conditions and prioritization of projects and risk perception helps all level or scale planning efforts (from local project planning to general plan update), and throughout the pre-disaster, during the event, and in the recovery of a disaster.

We propose a community-vetted fire risk model combining elements of the International WUI Code based on expert opinion and experience in the context of nationally recognized standards. Subject matter experts would be called upon to provide a “straw vote” for weights of the components involved in the risk assessment, and will be relied upon to help prioritize programs and projects relating to life, property and infrastructure.

Based on information received from subject matter experts, and adopted codes, WRM will develop a proposed risk rating framework and will present this framework to the District for review. Wildland will meet with District staff to confirm factors and establish preliminary risk scoring of factors. The wildland fire risk model combines core environmental and social inputs regarding properties in the WUI and develops an assessment of wildland fire risk. The attributes that contribute to wildland fire risk would be divided into various subcategories (i.e. fire suppression, fire behavior and property owner intervention). The contribution of each subcategory to overall fire risk is determined using information gathered from a community and fire professional survey. The following table is an example of the types of factors that are suitable for a risk assessment.



WRM will develop a written and graphical community risk assessment for the Core Team to review. Stakeholders, subject matter experts and the public will have opportunities to express their opinions regarding the description and assessment of existing conditions, perception of community vulnerabilities, and priorities of specific projects.

Develop an Action Plan and Assessment Strategy

A risk reduction strategy employs a suite of actions, including methods to reduce ignitions, enhance response and infrastructure, and reduce hazards (through vegetation management, or improving structural components). This integration of various types of geospatial data will enable OCFA to clarify the tradeoffs between strategies, and thus make improved decisions regarding the appropriate mix of each resource. The ability to update the data and associated risk rating will be an important component, and it represents an improvement over other available risk rating methods.

We recommend developing an action plan that establishes the roles, responsibilities, funding needs and timetables, focusing on the top priority actions. In the action plan we will summarize the priority implementation action, identify leads and partners, timeframe and estimate amount of and source of funding. For example, suggested treatment methods with timelines can be provided for treatments on large private-owned lands and public lands, but also small-scale fire mitigation that individual homeowners and communities can undertake. As part of this task we will collaborate with the Core Team to discuss and evaluate various fuel treatments, and document the tradeoffs.

The WRM Team has had great success in searching for funding opportunities and obtaining funding from such sources as California Grants Clearinghouse, CAL FIRE SRA and Greenhouse Gas Reduction grants, Western Forestry Leadership Council grants, Federal Emergency Management Agency grants, and other resources of mitigation funding to assist in implementing projects. Cheryl Miller will take the lead on identifying grant sources and applicability or limitations for projects in the CWPP. We will consult with OCFA regarding the implementation and other strategies to better position OCFA to obtain future grant funding for implementation actions.

For each important program (i.e. community education program, roadside hazard mitigation, fire prevention hazard abatement, vegetation clearance) a metric will be established to assess its success. The metric to be measured, the schedule of monitoring and the success criteria will be important part of the evaluation strategy. As an example, it may be possible to directly link fuels projects with CalFire

Management Activity Project Planning and Event Reporter (CalMapper) and vice versa. In another example for the roadside hazard mitigation program, a set of metrics would include the number of roadside ignitions, after normalizing the days of high ignition potential, and traffic data, as was used to test the One Less Spark Campaign along Highway 20 in 2013. Another example would be to determine the percent of compliance per inspections for vegetation clearance from structures. The items to monitor, the performance criteria, and the levels of acceptable results for success are all items to be included in the assessment of success.

In addition, we will develop general recommendations for fire hazard reduction strategies for public and private open space areas and individual homeowners. We will consider both the OCFA Vegetation Management Guideline, the Fuel Management Standards for NROC Preserves, and the Defensible Space Zone Management Plan to be developed for Orange County Parks in the development of these strategies.

As in all plans, fiscal and resource constraints are important, and they will be incorporated into the Action Plan so that it can be implementable. Will also look at the reality of funding future efforts and how easy is it to obtain alternate types of funding (e.g., via volunteers).

The action plan will be the part of the CWPP where various fuels treatments will be discussed and evaluated, along with an implementation schedule, including monitoring and maintenance guidelines and suggested funding sources. Team Member Cheryl Miller has extensive experience with CWPP funding opportunities and will assist the Core Team to identify grant sources and applicability or limitations for CWPP projects.

The CWPP provides an opportunity to document the process used and the participants involved, share the comments from the stakeholders and public, prioritize the risk reduction projects and develop a plan of action to guide implementation.

Task 3: Conduct Stakeholder Outreach

OCFA is fortunate to have a multitude of stakeholders who are actively engaged/interested in the CWPP process. For example, COAST is a group of agencies and non-profit organizations that meet to discuss mutual issues, including the prevention of damage from wildfire. The Team will involve stakeholders, starting with members of COAST and the local FireSafe Councils, in the beginning of the planning process since connecting early is particularly valuable. WRM will also coordinate with OCFA to convene these CWPP agency decision makers from local, state, and federal agencies, possibly at a COAST meeting, to present the results of the analyses and solicit feedback. At another meeting with the same and possibly expanded group, the Draft CWPP would be presented to solicit comments.

The Team will coordinate with the District to develop materials/notices that are suitable for posting on OCFA's website including meeting notices, other print brochures and summary meeting notes, which may be submitted as official record, and possibly included as an appendix to the CWPP. As part of this outreach effort, we will also develop a constant contact methodology, using a database to build a stakeholder communication network. This method will allow updates to be provided to the stakeholders and allow the stakeholders to express their interest and comments.

In addition, we will compile a preliminary suite of potential municipal departments, agencies, and non-profit organizations who might be interested in the CWPP development process. This list will be provided OCFA for their review. Those stakeholders, which could be landowners, along those involved in disaster response, and/or land management groups (including non-profit organizations such as environmental advocacy groups or fire safe councils) in OCFA will be contacted. Our Team has an excellent working relationship with many agencies throughout the region, which will aid in streamlining the planning process. Carol Rice will facilitate stakeholder meetings to guide the planning process and build consensus among CWPP agencies on the Core Team. Ms. Rice will attend all meetings to provide additional subject matter expertise. We will develop agendas that will outline each component of the CWPP and provide meeting minutes to all participants. We will facilitate refinement of the base map, and refine identification of threats.

We propose to gather the stakeholders for a kick-off meeting to request their participation and data they may have that will facilitate preparation of the base map and threat identification. Additional meetings will be held to present the base map, the identified threats, and risks to the County; solicit project ideas; and present the draft suite of projects and request prioritization of those projects. The final stakeholder meeting would present the Final CWPP and request support of the required approval bodies.

Community workshops will be well publicized through local media, social media, and newsletter articles in stakeholder information outlets. Follow-up communication with stakeholder affiliations will foster formal and informal collaboration regarding priorities and project nomination. The Team will provide material supporting the CWPP. The Team will coordinate with CWPP agency public information officers to develop materials/notices (including meeting notices, meeting notes, project ideas for public comment or input) suitable for posting on OCFA's website and various other media outlets.

Task 4: Prepare the Community Wildfire Protection Plan

The main goals of the CWPP are to present the existing conditions and risk assessment, improve public awareness in fire preparedness and prevention, determine a list of potential projects to reduce risk, and to establish priorities for those risk reduction actions. The plan will document the process and the public participation process that was used, as well as provide opportunity for public comment. The contents will include:

Community Risk/Hazard Assessment

The Team will include a description of the physical environment within the CWPP: its demographics (including a description of the communities within the WUI, i.e. Laguna Beach, Silverado), location, topography, basic climate data, and fire history. We will also describe the response environment, which would include a description of the fire protection organization, and the aspects that support or hinder response.

At the community workshops, we will develop a list of what the community identifies as community values at risk (i.e., critical infrastructure, natural and cultural resources deemed of importance to individual communities, such as critical wildlife habitat, recreational sites, places of historical significance, or environmentally sensitive areas). The values at risk and to be protected will be described, spanning the improved properties themselves, its infrastructure and the potential tax revenue, and social values. We learned from the Oakland Tunnel Fire of 1991 that the properties

themselves were only a portion of the loss experienced. The City of Oakland lost crucial tax revenue, and the community lost its social fabric. Ecological vulnerability and values are high; they are an important component in the risk and hazard assessment. We will not only identify and assess these values, we will prioritize the significant community values that would be severely impacted by wildfire. This will result in an identification of primary risks given existing patterns or trends.

Using fire history, along with fuel types, changes in land use, traffic patterns, and demographics, we will assess the anticipated probability of wildfire ignition in various locations, assigning the ratings of high, medium or low.

Assessment of Hazard

Using the results of the analyses in Task 2, WRM will identify and discuss unique regional or site specific wildfire severity factors and local conditions that contribute to the probability of increased fire ignition or extreme fire behavior. This will include analysis of historic ignition patterns; weather and topographic factors (such as alignment of canyons with Santa Ana winds, or extremely steep slopes) that influence fire behavior, direction and rates of spread; unique fuel types; and effectiveness of suppression efforts.

The fire behavior analysis will result in our ability to describe on a map the spatial distribution of all fuel types in the planning area and detail each fuel type's composition, arrangement, volume, potential seasonal or climate induced variation. We will also describe for each fuel type the expected fire behavior, and assign hazard ratings of high, medium or low.

Structural Fuel Hazards:

WRM will categorize and describe the vulnerability of structures in the communities with a FireSafe Council (e.g. Mission Viejo, East Orange County). The attributes that make one community more vulnerable than others will be characterized as whether they are vulnerable from embers, radiation, or convection.

For example, communities at the bottom of a valley with tree cover and wooden horizontal surfaces may be more vulnerable to ignition from firebrands, whereas a community at the top of steep slopes may be more likely to ignite because of radiation or convection. Each community will be rated in terms of these attributes. The weights associated with each attribute will be determined through collaboration with OCFA staff, expert opinion, and literature review. The combined rating will result in a classification of high, medium, or low vulnerability for the community.

The assessment will be based on factors that include vegetation type, fire behavior outputs (flame length, fireline intensity, maximum spot fire distance and direction), slope steepness, and building footprints. Structural attributes will be approximated using proxies such as date of construction, and other data already available from Orange County Building Department or other sources. The values and weights for each of these attributes will be recommended, and vetted with OCFA and other interested parties. On-the-ground verification of the attributes and results will be an important part of the assessment.

The combined rating will identify where the projects may be most effective. The assessment will result in a method to prioritize projects to retrofit structures. For example, if the rating is high for ember vulnerability, a project might focus on changing vent coverings, deck construction, and vegetation treatments to prevent torching, whereas if the vulnerability is from convection and radiation, the project might focus on projects that reduce flame length.

Assessment of Fire Protection Preparedness and Capability.

Cheryl Miller will assess and describe how well the various communities are prepared for wildfire in terms of emergency planning. She will look for whether they have a FireSafe Council, a well organized CERT, neighborhood watch or other similar organization. We will review the adequacy of their pre-attack and disaster plans already in place, along with any mitigation plans and projects they have completed or have planned. These may be folded into their Local Hazard Mitigation Plan, or expressed in their General Plan, and revealed in the grants they have received for fuel treatments. We will identify programs such as the Red Flag Program in Laguna Beach, and whether the community has Firewise certification. We will evaluate the defensible space inspection program, evacuation plans, and community emergency notification program.

We will also describe the response capability of local infrastructure and area fire protection personnel and resources. We will describe the fire history and other types of emergency response that comprise the workload, and the training and qualifications to respond to such. We will also describe the support the fire protection entities have to detect, report, respond and suppression fires via looking at the access, water supply, utilities, communication facilities in place, along with equipment and stations. We will describe the non-physical support these departments have in terms of cooperating partnerships, financial support and other resources.

Fire Hazard Reduction Treatment Types

An important part of a CWPP is the listing and description of projects to address risk. We will recommend fuel characteristics for defensible space and open space areas (regardless of ownership), detailing spacing and volume of vegetation at a level specific enough to form a basis for inspection. Specific consideration will be given to treatments that need to occur in protected and sensitive habitats, aiming for consistency with the Fuel Management Standards for the Nature Reserve of Orange County, which have already been reviewed by the US F&WS and California Department of Fish and Wildlife. We will also consider environmental values in the treatment recommendations in other ways, including precautions to prevent soil erosion, aesthetics, water use, and unprotected wildlife habitat.

Recommendations for treatments will also include guides for monitoring and maintaining the area by detailing the features to monitor, and the potential triggers for action to prevent soil disturbance and invasion of flammable invasive weeds. Where feasible, we will identify ways to coordinate fuel reduction efforts to be consistent with other agency goals (e.g., controlling or elimination of invasive weed populations).

The standards are based on expected fire behavior, and they will be tested through BEHAVE TSTMDL to validate a project's effectiveness in modifying fire spread rate, flame length, and torching propensity. We will recommend locations for fuel reduction treatments, based on the assessments described above on structural vulnerability, fire hazard levels, and response capabilities. As described previously, the CWPP will incorporate the opinions and preferences of the community in the prioritization of the projects.

We will describe the various types of treatment (e.g., mechanical herbicide application, grazing, and pile burning). We will use as a base the material provided in the Best Management Practices Guidebook for Hazardous Fuel Treatments in Contra Costa County and the Vegetation Management Almanac for the East Bay Hills.

Using the results of the analysis of structural fuel hazards we will recommend treatments to reduce structure ignitability. For example, if the analysis indicates the area was most vulnerable to ignition

from embers, a project to retrofit vents could be recommended. This is the portion of the CWPP that will address land use planning and incorporation of SB1241, where the safety element of General Plans must incorporate measures to reduce damage from wildfire.

Comprehensive Education Program

This program offers recommendations to residents on how to reduce the flammability of structures and provides ongoing opportunities for citizens to become involved in community-based hazard reduction efforts

One focus of the CWPP is to educate the community about the dangers of structural ignitability and provide recommendations for implementing defensible space in the home ignition zone. Particular attention will be placed on recommended actions that reduce structural ignitability of homes and other structures in the WUI, including through the use of Firewise, Ready, Set, Go!, those best management practices in the Wildland Fire Ignition Reduction Strategy and other appropriate community wildfire prevention literature such as published by the Insurance Institute for Business and Home Safety.

One effective communication tool used by a rural community in Napa was a set of Burma-Shave type signs that focus on wildfire prevention; these might be emulated in selected Orange County communities. Messaging around protected habitats will need to include steps to take to minimize environmental impacts of fire hazard reduction. We will present a plethora of educational resources, and solicit feedback from OCFA and its stakeholders. We suggest selecting and following one of the publicly available wildfire preparedness and mitigation programs. The targets for these messages could be residents of areas of historically high ignition rates.

The abundant fire prevention messaging material will be promoted at the stakeholder meetings. Because the public will have a strong participatory role in preparing the CWPP, supported or recommended message formats are more likely to be effective (there is ample evidence from the social sciences showing that the public is highly motivated after they have participated in decision-making).

Ignition Prevention Programs

We will recommend treatments to prevent ignitions, building on the Irvine Ranch Conservancy Report "Wildland Fire Ignition Reduction Strategy". We will encourage use of the new websites www.preventwildfireca.org, and readyforwildfire.org and build on work being conducted by the California Wildfire Coordinating Group prevention committee. The tools of this group include a fire prevention decision support tool predicting where and when fire prevention would be most effective, and a suite of public service announcements and news releases, as well as talking points for use by interested parties.

Strategies that Balance Wildfire Mitigation with Long-Term Sustainability of Natural Resources

We recognize there is a seeming conflict between actions to prevent damage from wildfire and actions to ensure long-term sustainability of natural resources.

However, in some cases a win-win situation can be found through identifying the most important or sensitive feature of the natural resource, and tailor the changes to fuel characteristics to protect those natural resources from wildfire. Long term sustainability also includes the effects of wildfire, so strategies will also need to consider the impacts of long-delayed fire without treatment as compared to impacts of wildfire after judicious treatments have taken place. Similarly, some ecosystems may benefit from management to either reduce potential fire intensity, prevent fire spread entirely, or mimic fire.

Fire behavior can be modified by changing the volume, arrangement, moisture, and chemistry of the fuels. Sometimes changing the arrangement more than the volume can be just as effective.

Strategies to minimize impacts include changing the strata (i.e., tree/shrub crown, or understory), scale, size and spatial design of treatment, as well as the intensity of the treatment. Sometimes changing an alternating the method of fuel removal (switching between mechanical and hand labor or grazing or herbicide treatments) can promote long-term sustainability. Sometimes moving the location of the treatment slightly achieves most of the same goals but with less impact.

We will start by referring to the Best Management Practices Guidebook for Hazardous Fuel Treatments in Contra Costa County. We will look for situations where there are mutual benefits, identify near-optimal strata scale, size, and spatial design for treatments in sensitive areas, and seek areas where treatment would promote long term sustainability.

Draft the CWPP

WRM will prepare draft sections of the CWPP for the Core Team to review and comment on throughout the planning process. Draft sections (including maps and graphics) will be submitted electronically to the Core Team. We will also develop a methodology for receiving comments and make any necessary changes before finalizing the plan.

The Draft CWPP will be provided to the OCFA for review and comment. OCFA review comments shall be incorporated into a final product. The Consultant will accommodate edits by OCFA, and allow up to three weeks for the OCFA staff to provide comments

The Final CWPP will include analyses of data, base maps, community risk assessments, prioritized hazard reduction activities, public outreach, ignition analysis, land use planning, and recommendations to reduce structure ignitability in WUI zones. The CWPP will address common strategic objectives, goals, and conditions shared by stakeholders. The reviewable Draft CWPP will be delivered to OCFA and the Core Team by March 15, 2016.

Upon completion of the press-ready CWPP, WRM will present the results of the planning process to stakeholders and agency representatives in person and via a file transfer protocol (FTP) site or Dropbox or similar site. WRM will produce two hard full-color copies of the Final CWPP and submit to OCFA by March 15, 2016. In addition, WRM will provide all electronic files on a CD, including a digital copy of the CWPP and all maps in PDF and ESRI geodatabase or shapefile format.

A Methodology for Future CWPP Updates

Carol Rice and Cheryl Miller will evaluate criteria for CWPP effectiveness and draft an assessment strategy to identify deficiencies and recommend strategies for improvement. Updates should be triggered by easily measurable objectives—examples could include:

- Updated response planning based on new information/fire resources/changing climate.
- Include measurement of achievement of CWPP objectives (percent of homes with defensible space).
- Monitor fuel treatments to ensure that they continue to achieve their purpose.

In addition to the monitoring guideline to measure treatment success, we will develop a strategy to gauge the success of the CWPP. We will recommend measureable criteria for success, acceptable levels for each criteria, and triggers for action when success levels are not achieved.

The methodology that will be recommended is a tool for gauging the success of implementing the CWPP. The metrics to be measured, the schedule of monitoring, and the success criteria are outlined in this action plan as a method to assess level of completion, or effectiveness of the projects identified in the CWPP. Specifically, it will be important to monitor fuel treatments to ensure that they continue to achieve their purpose. The methodology for updating the CWPP would, in this example, identify the fuel characteristics of the treated area along with the vegetative or habitat characteristics.

However, not everything needs to be monitored (the appropriate adage is “measure what matters”). The feedback mechanisms are intended to allow the evaluation of tradeoffs of the actions as they are implemented to ensure relevance and effectiveness over the long term

4. APPENDIX C – PROPOSAL QUESTIONNAIRE

Method of Approach

1. *Describe how your firm measures the success of the consulting services your firm has been responsible for*

Wildland Res Mgt has developed a base of repeat client, done without a website or broadly cast promotional material. We believe the best advertisement is a client who is eager to engage the services of the firm when the need arises. Cheryl Miller offers that her success is often gauged by the grants her client receives or the additional resources that are made available from new partnerships created from her product and services. LCA has developed a client list of governmental agencies. We have worked with these clients on many projects over the past 37 years. Esther Mandeno has a limited client base that all consider themselves lucky to obtain the products she provides (WRM is one of those lucky clients).

2. *Provide information on any innovative or unique methods used that distinguish your Firm from other plan consulting agencies*

- We tailor each project's team with personnel who are best suited to fulfill the goals of the client.
- We cross-pollinate ideas from client to client, spreading best practices
- We base recommendations on a solid background in fire behavior AND fire effects, balancing the two, and integrate it with 35+ years of community interaction
- The team includes fire ecologists/planners as well as environmental planners/analysts experienced in assessing effects of wildfire and suppression activities on natural resources.

3. *Provide information regarding how your firm would approach dealing with the fuel types in OCFA's SRAs and their potential fire threat*

We will start with acquiring data from LANDFIRE because this dataset crosses all property boundaries and even extends into the wildland urban interface. We will analyze the predicted fire behavior with those fuel types and use expert opinion of OCFA and our team to determine whether the predicted output matches past experience, and whether the fuels need to be characterized in a different manner.

If so, we will work with OFCA to determine the attributes to refine in order to arrive at a realistic out. This may involve:

- Assigning a separate fuel model for vulnerable structures and a non-burnable model for ignition-resistant construction,
- Forcing an increased foliar moisture for landscaped areas, or
- Minimizing height to live crown base to maximize predicted torching.

We will work with OCFA and the dataset to determine the scale and locations of changes to the fuel types because WUI neighborhood areas vary considerably at a much smaller geographic size, and may be based on community characteristics.

4. *Provide information regarding what type of support your firm may require from OCFA for the duration of this project*

OCFA could help by providing spatial data, obtaining meeting rooms, providing information regarding community contacts (within private neighborhoods), and offering decisions regarding criteria for risk assessment. It would also be of assistance to print large format maps for stakeholder and public meetings.

Qualifications and Related Experience

1. *Provide relevant information demonstrating competence in the services to be provided; including supporting evidence of strength and stability of the firm; staffing capability; and work load*

Competence: All team members are highly respected in their field. This is demonstrated by the reports and publications they produce and the repeat clients they engage. For example, Mr. Charles is the principal author of over 100 EIRs and land management plans; Ms. Rice similarly has written over 100 reports and technical papers, and provided dozens of invited presentations. She has been program chair of almost 10 national conferences in wildland fire management. Ms. Miller and Ms. Rice are co-authors of a reference book *Managing Fire in the Urban Wildland Interface*, a reference book used in college courses. All are educated to at least a Masters level, and have a variety of certifications.

Strength and stability: All members of the team have been consulting in their fields for 20 years or more. Carol Rice joined Wildland Res Mgt in 2013 to seek expanding markets; she continues to provide the same services as when she started consulting in 1979. LCA has been in business since 1977. All team members are founding partner s of the firms and has managed all large projects with which the firm has been involved. **Staffing capability and Work Load:** Wildland Res Mgt does not anticipate a conflict in workload for this project, but can expand staff or subcontracts if the need arises. LCA has staff required to prepare its portion of the project; LCA's work load will not impede our ability to provide services for this project, as is the case with that for Cheryl Miller and Digital Mapping Solutions (Esther Mandeno).

Staffing capability and work load: Wildland Res Mgt does not anticipate a conflict in workload for this project, but can expand staff or subcontracts if the need arises. LCA has staff required to prepare its portion of the project; LCA's work load will not impede our ability to provide services for this project, as is the case with that for Cheryl Miller and Digital Mapping Solutions (Estherer Mandeno)

1. *Provide details on your Firm's experience in producing wildfire protection plans and updates in Southern California. Include experience in areas where there is a high level of public interest*

Carol Rice recently developed the Stakeholder's Implementation Guide for the Wildland Fire Management Plan for the Nature Reserve of Orange County, with assistance from Esther Mandeno, and developed Fuel Management Standards for vegetation treatments on the Reserves. Through this process, Ms. Rice attended

several COAST meetings, and is familiar with the many stakeholders' land base, issues, missions and challenges. Ms. Rice also developed fuel management treatment standards for the City of Rolling Hills, and designed with assistance from Cheryl Miller five separate guides for homeowners, followed by a contractor's workshop. Carol Rice is currently helping Panorama Environmental prepare an EIR for the installation of powerlines for SDG&E. A more complete set of resumes and statements of qualifications appears in Section 6 of this proposal.

Carol Rice is currently representing the University of California, Berkeley in the East Bay Hills FEMA Grant to reduce fire hazards, which is a project of high public interest. Over 500 people attended the last public meeting in the EIS process. She is assisting the University in implementing the grant, interfacing with public groups, fulfilling the requirements set forth by the USF&WS, Cal OES, and developing contract specifications for operations as part of the fuel treatments.

Leonard Charles is no stranger to controversy; in preparing the Marin Municipal Water District's Vegetation Management Plan, prescribed burning was a topic that garnered hundreds of people in attendance of the public meetings. Issues surrounded prescribed burning and since, herbicide application.

2. Explain how your Firm keeps abreast of the latest changes in state, local, and federal requirements and codes

Carol Rice is a member of the Northern California Fire Prevention Officers, finishing her term as Co-Chair of the Wildland Urban Interface Committee, where updates to codes and regulations are routinely shared. Similarly, she is a full member of the Society of American Foresters and will be leading a field trip in September regarding a hazard fuels treatment. There best practices are exchanged. She is a subscriber to the International Journal of Wildland Fire, to USFS Research Paper distribution network. She also attends and gives presentation to national conferences where the latest science is offered.

Cheryl Miller keeps abreast of changes in state, local and federal requirements and codes through the monthly meeting of the Hills Emergency Forum, where a "What's Hot" section of the meeting is a full exchange of new issues, challenges and regulations. Esther continues to learn new skills, teaching herself Python for ArcGIS (ArcPy) and is using ESRI's new format – a Story Map and Google's new Map API.

Leonard Charles is a full Member in good standing of the Association of Environmental Professionals, the Society of American Foresters, and the American Anthropological Association as well as an Associate Member the State Bar of California, Environmental Section.

In order to stay abreast of changes in environmental legislation and court decisions affecting environmental management, LCA receives quarterly or monthly bulletins from the Association of Environmental Professionals on adopted or proposed legislative changes and legal decisions regarding CEQA and NEPA, the Society of American Foresters on forestry-related issues, and the State Bar of California regarding legal decisions on environmental issues in

the state. We also receive the annual update of the Continuing Education at the Bar's (CEB) to Practice Under the California Environmental Quality Act. In addition, we receive periodic updates from several leading environmental law firms on legal decisions or pending cases regarding environmental matters.

3. Indicate experience gained from recent work similar to the services requested in this proposal.

Each CWPP is different, a reflection of the physical environment and the community it holds. Carol Rice has drafted CWPPs for communities as small as 200, and one spanning almost the entirety of Sacramento County. The experience points to the need to first determine the goals of the Core Team as well as the challenges and opportunities they face. The analyses and recommended projects will follow. The experience from developing the Stakeholders Implementation Guide to the Wildland Fire Management Plan for the Nature Reserve of Orange County, taught us that a product is better when it is tailored to each stakeholder/client and that a longer document is not necessarily better. For example, the CWPPs for the small communities are typically shorter than 20 pages; these are easily implemented and updated.

4. Provide the list of the proposed team members, their roles, and contact information. Include resumes for each team member

Carol Rice, Wildland Res Mgt, 134 Journeys End, Alamo, CA 94507, (925) 944-5282, carollrice@aol.com

Ms. Rice will be the Project Manager and involved in every task. The bulk of her time will be dedicated to the collection of data and analysis, and the Development of the CWPP.

Cheryl Miller, dba Cheryl Miller RLA, 3311 39th Ave., Oakland, CA 94619, (510) 282, 1265, cmillerrla@comcast.net

Ms. Miller will assist in all tasks, and be particularly involved in the outreach process, and will also assist in the development and review of the CWPP.

Petronila Esther Mandeno, Digital Mapping Solutions, P.O. Box 11443, Santa Rosa, CA 95406, (530) 386-2368, mandeno@digitalmappingsolutions.com

Ms. Mandeno will perform all GIS functions in this contract and design all maps. This type of effort is expected to be needed in analyses, outreach, and in the CWPP itself. Ms. Mandeno will also be involved in performing fire behavior analyses.

Leonard Charles, LCA, 7 Roble St., San Anselmo, CA 94960 (415) 454-4575, lcharles@leonardcharlesandassociates.com

Leonard Charles will assist the team in assessing risks to natural resources and effects of risk reduction strategies on these resources. Along with Jacoba

Charles, we will assist in writing and editing of the plan and accompanying documents.

If so requested by OFCA, we can revise the time allocation between the team. Please also see Section 6, List of References and Relevant Experience for Resumes and Project Experience.

Exceptions/Deviations

1. *State any exceptions to or deviations from the requirements of this RFP and the sample professional services agreement. For each exception and/or suggested change, the respondent must include:*
 - a. *The suggested change in the agreement and suggested rewording of the contractual obligations*
 - b. *Reasons for submitting the proposed exception or change*

WRM does not request any exceptions or deviations.



Wildland
Res Mgt



Sacramento Metropolitan Fire District Community Wildfire Protection Plan



June 2014



PREPARED FOR:
Sacramento Metropolitan Fire District

PREPARED BY:
Ascent Environmental, Inc.
Interra Group
Wildland Res. Mgt.



Sacramento Metropolitan Fire District Community Wildfire Protection Plan

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FUNDED BY

**Federal Emergency Management Agency
Grant # EMW-2012-FP-00639**

IN CONJUNCTION WITH

**Stakeholder Committee Members
(members listed in Section 2.7.1 of this document)**

June 2014

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1 INTRODUCTION

In 2008, a wildfire that injured Sacramento Metropolitan Fire District (Metro Fire) firefighters in a burnover, a fire in which personnel were overrun by a wildland fire, highlighted the need for Metro Fire to implement additional strategies to prevent and combat wildfire within Metro Fire's jurisdictional boundaries (District). In response to this fire, Metro Fire applied for and successfully obtained a grant from the Assistance to Firefighters Grants Program (Fire Prevention and Safety) of the Federal Emergency Management Agency (FEMA) to develop this community wildfire protection plans (CWPP) and to launch an integrated wildfire prevention program that would reduce wildfire risk and increase community resiliency within district boundaries.

The Healthy Forest Restoration Act (HFRA) was passed by Congress on November 21, 2003 and signed into law by President Bush on December 3, 2003. The HFRA encourages communities within the wildland urban interface (WUI) to create CWPPs. Preparation of a CWPP allows communities to clarify, refine, and establish priorities for protection of life, property, critical infrastructure, and natural resources within its jurisdiction. A CWPP contains an assessment of the hazards and risks facing the community and identifies treatments to protect the community. CWPPs are authorized and defined in Title I of the HFRA.

The HFRA places renewed emphasis on community planning by extending a variety of benefits to communities with a wildfire protection plan in place. Critical among these benefits are 1) the option to establish localized definitions and boundaries for areas having high risk potential, hazards (fuels), and values; and 2) the opportunity to help shape management priorities within the planning area.

The CWPP, as described in the HFRA, brings together diverse local interests to discuss their mutual concerns for public safety, community sustainability, and natural resources. It offers a positive, solution-oriented environment in which to address challenges such as local firefighting capacity, the need for defensible space around homes (and areas of value), and where and how to prioritize land management.

The purpose of the proposed CWPP is to provide stakeholders and those living in the Metro Fire boundaries with an overview of the wildland fire risks, hazards, and values within the planning area; recommend possible courses of action to reduce the impacts of wildfire in the planned area; and to share an action plan.

The three main components of a CWPP are 1) collaboration with all stakeholders throughout the CWPP process, 2) identification and prioritization of hazardous fuel reduction areas, and 3) addressing the treatment of structural ignitability within the CWPP area.

This draft CWPP:

1. Describes the four environments within the District: natural, built, response, and social environments;
2. Delineates the WUI within the District;
3. Assesses the risk posed by wildfire in the WUI;
4. Provides a community base map that provides a visual information baseline from which the community can assess and make recommendations regarding protection and risk-reduction priorities and depicts features that orient the user to valuable resources at risk from wildfire, emergency response facilities, important infrastructure, and possible sources of wildfire hazard.
5. Provides maps that show high fire hazard areas, as defined by federal, state, and local authorities;

6. Describes a suite of desired projects that span site-specific fuel treatments, recommendations for public education, changes to codes and ordinances, changes to development patterns for planning, and a framework for as yet-undefined projects;
7. Establishes prioritization of fuel management projects and treatment methods, as well as principles for selection of projects when funding is available;
8. Describes the measures communities and homeowners can take to reduce the ignitability of structures;
9. Establishes ways to evaluate progress through measurement and feedback; and
10. Identifies federal, state, and local resources, such as fire response agencies, wildlife and watershed regulatory agencies, open space management agencies, private landowners and homeowners, private vegetation management contractors, and hand crew suppliers.

It is Metro Fire's intent that this CWPP be a living document in that it provides a vision for fuel management over the next 10-15 years. However, it would be actively managed and monitored so that, as conditions change, it will be updated to reflect progress made towards implementing projects and to respond to the changing environments (e.g., new developments, changed fuels, recovery actions). The CWPP WUI and projects identified below describe those actions that are reasonably foreseeable based on the current environmental conditions within the District and available data and information.

2 OBJECTIVES

The overarching goal of this CWPP is to implement a comprehensive plan that results in the protection of human life and reduction of the loss of property, critical infrastructure, and natural resources due to wildfire. This CWPP is also intended to achieve the following primary objectives:

- ▲ assist agencies, communities, and local homeowners define, plan, and prioritize types of actions that would limit the damage associated with wildfire.
- ▲ reduce the risk of destructive fires through implementation of the following:
 - increased collaborative planning and cooperative actions that would build useful relationships between communities and agencies;
 - reduction of hazardous fuels in the wildland-urban interface (WUI);
 - creation and maintenance for defensible space for structures and properties;
 - reduction of structural ignitability hazards;
 - implementation of evacuation protocols and drills; and
 - improvement of response capabilities through enhanced training and pre-fire planning;
- ▲ increase community resiliency;
- ▲ foster a community-wide understanding of the risk of wildfire and the benefits of combined individual and community-level mitigation actions;
- ▲ establish a process to quantify improvements in community resiliency over time that include tracking, planned, and completed mitigation projects and the success of community outreach;
- ▲ form a stakeholder group that would serve as an advisory body to Metro Fire regarding the risks of fire in the WUI;
- ▲ increase awareness of the need to protect natural resources, as well as the methods for protecting these resources, both during vegetative treatments and fire response;
- ▲ bring the community together to collaborate with local, state, and federal partners to formally assess the risk;
- ▲ integrate pre-emergency mitigation planning and incident response in the event of a wildfire;
- ▲ coordinate wildfire planning and mitigation with community development and ongoing maintenance activities;
- ▲ provide a useful tool for decision support and situational awareness that will allow Metro Fire to assess the risk of wildfire at the community level, develop and monitor mitigation alternatives, and share data directly with homeowners and community managers; and
- ▲ fulfill a necessary prerequisite for future funding from federal agencies.

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3 DESIRED OUTCOMES

In addition to the objectives above, the CWPP is designed to support the following broad outcomes:

- ▲ Provide a community-wide understanding of the risk of wildfire and the benefits of combined individual and community-level mitigation actions.
- ▲ Implement a process to quantify improvements in community resiliency over time to include tracking planned and completed mitigation projects and the success of community outreach.
- ▲ Integrate pre-event mitigation planning and incident response in the event of a wildfire event.
- ▲ Implement Metro Fire's CWPP recommendations and form a stakeholder group that will serve as an advisory body to Metro Fire about the risks of fire in the WUI.
- ▲ Implement enhanced collaboration and partnerships to ensure greater efficiency throughout all phases of fire management within the District, including prevention, preparedness, response, and recovery.
- ▲ Provide increased awareness of the need and use of methods to protect natural resources during vegetative treatments and fire response.
- ▲ Fulfill a necessary prerequisite for future funding from many federal agencies.

During preparation of this CWPP, Metro Fire collected up-to-date environmental and community data to support Metro Fire operations from planning to response and recovery. During the process of developing the CWPP, several additional capabilities were added to Metro Fire's programs, including:

- ▲ A web-based portal that provides a shared awareness of the risk of wildfire between Metro Fire and members of the community. The portal provides a mechanism for Metro Fire and homeowners to communicate on specific fire mitigation actions that each can implement.
- ▲ A Wildfire Risk Assessment Framework that assesses parcel-based fire risks which are aggregated to support fire response, individual homeowner education, community planning, and development. This framework is being developed through a stakeholder engagement process bringing together diverse perspectives ranging from community development to emergency response.
- ▲ A large collection of data, including baseline community development information, natural resources information (including sensitive habitat and cultural resource areas), aerial imagery, and emergency response information.

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4 DELINEATION OF THE WILDLAND URBAN INTERFACE

CHARACTERISTICS OF THE WILDLAND URBAN INTERFACE

The WUI is the meeting point between wildland vegetation or fuels and structures (Figure 4-1). At this interface, the structure and vegetation are sufficiently close that a wildfire could spread to a structure or a structure fire could ignite vegetation. The proximity of vegetation and structures needed to spread fire varies with the vegetation (fuel) type, the siting of the structure, and the exterior characteristics (building material and design) of the structure itself. WUI is defined on a scale larger than one lot or neighborhood. The importance of spatial distribution of vegetation and structures in the WUI is discussed in more detail below.

In the past, the vast majority of wildfires occurred in remote locations and caused little damage to property or loss of human life. During the last 50 years, however, history is replete with examples of destructive fires in the WUI throughout California. Almost all of the wildfires within the District are caused by humans, and are closer to developed areas. Because of the increased values that accompany structures and other improvements, most losses from wildfire occur in the WUI.

Areas identified within a WUI are targeted for increased levels of fire prevention, preparedness, response, and recovery plans. Parcels in this designation are typically subject to more stringent regulations regarding ignition-resistant construction, defensible space creation and maintenance, and heightened levels of education regarding fire prevention.

METHODS OF DELINEATION

The federal HFRA enables communities to define their own WUI boundary. The WUI is defined within Metro Fire as parcels that have abundant wildlands fuel. More specifically, these are parcels with at least one half acre of wildland vegetation, as mapped by CAL FIRE, and parcels within 1,000 feet of large areas of wildland vegetation. In some cases, this WUI boundary can be difficult to discern due to a gradient of development that gradually transitions from small lots to larger parcels with plentiful vegetation. In other cases, the WUI includes an island of wildland inside a developed area or a small cluster of structures in a large open space area. The WUI delineation relied on two factors that make up the interface: the presence of wildland vegetation and structures.

Using a set of spatially defined data that characterizes vegetation and parcel boundaries, the following set of decision rules were established to determine which properties should be included within the WUI:

1. The boundary of the WUI will fall on the parcel boundary;
2. All parcels are greater or equal to one-half acre;
3. Any parcel where the total percentage of all fuel types is greater than one-half acre;
4. Any parcel where surface fuels are present;
5. Any parcel greater than 80 acres; and
6. Any parcel with a 1,000-ft buffer around wildlands that are greater than 80 acres.

Commercial properties were excluded except where they abut wildlands greater than 80 acres in size. Thus, the WUI delineation is a result of a geospatial analysis using the data sets of surface fuel models and parcel size. The approximate boundary was confirmed and refined during the public engagement process.

Neighborhoods where there are a mixture of parcels that meet the above criteria along with parcels that do not were considered in the WUI if the majority of the parcels are mapped as meeting the WUI criteria, using the above criteria. This avoided a “salt and pepper” distribution of designations of WUI, and resulted in larger blocks and more parcels being mapped as WUI.

Parcels larger than 80 acres were considered WUI parcels even if they did not contain structures because if a structure were to be built, it would become WUI.

Most of the area designated as WUI is located in the southeast portion of the District. Because a combination of characteristics cause lands to be considered WUI, the following discusses the distribution of those characteristics.

Vegetation

- ▲ Areas of most urban development within the District are in the cities of Citrus Heights and northern Rancho Cordova.
- ▲ More of the area south of Highway 50 is covered with wildland vegetation.
- ▲ The vegetation in the northeast corner of the District (Elverta and Rio Linda) is composed mostly of agricultural crops.
- ▲ Large areas in Florin, in the southwest portion of the District, are primarily urban with minimal vegetation, especially around the Florin Perkins Road from Gerber Road to Jackson Road.
- ▲ Other areas primarily devoid of vegetation are along Fair Oaks Boulevard from El Camino Avenue to Winding Way; and along Lincoln Highway; and Sunrise Boulevard from, just north of Madison Avenue to Greenback Lane. Similarly, the area west of Watt Avenue along Arden Way is largely devoid of vegetation until it intersects Del Paso Boulevard to the west, past the Erickson Industrial Park.
- ▲ Large areas of commercial property are found near the air force bases and in shopping centers.
- ▲ Natural areas along creeks form large vegetated strips that span many parcels. While the American River Parkway (ARP) is under one ownership (within the District boundaries), Arcade Creek forms a large vegetated area under numerous ownerships. Similarly, strands of natural vegetation string from Auburn Plaza shopping Center to Shadowcreek Park to Northbrook Way to Kilborn Drive south of Madison Ave.

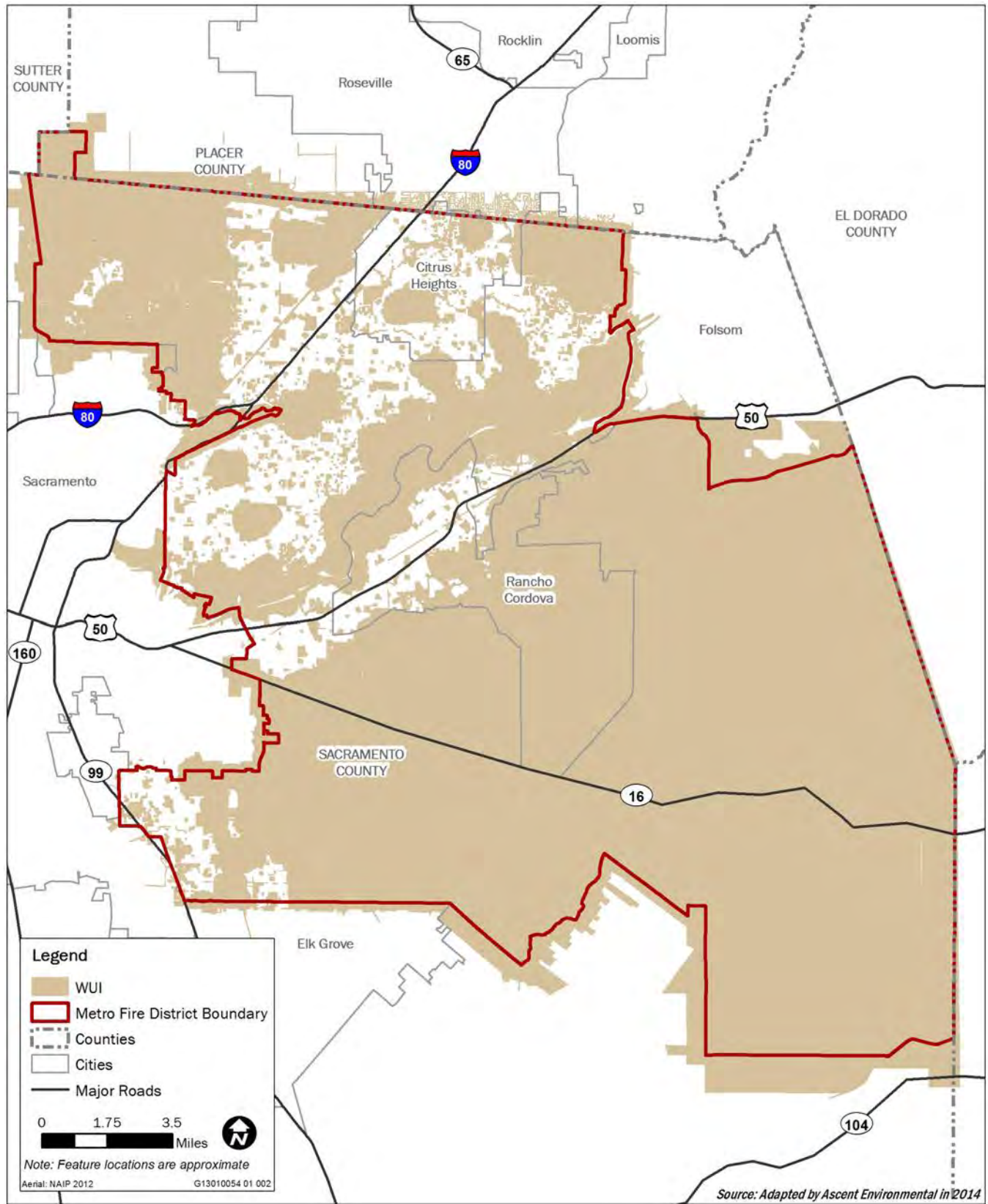
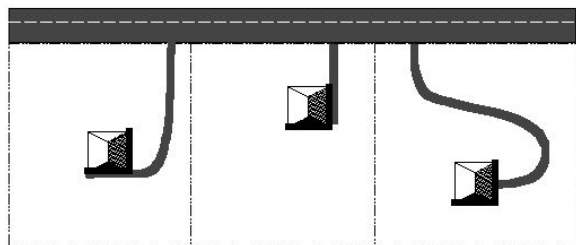


Figure 4-1

Wildland Urban Interface

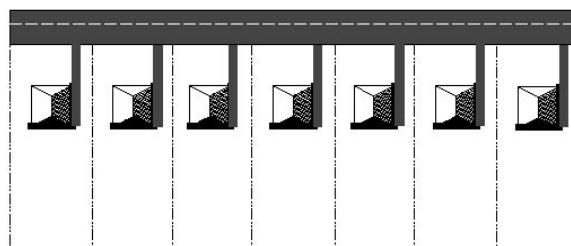
STRUCTURE DENSITY AND ARRANGEMENT

Structure density, or the distance between structures, relates directly to horizontal fuel continuity. The closer structures are together the greater the likelihood of fire spreading from structure to structure, contributing heavy fuels and additional ignition sources. Structure density is usually measured in terms of the number of units (or homes) per acre. Whether it is wildland with limited development, or heavily developed urban areas with limited wildland, the form of the interface makes a difference. The presence of structures, even in low density, complicates wildfire suppression by requiring different tactics to protect homes than are used on the surrounding vegetation. This may limit the strategies available to restrict fire spread and contain the fire.



Low Structure Density

- Large quantities of fuels left untreated
- House-to-house ignition less likely
- Inefficient suppression activities



High Structure Density

- Fuels between homes are likely removed
- House-to-house ignition less likely
- Efficient suppression activities

5 COMMUNITY BASE MAP

The community base map is an important feature of the CWPP that serves to create a shared vision of the existing environments within the District and is required by the Healthy Forest Restoration Act (HFRA) in order to obtain approval by cooperating federal and state agencies. The Community Base Map for this CWPP is depicted in Figure 5-1 and also resides on the Metro Fire geoportal in a more interactive form. The map provides a visual information baseline from which the community can assess and make recommendations regarding protection and risk-reduction priorities and depicts features that orient the user to valuable resources at risk from wildfire, emergency response facilities, important infrastructure, and possible sources of wildfire hazard. Features depicted on the map include:

1. City and county boundaries
2. Land ownership
3. Fire station locations
4. Network of streets
5. Open spaces and parks
6. State-determined high hazard areas

A draft of the community base map was presented at stakeholder meetings in fall 2013 and was refined, as shown in Figure 5-1, based on comments received during those meetings.

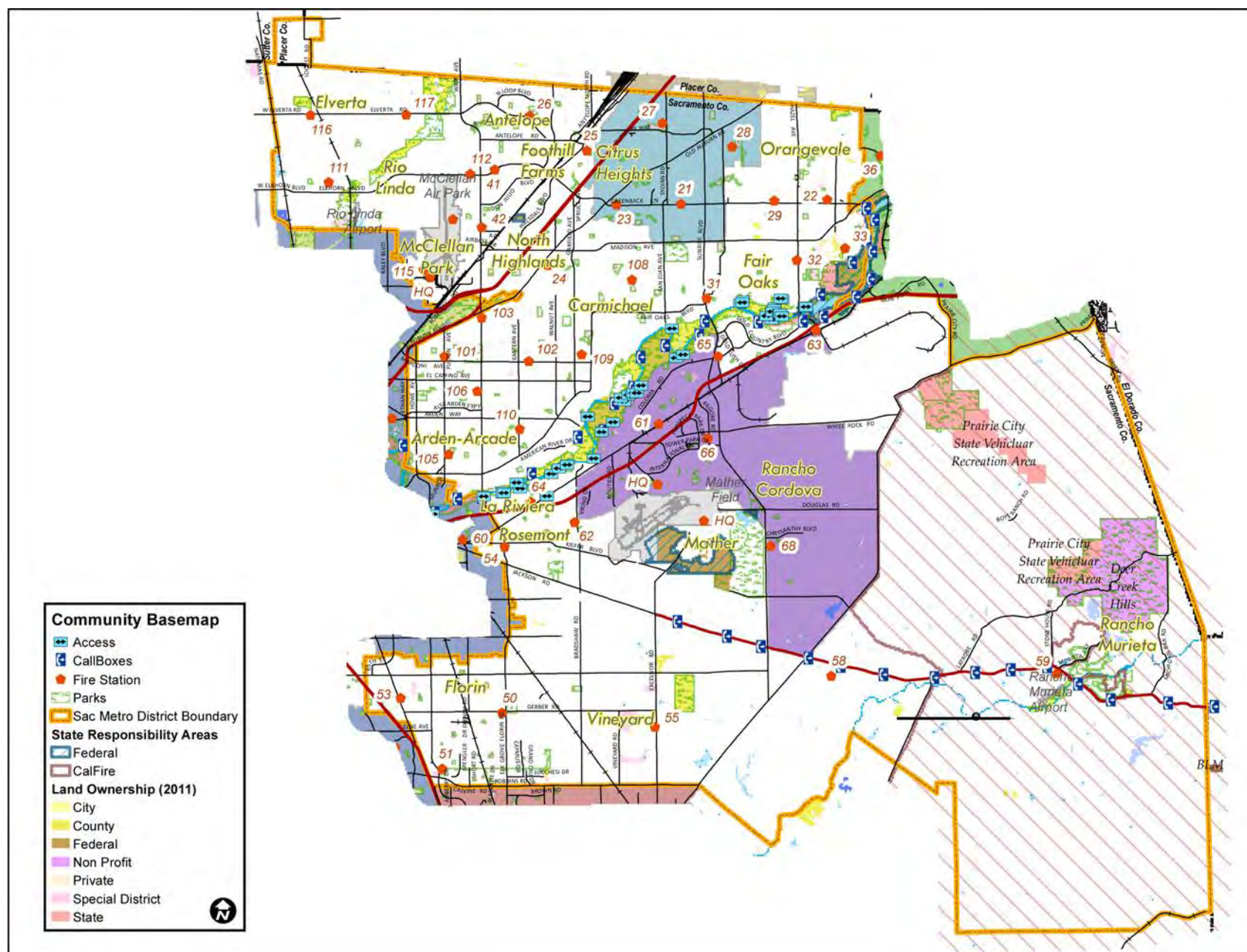


Figure 5-1

Community Base Map

6 DESCRIPTION OF METRO FIRE

Metro Fire is an independent, special fire district protecting California's state capitol region. Metro Fire's area of responsibility is located in the northern, unincorporated portion of Sacramento County, but it also includes a small part of Placer County (Figure 6-1). Metro Fire is located in the middle of the Central Valley and is bordered by Amador County and El Dorado County on the east, and Placer County and Sutter County on the north, and other parts of Sacramento County to the south and west. The District is bordered by—but does not include—the City of Sacramento to the west, the City of Folsom to the northeast, and the City of Elk Grove to the southwest. The Cities of Citrus Heights and Rancho Cordova are both located in the northern portion of the District. The other towns and communities within the District are unincorporated, and the County has land use jurisdiction over these communities.

Metro Fire formed as a result of the consolidation of 16 smaller fire departments, including Arcade, Arden, Carmichael, Citrus Heights, Elverta, Fair Oaks, Florin, Mather Field, McClellan Field, Michigan Bar, Mills, North Highlands, Orangevale, Rancho Cordova, Rio Linda, and Sloughhouse. Some of these fire agencies were founded in the early twenties to provide fire protection in remote parts of the County. The last merger was December 2000 when American River Fire and Sacramento County Fire merged into Metro Fire.

Metro Fire provides emergency and fire response services to nearly 600,000 people in a 417-square-mile area from 42 stations and the employment of 750 uniformed and support personnel. The varied demographics of the District provide opportunity for its personnel to respond to emergencies in rural, suburban, and urban settings. The wide diversity of emergency incidents require firefighters to be proficient in wildfire response, structural fire response, crash fire rescue, technical rescue, swift water rescue, hazardous material mitigation, and paramedic medical services.

Metro Fire continues to provide fire protection, fire prevention, fire safety education, emergency medical aid, and other emergency response services.

Table 6-1 Sacramento Metropolitan Fire District Profile

Established	2000
Total Staffing	750
Annual Calls	80,000 +
Daily shift staffing	165 per shift
Stations	42
Engines	36
Trucks	8
Heavy rescue vehicle (a type of specialty firefighting or emergency medical services apparatus)	1
Bulldozers	1
Helicopters	2
Fireboats	2
Emergency Medical Support Units	14
Medical Support Level	Advance Life Support

¹ Emergency Medical Support Units are staff vehicles dedicated to providing out-of-hospital acute medical care, and transport to medical facilities.

² Advanced Life Support is a designation that indicates a high level of training, equipment, (paramedic-level responders).

Source: Metro Fire <http://www.sacmetrofire.ca.gov/>

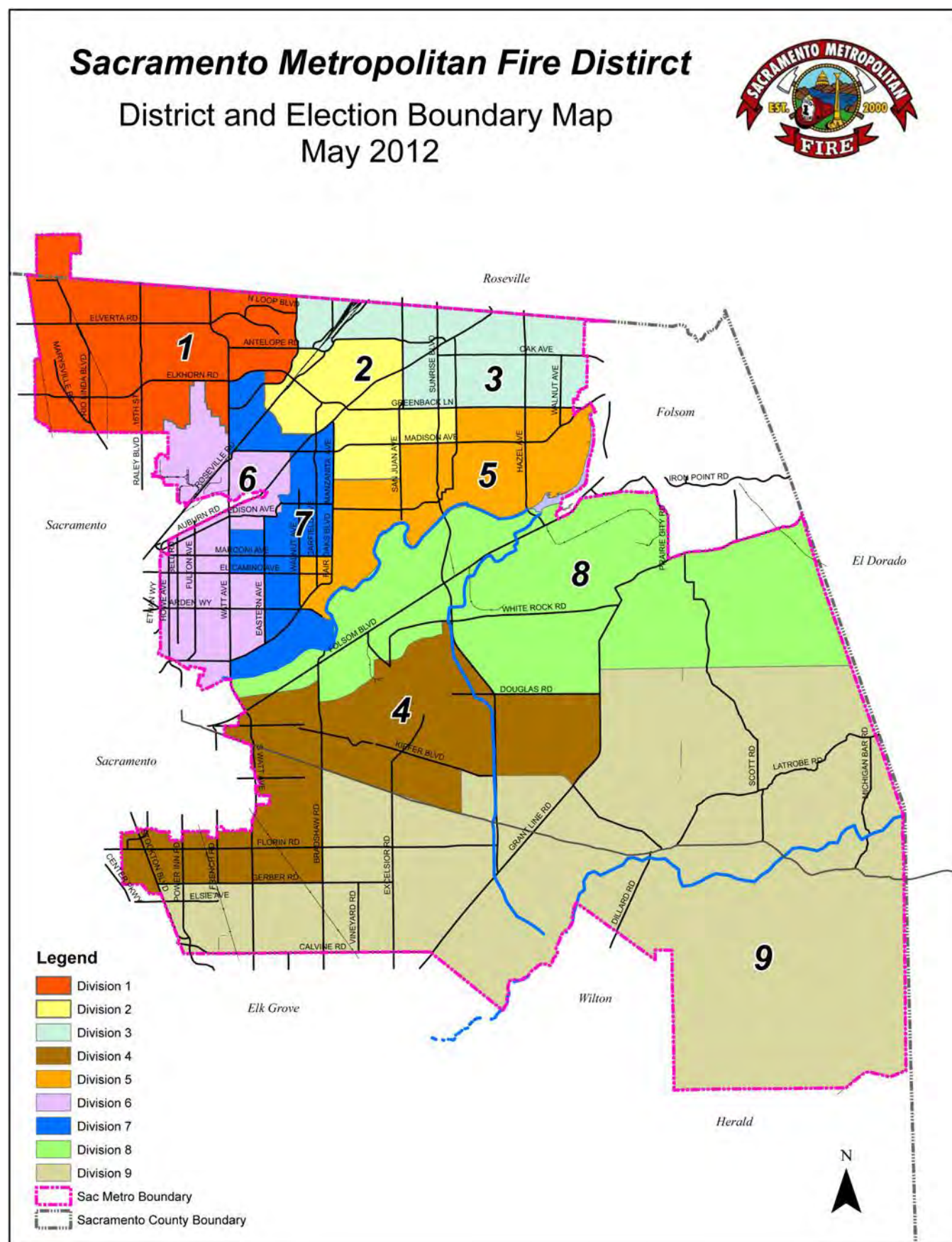


Figure 6-1

Extent of Metro Fire Jurisdiction

BOARD OF DIRECTORS

Metro Fire is a special district governed by a Board of Directors (Board). Each board member is elected by the voters within a geographical area, or division, of Metro Fire's operational area. There are nine Board Members representing the citizens within Metro Fire's jurisdiction (Figure 6-1).

The Board's regular meetings are held on the second and fourth Thursday of each month at 6:00 PM, with the exception of holidays and other recesses. The Board encourages attendance and input at Board meetings.

Division 1, Gary Monk

Division 6, D'Elman Clark

Division 2, Grant B. Goold

Division 7, Matt Kelly

Division 3, Randy Orzalli

Division 8, Gay Jones

Division 4, Ted Wood

Division 9, Dave Pierson

Division 5, Jack Scheidegger

NATURAL ENVIRONMENT

There are several factors within the natural environment that influence decisions made in the CWPP. For example, weather topography and fuels combine to determine fire behavior, and resulting fire hazards. Habitat types that are protected by law, or by best practices may constrain the type and extent of activities aimed at fire hazard reduction.

Local Weather

The Sacramento area features a Mediterranean climate that is generally sunny and often mild. Summers are extremely dry and virtually cloudless, and winters are generally only rainy for 10 days out of the month (NWS 2010). The nearby city of Sacramento has an average annual high of 74° F and a low of 48° F, with 74 days that are over 90° F, and 17 days that drop below freezing (WRCC undated). The average rainfall is 17.5 inches, with rain falling on 58 days out of the year (WRCC undated).

There are no weather stations in the District that monitor conditions in a manner compatible with national fire danger ratings, or with state-wide methods of monitoring fire weather. According to Metro Fire staff the most dangerous fire conditions for the region are when strong winds blow from the north. Normally these winds are dry, with a powerful desiccating effect. These winds most often occur in the fall, but can also be common in late spring. Other conditions where wildfires are more likely to occur and become damaging are when high temperatures have persisted for days; this results in more ignitions and fires of higher intensity.

Local Wildland Fuels

DESCRIPTION OF FUEL MODELS

Fuel models describe the characteristics of vegetation that influence the way they burn. Fuel models are used by all wildland fire response agencies because they are an important factor in predicting fire behavior, usually within the Fire Behavior Prediction System (FBPS). Fuel models can sometimes be related to vegetation, such as tall and short chaparral, tall and short grass, timber with and without an understory, and oak woodlands with and without understory vegetation. Fuel models are also known as fuel types. The structure (or arrangement) of the vegetation is just as important as the kinds of plants that grow in the vegetation. The various characteristics of each fuel model are detailed in Appendix B.

In determining the appropriate fuel model to apply to an area, it is critical to consider the fuel that will actually carry the fire. For example, a sparse stand of oaks, or an individual oak with a grass understory may be characterized as a grassland fuel model because the oak leaves and branches may not contribute much to the fire behavior because of the minor amount of leaf drop, or because the height at which the branches start is high.

An important source of data regarding wildland fuels comes from LandFire, a program to map fuels consistently throughout the nation. Figure 6-2 below depicts the spatial distribution of wildland fuel models within the District. Fuel models mapped in the District include annual grasslands, oak savannas, and oak woodlands, located primarily within the northern and central portion of the District and within the ARP. Shrubby fuels mapped as chaparral are located within the southeastern portion of the District. In almost all cases, the fuel models can be described in terms of vegetation types as well as the understory vegetation and presence of dead biomass. Refer to Section 6.2.4, below, for a summary description of habitat types located within District boundaries.

Topography and Land Use

Land uses within the District include urban, suburban, and undeveloped (natural or agricultural). The terrain throughout is primarily flat or composed of gently rolling hills, with the steepest terrain being located in the eastern portion of the District, where the Central Valley begins to transition into the Sierra Foothills, and along the American River.

The northern portion of the District is the most developed, and includes the urban and suburban development within the cities of Citrus Heights and Rancho Cordova, and surrounding unincorporated communities. Citrus Heights is located north of the American River, where it covers approximately 14 square miles immediately adjacent to Interstate 80. Rancho Cordova occupies nearly 34 square miles on the south side of the American River. A much larger area of urban and suburban development surrounds these communities, and is loosely circumscribed by Interstate 80 to the north and Highway 50 to the south. The American River runs between these two roadways, and forms a green belt through the developed area. (See the Community Base Map).

The southern portion of the District is occupied by scattered unincorporated communities, and extensive areas of grassland, pasture, and cropland. Other natural habitats include oak woodland, vernal pools, riparian habitat, and wetlands. There are numerous seasonal and perennial waterways within the District. The largest of the rivers is the American River, which traverses the northern portion of the District, and is bordered by riparian forest. It flows out of the man-made reservoir Folsom Lake, which is located just to the east of the District. The other primary river in the District is Cosumnes River, which flows across the southern portion, roughly between the communities of Wilton and Rancho Murieta. Most rivers and streams are ephemeral, and dewater during the dry season.



Habitat Types

Metro Fire is located within the Sacramento Valley of California. The topography of Sacramento County is varied as elevations range from 14 feet above sea level in the southwest to approximately 670 feet above sea level in the east. Most of the District is dominated by relatively flat terrain and gentle slopes with natural drainage patterns being poorly defined as a result. The central and western part of the District is mainly at or near sea level and consists of relatively flat terrain. The eastern section of the District begins to rise in elevation as the terrain moves into the foothills of the Sierra Nevada.

There are three basic landforms within the District: river channel, alluvial plain, and upland ridge. River channel areas are found along the Sacramento River, lower American River, and lower Cosumnes River within Sacramento County. Alluvial plains cover the majority of the District and generally run from north to south between the Sacramento River and the Sierra Nevada foothills. Alluvial plains feature slopes that are gentle or nearly flat. The upland ridge area lies at the foot of the Sierra Nevada mountains in the eastern portion of the county. It rises from the alluvial plains to a maximum height of approximately 670 feet. Slopes in this area range from nearly flat or gently rolling to very steep.

DATA SOURCES FOR VEGETATION MAPPING

The primary data source for vegetation mapping in this chapter is the land cover mapping from Sacramento County (Sacramento County 2009). Vegetation mapping is based on California Wildlife Habitat Relationships (CWHR) mapping habitat types (CDFG 1988). CWHR classifies existing vegetation types important to wildlife. This system was developed to recognize and logically categorize major vegetative complexes at a scale sufficient to predict wildlife-habitat relationships.

The following sources of information were reviewed to prepare the biological resources chapter:

- ▲ California Department of Fish and Game's Natural Diversity Database (CNDDDB) record search within a 5-mile radius of the District; (CNDDDB 2014);
- ▲ California Native Plant Society (CNPS) Online *Inventory of Rare, Threatened, and Endangered Plants of California* (CNPS 2014);
- ▲ Sacramento County Geographic Information Systems Existing Vegetation Inventory (2009);
- ▲ Sacramento County General Plan and FEIR (2010, 2011), Draft South Sacramento Habitat Conservation Plan (2010), Rancho Cordova General Plan (2006), and the ARP General Plan (2008);
- ▲ Species Lists for the Carbondale, Sloughhouse, Elk Grove, Florin, Buffalo, Folsom SE, Citrus Heights, Rio Linda, Sacramento East, and Carmichael, 7.5-minute quadrangle created by the U.S. Fish and Wildlife Service (USFWS 2014);
- ▲ Sacramento County Vegetation Database (2009); and
- ▲ City of Ranch Cordova General Plan (2011).

VEGETATION COMMUNITIES

The following represents a brief description of the vegetation communities occurring within the District as defined by the CWHR classification system (CDFG 1988 and 1999; Parker and Maytas 1981). According to the County vegetation database (Sacramento County 2009), there are 18 vegetation communities within Sacramento County. This data was utilized for this analysis because there was no site specific data

available. It is a broad scale classification of vegetation based on satellite imagery and does have errors in classification. Therefore, data presented in the database and analysis does not necessarily reflect the type of vegetation that is on the ground. All treatment sites will have to be surveyed prior to treatment to determine the actual vegetation community present. Figure 6-3 and 6-4 show District-wide vegetation and ARP vegetation in relation to the proposed treatments.

The vegetation communities in the Sacramento County were further generalized into nine categories (agriculture, barren, lacustrine, oak woodland and savannah, riparian, riverine, urban, valley grassland, wetland) that provide 229,657 acres of habitat for common and special-status plants and animals. There are 1,147 acres of proposed fuel reduction treatment in these vegetation communities. Table 6-2 lists the acres of vegetation communities that are within the boundaries of CWPP proposed treatment areas.

Table 6-2 Vegetation Community Acreage within CWPP Proposed Treatments Boundaries

Land Cover Type	Treatment Categories							Total
	Fuel Reduction Area Maintenance/ Enhancement	Rossmoor Burn Areas Rehabilitation	New Unpaved Access Road	Sprinkler System Upgrades	Yellow-star Thistle Prescribed Burn Areas	Subdivisions	Horse Trails	
Agriculture	0	0	0	0	22	67	0	89
Barren	3	1	0	0	0	7	0	11
Lacustrine*	0	0	0	0	0	11	0	11
Oak Woodland and Savannah	20	0	0	0	0	30	0	50
Riparian	5	24	<1	55	3	8	2	97
Riverine*	0	0	0	1	0	5	0	5
Urban	121	15	<1	7	1	373	1	516
Valley Grassland	4	3	0	0	24	337	0	366
Total	152	42	0.2	63	50	837	3	1,147

*Note that riverine and lacustrine sites will not be treated and will have best management practices (BMPs) associated with vegetation treated near them. They are included in areas to be treated for simplicity of mapping. These might also be mapping errors.

Agriculture

Agriculture within the District includes cropland, pasture, and orchards and these lands are mainly located in the northwest by Rio Linda and in the southern portion of the District in Rancho Cordova, south of Jackson Road. Agriculture lands have greatly reduced the wildlife richness and diversity within California due to their removal of native habitat and monotypic vegetation. However, some wildlife is attracted to orchards and pasture because they provide forage at certain times of year.

Lacustrine

Lacustrine is defined as inland depressions or dammed riverine channels containing standing water and includes lakes and reservoirs. Lacustrine varies from small ponds (less than an acre) to large areas covering hundreds of acres, and depths can vary from a few inches to hundreds of feet. Typical lacustrine habitats include permanently flooded lakes and reservoirs, intermittent lakes (e.g., playa lakes) and ponds (including vernal pools) so shallow that rooted plants can grow over the bottom. Small ponds and lakes are scattered throughout the District (i.e. Lake Natoma).

Riverine

Riverine is defined as linear water features such as rivers, streams, creeks, and drainages with intermittent or continually running water. The major riverine habitats in the District include the American and Cosumnes

Rivers and their tributaries. The American River flows out of the man-made reservoir Folsom Lake, which is located just to the east of the District. The Cosumnes River flows across the southern portion of the District, between the communities of Wilton and Rancho Murieta. Most rivers and streams are ephemeral, and are dry during the summer. Folsom South Canal runs from the American River to the Cosumnes River and is also considered riverine habitat.

Oak Woodland and Savannah

Oak woodlands are found in the eastern portion of the District in moderate to dense stands comprising blue oak, interior live oak, and valley oak. Oak woodland communities are important as nesting, breeding, and migration habitat. Oaks are considered an important food and cover sources for many wildlife species. They provide forage such as acorns and browse for migrating and dispersing wildlife during fall and winter months.

Blue Oak-Foothill Pine Woodland

Blue oak-foothill pine woodland is composed of hardwoods, conifers, and shrubs. The shrub component is typically composed of several species that tend to be clumped, with interspersed patches of annual grassland. This community has small accumulations of dead and downed woody material and relatively few snags, compared with other tree habitats in California. Blue oak and foothill pine typically compose the overstory of this habitat, with blue oak usually most abundant. Interior live oak sometimes dominates these stands on north-facing and rocky slopes. Shrub species include ceanothus (*Ceanothus* spp.), manzanita (*Arctostaphylos* spp.), California coffeeberry (*Rhamnus californicus*), poison-oak (*Toxicodendron diversilobum*), silver lupine (*Lupinus albifrons*), blue elderberry (*Sambucus cerulea*), California yerbasanta (*Eriodictyon californicum*), and California redbud (*Cercis occidentalis*). The ground cover is typically composed of annuals, such as brome grass (*Bromus* spp.), wild oat (*Avena* spp.), foxtail (*Alopecurus* spp.), needlegrass (*Nassella pulchra*), filaree (*Erodium* spp.), and fiddleneck (*Amsinckia* spp.). Blue oak-foothill pine woodlands are found in the southeastern portion of the District as the valley transitions into the Sierra Nevada foothills.

Blue Oak Woodland

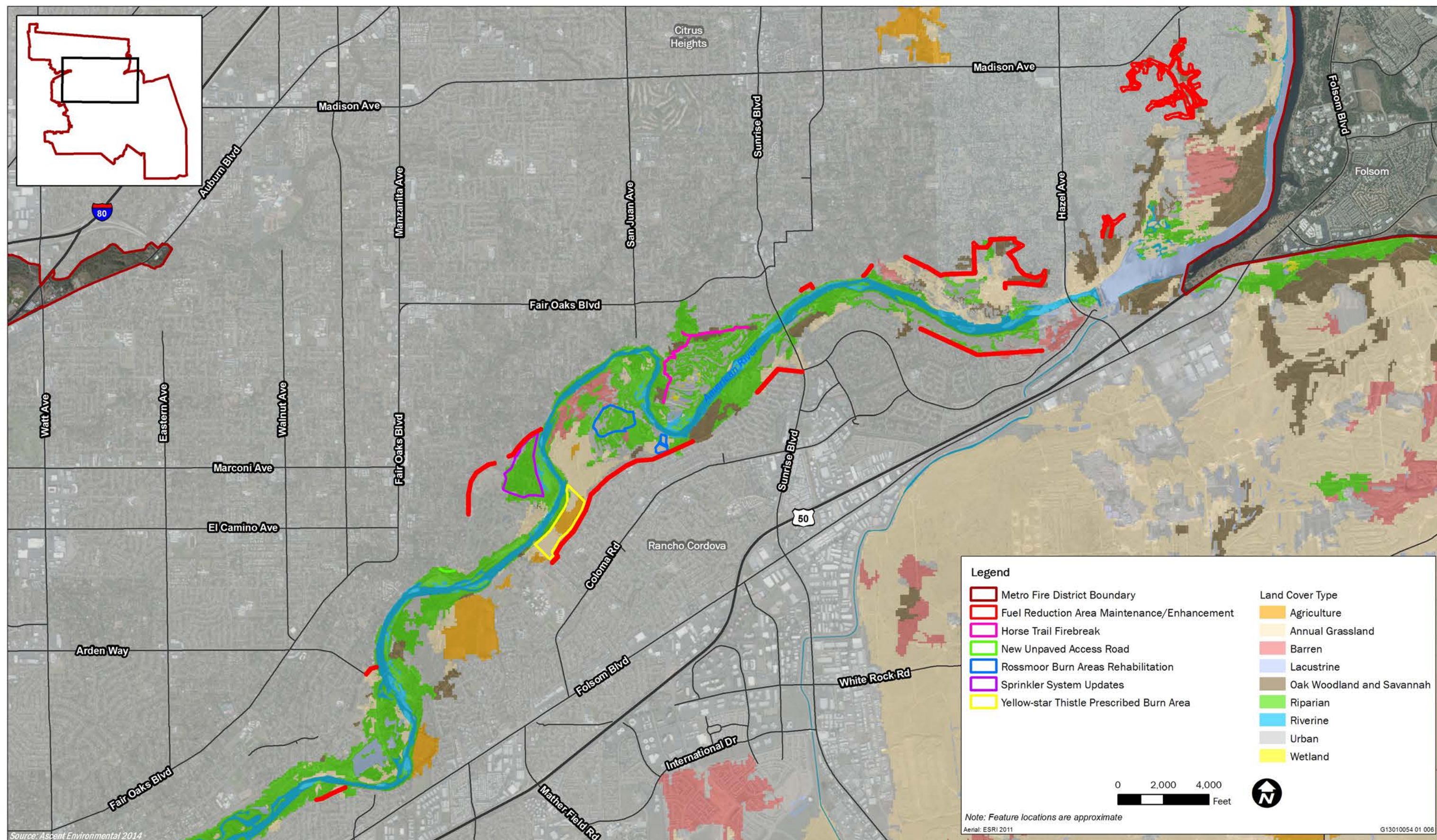
Blue oak woodland is distinguished by a blue oak (*Quercus douglasii*)-dominated overstory and an understory dominated by annual grasses. Blue oak woodland is distinguished from blue oak savanna by the higher density of trees in the overstory canopy. Generally, blue oak woodlands have an overstory composed of scattered broad-leaved trees, although the canopy can be nearly closed on better-quality sites. Associated herbaceous and shrub species are similar to blue oak-foothill pine woodland. Blue oak woodland occurs throughout the District but it is concentrated on the eastern end of the American River portion in the District by Hazel Avenue, and in the south eastern section of the District east of Scott Road.

Valley Oak Woodland

This habitat varies from savanna-like to forest-like stands with partially closed canopies, comprised mostly of winter-deciduous, broad-leaved species. Canopies of these woodlands are dominated almost exclusively by valley oaks (*Quercus lobata*). Tree associates in the Central Valley include California sycamore (*Platanus racemosa*), northern California black walnut (*Juglans hindsii*), interior live oak (*Quercus wislizeni*), boxelder (*Acer negundo*), and blue oak. Valley oak stands with little or no grazing tend to develop a partial shrub layer of species that have their seeds disseminated by birds, such as poison-oak, toyon (*Heteromeles arbutifolia*), and coffeeberry. Ground cover consists of a well-developed carpet of annual grasses and forbs. Valley oak woodland occurs mainly by the American River portion in the District by Hazel Avenue.

Montane Hardwood

Montane hardwood habitat is typically dominated by a hardwood tree layer with sparse shrub and herbaceous layers underneath. Associated trees at lower elevations are foothill pine (*Pinus sabiniana*), knobcone pine (*Pinus attenuata*), tanoak (*Lithocarpus densiflorus*), Pacific madrone (*Arbutus menziesii*), and scrubby California-laurel (*Umbellularia californica*). Associated understory vegetation includes Oregon-grape (*Mahonia aquifolium*), currant (*Ribes* spp.), wood rose (*Rosa californica*), snowberry (*Symphoricarpos albus*), manzanita, poison-oak, and a few forbs and grasses. Small acreages of montane hardwood occur in the District east of Scott's Road where the valley transitions into the Sierra Nevada foothills.



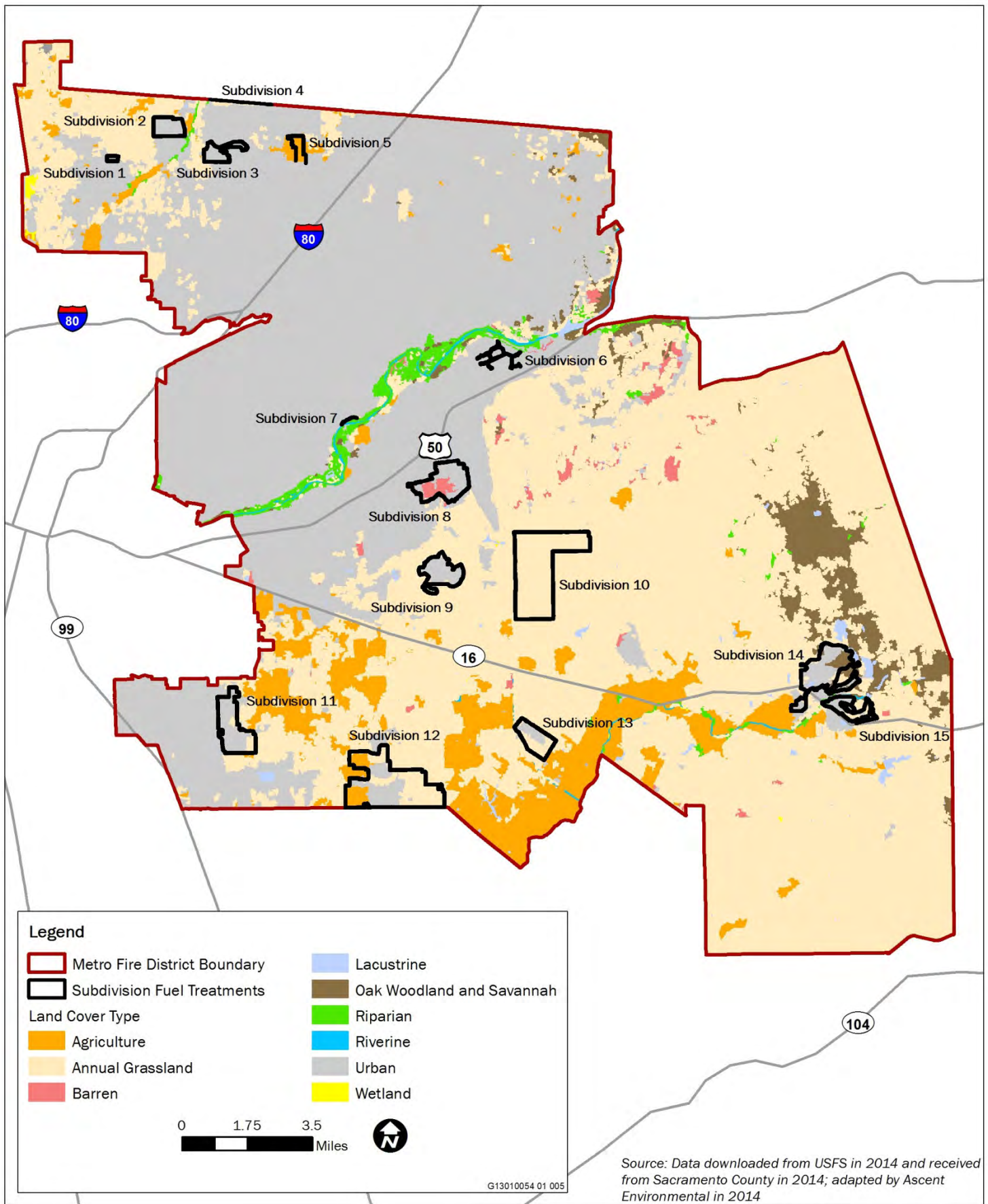


Figure 6-4

Land Cover - Subdivision Fuel Treatments

Riparian

Valley and foothill riparian systems are rich in species diversity and abundance due to their ability to provide food, water, cover and their use as migration corridors. In the Sacramento River Valley, only 25,000 acres of an estimated 500,000 acres existing in 1850 remain today (Sacramento County 2014). Mixed and valley foothill riparian habitat are mainly along the American and the lower Cosumnes. As the Cosumnes River reaches the eastern end of the District the montane riparian woodlands begin to emerge.

Mixed Riparian Woodland

Mixed riparian woodland is distinguishable by an open canopy layer dominated by tall Fremont cottonwood trees. Beneath this open layer, a moderately dense mid-canopy layer is composed of tree species such as Oregon ash (*Fraxinus latifolia*), Goodding's willow (*Salix gooddingii*), northern California black walnut, valley oak, and box elder. In some areas, a subcanopy of dense riparian scrub dominated by willow species including arroyo willow and sandbar willow is present.

Riparian scrub is interspersed with mixed riparian woodlands in the floodplains of waterways throughout Sacramento County. In the District, this habitat type consists of an open to dense shrubby thicket dominated by a mixture of sandbar willow (*Salix exigua*), Arroyo willow (*S. lasiolepis*), red willow (*S. laevigata*), and immature stands of mixed riparian woodland tree species.

Montane Riparian Woodland

Montane riparian zones are found at moderate to high elevation in the Sierra Nevada. This typing in the treatment units may be in error in classification as the elevation seems too low for this vegetation community. They are quite variable and often structurally diverse. Usually, the montane riparian zone occurs as a narrow, often dense grove of broad-leaved, winter deciduous trees up to 100 feet tall with a sparse understory. In the Sierra Nevada, characteristic species include thin leaf alder (*Alnus incana*), black cottonwood (*Populus balsamifera trichocarpa*), dogwood (*Cornus sericea*), willow, and white alder (*Alnus rhombifolia*). Montane riparian habitats can occur as alder or willow stringers along streams of seeps. In other situations, an overstory of Fremont cottonwood, black cottonwood, and/or white alder may be present. As the Cosumnes River reaches the eastern end of the District, montane riparian woodlands begin to emerge.

Valley Foothill Riparian Woodland

Valley oak riparian woodland is the majority of riparian habitat in the District. It usually intergrades with the valley grassland land cover type and wooded borders along streams and agricultural fields in the District. Most trees are deciduous and include cottonwood, valley oak, California sycamore, California black walnut, and box elder. Typical understory shrub layer plants include wild grape (*Vitis californica*), wild rose, California blackberry (*Rubus ursinus*), blue elderberry, poison oak, and willows. The herbaceous layer consists of sedges, rushes, grasses, and other herbs. The understory vegetation is extremely dense and includes high amounts of down woody debris.

Urban

Urban habitat varies from heavily developed habitats such as downtown areas and urban residential areas to less developed areas of suburbia. Vegetation varies from street trees and shrubs to landscaping vegetation around homes to city parks with shrubs, trees, and lawns. The central portion of the District is considered urban habitat with a progression to the outer boundaries of the District toward more natural habitats.

Valley Grassland

The valley grassland land cover type is characterized by annual grasses and forbs, which are predominantly non-native species. It occurs on the flat floodplains of the valley into the foothills. Species composition is influenced by annual and seasonal weather patterns. Nonnative annual grasses that dominate this land cover type include wild oats (*Avena fatua*), soft chess (*Bromus hordeaceus*), ripgut brome (*B. diandrus*), red brome (*B. madritensis* ssp. *rubens*), wild barley (*Hordeum* spp.), and foxtail fescue (*Vulpia myuros*). Common forbs of this land cover type include broadleaf filaree (*Erodium botrys*), redstem filaree (*E. cicutarium*), turkey

mullein (*Eremocarpus setigerus*), true clovers (*Trifolium* spp.), bur clover (*Medicago polymorpha*), popcorn flower (*Plagiobothrys* spp.), and many others. Some perennial species such as purple needlegrass (*Nassella pulchra*) and Idaho fescue (*Festuca idahoensis*) may be present.

The valley grassland within the District is associated with vernal pools and other seasonal wetlands. See Figure 6-3 and 6-4 for location of wetlands in the District. Also refer to the Wetlands section below for more description.

Wetlands

Freshwater Emergent Wetlands

Freshwater emergent wetlands are generally defined by herbaceous vegetation dominated by emergent hydrophytic (water-loving) plants such as grasses, reeds, rushes and sedges. They occur along rivers, streams, lakes, wet meadows and other linear or open bodies of water. They are typically perennial wetlands, but may dry out for short periods. Fresh emergent wetlands are among the most productive wildlife habitats in California. Some of the largest acreages of fresh emergent wetlands are found in the Sacramento Valley. Wetlands in the District are associated with the American River, Cosumnes River, Mather Lake, Frye Creek, Alder Creek, an unnamed creek by Meiss Road, and a canal along East Levee Road.

Non-vernal Seasonal Wetlands

A seasonal wetland is defined as ephemeral wetlands that pond during the rainy season and are dry by summer. Seasonal wetlands are dominated by hydrophytic vegetation. Seasonal wetlands occur in isolated patches as well as within the banks of bodies of water such as streams and creeks, rivers, ponds, lakes, and reservoirs.

Vernal Pool Wetlands

Vernal pools are generally found in the grassland vegetation community within small depression composed of a hardpan soil layer. These pools support downingia (spp.), meadowfoam (*Limnanthes alba*) and other rare plant and invertebrate brachiopod species. Some areas may be utilized for livestock grazing. Valley grasslands cover the majority of the area south of Highway 50 with one large area of habitat located by Elverta Road in the northwest section of the District.

Special-Status Plant Species

A total of 18 special-status plant species that have been documented in the CNDDDB within a 5-mile radius around the District and are also included a USFWS quad search encompassing the District. This is considered the Study Area. The California Department of Fish and Wildlife (CDFW) requests that special-status species data not be displayed in reports. Therefore, known locations of special-status species are described in this document only. Of these species, seven are not considered further in this document because they are not likely to occur in the District or no work will be implemented in or near their habitat. Parry's Horkelia (*Horkelia parryi*) is found in chaparral habitat in the foothills, a habitat not located in the District. Saline Clover (*Trifolium hydrophilum*) is generally located in salt water marsh, a habitat not located in the District. Woolly Rose-Mallow (*Hibiscus lasiocarpus* var. *occidentalis*) and Sanford's arrowhead (*Sagittaria sanfordii*) are limited to aquatic habitat and no work will be implemented within aquatic habitat or wetlands. Lone formation plants would not occur within or near treatment areas including lone manzanita, (*Arctostaphylos myrtifolia*), lone Buckwheat (*Eriogonum apricum* var. *apricum*), and Irish Hill Buckwheat (*Eriogonum apricum* var. *prostratum*). No protocol-level botanical surveys for any special-status species were conducted specifically for this Plan.

These 15 species that are considered for further review in this document are listed in Table 6-3 and discussed in more detail below.

Table 6-3 Special-Status Plants With Potential to Occur in the District					
Species	Status ¹			Habitat	Blooming Period
	Federal	State	CRPR		
<i>Balsamorhiza macrolepis</i> Big-scale balsamroot	—	—	1B.2	Could Occur. Found in valley grassland and foothill woodland on open, grassy and rocky slopes at elevations of 295-5,708 feet. Two occurrences in the five mile search area; no occurrences within the District. North of the District in Roseville east of Highway 65 just south of Blue Oaks Blvd.	May-June
<i>Cuscuta obtusiflora</i> var. <i>glandulosa</i> Peruvian Dodder	—	—	2B.2	Could Occur. A parasitic annual vine that is can infest crops, ornamentals, native plants and weeds. A native species that is classified as a noxious weed by CA Department of Food and Agriculture. One occurrence within five miles of the District. None in the District. Found 3 miles southwest of the District by Laguna Lake.	July-October
<i>Downingia pusilla</i> Dwarf downingia	—	—	2.2	Could Occur. Vernal pools and mesic sites within valley and foothill grasslands. Up to 1,591 feet in elevation. Occurs primarily on Laguna and Riverbank formations. Of the 16 occurrences recorded in the study area, only three current records are within the District. One record is in the southeast corner of the District at Howard Ranch by Michigan Bar Rd. Another record is by Phoenix Park near Lake Natoma. The third is in the northwest corner of the District by Elverta Blvd.	April-August
<i>Eryngium pinnatisectum</i> Tuolumne Button-celery	—	—	1B.2	Could Occur. Can be found in freshwater wetlands, vernal pools, wetland riparian and foothill woodland communities. Found between 100 and 5,610 feet in elevation. One record within the District from 1941 by Michigan Bar Road.	May-August
<i>Gratiola heterosepala</i> Boggs Lake hedge-hyssop	—	E	1B.2	Could Occur. Associated with vernal pools. It is found in freshwater wetlands and wetland riparian areas. Can be found on lake margins as well. Occurs between 50 and 5,905 feet. Eight known occurrences within the District.	May - October
<i>Juncus leiospemus</i> var. <i>ahartii</i> Ahart's dwarf rush	—	—	1B.2	Could Occur. Mesic valley and foothill grassland between 98-751 feet in elevation. Restricted to wetlands and vernal pools. Four occurrences of Ahart's dwarf rush in Sacramento County; only one current occurrence is in the District by Eagle's Nest Road.	March-May
<i>Juglans hindsii</i> Northern California Black Walnut	—	—	1B.1	Could Occur. Found along streams and disturbed slopes. Found up to 3,600 feet in elevation. No records found within five miles of the District.	April-May
<i>Legenere limosa</i> Legenere	—	—	1B.1	Could Occur. Vernal pool associated species. Occurs up to 2,887 feet in elevation. There are 18 occurrences within the District.	April-June

Table 6-3 Special-Status Plants With Potential to Occur in the District

Species	Status ¹			Habitat	Blooming Period
	Federal	State	CRPR		
<i>Navarretia myserii</i> ssp. <i>myersii</i> Pincushion navarretia	—	—	1B.1	Could Occur. Associated with vernal pools that are often acidic. Can be found between 65-1,082 feet in elevation. Four records were found within the District. Two occurrences are located in the southeast corner of the District on Howard Ranch. One occurrence is in Phoenix Park owned by CDFW.	April-May
<i>Orcuttia tenuis</i> Slender Orcutt grass	T	E	1B.1	Could Occur. Vernal pool associated species. Found in valley grassland, vernal pools, freshwater wetlands and wetland riparian habitats. Found from 147-3,904 feet in elevation. Three records were found within the District; all are south of Highway 50 within or near the USFWS Mather Core Recovery Area.	May-September
<i>Orcuttia viscida</i> Sacramento Orcutt grass	E	E	1B.1	Could Occur. Vernal pool associated species. Found from 114-279 feet in elevation. Nine occurrences are known within the District. The central population is located east of Mather Air Force Base in the vicinity of the Laguna Creek Watershed and within the USFWS Mather Core Recovery Area.	April-July

Note: CNDDB = California Natural Diversity Database; USFWS = U.S. Fish and Wildlife Service; CNPS = California Native Plant Society

¹ Legal Status Definitions

Federal:

E = Endangered (legally protected)

T = Threatened (legally protected)

— = no ESA listing

State:

E = Endangered (legally protected)

— = no State listing California Rare Plant Rank (CRPR)

1B = Rare, threatened, or endangered in California and elsewhere

2 = Rare, threatened, or endangered in California but more common elsewhere

CRPR Threat Ranks

0.1 = Seriously threatened in California (high degree/immediacy of threat)

0.2 = Fairly threatened in California (moderate degree/immediacy of threat)

0.3 = Not very threatened in California (low degree/immediacy of threats or no current threats known)

Sources: CNDDB 2014; USFWS 2014; CNPS 2014

Preserves and Habitat Conservation Plans

Precautions associated with specially designated preserves and habitat conservation plans may constrain fuel management. There are a few such locations in the District, including the Deer Creek Hills Preserve, South Sacramento Habitat Conservation Plan, and the ARP.

The Deer Creek Hills Preserve is located in the southeastern portion of the District, to the north of Highway 16 and the community of Rancho Murieta. Blue oak woodland is the signature vegetation community found within the Deer Creek Hills Preserve.

The County of Sacramento is preparing the South Sacramento Habitat Conservation Plan (HCP) to address regional issues relating to urban development, habitat conservation, and agricultural protection. The geographic scope of the HCP includes the area from U.S. Highway 50 to the north, Interstate 5 to the west, the Sacramento County line with El Dorado and Amador Counties to the east, and San Joaquin County to the south. Accordingly, it includes lands within the District lying south of U.S. Highway 50. The HCP area excludes the City of Sacramento, the City of Folsom and Folsom's Sphere of Influence, the Sacramento-San Joaquin

Delta, and the community of Rancho Murieta. Sacramento County is partnering with the incorporated cities of Rancho Cordova, Galt, and Elk Grove as well as the Sacramento Regional County Sanitation District and Sacramento County Water Agency to further advance the regional planning goals of the HCP.

Lands within the HCP are already developed with urban/suburban uses or are croplands, vineyards, grasslands, or mine tailings. The lands south and east of the HCP within the District are primarily pasturelands, grasslands, and vineyards. However the eastern part of this area contains substantial acreage of blue oak woodlands and blue oak savanna. The Conservation Strategy of the Draft Plan calls for preserving 69 acres of blue oak woodland and restoring an additional 69 acres; this acreage would preferably expand the existing Deer Creek Hills preserve.

The ARP, often called the “jewel” of the Sacramento Region,” extends from Folsom Dam at the northeast to the confluence of the Sacramento River in the southwest. While the importance of recreation is acknowledged, preservation of natural ecosystems is considered essential.

The floodplain of the lower American River is bordered by high bluffs in its upper reaches, and by levees in its lower reaches. In the Folsom and Nimbus areas, large amounts of dredger tailings (possibly covered with sparse vegetation) are scattered throughout the terrain

There are six distinct vegetation units in the ARP: riparian, freshwater marsh, oak woodland, grassland, oak grassland and shrub grassland. There are several special-status floral and faunal species in the ARP, including the Valley Elderberry Longhorn Beetle, found only on blue elderberry, which occurs in several habitats in the Parkway.

Cottonwoods and willows dominate the riparian habitat in the Parkway. Cottonwoods are especially prized because they are the largest and fastest growing tree species and dominate the forest canopy. Shrub species include various types of willows, alder, mugwort and herbaceous weedy species.

Freshwater marsh is associated with cattails, rush and sedges, with water primrose.

The oak woodland habitat in the Parkway is covered with valley oak, blue oak and interior live oak, with California black walnut and cottonwood on wetter sites. Grasses are often found under the tree canopy, however valley oak riparian often has a dense understory of California grape, California rose, Dutchman’s pipevine and other shrubs and small trees that may include buckeye, black walnut, blue elderberry, toyon, coffeeberry and poison oak.

Grasslands and shrub grasslands cover about 1200 acres of the Parkway, almost half of which is dominated by the weed yellow star thistle. Grasslands are comprised of non-native annual grasses which dry every year, and scattered coyote brush and California brickellia (on sandy beaches).

Five land use designations have been assigned to lands in and around the ARP: Open Space Preserve, Nature Study Area, Protected Area, Limited Recreation, and Developed Recreation. These categories identify the type of human use that may be permitted.

Fire Behavior and Local Fire History

FIRE BEHAVIOR

There are many ways to assess fire hazard; most utilize fuels, weather and topography, with possible inclusions of elevation, or fire history. Fire behavior modeling was used to assess the potential hazards within the District because it:

- ▲ integrates the effects of fuels, weather, and topography;

- ▲ denotes where containment may be easiest as well as where access may be precluded during a time of fire; and
- ▲ warns where natural resources may be unduly harmed by a wildfire as well as where fire may be inconsequential to natural resources.

The U.S. Forest Service developed a series of computerized fire behavior prediction models that integrate factors such as topography, fuel models, and weather parameters to derive fire behavior outputs based on heat transfer algorithms. One of the most well-used fire behavior model is FlamMap. FlamMap is a geographic based software program used in the wildfire protection community to predict fire behavior across the landscape. FlamMap3 predicts fire behavior across an entire landscape with static weather parameters as input. Thus, FlamMap can compare fire outputs uniformly across a landscape. Details regarding inputs used for this fire behavior analysis appear in Appendix B.

The resulting prediction outputs include:

- ▲ flame length,
- ▲ rate of spread,
- ▲ fireline intensity,
- ▲ heat per unit area, and
- ▲ crown fire potential.

Of these, two are especially pertinent for identifying areas of high fire hazard: flame length and crown fire potential. Flame length closely corresponds to fire intensity, and it is this factor that most influences probability of structure damage and ease of fire control. Crown fire potential indicates locations where fire is expected to travel into and possibly consume the crowns of trees. A fire can burn exclusively along the forest floor (called a surface fire), or it can climb and consume the tree crown of an individual tree (torching), or it can reach into and spread through tree canopy to tree canopy (crown fire). When a fire burns tree crowns, countless embers are produced and are distributed, sometimes at long distances. These embers can start new fires, which can each grow and confound the finest fire suppression forces. This assessment focuses on flame length and crown fire to describe wildfire hazard.

Much of the land within the District is not predicted to have the capacity to burn under a wildfire, due to a lack of vegetation. Areas where surface fire can spread are located north of the American River, near Mather Air Field and the southeastern portion of the District. These generally coincide with lands mapped as WUI.

FLAME LENGTHS AND RATE OF FIRE SPREAD

Flame lengths are closely related to the fuel model. Based on outputs from the FlamMap3 model prepared for Metro Fire, the longest predicted flame lengths (greater than 20 feet) within the District are found in areas of shrubs, and the lowest are found in oak woodlands where understory grass carries the fire. The modeling indicates that flame lengths throughout the majority of the District would burn with flame lengths less than four (4) feet. Predicted flame lengths under this height can generally be fought on the ground with hand crews. However, there are isolated areas scattered throughout the District where modeled flame lengths are predicted to be over 20 feet; together, these areas comprise approximately one-third of the District. Fire exhibiting flame lengths over 12 feet can generally be fought only with heavy equipment and/or air support.

The distribution of flame lengths mirrors the type and abundance of vegetation within the WUI. For example, where oak woodlands occur, the flame length is typically short. The area north of the American River, and near Mather Air Field is largely uniform in flame length, around eight feet, and associated with large areas of grass vegetation.

As illustrated in Figure 6-2, fire behavior modeling indicates that the largest area within the District predicted to burn with long flame lengths (greater than 20 feet) is located in the southeast portion near Rancho Murieta and the wooded hills surrounding that community (north and all the way to Highway 50). Small pockets of areas where long flame lengths are predicted are generally located east of Sunrise Boulevard in Fair Oaks and in Citrus Heights north of Old Auburn Road in the northeast corner of the District. Small areas of riparian woodland and other scattered wildlands north of the American River (south of Winding Way) are another area where a concentration of long flame lengths are predicted if a wildfire were to occur.

Based on the fire behavior modeling conducted for the CWPP, there is a difference in the rate of fire spread between the northern and southern portions of the District, with high fire spread rates common in the south, associated with grasslands, and slow rates of spread north of communities along Highway 50 and north of the American River, associated with oak woodlands. Fast-spreading fires are also expected in the northwest portion of the District, Rio Linda, and Elverta. See Figure 6-5 below for details regarding the predicted locations of fast-moving fires, should an ignition occur.

CROWN FIRE POTENTIAL

Figure 6-6 indicates where torching is predicted to occur within the District. Despite not having large areas within the District where long flame lengths are predicted to occur, a significant area within the District is predicted to torch trees, largely due to low-hanging branches close to the flames of the surface fire. The greatest concentration of areas where trees are expected to torch lies in the communities north of the American River, up to Interstate 80. In the southeast portion of the District many areas are predicted to burn with long flame lengths, however, because there are no or few trees, torching is not possible.

Modeling fire behavior to determine the potential for crown fire can be helpful to delineate areas that are in need of actions to reduce “fuel ladders”¹. By removing or reducing the paths a fire can take to reach the crowns of trees, extreme fire behavior can be effectively mitigated to a less damaging fire.

FIRE HISTORY

Metro Fire responds to an average of 869 wildfires per year (based on records from 2008-2013). This comprises 37 percent of all fires, even though wildlands cover only 15 percent of the District’s 417 square mile jurisdictional area.

The number of wildfires in the District is rising, with a 5 percent increase in 2012 alone (Sacramento Metropolitan Fire District 2013). Simultaneously, major residential development has begun throughout the District, with a forecasted population increase of 200,000. Because most wildfires are human-caused, this higher population may well translate into more wildfires.

The risk of wildfire is especially concerning because the wildland areas in these communities are not restricted to the outskirts of the District’s jurisdictional area, but rather are interspersed amongst residential and commercial areas, creating a large wildland urban interface area.

Additional risk factors for Metro Fire include topographical challenges in the ARP area that could impact fire suppression efforts, environmental considerations in the community, diversity of terrain, and increased residential development and population growth within WUI areas.

¹ Fuel ladders are comprised of vegetation that connects the surface fuels near the ground with tree canopies, such that the fire can climb from the ground to involve the tree crown through torching or crown fires.

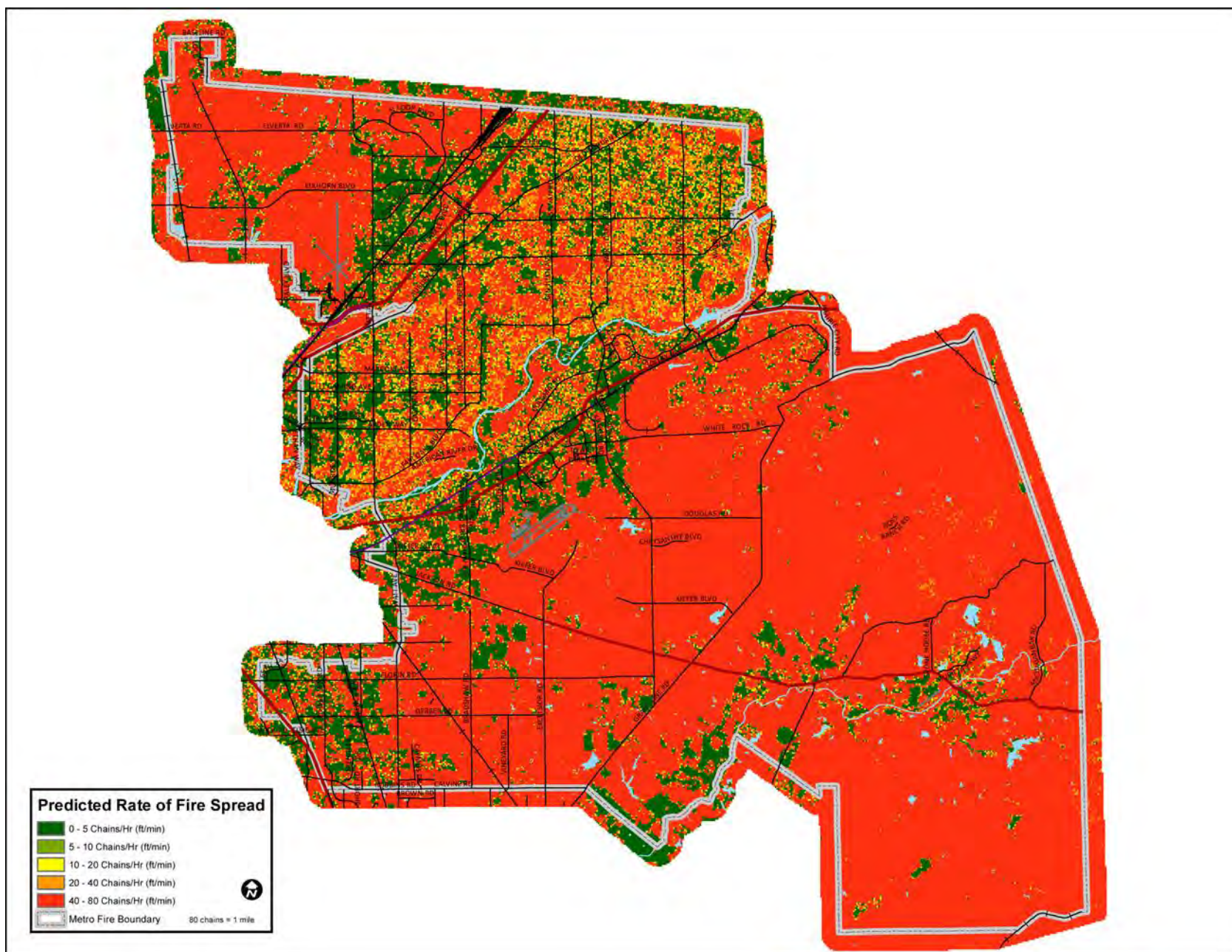


Figure 6-5

Predicted Rate of Fire Spread



BUILT ENVIRONMENT

While structures are very valuable to communities and the people that work and reside within them, they can contribute to fire risk. The more easily a structure can ignite, the more it contributes to the overall hazard. Structure ignitability can be related to density (and pattern of development) (as described above in Section 4, Delineation of The Wildland Urban Interface), construction type, and siting. The following describes how construction type and the siting of structures can influence fire risk.

Building Construction

Building construction includes both materials and design. Both interior structural and exterior finish materials determine a structure's flammability and ease of ignition. These features may be the distinguishing reasons why two adjacent houses might emerge from a fire with different damage levels. Frame construction with numerous small wood members is easier to ignite than a wood homestead of large timbers. A timber or log structure is more flammable than a masonry structure of brick or stone.

Roofing material and assembly has been determined to be key to a structure's survival in a WUI fire. A Class "A" roof assembly can be made of tile, composite shingle, or other material, and usually contributes little to fire spread. However, studies of house survival (Foote 1991) in wildfires indicate that roof related components such as eaves, soffits, and especially vents often undermine a Class A roof. Exterior sheathing material is also important. Wall sheathing and openings can be susceptible to ignition; however, windows play a larger role in house loss. A stucco finish is more flame resistant than a shingle or board finish, but even relatively flame-resistant brick structures are vulnerable if the vent and window openings allow embers to enter into the structure. As more structures become involved in a fire, local fire behavior becomes more erratic, with heavier convection columns and greater fire-generated wind patterns.

A structure's design can be as important as the choice of materials in determining whether a structure will ignite and add to the threat. Detrimental design elements include deep roof overhangs, projections, inside corners, and crevices that can harbor flaming embers, making it easier for a structure to ignite. The design components that can make a difference range from a simple screen on a chimney to prevent embers' access, to more technologically advanced fire sprinklers, barriers, and other fire suppression systems.

Whether the structure has interior fire sprinklers or smoke detectors to allow for early response can also change the character of a single-fire event.

Structure Siting

Structure siting or "setback" refers to the location of a structure in relation to nearby slopes, property boundary, and the edge of a wildland area. The location of structures relative to wildland fuels and to adjacent steep slopes, saddles, or chimneys relates to the ease of fire spread. It is generally accepted that a house sited within 30 feet of a slope greater than 30 percent with wildland brush below is in greater danger than one sited the same distance from the wildland fuel, but not on the top of a slope. Fuels on the top of a slope are pre-heated by the fire beneath it, so both vegetative and structural fuels are easier to ignite and burn with greater intensity. Siting ties directly back to basic fire behavior in steep environments. Placement of a structure near the property boundary also results in inadequate defensible space when the adjacent property owner does not maintain that portion of his/her lot.² Siting of a structure also impacts access, which can greatly affect a fire responder's ability to protect the structure. For example, structures placed in the rear of a lot will tend to have longer driveways, which can limit fire response access.

² Requirements for defensible space do not extend beyond the property boundary. Thus if the structure is located 20 ft from the property line, width of defensible space is constrained to 20 ft on that portion of the lot.

Patterns of Development by Community

There are two cities located within the District (the Cities of Citrus Heights and Rancho Cordova) and most of the unincorporated area is composed of census-designated communities. The boundaries of all are indicated on the Community Base Map (see Figure 5-1 above).

CITY OF CITRUS HEIGHTS

The City of Citrus Heights is a mostly built-out suburban city surrounded by similar development in unincorporated areas. A variety of commercial and office uses line the historic Auburn Boulevard commercial corridor and occupy small centers along a number of arterials including: Antelope Road, Fair Oaks Boulevard, Madison Avenue and San Juan Avenue. Although some of the older commercial centers along these arterials are beginning to show signs of deterioration, retail development has shifted over the past decades to the Sunrise MarketPlace, where Sunrise Mall and Marketplace at Birdcage serve as regional shopping centers.

The older residential area of the north-central city is comprised of primarily large lots and has retained a more rural setting, with large parcels accommodating hobby farming and livestock grazing. Smaller subdivisions and multi-family developments form the majority of the residential areas, with many of the denser multi-family neighborhoods surrounding the Sunrise MarketPlace.

Approximately 97 percent of the city is currently developed. Development of the remaining 3 percent of vacant land under the City of Citrus Heights General Plan could result in an increase of approximately 149 acres of residential development and 46 acres of commercial development. Future land uses consistent with the General Plan could result in an increase of approximately 3,577 residential dwelling units by 2035, which is an increase of approximately 10 percent over 2010 levels. Development of future land uses consistent with the General Plan could also result in an increase in population of approximately 15,880 or 18 percent from 2010 to 2035 (AECOM 2011).

The city was incorporated in 1997 with 88 percent of the homes built before 1989 and 36 percent were built in the 1970s. The majority of these homes were constructed as tract homes associated with the building boom of that decade. The majority of these homes were built quickly with inconsistent construction quality. Many of these homes are now experiencing failing roofs and HVAC systems. In addition, 861 homes were built prior to 1939, some of which lack complete plumbing and may be dilapidated. Most of these homes utilize electronic wiring and plumbing that can pose potential fire risk.

Size:	<u>14 square miles</u>
2010 population:	83,000
2010 dwelling units (DU):	35,000
DU per square mile:	2,500

CITY OF RANCHO CORDOVA

The City of Rancho Cordova grew substantially after World War II, fueled by employment demand at Aerojet and Mather Air Force Base. The city contains relatively large amounts of undeveloped land, with even more undeveloped land within its planning area. Between 2003 and 2013, 5,000 new homes were built in the city. The city was incorporated in 2003. The City is currently working on four specific plans to guide development in several large undeveloped areas within the city, including: the Sunridge Specific Plan (10,000 dwelling units on 2,600 acres); Westborough Specific Plan (6,000 dwelling units on 1,700 acres); the Arboretum-Waegell Specific Plan (5,000 dwelling units on 1,350 acres); and the Mather Field Specific Plan. In addition, the completed Rio Del Oro Specific Plan allows 11,600 new dwelling units on 3,800 acres.

<u>Size:</u>	<u>34 square miles</u>
2010 population:	65,000
2010 dwelling units (DU):	25,500
DU per square mile:	750

UNINCORPORATED COMMUNITIES

The following provides information about the unincorporated communities within the District.³ See Figure 5-1, Community Base Map for the location of the communities.

Antelope

Antelope is a residential community bounded by the Sacramento-Placer County line to the north, Antelope Road to the south, the Southern Pacific Railroad line to the east, and Dry Creek to the west. Antelope was established in the mid-1800s. Planning policies that have guided growth include the Antelope Community Plan, adopted in 1985 and the subsequent East Antelope Specific Plan, adopted in 1995. The community is nearly built out. One large vacant property remains undeveloped at the northwest intersection of Don Julio and Elverta Roads. The County's Housing Element projects construction of about 2,700 new dwelling units between 2005 and 2025.

<u>Size:</u>	<u>7 square miles</u>
2010 population:	46,000
2010 dwelling units (DU):	14,800
DU per square mile:	2,200

Arden-Arcade

The Arden-Arcade community is located at the heart of Sacramento County and is marked by the convergence of several major freeways and thoroughfares. Arden-Arcade is bound by the American River to the south, Interstate 80 to the north, Ethan Avenue to the west and Mission Avenue on the east. Arden-Arcade includes nearly 40 distinct neighborhood areas and a number of shopping areas. The Arden-Arcade Community offers a range of housing options, everything from apartments to mansions. California State University, Sacramento (CSUS) is located just west of the Arden-Arcade boundary. Much of Arden-Arcade began to develop in the 1940s with the Town and Country Village shopping center (the first suburban shopping center in Northern California). Most of the population growth in Arden-Arcade occurred up through the 1960s and 1970, when it is estimated that 75-80 percent of the community was developed with urban uses, and it is now one of the most fully developed areas of urban Sacramento. The County's Housing Element projects construction of about 200 new dwelling units between 2005 and 2025 in this community.

<u>Size:</u>	<u>16 square miles</u>
2010 population:	82,000
2010 dwelling units (DU):	44,800
DU per square mile:	2,500

Carmichael and Old Foothill Farms

Carmichael and Old Foothill Farms is a fully developed community located 10 miles northeast of downtown Sacramento. It is bounded by Mission Avenue on the west, the American River on the south, San Juan Avenue on the east, and by the City of Citrus Heights on the north. The first settlers of Carmichael lived on 10-acre parcels, but following World War II, the community experienced rapid growth and its rural character began changing to a more suburban nature. Carmichael maintains its village feel, featuring a number of small shops, restaurants, and recreational activities. The community offers a complete range of homes, from

³ Much of the narrative description of the unincorporated communities was taken from the 2011 County General Plan.

apartments and townhouses to beautiful residences overlooking the American River and its parkway. Fair Oaks Boulevard is one of the community's major commercial corridors featuring shops, restaurants and services. A corridor plan was created for the boulevard (as well as a portion of Manzanita Avenue) that designates distinct local planning districts, including the creation of a SPA for the "Main Street District" that functions as the community's town center. The County's Housing Element projects construction of about 300 new dwelling units between 2005 and 2025 in this community.

<u>Size:</u>	<u>14 square miles</u>
2010 population:	61,700
2010 dwelling units (DU):	28,200
DU per square mile:	2,040

Rancho Murieta

Rancho Murieta is a gated master planned community begun in the 1970s consisting of single family dwellings and townhouses. Rancho Murieta is surrounded by commonly-held open space and contains a small lake, golf course, and a few community services buildings (such as churches). It is located on eastern boundary of the District, and straddles the Jackson Highway (Highway 16). While Rancho Murieta itself is almost built to capacity, the Sacramento County Housing Element projects construction of about 3,000 new dwelling units between 2005 and 2025.

<u>Size:</u>	<u>12 square miles</u>
2010 population:	5,500
2010 dwelling units (DU):	2,400
DU per square mile:	200

Fair Oaks

Fair Oaks is a well-established community of nearly 31,000 residents. The Fair Oaks community is bounded by the American River on the south, San Juan Avenue on the west, Madison Avenue on the north, and Blue Ravine on the east. It consists of a mix of small business district, suburban and semi-rural neighborhoods spanning over 11 square miles. The area is home to rolling hills and numerous native oaks. The County's Housing Element projects construction of about 300 new dwelling units between 2005 and 2025 in this community.

<u>Size:</u>	<u>11 square miles</u>
2010 population:	31,000
2010 dwelling units (DU):	13,600
DU per square mile:	1,200

North Highlands - Foothill Farms

North Highlands is a diverse suburban community of 43,000 residents that is located approximately 10 miles northeast of downtown Sacramento. The North Highlands – Foothill Farms area is bounded by Antelope Road to the north, the city of Citrus Heights to the east, Arcade Creek and the city of Sacramento to the south, and on the west by Sacramento and McClellan Park, 28th Street, and Dry Creek. The community was formally established in 1952 and grew with the development of the McClellan Air Force Base (now known as McClellan Business Park). McClellan Business Park is one of the largest business parks in California and will ultimately employ up to 34,000 individuals. The County's Housing Element projects construction of about 300 new dwelling units between 2005 and 2025.

<u>Size:</u>	<u>9 square miles</u>
2010 population:	43,000
2010 dwelling units (DU):	16,100
DU per square mile:	1,800

Orangevale

Orangevale is a well-established community in northeastern Sacramento County. The Orangevale community is bounded by the Sacramento-Placer County line to the north, Madison Avenue to the south, Folsom to the east, and Kenneth Avenue and Fair Oaks Boulevard to the west. Most of the commercial property is in the southern portion of the community, along Greenback Lane. The northern portion of Orangevale is a rural and wildland island in the more densely developed portion of Sacramento County. This area also contains oak-covered Orangevale Community Park. Some residential properties are zoned to accommodate horses and orchards. The County's Housing Element projects construction of about 500 new dwelling units between 2005 and 2025 in this community.

<u>Size:</u>	<u>12 square miles</u>
2010 population:	34,000
2010 dwelling units (DU):	13,600
DU per square mile:	1,200

Rio Linda and Elverta

The Rio Linda and Elverta community is located in the north-central section of Sacramento County and is bounded on the north by the Sutter and Placer County boundaries, on the west by the Western Pacific Railroad and Steelhead Creek, on the south by the City of Sacramento, and on the east by McClellan Park, 28th Street and Dry Creek. In addition to typical suburban and multi-family housing types, these two communities have large rural residential areas. The County's Housing Element projects construction of about 3,000 new dwelling units between 2005 and 2025.

<u>Size:</u>	<u>19 square miles</u>
2010 population:	20,000
2010 dwelling units (DU):	7,000
DU per square mile:	370

Vineyard

The Vineyard area is located ten miles from downtown Sacramento in the geographic center of Sacramento County. It is bounded by Jackson Highway and Kiefer Boulevard on the north, Calvine Road on the south, Grantline Road on the east, Elk Grove-Florin Road on the west. Vineyard is currently home to over 24,000 residents, with many more expected once several planned new communities are built out. The northern border of the Vineyard area is shared with the former Mather Air Force Base. The Sacramento County General Plan Housing Element projects construction of about 16,000 new dwelling units between 2005 and 2025.

<u>Size:</u>	<u>17 square miles</u>
2010 population:	24,000
2010 dwelling units (DU):	7,800
DU per square mile:	450

PROJECTED URBANIZATION

Future Growth Areas within the Urban Service Boundary

The County's General Plan contains objectives to encourage sustainability and accessibility while protecting valuable and sensitive environmental resources. To further these objectives, the plan has sustainable growth management policies including policies to limit new development to areas inside the Urban Service

Boundary (USB) as shown on Figure 6-7. The General Plan also contains commercial corridor plans that will be implemented to provide multi-modal access along certain main corridors and revitalize some of the existing unincorporated communities. Future growth will occur as infill within the existing communities and development of currently undeveloped or lightly developed areas within the adopted Urban Services Boundary (area as designated as Urban Service Areas). New Growth Areas identified by the County in 2012 include the Cordova Hills Master Plan area; the Mather Specific Plan area; New Bridge Master Plan area; Jackson Township Master Plan area. In addition, new development would continue in the other approved Master Plan areas shown on the attached figure showing Master Plan areas (e.g. Elverta Specific Plan area). As described previously, the County Housing Element projects substantial growth by 2025 in the community Vineyard (which likely includes the community of Cordova), moderate growth (2,500-3,000 new units) in Antelope and Rio Linda/Elverta. Little growth is projected in Arden-Arcade, Carmichael/Old Foothill Farms, Orangevale, North Highlands – Foothill Farms, and Fair Oaks.

Development Potential Outside the Urban Services Boundary

There is some potential for new development outside the USB. One of these potential growth areas is the eastern part of the county between Highway 50 and Rancho Murieta. This is the area that supports almost all the oak woodland in the District. Accordingly, it is the part of the District most at risk from wildfire. Other than the Rancho Murieta community area, this area is designated in the General Plan as Agriculture, 80-acre minimum parcel size. Future 80-acre ranchettes in or adjacent to the woodland areas could experience relatively high wildfire risk. It is noted that despite the General Plan land use designations for this area, the County Housing Element projects substantial growth (20,000 new dwelling units) in the Cosumnes and Rancho Murieta communities between 2005 and 2025.

In 2012, the City of Folsom annexed 3,585 acres for the Folsom South of U.S. Highway 50 Specific Plan, located between Highway 50 and White Road, Prairie City Road, and El Dorado County. Up to 11,000 residential units may eventually be developed in this area. The EIR/EIS prepared for that project noted that the land was within a State Responsibility Area and that the State has mapped the area as having a “moderate” fire hazard rating. On that basis, the EIR/EIS found that future development in the area would not be exposed to a substantial risk from wildfires.⁴ There are current plans to begin development of the area with one developer proposing in 2013 to build 900 new homes on 441 acres by 2015.

EXISTING RESPONSE ENVIRONMENT

Metro Fire is comprised of three branches - Operations, Administration, and Support Services. While all three branches are vital to the efficient emergency response, the rest of this section will focus on the Operations Branch. The Operations Branch includes several Divisions, including Fire & Rescue, Emergency Medical, Training & Safety, Special Operations, Homeland Security, Fire Investigation, and Health & Wellness Divisions.

Operations

The Operations Branch of Metro Fire is responsible for protecting life and property for over 640,000 citizens within the District. All emergency response operations are supervised by the Deputy Chief of Operations, who reports directly to the Fire Chief. The Operations Branch include divisions with responsibilities for suppression; emergency medical support (EMS); special operations (air operations, hazardous materials, swiftwater rescue, homeland security, and technical rescue); and training, safety, and health and wellness. The Deputy Chief of Operations supervises five Assistant Chiefs; one each assigned to EMS and training, safety, health and wellness, and one each assigned to each shift.

⁴ The County General Plan does not provide population or size statistics for the Cosumnes area, so these have been estimated by removing the known size and population of Rancho Murieta.



The Operations Branch oversees all aspects of Metro Fire's all-hazard emergency services delivered from 40 stations with daily shift staffing of 160 personnel. The Operations Branch answered over 80,000 calls for service in 2012, a number that has steadily increased each. The all-hazard nature of Metro Fire's emergency services is exemplified by the Special Operations Division, staffed by over a hundred discipline-specific, highly trained, qualified, and experienced personnel.

The Divisions and programs that operate under the Operations Branch of Metro Fire include:

Operations and Special Operations Division

Metro Fire has 27 wildland units, supported by six water tenders, 38 engines, six trucks, and one dozer. Air support is provided by two helicopters, each with sling/bucket capabilities. Metro Fire is able to utilize foam technologies to suppress fires with a specialized foam unit. Metro Fire is unusual in that it is also able to provide aquatic response with two "fireboats." Metro Fire also owns a hazardous material unit and a rescue unit. In addition, Metro Fire has access to additional response resources from the California Office of Emergency Services through mutual aid agreements and the Master Fire Response Agreements.

All units are located to the most probable risks and in places to maximize their effectiveness. For example, the wildland units and water tenders are positioned in places closest to grassy fuels, and the fire boats are located on the American River.

Table 6-4 Sacramento Metropolitan Fire District - Fire Stations	
Station	Location
Station 21	7641 Greenback Lane, Citrus Heights, CA 95610
Station 22	6248 Chestnut Avenue, Orangevale, CA 95662
Station 23	6421 Greenback Lane, Citrus Heights, CA 95621
Station 24	4942 College Oak Drive, Sacramento, CA 95841
Station 25	7352 Roseville Road, Sacramento, CA 95842
Station 26	8000 Palmerson Drive, Antelope, CA 95843
Station 27	7474 Grand Oaks Boulevard, Citrus Heights, CA 95621
Station 28	8189 Oak Avenue, Citrus Heights, CA 95610
Station 29	8681 Greenback Lane, Orangevale, CA 95662
Station 31	7950 California Avenue, Fair Oaks, CA 95628
Station 32	8890 Roediger Lane, Fair Oaks, CA 95628
Station 33 (Out of Service)	5148 Main Avenue, Orangevale, CA 95662
Station 41	6900 Thomas Drive, North Highlands, CA 95660
Station 42	5608 North Haven, North Highlands, CA 95660
Station 50	8880 Gerber Road, Sacramento, CA 95828
Station 51	8210 Meadowhaven, Sacramento, CA 95828
Station 53	6722 Fleming Avenue, Sacramento, CA 95828
Station 54	8900 Fredric Avenue, Sacramento, CA 95826
Station 55	7776 Excelsior Road, Sacramento, CA 95829
Station 58	7250 Sloughhouse Road, Rancho Murieta, CA 95624
Station 59	7210 Murieta Drive, Rancho Murieta, CA 95683
Station 61	10595 Folsom Boulevard, Rancho Cordova, CA 95670
Station 62	3646 Bradshaw Road, Sacramento, CA 95827

Table 6-4 Sacramento Metropolitan Fire District - Fire Stations	
Station	Location
Station 63	12395 Folsom Boulevard, Rancho Cordova, CA 95670
Station 64	9116 Vancouver Drive, Sacramento, CA 95826
Station 65	11201 Coloma Road, Rancho Cordova, CA 95670
Station 66	3180 Kilgore Road, Rancho Cordova, CA 95670
Station 68 (Out of Service)	4381 Anatolia Drive, Rancho Cordova, CA 95742
Station 101	3000 Fulton Avenue, Sacramento, CA 95821
Station 102 (Out of Service)	4501 Marconi Avenue, Sacramento, CA 95821
Station 103	3824 Watt Avenue, Sacramento, CA 95821
Station 105	2691 Northrop Avenue, Sacramento, CA 95864
Station 106 (Engine Out of Service)	2200 Park Towne Circle, Sacramento, CA 95825
Station 108	6701 Winding Way, Fair Oaks, CA 95628
Station 109	5634 Robertson Avenue, Carmichael, CA 95608
Station 110	1432 Eastern Avenue, Sacramento, CA 95864
Station 111	6609 Rio Linda Boulevard, Rio Linda, CA 95673
Station 112 Reserve Station	6801 34th Street, North Highlands, CA 95660
Station 114	5824 Kelly Way, McClellan, CA 95652
Station 115 (Air Operations)	4727 Kilzer Avenue, McClellan, CA 95652
Station 116 Reserve Station	7995 Elwyn Avenue, Elverta, CA 95626
Station 117	7961 Cherry Brook Drive, Elverta, CA 95626
Administration	10545 Armstrong Way, Sacramento, California 95645

Emergency Medical Services Division

The EMS Division is responsible for the management of the department's emergency medical system which ensures that EMT and Paramedic personnel are trained and equipped to serve the public at the highest levels. EMS currently deploys 13, 24-hour advanced life support (ALS) ambulances, six reserve ambulances and 37 ALS engine companies. Metro Fire employs over 250 paramedics who are deployed on ambulances, engines, trucks, water craft, and a helicopter. Metro Fire also deploys two peak time ALS ambulances to augment the EMS system during busier times. On a daily basis, all of the ambulances and engines are staffed with paramedics. As the need arises, additional ALS ambulances are added to the system to ensure the public continues to receive the best care possible.

Training, Health and Wellness, and Safety Division

The Training, Health and Wellness and Safety Division's mission is to improve service delivery to the community by providing realistic, ongoing, and verifiable training to district personnel and assisting them to develop and strengthen essential job skills. The Division strives to ensure all-risk operational readiness and enhance the ability of members to perform quality public service. They promote teamwork, and service in a safe, effective, and efficient manner. There are many Federal, State, and locally mandated requirements which must be addressed, and as new information becomes available, it is imperative that we introduce new tools, technology, or equipment to train our fire personnel

EXISTING SOCIAL ENVIRONMENT

The social environment describes public education programs, outreach programs, as well as the regulatory context for the plan.

Metro Fire Community Risk Reduction Division

The Support Services Branch oversees the Community Risk Reduction Division (CRR), and within CRR, the Community Services Division. The Community Risk Reduction Division (formerly Fire Prevention Bureau) is responsible for protecting the public through coordinated efforts in fire prevention code enforcement and fire protection engineering. As the first step in providing our community members safe living and working environments Metro Fire provides services in Code Enforcement, Inspections, and New Construction plan review. Fire Inspectors responsible for code enforcement inspect existing buildings and properties for fire code violations, assist fire suppression personnel, respond to complaints, and review and approve licensed care facilities. Fire Inspectors are responsible for fire protection engineering review plans for all construction projects and fire protection systems, and conduct the testing and inspections for those projects. The Community Risk Reduction Division also manages the weed abatement program, and reviews, approves and inspects special events, and fireworks displays. Through the Community Services Division, Metro Fire coordinates a variety of community services, including but not limited to: CWPP, Community Emergency Response Team (CERT), fire station tours, school visits, fire extinguisher training, life jacket loan out program, and attendance at community events. This Division also provides safety tips (injury prevention, home, holiday, and seasonal tips) and car and water safety lessons for children. The Community Services Division is served by two staff members that oversee one of two Metro Fire service areas (see Table 6-5 below for areas included in each service area of Metro Fire's Community Service Division).

Table 6-5 Metro Fire Service Areas	
Northern Service Area	Southern Service Area
Antelope	Cosumnes
Arden	Fair Oaks
Carmichael	Orangevale
Citrus Heights	Rancho Cordova
North Highlands	Rancho Murieta
McClellan	South Sacramento
Placer	Vineyard
Rio Linda	

EXTERIOR HAZARD MITIGATION

Under the direction of the Fire Marshal, the Community Risk Reduction Division of Metro Fire sees fire prevention as a team effort. Metro Fire works with developers and homeowners to make the community safer for everyone. The constant "risk reduction" is managed through the responsibilities such as: Plan Review, Inspections, Code Enforcement, Fire Investigation and Exterior Hazard Mitigation.

Metro Fire Prevention Standard (FPS) Number 11 (see Appendix G) is an adopted standard that requires that a clear firebreak of a minimum 30-foot width shall be created and maintained in all areas designated by Metro Fire. Clear firebreaks shall be provided and maintained around all buildings, fences constructed primarily of wood, areas containing vehicles, near structures, or near storage located on a parcel or on adjacent properties. This standard forms the regulatory basis for the need for defensible space. Defensible space is an important factor in structure loss due to wildfire, and a cornerstone to most Community Wildfire Protection Plans.

Under Metro Fire FPS Number 11, the firebreak shall be made using one of the following methods:

- ▲ **Discing:** The discs shall be set at an angle sufficient to cut the sod loose and adequately bury the growth of weeds, grass or other vegetation. Discing shall include rototilling or cultivating.
- ▲ **Scraping:** The blade shall be set at an angle sufficient to cut the growth of weeds, grass or other vegetation down to bare ground. Exception: Weed abatement on residential property, less than one-half acre in size may be done by mowing or weed eating. Weeds shall be no more than one (1) inch in height after cutting. All cuttings shall be removed.

A parcel can be considered non-compliant because an Exterior Hazard Mitigation Complaint Form has been filed with Metro Fire or an inspection has occurred.

Once notified by Metro Fire's initial correspondence, immediate abatement is required and must be maintained. Failure to comply may result in a citation being issued or the hazard being abated under authority of the County and the costs of such abatement may incur a legal charge against the owner or owners of the property. A potential lien on the property can occur and subject to collection with property taxes as specified under Section 25845 of the Government Code.

Upon receipt of Metro Fire's second notice, the occupying property persons will have fifteen (15) days to abate their property upon the first notice being sent and approximately two (2) more weeks to abate if a second notice is issued.

All foreclosed or vacant homes are handled by the Sacramento County Code Enforcement Division.

PROPERTY INSPECTIONS

The Community Risk Reduction Division is committed to the safety and security of our local businesses. The California Fire Code requires periodic inspections of all businesses to ensure the safety of business owners, employees, visitors, and customers. Customarily, this would require Metro Fire to visit a business and inspect the property to ensure compliance.

Due to the large number of businesses within the District, Metro Fire has developed low cost options for low risk businesses to choose from.

1. Standard Inspection
2. Inspection is completed by Metro Fire personnel.
3. "Opt Out" of the Self Inspection Program is required.
4. Self-Inspection by Mail
5. Inspection is completed by the business owner.
6. Self-Inspection Online
7. Inspection is completed by the business owner

When inspections are due, those businesses identified as low fire and occupancy risk and that qualify for the Self Inspection Program receive notification by mail with further instructions, including account & inspection numbers for the Online process.

LAND USE PLANNING AND FIRE HAZARD

One of the principal ways that local jurisdictions and agencies can reduce the risk of wildfire damage in their community is to require to the maximum extent feasible that new development within the WUI be capable of withstanding a wildfire burning in the area. Land use planning represents a shift in traditional thinking from trying to eliminate wildfires, or even increasing resilience to them, toward avoiding exposure to them through

the informed placement of new residential structures. For land use planning to be effective, it needs to be based on solid understanding of where and how to locate and arrange new homes.

Typically, a county or city that includes WUI within its boundary regulates land use within the WUI to ensure that new development: 1) maintains defensible space around the new structures; 2) has sufficient water and access; 3) is able to be served with adequate fire suppression staff and equipment available; and 4) is addressed by a fire plan that coordinates the above with a wider area system of fuel reduction zones and access routes that allow fire suppression agencies to take a stand to reduce fire spread. In cases where county or city review of a new development application shows that all these resources are not available, it may be necessary to restrict the amount or location of development in high hazard zones or provide additional measures to provide the desired level of protection.

The requirements to assess project and the specific conditions that must be met in order to approve new development in high hazard zones are typically codified in a county's or city's general plan and municipal code. The general plan land use plan typically provides the overall direction to guide new development within hazardous development areas.

SACRAMENTO COUNTY

The Sacramento County General Plan Safety Element recognizes the need for land use controls in high fire hazard zones as well as the need for other hazard reduction actions. That plan contains a goal to "Minimize the loss of life, injury, and property damage due to fire hazards." The plan includes the following policies to fulfill that goal:

- ▲ **Policy SA-23:** The County shall require that all new development meets the local fire district standards for adequate water supply and pressure, fire hydrants, and access to structures by firefighting equipment and personnel.
- ▲ **Policy SA-24:** The County shall require, unless it is deemed infeasible to do so, the use of both natural and mechanical vegetation control in lieu of burning or the use of chemicals in areas where hazards from natural cover must be eliminated, such as levees and vacant lots.
- ▲ **Policy SA-25:** The County shall work with local fire districts to develop high visibility fire prevention programs, including those which provide voluntary home inspections and awareness of home fire prevention measures.
- ▲ **Policy SA-26:** The County and fire districts shall develop programs to provide citizens with self-preparedness and community readiness skills for large or extended accidental, natural, and terrorist emergencies/incidents.
- ▲ **Policy SA-27:** The County shall require, where appropriate, the use of fire resistant landscaping and building materials for new construction developments that are cost effective.
- ▲ **Policy SA-28:** The County shall encourage and require, to the maximum extent feasible, automatic fire sprinkler systems for all new commercial and industrial development to reduce the dependence on fire department equipment and personnel.
- ▲ **Policy SA-29:** The County and fire districts will work together to regulate hazardous materials to mitigate emergency responses.
- ▲ **Policy SA-30:** The County, medical community, and fire districts shall work to improve EMS response system that includes first responder emergency care and transportation services.
 - Properly locating resources to provide timely response
 - Paramedic services from every fire station

The County's Municipal Code contains specific regulations to implement these policies. Title 17 Fire Prevention includes Chapter 17.04 – International Fire Code, and Chapter 17.12 – Weed Control. The latter chapter contains requirements for a 30-foot zone around structures to be kept free of flammable vegetation; and the fire district can require additional clearance where topographical or geographical conditions warrant.

RANCHO CORDOVA

The Rancho Cordova General Plan also contains land use policies to reduce fire hazard including:

- ▲ **Policy ISF.2.1** Ensure the development of public infrastructure that meet the long-term needs of residents and ensure infrastructure is available at the time such facilities are needed
- ▲ **Policy ISF.2.2** Coordinate with independent public service providers, including schools, parks and recreation, utility, transit, and other service districts, in developing service and financial planning strategies.
- ▲ **Policy ISF.2.4** Ensure that water supply and delivery systems are available in time to meet the demand created by new development, or are guaranteed to be built by bonds or sureties.
- ▲ **Policy ISF.2.5** Ensure that water flow and pressure are provided at sufficient levels to meet domestic, commercial, industrial, and firefighting needs.
- ▲ **Policy S.9.1** Cooperate with the Sacramento Metropolitan Fire Department (SMFD) to reduce fire hazards, assist in fire suppression, and ensure efficient emergency medical response.
 - **Action S.9.1.1** Continue to review new development for adequate water supply and pressure, fire hydrants, and access to structures by fire fighting equipment and personnel.
 - **Action S.9.1.2** Continue to review projects for compliance with the Fire Code as part of the building permit process
 - **Action S.9.1.2** Work with SMFD to develop high visibility fire prevention programs, including those that provide voluntary home inspections and awareness of home fire prevention measures.
 - **Action S.9.1.3** Require on-site fire suppression systems for all new commercial and industrial development, as well as multi-family residential development with five or more units, to reduce the dependence on fire department equipment and personnel.
 - **Action S.9.1.4** Continue to maintain, periodically update, and test the effectiveness of its Emergency Response Plan.
 - **Action S.9.1.5** Require the installation of earthquake-triggered automatic gas shut-off sensors in high-occupancy facilities and in industrial and commercial structures.
 - **Action S.9.1.7** Continue to enforce all existing codes and ordinances regarding fire protection, including building inspection and vegetation management.
 - **Action S.9.1.8** Coordinate the design and installation of traffic control and calming measures to minimize impacts on emergency vehicle responses.
- ▲ **Policy S.9.2** Provide infill development with adequate off-site improvements to meet on-site fire flow requirements.

- ▲ **Policy S.9.3** Consider establishing mitigation fees to fund adequate fire protection and emergency medical response facilities, if such fees are critical and necessary to meet the facility funding needs of SMFD and existing methods of financing are inadequate.

The City's Municipal Code adopts the Fire Code and contains the same requirements for vegetation clearance, as the County requires.

CITRUS HEIGHTS

The City of Citrus Heights General Plan also contains policies to minimize the risk of fire. Specifically, it contains the following:

GOAL 58: Ensure excellent public safety services and rapid and effective emergency response

- ▲ **Policy 58.7:** Continue working with Sacramento Metropolitan Fire District to ensure coordination of fire and emergency medical services in the City and surrounding areas.
- ▲ **Policy 58.8:** Provide fire/emergency staffing as necessary in proportion to population or other appropriate workload indicators.
- ▲ **Policy 58.9:** Maintain mutual aid agreements with other fire protection agencies in the region to obtain additional emergency resources as necessary.
- ▲ **Policy 58.10:** Provide ongoing fire prevention and public education programs
- ▲ **Policy 58.11:** Ensure that new development is constructed, at a minimum, to the fire safety standards contained in the Citrus Heights Fire and Building Codes.
- ▲ **Policy 58.12:** Ensure that anticipated fire response times and fire flows are taken into consideration as a part of the development review process.
- ▲ **Policy 58.13:** Provide adequate access for emergency vehicles, particularly fire fighting equipment, in all new development.

IGNITION RESISTANT BUILDING STANDARDS

Many life safety requirements for building and development are located within the building code as adopted by municipalities. The municipalities within Metro Fire adopted the 2010 California Building Code (CBC). Chapter 7a of the CBC requires exterior structural design and construction become ignition resistant, with building assemblies to include exterior walls, structure projections, including, but not limited to, porches, decks, balconies, and eaves, and structure openings, including, but not limited to, eave vents and windows. Chapter 47 of the California Fire Code mirrors Chapter 7A of the CBC. Both codes require municipalities to use these codes as a minimum standard.

As a way to prevent structures from ignited from wildfires, the California Building Code contains a chapter dedicated to building in the WUI. Areas in designated very high fire hazard severity zones, or other areas designated as WUI must also comply with this chapter. The code addresses several exterior building assemblies: roofs, vents, windows and other openings, decks and siding.

7 EXISTING RISKS OF THE WILDLAND URBAN INTERFACE

The CWPP Wildfire Risk Assessment Framework is a performance-based, risk assessment model that is used as a wildfire risk assessment and decision-support system. The primary function of the Risk Assessment Framework is to promote a shared awareness of the risk of wildfire and the value and impact of mitigation actions. The framework focuses on three objective areas:

1. Fuels mitigation,
2. Public outreach and engagement, and
3. Structure fire prevention.

The Wildfire Risk Assessment Framework is a tool to allow fire prevention personnel and members of the community to translate the hazard posed by wildfire into a risk assessment tailored to specific values at risk within the community. The model used for the framework allows the community to assess the positive and negative impacts of specific environmental, physical, and social actions. For example, the model can be used to depict the positive impacts of vegetation management as a mitigation action that can reduce the exposure of a structure to the impacts of a wildfire.

The Wildfire Risk Assessment Framework has been scaled to address parcel-level risk assessments in order to support community and homeowner actions. In addition, the program supports reassessments based on seasonal, periodic, and episodic natural and man-made environmental changes (i.e., fuel modification changes, development progress, and local fire history). As a 'dynamic model', the Wildfire Risk Assessment Framework will support 'what if' scenarios for mitigation planning. For example, the risk framework can identify a base level of risk posed to new structures based on building characteristics, site conditions, and lot layout. The impact of changing any of those components can be ascertained using this risk framework. It can answer the question, "What benefit will result by conducting fuel treatments on a portion of the development?" (i.e., development review, fuel modifications, etc.). Finally, the Wildfire Risk Assessment Framework provides a structured foundation to capture and provide feedback to stakeholders on community-scale changes in hazard or area designations.

The development of the Wildfire Risk Assessment Framework included the following steps:

1. **Identification of Values at Risk:** Identification and description of the community valued assets that may be exposed to the base hazard.
2. **Identification and Weighting of Contributing and Mitigating Factors:** Identification and description of factors that can increase or decrease the exposure of a value at risk to the base hazard.

RISK ASSESSMENT OBJECTIVES

The Wildfire Risk Assessment Framework supports the following objectives:

- ▲ Provide a common, shared view of the wildfire risk
- ▲ Support fuels mitigation
 - Create shared awareness and acceptance of fuel mitigation efforts
 - Portray changes in wildfire hazard due to fuel mitigation efforts
 - Provide a mechanism for planning future projects
- ▲ Encourage public outreach and engagement
 - Share information on participation, contact, and status of program
 - Depict the value of preparation actions on wildfire risk reduction

- ▲ Improve structure fire prevention
 - Depict the value of various mitigation actions available for the homeowner and community
 - Provide a mechanism to share mitigation actions with response personnel

DEFINITION OF HAZARD AND RISK

Although the definitions of ‘hazard’ and ‘risk’ are relatively standardized, variations in the definition for a community-risk assessment can result in diverging perceptions across stakeholders. For the purposes of the Wildfire Risk Assessment Framework, the following definitions were adopted:

1. **Hazard:** a condition or element that provides a source of ignition or contributes to spread and severity of fire. In this CWPP, “hazard” is defined specifically as the “potential for and characteristics of wildfire as a source to inflict damage to the people, insurable property, and the environment within the Wildland Urban Interface Zone.”
2. **Risk:** the exposure to possible loss or injury from a hazard. This will include the effects of mitigation to reduce the hazard and the values associated with any potential damage.
3. **Risk Assessment:** involves identifying the risk impact and risk perception in order to support decision making and planning.

COMMUNITY “VALUES AT RISK”

Metro Fire designated the following as specific values-at-risk for the Wildfire Risk Assessment Framework:

1. Life safety
2. Insurable properties and developed areas
3. Critical infrastructure
4. Environmental resources

Contributing and Mitigating Risk Factors

The Wildfire Risk Assessment Framework allows Metro Fire and the affected communities to translate the hazard of wildfire into a risk assessment for values at risk that describes their level of exposure to the wildfire hazard. To accomplish this, Metro Fire and the project team described a variety of contributing and mitigating factors (selected based on data availability) that can increase or decrease the exposure of a value at risk to the impact of wildfire. The following specific attributes were identified to support this assessment and develop working model. The goal of the CWPP is to encourage a broad, community-based effort to implement positive mitigation strategies across the attributes to decrease the impact and effects of wildfire – particularly in areas with a high or very high base hazard.

Table 7-1 below describes the attributes for each contributing and mitigating factor.

Table 7-1 Wildfire Risk: Contributing and Mitigating Factors

Built Environment	Natural Environment	Response Environment	Social Environment
Roof Material	Slope/Aspect	Water Sources/Hydrants	Homeowner participation in Education/Mitigation
Defensible Space	Proximity to Wildland Vegetation	Road width	Cultural resource Areas
Position of Structure on Slope	Fire History (from 2000+)	Response times	
Year of Construction	Vegetation Types	Fire Breaks	
Balcony and decks	Wildfire behavior rating	Wildfire Pre-Plan	
Siding			
Windows and doors			
Eaves, overhangs, vents			

NATURAL ENVIRONMENT

The natural environment can modify the wildfire hazard by increasing or decreasing the exposure of structures or valued property based on changes in vegetation growth, local weather, or fire history. The following are factors selected to characterize the risk facing parcels within the District.

1. Fire behavior rating of parcel
2. Fire history (year 2000 to present)
3. Slope aspect of parcel
4. Proximity to large parcel of wildland vegetation
5. Potential future addition
6. Modifications to environment (i.e., fuel mitigation, fire history, building development). In support of the future addition of an attribute supporting fuel mitigation projects, a decision support tool was introduced into the web-based portal to provide a ‘what if’ analysis capability to depict changes in risk based on fuel mitigation project areas.

CLIMATE CHANGE AND FIRE RISK

Breakdown of Historic Wildfire Seasonality

Traditionally, wildfire risks have elevated on a seasonal basis. “Fire season” has been a staple in fire response planning and firefighting resource deployment during the late spring, summer, and early fall. California has had a relatively predictable cycle of wildfire occurrence (with some exceptions). As Northern California dries out, fires have consumed the parched vegetation, typically beginning in mid-summer. Southern California risks have historically been highest during the later fire season with the potential for Santa Ana wind-driven fires in the late summer and fall.

As noted in the 2013 public draft of the state’s Climate Adaptation Update (Safeguarding California), with climate change, the “fire season” cycle appears to be changing or potentially breaking down. Predictability has diminished in recent years. More large and damaging wildfires are occurring outside of historic fire season, i.e., deep into the beginning of winter or earlier at the start of the spring. Altered weather is the primary reason for this change. More precipitation has historically fallen in the form of snow than is

predicted in the future. Deep snow slowly charges water supply facilities and keeps fire threats in the high country and along riparian corridors to a minimum until well into the summer months because of the gradual release of snowmelt moisture. With a greater proportion of rain, instead of snow, and a diminished snow pack, runoff immediately follows winter rainstorms and the volume of spring melt water from gradually melting snow is decreased. Vegetation drying occurs sooner and more rapidly under these conditions (CNRA 2013: p. 77).

Reduced Dead Fuel Moisture and Increased Fire Risk

Based on downscaled data from the Cal-Adapt webpage, using the Rancho Cordova area as a representative indicator location for the Metro Fire district, temperature increases between now and late in this century are predicted to rise an average of 3.7 to 6.4 degrees depending on the greenhouse gas emission scenario (Cal-Adapt 2014). Higher temperatures lasting even only one day will affect small-diameter fuels, such as grass. The amount of time (both the number of days, and the length of time in each day) in which there is a probability of ignition that reaches 90 percent or greater will also increase. This results in the prediction of an expected greater number of wildfire ignitions.

For each wildfire, a higher average air temperature will also correlate to lower dead fuel moisture. Fuel moisture is a principal component determining rate of fire spread. Fires are likely to spread faster under hotter conditions. This will challenge firefighters in trying to contain fires, because accelerated fire spread stresses the ability to create fire lines in time. If containment is less effective because of more rapid fire spread, it can result in greater number of larger fires. The larger fires can result in greater damages, both to natural ecosystems and property. Eleven of the 20 largest fires in California have occurred in the last decade and eight in just the last four-and-a-half years (CNRA 2013; p. 84).

As higher temperatures last for longer periods of time, dead fuels of wider diameter (including twigs, sticks and branches up to an inch in diameter) will also become drier. Fuel moisture is a major factor in determining fire intensity; a higher proportion of fires are likely to burn with greater fire intensity, if larger diameter dead fuels dry more quickly and over a wider area. More fires that burn with higher intensity are likely to result in greater damage. Greater fire intensity is linked to more tree mortality, and possibly greater soil damage and erosion potential. Fires with higher intensity are more apt to reach tree canopies and produce and distribute embers that spread longer distances ahead of the fire front and create new fires. Fire intensity is also linked to a greater change for structure ignition, especially in locations with single-paned windows.

Predicted Future Increase in Wildfire Risk

Modeling performed by the State of California and reported on the Cal-Adapt website includes mapping of wildfire risk increases by late in the century. The area projected to be burnt by wildfire toward the end of the century will increase substantially, especially in mountainous and foothill areas. Wildfire risks are also projected to increase, but to a lesser extent, along the margins of the Central Valley, including the eastern portion of the Metro Fire District. These predictions are modeled solely on climate projections and do not take landscape and fuel sources into account, so they represent a general picture of wildfire risk increases. Figure 7-1 illustrates the Cal-Adapt wildfire risk mapping for the Metro Fire District (Cal-Adapt 2014).

BUILT/DEVELOPED ENVIRONMENT

The physical attributes of structures, surrounding landscaping, and building codes can reduce or increase the exposure of a value-at-risk to a wildfire hazard. These attributes include:

1. Roof material
2. Other structure features (external walls, eaves, windows, vents, deck, underside of deck)
3. Defensible space presence
4. Position of structure on slope

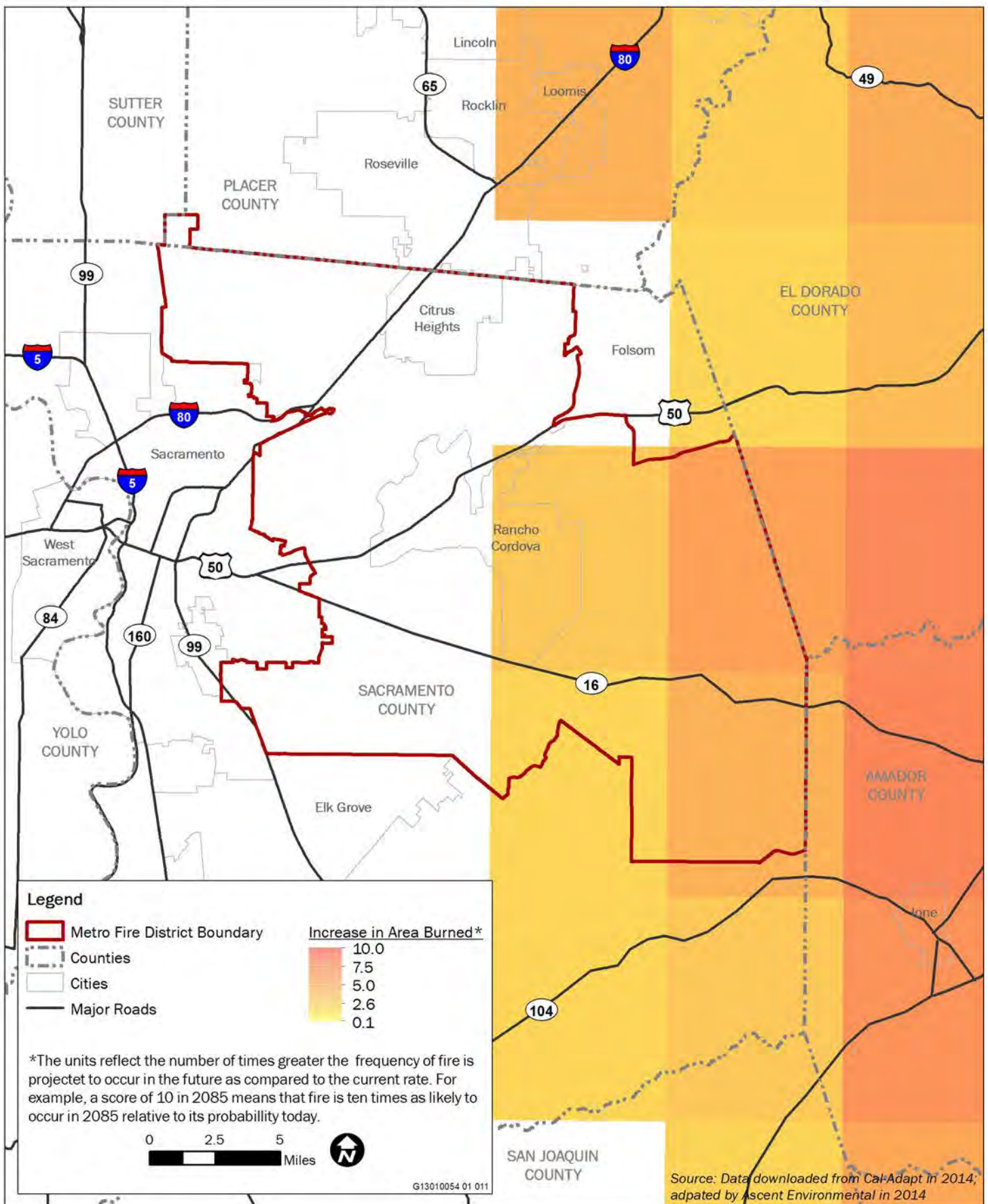


Figure 7-1

Wildfire Risk

EMERGENCY RESPONSE ENVIRONMENT

Fire response planning, capabilities, and resources can limit the impact of a wildfire hazard on a value-at-risk. The selected factors associated with wildfire response are:

1. Access road width
2. Response attributes (Metro Fire drive time compliance with its own standards)
3. Water sources (fire hydrant access)
4. Pre-fire plans

Social Systems

The reactions and values of the community may increase or decrease the impact of a wildfire. For the current model, social systems do not directly change the wildfire risk assessment. However, these social actions can be captured in a participation database which could be used by Metro Fire to help engage communities and individuals to prepare for a wildfire event. In order to track and display this information for public engagement, these attributes would be depicted in a participation score which will be calculated as a percentage of full participation (1 of 6, 4 of 6, etc.). The factors that can affect the risk of a parcel were selected as follows:

- ▲ Wildfire Preparedness Program. Risk was reduced if the participant:
 - Created a family disaster plan
 - Prepared an emergency kit
 - Identified escape/evacuation routes
 - Participated in community wildfire education program
 - Completed a home checklist
 - Participated in evacuation drill
 - Expressed interest in joining a FireSafe Council
 - Expressed interest in leading a FireSafe Council

DESCRIPTION OF THE RISK FACTORS

The following are the risk factors that can be mapped within the District. The description of each risk factor includes examples of how each can influence the possible damage from wildfire. The descriptions offer background so that stakeholders could weigh the relative importance of each factor.

Year of Construction

The year of construction can influence the design and construction type of structures. Structures built prior to the passage of the new building code generally have more features that make them more ignitable: overhanging wood decks, single-paned windows, wood roofs, wood siding, unprotected eaves and open vents, for example.

Roof Material

This is usually considered one of the most important risk factors. Wood roofs are associated with ignition and structure loss, while structures with non-flammable roofs usually have higher survival rates during a wildfire exposure.

Defensible Space

Having defensible space is usually associated with high structure survival rates during a wildfire. Firefighters are provided opportunities to position resources around the structure and heat output is reduced when defensible space is present.

Position of Structure on Slope

Because fires pre-heat fuels above it, structures on the top of slopes often are more apt to ignite than those at the bottom of a slope. Access is also influenced by a structure's position on the slope since structures at the top of a slope may be harder to access.

Sensitivity to Special/Valued Habitat

Fuel management may be hindered in areas where extra precautions increase management costs or regulations prohibit work. Unmanaged fuels may be areas of increased fuel accumulation and hazard.

Slope/Aspect

Steeper slopes pose challenges for containment because travel is hindered, and more preheating occurs with steeper slopes. The orientation of the slope to the sun also affects the fuel moisture and heat; westerner and southern aspects are generally hotter and drier.

Proximity to Wildland Vegetation

Areas farther away from wildland are much less likely to incur damage, unless airborne burning embers, or firebrands, are part of the fire behavior.

Fire Behavior

The way wildfire burns, especially the intensity of a fire is an important risk factor. Fire intensity (as measured by flame length) is closely linked to damage. Fires with longer flames are hotter and more apt to ignite structures or become lethal to living things. The faster fire spreads, the harder it is to contain. When fires torch tree canopies, embers are produced and distributed well ahead of the main fire, and which can easily start new fires, both in vegetation and in structures.

Vegetation Types

Vegetation type influences fire behavior, because some, such as dry grass, burn more quickly, and some, such as brush, burn hotter. Different vegetation types also are easy or hard to manage. Unmanaged vegetation is often more hazardous.

Cultural Resource and Sensitive Habitat Areas

Fuel management may be hindered in areas of cultural resources or sensitivity habitats require where extra precautions that increase management costs or where protective regulations prohibit work. Because of a lack of treatments, these unmanaged fuels can comprise increased fuel accumulation and fire hazard.

Homeowner Participation in Education/Mitigation

Informed and involved homeowners typically have a property that is at less risk due to the increased knowledge they have and heightened sense of responsibility.

Water Sources/Hydrants

The use of water greatly aids the extinguishments of a fire, thereby containing it and limiting damage. The total abundance and proximity to the fire are important factors.

Road Width

Road widths generally aid fire response by allowing faster travel, and by providing a wider firebreak.

Response Time

Shorter response times are associated with reduced damage because containment and suppression can start earlier, when the fire is smaller.

Fire Breaks

The presence of firebreaks typically aids fire response by offering a safer location to position resources, and is a place where fire behavior is calmed.

Wildland Pre-Plan

Fire response may be more efficient in locations that have a pre-plan for wildfire due to increased knowledge regarding firebreaks, water sources, access, and communications.

RISK FACTOR PRIORITY

Stakeholders were asked to weight the relative importance of each of these 16 factors using an online survey, or by completing the form during stakeholder meetings. The 16 factors include the following:

- ▲ Year of Construction
- ▲ Roof Material
- ▲ Defensible Space
- ▲ Position of Structure on Slope
- ▲ Sensitivity to Special/Valued Habitat
- ▲ Slope/Aspect
- ▲ Proximity to Wildland Vegetation
- ▲ Fire Behavior
- ▲ Vegetation Types
- ▲ Cultural Resource Areas
- ▲ Homeowner Participation in Education/Mitigation
- ▲ Water Sources/Hydrants
- ▲ Road Width
- ▲ Response Time
- ▲ Fire Breaks
- ▲ Wildland Pre-Plan

Risk Results

Approximately one-third of the stakeholders offered their perspective on the relative importance of the risk factors. They generally gave high level of importance to roof covering, defensible space, and fire response. The response was quite variable, which prevented the team from exactly incorporating the weights provided by the stakeholders. The consulting team considered the input from the stakeholders and determined the relative importance of the factors into Table 7-2.

Table 7-2 Risk Factors: Community Survey Results			
	Risk Factor - Metro Fire	Condition	Weight/ score (bad = high)
Fire = 25% <i>add flame length, crown fire, proximity to wildlands</i>	Fire Behavior - FL	flame length high	15
		flame length medium	10
		flame length low	0
	Fire Behavior - Crown	crown fire med or high	5
		no crown fire potential	0
	Proximity to Wildland Vegetation	Wildlands abut parcel	5
		Wildlands between 100-500 ft from parcel	3
		Wildlands greater than 500 ft from parcel	0
	Defensible Space	not compliant/no	15
Veg Condition = 20% <i>add d space and veg type</i>		Compliant/yes	0

Table 7-2 Risk Factors: Community Survey Results			
	Risk Factor - Metro Fire	Condition	Weight/ score (bad = high)
	Vegetation Types within 200ft	shrubs	5
		annual grass	3
		oak woodland	2
		riparian vegetation	1
		irrigated landscaping	0
Roof = 20%	Roof Material	Wood or Ember Intrusion	20
		Non-combustible	0
Construction Other = 10% <i>add siding, eaves, windows, vents, deck, underdeck</i>	Year of Construction - siding	before 2010/wood, combustible	1
		after 2010/non-combustible	0
	Year of Construction - eaves	before 2010/not boxed or treated	1
		after 2010/boxed or of treated wood	0
	Year of Construction - windows	before 1975/single paned	2
		after 1975/double+paned	0
	Year of Construction - vents	before 2010/unprotected, no screen	2
		after 2010/1/4 “ screened/protected/baffled	1
		after 2010/1/8” screened/protected/baffled	0
	Year of Construction - Deck/balcony/patio	before 2010/Combustible Material, not sheathed in	4
before 2010/combustible Material, sheathed in		2	
after 2010/None or fire resistant material, sheathed in		0	
Water =4%	Water Sources/Hydrants	Pressurized Hydrant	4
		Tank or Dry Hydrant	1
		Accessible Swimming Pool	2
		None/Insufficient	4
Response time = 5%	Response time	Greater than 5 mins	5
		Less then 5 mins	0
Road quality = 5%	Road Width	Does not meet MF codes	5
		Meets MF code	0
	Wildland Pre-Plan		0
Topography = 10% <i>add position of structure on slope, aspect and slope steepness</i>	Position of Structure on Slope	Ridgetop/Chimney/Box Canyon/Top of Slope	4
		Mid-slope with Setback	2
		Flat/Base of Slope	0
	Aspect	South or west facing slope	2
		Flat	0
		East or north facing slope	0
	Slope Steepness of Yard	greater than 30% steepness	4
		10 - 30% steepness	3
		Less the 10%	0
	Cultural Resource Areas		0
Sensitivity to Special/Valued Habitat		0	
Firebreaks = 1%	Fire Breaks	No firebreaks within 500 ft	1
		Firebreaks within 500ft	0
	Homeowner Participation in Education/Mitigation		0
TOTAL			100
RED = HIGH [45 or above] ORANGE = MEDIUM [between 25 and 45] GREEN = LOW [25 or below]			

After the characteristics of each risk factor are assigned to each parcel, the parcel will fall into a risk category of Low, Moderate, Moderate-High or High Risk. These categories are described in Table 7-3 below.

Table 7-3 Risk Results	
Risk Category	Description of Risk Category
High Fire Risk	Your home has been identified as a HIGH RISK. The survivability of your home is low. Your home may be in extreme danger during a hostile wildfire. Recommendations indicated within your home evaluation are strongly encouraged to be completed.
High-Moderate Fire Risk	Your home has been identified as a MODERATE RISK. Survivability of your home will be an issue during a hostile wildfire. Recommendations indicated within your home evaluation should be completed.
Moderate Fire Risk	Your home has been identified as a MODERATE RISK. Survivability of your home will be an issue during a hostile wildfire. Recommendations indicated within your home evaluation should be completed.
Reduced Fire Risk	Your home has been identified as a LOW RISK. Recommendations indicated within your home evaluation should be addressed to increase the survivability of your home during a hostile wildfire.
Low Fire Risk	Your home has the greatest potential for survivability during a hostile wildfire.

8 PROJECTS THAT IMPROVE EXISTING CONDITIONS

PROJECTS

The following section summarizes the projects that Metro Fire proposes to implement under this CWPP. This list of projects included under the CWPP was developed by soliciting input from stakeholders at public meetings and through individual contacts with stakeholders. Some projects were suggested by the consultant team and affirmed by the stakeholder group.

The projects are listed using the three headings required for CWPPs in the FHFRA: community collaboration, fuels reduction projects, and treatment of structural ignitability. Another way to classify these actions is whether the actions are related to fire prevention, preparedness for fire, fire response, or recovery from a fire. Accordingly, the actions are classified whether they address Prevention, Preparedness, Response, or Recovery. Currently, no projects have been identified that might assist in post-fire recovery; however, such projects are being solicited through the stakeholder outreach process and would continue to be solicited as the CWPP is implemented over time.

Community Collaboration

Implementing projects to reduce wildfire risk can occur only if the community at risk and the agencies responsible for land use planning and fire response are fully involved in the planning and implementation process. Together, the people and entities at risk and those responsible for managing and responding to that risk are called the stakeholders in the plan. It is the goal of Metro Fire to collaborate with as many stakeholders in the delineated WUI as possible to reduce the fire risk. Stakeholders that participated in the process include:

- ▲ Matt Ocho, ARP Foundation
- ▲ Dianna Poggetto, ARP Foundation
- ▲ James Morgan, Butterfield-Riviera East Community Association (BRECA) and Save the American River Association (SARA)
- ▲ Nate Gogna, Bureau of Land Management
- ▲ Mike Webb, California Department of Forestry and Fire Protection (CAL FIRE)
- ▲ Thomas Tinsley, CAL FIRE
- ▲ Mike Okivarria, CAL FIRE
- ▲ Edith Hannigan, California Board of Forestry and Fire Protection
- ▲ Steve Cantelme, California State Office of Emergency Services
- ▲ George Avila, California Department of Transportation (CalTrans)
- ▲ Daman Christensen, City of Citrus Heights Police Department
- ▲ Dan Haverty, City of Sacramento Fire Department
- ▲ Michelle Basurto, City of Sacramento Fire Department

- ▲ Scott Williams, City of Sacramento Fire Department
- ▲ Lon Gay, City of Sacramento Fire Department
- ▲ Diana Yates, City of Sacramento Fire Department
- ▲ Mary Maret, County of Sacramento Dept. of Regional Parks
- ▲ Michael Winter, County of Sacramento Community Development
- ▲ Sheryl Lenzie, County of Sacramento Planning & Environmental Review Division
- ▲ Dave Reed, Riverwood Home Owners Association (HOA)
- ▲ Candace Krumpe, Riverwood HOA
- ▲ Donald Burns, Riverwood HOA
- ▲ Vince Jacobs, Riverwood HOA
- ▲ Baldeo Singh, Sacramento Regional Conservation Corps
- ▲ Dwight Washabaugh, Sacramento Regional Conservation Corps
- ▲ David Cheek, Sacramento Regional Conservation Corps

Metro Fire proposes to work collaboratively with stakeholders to develop and implement practices and actions to mitigate the risk factors occurring in the WUI. The following actions are recommended in this CWPP:

1. Establish a framework for Metro Fire staff and staff of other stakeholder agencies to collaborate on implementing the plan. (Preparedness)
2. Add the CWPP to the Amador/Eldorado Cal Fire Unit Fire Plan. (Preparedness)
3. Conduct joint training with cooperating agencies.
 - a. Foster the relationship between the Sheriff's Department, cities of Rancho Cordova and Citrus Heights Police Departments, and Metro Fire to jointly address evacuation routes and procedures. (Response)
 - b. Collaborate and participate with California State Parks and Sacramento County Regional Parks in their existing and planned prescribed burn activities with the intention of increasing Metro Fire's familiarity with prescribed burn techniques and overall increased collaboration between these entities. (Prevention and Response)
 - c. Include Minimum Impact Suppression Techniques in the training curriculum. (Preparedness)
4. Work with citizen-based response organizations (i.e., Neighborhood Watch, Community Emergency Response Team (CERT)) to supplement law enforcement and fire department efforts. Encourage the linkage between crime prevention and fuel reduction near homes. (Preparedness and Response)
5. Encourage the formation of a countywide Fire Safe Council. This entity could serve as an "umbrella" organization under which smaller, community-based fire safe councils could be formed when and where

there is interest. The countywide fire safe council would assist in organizing and finding funding for the community-based fire safe councils. (Preparedness)

6. Facilitate the formation of an agency-to-agency organization to foster resource sharing, establish common best practices, and consistent media messages. (Preparedness)
7. Continue to hold community meetings to educate residents about their fire environment and measures they can take to minimize their risk and prepare for a wildfire (Preparedness). These meetings could include:
 - a. A description of practices to reduce structural ignitability and to limit ignitions;
 - b. An explanation of how common architectural features respond when ignited;
 - c. A description of evacuation protocols and drills; and
 - d. Information about defensible space and fire-resistant landscaping.
8. Seek grant funding to fund projects, and involve stakeholders to maximize community support for projects when prioritizing projects. (Preparedness)
9. Inform citizens of details of this CWPP through a Community Education Program. Topics would include provisions for evacuation; shelter in place; safety zones; fuels reduction; and the neighborhood provisions for fire safety, prevention, and public safety. The education program would include a Metro Fire library of information on fire safety, fire-wise landscaping, defensible space, first-aid, and other literature for distribution to citizens upon request. (Preparedness)
10. Recommend the amendment of general plans, building codes, and zoning ordinances to strengthen and to provide additional protections for wildfire while still allowing property owners to develop their land. Goals, policies and implementing actions are listed in Appendix K. (Prevention, Preparedness, Response, Recovery).

Fuel Reduction Projects

Fuel management is the practice of removing or modifying vegetation in order to reduce wildfire ignitions, rate of fire spread, and fire intensity. Changing the continuity of the vegetation, and reducing its volume are the two primary actions in fuel management. Typically grass is mowed, shrubs are reduced in height and/or removed (especially when under trees), and the lower branches of trees are cut and removed.

Methods to modify vegetative fuels encompass the use of hand labor to cut, pull, and or move vegetation; mechanical mowing, cutting or masticating; prescribed grazing; targeted herbicide application; and prescribed burning. Refer to Section 9 below and Appendix J of this CWPP for a detailed description of proposed treatment methods. Given the variability of conditions, a single type of treatment is typically not effective. Figure 8-1 and 8-2 of this document provide location of proposed CWPP fuel reduction treatment areas. In general, fuel management practices vary with the vegetation type, location of treatment, terrain, condition of the vegetation, and its configuration. Typically, fuel reduction treatment priorities are established based on the site conditions (such as fire hazard, access, and development pattern) and can generally be organized based on the location of treatment from structures and infrastructure as follows.

1. 0-100 feet from a structure,
2. 10-300 feet from critical infrastructure (e.g., fire hydrants, other water supplies, etc.),
3. 0-30 feet from emergency access roads, and

4. 100-300 feet within community protection zones (a community protection zone overlaps with home ignition zones [i.e., the home itself and everything around it up to 100-200 feet] and can provide opportunities for firefighters to protect other flammable features of a community) [NFPA 2014]. This zone is further defined below under Section 2.8.3, Vegetation Treatments.

The location of fuel management projects recommended in the CWPP is shown in Figure 8-1 and 8-2 and would include the following:

1. Gather more information about existing fire conditions and hazards in the WUI in order to better direct and prioritize fuel reduction projects. This would include the following actions:
 - a. Install remote automatic weather stations (RAWs) to determine fire conditions and conditions requiring red flag warnings. The automatic weather stations would be installed on existing poles or structures, or within existing developed areas, and would not be placed in areas that are highly visible. (Preparedness and Response)
 - b. Train Metro Fire staff how to use and interpret RAWs data. (Preparedness and Response)
 - c. Establish and adopt a mechanism to notify stakeholders when a red flag warning is issued. (Response)
 - d. Evaluate and, as warranted, revise dispatch protocol for red flag warnings. (Response)
 - e. Hire an intern to map the WUI fire history to portray the locations, times, and causes of wildfire ignitions. (Preparedness)
 - f. Develop a fire prevention plan for areas of frequent ignitions. The plan would include fire prevention goals and strategies based on the area's fire history (i.e., children playing with matches, unattended barbecues, or warming fires), community education needs, enforcement of regulations, and/or modification of fuels to ensure they are less ignition-prone. (Prevention)
2. Work with partner agencies to conduct fuel management and augment response and/or reestablish Metro Fire work crews to treat vegetation in projects identified in this CWPP. (Prevention and Response);
3. Use established governmental work programs such as the Sacramento Regional Conservation Corps to conduct fuel reduction projects (as detailed in the following pages) and to bolster response capabilities. (Preparation and Response);
4. Use community groups, such as Neighborhood Watch and CERT volunteers, to help with advisory inspections and to educate homeowners about defensible space and how it reduces their exposure to wildfire damage. (Prevention);
5. Where feasible, use California Department of Correction and Rehabilitation (CDCR) work crews to treat vegetative fuels at CWPP project sites (as detailed in the following pages). (Prevention);
6. Develop pre-fire plans for communities within the WUI to speed emergency response and make it more effective. These plans will identify available water supply, alternative access points, structure footprints, location of locked gates, contingency zone locations, areas sensitive to dozer operations, and communication protocols. (Prevention, Preparedness, and Response);
7. Support targeted compatible vegetation management in the ARP that reduces fire hazard through funding and cooperative operations. Work to minimize impacts to sensitive habitats through establishment of best management practices and be consistent with the 2008 ARP Master Plan. (Prevention);

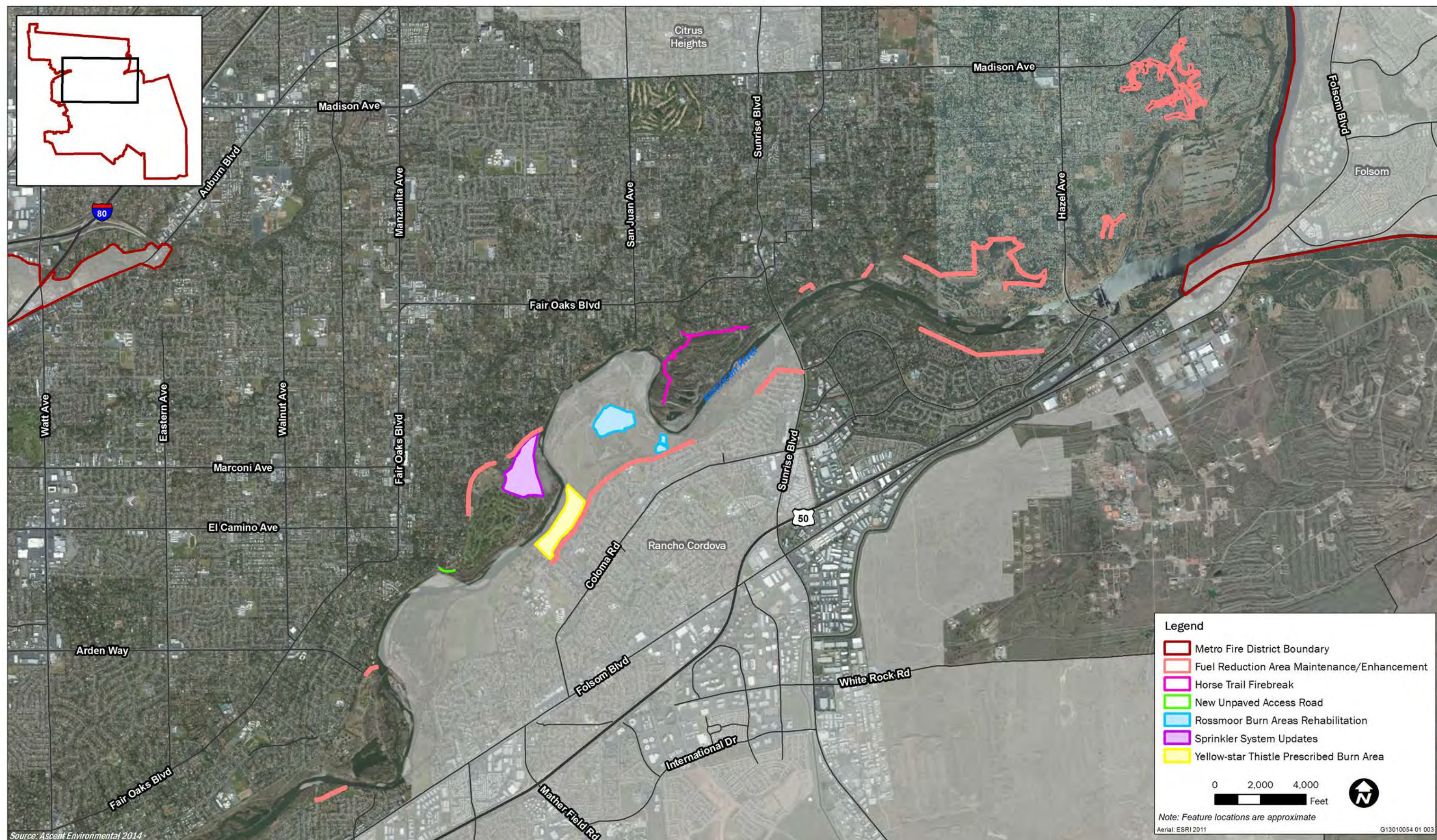


Figure 8-1

Fuel Reduction in the American River Parkway

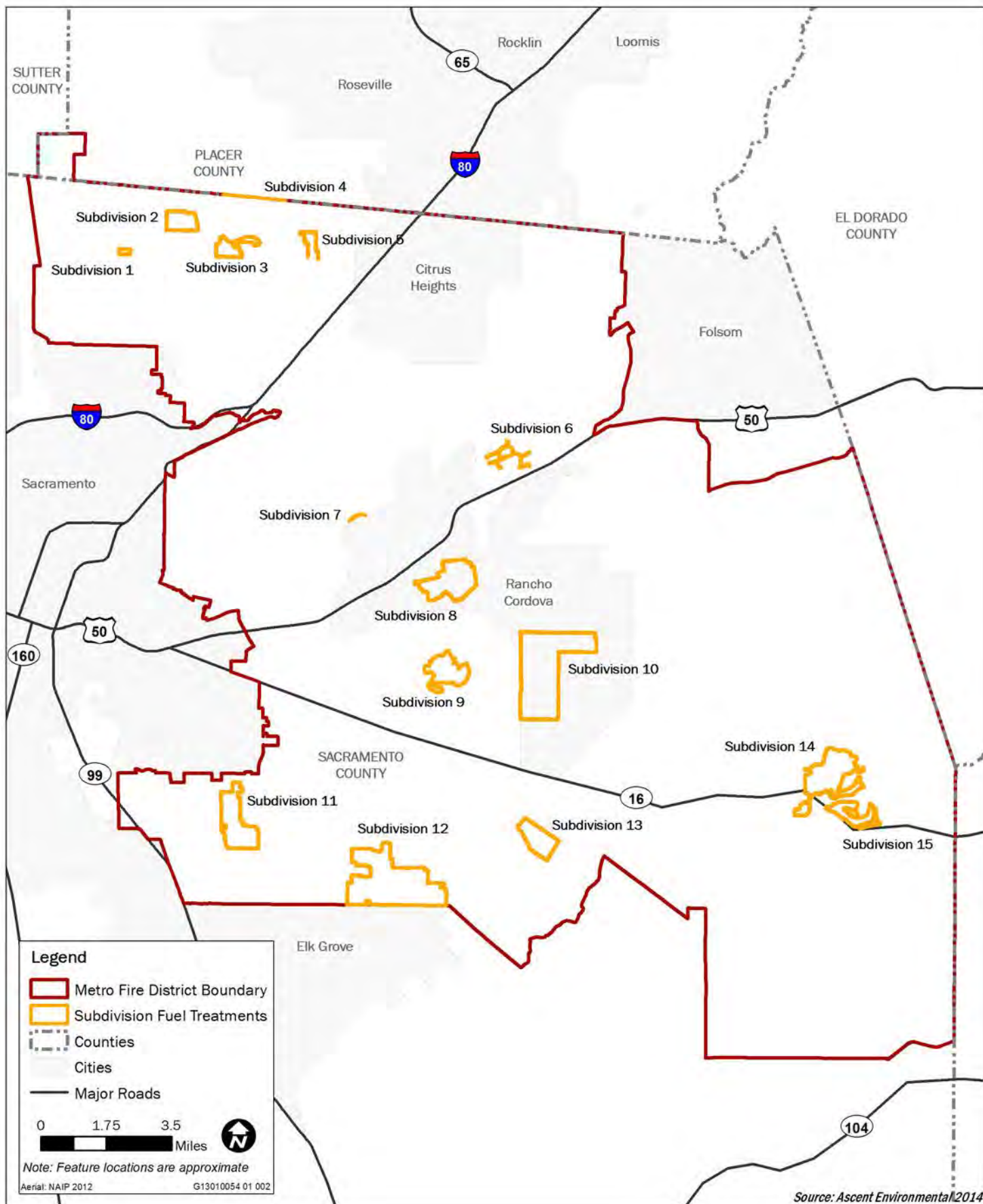


Figure 8-2

Fuel Reduction around Subdivisions Adjacent to the Wildlands

- a. Manage vegetative fuels for fire hazard reduction through maintenance of existing fuel reduction areas (i.e., 100-feet of mowed area within Defensible Space Zone) located around structures adjacent to WUI areas within the ARP (see areas identified in Figure 8-1 as 'fuel reduction area maintenance/enhancement). CDCR crews or SCC crews may be utilized to reduce fuel loading in areas with heavy vegetation. Seek grant funding for this work. (Prevention);
8. Expand area of fuel treatment adjacent to equestrian trails by 10 feet in selected locations and rehabilitate burn areas in Rossmoor Bar (see areas identified in Figure 8-1 as 'Fuel Reduction Area Maintenance/Enhancement, 'Horse Trail Fire Break', and ' 'Rossmoor Burn Areas Rehabilitation') to protect sensitive resources from the spread of fire. CDCR crews or SCC crews may be utilized to reduce fuel loading in heavy vegetation. Metro Fire would seek grant funding for this work. Activities under this fuel reduction project would include:
 - a. Expand the area of fuel treatment along horse trails near Bannister Park. Treatments would include mowing or disking a strip to prevent fire spread and pruning of lower branches of trees to prevent torching and remove understory shrubs to minimize fire intensity.
 - b. Use SCC crews to rehabilitate the fire area in Rossmoor Bar. This would include pruning lower dead branches of oak trees, removal and piling of dead material away from trees, and weed-whip/mow the grass under the trees so fire cannot carry and create further damage.
 - c. Increase the firebreak width (mow or blade an area up to 30-feet wide, including the disced width) outside areas where mitigation trees were planted. (Prevention).
9. Encourage the American River Coalition to establish a volunteer program to focus on activities that remove or prune vegetation in the area behind residences within the ARP, especially those residences south of the river. (Prevention and Preparedness);
10. Renew and update the fuel reduction work done in 2010 and 2012 in Ed Levy area and elsewhere in the ARP (Figure 8-1);
11. Coordinate with Caltrans and County Public Works on implementing currently authorized roadside fuel reduction treatment projects that would include mowing grass, shrub removal, and tree pruning within road right-of-ways. (Preparedness); and
12. Treat high fire hazard areas (determined by estimated flame length) near structures with establishment of a community protection zone with associated firebreaks. Figure 8-2 identifies approximate location of proposed subdivision fuel treatment areas. (Preparedness). Give the highest priority to projects that:
 - a. Reduce hazardous fuels, which if left untreated, would generate high intensity fire adjacent to structures or communities at risk, or produce large quantities of burning embers that would threaten communities;
 - b. Reduce hazards along strategic emergency access and evacuation routes, or other critical infrastructure; and
 - c. Reduce impacts of wildfire to sensitive high value ecosystems and high use recreational areas by reducing fire intensity and or increasing chances of fire containment before reaching the area

Treatment of Structural Ignitability

The presence of structures within the WUI exposes both the natural and the developed environment to increased risk of destruction by wildfire. Where flammable vegetation occurs near homes, an ignition can

result in a damaging fire. Reducing the ignitability of structures can reduce loss to the treated structure and reduce fire spread in the area.

Structure ignitability can be reduced by using fire-resistant roofing, installing or retrofitting ignition resistant decks, installing double-paned windows (and otherwise building and remodeling in a manner consistent with Chapter 7a of the California Building Code), reducing the amount of flammable vegetation near the structure, and enhancing firefighter's access to the structure and a water supply.

The decision where to build and the materials used has a direct relationship to the ability of the structure to survive a wildfire. Adoption and enforcement of fire and building codes is an essential part of managing risk within the WUI. The following are CWPP-recommended projects that will improve the ability of structures in the WUI to survive a wildfire.

1. Develop a means to enforce defensible space on private property in the WUI, as required by Public Resources Codes 4291. (Preparedness)
 - a. Revise the fire codes for the area within the WUI throughout the District. The code would identify defensible space and construction requirements for different site conditions, formalize inspection schedules, and identify the responsibility for fulfilling the defensible space requirements. Revisions to the code could be implemented over several years, beginning with the areas of highest risk. (Prevention)
2. Gather more information about existing structural conditions and risks in the WUI in order to better direct and prioritize projects addressing structural ignitability. (Preparedness)
 - a. Seek funding to support staff collection of structural data to support parcel-based risk assessment⁵ (Preparedness)
3. Hire additional staff to conduct defensible space inspections and inventory of wildfire risk. Inspectors would determine whether the vegetation on the parcel is in compliance with the adopted weed abatement ordinance and the presence of risk factors such as vegetation condition, structure characteristics and parcel attributes (See Section 7 for a detailed discussion of risk factors). (Prevention)
4. As grant funding becomes available, administer a program that funds replacement of wood shake roofs with non-combustible roofing in the areas most at risk. (Prevention)
5. As grant funding becomes available, retrofit the structural components, building materials, and landscaping of older Metro Fire stations. (Prevention)

FUEL TREATMENT MECHANISMS

Fuels within the District would be treated through a variety of mechanisms. Treatment mechanisms include hand labor, mechanical treatment, targeted grazing, herbicide, and broadcast prescribed burning. Assumptions being analyzed for the fuel treatment types are listed in Appendix J of this CWPP and are summarized as follows:

Hand Labor

Hand labor involves pruning, cutting, or removal of weeds or shrubs either by hand or with hand-held equipment. Hand labor includes pruning, weed-whipping (weed-eating), and mowing. Hand labor encompasses the operations of pruning and use of a string cutter, tree removal, bark pulling, removal of dead wood within the tree/shrub canopy, litter removal and mulching, and establishing new plant material.

⁵ Parcel-based risk assessment is a rating for each parcel of the conditions that influence the potential damage from wildfire.

All herbaceous material will remain on the site after treatment. Soil disturbance should be minimal. Density of shrubs and small trees will decrease, but total removal of vegetation from a site would not occur.

Mechanical Treatments

Mechanical treatments include discing, mechanical pruning, mowing, and brushing. Discing will remove vegetation and disturb the top soil layer with a tractor blade and leave bare mineral soil in an 8-12 foot swath. Other heavy machinery (like a mower or brusher) could disturb the top soil layer due to the weight the machinery, the grade of the slope and the type of soil. Machinery may contain mechanical arms to reach out and prune or cut vegetation. While this type of machinery can be maneuvered to certain areas, it has little control over which plants it cuts within the area it is cutting. Mowers are attached to tractors and produce mulch that remains on the ground after treatment. Percentage of vegetation removal will vary by treatment type and vegetation community. Grassland areas may see almost total removal of vegetation while woodland areas would see understory vegetation removed.

Mowing would cut vegetation down to one-inch height (Fire Breaks) or less than four inches in Defensible Space Zones so that vegetation roots will remain intact and hold soil.

Mowing of plants would leave herbaceous debris on the ground that will likely decay within a year or two.

Targeted Grazing

Grazing with 200-300 sheep and goats on an acre can be used to target for specific areas. However, goats and sheep would remove any vegetation that is edible to them. Sheep tend to prefer herbaceous material such as forbs, while goats will eat practically anything including forbs, grasses and browse (shrubs). The hoof action of the animals will compact or disturb the soil within the areas grazed. Most likely treatments would likely occur in August through April timeframe due to the high demand during the late spring and summer months. Percent vegetation removal by targeted grazing can depend on vegetation type, timing and intensity of grazing. Grassland or weedy areas could be reduced completely, while shrublands or tree stands would have understory removal to remove ladder fuel.

Herbicide

Herbicide treatments would remove targeted species. These are generally used for weedy species such as star thistle or mustard. Vegetation, if dense, would be completely removed. Vegetation not sprayed would remain and continue to hold soil onsite.

Prescribed Burns

Prescribed burning would include broadcast burning in specified areas for yellow star thistle reduction (see Figure 8-1). They usually include some dozer work or hand work to line the burn unit with a small fire break. This line would remove all vegetation and leave bare mineral soil; as well as disturbing the top layer of soil. Pile burning consists of piling vegetation debris and burning the pile. If piles are not lined and attended to, they can escape and be used as a broadcast burn. Prescribed burning can remove most of the vegetation if the burn is very intense and hot, or leave a mosaic of burn and unburned vegetation if the burn is less intense.

Fuel burns more intensively during the fall season and fires are hotter. This heat intensity causes more vegetation to burn than in the springtime. Springtime burns are cooler due to the moisture in the fuels and tend to leave more vegetation remaining on a treatment site.

Environmental Commitments

The following Environmental Commitments have been identified by Metro Fire and would be implemented with implementation of fuel treatment activities. Metro Fire has committed to the implementation of these measures; therefore, they are included as an element of this CWPP:

▲ Any Construction or Other Activities Using Motorized or Noisy Equipment

- All activity will take place between 6:00 a.m. and 8:00 p.m. within the County and between 7:00 a.m. and 6:00 p.m. within Rancho Cordova consistent with their Noise Ordinances.

▲ Hand Labor and Mechanical Treatments

- Treatments actions will be avoided during conditions that may affect water or run-off including during storms or severe weather or immediately following severe weather.
- Metro Fire will avoid herbicide treatment in areas adjacent to water bodies, riparian areas, and primary drainage access per requirements set forth by the California Department of Pesticide Regulation. Metro Fire will follow all herbicide labels and directions in determining applications near water resources or riparian habitats and will limit aerial application to greater than 100 feet from water resources and ground and hand application to greater than 50 feet.
- Metro Fire will not use mechanized equipment within 50 feet of waterbodies or designated riparian areas.
- Design criteria for fuel treatments will include prevention of soil erosion and canopy cover changes within riparian or oak woodland stream bank habitat.
- All pruning will take place between November and April due to insect infestation dangers from pruning.
- No heavy mechanical fuels treatments (discing, dozer use) would occur in drainage channels, run-off areas, or dry streambeds.
- Metro Fire will install and manage runoff barriers for rainwater in all treatment and operating areas.
- Metro Fire will restrict mechanical removal of trees to more than 50 feet from drainage channels.
- Metro Fire will limit heavy equipment on slopes greater than 30 percent.
- Metro Fire will ensure that all equipment is cleaned prior to movement into sensitive habitat areas to prevent the spread of invasive or non-native plants.

▲ Herbicides

Metro Fire will require the implementation of the following Best Management Practices (BMPs) for application of herbicides:

- ▲ Applicators will follow all herbicide label requirements and refer to all other local, state, and federal regulations (including OSHA requirements) to protect sensitive resources and employee and public health during herbicide application.
- ▲ Herbicide applicators will have or work under the direction of a person with a Qualified Applicator License or Qualified Applicator Certificate.
- ▲ All storage, loading and mixing of herbicides will be set back at least 300 feet from any aquatic feature or special-status species or their habitat or sensitive natural communities. All mixing and transferring will occur within a contained area. Any transfer or mixing on the ground will be within containment pans or over protective tarps.
- ▲ Appropriate non-toxic colorants or dyes will be added to the herbicide mixture where needed to determine treated areas and prevent over-spraying.
- Application will cease when weather parameters exceed label specifications, when wind at site of application exceeds 7 miles per hour, or when precipitation (rain) occurs or is forecasted with greater

than a 70 percent probability in the next 24-hour period to prevent sediment and herbicides from entering the water via surface runoff.

- Spray nozzles will be configured to produce a relatively large droplet size.
- Low nozzle pressures (30-70 pounds per square inch) will be observed.
- Spray nozzles will be kept within 24 inches of vegetation during spraying.
- ▲ Drift avoidance measures will be used to prevent drift in locations where target weeds and pests are in proximity to special-status species or their habitat. Such measures can consist of, but would not be limited to the use of plastic shields around target plants and adjusting the spray nozzles of application equipment to limit the spray area.
- ▲ Signs will be posted at each end of herbicide treatment areas and any intersecting trails notifying the public, employees, and contractors of the use of herbicides. The signs will consist of the following information: signal word, product name, and manufacturer; active ingredient; EPA registration number; target pest; preserve name; treatment location in preserve; date and time of application; date which notification sign may be removed; and contact person with telephone number. Signs will be posted at the start of treatment and notification will remain in place for 72 hours after treatment ceases.
- ▲ All herbicide and adjuvant containers will be triple rinsed with clean water at an approved site, and the rinsate shall be disposed of by placing it in the batch tank for application. Used containers shall be punctured on the top and bottom to render them unusable, unless said containers are part of a manufacturer's container recycling program, in which case the manufacturer's instructions shall be followed. Disposal of non-recyclable containers will be at legal dumpsites. Equipment will not be cleaned and personnel will not bathe in a manner that allows contaminated water to directly enter any body of water within the treatment areas or adjacent watersheds.
- ▲ All appropriate laws and regulations pertaining to the use of herbicides and safety standards for employees and the public, as governed by EPA, the California Department of Pesticide Regulation, and local jurisdictions shall be followed. All applications will adhere to label directions for application rates and methods, storage, transportation, mixing, and container disposal. All contracted applicators will be appropriately licensed by the state. The licensed applicator will coordinate with the County Agricultural Commissioner, and all required licenses and permits will be obtained prior to herbicide application.
- ▲ Grazing
 - Prior to introduction into sensitive habitat areas, all animals will be quarantined and fed weed-free forage to prevent the spread of invasive weeds
- ▲ Prescribed Burning
 - Metro fire will maintain a buffer between the burn area and water bodies or drainage into riparian zones. Buffers will be a minimum of 25 feet for 5 percent slopes, 75 feet for 5-10 percent slopes, and 250 feet for 10 percent slopes
 - Metro Fire will minimize post fire erosion into waterbodies and drainage channels through natural barriers, and proper erosion control barrier deployment.
 - Burns will take place during the spring season when the ground is wet or the fall season when plant moisture content is low.

Vegetation Treatments

This CWPP is aimed at reducing damage from wildfire to structures, critical infrastructure, and natural resources. Vegetation treatment is a proven tool to minimize damage from wildfire. One of the goals of vegetation management to reduce wildland fire hazard is maintenance of defensible space required to calm fire behavior before it nears a structure. A description of the three wildland fire hazard vegetation treatment zones and associated maintenance guidelines were developed for this CWPP and are described below.

Defensible Space Zone. This zone is located within 100 feet of any structure. The zone encompasses the space nearest the structures and is designed to reduce ignitions near structures, support structural survival during a wildfire, and reduce the chance that an ignition would spread to adjacent properties. The Defensible Space Zone is the responsibility of property owners and will continue to be promoted strongly by Metro Fire under the CWPP.

Roadside Vegetation Management Zone. This zone is located within 10 feet from pavement edge on all streets, courts, driveways, and emergency vehicle access routes. The Roadside Vegetation Management Zone is designed to assist evacuation and emergency vehicle access, to limit roadside ignitions and to provide a location where firefighter resources can be effective. The actions to comply with both the Defensible Space Zone and the Roadside Vegetation Management Zone are the same, with one exception. In the Roadside Vegetation Management Zone there must also be a 15-foot vertical clearance created by tree-trimming over the entire length of the roadway. Maintenance of this management zone is already the responsibility of local agencies and is not a discretionary action.

Community Protection Zone. This zone is located in the 100-foot band beyond the parcels with structures. This would create a 100-200-foot radius from structures of managed vegetation. The purpose of this zone is to calm fire behavior before reaching the Defensible Space Zone. Metro Fire would coordinate with applicable land owners for permission to conduct any fuels treatment on their property. Any actively irrigated crop land would not require treatment unless a fire risk is determined by Metro Fire.

Maintenance Guidelines for Defensible Space Zone. These guidelines apply to defensible space zone maintenance activities in areas around water tanks and other water storage equipment, pump houses, and its supply pumps as well as around outdoor barbecues and outdoor fireplaces. These vegetation management actions comply with the California State PRC 4291, as well as the Uniform Fire Code.

1. Remove all dead plants and dry vegetation to establish and maintain a defensible space.
 - a. Within 30 feet from any structure, and under trees cut grass and weeds yearly to less than 4 inches in height no later than June 15 or as directed by Metro Fire. Cut grass may be left on site. Re-mow if late-season rains promote grass growth after the first cutting. Keep the ground, roofs, decking, and balconies free of dead leaves or other plant debris
 - b. Clear leaves, bark, and humus under trees and shrubs (including vines and semi-woody species) every year. At no time should a buildup of leaves and humus exceed an average of 2 inches in depth. However, do not expose bare earth in over 50% of the site, and in any one area larger than 10 feet by 10 feet.
 - c. Remove dead material that drapes over ground cover (including leaves, bark, and branches) annually, before June 15 or as directed by Metro Fire.
 - d. From mature trees, remove all vines, loose papery bark, and dead branches to a height of 8 feet above the ground.
 - e. Remove all dead branches from within live ground covers, vines, shrubs (including semi-woody species), and immature and landscape trees.

2. Prune trees and large tree-form shrubs (e.g., oaks, toyons) to provide clearance of three times the height of the understory plant material, or 8 feet, whichever is higher. Prune limbs that are smaller than 3 inches in diameter up to 8 feet above the ground; in young trees, prune these branches in the lower one-third of the height of the tree. Thus, if a tree is 10 feet tall, prune the lower 3–4 feet and keep the understory plant material to less than 1 foot in height. As it grows to 24 feet in height, it can achieve the 8-foot distance from the ground, and the understory plant material can reach 2.5 feet in height.) Mature trees do not need to be removed in order to achieve defensible space.
 - a. Do not disturb or thin the tree canopy because these actions promote growth of more flammable vegetation.
 - b. Remove all branches within 10 feet of any chimney, flue, or stovepipe. Maintain 5 feet of vertical clearance between roof surfaces and overhanging portions of trees.
 - c. Branches over structures but further away than 10 feet from chimneys, and 5 feet from vertical surfaces can remain.
3. Do not locate plants under trees that are replacing ones that die, or native species planted as a mitigation measure. To avoid creating “ladder fuel situations” (in which a fire can climb from one vegetation layer to the next higher one), do not plant shrubs (including vines, semi-woody species, and all chaparral species) under trees. Instead, plant groundcover plant materials. Groundcover includes plants up to 18 inches in height and may be planted under tree canopies. If tree branches start no lower than 8 feet off the ground this understory plant material may be as tall as 2.5 feet.
4. Make sure that all landscaping and replacement plants are fire-resistant in nature. Plants that are highly ignitable and burn with intensity are prohibited. A list of fire resistant and fire-prone plants can be found at <http://www.diablofiresafe.org/tolerance.html>.
5. Manage individual plants or shrub masses to maintain adequate horizontal spacing. Design distinct groupings of shrubs (including vines, semi-woody species such as poison oak, all types of brush, including coyote brush, and all chaparral species) to dampen the spread of fire. Make sure that the plant groupings are small enough to provide adequate horizontal separation between groupings and to allow proper maintenance; groupings should measure no wider than two times the grouping height, or 120 sq ft. (Exception: one row of shrubs in a linear band with a maximum width of 7 ft, located at least 10 ft from the structure, need not comply with the 120 sq ft area limit.) The space between islands should be greater than three times the height of the shrubs, or 12 ft at a minimum. On emerging trees, clear a spacing of 12 ft from the edge of the canopy.
6. Hardscaping (patios, walkways, driveways, and bare dirt) and irrigated lawn should comprise at least 25% of the area immediately surrounding the structure (within first 30 feet).
7. Remove and safely dispose of all cut vegetation and hazardous refuse.
8. Chipped material can remain on the site, provided the mulch layer is no greater than an average of 2 in. in depth. Otherwise the chipped material can be spread within the Fuel Modification Zone or Roadside Vegetation Management Zone.

Maintenance Guidelines for Roadside Vegetation Management Zone. Direct maintenance activities in the Roadside Vegetation Management Zone apply to the strip of land within 10 feet of the pavement edge from both sides of the roadway. The actions to comply with both the Defensible Space Zone and the Roadside Vegetation Management Zone are the same, with one exception. In the Roadside Vegetation Management Zone, an unobstructed vertical clearance of 15 feet over the entire length of any roadway used for fire access shall be established and maintained through tree-trimming.

Maintenance Guideline for Community Protection Zone. The goal of the Community Protection Zone is to calm fire behavior before reaching the Defensible Space Zone so that it bolsters structure survival in a wildfire. This zone is a transition area in which a potentially hot fire is cooled and slowed. The vegetation removal treatments would prevent an intruding fire from reaching into the crowns of the overstory. Treatment methods within the Community Protection Zone would include alteration of vegetation through mechanical mowing and masticating, prescribed grazing, hand labor, and/or specific herbicide application. There may still be fire in this via ember-casting, but the alteration of the vegetation would have a concomitant change in fire behavior. By removing fuel volume and creating discontinuity in the distribution of fuels through alteration of the vegetation in this zone, wildfires are slowed and flame length (and associated fire intensity) is reduced.

Vegetation removal treatments would limit torching capability by minimizing the understory and mid-story fuels (shrubs and small trees). Fire intensity as measured by flame length could drop to less than four feet at the boundary between the Defensible Space Zone and the Community Protection Zone. This would facilitate direct fire attack and containment at this peripheral location.

Shrubs and young trees under oaks would be treated the same as described under the Defensible Space Zone guidelines. As in the Defensible Space Zone, spacing of shrubs from continuous stands shall be 6 feet between crowns of shrubs, and from the dripline of adjacent trees.

Standing dead trees that are isolated from other vegetation and which will not fall on buildings or structures or on roadways/driveways may be retained when pruned of branches smaller than 3 inches up to a height of 15 feet.

Timing of Implementation

This CWPP is intended to be a living document with a 20-year planning horizon. Proposed activities and fuel treatments under the CWPP would be implemented as funding becomes available.

PRIORITIZATION OF PROJECTS

Rationale for Prioritization

Prioritization weights the importance and the sense of immediacy of a project with its ease of accomplishment. Each project was suggested by an entity, or a sponsor, and each project has a beneficiary; sometimes projects have many sponsors and beneficiaries.

The long-term scale of impact adds to a project's priority. However, as important and as urgent as a project may be, several constraints may be present that influence the priority. Some projects can be done independently of another entity while other projects may require an agreement between many entities. This can affect the prioritizing of projects as the need for an agreement between entities can affect how quickly a project may start-up. Available funding, volunteer time, and/or need and availability of a specific skill are also important factors to consider when prioritizing a project.

Priorities of Projects

The following is a description of Metro Fire's highest priority CWPP projects at this time.

COMMUNITY COLLABORATION

Conduct joint prescribed burns to bolster awareness of wildland fire behavior and response needs (Response)

FUEL REDUCTION

Support targeted compatible vegetation management in the ARP that reduces fire hazards through funding, cooperative operations. (Prevention)

Collaborate with California State Parks and County Parks on prescribed burns to increase Metro Fire's familiarity with the use of prescribed burn techniques. (Prevention and Response)

TREATMENT OF STRUCTURE IGNITABILITY

Revise the fire codes for the area within the WUI throughout the District. The code would identify defensible space and construction requirements for different site conditions, formalize inspection schedules, and identify the responsibility for fulfilling the defensible space requirements. Revisions to the code could be implemented over several years, beginning with the areas of highest risk. (Prevention)

Other projects are prioritized on whether the sponsor or proponent is able and willing to take action, follow up, and/or fund (or otherwise supply the necessary resources) to plan and implement the project.

9 ACTION PLAN

The action plan is the tool for gauging success of implementing the CWPP. The metrics to be measured, the schedule of monitoring, and the success criteria are outlined in this action plan as a method to assess level of completion, or effectiveness of the projects identified in the CWPP. The feedback mechanisms are intended to allow the evaluation of tradeoffs of the actions as they are implemented to ensure relevance and effectiveness over long term.

ROLES AND RESPONSIBILITIES

The CWPP is a living document that will be updated as projects get implemented, lessons are learned, and new partners become involved or new areas become developed. There may be a shift in priorities. Updates are planned to be done every three years.

Roles and Responsibilities for the Priority Projects

The agencies and organizations and individuals that benefit from a specific project play an important role in planning implementing and sustaining the project. Several project partners have agreed to participate in project planning and implementation:

- ▲ Sacramento Metropolitan Fire District
- ▲ Sacramento County Regional Parks
- ▲ California State Parks
- ▲ Sacramento County Planning Department
- ▲ CAL FIRE⁶

In addition, at least one homeowner association expressed an interest in several projects that directly benefit their area.

The types of roles and responsibilities vary with each project. The beneficiaries of the priority projects appears on Table 9-1. Some projects require only collaboration, others require development of treatment prescriptions, equipment, and staff time to implement on-the-ground projects. Other projects require staff time to develop training, or collect data. This same table describes the types of resources needed, which is associated to the roles and responsibilities required.

Table 9-1 Projects by Roles and Responsibilities					
	Projects	Treatment Location	Primary Beneficiaries	Type of Funding Request	Funding Source
Community Collaboration					
1	Establish a framework for Metro Fire staff and staff of other stakeholder agencies to collaborate on implementing the plan (i.e., form agency-to-agency organization, to foster resource sharing, contract specifications, etc.) (Preparedness)	None	Metro Fire, CalFire, County Parks, CAF&WS, St Pks. SMUD, more	Staffing	Collaborators, landowners
2	Add the CWPP to the Amador/Eldorado Cal Fire Unit Fire Plan. (Preparedness)	None	Metro Fire, CALFIRE	none needed	none needed

⁶ The Amador/El Dorado Unit Strategic Plan updates provide opportunity to view wildfire protection for Sacramento County in context with neighboring Placer and El Dorado Counties. The Amador/El Dorado Unit collects information from the various stakeholders to develop their unit plan each June. The CAL FIRE unit plan will be shared with Metro Fire, who will incorporate the information into the CWPP updates

Table 9-1 Projects by Roles and Responsibilities					
	Projects	Treatment Location	Primary Beneficiaries	Type of Funding Request	Funding Source
3	Conduct joint training with cooperating agencies				
	a Foster the relationship between the Sheriff's Department, cities of Rancho Cordova and Citrus Heights Police Departments, and Metro Fire to jointly address evacuation routes and procedures. (Response)	None	Metro Fire, Sheriff's Department, Rancho Cordova, Citrus Heights Police Departments	none needed	none needed
	b Collaborate and participate with California State Parks and Sacramento County Regional Parks in their existing and planned prescribed burn activities with the intention of increasing Metro Fire's familiarity with prescribed burn techniques and overall increased collaboration between these entities. (Prevention and Response). Include Minimum Impact Suppression Techniques in the training curriculum. (Preparedness)	Prairie City State Park, County Parks	Metro Fire, St Pks, County Parks, Sac City FD, Roseville FD, Folsom FD, Cosumnes FD, Wilton VFD, Latrobe FD	none needed	none needed
4	Work with citizen-based response organizations (i.e., Neighborhood Watch, Community Emergency Response Team (CERT)) to supplement law enforcement and fire department efforts. Encourage the linkage between crime prevention and fuel reduction near homes. (Preparedness and Response)	None	Neighborhood Watch, Community Emergency Response Team (CERT)	Staffing	Volunteers, interns, grants
5	Encourage the formation of a countywide Fire Safe Council. This entity could serve as an "umbrella" organization under which smaller, community-based firesafe councils would be formed when and where there is interest. The countywide firesafe council would assist in organizing and finding funding for the community based firesafe councils. (Preparedness)	None	Metro Fire, County Parks, CALFIRE, homeowners, landowners	Staffing	Volunteers, interns, grants
6	Encourage the formation of a countywide Fire Safe Council. This entity could serve as an "umbrella" organization under which smaller, community-based fire safe councils could be formed when and where there is interest. The countywide fire safe council would assist in organizing and finding funding for the community-based fire safe councils. (Preparedness)	None	Metro Fire, County Parks, CALFIRE, homeowners, landowners	Staffing	Volunteers, interns
7	Continue to hold community meetings to educate residents about their fire environment and measures they can take to minimize their risk and prepare for a wildfire (Preparedness). These meetings could include: a.A description of practices to reduce structural ignitability and to limit ignitions; b.An explanation of how common architectural features respond when ignited; c.A description of evacuation protocols and drills; and d.Information about defensible space and fire-resistant landscaping.	None	Metro Fire, homeowners, landowners	Staffing	Volunteers, interns
8	Seek grant funding to fund projects, and involve stakeholders to maximize community support for projects when prioritizing projects. (Preparedness)	None	Metro Fire, homeowners, landowners	Staffing	Volunteers, interns

Table 9-1 Projects by Roles and Responsibilities					
	Projects	Treatment Location	Primary Beneficiaries	Type of Funding Request	Funding Source
9	Inform citizens of details of this CWPP through a Community Education Program. Topics would include provisions for evacuation; shelter in place; safety zones; fuels reduction; and the neighborhood provisions for fire safety, prevention, and public safety. The education program would include a Metro Fire library of information on fire safety, fire-wise landscaping, defensible space, first-aid, and other literature for distribution to citizens upon request. (Preparedness)	None	Metro Fire, homeowners, landowners	Staffing	Volunteers, interns
10	Recommend the amendment of general plans, building codes, and zoning ordinances to strengthen and to provide additional protections for wildfire while still allowing property owners to develop their land. Goals, policies and implementing actions are listed in Appendix K. (Prevention, Preparedness, Response, Recovery).	None	Sacramento County Cities of Rancho Cordoba and Citrus Heights	none needed	none needed
Fuel Reduction					
1	Gather more information about existing fire conditions and hazards in the WUI in order to better direct and prioritize fuel reduction projects	Small isolated locations			
	a Install remote automatic weather stations (RAWs) to determine fire conditions and conditions requiring red flag warnings. The automatic weather stations would be installed on existing poles or structures, or within existing developed areas, and would not be placed in areas that are highly visible. (Preparedness and Response)	None	Metro Fire	Equipment	NRCS EQUIP, corporate sponsors
	b Train Metro Fire staff how to use and interpret RAW data. (Preparedness and Response)	None	Metro Fire	Training	NRCS EQUIP, corporate sponsors
	c Establish and adopt a mechanism to notify stakeholders when a red flag warning is issued. (Response)	None	Metro Fire	Staffing	Volunteers, interns (SJSU Meteorology Dept, Desert Research Institute-UNR)
	d Evaluate and, as warranted, revise dispatch protocol for red flag warnings. (Response)	None	Metro Fire	Staffing	Volunteers, interns (SJSU Meteorology Dept, Desert Research Institute-UNR)
	e Hire an intern to map the WUI fire history to portray the locations, times, and causes of wildfire ignitions. (Preparedness)	None	Metro Fire, County Parks	Staffing	Volunteers, interns
	f Develop a fire prevention plan for areas of frequent ignitions. The plan would include fire prevention goals and strategies based on the area's fire history (i.e., children playing with matches, unattended barbecues, or warming fires), community education needs, enforcement of regulations, and/or modification of fuels to ensure they are less ignition-prone. (Prevention)	None	Metro Fire, County Parks	Staffing, contractors	Collaborators, landowners, grants
2	Work with partner agencies to conduct fuel management and augment response and/or reestablish Metro Fire work crews to treat vegetation in projects identified in this CWPP. (Prevention and Response);	Targeted locations in wildlands	Metro Fire, County Parks	Staffing, contractors	FEMA grants, collaborators, landowners, private participation, district budget

Table 9-1 Projects by Roles and Responsibilities					
	Projects	Treatment Location	Primary Beneficiaries	Type of Funding Request	Funding Source
3	Use established governmental work programs such as the Sacramento Regional Conservation Corps to conduct fuel reduction projects (as detailed in the following pages) and to bolster response capabilities. (Preparation and Response)	Targeted locations in wildlands	Metro Fire	Staffing	Grant to fund district staff, collaborators, volunteers, interns
4	Use community groups, such as Neighborhood Watch and CERT volunteers, to help with advisory inspections and to educate homeowners about defensible space and how it reduces their exposure to wildfire damage. (Prevention)	Within 100-ft of structures	Metro Fire, homeowners		Volunteers
5	Where feasible, use California Department of Correction and Rehabilitation (CDCR) work crews to treat vegetative fuels at CWPP project sites (as detailed in the following pages). (Prevention)	Targeted locations in wildlands	Metro Fire, homeowners	Staffing	Reserves, recruits, county parks collaboration
6	Develop pre-fire plans for communities within the WUI to speed emergency response and make it more effective. These plans will identify available water supply, alternative access points, structure footprints, location of locked gates, contingency zone locations, areas sensitive to dozer operations, and communication protocols. (Prevention, Preparedness, and Response)	Throughout the WUI	Metro Fire, landowners	Staffing, contractors	Grant to fund district staff, collaborators, volunteers, interns, reserves, recruits, county parks collaboration
7	Support targeted compatible vegetation management in the ARP that reduces fire hazard through funding and cooperative operations. Work to minimize impacts to sensitive habitats through establishment of best management practices and be consistent with the 2008 ARP Master Plan. (Prevention)				
	a. Manage vegetative fuels for fire hazard reduction through maintenance of existing fuel reduction areas (i.e., 100-feet of mowed area within Defensible Space Zone) located around structures adjacent to WUI areas within the ARP (see areas identified in Figure 8-1 of the CWPP). CDCR crews or SCC crews may be utilized to reduce fuel loading in areas with heavy vegetation. Seek grant funding for this work. (Prevention)	American River Parkway, within 100-ft, strategic firebreaks	County parks	Staffing, contractors	Volunteers, Collaborators, landowners

Table 9-1 Projects by Roles and Responsibilities					
	Projects	Treatment Location	Primary Beneficiaries	Type of Funding Request	Funding Source
8	Expand area of fuel treatment adjacent to equestrian trails by 10 feet in selected locations and rehabilitate burn areas in Rossmoor Bar (see areas identified in Figure 8-1 as 'Fuel Reduction Area Maintenance/Enhancement, 'Horse Trail Fire Break', and 'Rossmoor Burn Areas Rehabilitation') to protect sensitive resources from the spread of fire. CDCR crews or SCC crews may be utilized to reduce fuel loading in heavy vegetation. Metro Fire would seek grant funding for this work. Activities under this fuel reduction project would include: a. Expand the area of fuel treatment along horse trails near Bannister Park. Treatments would include mowing or discing a strip to prevent fire spread and pruning of lower branches of trees to prevent torching and remove understory shrubs to minimize fire intensity. b. Use SCC crews to rehabilitate the fire area in Rossmoor Bar. This would include pruning lower dead branches of oak trees, removal and piling of dead material away from trees, and weed-whip/mow the grass under the trees so fire cannot carry and create further damage. c. Increase the firebreak width (mow or blade an area up to 30-feet wide, including the disced width) outside areas where mitigation trees were planted. (Prevention).	American River Parkway, Banister Park, Rossmoor Bar; within 100-ft, strategic firebreaks by selected equestrian trails.	County Parks	Staffing, contractors	Volunteers, Collaborators, landowners
9	Encourage the American River Coalition to establish a volunteer program to focus on activities that remove or prune vegetation in the area behind residences within the ARP, especially those residences south of the river. (Prevention and Preparedness)	American River Parkway, within 100-ft, strategic firebreaks, by equestrian trails	County parks	None needed	Volunteers
10	Renew and update the fuel reduction work done in 2010 and 2012 in Ed Levy area and elsewhere in the ARP (see Figure 8-1 of CWPP)	American River Parkway, Ed Levy area	County parks	Staffing, contractors	Volunteers, Collaborators, landowners
11	Coordinate with Caltrans and County Public Works on implementing currently authorized roadside fuel reduction treatment projects that would include mowing grass, shrub removal, and tree pruning within road right-of-ways. (Preparedness)	Roadsides	Caltrans, Sac County Public Works	Staffing, contractors	FEMA grants, collaborators, landowners, private participation, district budget
12	Treat high fire hazard areas (determined by estimated flame length) near structures with establishment of a community protection zone with associated firebreaks. Figure 8-2 of the CWPP identifies approximate location of proposed subdivision fuel treatment areas. (Preparedness). Give the highest priority to projects that: a. Reduce hazardous fuels, which if left untreated, would generate high intensity fire adjacent to structures or communities at risk, or produce large quantities of burning embers that would threaten communities; b. Reduce hazards along strategic emergency access and evacuation routes, or other critical infrastructure; and c. Reduce impacts of wildfire to sensitive high value ecosystems and high use recreational areas by reducing fire intensity and or increasing chances of fire containment before reaching the area	specific areas of flame length within 100-ft of structures	Landowners	Staffing, contractors	FEMA grants, collaborators, landowners, private participation, district budget
Treatment of Structural Ignitability					
1	Develop a means to enforce defensible space on private property in the WUI, as required by Public Resources Codes 4291. (Preparedness)	Within 100-ft of structures	Metro Fire	Staffing of authorized inspectors	FEMA grants, district budget

Table 9-1 Projects by Roles and Responsibilities					
	Projects	Treatment Location	Primary Beneficiaries	Type of Funding Request	Funding Source
2	Gather more information about existing structural conditions and risks in the WUI in order to better direct and prioritize projects addressing structural ignitability. (Preparedness)				
a	Seek funding to support staff collection of structural data to support parcel-based risk assessment (Preparedness)	None	Metro Fire	Staffing, contractors	Grant to fund district staff, collaborators, recruits, reserves, volunteers, interns
3	Hire additional staff to conduct defensible space inspections and inventory of wildfire risk. Inspectors would determine whether the vegetation on the parcel is in compliance with the adopted weed abatement ordinance and the presence of risk factors such as vegetation condition, structure characteristics and parcel attributes (See Section 7 for a detailed discussion of risk factors). (Prevention)	Within 100-ft of structures	Metro Fire	Staffing	Volunteers, Interns, Student Conservation Assn
4	As grant funding becomes available, administer a program that funds replacement of wood shake roofs with non-combustible roofing in the areas most at risk. (Prevention)	Gold Run, Rancho Murieta, Areas of Carmichael in WUI	Metro Fire, homeowners	Hand labor, designs, equipment, materials	FEMA Grants, corporate donations, private participation
5	As grant funding becomes available, retrofit the structural components, building materials, and landscaping of older Metro Fire stations. (Prevention)	Station 33, other Metro Fire Stations	Metro Fire	Hand labor, designs, equipment, materials	FEMA Grants, corporate donations, BSA

Several community leaders play a vital role in the CWPP by approving the document. By doing so, these leaders have approved and endorsed the planning process and the initial set of projects that stakeholders have identified. These include Metro Fire, CAL FIRE, a representative from the Sacramento County Board of Supervisors, and the Mayor of the City of Citrus Heights and City of Rancho Cordova.

FUNDING SOURCES

Many of the projects do not require funding, but are sustained instead through collaboration, volunteerism, and self-interest of parties involved. However, many projects require funds to hire staff, purchase equipment, or increase training, and to pay for vendors to conduct work and perform services.

The use of interns, reserves, and recruits offers ways to collect data, analyze conditions, and develop reports. This type of labor is of lower cost, and may be a viable option for some projects. Barriers to this type of assistance include the need for liability insurance, so organizations that already have that insurance for interns and volunteers should be pursued. Examples of these are the Boys Scouts of America, Student Conservation Association, Americorp, some universities and colleges (U.C. Davis, the Desert Research Institute of the University of Nevada Reno, and San Jose State University). Many of the universities and colleges are best suited for collection and analysis of weather information, while other groups might be best suited for parcel-based risk data collection. The Volunteers in Police Service organize and screen volunteers that could be used to handle private data, and perform other duties. Groups associated with parks, homeowner associations and environmental groups might be useful for tailored fuel management work that doubles as restoration activities. Opportunities to Treatment prescriptions that serve both purposes should be developed.

Funding for wildfire mitigation projects come from a variety of sources such as federal, state or corporate grants, donations, property tax, or department budgets. Each funding mechanism has unique requirements, strengths, and weaknesses. Some are best suited for one-time expenditures such as capital improvements; other are suited for ongoing maintenance activities. The “strings” attached to each mechanism should not be overlooked.

Funding sources require that projects be developed through collaborative planning (e.g., the Healthy Forest Initiative requirement for a Community Wildfire Protection Plan). Some funding sources are relatively easy to obtain, while others require an intricate application process, or include administrative burdens associated with monitoring how funds are spent and complex reporting requirements. A local community or homeowner association may be willing to fund solutions that add value and are worth their cost, but may only fund projects with citizen committee oversight, or if connected to other efforts the community favors. The sustainability of funds is another key difference.

Through implementation of the CWPP, Metro Fire will develop a “funding quilt,” made up of a patchwork of mechanisms to cover fire mitigation projects. Multiple sources provide greater stability, more funds, increased continuity, more stakeholders with greater buy-in, and the ability to expand the scope of work. Source of funding anticipated include:

- ▲ **Department funding.** Budgets for fire departments or fire districts often cover education, enforcement, and capital improvements. If the Department so chose, selected projects could be funded through the regular Department funding mechanism.
- ▲ **Private grants and donations.** Private funds and volunteerism usually play a large role in the implementation of community fire plans. Large national businesses often have grant programs. Local nurseries, contractors, and small businesses are often key partners. Typical partnerships include:

 1. A private-public partnership can be created formally, happen organically, or can be regulated around a specific issue or problem
 2. Formal partnerships may take the form of FireSafe councils or homeowner associations that agree to work on fire safety in a community in conjunction with local government, citizens, and businesses; they may fund their work through dues, gifts, or in-kind contributions, or seek funding from outside sources
 3. Informal partnerships usually involve voluntary participation with no money changing hands, and little recognition of common goals (when things go well, peer pressure holds a community to an accepted standard); informal partnerships may take the form of local agencies, citizens, and businesses each taking care of their own lands and funding the work themselves; a formal partnership may occur when the informal relationship no longer meets the participants’ needs
 4. Regulated partnerships include private property owners required to comply with state or local regulations such as weed abatement or defensible space ordinances (often fire departments take the lead with inspections and notifications of non-compliance); to abate effectively, a program must have teeth, but funding these efforts can be difficult, as the regulated usually do not wish to fund enforcement. Regulations happen when informal or formal partnerships break down and no longer meet the community’s needs.
- ▲ **Federal and State Aid Programs.** Federal funding is distributed through many avenues, and most federal grants can be researched electronically. Commonly-used major programs for fire safety fund mitigation are the National Fire Plan and the Healthy Forest Restoration Act. More recently major grants have been provided through the Federal Emergency Management Agency (FEMA) and the U.S. Fire Administration. Many grants are extremely competitive, with requests for funding far exceeding available funds, while others have a specific focus.

- ▲ **Assistance to Fire Departments.** Three primary federal funding programs that provide assistance to fire departments vary on grant size, non-federal match requirements, the population size a fire department serves, and the location in relation to the funding agencies' lands. They typically provide funding for organizing, training, prevention materials, and equipment to protect the health and safety of the public and firefighting personnel.
 - **Rural Fire Assistance (RFA)** supports the capabilities of rural and volunteer fire departments located near or on Department of Interior lands, with awards up to \$20,000 for training, equipment, and fire prevention. RFA is administered by one of four agencies: Bureau of Land Management (BLM), Bureau of Indian Affairs (BIA), U.S. Fish and Wildlife Service (USFWS), and National Park Service (NPS).
 - **Assistance to Firefighters** through FEMA includes the overall Assistance to Firefighters Grant (AFG) and the Fire Prevention and Safety Grant Program. AFG is limited to fire departments. Fire Prevention and Safety Grants are open to a wider range of organizations.
 - **FEMA Disaster Mitigation Programs** include two programs: Hazard Mitigation Grant Program (HMGP) and Pre-Disaster Mitigation Program (PDM).
 1. HMGP funds are available to states after a disaster has been declared to mitigate future risk from any type of disaster (amounts available are linked to the total emergency funds); a state mitigation plan must be approved prior to the disaster declaration.
 2. The PDM facilitates cooperation between state and local authorities with funds awarded competitively for both planning and project implementation activities at the state and local level, as a subgrantee (the extent to which this program will address wildfire compared to the more traditional agency focus of hurricanes, floods, and earthquakes remains to be seen).
- ▲ **Community Assistance State Fire Assistance (SFA)** includes a supplemental appropriation allocation through the National Fire Plan, in addition to a regular appropriation distributed by formula to state foresters through the USDA Forest Service. These funds can be used to plan and implement hazard mitigation projects, including fuel reduction, prevention and mitigation education, and community hazard reduction. The funds are competitive and available nationwide, with 35 percent distributed among the states to meet firefighting preparedness and safety needs.
- ▲ **National Conservation of Resources Services (NCRS)** implements a grant program aimed at promoting effective and safe land management practices on private lands. Grants are provided for equipment, planning and management, and reward collaboration and cooperation between adjacent landowners. Fire hazard reduction that increases habitat and watershed value is more likely to be funded.
- ▲ **State Aid Programs.** Many states administer grants using monies from the National Fire Plan budget and other sources. State Foresters play an important role in distributing grant funds aimed at assisting private landowners. The following programs are under the State and Private Forestry branch of USDA Forest Service, the Natural Resources Conservation Service, and the Cooperative State Research, Education, and Extension Service:
 - Cooperative Forestry (includes Landowner Assistance Programs) such as Forest Stewardship Program (FSP); Stewardship Incentives Program (SIP); Watershed Forestry Initiative; Forest Legacy; Urban and Community Forestry (U&CF); Economic Action Program (EAP).
 - Forest Health Management: Federal Lands Forest Health Management and Cooperative Lands Forest Health Management

California Forest Stewardship Program provides technical and financial assistance to communities and private landowners, includes a number of programs that can be related to fire safety. The California

Forest Improvement Program (CFIP) is a cost share for forestry, watershed, and riparian protection and enhancement. The Vegetation Management Program (VMP) will have CALFIRE conduct a prescribed burn on private land to control unwanted brush and other vegetation that creates wildfire hazards. The Western State Fire Assistance Competitive Grant Program provides a forum for state agencies to submit grants on behalf of cooperators, partners, or clients.

- ▲ **Private Foundations.** Several private foundations offer small grants that can be used to reduce fire hazards, increase community capacity to collaborate, and promote environmental awareness and action. Some grants are from national corporations, such as the Urban Land Institute's ULI Foundation, that have instituted Community Action Grants. Applicants must be ULI members or part of a ULI District Council. Other local private foundations donate to local projects, and typically to a local non-profit organization (such as a nascent firesafe council).

MONITORING AND FEEDBACK PROCEDURES TO CONFIRM SUSTAINABILITY

Performance Metrics for CWPP

The following framework offers strategies to monitor, evaluate, and adapt the elements of the CWPP (Institute for a Sustainable Environment 2008).

Monitor what matters. Partners should identify key goals and objectives and make decisions to monitor what is most important to the long-term sustainability of their CWPP.

- ▲ **Track accomplishments and identify the extent to which CWPP goals have been met.** This might include development of "success stories."
- ▲ **Examine collaborative relationships** and their contributions to CWPP implementation.
- ▲ **Identify actions and priority fuels reduction projects** that have not been implemented and determine why.
- ▲ **Set a course for future actions** and update the plan.

Program performance indicators will assist Metro Fire in tracking progress towards key program goals and assessing the overall success of the program and various program elements. In selecting Key Performance Indicators (KPIs), it is critical to limit them to those factors that are essential to achieving program goals. It is also important to keep the number of KPIs small, just to keep everyone's attention focused on achieving the same KPIs. However, since many program goals, and therefore measurement, are long term, it is also necessary to identify short-term measures that feed the long-term results and impacts. Therefore, three levels of measurement are suggested: impact, result and activity. Each KPI is also categorized as a measurement of change in the built, natural, response, and/or social environment.

- ▲ **Impact:** At the highest or most conceptual level, long term impact of the program is measured by a reduction in wildfire losses (e.g., reduction in deaths, injuries, property or environmental loss, suppression cost, etc.).
- ▲ **Desired Results:** At a slightly lower level, intermediary impact is measured by the degree to which the culture supports a reduction in wildfire losses (i.e., increase in actions to reduce risk by individuals and collaborative partners). In theory, if the desired results are achieved, the impact will be achieved. Progress toward program results, based on this theory, can be measured in terms of the actions taken by individuals and community groups to reduce their risks. Even when actions are not yet demonstrated, progress toward taking action can be measured in terms of community sentiment and belief systems.

- **Outputs:** At the lowest level of detail, outputs and activities are measure by the degree to which they contribute to the desired results, e.g., increase in specifically targeted actions by targeted individuals and groups. In theory, if the output measures are positive, the desired results will be achieved.

The ability to measure program performance at these three levels allows for oversight, management and evaluation of the Metro Fire CWPP outputs individually as well as the effectiveness of the program as a whole.

There are four CWPP program goals that will be monitored. These goals are not prioritized, as they all work together towards achieving Metro Fire's mission. The first immediate and ongoing goal is to protect human life and reduce the loss of property, critical infrastructure and natural resources. The second goal is to have the community evacuate safely with minimal loss of life and injuries during a wildfire. A long-term and continuing goal is to develop partnerships, with the community taking a lead role and Metro Fire acting as support. The fourth goal is to achieve culture change so that the community understands, owns, and actively mitigates risk.

Each program goal has a way to gauge its impact. The impact of each program must be described in very different ways, since for example, the impact of protecting the safety of lives and property is described in different ways from fostering culture change in the community in regards to risk.

The goal of protecting life, property, critical infrastructure and natural resources has the most ways of describing the impact of the program. The impacts are measured in terms of the number of deaths and injuries, the amount of property and infrastructure loss per capita, environmental loss (percent of acres burned below damaging threshold), cost of suppression (percent reduction from 5-year average), secondary losses (percent reduction from 5-year average), and degree of fire control (duration of fire control event, acres burned, resources committed).

The goal of having the community evacuate safely is described via the number of deaths and injuries during the event.

- The goal of developing partnerships with the community is seen through the level of effort that is taken by the stakeholders. For example, when the stakeholders are leading with moderate to high support from Metro Fire, the goal is achieved. The five levels of effort on which this impact is rated are:

1. Metro Fire is leading with minimal to no partner support
2. Metro Fire is leading with moderate to high partner support
3. Partner and Metro Fire are co-leading
4. Partner leading with moderate to high Metro Fire support
5. Partner is leading with minimal or no Metro Fire support

The goal of changing the culture of the community to one where they understand, own and actively mitigate risk is described in how well the community actively protects themselves from loss due to wildfire and relies less heavily on the resources of Metro Fire.

Each impact is measured in some way. Most impact measurements use information already collected in the risk assessment database. For example, the measurements to address property loss in terms of dollars per capita, are measured in a variety of ways, including the percent increase in the reduction of structural ignitability hazards. This measurement includes the total number of homes and percent toward 100% of structures that have ignition-resistant roofs, eaves and vents, siding, doors and windows, and decks patios and fences. All these are reported via the Metro Fire risk assessment database. The types of measurements associated with each impact are listed in Appendix K.

Please see Appendix L for recommended method to track KPIs for the CWPP.

10 REFERENCES

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6. LIST OF REFERENCES AND RELEVANT EXPERIENCE

This list of References and Relevant Experiences starts with highlighted features projects and expands to more detailed description of Team project experience and qualifications

CITY OF PALO ALTO FOOTHILLS FIRE MANAGEMENT PLAN UPDATE AND IMPLEMENTATION; PALO ALTO, CA [APRIL 2008-JAN 2009, ONGOING]

Carol Rice, [Wildland Resource Management] developed the Foothills Fire Management Plan for the City of Palo Alto, which became this City's first CWPP. The Plan addresses the City's vast area that lies above Silicon Valley, and encompasses two major evacuation routes for the region. The City provided the CEQA documentation, based on identification of mitigated treatments to reduce fire hazard and environmental impacts. Carol Rice continued after the approval of the plan to guide the City towards funding and implementation. The CWPP serves as a foundation for a new relationship with the Santa Clara FireSafe Council which now has a contract with the City to complete the prioritized projects. This collaboration has been used as a model for other Cities in Santa Clara County, with the City of Saratoga now contracting with the local Firesafe council for outreach and project performance.

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SACRAMENTO METRO FIRE COMMUNITY WILDFIRE PROTECTION PLAN AND MITIGATED NEGATIVE DECLARATION; SACRAMENTO, CA [AUG 2013-JULY 2014]

Carol Rice worked with Ascent Environmental and Intterra, Inc., to prepare a CWPP for nearly the entirety of Sacramento County for the Sacramento Metro Fire Department.

This project was the first to simultaneously develop a geoportal and a CWPP. The development of a community base map, definition of the WUI, and assessment of risk were all seamlessly prepared in conjunction with the geoportal. Ms. Rice developed the factors, weights and scores for the risk assessment and determined the decision guides for the base map and WUI boundary as part of the CWPP development.

This CWPP is currently being implemented, particularly by the Sacramento Regional Parks Department where the project boundaries, vegetation types and sensitive features [in the geoportal] are being used to refine training burns in the American River Parkway. Furthermore, the risk assessment framework that was developed for the CWPP has been continued as a data collection process by which inspectors can track inspections for defensible space and weed abatement.

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EAST BAY REGIONAL PARK DISTRICT WILDFIRE HAZARD REDUCTION AND RESOURCE MANAGEMENT PLAN, OAKLAND-BERKELEY, CA [APRIL 2006-JAN 2011]

Carol Rice was responsible for identifying and describing the areas of potential action based on potential flame lengths and crown fire potential within a 13-square mile study area that spans the hills from El Cerrito to San Leandro. Inputs to the fire behavior models were developed from translating values associated with vegetation types into fuel models, tree heights, crown density and height to live crown. Other inputs such as weather are being collected from local observation stations. Mitigation measures that reduce fire hazard with minimal environmental impact are to be identified. Participation in public meetings (where fire modeling outputs are explained) and various outreach activities (where peers solicited for feedback) are ongoing. *This plan, prepared by LSA, Inc., was awarded "Outstanding Document" by the Association of Environmental Professionals in 2011. This is an update of the project completed in 1995 that received an award for planning by the American Society of Landscape Architects, 1997. 2006-2011.*

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NAPA FIREWISE CONSULTANT TO PREPARE COMMUNITY ASSESSMENTS AND DEVELOP PROJECTS LEADING TO CWPPS AND FIREWISE STATUS

Carol Rice provides expertise pertaining to wildland fire hazard reduction for this active foundation that focuses on 18 different communities within Napa County. Each community is assessed in terms of structure vulnerability from wildfire and hazards posed by vegetative fuels. Site-specific fire growth simulations are part of the assessment. Presentations are made emphasizing defensible space and vegetation management, and specific projects that would further fire safety are identified as requested. Development of a county-wide CWPP is underway. 2011 – present.

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ALAMEDA COUNTY AND CONTRA COSTA COUNTY COMMUNITY WILDFIRE PROTECTION PLAN UPDATES [Mar 2014-2015]

As Executive Director of the Diablo FireSafe Council, Cheryl Miller obtained a grant to update the both Alameda and Contra Costa Countys' CWPPs. In this process she engaged over 50 stakeholders who reviewed the existing plan updated projects, prevention strategies and programs related to wildfire protection, shared the diverse missions and interests of those currently involved in the CWPP, plus expanded participation in the process. This updates also focused on finding common challenges and shared solutions.

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CLAYTON MORGAN TERRITORY FIRE SAFE 2015 [JUNE 2015 – PRESENT]

Cheryl Miller obtained grant funding to develop an Action Plan for the eastern side of Contra Costa County, which was recently affected by a large wildfire. This Action Plan process follows similar steps and will become a “mini-CWPP”. The project identifies and engages stakeholders, starting with local fire departments, local government agencies, as well as other groups. The group reviews existing wildfire assessments and community information to develop a community base map. They will gather information for a pre-response plan and develop preliminary project ideas. The Diablo FireSafe Council received \$100,000 in funding for community hazardous fuel reduction and chipping projects, so this mini-CWPP will assist in prioritization of both short-term and long-term projects. Like in most action plans, roles, responsibilities, funding needs and timetables will be established, and a strategy to assess effectiveness will be developed.

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HILLS EMERGENCY FORUM [1993-PRESENT]

Cheryl Miller has been the Executive Director of the Hills Emergency Forum, a local inter-jurisdictional council much like COAST. Ms. Miller coordinates the collection, assessment and sharing of information on the East Bay Hills fire hazards and, further, organizes the forum for building interagency consensus on the development of fire safety standards and codes, incident response and management protocols, public education programs, multi-jurisdictional training, and fuel reduction strategies.

The HEF is organized through its member agencies, working through its administrative component - the Staff Liaison Committee (SLC). The SLC is responsible for developing and monitoring progress on the Forum's annual workplan, maintaining liaison with agency executives on HEF issues, identifying issues for possible legislative support, and coordinating the HEF annual public meeting.

Kathy Leonard
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CAROL L. RICE, Senior Wildland Fire Manager

Carol Rice provides expertise in fire management, with specialized knowledge in fire behavior along with fire codes and policies, risk assessment, structural ignition potential, fire ecology, defensible space creation and maintenance, fuel and vegetation management.

PROFESSIONAL EXPERIENCE

General Manager, Wildland Res Mgt, Reno Nevada and Alamo, CA. Since 2013.

President, Wildland Resource Management, Inc., Walnut Creek and Alamo, CA. Head of consulting firm focusing on fire management. Responsible for marketing, and program planning as well as contract performance. 1979-2013.

Associate Director, Fire Research Institute, Roslyn, WA and Walnut Creek, CA. Established and co-managed a non-profit international organization of fire researchers and managers. 1983-1992.

Resource Analyst, Arabian American Oil Co., Community Services Programs and Planning, Dhahran, Saudi Arabia. Authored project proposals, analyzed department issues. Responsible for cost estimates and proponent representation for expenses totaling \$11 million. 1976-79.

Fire Ecologist, USDA Forest Service, Big Bar, CA. Designed and conducted study of fire ecology in the Trinity Alps, Shasta Trinity National Forest. 1975.

EDUCATION

Bachelor of Science, 1975 (forestry), Masters of Science, Wildland Resource Sciences Program.

University of California at Berkeley. The Masters thesis evaluates potential fire behavior in the urban interface of the Berkeley/Oakland hills. 1987.

PROFESSIONAL RECOGNITION

- ❖ Co-Chair, Wildland Urban Interface Committee, Northern California Fire Prevention Officers. 2011-2015.
- ❖ California Wildfire Coordinating Group Prevention Committee. 2012-present.
- ❖ Certified Senior Wildland Fire Manager, from the Association for Fire Ecology. 2012
- ❖ Education Award, American Planning Association, Northern California Section 2011 for the Book, and Outstanding Environmental Resource Document from Association of Environmental Professionals. 2011 for the book *Managing Fire in the Urban Wildland Interface*.
- ❖ Scientific Review Team, US Forest Service Clavey River Ecosystem Project Watershed Assessment Project, 2005 – 2012.
- ❖ Oakland/Berkeley Mayors' Task Force for Post-Fire Policy Recommendation, 1991-1992.
- ❖ Subject-Matter Editor, Journal of Wildland Fire Science and Management, 1990-92.
- ❖ Guest Lecturer, California Polytechnic University, San Luis Obispo – 2011. Natural Resources Management Department (Fire in the Wildland Urban Interface)

BOARD OF DIRECTOR EXPERIENCE

- ❖ International Association of Wildland Fire: Vice-President, Secretary of Board of Directors. 1998-2008. Program Co-Chair Second International Congress on Fire Ecology and Management, 2003, Steering Committee Coordinator, California's 2001 Wildfire Conference.
- ❖ National Fire Protection Association: Member establishing Wildland Fire Section, 1987-88. 2nd Vice-chair of Wildland Fire Section, 1990-1994. Managing Editor, newsletter, 1988-90.
- ❖ California-Nevada-Hawaii Forest Fire Council: Chair 1985-86, Vice-Chair 1984-85, Program Chair 1983, 2001 and 2014, Secretary 2014-15.

SELECTED PUBLICATIONS, PRESENTATIONS AND REPORTS

Carol L. Rice. 2013. Planning to Live with Fire: Tools and best Practices. Invited presentation to the Board of Forestry, December 4, 2014.

Carol L. Rice 2012. Planning to Live with Fire: Designing and Retrofitting Communities with Fire in Mind. Webinar presented January 26, 2012. <http://uc-d.adobeconnect.com/p13qiwdmlmk/>

California Fire Science Consortium.

Carol L. Rice, Cheryl Miller, and Kenneth Blonski. 2011. Tunnel Fire - 20 Years After. Wildfire Magazine online, September/October 2011. Vol. 20 No. 5.

George Laing and Carol Rice. 2011. Risk Assessment: Fire Protection Planning and Mitigation Options from 30,000 feet. Invited Presentation at the California Fire Prevention Institute, Buellton, CA. March 11-14, 2011. California Fire Prevention Officers.

Kenneth S. Blonski, Cheryl Miller and Carol L. Rice. 2010. *Fire in the Urban-Wildland Interface: Practical Solutions for Local Government, Planners, Fire Authorities, Developers, and Homeowners*. Solano Press, Pt. Arena, CA. 396 pgs.

Cheryl Miller, Ken Blonski and Carol L. Rice. 2010. You too can prevent wildfires. Environmental Monitor. Fall, 2010.

Rice, Carol L., Ronny J. Coleman and Mike Price. 2010. *Incorporating Fire Behavior into Evacuation Plans*. Presented at the International Association of Wildland Fire Conference on Fire Behavior and Fuels. October 24-28, 2010. Spokane, WA.

Rice, Carol L., Petronila Mandeno. 2008. Fire modeling with FARSITE and FlamMap in the Upper Mokelumne Watershed. Presented at the Association for Fire Ecology Pacific Coast Fire Conference: Changing Fire Regimes, Goals and Ecosystems. Dec. 4-6, 2008 San Diego, CA.

Tonya Hoover, Carol Rice, Chris Hallford, Richard Burch and Brian Collins. 2007. Parcel-Based Hazard Rating with Hyperspectral Imagery. 2nd Fire Behavior and Fuels Conference, International Association of Wildland Fire, March 26-30, 2007, Destin, Florida

Rice, Carol L. 2006. Fire Hazard Reduction Plan, Orlando Lawrence Berkeley National Laboratory. Unpublished report prepared for Eldon Beck Associates, Pt. Richmond, CA.

Gettle, Guy L. and Carol L. Rice 2002. Criteria for determining the safe separation between structures and wildlands. IV International Conference on Forest Fire Research and 2002 Wildland Fire Safety Summit, Nov 18-2, Luso, Portugal. Published by Associacao para o Desenvolvimento da Aerodinamica Industrial, Coimbra, Portugal.

McClure, Rich, Carol Rice, and Kate Bolton. 2001. Perhaps burned through, but NOT burned out. California's 2001 Wildfire Conference, October 10-13, 2001, Oakland, CA.

Danielsen Consulting, Inc., East Bay Regional Park District, Ernest Orlando Lawrence Berkeley National Laboratory, Wildland Resource Management, Inc. 2005. Vegetation Management Almanac for the East Bay Hills. Published by the Hills Emergency Forum, Berkeley, CA.

Rice, Carol L. 2000. Fuels Treatment Strategies. Sierra Nevada Fire and Fuels Science Workshop, Alliance for a Fire Safe California, Sacramento, CA. Invited Presentation.

Rice, Carol L. 2000. Getting things done – Lessons learned in California. Interface Fires 2000, Halifax, Nova Scotia, May 7-10, 2000. Invited presentation available at www.fires2000.org.

Carol L. Rice

Project Experience

Carol L. Rice is a consultant who emphasizes wildland fire management. She is one of the most experienced in the nation in fire protection in the urban interface, and has been involved in this arena for more than thirty five years. She has developed a notable "track record" and is respected for the quality of work it produces; a section of projects follows:

On-call Consultant; Napa FireWise Communities Foundation

Wildland Resource Management provides expertise pertaining to wildland fire hazard reduction for this active foundation that focuses on 18 different communities within Napa County. Presentations are made emphasizing defensible space and vegetation management, and specific projects that would further fire safety are identified as requested. 2011 – present.

Technical Support for Preparation of Environmental Documents, City of Oakland, Hills Emergency Forum, and Claremont Canyon Conservancy

Carol Rice is assisting local agencies and concerned parties respond to requests from the Federal Emergency Management Agency in preparation of an EIS for grants funding. Fire behavior was prepared, vegetation mapped, project goals developed, and project design refined. Comments are being offered regarding the EIS. 2009-present.

Wildland Fire Management Plan and Update to the Fire Hazard Reduction Plan, Lawrence Berkeley National Laboratory

The project consisted of preparing a Federally-mandated wildland fire management plan and updating the plan prepared in 2005. Fire behavior analysis demonstrated the progress in fire safety made by its implementation on the 130-acre national laboratory situated in the hills above the UC Berkeley campus. A prioritization for structure retrofitting was developed, and advice provided on final actions for the fire hazard program. 2012 and 2014.

Environmental Compliance Strategy and Best Management Practices Development for Fire Management Projects in Alameda and Contra Costa Counties, Diablo FireSafe Council, through EDAW, Inc. (now AECOM)

This project developed a comprehensive environmental compliance strategy and Best Management Practices (BMP) Guide recommends and incorporates species conservation measures according to U.S. Fish and Wildlife Service (USFWS) requirements per the Endangered Species Act. Carol Rice provided descriptions of fuel treatment methods and recommendations on applicability of treatment methods in various habitats and zones. The plan also identifies opportunities for working with other agencies and community organizations.

The BMP Guide provides the decision-making framework to address numerous management issues, including fuel load reductions, restoration of sensitive habitats, adaptive management, integrative pest management, invasive exotic plant eradication, pests and plant disease, green waste management, forest management, grazing opportunities, and managing lands for recreational activities. The plan also identifies opportunities for working with other agencies and community organizations. 2008.

Parcel-based Risk Assessment, Contra Costa Consolidated Fire Protection District

The fire risk facing each parcel in the Priority Hazard Zone was determined using a combination of code-based and fire behavior based factors and weights. This supplanted the map of the Very High Severity Zones in specific, justified locations. Wildland Resource Management conducted fire behavior modeling for the study area and guided the decision-making regarding the weights, focusing on the fire behavior related factors, but also involving those factors related to roofs, decks, structural characteristics and

infrastructure. The firm also assisted in developing the visual presentations of the results. Wildland Resource Management, Inc. prepared a report documenting the purpose, process, compared the process with that used by the State in determining the Very High Fire Hazard Severity Zone, the established methodology, and results. 2008-2010

Sierra Nevada Conservation-Based Community Wildfire Protection Plan, Resources Legacy Fund, through ForeverGreen Forestry

This project is intended to encourage conservation-based community fire planning and fuels reduction in the Sierra Nevada. Wildland Resource Management was responsible for developing the Wildfire Environment for the plan. This is a description of Sierra Nevada fire ecology, fire history, fire threat and hazard, and relevant policy. The document is designed to be a guide for use throughout the Sierra Nevada. As such the guide includes instructions on how to use the tools available state-wide to develop a CWPP. The project is current undergoing peer review. 2006-2008.

Fire Hazard Reduction Study, Orlando Lawrence Berkeley National Laboratory, with Eldon Beck Associates (now Perkins Design Associates)

The project consisted of developing prescriptions for treatment on the 130-acre national laboratory situated in the hills above the UC Berkeley campus. Treatments considered concerns encompassing visual, wildlife habitat, soil erosion, biodiversity, noise and cost issues. Costs estimates were developed and used as a basis for budget requests. Pre- and post- treatment fire behavior was predicted for each area of treatment in order to assess the efficiency of treatment. The fire behavior predictions resulted in an increase of 50% in the area encompassed by the Lab in order to provide enough fire reduction buffer. The effect of treatments on fire behavior was tested using FARSITE, a fire growth prediction model. The results of the fire growth model, along with specifics regarding treatments were shared with local fire chiefs, neighborhood groups, Lab employees and environmental associations. Carol Rice provided oversight and monitoring during initial implementation. This project is in its 20th year of implementation. 1994-2005.

Wildfire Hazard Reduction and Resource Management Plan and Programmatic EIR/EIS East Bay Regional Park District, through LSA, Inc.

Carol Rice identified and described the areas of potential action based on potential fire behavior within a 13-square mile study area that spans the hills from El Cerrito to San Leandro. Mitigation measures that reduce fire hazard with minimal environmental impact are to be identified. Participation in public meetings (where fire modeling outputs are explained) and various outreach activities (where peers solicited for feedback) are ongoing. *This plan was awarded "Outstanding Document" by the Association of Environmental Professionals in 2011. This is an update of the project completed in 1995 that received an award for planning by the American Society of Landscape Architects, 1997.* 2006-2011.

Fire Behavior and Fuels Analysis of the Upper Mokelumne Watershed, Upper Mokelumne Watershed Assessment Program, through RMC, Inc.

Wildland Resource Management, linked effects of several wildfire scenarios to water quality in order to gauge the sensitivity of the watershed to various locations and sizes of wildfires. The project applied the Gradient Nearest Neighbor process to develop a uniform data set across all property boundaries in California – the first such application in California. This process translates point data to polygons, therefore allowing the use of spatial fire behavior prediction programs.

FlamMap was used to determine the relative hazard and spread potential, and served as the basis for the Treatment Optimization Model, which locates where fuel treatment might be most effective in slowing fire spread.

FARSITE was used to simulate fire growth. The outputs of FARSITE were translated into three burn severity categories. The spatial distribution and degree of burn severity was then used as an input to a water quality model in order to simulate potential effects on water quality. 2005-2006.

Analysis of Risk of Structural Ignition from Wildfires, through University of California Forest Products Laboratory.

Providing technical expertise in development of a methodology to design a computer model that predicts the chance of structural ignition due to wildfire. In this project, protocols for testing landscaping materials and exterior structural elements are being determined. Exploration of ways to use biomass generated from fire hazard reduction in the urban/interface is included in this FEMA-funded project. Coordinated completion of other FEMA grants developing new fire-safe guides, analyzing state-wide code compliance, evaluation of fire hazard assessment and development of training courses on fire-safe development and urban-interface codes. 1996-2000.

Vegetation Management Plan of the East Bay Hills, Consortium of the Cities of Berkeley, Oakland, Piedmont, and East Bay Regional Park District, East Bay Municipal Utilities District, and University of California, through Amphion, Inc.

This project received an award for planning by the American Society of Landscape Architects, 1997. The planning effort funded by the Federal Emergency Management Agency includes development of vegetation management recommendations for public wildlands as well as model ordinances for residential gardens and structures, and prescriptions for wildlands along the hills from San Leandro to El Cerrito. Hazards and risks were rated and lands classified. Potential funding sources and an evaluation of new vegetation management techniques was encompassed in the scope of work. A homeowner information program was developed addressing defensible space and building "retrofit" actions. 1993-1995.

Homeowner Education Program and Hazard Reduction Guidelines Development; Berkeley City Fire Department

This project included a series of demonstrations in residential gardens of on-the-ground interpretations of the Hazardous Area. Wildland Resource Management obtained volunteer contract labor, donations of plant material, plus coordinated solicitation and selection of garden sites.

Wildland Resource Management developed a set of site-specific guidelines for fire hazard reduction on a right-of-way that both addresses fire safety and responds to neighborhood concerns for erosion prevention, aesthetics, and wildlife habitat preservation. Wildland Resource Management worked with neighborhood representatives and presented this set of guidelines at a neighborhood meeting where it was met with approval by vocal residents.

Carol Rice interpreted fire hazard reduction regulations in terms more readily understood by residents, compiled existing information about defensible space (such as plant lists, standards, guidelines, programs in other jurisdictions, and renditions of fire-safe lots). 1993-1995.

Program Management of Fire Hazard Reduction Program; University of California, Office of Environmental Health and Safety

In this ambitious project we coordinated with state agencies, park districts, homeowner associations, campus community, contractors, and local fire departments to conduct a series of activities within a five-year program. This included planning prescribed fires, supervising hand labor crews, developing contracts with local goat herder, planning, conducting native vegetation restoration projects and making presentations to homeowners. Efforts also involved maintenance of approximately 20 acres of mature eucalyptus and conversion of other stands to native grass and oak forests. Presentations were frequently made to University officials, and news media (especially since the Oakland Hills Fire) concerning the fire hazard reduction program. 1987-1992.

Fire Management Plan; University of California Berkeley, Office of Environmental Health and Safety

The plan recommended vegetation and management techniques on a site-specific basis to reduce fire hazards to such facilities as the Lawrence Berkeley Laboratory, or adjacent residential properties on this 1400 acre parcel. Local vegetation includes grasslands, oak/bay forests, north coastal scrub and introduced forest stands (including eucalyptus, Monterey pine, and various conifers). The plan identifies tradeoffs of

using prescribed fire, goat-grazing, hand labor, chemical or mechanical treatments and fire retardant landscape plants. Costs, schedules, and a public education program are also detailed. 1986-87.

**Analysis of Factors Causing Structure Loss; Department of Forestry and Resource Management
University of California, Berkeley**

The in-place factors that contribute to the loss of homes during a wildfire were analyzed and weighted. The analysis of variables such as access, water supply, building design and placement yielded a type of hazard rating that has been used in statewide budget allocation, prevention efforts and development planning. 1985-86.

Evaluation of Fire Behavior In the Berkeley/Oakland Hills; East Bay Regional Park District

Potential fire behavior was predicted for the North Coastal Scrub and oak/bay woodlands along the urban interface of the Berkeley/Oakland hills. Site-specific fuel models were developed, and live fuel moisture trends and levels were established. 1984-85.

- **Urban Wildland Interface Fire**
- **Landscape Architecture**
- **Environmental Planning**
- **Urban Design**

Registration:

Landscape Architect
California #2560
May 1983

Education:

Masters of Landscape Architecture, 1983
University of California, Berkeley
B.S. Landscape Architecture, 1980
University of Virginia

Training & Certification:

XL Design (formerly DPIC) Professional
Liability Education Program (annual
2002-2009)

Revegetation/Restoration
Planning Workshop, SERCAL
May 1993

Policies and Issues in Historic
Landscape Preservation, August 1988
National Park Service Field School

Community Service:

Manatee Aquatic Masters Board of
Trustees, Secretary 2013 – present
Alliance for Historic Landscape
Preservation, Board of Trustees,
Treasurer, 2012 – present.
CA Fire Safe Council Board 2002- 2009
Dunsmuir Historic Estate
Board of Trustees July 1995-2002
Board President 2000-2002
Firescape Demonstration Gardens 1992
CEDAT - Oakland/Berkeley Fire 1991
Oakland/Berkeley Firestorm Mayor's
Task Force 1991
ASLA Fire Recovery Task Force 1991
Lake Merritt CAT Project 1988

Membership:

Alliance for Historic Landscape
Preservation
California Invasive Plant Council (Cal
IPC)

Contact Information:

3311 39th Avenue
Oakland CA 94619
510.536.0143
cmillerrla@comcast.net

CHERYL MILLER

Registered Landscape Architect

Experience:

Cheryl Miller has over 25 years of experience with primary responsibility in all phases of projects from initial planning and programming stages, preliminary design, to construction documents and site observations. She brings to projects a proven record of effective community outreach and uses her communication skills with both clients and team members.

Beginning in 2009 Ms. Miller has been focused on fire at the UWI. She currently serves as part-time Executive Director for the Diablo Fire Safe Council, and continues to work with the City of Hayward on fuel reduction and public education projects.

Ms. Miller began her work related to wildland urban interface fire hazard mitigation planning with the development of pre-fire mitigation recommendations 10,000 acre *Grant County Park Master Plan* in the early 1990s. Various community work followed the 1991 Tunnel fire in the Oakland Berkeley Hills and provided broad experience with key issues and stakeholders.

She was project manager for East Bay Hills Fire Hazard Mitigation Fuel Management Plan that encompasses 60 square miles of urban wildland interface. For this project, addressing issues resulting from the 1991 firestorm in Oakland, California, she oversaw a team of nine consulting firms and coordinated a client consortium of nine representatives from cities and agencies. This \$300,000 FEMA funded project was a first of its type and still viewed as a national model for regional management of public and private vegetation and structures in the urban wildland interface. It established many of the regional standards used today for fuel management projects.

Since 1996, Cheryl Miller has served as staff support for the Hills Emergency Forum. This nine-member consortium is dedicated to on-going interagency cooperation to promote fire safety in the East Bay Hills.

She has worked with Carol Rice, Wildland Resource Management on a number of fire management projects including:

- Palo Alto Foothill Fire Management Plan Update
- Wildfire Hazard Assessment for Oak Grove, Livermore
- Wildfire Hazard Assessment for Montanero, Orinda
- Development of Training Material for Evacuation, Fire Protection and Safe to Stay Options for Winery Cave Staff and Residents
- Homeowner Education Program and Hazard Reduction Guidelines Development; Berkeley City Fire Department

Ms. Miller's park master planning work extends to protection natural and cultural resources. She served as project manager for the 9,522 acre park *Joseph D. Grant County Park* in Santa Clara. This 1992 Master Plan and subsequent construction projects focused on recreation opportunities, and preservation/enhancement of the native California ecosystems, wildlife habitats, and cultural resources. The plan incorporated fuel management and fire safety measures developed through working with the local CALFIRE Santa Clara Ranger Unit

□
CHERYL MILLER, RLA

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cmillerrla@comcast.net
510.536.0143

Professional Experience

2009 – Present **Cheryl Miller RLA**, Oakland California

California Registered Landscape Architect in private practice providing professional services to public sector clients: prime consultant leading multi-disciplinary project teams, client relations, new business development, community involvement, project management and small business administration. Focused on regionally significant projects that promote wildfire safety in the urban wildland interface. Clients include Diablo Fire Safe Council, Hills Emergency Forum, City of Hayward Fire Department and City of Albany Parks and Recreation Department. Coauthor Managing Fire in the Urban Wildland Interface, Solano Press.

1986 – 2009 **Amphion Environmental Inc.**, Oakland California.

Managing Principal/ Director (1998 – 2009): Responsible for all phases of work including new business development, office policy and procedures, staff review, project management, presentations, proposal writing, community workshops, media outreach, sub-consultant management, cost estimating, construction documentation preparation and quality control. As Director on Amphion's board served as Vice President (2005-2007) and President (2007-2009) responsible for staffing decisions and strategic planning.

Associate (1992 – 1998): Responsible for oversight of multi-disciplinary team to deliver planning reports, cost estimates, construction documents and technical specifications. Managed staff and sub-consultants. New business development included establishing scope, schedule and budgets. Resolved issues. Facilitated public workshops, small groups and client staff meetings. Provided briefings to media.

Project Manager (1989 – 1992): Responsible for day to day management of multi-disciplinary team to deliver planning reports, cost estimates, construction documents and technical specifications. Managed staff and sub-consultants; establishing critical path schedule and budgets. Served as technical staff for community participation and public workshops, preparing outreach questionnaires, presenting alternatives and facilitating small groups and client staff meetings.

Landscape Architect, Planner (1986 -1989). Responsible for preparation of planning reports, cost estimates, construction documents and technical specifications. Coordinated with project managers and sub consultants.

1984 – 1986 **Greenscapes and Graphics**, Davis California. Landscape Designer. Award winning residential and commercial landscape design work.

1982 – 1984 **Freelance work**, San Francisco Bay Area. Landscape Designer, graphic designer, planner. Prepared presentation graphics, construction documents, reports, cost estimates, CEQA compliance materials, visual impact analysis, and design review documents. Projects included commercial, corporate, residential and public sector work for Bay Area firms.

Selected Presentations and Proceedings

Miller, Cheryl. "You Too Can Prevent Wildfires." *The Environmental Monitor*. Association of Environmental Professionals. Fall 2010. Pp 4-8.

Blonski, Kenneth S., Cheryl Miller and Carol L. Rice. Managing Fire in the Urban Wildland Interface: Practical Solutions for Urban Wildland Fire. Point Arena, CA: Solano Press. 2010.

Blonski, Kenneth S., Cheryl Miller and Carol Rice. "Get Real! Community Based Solutions for your WUI Issues – Using Collaboration Beyond Planning." Albuquerque, NM: *International Association of Fire Chiefs*. February 16–18, 2005. Paper presented and published proceedings.

Blonski, Kenneth S. and Cheryl Miller. "Collaboration - Finding solutions to the urban wildland interface fire issues through regional collaboration." Paper presented and published proceedings, *Disaster Resistant California*. San Jose, CA, April 21 – 23, 2003.

Rice, Carol L. and Cheryl Miller. "Working to have it all in the urban wildland interface: Ways to minimize environmental impacts of fuel reductions at the urban wildland interface." Paper presented and published proceedings, *Fire in California Ecosystems: Integrating Ecology, Prevention and Management*. San Diego, CA, November 17-20, 1997.

Rice, Carol L. and Cheryl Miller. "FARSITE modeling in the urban/wildland intermix." *International Association of Wildland Fire: 13th Conference on Fire and Forest Meteorology*. Lorne Australia, 1997: 561-570.



GRANT WRITING & GRANT MANAGEMENT

SAMPLE CLIENTS:

Alameda County
MTC Transportation for Livable
Communities (TLC)

City of Hayward
State Fire Safe Council
Clearinghouse Grants

City of Palo Alto
State Fire Safe Council
Clearinghouse Grants

Diablo Fire Safe Council
Bureau of Land Management
Pacific Gas & Electric
State Fire Assistance – Western
Urban Interface Grant
Program State Fire Safe Council
Clearinghouse Grants

Hills Emergency Forum
Bureau of Land Management
State Fire Assistance – Western
Urban Interface Grant
Program State Fire Safe Council
Clearinghouse Grants

Santa Clara County Parks
Intermodal Surface
Transportation Efficiency Act
(ISTEA/ TEA-21) Grants

Integrating Ecology, Prevention and Management. San Diego, CA, November 17-20, 1997.

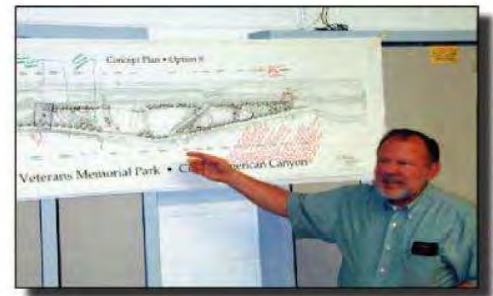
Rice, Carol L. and Cheryl Miller. "FARSITE modeling in the urban/wildland intermix." *International Association of Wildland Fire: 13th Conference on Fire and Forest Meteorology*. Lorne Australia, 1997: 561-570.

Many clients look to leverage available budgets for programs, capital projects or maintenance efforts. We work closely with these clients to identify potential funding sources, solicitation strategies and supporting materials for fund-raising campaigns. Our planning documents have been successfully used to set priorities, establish budgets and direct phased implementation funding goals. After adopting the master plan for the future of the Dunsmuir Historic Estate, the non-profit group built a successful campaign to fund the new garden pavilion (Plan prepared while on staff with Amphion)

We have prepared grant applications and collateral materials for a variety of funding requests. In 2010 for the Diablo Fire Safe Council we successfully developed a grant application for submittal to the California Fire Safe Council Clearinghouse. In 2011 the group was awarded \$75,246 to develop the Alameda County Community Wildfire Plan. In 2013 it received 180,010 to extend the 2010 program, with another 187,320 for 2015-2016. The City of Hayward also was awarded \$88,400 to develop community defensible space in Ward Creek Canyon from a grant application prepared in 2010, with a second grant of \$88,400 in 2013 and a third for \$186,731 in 2015. We also provided technical information to Santa Clara County Park's staff to gain ISTEA/ TEA-21 grant funding for trails and staging area improvements at Joseph D. Grant County Park.

Our client services continued with grant management and administrative support to ensure success. We provided scheduling, project management, meeting facilitation, record keeping, and completion of quarterly reports. For the Hills Emergency Forum in 2003 we were responsible for fiscal oversight, outreach and staffing for a multi-day Firewise Communities Workshop and Media Safety Day. We were able to expand the group's base to partnership with 15 fire agencies, 6 media agencies, and 16 sponsors.

Audience/ circulation estimates were well over 2 million community members.



Many of the projects that Cheryl Miller managed while a partner at Amphion involved public involvement as a critical component. She has also worked intensively with Task Forces and Working Groups. She brings expertise in public outreach, utilizing a variety of collaborative process tools including: workshops, presentations, questionnaires, personal contact, presentations to existing groups, media releases and posting information on the Web.

PUBLIC OUTREACH COMMUNITY FACILITATION

SAMPLE CLIENTS:

City of Hayward Fire Department
Ward Creek Canyon Defensible
Space Community Fuel Reduction
2011-2012

East Bay Regional Park
Wildfire Hazard Reduction &
Resource Management Plan,
2010

City of Berkeley
Terrace View Park
Master Plan, 2009

City of Sunnyvale
Plaza del Sol, 2005

City of Manteca
Downtown Improvement, 2001

Santa Clara County
County-wide Trails Master Plan,
Joseph D. Grant Park Master
Plan, 1993

City of Santa Monica
Santa Monica Transit Mall, 1998

Stanislaus County
County-wide Parks Master Plan,
1998

City of Palo Alto
Palo Alto Golf Course
Renovation, 1995

BART
West Pittsburg BART Station,
1995

At Amphion Cheryl often employed a unique and long proven "Take Part" workshop process. The first step to success is the ability to hear the issues and concerns. Responding to those concerns with viable options or a reasonable explanation of realistic constraints is the second step. Our by-words throughout the design process are that while it is not possible for everyone to "get their way" it is important that they have the opportunity to "have their say." Creative solutions can meet multiple agendas, and still come in on-budget and on-schedule.

A key difference of the "Take Part" facilitation process lies in the fact Cheryl is not just a public involvement meeting facilitator. As a landscape architect trained in group processes, she not only facilitates the meetings, but also guides preparation of the planning or design solutions. This integrated approach results in superior participation and products. The following provides an overview of this facilitation philosophy:

- Make public input an integral part of the planning process.
- Discover public needs and desires early in the design process, before designs are formulated, and long before public hearings.
- Arrive at a "consensus plan" which has broad-based support, as the first step in acceptance of the plan that finally evolves.
- Inform the public of the project and any over-riding considerations such as agreements, ordinances, environmental or market conditions. This common understanding enables the public to comprehend both the decisions and the decision-making process.
- Identify and air any controversial issues and to promote a dialogue among proponents of diverse positions.
- Help identify all information and concerns related to the project.
- Provide a hands-on process, a creative way for people to communicate in groups.
- Enable the public to enjoy more fully the future results of planning by early participation in the process.

Cheryl Miller, RLA



**2010 2011 Defensible Space
Fuel Reduction Project Funding**



Help Create Your Neighborhood's Defensible Space

Call and talk to DFSC staff today • (510) 536--0143



There have been
neighborhood
wildfire prevention
projects funded in
nearby areas!

Is there a project in
your back yard
you would like
help to achieve?



**2010 2011 Defensible Space
Fuel Reduction Project Funding**

Email DFSC staff today • DFSCMiller@comcast.net

www.diablofiresafe.org

Program Description

Lake Drive neighbors are working together behind their homes to prevent wildfires. McBryde Avenue residents are starting a chipping program for their street. Camp Herms Boy Scouts have teamed with the Civicorps crews to make their property safer for campers and their neighbors. How about you? Do you and your neighbors need assistance to get a fuel reduction project done?

The Diablo Fire Safe Council (DFSC) is sponsoring defensible space fuel reduction projects for 2010 – 2011 funded courtesy of a National Fire Plan grant from the USDA Forest Service through the California Fire Safe Council. Cost-share assistance of up to \$5,000 per project is available to groups or individuals to reduce fuel loads and create defensible space on their property, in their neighbor's yards and on community lands. You don't have to provide matching funds – you and your neighbors' work efforts and organizational skills count as matches.

Projects can include:

- Chipping or green waste removal of homeowner cut material,
- Mowing or "weed whacking"
- Tree thinning (cutting of small trees) or "limbing-up"
- Brush cutting
- Grazing

Emphasis will be on high wildfire hazard areas in Contra Costa County (such as Richmond Heights, El Cerrito and Kensington) where neighbors, homeowners associations, civic organizations and other groups are organized and available to promote fire safe efforts.

See Diablo Fire Safe Council web site www.diablofiresafe.org
for more information on
selection criteria and an application.

Or contact Cheryl Miller Executive Coordinator DFSC [email: DFSCMiller@comcast.net](mailto:DFSCMiller@comcast.net) Phone: (510) 536-0143

The next application deadline is Friday January 14th 2011.

From: DFSCMiller <DFSCMiller@comcast.net>
Subject: **DFSC Snapshot**
Date: March 4, 2011 9:28:26 AM PST
To: Katie Ziemann <kziemann@calbresafecouncil.org>
Bcc: DFSCMiller <dfscmiller@comcast.net> 2 Attachments,
564 KB



Community Projects: *Funding for Defensible Space*

The Diablo Fire Safe Council (DFSC) is sponsoring defensible space fuel reduction projects for 2010 & 2011 funded courtesy of a National Fire Plan grant from the USDA Forest Service through the California Fire Safe Council. Cost-share assistance of up to \$5,000 per project is available to groups or individuals to reduce fuel loads and create defensible space on their property, in their neighbor's yards and on community lands. [More](#)

Contractor and Defensible Space Workshops

The annual contractor training on hazardous vegetation management proved popular once again. In 2010 DFSC worked with certified arborists, professional landscape designers, horticultural consultants, and others with talents in managing commercial landscapes, open space and residential gardens. Working with Supervisor John Gioia additional workshops were aimed at residents to spread the word about wildfire safety. Watch our website for 2011 workshop schedule. [More](#)

Looking Forward to 2011

A Community Wildfire Protection Plan (CWPP) is a collaboratively developed plan that identifies wildland fire hazards, prioritizes way to reduce those hazards and recommends measures for homeowners and communities to reduce ignitability of structures. DFSC plans to spend 2011 and part of 2012 working with community members and agency partners to develop such a plan for Alameda County. [More](#)

Updates

For updates visit our web site at:
www.diablofiresafe.org

Contact Us

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Executive Coordinator
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DFSCMiller@comcast.net

To remove your name from our email list reply to this correspondence and type "unsubscribe" in the subject line, or email DFSCMiller@comcast.net



Woodland elves work wildlands

Elves in Kensington?

Folktales proclaim elves live in hills and are not bound by physical limitations. Victorian literature illustrates tiny men and women of pointed ears and stocking caps. American tales focus on crafty Santa's helpers at the north pole. Modern images include skills with baking Keebler cookies or promoting Rice Krispies.

Kensington woodland elves are a unique subspecies. They live to work wildlands. The results of their labors can be seen in the 1.72 mile interface between homes in the unincorporated Contra Costa County town of Kensington, California (pop. 4,936) and the wildlands of Wildcat Canyon. Their mission is to lower the height and break up the continuity of fuels to reduce wildfire hazards.

In March 2008, Diablo FireSafe Council (DFSC) submitted a grant application to Pacific Gas and Electric (PG&E). The purpose of the \$15,000 project was to manage flammable vegetation behind 30 homes along Lake Drive, Los Altos Drive and Canon Drive at the top of the western slopes of Wildcat Canyon Regional Park. The elves would focus on pruning lower limbs and cutting brush below trees to eliminate "ladder fuels" that could carry a wildfire up into trees and nearby homes. Once materials were cut it would be chipped; with chips spread to reduce weed growth.

More writing was needed before work could begin. The East Bay Regional Park District created a Right of Entry agreement with DFSC to allow the elves to work on parklands. The agreement is the first of its kind between the District and residents. Facilitated by the Diablo Fire Safe Council, it formalizes a working relationship that is also supported by the Kensington Fire Protection District and El Cerrito Fire Department.

Diligently the elves worked adjacent to the two trailheads at Grizzly Peak Boulevard and Lake Drive. They also encouraged neighbors to manage their own properties. One neighbor slowly converted her back slope into a native fire resistant landscape with perennial bunch grass and buckeye trees. More neighbors worked with neighbors to clear adjacent vacant lots belonging to out of town owners. Discussions of removal of highly flammable masses of juniper shrubs led to cutting shrubs and removing lower branches of trees which effectively widening the narrow streets.

By 2010 the PG&E funds had been spent, but the work continues. 2011 sees four different elf coordinators focusing fuel management from Canon Drive to Purdue Avenue. Diablo Fire Safe Council is able to provide cost share to these groups' sweat equity with funding provided by a National Fire Plan grant from the USDA Forest Service through the California Fire Safe Council. There are eleven plans afoot for future partnerships with the Beloit Dad's Club and expansion north to the El Cerrito Border.



Tewksbury s first chipping day

The Tewksbury Heights neighborhood is nestled in the hills of Richmond, California near the Park Avenue entry to 2,430-acre Wildcat Canyon Regional Park, east of San Francisco Bay. From this entry McBryde Avenue winds 0.8 mile providing access to approximately 100 parcels before it reaches a dead end above Wildcat Creek.

McBryde Avenue neighborhood chipping project began when a few concerned neighbors attended the East Richmond fire safety workshop sponsored by Contra Costa Supervisor John Goia. They heard about what they could do to make their neighborhood more defensible from wildfires and about potential funding for community projects. After the workshop these few individuals began to talk to their neighbors. They asked if Supervisor Gioia would sponsor a workshop for their community. On April 26, 2010 approximately 25 neighbors filled the tiny community clubhouse at the bottom of the slope to learn about wildfires and talk about what they might do on their properties.

Next, eleven neighbors put their heads together and completed the application to participate in the DFSC Defensible Space Program. They received the ok for \$5,000 funding to support the neighbors efforts and began organizing their first chipping day. On just a few weekends these neighbors and others had cut brush, pulled vines, pruned the lower limbs of trees from around their homes and stacked piles along the edge of McBryde Avenue.

On a bright Thursday morning in mid November two Davey Tree Service workers began to make their way down the avenue. Within just a few hours all of the piles were gone. Chips were distributed where neighbors requested. All that was left were a few scattered leaves and twigs to tell the story of the Tewksbury neighborhood's first chipping day.

Thanks to all the neighbors who helped make the day a success! There are still funds in the Tewksbury neighborhood allocation for more neighborhood work.



For more information see our website at
www.diablofiresafe.org



MANAGEMENT PRACTICES

The Hills Emergency Forum facilitates a cooperative approach among nine governing organizations addressing urban wildland interface fire issues in the Oakland-Berkeley hills.

HEF members' fuel reduction projects have been on-going in the East Bay hills for decades. These projects include many best management practices (BMPs) to reduce the potential of environmental impacts and comply with various laws and regulations. HEF members have varying policies and agreements that have led to these best management practices. Most have been formalized in documents in order to comply with the National Environmental Policy Act and the California Environmental Quality Act.

In 2008, Cheryl Miller, RLA worked with HEF members to develop a compendium of the various BMPs used in the region. These BMPs are drawn from published environmental documents and current practices. Each of the members continues to refine their practices as new equipment or innovative techniques become available and are shown to be effective. This working paper will be updated periodically as new adaptive management strategies are available and adopted by Hills Emergency Forum Members. The Best Management Practices paper is available on the HEF web site www.hillsemergencyforum.org.

The compendium is divided into four sections:

- Li Project actions: Identifies the project actions and techniques often used for vegetation management.
- Li Potential impacts: Provides an overview and quick look-up matrix that identifies the potential environmental impacts that may be associated with various project actions
- Li Best Management Practice: Each impact includes a range of BMPs or Mitigations to reduce potential environmental impact, as well as timing considerations and comments
- Li Appendices.





HEF AS A MODEL FOR COLLABORATION DISASTER RESISTANT CALIFORNIA CONFERENCE

May 17, 2005

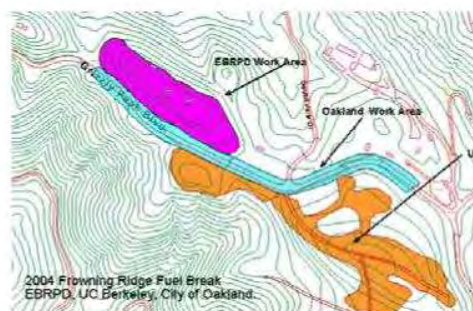
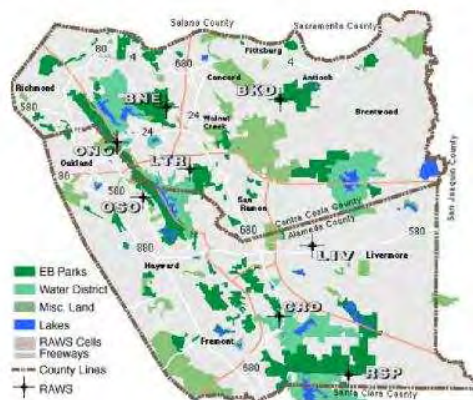
The Hills Emergency Forum facilitates a cooperative approach among nine governing organizations addressing urban wildland interface fire issues in the Oakland-Berkeley hills

HEF participated in the Fifth Annual Disaster Resistant California Conference held May 15–18 in Sacramento. This premier west coast disaster mitigation conference offered an exciting exploration of topics with a goal of increasing coordination between the public and private sector in implementing hazard mitigation measures in California.

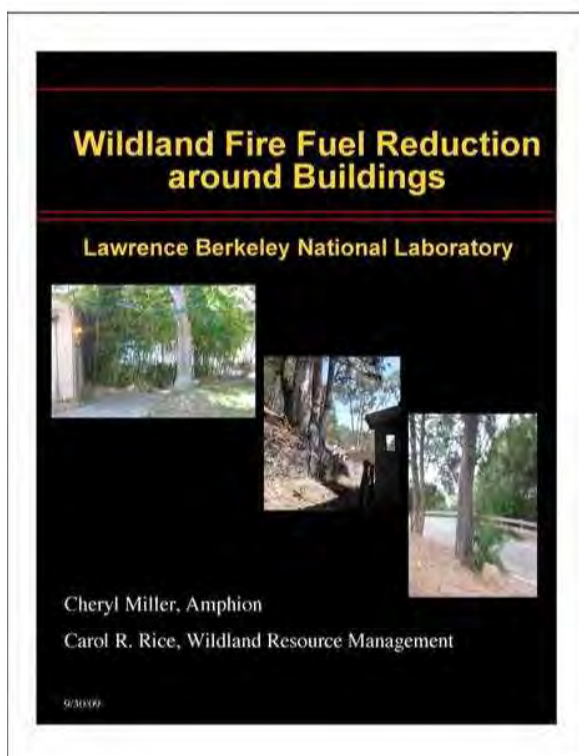
Cheryl Miller prepared a presentation and paper for Fire Chief Mark Scott, El Cerrito and Fire Chief Dennis Rein, East Bay Regional Park District to present the HEF as a model for regional collaboration for urban-wildland interface fire mitigation. They provided history of the forum's formation, its members and mission and highlighted the projects responsible for building the group's success. These included:

- ◆ Installation of remote automatic weather stations (RAWS) to allow the region to better watch the weather. High fire hazard weather now triggers local of local parks, restricts activities (use of bar-b-cues and certain maintenance practices), and increases fire department dispatch and patrol levels.
- ✚ Projects coordinated across traditional agency boundaries such as the coordinated fuel removal along Frowning Ridge between the City of Oakland, East Bay Regional Park District and University of California Berkeley.
- ✚ HEF continues to partner with other community groups such as the Claremont Canyon Conservancy, private property owners, public schools and individual companies for successful fuel reduction throughout the East Bay Hills.

A copy of the conference paper can be found on the HEF web site www.hillsemergencyforum.org.



Cheryl Miller, RLA



Recommended Treatments

- Locations identified on aerial photographs
- Treatment identified by unique identifier (bldg #-treatment location #)
- Goal and measurable actions listed



Select Recommended Treatments Fuel Adjacent to Buildings Reduction



S-T. Reduce fire ladders and fuel load below to building by removal of regeneration of plant material

- Remove aged Eucalypts from under redwoods and at edge of shrub bed
- Remove dead palm fronds
- Cut Baccharis shrubs to ground and allow to resprout
- Cut grass to 4" height. Native bunch grasses should be encouraged - manage to select regrowth around grasses.



69-1. Reduce aerial & ground fuels at bus stop island to protect vehicular access to facilities & reduce potential ignition from charging station. Provide non-flammable surface around outlet & picnic table

- Remove needles from roof of structure
- Rake and remove Pinus needles from ground to maintain ~ 1" cover
- Remove volunteer pines
- Remove any live or dead material (branches < 2" dia) needles, twigs, logs, cones bark etc.) for a height of 10'.

WILDLAND FIRE FUEL REDUCTION AROUND BUILDINGS

Lawrence Berkeley
National Laboratory
Berkeley, California

Amphion's Role:

Description:

Prime Consultant – Cheryl Miller, Project Manager

Cheryl Miller, working with Carol Rice of Wildland Resource Management, developed a plan to reduce the threat of wildland fire and potential damage from ornamental landscape adjacent to lab structures. This plan will allow staff to effectively utilize year-end funds as they become available. The plan evaluated the hazards. It also created Building Worksheets to be used as "work orders" for grounds staff and contract fuel reduction crews to complete the fuel modification. Each building worksheet:

- Identified the hazards and special considerations.
- Provided detailed recommendations with goal and measurable actions
- Developed alternative follow-up treatments to sustain the effectiveness of the work

The plan assumed that fire is a natural part of the Lab ecosystem. A risk management approach was adopted with the goal that fire could burn through the property with low flame lengths and low heat output. Fires were anticipated both from off site as embers and from onsite structure or ground fires.

CLIENT:

Lawrence Berkeley
National Laboratory

Cost:

Status:

\$15,000 (Professional fees)

Finalized September 200



MANAGING FIRE IN THE URBAN WILDLAND INTERFACE

Solano Press, 2010

www.solano.com

Articles and Awards

January 2012. National Hazard Center *Natural Hazards Observer*. Book review, "Resources." Pg. 17.

May 2011 APA (American Planning Association) California Chapter Northern Section "Education Award"

March 2011 AEP (Association of Environmental Professionals). "Outstanding Environmental Resource Document"

The Environmental Monitor. "You too can prevent wildfires."

Fall 2010, pp 4-8.

Presentations

Claremont Canyon Conservancy, Nov. 2011

Cal Poly San Luis Obispo, Class lecture March 2011

California Native Plant Society, Jan. 2011



This book is a unique guide to solutions and strategies for managing fire where human settlement has created communities that adjoin wildland areas; to recognize the force of fire and act to minimize the potential damage before a fire begins.

Offering analytical tools and comprehensive summaries not found in other references dealing with fire mitigation, Managing Fire in the Urban Wildland Interface draws on best practices from California, with lessons applicable nationwide. Designed as a reference, it provides information on codes and laws and includes case studies, tables, figures, suggested websites, and other source material.

The book is divided into four parts, beginning with an overview of the threat and key elements of urban wildland fire. Part two describes a range of threat assessment methods and illustrates the process of customizing solutions for local circumstances whether for proposed or existing neighborhoods. Part three expands on practical solutions and best practices. Ten chapters focus on awareness and ignition prevention; policy planning and land use tools; community design solutions for new and existing communities; and emergency responses and residents response to fire. Part four provides strategies for implementation and ways to overcome common challenges: vested interests, environmental challenges, biomass utilization or disposal, behavior change, and funding.

Authors Kenneth S. Blonski, Cheryl Miller and Carol L. Rice bring extensive experience in working in the public and private sector, and professional organizations.

PETRONILA ESTHER MANDENO

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PROFESSIONAL SUMMARY

My career in Geographic Information Systems (GIS) spans over 15 years. During my time with California State Parks, I managed the Sierra District's GIS; developing and implementing a wide variety of data and map products for land managers. I have on-the-ground experience using Global Positioning Systems (GPS) to capture a wide variety of field data. In addition to my general GIS and GPS expertise, I have experience with data conversions between CAD (computer aided design) systems and ESRI data formats, aerial interpretation for vegetation and feature mapping, as well as using remote sensing data (i.e., LANDSAT, IKONOS) for determining vegetation and forest fuel changes over time and LiDAR for stream restoration and re-surfacing work. I have worked extensively with local governments and districts assisting in compiling system maps and asset databases. Coupled with my employment background, I continue to learn new skills to improve my performance. I've recently taken up Python for ArcGIS (ArcPy) to automate tasks. While assisting non-profits on a voluntary basis, I have made use of ESRI's Story Maps and the Google Map API.

TECHNICAL SKILLS

PRACTICAL SKILLS

EDUCATION

2000 MS in Natural Resource Management, Fire Ecology
University of Nevada, Reno

1992 BS in Resource Science
University of California, Davis

- | | |
|------------------------------|--------------------------|
| • ArcGIS Map 10.x | • Fire Behavior Modeling |
| • AutoDesk Civil 3D | • Weather Data Analysis |
| • FARSITE | • Google Map API |
| • FlamMap | • ArcGIS Online |
| • Corel Draw & Photo-Paint | • Map Design |
| • Adobe Acrobat Professional | • Technical Writer |
| • QGIS | • Microsoft Office Suite |
| • Global Mapper | • Report Design |
| • Python/ArcPy | |

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EXPERIENCE

November 2002 - June 2010, August 2013 - present

GIS Consultant, Digital Mapping Solutions (self-employed)

Working as an independent consultant, participated on a variety of projects. Key jobs are highlighted below and show an integration of natural resource expertise and GIS skills to bring crucial information together.

Biological Assessment Maps for the Diablo Fire Safe Council

Under the supervisor of biologist Jim Martin, developed maps showing the flora and fauna special status species in the County of Alameda. Maps were used in a detailed assessment document prepared by the Diablo Fire Safe Council.

Evacuation Assessment West of the City of Ross

Collaborating with Wildland Resource Management and Mike Price of Entrada/San Juan, Inc., predicted fire spread from several ignition points under varying climate and suppression scenarios to determine streets impact. With these results, Mr. Price developed evacuation scenarios using Network Analyst that showed potential blocked intersections due to traffic inundation and inaccessible homes due to fire spread. Using his data and my fire modeling results, several maps were developed to assist in evacuation planning for a proposed housing developed west of the City of Ross.

Yosemite West Draft Community-wide Fire Risk Assessment

Working with Wildland Fire Associates, provided GIS support for all phases of document preparation for a small community just west of Yosemite National Park. Final product consisted of a fire risk assessment and a Community Wildfire Projection Plan (CWPP). Collected vegetation and fuels data that was later used to analyze fire behavior in the Indian Creek drainage. FARSITE was used to determine fire rate of spread and potential crown fire activity.

Upper Mokelumne Watershed Assessment Project

Working for Wildland Resource Management, provided GIS and fire modeling support for a large project in the central Sierra Nevada mountain range in California. Using my expertise in data acquisition and conversions, performed several fire behavior scenarios using both FARSITE and FLAMMAP.

June 2010-August 2013

GIS Specialist - Geoglobal Energy LLC

As a full-time employee of Geoglobal Energy, maintained and developed 3D spatial models of geothermal systems. Using Leapfrog Geothermal, ArcScene, and other 3D tools, those models were used to determine well design and targets, as well as pinpoint fault locations. In addition, built a GIS database to create meaningful maps for reports and planning meetings.

PETRONILA ESTHER MANDENO

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EXPERIENCE (continued)

August 2001 - February 2005

Research Analyst I - GIS, California State Parks

Supported the Natural Resource Office of the Sierra District of California State Parks in their fire operations and other programs (stream restoration, hydrology, forest thinning, weed abatement). Duties included maintaining, developing and documenting the Sierra District's Geographic Information System. Routinely acquired and developed several park unit's base data layers including assessor parcels, road and trail network, topography, facilities (i.e., road signs, park buildings, etc.), utilities (i.e., leach fields, hydrants, water shut off valves, etc.), vegetation classifications, digital aerial photography, and other layers as necessary. Also developed data dictionaries for specific project related work and compiled and updated a GIS catalog. When required, conducted spatial analysis for fire personnel to create fire hazard maps for park units. Additionally maintained and scheduled the use of the District's four GPS units (Trimble Pathfinder Pro XL, XRS, GeoExplorer 3 and XT). Other responsibilities included: maintaining and updating references, database, and other information sources, acquired fire behavior and pre- and post-fire vegetation condition data, collected spatial data regarding burn units, water sources, and access routes.

June 1999 - August 2001

Associate Resource Ecologist, California State Parks

Responsible for the Sierra District's Prescribed Fire Program. Planned and implemented a variety of prescribed burns in numerous park units throughout the Sierra Nevada as a Burn Boss/Incident Commander I. Delineated, using GIS and GPS technologies, fire hazard mitigation projects for park lands located in the wildland/urban interface. Prepared CEQA (California Environmental Quality Act) documents for all prescribed fire activities. In addition, acted as a technical supervisor for a crew of up to three people in the acquisition of vegetation monitoring data as it pertained to our fire activities.

June 1995 - June 1999

Assistant Resource Ecologist, California State Parks

As an assistant, developed and implemented the District's spatial database as well as collected fire-related vegetation data. Conducted various wildlife surveys (primarily raptors of special concern or status) as needed as part of CEQA and NEPA requirements prior to a prescribed burn. Performed extensive data management and analysis of the District's fire monitoring database. Duties also required that she act as a prescribed fire and weather monitor. During each burn, responsible for recording fire behavior characteristics, weather parameters, fuel moisture, and burn activities.

PETRONILA ESTHER MANDENO

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TRAINING

April 2014

RX 310 Ecological and Social Effects of Fire
Central Oregon Community College, Bend, OR

June 2012

AutoDesk Civil 3D 2012 Fundamentals
Ideate, San Jose, CA

April 2000

S 490 Advanced Wildland Fire Behavior Calculations
California Dept of Forestry and Fire Protection Academy, Ione, CA

Dec 1999

S 200 IC Type 4
National Wildfire Coordinating Group, Tahoe City, CA

May 1999

RX 300 Burn Boss
North Lake Tahoe Fire Protection District

April 1999

RX 450 Smoke Management
North Lake Tahoe Fire Protection District

REFERENCES

Carol Rice
Wildland Resource Management, Inc.
134 Journey's End Alamo, CA 94507
carolrice@aol.com 1 925 944
5282

Mike Lane - Lane Geographics
P.O. Box 904
Gualala, CA 95445
lanegeo@mcn.org
1 / 0 / 185 9 / 14

Jim Stimac
Stimac Geothermal Consulting
sqgeo00@gmail.com 707-479-7855

"She gets the job done quickly, is responsive to feedback, and keeps after the work until the job is finished to everyone's satisfaction. She also learned lots of new things through our collaboration and was always willing to learn new skills and software along the way. She's also upbeat and fun to work with, and I hope to have the opportunity to work with her again in the future."
~ Jim Stimac, Principal Geologist

STATEMENT OF QUALIFICATIONS

Leonard Charles and Associates
7 Roble Court
San Anselmo, California 94960
415.454.4575
415.454.2585 (Fax)
lcharles@leonardcharlesandassociates.com (e-mail)
<http://www.leonardcharlesandassociates.com> (website)

Section 1

Introduction

Leonard Charles and Associates (LCA) is an environmental and land use consulting firm providing both specialized and comprehensive environmental services to governmental, public, and non-profit agencies and groups. LCA does not work for developers or other private interests. Since 1977, our services have included the preparation of Environmental Impact Reports (EIRs), all other CEQA-required and NEPA-required documents, General Plans, Land Management Plans, Resource Management Plans, Fire Management Plans, and Environmental Assessments. Many of the projects we have worked on have been highly controversial and therefore subject to the intense scrutiny of public agencies and the general public. In each case, our work has been praised for its thoroughness, total objectivity, and creative and practical approach to developing alternatives and mitigation measures.

The following attributes best distinguish LCA:

- LCA maintains a small permanent staff; most members of the staff have twenty years' experience in preparing EIRs and similar analyses. The advantage of a small, core staff is that the client is assured that reports are prepared only by experienced professionals who are principals in the firm.
- We augment the skills of our staff with a select group of technical experts. We have worked with this group of subconsultants on dozens of projects over a period ranging from five to twenty-five years and maintain a coordinated working relationship with them. The use of these subconsultants ensures that, when necessary, we have experts in the appropriate field addressing technical issues.
- Our staff includes professional writers who ensure that technical reports are well written and can be easily understood by laypeople.
- Our thirty-seven years of experience means that our staff is familiar with the range of impacts that can be expected from most types of projects. We are also well acquainted with most of the geographic regions of Northern and Central California, and we know many of the staff members of pertinent State and County reviewing agencies..
- Given our experience with many controversial projects, we are very familiar with the legal requirements of the California Environmental Quality Act (CEQA). Though many of our EIRs have been scrutinized for their legal adequacy, only two have been challenged in the courts, and the court found that in both cases the EIR met all CEQA requirements and dismissed the challenge to the EIR.

Section 2

Environmental Services

Using the skills of staff ecologists and planners in conjunction with specialized consultants, Leonard Charles and Associates provides the following services:

A. Environmental Assessment and Impact Report Preparation

- **Residential projects:** residential developments in both urban and rural settings
- **Industrial development:** mineral extraction, geothermal and energy facilities, and all types of industrial development
- **Commercial projects:** shopping centers, office parks, business parks, downtown redevelopment, and all other types of commercial development
- **General Plans:** preparation of general plan and specific plan environmental assessments and EIRs
- **Public infrastructure:** schools, jails, wastewater facilities, potable water systems, roads, pipelines, solid waste facilities, and fire management plans
- **Natural resources:** analysis of riparian ecosystems, development of erosion control programs, watershed rehabilitation, and biotic impacts
- **Parks and recreation:** site design assessment and master plans
- **Open space:** development of open space land use plans

B. CEQA/NEPA Analysis

- **CEQA reports:** Initial Studies, constraints analyses, existing conditions reports, Negative Declarations, EIRs, Findings, and all CEQA-required noticing and reporting elements on all public and private projects
- **NEPA reports:** Environmental Assessments, FONSI, and EISs
- **Monitoring:** Mitigation Monitoring and Reporting Programs and on-site monitoring

C. Ecological Investigations

- **Biological resource analysis:** wildlife surveys, habitat evaluation, vegetation analysis and mapping, and botanical surveys
- **Ecological baseline studies and monitoring:** plant and animal population studies and measurement of vegetation succession and recovery

- **Fire hazard reduction:** studies of fire hazards and development of complete vegetation and fire management plans

D. Natural Resource Planning

- **Watershed rehabilitation:** erosion control programs, reclamation planning, and revegetation and reforestation analysis and plans
- **Vegetation management:** plans to manage vegetation to control critical fire danger and maintain biodiversity and other natural resources of the area
- **Fish and wildlife management:** habitat mitigation plans, habitat and species management plans, and habitat rehabilitation
- **Natural resource plans:** riparian and waterway management plans, forest management plans, and land capability and constraints analyses
-

E. Land Use Planning

- **General plans and specific plans:** preparation, revision, and evaluation of general and specific plans
- **Area studies:** analysis of projects in conjunction with area-wide development, public infrastructure analysis for area development, environmental analysis, and development of area plans
- **Park and open space planning:** planning of local and regional parks, resource planning, and analysis of private proposals

Section 3

CLIENTS

Past clients have included:

- State of California, Department of General Services
- County of Butte
- County of Calaveras
- County of Lake
- County of Marin
- County of Mendocino
- County of Santa Clara
- County of Santa Cruz
- County of Sonoma
- City of Dixon
- City of Lafayette
- City of Cloverdale
- City of Cotati
- City of Healdsburg
- City of Petaluma
- City of Sebastopol
- City of Sonoma
- City of Lakeport
- City of Larkspur
- City of Clearlake
- City of Ukiah
- City of Willits
- City of Fort Bragg
- City of Novato
- City of San Rafael
- Town of Mill Valley
- Town of Tiburon
- University of California, San Francisco
- Lake County Special Districts
- Mendocino Council of Governments
- Marin Municipal Water District
- North Marin Water District
- Marin County Open Space District
- Harmony Union School District
- Monte Rio Union School District
- Piner-Olivet Union School District
- Ukiah Valley Sanitation District
- Mendocino County Water Agency
- Calpella County Water District
- Willow County Water District
- Millview County Water District

- Russian River Parks and Recreation District
- Mendocino Transit Authority

Any of these clients may be contacted for references. Specific contacts for references will be supplied upon request.

Section 4

REPRESENTative projects

4.1 Natural Resource planning

LCA prepares resource and land management plans for parks, open space preserves, watersheds, and private properties. We have prepared a model fire management plan for the urban/wildland interface. We also conduct all types of ecological analyses of wildlife, vegetation, and other natural resources. Some of these types of studies are summarized below.

On-Call Service Contracts for Planning Services and CEQA Compliance

LCA is part of a consulting team led by Questa Engineering Corp. that has been awarded contracts for a 3-year period starting in 2014. One contract is with the Sonoma County Agricultural Preservation and Open Space District and the second is with the Sonoma County Regional Parks Department. LCA will be handling all CEQA-related projects, regulatory compliance, resource management plans, weed control plans, and fire management plans for both agencies.

UCSF Mt. Sutro Management Plan

LCA provided the analysis of the costs and benefits of including herbicide use in managing the Sutro Forest, an open space located above the main University of California San Francisco medical center. This hilltop preserve was overgrown with eucalyptus and other invasive trees and shrubs. UCSF prepared a draft management plan to remove and manage invasive species. LCA prepared the risk assessment of using herbicides as part of the management plan.

Vegetation Management Plan Update for the Mount Tamalpais Area

LCA recently completed the Vegetation Management Plan Update for the Marin Municipal Water District. It addresses the three watersheds (20,000 acres) owned by the District. This plan addresses managing vegetation to reduce fire hazard, given that the district borders hundreds of homes in southern Marin County. The fire hazard element is an update of the 1995 plan that we prepared (see the following project example). This plan update focuses extensively on the District's aim to control French broom and other invasive weeds. Broom currently inhabits about 1,500 acres of the main watershed and is expanding. The District was using herbicide to control the spread of the weed, but decided in the light of public opposition to suspend use of herbicides. A major purpose of this plan is to examine the environmental hazards and impacts of herbicide use (1,000 page risk assessment) and to compare these impacts and costs to control techniques that do not include the use of herbicides. This project is undergoing substantial public scrutiny. The team includes biologists, environmental chemists, pest control advisors, and weed control experts.

1995 Vegetation Management Plan for the Mount Tamalpais Area

LCA was hired to prepare a detailed Vegetation Management Plan and the EIR for that Plan on 21,000 acres belonging to the Marin Municipal Water District and the Marin County Open Space

District. A primary goal of this Plan was to determine measures required to decrease the fire hazard on the Study Area which includes over seven miles of interface with residential areas. The Districts were extremely concerned about the potential for wildfire starting on or crossing their property and destroying expensive residences in the interface. Additional concerns addressed in the Plan include potential wildfire damage to the watershed, water quality, sensitive plant and wildlife species, views, and recreational resources. The Plan was prepared by a team of 16 specialists in the areas of fire ecology, forestry, botany, wildlife biology, geology, hydrology, etc. The Plan includes detailed recommendations (with working maps showing the locations of recommended actions) on ways to decrease the existing fire hazard, remove exotic species like broom, restore native grasslands and oak woodlands, and other vegetation-related concerns. The Plan includes a full legal review of liability issues, further development of the GIS installed as part of the Baseline Studies (see above), and preparation of a new digitized orthophoto for the Study Area. A full EIR on the Plan was prepared contemporaneously with Plan preparation. A full, formal public participation process including interviews, newsletters, press releases, community workshops, and a community survey were included due to the controversial nature of certain fire hazard reduction methods (e.g., prescribed burning). In December, 1998, this plan was awarded the Theodore Roosevelt Environmental Award for Excellence by the California Association of California Water Agencies.

Sacramento Metropolitan Fire District Community Wildfire Protection Plan

In 2014, LCA assisted Wildland Resource Management in their preparation of a Community Wildfire Protection Plan for the Sacramento Metropolitan Fire District that provides fire protection to 640,000 people inhabiting 417 square miles.

Sea Ranch Fire Plan

LCA teamed with Wildland Resource Management to prepared an update to the fire management plan for the unincorporated community of Sea Ranch on the northern Sonoma County coast. The plan identified fuelbreaks and other vegetation management needed to reduce fire hazard in this world-renowned community.

Mount Tamalpais Road Study

4.2 PARKS AND OPEN SPACE

LCA prepares Land Management Plans for all types of parks and open space preserves. This includes identification of trail routes and trail construction techniques.

Cascade Canyon and White Hill Open Space Preserves Land Management Plan

LCA prepared a land management plan and EIR for these two adjacent preserves owned and operated by the Marin County Open Space District. In addition to assessing the condition of natural resources on the preserves, the plan contains a detailed fire management plan, since the preserves border the Town of Fairfax which includes hundreds of homes in the wildland/urban interface. The plan also provides considerable detail on current and future trail use because of the significant controversy over bicycle use on the preserves. The preserves include Repack Road which is considered the birthplace of mountain biking.

Lafferty Ranch Park

LCA was contracted to prepare a Constraints and Opportunities Report for the potential development of a regional park on a 280-acre parcel on the west slope of Sonoma Mountain. We then prepared a Draft Management Plan for the proposed park and completed an EIR on that Draft Plan. This park was an extremely controversial project as a number of the neighboring landowners were opposed to public access to the area. The City hired us with the understanding that legal challenges to the project were likely. As such, we prepared detailed analyses of golden eagle use of the site, other Special Status animals and plants, geologic hazards, water quality impacts, traffic safety, the potential for crimes, fire hazard, and aesthetics. Our plan included development of cost estimates for trail construction and other infrastructure improvements.

Terra Linda/Sleepy Hollow Divide Open Space Management Plan

LCA prepared a comprehensive Master Plan for managing a 1,500-acre open space preserve jointly owned by the City of San Rafael and the Marin County Open Space District. The plan investigated all areas of management and the impacts resulting from several management options. Particular attention was given to fire management (including a Fire Management Plan), grazing (including a Grazing Management Plan), slope stability, and public access and use. A full cost analysis was prepared for all Plan recommendations. The Plan was adopted and is currently being used to guide land uses and implementation of improvements on the property.

McInnis Park

LCA prepared a Mitigated Negative Declaration for proposed improvements (including a skateboard park) to an existing park in Marin County. The report was prepared for the Marin County Open Space District.

Russian River Recreation and Parks Master Plan

LCA prepared a comprehensive update of the Master Plan for this special district. The plan identified what facilities and programs were needed and how they could be developed and funded.

Section 5

Resumes

LEONARD CHARLES, Ph.D.

Mr. Charles is a professional environmental planner and cultural ecologist with more than thirty-seven years of experience in environmental and sociocultural consulting. He is a founding partner of Leonard Charles and Associates.

PROFESSIONAL EXPERIENCE

- | | |
|--------------------|---|
| 1977 to
Present | Project Manager, Leonard Charles and Associates
<u>Professional Responsibilities:</u> Project management; analysis of public service infrastructure; land use analysis; community surveying; assessment of agricultural and land use strategy for resource areas in Northern California; environmental planner; reclamation analysis; and park and recreation analyst. |
| 1986 to
1989 | Lecturer in Anthropology and History, Cazadero Academy
<u>Professional Responsibilities:</u> Taught courses in anthropology and history. |
| 1977 | Lecturer in Anthropology, Sonoma State University
<u>Professional Responsibilities:</u> Taught course on the ecology of hunting and gathering societies. |
| 1970 to
1971 | Lecturer in Anthropology and Sociology, Santa Rosa Junior College
<u>Professional Responsibilities:</u> Taught introductory courses in cultural anthropology and sociology. |
| 1968 to
1976 | Researcher, Department of Anthropology, University of California, Berkeley
<u>Professional Responsibilities:</u> Conducted research for U.C. professors on a variety of subjects and projects including: the cultural ecology of the Philippine Islands; intermediation in the Philippines; social organization in the Gilbert Islands; the ecology of home gardens in Southeast Asia; trade patterns in Malaysia; and the sociology of corruption. |
| 1971 to
1982 | Sheeprancher, Charles Ranch, Sonoma County
<u>Professional Responsibilities:</u> Operation of a sheep ranch on 800 acres in Northern California. |
| 1969 to
1970 | Lecturer in Anthropology and Sociology, Santa Rosa Junior College
<u>Professional Responsibilities:</u> Taught introductory courses in cultural anthropology and sociology in the Evening College. |

EDUCATION

- Ph.D. Anthropology, University of California at Berkeley, 1976; (field emphases were cultural ecology, demography, and rural American society).
- M.A. and B.A., Anthropology, University of California at Berkeley, 1968 and 1969.
- Independent Study in Systematics (ten-month course), International Academy for Continuous Education, Sherborne, England, 1974-75.

ASSOCIATIONS

- Full member of the Society of American Foresters.
- Full member of the Association of Environmental Professionals.
- Full member of the American Anthropological Association.
- Associate member of the State Bar of California, Environmental Section
- Member of the Town of San Anselmo Open Space Committee, 1994 to present.

PUBLICATIONS

- Author of over 100 EIRs plus numerous other consulting reports.
- *Rural Life in Northern California: A Study of Communal Life Patterns*, 1976. U.C. Berkeley (Ph. D. Thesis, 550 pp.).
- "Simple Poisons," 1980. *Upriver/Downriver*, No. 2 (article on herbicide use in Mendocino County).
- "Home on the Range," 1981. First printed in *Upriver/Downriver*, No. 4; reprinted in *Rain* magazine, 1981; reprinted in *City/Country Miner*, 1982 (an anthology of Northern California writers), (article on problems of coyotes and sheep ranching).
- "Observations on the Concept of Place," 1982. *Impressions*, No. 6 (article on ecological implications of the concept of place).
- "Where You At?" 1981. *CoEvolution Quarterly*, No. 32; reprinted in over 90 other magazines and journals. Co-written with Jim Dodge, Victoria Stockley, and Lynn Milliman. Recently described as the most reprinted article on bioregionalism ever written.
- "Social and Environmental Issues in Developing Vegetation and Fire Management Plans." 1995. *The Biswell Symposium; Fire Issues and Solutions in the Urban Interface and Wildland Ecosystems*, David Weise and Robert Martin (technical coordinators); Gen. Tech. Report BW-GTR-158, Albany, CA, 199 pp.

LYNN MILLIMAN

Lynn Milliman is a professional environmental planner and anthropologist. She has thirty-seven years of experience preparing environmental and planning reports. She is a founding partner of Leonard Charles and Associates.

PROFESSIONAL EXPERIENCE

- | | |
|--------------------|--|
| 1977 to
Present | Project Manager, Leonard Charles and Associates.
<u>Professional Responsibilities:</u> Project management; community surveying; environmental assessment; public schools analyst; visual quality analyst; computer mapping, and graphics. |
| 1968 to
1970 | Researcher, University of California, Berkeley.
<u>Professional Responsibilities:</u> Conducted research on a variety of projects including social structure in Vietnam. |
| 1964 to
1966 | Computer Programmer, Systems Analyst, and Assistant Manager, Glen Slaughter and Associates, Computer Processing Division, Oakland.
<u>Professional Responsibilities:</u> In charge of devising computer programs for numerous projects. As assistant manager oversaw work of computer programmers. |

EDUCATION

- M.A., Anthropology, University of California at Berkeley, 1969 (completed doctoral orals but has not submitted thesis).
- B.A., Anthropology, University of California at Berkeley, 1968.
- Two years' graphics training, California College of Arts and Crafts, 1957-58.

PUBLICATIONS

- "Mono Lake Drainage," 1981. *Upriver/Downriver*, No. 4 (article on ecology of Mono Lake).
- "Where You At?" 1981. *CoEvolution Quarterly*, No. 32; reprinted in over 90 other magazines and journals. Co-written with Jim Dodge, Victoria Stockley, and Lynn Milliman. Recently described as the most reprinted article on bioregionalism ever written.

JACOBA MARIA CHARLES

EXPERIENCE

- **Leonard Charles and Associates**, San Anselmo, Calif.: 2000-2003 and January 2008 – present
Project management, biological assessments, technical writing and editing, bid proposal development and data collection.
- **Northwest Science**, 2013 – Present
Technical editor for a peer-reviewed scientific journal publishing original papers originating in or relevant to the northwestern United States, including Northern California. I am responsible for editing content and structure of articles on natural and general science topics, including ecology, biology, botany, fisheries, forestry, and anthropology
- **Point Reyes Light**, Point Reyes Station, Calif.: June 2007 – November 2008
Reporter focused on science and natural resources issues.
- **Restoration Logistics**, Seattle, Wash.: 2003 – 2005
Project manager and wetland ecologist. Designed restoration projects; developed bid proposals and project reports; represented company at meetings and conferences; directed field crew.
- **Independent Biological Consultant**, Seattle, Wash.: 2001 – 2005
Provided botanical assessments on contract to environmental consulting firms in California and Washington. Experience includes vegetation mapping for fire management plans, species inventories using Rarefind software, and technical editing of Environmental Impact Statements.
- **University of Washington Fisheries Department**, Aleknagik, Alaska: June - August 2000
Field Scientist. Collected sockeye salmon run data beginning in a cannery on the Alaska Peninsula. Rugged fieldwork, living in a tent accessible only by boat and bush plane.
- **Center for Urban Horticulture**, Seattle, Wash.: 1998 – 1999
Restoration Coordinator. Maintained and developed urban natural area; coordinated volunteers; collected and planted native seed.

EDUCATION

- **Columbia University Department of Earth and Environmental Sciences**
M.A, May 2007.
- **Columbia University Graduate School of Journalism**
M.S., May 2007.

- University of Washington Department of Botany
B.S., March 2003. Emphasis on ecology, with a minor in wildlife science
- Awards
National Newspaper Association: honorable mention for best feature series (circulation less than 4,500), 2008; National Newspaper Association: co-winner for best investigative or in-depth story or series (circulation less than 4,500), 2008; Horgan Prize for excellence in critical science writing, 2007 (Columbia University Graduate School of Journalism); scholarship for academic achievement in earth and environmental science, 2006 (Columbia University Department of Earth and Environmental Sciences); Mary Garrett Hayes scholarship for academic achievement in botany, 2003 (University of Washington).

PROFESSIONAL AFFILIATIONS

- Society of Environmental Journalists
- Ecological Society of America.
- National Writers Union

SELECTED PUBLICATIONS

- Bay Nature: *Sedimental journey: the uncertain future of Bolinas Lagoon* (2011) and *Making a PLAN for Badgers* (2010).
- Marin Magazine: *The wildfire next time* (2010) and *A matter of degrees* (2010).
- SolveClimate.com Magazine: *Oil pooling elbow deep under the sand of Grand Isle* (2010); *For oyster industry, gulf oil disaster is far from over* (2010); *Louisiana fishermen slam claims that oil almost gone, seafood safe* (2010); *Tribal youth group rises to fight problems exacerbated by oil spill* (2010); *Alabama shipbuilding town reels under drilling moratorium* (2010); *Activist leaders take whirlwind tour of gulf* (2010); *Alabama's sea turtle eggs relocated in massive rescue* (2010); and *Oil spill troubles multiply within Vietnamese fishing community* (2010).
- Salon.com Magazine: *Will the salmon be back in 2009?* (2009) and *Will America's parks be his oyster?* (2009).

Plenty Magazine: *Asphalt as a source of solar energy* (2009) and *San Francisco closes the lid on garbage* (2008)
- Point Reyes Light. Over 200 articles published (2007-2009).
- *The effects of Elymus virginicus seeding versus weed-control fabric on the recovery of native vegetation in an urban restoration project*. Ecological Society of America poster (2007).
- New York Times: *Longtime emblems of city roofs, still going strong* (2007).
- *From family to flames, and home again: how household garbage becomes electricity*. Columbia University Graduate School of Journalism Masters Thesis. 2007; Horgan Science Writing award winner (2007).

- *A comparison of the effects of Elymus virginicus seeding versus installation of weed-control fabric on Polygonum cuspidatum control, understory species richness and growth of planted materials in an urban restoration project in the Bronx.* Masters Thesis, Columbia University Department of Earth and Environmental Sciences (2006).
- *Distribution of the Podocarpaceae within the Northern Pacific Rim.* Mary Gates Undergraduate Research Symposium Presentation (2003).

7. OFFER/COST PROPOSAL APPENDIX D PRICING PAGE

Proposal Costs - The fee information is relevant to a determination of whether the fee is fair and reasonable in light of the services to be provided. This section shall include the proposed costs to provide the services as described in your proposal. The pricing provided below should include all administrative and support costs. Any additional fees outside the scope of the agreement must be approved by the OCFA in writing before commencing services for said fees.

DESCRIPTION	# of Hours	Cost
Task 1 – Review of Existing Information	88	\$ 12,220
Task 2 – Collection of Data and Analysis	216	\$ 24,100
Task 3 – Outreach	132	\$ 16,940
Task 4 – CWPP Development and Publication	280	\$ 33,600
Additional costs		\$ 2,700
	Total Cost	\$89, 560

Government Rates

It is expected that all vendors responding to this solicitation will offer the firm's government or most favorable comparable rates. The proposer's cost proposal must describe how future price increases will be minimized and capped and how both decreases and increases will be passed on to the OCFA if the contract is renewed after the initial term. The proposer must explain the proposed process to implement price changes, what factors are utilized to determine the increase, and how the OCFA will be notified. Please provide further details below:

_____ This is a fixed fee price and is not subject to price increases.

Is your pricing based on a cooperative contract? Yes ____ No X, if so, which agency and contract is the pricing based on? _____

“PIGGYBACK” CLAUSE Offeror shall indicate below if he will extend the same prices, terms, and conditions of the proposal to other public agencies: Yes X No ____ Offer's response to this question will not be considered in award of contract. When the Offeror extends the prices, terms, and conditions of this proposal to other public agencies, the contract shall be between Offeror and the other agencies, and the Orange County Fire Authority shall bear no responsibility or liability for the contracts.

Payment Discount: Discount for payment of invoice within **20 days** of receipt is: 0 %. Payment discounts of 20 or more days will be considered in award of proposal.

Term of Offer: It is understood and agreed that this offer may not be withdrawn for a period of **one hundred eighty days** (180) from the Proposal Submittal Deadline, and at no time in case of successful Offeror.

APPENDIX E - CERTIFICATION OF PROPOSAL

In responding to **RFP RO2061**, the undersigned Offeror(s) agrees to provide services for OCFA per the specifications. Offeror further agrees to the terms and conditions specified herein the following terms and conditions that are a part of this proposal and any resulting contract. **If there are any exceptions they must be stated in an attachment included with the offer.**

- A. The Offeror hereby certifies that the individual signing the submittal is an authorized agent for the Offeror and has the authority to legally bind the Offeror to the Contract. Signature below verifies that the Offeror has read, understands, and agrees to the conditions contained herein and on all of the attachments and agenda.
- B. The submission of the offer did not involve collusion or other anti-competitive practices.
- C. The Offeror has not given, offered to give, nor intends to give at any time hereafter, any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor, meal or service to a public servant in connection with the submitted offer.
- D. **The Offeror has submitted the Party, Participant (Agent) Disclosure Form if applicable.**
- E. The Offeror shall not discriminate against any employee or applicant for employment in violation of Federal or State law.
- F. The Offeror complies fully with the Federal Debarment Certification regarding debarment suspension, ineligibility and voluntary exclusion.

Independent Price Determination: I certify that this offer is made without prior understanding, arrangement, agreement, or connection with any corporation, firm or person submitting an offer for the same services, and is in all respects fair and without collusion or fraud. I certify that I have not entered into any arrangement or agreement with any Orange County Fire Authority public officer. I understand collusive bidding is a violation of State and Federal law and can result in fines, prison sentences, and civil damage awards. I agree to abide by all conditions of this offer and certify that I am authorized to sign this agreement for the Offeror.

TO THE ORANGE COUNTY FIRE AUTHORITY:

The Undersigned hereby offers and shall furnish the services in compliance with all terms, scope of work, conditions, specifications, and amendments in the Request for Proposal which is incorporated by reference as fully set forth herein. The representations herein are made under penalty of perjury.

Wildland Res Mgt

Name of Firm

316 California Ave, #68

Address

Reno

NV

89509

City

State

Zip

Signature of Person Authorized to Sign

Date

Guy L. Gettle

August 26, 2015

President

Printed Name

Title

The following is a detail of labor allocation per task.

Task Name	Carol Rice Labor Hours	Cheryl Miller Labor Hours	LCA Labor Hours	Esther Mandeno Labor Hours	Tot Level of Effort (Hrs)
Task 1. Review of Existing Information	60	20		8	88
Task 2. Collection of Data and Analysis	140	20	16	40	216
Task 3. Outreach	60	40	16	16	132
Task 4. CWPP Development and Publication	140	40	60	40	280
Additional Costs					
TOTAL	400	120	92	104	716

Request for Taxpayer Identification Number and Certification

Give Form to the
requester. Do not
send to the IRS.

Print or type
See Specific Instructions on page 2.

Name (as shown on your income tax return)

Wildland Res Mgt

Business name/disregarded entity name, if different from above

Check appropriate box for federal tax classification:

☐ Individual/sole proprietor ☒ C Corporation ☐ S Corporation ☐ Partnership ☐ Trust/estate

☐ Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=partnership) ▶

☐ Other (see instructions) ▶

Exemptions (see instructions):

Exempt payee code (if any) _____

Exemption from FATCA reporting
code (if any) _____

Address (number, street, and apt. or suite no.)

316 California Ave., Suite 68

City, state, and ZIP code

Reno, NV 89509

List account number(s) here (optional)

Requester's name and address (optional)

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on the "Name" line to avoid backup withholding. For individuals, this is your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

Note. If the account is in more than one name, see the chart on page 4 for guidelines on whose number to enter.

Social security number

____ - ____ - ____

Employer identification number

4 6 - 3 3 3 3 8 4 3

Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me), and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding, and
3. I am a U.S. citizen or other U.S. person (defined below), and
4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions on page 3.

Sign
Here

Signature of
U.S. person ▶

Date ▶

MARCH 2, 2015

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. The IRS has created a page on www.irs.gov/w9 for information about Form W-9, at www.irs.gov/w9. Information about any future developments affecting Form W-9 (such as legislation enacted after we release it) will be posted on that page.

Purpose of Form

A person who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) to report, for example, income paid to you, payments made to you in settlement of payment card and third party network transactions, real estate transactions, mortgage interest you paid, acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA.

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN to the person requesting it (the requester) and, when applicable, to:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
2. Certify that you are not subject to backup withholding, or
3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the

withholding tax on foreign partners' share of effectively connected income, and

4. Certify that FATCA code(s) entered on this form (if any) indicating that you are exempt from the FATCA reporting, is correct.

Note. If you are a U.S. person and a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien,
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States,
- An estate (other than a foreign estate), or
- A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax under section 1446 on any foreign partners' share of effectively connected taxable income from such business. Further, in certain cases where a Form W-9 has not been received, the rules under section 1446 require a partnership to presume that a partner is a foreign person, and pay the section 1446 withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid section 1446 withholding on your share of partnership income.

9. Party Participant and Agent Disclosure Forms

None of the Firms or Individuals mentioned in this Proposal have made any contributions to any Orange County Board member or his or her alternate.

**Best and Final Pricing Response
Wildland Res Mgt**

The pricing offered in your response included \$2,700 which was described as additional costs. OCFA would like additional information regarding what is included in this item.

Wildland Res Mgt estimated \$2,700 as travel costs to cover the air fare, rental car and lodging. This includes at least 4 on-site visits to conduct stakeholder meetings, plus trips necessary for meeting between OCFA and Wildland Res Mgt, and to present the final CWPP. Finally, these trips will be necessary to become fully familiar with the natural and built environment to be addressed by the CWPP.

Carol Rice will travel for all such meetings; in addition, Cheryl Miller is anticipated to attend at least one of the stakeholder meetings. While we will attempt to schedule meetings well in advance so as to get less costly fares, we anticipate at least one meeting to be on short notice due to changes in schedule.

Please verify that additional adjacent areas and perimeter communities based on buffer zones are to be included in the project and provide additional clarification that areas outside of OCFA's jurisdiction but fall within this buffer zone are also included.

Wildland Res Mgt will map and characterize the physical attributes of areas within a buffer outside OCFA's jurisdiction. We anticipate the width of the buffer to be the expected spotting distance (likely around 1000 feet, but if it is larger, a wider buffer will be established). The physical attributes inside the buffer zone will be described, analyzed and rated the same way as inside OCFA's jurisdiction. Any risk assessments based on these physical attributes would extend to the buffer areas.

What is not included in this cost is the description of the communities outside OCFA's jurisdiction, recommendations for projects and inclusion of projects in the action plan. Stakeholders from the buffer areas would not be identified by Wildland Res Mgt but participants requested by OCFA could attend the meetings.

Any additional information you would like OCFA to consider.

If the entirety of the additional adjacent areas and perimeter communities are included in the buffer zone there would be overall efficiencies to simply fold them into the CWPP process as if they were within OCFA's jurisdiction. However, there are additional costs to becoming familiar with and describing the communities, identifying stakeholders and potential projects, and expanding the action plan to include the projects.

If OCFA would like to include the additional adjacent areas and perimeter communities in the process from the outset, Wildland Res Mgt estimates the additional costs would be \$10,000. Wildland Res Mgt is able to perform the additional proposed scope of work.

Wildland Res Mgt agrees to the standard terms in the Professional Services Agreement provided in the RFP.

**ORANGE COUNTY FIRE AUTHORITY
AMENDMENT NUMBER ONE
TO PROFESSIONAL SERVICES AGREEMENT**

THIS AMENDMENT NUMBER ONE TO PROFESSIONAL SERVICES AGREEMENT ("Amendment One") is made and entered into this 17th day of May, 2016, by and between the Orange County Fire Authority, a public agency, hereinafter referred to as "OCFA", and Wildland Resource Management, hereafter referred to as "Firm".

RECITALS

WHEREAS, OCFA and the Firm entered into that certain Professional Services Agreement on the 16th day of November, 2015, for the development of a Community Wildfire Protection Plan (CWPP) ("Agreement"), which is incorporated herein by this reference:

WHEREAS, OCFA has requested additional areas to be included in the CWPP;

WHEREAS, Firm has submitted to OCFA an updated pricing page dated April, 2016, a copy of which is attached hereto as Attachment 1 providing additional pricing and task information for the requested services and is incorporated herein by this reference; and

WHEREAS, both parties desire to amend the Agreement to increase the total contract value of \$89,560 by \$4,500 for additional areas to be included into the CWPP for a new not to exceed amount of \$94,060.00.

NOW, THEREFORE, OCFA and the Firm mutually agree as follows:

1. Section 1.1 of the Agreement is hereby amended and restated in its entirety to read as follows:

1.1 Scope of Services.

In compliance with all terms and conditions of this Agreement, Firm shall provide those services specified in the "Proposal" attached hereto as Exhibit "A" and incorporated herein by reference. The Scope of Services includes by reference and by addendum: (1) OCFA's Request for Proposal, RFP #RO2061, dated August 27, 2015 ("RFP"), Addendum 1 dated August 13, 2015; (2) Firm's response to OCFA's RFP dated August 27, 2015 and its Best and Final Offer submitted to OCFA on November 3, 2015; (3) Updated Pricing page dated April, 28, 2016, attached hereto as Attachment 1 and (4) any amendments, addendums, change orders, or modifications mutually agreed upon by the parties hereto. In the event of any inconsistency between the terms contained in Exhibit "A" or the Scope of Services, and the terms set forth in the main body of this Agreement, the terms

set forth in the main body of this Agreement shall govern. Firm warrants that all services shall be performed in a competent, professional and satisfactory manner in accordance with all standards prevalent in the industry.

2. Section 3.1 of the Agreement is hereby amended and restated in its entirety to read as follows:

3.1. Compensation of Firm.

For the services rendered pursuant to this Agreement, Firm shall be compensated and reimbursed: (1) in accordance with the terms set forth in Exhibit "A" in an amount not to exceed \$89,560.00, as described in Exhibit "A"; and (2) in accordance with the terms set forth in Attachment 1 to Exhibit "A" in an amount not to exceed \$4,500.00.

3. The Updated Pricing page, dated April 28, 2016, attached hereto as Attachment 1, is hereby added to and made a part of the Agreement as Attachment 1 to Exhibit "A".

4. Except as expressly modified above, all terms and conditions of the Agreement shall remain unchanged and in full force and effect.

5. The persons executing this Amendment One on behalf of the parties hereto warrant that they are duly authorized to execute this amendment on behalf of said parties and that by so executing this amendment the parties hereto are formally bound to the provisions of this Amendment One.

[Signatures on Following Page]

IN WITNESS WHEREOF, the parties have executed this Amendment One as of the dates stated below.

"OCFA"

ORANGE COUNTY FIRE AUTHORITY

Date: May 11, 2016

By: Debbie Casper

Debbie Casper, Purchasing Manager

"FIRM"

Wildland Resource ^{Mgt} Management

Date: May 5, 2016

By: Carol Rice

Carol Rice, General Manager

ATTACHMENT "1"

Updated Pricing Page for Orange County Community Wildfire Protection Plan

Wildland Res Mgt
316 California Ave. #68, Reno NV 89509

(925) 944-5282
carollrice@aol.com

April 28, 2016

UPDATED PRICING
Orange County Community Wildfire Protection Plan

The following pricing includes additional costs for areas in LRA to be included in the CWPP. This details the activities, tasks, labor requirements and additional costs for the expanded contract scope of work.

Task # in Grant	Task Description	# of Hours	Cost
Task 1	Review existing information regarding the additional LRA areas (spatial data, general plans that might apply, homeowner groups in area)	4	\$500
Task 2	Gather the spatial, organizational and environmental information specific to the additional LRA areas. Determine need and strategy for outreach. Develop maps of the added area that serve as a base map, and that portray the wildland urban area and the level of wildfire risk.	10	\$1250
Task 3	Confirm maps and characteristics, gather project ideas specific to additional LRA areas	6	\$750
Task 4	Creation of an appendix specific to the added area. This appendix will depict in text the natural, built, and regulatory environment, and will describe the emergency response capabilities that might not otherwise be included in the CWPP. The appendix will also describe strategic goals and specific projects that could reduce the wildfire risk facing the areas included in the LRA.	16	\$2000

COMMUNITY WIDE PROTECTION PLAN CONSULTING SERVICES		
DESCRIPTION	# of Hours	Cost
Task 1 – Review of Existing Information	4	\$500
Task 2 – Collection of Data and Analysis	10	\$1250
Task 3 – Outreach	6	\$750
Task 4 – CWPP Development and Publication	16	\$2000
Additional costs	0	\$0
	Total Cost	\$4500

Thank you for this opportunity to offer a cost quote to expand the boundary of the CWPP to include additional areas within incorporated cities.

Wildland Res Mgt
316 California Ave. #68, Reno NV 89509

(925) 944-5282
carollrice@aol.com

April 28, 2016

UPDATED PRICING
Orange County Community Wildfire Protection Plan

The following pricing includes additional costs for areas in LRA to be included in the CWPP. This details the activities, tasks, labor requirements and additional costs for the expanded contract scope of work.

Task # in Grant	Task Description	# of Hours	Cost
Task 1	Review existing information regarding the additional LRA areas (spatial data, general plans that might apply, homeowner groups in area)	4	\$500
Task 2	Gather the spatial, organizational and environmental information specific to the additional LRA areas. Determine need and strategy for outreach. Develop maps of the added area that serve as a base map, and that portray the wildland urban area and the level of wildfire risk.	10	\$1250
Task 3	Confirm maps and characteristics, gather project ideas specific to additional LRA areas	6	\$750
Task 4	Creation of an appendix specific to the added area. This appendix will depict in text the natural, built, and regulatory environment, and will describe the emergency response capabilities that might not otherwise be included in the CWPP. The appendix will also describe strategic goals and specific projects that could reduce the wildfire risk facing the areas included in the LRA.	16	\$2000

COMMUNITY WIDE PROTECTION PLAN CONSULTING SERVICES		
DESCRIPTION	# of Hours	Cost
Task 1 – Review of Existing Information	4	\$500
Task 2 – Collection of Data and Analysis	10	\$1250
Task 3 – Outreach	6	\$750
Task 4 – CWPP Development and Publication	16	\$2000
Additional costs	0	\$0
	Total Cost	\$4500

Thank you for this opportunity to offer a cost quote to expand the boundary of the CWPP to include additional areas within incorporated cities.

Ong, Rothchild

From: carollrice@aol.com
Sent: Thursday, April 28, 2016 1:03 PM
To: Ong, Rothchild
Subject: Re: Updated quote for CWPP Extension

Hi Roth,

Here is more detail regarding the additional costs to include the LRA areas, organized per the contract. I offer what will be produced in each Task in text form, then summarize it for the updated cost quote.

As always, please continue to contact me if questions arise.

Cheers!

Carol

Task # in Grant	Task Description	# of Hours	Cost	
Task 1	Review existing information regarding the additional LRA areas (spatial data, general plans that might apply, homeowner groups in area)	4	\$500	\$125 vs \$138.86
Task 2	Gather the spatial, organizational and environmental information specific to the additional LRA areas. Determine need and strategy for outreach. Develop maps of the added area that serve as a base map, and that portray the wildland urban area and the level of wildfire risk.	10	\$1250	\$125 \$1115.7
Task 3	Confirm maps and characteristics, gather project ideas specific to additional LRA areas	6	\$750	\$125 \$128.33
Task 4	Creation of an appendix specific to the added area. This appendix will depict in text the natural, built, and regulatory environment, and will describe the emergency response capabilities that might not otherwise be included in the CWPP. The appendix will also describe strategic goals and specific projects that could reduce the wildfire risk facing the areas included in the LRA.	16	\$2000	120

COMMUNITY WIDE PROTECTION PLAN CONSULTING SERVICES		
DESCRIPTION	# of Hours	Cost
Task 1 – Review of Existing Information	4	\$500
Task 2 – Collection of Data and Analysis	10	\$1250
Task 3 – Outreach	6	\$750
Task 4 – CWPP Development and Publication	16	\$2000
Additional costs	0	\$0
	Total Cost	\$4500

-----Original Message-----

From: Ong, Rothchild <rothchildong@ocfa.org>

To: carollrice <carollrice@aol.com>

Sent: Thu, Apr 28, 2016 10:03 am

Subject: Updated quote for CWPP Extension

Good Morning,

I was reviewing the quote for the additional areas to be covered by the CWPP and needed some additional information:

Would you be able to break the additional \$4,500 cost down using the same format as the RFP and provide an updated quote? We are looking to issue an addendum to the contract to add the additional services and need the pricing information to record the increase and provide with the amendment.

COMMUNITY WIDE PROTECTION PLAN CONSULTING SERVICES		
DESCRIPTION	# of Hours	Cost
Task 1 – Review of Existing Information		\$
Task 2 – Collection of Data and Analysis		\$
Task 3 – Outreach		\$
Task 4 – CWPP Development and Publication		\$
Additional costs		\$
	Total Cost	

Thank you very much

Roth

Orange County Fire Authority

1 Fire Authority Road, Irvine, CA 92602

BLANKET ORDER

DATE: 5/13/16

PURCHASE ORDER #: B01635 - 1 Change Notice

VENDOR: @00007891
WILDLAND RESOURCE MANAGEMENT
316 CALIFORNIA AVE. SUITE 68
RENO NV 89509

SHIP TO: *P.O. # must appear on all packages & correspondence.*
KIM GOMI
1 FIRE AUTHORITY ROAD
SERVICE CENTER
IRVINE CA 92602

Delivery Hours: 7am - 12pm and 1pm - 4pm

PHONE: 925-944-5282

FAX:

FOB: DESTINATION

CONTRACT TERM: 11/16/15 - 03/15/17

BUYER: ROTHCHILD ONG @ 714-573-6642

TERMS: NET 30 DAYS

Item	Description	Total Amount
	<p>THIS BLANKET ORDER IS ISSUED FOR CONSULTING SERVICES FOR THE DEVELOPMENT OF A COUNTY-WIDE WILDFIRE PROTECTION PLAN (CWPP) PER PROFESSIONAL SERVICES AGREEMENT DATED NOVEMBER 16, 2015, AMENDMENT NUMBER ONE DATED MAY 11, 2016, RESPONSE TO RFP: RO2061, AND BEST AND FINAL OFFER DATED: NOVEMBER 3, 2015.</p> <p>THE DUE DATE FOR ALL GRANT RELATED ACTIVITY IS MARCH 15, 2017.</p> <p>CONTRACT AMOUNT NOT-TO-EXCEED: \$89,560.00</p> <p>VENDOR MUST COMPLY WITH FEDERAL EMERGENCY AGENCY REGULATIONS 44 CFR CH1 (10-1-03 EDITION) WHICH SPECIFICALLY INCLUDES CONTRACT REGULATION OUTLINED IN CFR PART 13.36(i). VENDOR SHALL NOT BE ON THE EXCLUDED PARTIES SYSTEM (EPLS) AT: HTTPS://WWW.SAM.GOV</p> <p>INSURANCE ON FILE: G/L, FORESTRY-CONSULTING EXPIRE: 7/31/16; A/L EXPIRES: 4/20/16; WORKER'S COMPENSATION EXEMPT</p>	
		Amount

Authorized Signature:

Debbie Casper

RECEIVING COPY

Bill to: Accounts Payable P.O. Box 53008, Irvine, CA 92619-3008 (Include Federal Tax ID # on invoice)

Please acknowledge the terms and conditions on the reverse side.

1 Fire Authority Road, Irvine, CA 92602

DATE: 5/13/16

VENDOR: @00007891
WILDLAND RESOURCE MANAGEMENT
316 CALIFORNIA AVE. SUITE 68
RENO NV 89509

SHIP TO:
KIM GOMI
1 FIRE AUTHORITY ROAD
SERVICE CENTER
IRVINE CA 92602

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PHONE: 925-944-5282**FAX:**

FOB: DESTINATION

CONTRACT TERM: 11/16/15 - 03/15/17

BUYER: ROTHCHILD ONG @ 714-573-6642

TERMS: NET 30 DAYS

Authorized Signature:

Debbie Casper

RECEIVING COPY

Bill to: Accounts Payable P.O. Box 53008, Irvine, CA 92619-3008 (Include Federal Tax ID # on invoice)

Please acknowledge the terms and conditions on the reverse side.

**ORANGE COUNTY FIRE AUTHORITY
AMENDMENT NUMBER TWO
TO PROFESSIONAL SERVICES AGREEMENT**

THIS AMENDMENT NUMBER TWO TO PROFESSIONAL SERVICES AGREEMENT ("Amendment One") is made and entered into this ___ day of March, 2017, by and between the Orange County Fire Authority, a public agency, hereinafter referred to as "OCFA", and Wildland Resource Management, hereafter referred to as "Firm".

RECITALS

WHEREAS, OCFA and the Firm entered into that certain Professional Services Agreement on the 16th day of November, 2015, for the development of a Community Wildfire Protection Plan (CWPP) ("Agreement"), which is incorporated herein by this reference;

WHEREAS, OCFA and Firm amended the Agreement on May 11, 2016, to include additional areas to be included in the CWPP and provide additional funding of \$4,500 ("Amendment One");

WHEREAS, OCFA has requested outreach and education activities to be included as part of the CWPP;

WHEREAS, Firm has submitted to OCFA a proposal to perform outreach and education dated February 26, 2017, a copy of which is attached hereto as Attachment 1 providing additional pricing and task information for the requested services and is incorporated herein by this reference; and

WHEREAS, both parties desire to amend the Agreement to increase the total contract value of \$94,060 by \$19,900 for additional services requested for the CWPP for a new not to exceed amount of \$113,960.00.

NOW, THEREFORE, OCFA and the Firm mutually agree as follows:

1. Section 1.1 of the Agreement is hereby amended and restated in its entirety to read as follows:

1.1 Scope of Services.

In compliance with all terms and conditions of this Agreement, Firm shall provide those services specified in the "Proposal" attached hereto as Exhibit "A" and incorporated herein by reference. The Scope of Services includes by reference and by addendum: (1) OCFA's Request for Proposal, RFP #RO2061, dated August 27, 2015 ("RFP"), Addendum 1 dated August 13, 2015; (2) Firm's

response to OCFA's RFP dated August 27, 2015 and its Best and Final Offer submitted to OCFA on November 3, 2015; (3) Updated Pricing page dated April, 28, 2016, attached hereto as Attachment 1; (4) Proposal to Perform Outreach and Education dated February 26, 2017, attached hereto as Attachment 2 and (5) any amendments, addendums, change orders, or modifications mutually agreed upon by the parties hereto. In the event of any inconsistency between the terms contained in Exhibit "A" or the Scope of Services, and the terms set forth in the main body of this Agreement, the terms set forth in the main body of this Agreement shall govern. Firm warrants that all services shall be performed in a competent, professional and satisfactory manner in accordance with all standards prevalent in the industry.

2. Section 3.1 of the Agreement is hereby amended and restated in its entirety to read as follows:

3.1. Compensation of Firm.

For the services rendered pursuant to this Agreement, Firm shall be compensated and reimbursed: (1) in accordance with the terms set forth in Exhibit "A" in an amount not to exceed \$89,560.00, as described in Exhibit "A"; and (2) in accordance with the terms set forth in Attachment 1 to Exhibit "A" in an amount not to exceed \$24,400.00.

3. The Updated Pricing page, dated April 28, 2016, and Proposal to Perform Outreach and Education, dated February 26, 2017 attached hereto as Attachment 1, is hereby added to and made a part of the Agreement as Attachment 1 to Exhibit "A".

4. Except as expressly modified above, all terms and conditions of the Agreement shall remain unchanged and in full force and effect.

5. The persons executing this Amendment One on behalf of the parties hereto warrant that they are duly authorized to execute this amendment on behalf of said parties and that by so executing this amendment the parties hereto are formally bound to the provisions of this Amendment One.

[Signatures on Following Page]

IN WITNESS WHEREOF, the parties have executed this Amendment One as of the dates stated below.

“OCFA”

ORANGE COUNTY FIRE AUTHORITY

Date: _____

By: _____

Debbie Casper, Purchasing Manager

“FIRM”

Wildland Resource Management

Date: _____

By: _____

Carol Rice, General Manager

ATTACHMENT "1"

Updated Pricing Page for Orange County Community Wildfire Protection Plan



Orange County Fire Authority
AGENDA STAFF REPORT

Executive Committee Meeting
March 23, 2017

Agenda Item No. 4A
Discussion Calendar

March 2017 Legislative Report

Contact(s) for Further Information

David Thomas, Assistant Chief
Operations Department

davidthomas@ocfa.org

714.573.6012

Jay Barkman, Legislative Analyst

jaybarkman@ocfa.org

714.573.6048

Summary

This item is submitted to request direction on proposed amendments to SB 302 (D-Mendoza).

Prior Board/Committee Action

At the February 23, 2017, Executive Committee meeting, staff reported it will monitor and provide updates, as needed, on the status of SB 302 (D-Mendoza).

RECOMMENDED ACTION(S)

Direct OCFA staff to advise and provide input ensuring SB 302 (D-Mendoza) does not negatively impact revenues allocated to OCFA.

Impact to Cities/County

Not Applicable.

Fiscal Impact

Not Applicable.

Background

Senator Mendoza (D-Cerritos) introduced SB 302 on February 13, 2017, to restrict the use of property taxes allocated by the county to OCFA for fire protection. Orange County Professional Firefighters Association (OCPFA), Local 3631 and the Senator's staff have stated they are pursuing this legislation to "codify existing law" and protect structural fire fund dollars received from the County by OCFA. In its current form, the bill requires that OCFA "shall" use property taxes for "fire protection services."

We have received proposed amendments from OCPFA's lobbyist seeking input. Those amendments are attached and our review finds that the amendments may not conform to what we believe is existing law. We believe the amendment to restrict property taxes "deposited in that County's structural fire fund" implies that only those property taxes "deposited" must be allocated to OCFA. We believe this might be interpreted to imply the need for an affirmative act by the county to "deposit" those funds before they become "structural fire funds." As a result, we propose a "support, if amended" position to ensure the bill does not negatively impact revenues to OCFA. If approved, staff will engage OCPFA and its lobbyist to seek clearer protections of OCFA's existing SFF revenues.

Attachment(s)

SB 302 (Mendoza) Proposed Amendments

SENATE BILL**No. 302****Introduced by Senator Mendoza**

February 13, 2017

An act to amend Section 6503.1 of the Government Code, relating to joint powers.

LEGISLATIVE COUNSEL'S DIGEST

SB 302, as introduced, Mendoza. Joint powers agencies: fire protection: funds.

Existing law authorizes 2 or more public agencies, by agreement, to form a joint powers authority to exercise any power common to the contracting parties, as specified. Existing law authorizes the agreement to set forth the manner by which the joint powers authority will be governed. Existing law authorizes the board of supervisors of any county to contract with any local agency within the county or with the state for services relating to the prevention and suppression of fires. Existing law additionally requires property tax revenues of a county of the 2nd class that are allocated by that county to a joint powers agency formed for the purpose of providing fire protection to be used by that agency for fire protection purposes, as defined.


This bill would make a technical change to this provision.

Vote: majority. Appropriation: no. Fiscal committee: no. State-mandated local program: no.

The people of the State of California do enact as follows:

- 1 SECTION 1. Section 6503.1 of the Government Code is
- 2 amended to read: All
- 3 6503.1. (a) ~~When~~ property tax revenues of a county of the
- 4 second class ~~are~~ allocated by that county to an agency formed for

↑
deposited in that county's structural fire fund shall
be

1 the purpose of providing fire protection pursuant to this chapter,
2 **Those** funds ~~may only~~ *shall* be appropriated for expenditure by that
3 agency for fire protection purposes.  **and allocated**

4 (b) As used in this section, “fire protection purposes” means
5 those purposes directly related to, and in furtherance of, providing
6 fire prevention, fire suppression, emergency medical services,
7 hazardous materials response, ambulance transport, disaster
8 preparedness, rescue services, and related administrative costs.

9 (c) This section shall not be interpreted to alter any provision
10 of law governing the processes by which cities or counties select
11 providers of ambulance transport services.



Orange County Fire Authority
AGENDA STAFF REPORT

Executive Committee Meeting
March 23, 2017

Agenda Item No. 4B
Discussion Calendar

Award of RFP JA2148
Cardiac Monitor/Defibrillators and Automated External Defibrillators

Contact(s) for Further Information

Dave Thomas, Assistant Chief davidthomas@ocfa.org 714.573.6012
Operations Department

Robert Acosta, Battalion Chief robertacosta@ocfa.org 714.573.6071
Emergency Medical Services

Summary

This agenda item is re-submitted for approval to award a contract to Zoll Medical Corporation (Zoll), the number one ranked firm in the Request for Proposals (RFP) process, for the purchase of cardiac monitors/defibrillators and automated external defibrillators (AED), including necessary supplies and accessories for a five-year term.

Prior Board/Committee Action(s)

On July 28, 2016, the Executive Committee approved the sole source purchase of the extended warranty service to provide on-site repair and maintenance services for the current fleet of Zoll E-Series Advanced Life Support (ALS) monitors during the solicitation process.

On February 23, 2017, the Executive Committee directed staff to bring the item back at the March 23, 2017, meeting and to engage in concurrent discussions with the recommended vendor and the second ranked vendor.

RECOMMENDED ACTION(S)

1. Authorize the Purchasing Manager to issue a purchase order for the initial purchase of 120 cardiac monitor units and 180 automated external defibrillators (AED) units including accessories and supplies to Zoll, in the amount of \$3,128,247.20 (amount includes trade in credit of \$917,045 and end of year incentive discount of \$175,000, if purchase order is issued by 03/31/17).
2. Authorize the Purchasing Manager to issue a blanket order for a five-year term to Zoll, for the as-needed purchase of consumable supplies and accessories for a not to exceed amount of \$1,426,304.60 over the five-year term (\$285,260.92 annually).
3. Authorize the Purchasing Manager to utilize the contract pricing for future budgeted purchases of cardiac monitors and AED units during the five-year term, so long as the pricing is based on the Best and Final Offer pricing, which Zoll has agreed to hold throughout the term of the contract.

Impact to Cities/County

Not Applicable.

Fiscal Impact

Funding for the initial purchase is included in the approved FY 2016/17 budget. Significant savings have been realized for this purchase as a result of completing a competitive RFP process, and as further evidenced by the additional discounts offered during the Best and Final Offer portion of the process.

Background

At the February 23, 2017, Executive Committee meeting, staff recommended the award of a contract to Zoll for the purchase of cardiac monitors/defibrillators and AEDs, including necessary supplies and accessories for a five-year term. A link to the previous staff report is provided for reference as Attachment 4. The Executive Committee directed staff to bring the item back at the March 23, 2017, meeting and concurrently engage in discussions with the recommended vendor and the second ranked vendor. Answers to the questions asked by the Executive Committee are provided in Attachment 1.

A subsequent meeting with Zoll resulted in its full acceptance of the OCFA boilerplate terms and conditions in the RFP (Attachment 2). In addition, Zoll has submitted a letter of guarantee that should Zoll begin marketing any newer generation monitor/defibrillator platform in the U.S. anytime within twenty-four months of sale of the X Series, that such newer generation monitor/defibrillator platform would be provided by Zoll to OCFA at no additional cost (Attachment 3).

Staff met with the Sales Director and Account Manager for Philips Healthcare via conference call. During the meeting it was disclosed that the Department of Justice (DOJ) is currently investigating the Philips HeartStart MRx cardiac monitor on a civil matter stemming from inspections of the devices manufactured between the years 2009-2015. Due to the ongoing investigation, Philips stated that it is NOT currently shipping the HeartStart MRx cardiac monitor. At the time of the discussion, Philips was awaiting a ruling on the investigation by the DOJ, and was unable to provide a timeframe for when the “stop ship” might be lifted.

Based on Zoll’s full acceptance of the OCFA boilerplate terms and conditions (without exception), its guarantee against obsolescence within the first twenty-four months of the contract, the RFP evaluation results, and the Best and Final Offer, staff is recommending award of the contract to Zoll Medical Corporation for the initial purchase of new cardiac monitors and AED units (\$3,128,247.20), and as-needed supplies and accessories (\$285,260.92 annually). In addition, staff is requesting approval to utilize the contract pricing for the purchase of any additional cardiac monitors and AED units that are budgeted during the five-year term based on the pricing provided in the Best and Final Offer.

Attachment(s)

1. Questions & Answers – Cardiac Monitor/Defibrillator & AEDs
2. Zoll Letter of Terms Acceptance
3. Zoll Letter of New Technology Guarantee
4. Link to Executive Committee Staff Report Agenda Item 3C dated 02/23/17:
http://ocfastorage.azurewebsites.net/Uploads/BoardAgendaAndMinutes/2017/Executive/sr_ec170223-03c.pdf

**EXCERPTS FROM FEBRUARY 23, 2017
OCFA EXECUTIVE COMMITTEE MEETING**

This document provides a summarized list of questions and corresponding answers that were asked during the recent Executive Committee meeting on February 23, 2017. While some of the questions may have been addressed during the meeting, this document is meant to provide a summary of all questions and answers.

1. What is Zoll’s “end of year” trade incentive that was included in the proposal?

Answer: The incentive is a one-time trade offer available to OCFA until March 31, 2017. It is a credit valued at \$175,000 that bolsters the trade-in values of the existing fleet of Zoll E Series monitors.

2. Was the incentive offered to meet Zoll’s sales numbers for the year?

Answer: Yes, in part the incentive was offered by Zoll in the hope that an order would be placed before Zoll’s fiscal year end of March 31, 2017. Incidentally, it was also in line with the RFP’s stated timeline for purchase.

3. Was the incentive offered due to a surplus of Zoll inventory?

Answer: No, each device Zoll manufactures is custom made to the specific customer’s requirements. Zoll does not keep surplus inventory outside of the pool of units kept for demo and servicing purposes.

4. What year was the Zoll X-Series Cardiac Monitor manufactured?

Answer: Medical device manufacturers are required to submit a premarket notification or 510(K) to the Federal Drug Administration (FDA) for approval if they intend to introduce a device into commercial distribution for the first time. The Zoll X Series was given FDA 510(K) approval on March 21, 2012.

5. How does the X-Series monitor compare to the competitors’ devices in terms of first year of manufacture?

Answer: The Philips HeartStart MRx was given FDA 510(K) approval on August 27, 2003, and the Physio-Control LifePak 15 was given FDA 510(K) approval on March 11, 2009.

6. Is the X-Series monitor Zoll’s newest model available?

Answer: Yes, the X Series is the newest model available from Zoll.

7. Are there any known upcoming changes to the X-Series monitor? If so, what changes are anticipated?

Answer: While free software updates are anticipated, there are no hardware changes anticipated to the X Series at this time.

8. Are there any known upcoming changes in the medical world that could render the X-Series monitor obsolete?

Answer: Zoll does not see any upcoming changes that would render the X Series obsolete. The X Series has been built with scalability in mind, leaving bandwidth to evolve as medicine evolves and clinical protocols change.

9. Is Zoll currently developing a monitor to replace the X-Series? If so, when is that anticipated to be released?

Answer: No, Zoll is not currently developing a new monitor to replace the X Series. Because of strict regulatory requirements and the expense to comply with those requirements, monitor defibrillators, unlike most of the other technology we use today, have a long development-to-market cycle of >10 years notwithstanding outside technological acquisitions.

10. What kind of obsolescence prevention and backward compatibility is Zoll willing to assure if the X-series device is replaced with a newer model within the near future.

Answer: Zoll has provided a guarantee that in the event Zoll begins marketing in the U.S. any newer generation EMS monitor/defibrillator platform any time within twenty-four (24) months of sale of the X Series, Zoll shall provide such newer generation monitor/defibrillator platform at no additional cost to OCFA.

11. Please describe how Zoll executes any software updates to the X-series device.

Answer: Infrequent free software updates are released to our current user base alongside release notes detailing any changes. Most customers opt to perform major updates once a year during pre-scheduled annual preventive maintenance; however, new updates can be installed upon the request of end-users once it is available. Zoll provides on-site service to OCFA including a trained Zoll technical service employee to assist with any of these updates.

12. Are all software updates covered under Zoll's proposed preventative maintenance plan and/or extended warranty?

Answer: Software updates are always free from Zoll. Most software updates are installed at time of preventive maintenance by trained Zoll technical service staff.

13. If a newer model cardiac monitor is offered to OCFA within the contract term, at what pricing structure would the new monitor be offered to OCFA?

Answer: For the first 24 months Zoll would be willing to replace all X Series with the new model at no cost to OCFA. Beyond the initial term, Zoll is open to establishing a competitive offer and delivery agreement.

14. During the meeting, an Executive Committee member was able locate a Zoll X-Series monitor sold one and a half years ago for half the price on the internet. What are some of the possible reasons why the device may have been half the cost?

Answer: Various third party companies sell used X Series with a variety of lesser configurations than required by OCFA and, thus lower prices may be seen on-line. Further these prices do not include extended warranty, service, free software updates, and trained Zoll technical service staff to provide daily support to the OCFA. However, all new X Series are directly sold from Zoll specifically to the Emergency Medical and Fire Support Services.

15. What is the life expectancy for the X-Series monitor?

Answer: The life expectancy of the X Series device, in a very busy service environment such as OCFA, is 5-7 years. Please note Zoll has never discontinued support on any of its devices. They will provide repair service on any of their units, as long as parts are available.

16. In Zoll's opinion, as the manufacturer of OCFA's current E-Series monitor, is there an urgency for OCFA to replace the existing device with the X-Series and why?

Answer: Yes, given the age of the devices and the frequency of use it is Zoll's recommendation that OCFA replace its existing fleet of Zoll E Series monitors. It is Zoll's recommendation that this be done when the devices reach the seven-year mark which occurred in 2016. Further with the county-wide requirement to transition to ImageTrend Elite, and given that OCFA is the last agency to make this transition given its size, the current E Series platform given its age, is not able to provide that advanced type of technology. The Zoll E Series was first manufactured in 2005 and the now required cloud to cloud integration was not available in any device at that time. Outside of that, the X Series offers key advancements in 2015 AHA-complaint CPR feedback and data movement (12 lead / case data) that are integral pieces in the new standards of care in Emergency Medical Service.

17. Please describe the specific features and attributes of the X-Series monitor that Zoll believes are a competitive advantage over the competitor's models?

Answer: The X-Series has a number of features and attributes over the competitors in three areas: Clinically, Operationally, and Administratively.

Clinically

- Gold standard AHA-compliant CPR Dashboard with Pediatric and Adult Real CPR Help® giving providers rate, depth, and release velocity in real-time.
- See-Thru CPR® allows providers to see the patient's filtered ECG rhythm while CPR is in progress greatly reducing pause times during CPR and improving patient clinical outcomes
- CPR Report Card via RescueNet Case Review and Code Review
- Rectilinear Biphasic Waveform: more effective conversion and capture at lower energies
- The Full Masimo Rainbow® SET Technology Platform
- Welch Allyn's Smart and Sure Cuff® rapid non-invasive blood pressure allows providers to capture blood pressures faster and more accurately
- Patient-Specific Settings Select the mode- Adult, Pediatric, or Neonate
- Up to 4 clinical tracings on the screen
- Dynamic and Static, diagnostic real-time 12-lead viewing
- Snapshot allows for 24-second capture of data 12 seconds pre-and post-button press.

Operationally

- Smallest, lightest monitor at ½ the size and weight as the competitors
- Most durable monitor-defibrillator marketed in the US, MIL-STD-810G and IP55 rated
- Longest running battery at 6.5 hours of continual run time
- Integrated Bi-directional Wi-Fi / Bluetooth PAN, USB 2.0, and Ethernet
- Cloud-to-Cloud compatibility with ImageTrend Elite
- The greatest amount of built-in event memory, storing 24-hours of continuous data
- No special hardware is required to use Zoll's QAQI software
- Integrated Defibrillation / CPR Help pads: passive CPR data
- Pre-connected CPR Stat-padz® saves time and prevents confusion during cardiac arrest

Administratively

- No real change over in disposables supplies
- No cost 12 lead solution for the department
- No cost 12 lead receiving for local hospitals
- No subscription cost per monitor to transmit 12 Lead ECG's
- No change in resuscitation protocols
- No cost clinical training and support by trained paramedic staff
- No cost sales engineering set-up and support of data movement
- Newest monitor on the market: state-of-the-art technology

18. Describe the urgency and expected timeline of the project.

Answer: The current cardiac monitors are approaching two years past their replacement date. The extended RFP process has pushed the service life of the monitors past their recommended use. The EMS section has forecasted to implement a department wide immersion training plan on the cardiac monitors pending board approval of the Zoll monitor. This training plan will have the monitors deployed on June 29, 2017, to the field. This forecasted training plan will roll out the monitors just before the expected fire season. Any further delay would impact the department significantly due to the mandatory in-service training that all members must attend for this new piece of medical equipment.

19. Why did the units score so low during the field trial?

Answer: The point range for scoring was 1-5. The field crews rated the cardiac monitor's average with scoring in the three to four points per grading point. This resulted in a total score of 15 as the highest point value. The results for all the grading were very close as the field crews awarded points for the respective monitor having the capability to perform each of the requirements. The slight point variation was subjective to user preference and ease to perform. Each of the monitors in the field trial have significant upgrades to the current monitor OCFA is currently using. The new feature capabilities with location and user ability contributed to this low total point value. Field training post monitor purchase will address making sure all OCFA members are comfortable with the use of the cardiac monitor.

20. Is one of the products more familiar with the field?

Answer: No. While the field currently utilizes Zoll's E Series monitor, and many features are similar to Zoll's proposed monitor, the X Series offers advanced technological features and capabilities not offered on the E Series making the device very different from the device currently in use.

21. Did the field feel more comfortable with using this product then having to be retrained with a new product?

Answer: No. The field will have to be provided updated training on any of the cardiac monitors OCFA will purchase. Each field crew who participated in the field trial received a three-hour in-service training from each of the respective monitor companies prior to beginning the evaluation. There were many new features added to these cardiac monitors that were not previously available.

22. Do we no longer need to concern ourselves with the retraining on new products?

Answer: EMS will always provide training to field members on any new piece of equipment.

23. What are the attributes that the field users seek that these monitors lacked?

Answer: Each of the cardiac monitors met the minimum requirements; however, since the field members had to perform new steps to use the new features of the Zoll cardiac monitor, this attributed to the monitor being slightly more difficult to use. This is a training issue that EMS will provide during the field rollout training. Due to the advances and capabilities of the new cardiac monitor, it presented with challenges to the trial members, since functions were different from what they were previously used to.

24. Is there better equipment that could be bid and bought?

Answer: The three monitors that were evaluated as part of the RFP are the only three known cardiac monitors currently approved for sale by the FDA. There is no better equipment that could be bid on or purchased.

See additional information provided in the attached letters received from Zoll.



269 Mill Road
Chelmsford, Massachusetts 01824-4105
978-421-9655 (main)
978-421-0025 (fax)
www.zoll.com

March 3, 2017

Orange County Fire Authority
Attention James Aguila, Assistant Purchasing Director
1 Fire Authority Road
Irvine, CA 92602

RE: RFP Number: JA2148

Dear Mr. Aguila,

Please accept this letter as confirmation that ZOLL Medical Corporation is withdrawing any exceptions that were contained in our RFQ # JA148 response. After careful reconsideration, ZOLL Medical Corporation is able to accept all of the original terms and conditions contained therein, without exception.

I can be reached at 800-348-9011 or via email at mtrotter@zoll.com with any questions.

Best Regards,

A handwritten signature in black ink, appearing to read 'Michael Trotter', is written over a horizontal line. The signature is stylized and fluid.

Michael Trotter
EMS Group V.P. of North American Sales



269 Mill Road
Chelmsford, Massachusetts 01824-4105
978-421-9655 (main)
978-421-0025 (fax)
www.zoll.com

March 3, 2017

Orange County Fire Authority
Attention James Aguila, Assistant Purchasing Director
1 Fire Authority Road
Irvine, CA 92602

RE: RFP Number: JA2148

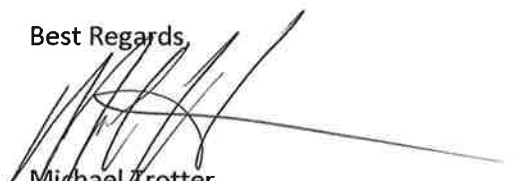
Dear Sir/Ma'am,

As always, ZOLL is continually improving upon our product offering based on customer feedback and changes to resuscitation guidelines from organizations such as the American Heart Association. All software updates are provided to all customers, free of charge, to ensure that the resuscitation equipment you purchased is providing the best care possible for your patients and that you are AHA Guideline compliant.

Furthermore, ZOLL represents and warrants that the technology offered in the X Series bid, RFP Number: JA2148, to OCFA is the latest technology currently available from ZOLL with respect to the X Series functionality, and that ZOLL has no plans within twenty-four (24) months from the release of any contract award to begin marketing in the U.S. any newer generation EMS monitor/defibrillator platform. In the event ZOLL begins marketing in the U.S. any newer generation EMS monitor/defibrillator platform at any time within twenty-four (24) months of the sale of the X Series, ZOLL shall provide such newer generation EMS monitor/defibrillator platform at no additional charge to OCFA during such twenty-four (24) month period X Series which does not contain the Improvements.

I can be reached at 800-348-9011 or via email at mtrotter@zoll.com with any questions.

Best Regards,



Michael Trotter
EMS Group V.P. of North American Sales



Orange County Fire Authority
AGENDA STAFF REPORT

Executive Committee Meeting
March 23, 2017

Agenda Item No. 4C
Discussion Calendar

Discussion of Member Agency Financial Equity Issues and Potential Liability of Member Agencies Upon Withdrawal from OCFA or Upon Expiration of OCFA's Joint Powers Agreement and Requests Made by City of Irvine and County of Orange for OCFA to Engage in Discussions and Negotiations regarding Financial Equity Issues; Potential Formation of an Equity Ad Hoc Committee

Contact(s) for Further Information

Lori Zeller, Assistant Chief
Business Services Department

lorizeller@ocfa.org

714.573.6020

Summary

This item is submitted in response to a request from Directors Spitzer and Bartlett for inclusion of the above titled topics on the agendas for both the Executive Committee and the Board of Directors.

Prior Board/Committee Action

At its May 26, 2016, meeting, the Board of Directors considered formation of an Equity Ad Hoc Committee and voted unanimously to rescind the formation of a 2016 Equity Ad Hoc Committee, noting it is at the discretion of the two agencies, County of Orange and City of Irvine, to deliberate the issue of equity and, when appropriate, present proposed options to the Board of Directors.

At its September 22, 2016, meeting, the Board of Directors took action to form a Pension Ad Hoc Committee to further review the proposed scope and questions to be submitted to Special Counsel in order to obtain an opinion relating to member agency obligation for pension liabilities upon withdrawal from OCFA. The Ad Hoc Committee is also to make recommendations to the Board of Directors regarding selection of Special Counsel.

RECOMMENDED ACTION(S)

Review the proposed agenda item and recommend that the Board of Directors:

1. Reaffirm Board's prior May 26, 2016, direction rescinding the formation of a 2016 Equity Ad Hoc Committee, noting it is at the discretion of the two agencies, County of Orange and City of Irvine, to deliberate the issue of equity and, when appropriate, present proposed options to the Board of Directors.
2. Reaffirm Board's prior September 22, 2016, direction to forward the topics relating to member agency obligation for pension liabilities to the Pension Ad Hoc Committee.
3. Receive oral status report from the Pension Ad Hoc Committee Chair.

Impact to Cities/County

Not Applicable.

Fiscal Impact

Not Applicable

Background

This agenda item is submitted in response to a request from Directors Spitzer and Bartlett for inclusion of the above titled topics on the agendas for both the Executive Committee and the Board of Directors. Further, as requested by Director Spitzer, an invitation was extended to the County Chief Executive Officer and the Irvine City Manager, for attendance and participation on this subject at the March 23, 2017, meetings of the OCFA Executive Committee and Board of Directors.

Many of the topics requested for inclusion in this agenda are currently being explored by the Pension Ad Hoc Committee. A comprehensive list of legal questions are being considered by the Pension Ad Hoc Committee for potential inclusion in a legal opinion that would be prepared by Special Counsel (Attachment). A Request for Proposal was issued in December 2016 to identify qualified firms for recommendation to the Board of Directors. Three proposals were received in January 2017, and the proposals are being evaluated by the Committee. Additional updates will be provided orally by the Chair of the Pension Ad Hoc Committee, to share the most recent information available from this process.

As action has previously been taken by the Board relating to these topics, and is currently underway, staff is recommending that the Board reaffirm its prior direction.

Attachment(s)

Correspondence from Directors Bartlett and Spitzer dated September 21, 2016 – Questions re: Potential Liability of Orange County Fire Authority (OCFA) Members for OCFA's Debts and Obligations



LISA A. BARTLETT
CHAIRWOMAN
ORANGE COUNTY BOARD OF SUPERVISORS
SUPERVISOR, FIFTH DISTRICT

ORANGE COUNTY HALL OF ADMINISTRATION
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September 21, 2016

David Kendig, General Counsel
Orange County Fire Authority
1 Fire Authority Road
Irvine, CA 92612

Re: Potential Liability of Orange County Fire Authority (OCFA) Members for
OCFA's Debts and Obligations

Dear Mr. Kendig:

We understand that a proposal may be presented to OCFA's Board of Directors to retain special legal counsel to address questions regarding the potential liability of its members if OCFA's Joint Powers Agreement were to expire in 2030. In order to accurately assess this issue, we believe that OCFA's special counsel would need to address the following questions as part of their legal analysis:

A. General Questions

1. Does the manner by which fire protection might be delivered following the dissolution of OCFA affect the responsibility for OCFA liabilities, including pension obligations, among its members? For example, who would be responsible for OCFA's liabilities if OCFA's members opted to return to the pre-OCFA model of a County operated fire department? Alternatively, what if OCFA's members formed individual city fire departments? Is there a difference in liability exposure between OCFA's Cash Contract City and Structural Fire Fund ("SFF") members?
2. If OCFA were to dissolve, would the County be responsible for providing fire protection to SFF cities if such cities decided not to form their own fire departments? If so, would the County be responsible for the share of OCFA liabilities attributable to serving OCFA's SFF members?
3. In the event that a SFF city provides proper notice of its intent to withdraw from OCFA and opts to either provide its own fire protection or contract with another fire department for fire protection, can the SFF city negotiate an exchange of property taxes directly with the County without the approval of OCFA?
4. Does the OCFA joint powers agreement provision that "termination will occur if only one member is left in the Authority," mean that the last one out is responsible for OCFA's remaining liabilities?

5. How would you reconcile the opinion by OCFA's general counsel dated June 24, 2014 (see attached Exhibit A), with the opinion by Sidley & Austen dated September 20, 2013, which opined that members of a Joint Powers Authority might be liable for takings damages arising from the JPA's activities (see attached Exhibit B)?

B. Pension Questions

1. Could the withdrawal of members from OCFA result in an increase in OCFA retirement costs paid by OCFA's remaining members? Is there a difference in the impact on SFF members versus Cash Contract City members?

2. If OCFA dissolved, could OCFA's members be held liable for OCFA's unfunded pension obligation? Put another way, could OCERS assert a valid claim against OCFA's former members for pro rata contributions toward the Unfunded Actuarial Accrued Liability ("UAAL") that is attributable to OCFA? Is there a difference in the impact on SFF members versus Cash Contract City members?

3. Could the County, as the primary sponsor of OCERS, factor its UAAL exposure in property tax negotiations with SFF cities wishing to provide their own fire protection?

4. Could OCERS (A) demand increased contributions from OCFA in response to notice that OCFA might dissolve; (B) threaten to accelerate OCFA's payment of UAAL given OCFA's declining payroll; and/or (C) seek to recover payment from OCFA's assets prior to the distribution of OCFA's assets to its members pursuant to terms of the joint powers agreement?

C. Labor-Related Questions

1. Would OCFA's members be required to hire or extend benefits and seniority to former OCFA firefighters in the event OCFA dissolves or an OCFA member withdraws and forms its own fire department pursuant to Government Code 53292 and similar statutes?

2. Would former members of OCFA, which are not currently members of OCERS, have to extend reciprocal pension benefits to former OCFA firefighters that they hire? Would this increase the pension costs of such members?

D. Real Property and Other Assets

1. Upon a member's withdrawal from OCFA, is that withdrawing member entitled to receive any portion of OCFA's real property or assets or is such distribution subject to negotiation?

2. Upon the dissolution of OCFA, must OCFA's liabilities, including pension liabilities, be settled and allocated prior to distribution of OCFA's assets?

Finally, we believe that any opinion that OCFA's special legal counsel might issue will depend in large part on the underlying assumptions regarding how the dissolution of OCFA is accomplished. The questions listed above are designed to explore these assumptions and require that they be clearly articulated.

Sincerely,



Lisa A. Bartlett
Chairwoman
Orange County Supervisor, 5th District



Todd Spitzer
Orange County Supervisor, 3rd District

cc: Orange County Fire Authority Board of Directors
Lori Zeller, Assistant Chief of Business Services



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MEMORANDUM

VIA E-MAIL

TO: Board of Directors, Orange County Fire Authority

FROM: General Counsel

DATE: June 23, 2014

RE: Proposed Legislation re Liability of Member Agencies for OCFA Pension Obligations

This office has been requested to analyze whether a member agency in the Orange County Fire Authority ("OCFA") has liability for the OCFA's pension obligations after withdrawal from the OCFA. This memo provides the requested analysis.

Question Presented.

Under current law and the existing joint powers agreement, would a member agency in the OCFA have liability to pay its pro rata share of the OCFA's pension obligations if it withdraws from the Authority?

Brief Answer.

No.¹

Discussion and Analysis.

In connection with the Board of Supervisors' meeting tomorrow, the County of Orange Executive Office/Legislative Affairs has circulated to the Board its "Legislative Bulletin" providing analyses of legislation proposed or pending in Sacramento or Washington D.C. that are of interest to the County. One item in that Bulletin recommends support of legislation that would, if adopted, affect the liability of OCFA member agencies for OCFA's pension obligations. Specifically, the Bulletin reads as follows:

¹ Upon joining the OCFA, the City of Santa Ana entered into a Fire Services Agreement providing it could be responsible for a portion of the OCFA's pension liability upon termination or expiration of the agreement. That agreement is applicable only to the City of Santa Ana and is not a part of the OCFA Joint Powers Agreement affecting the Authority's other member agencies. As a result, that agreement is not analyzed further here.

"OCFA Pension Obligation Legislation: SUPPORT

"The Orange County Professional Firefighters Association is concerned about the impact on the pension solvency of the Orange County Fire Authority (OCFA) if members are allowed to withdraw from the authority without paying the full share of their future pension obligation. Legislation specific to OCFA may be proposed to amend the Government Code to require that upon withdrawal from OCFA, a public agency would remain liable for its pro-rata share of the authority's continued financial obligation to fund the cost of the unfunded actuarial accrued liability (UAAL) of the retirement plan for active and retired employees enrolled in the Orange County Employees Retirement System. The withdrawing public agency also would be responsible for its pro-rata share of any unfunded liability for any applicable retiree medical plan. The proposed bill would also specify that the withdrawing agency would have to complete payment of its pro-rata share(s) within 10 years of withdrawing from the authority.

"CEO Legislative Affairs recommends the Board support in concept such legislation."

OCFA Staff and several OCFA Board Members have inquired whether State law and the existing OCFA joint powers agreement, as amended (the "JPA Agreement"²) already establish liability on member agencies for a share of the OCFA's pension liability?

1. Existing Law.

Joint powers authorities are created and regulated by California's "Joint Exercise of Powers Act", California Government Code sections 6500-6536 (the "Act"). According to the Act, the OCFA "is a public entity separate from the parties to the agreement" that created the OCFA.³ Thus, because it was established by an agreement made pursuant to the Act, the OCFA is a separate legal entity, distinct from its member agencies.

According to the Act, whether the member agencies of a joint powers authority have liability for the obligations of the OCFA depends on the provisions of the joint powers agreement:

"If the agency is not one or more of the parties to the agreement but is a public entity, commission, or board constituted pursuant to the agreement, the debts,

² The OCFA currently operates under an Amended Joint Powers Agreement, which itself has been amended twice, by a First Amendment and most recently by a Second Amendment to the Amended Joint Powers Agreement. For ease of reference, the Amended Joint Powers Agreement as amended by the First and Second Amendment are referred to in this memo as the "JPA Agreement". Each of the JPA Agreement provisions referenced in this memo was contained in the original Amended Joint Powers Agreement, and was not altered by the First or Second Amendments.

³ Cal. Gov't Code § 6507 ["For the purposes of this article, the agency is a public entity separate from the parties to the agreement."]

liabilities, and obligations of the agency shall be debts, liabilities, and obligations of the parties to the agreement, unless the agreement specifies otherwise."⁴

"A party to the agreement may separately contract for, or assume responsibility for, specific debts, liabilities, or obligations of the agency."

Thus, this analysis turns to JPA Agreement, and whether that agreement establishes limitations upon the liability of the member agencies.

2. The Provisions of the Existing JPA Agreement Limit Member Agency Liability for OCFA's Obligations.

According to the JPA Agreement the OCFA's obligations are that of the Authority and not of its members. Article I of the JPA Agreement states:

"The Authority is formed by this Agreement pursuant to the provisions of Article 1, Chapter 5, Division 7, Title I (commencing with Section 6500) of the Government Code of the State of California. The Authority shall be a public entity separate from the parties hereto and its debts, liabilities and obligations shall not be the debts, liabilities and obligations of its members."⁵

Consistent with that section, Article VI of the JPA Agreement further provides as follows:

"Liabilities. Except as otherwise provided herein, the debts, liabilities and obligations of the Authority shall be the debts, liabilities or obligations of the Authority alone and not of the parties of this Agreement."⁶

There is no other provision in the JPA Agreement that establishes an exception to that provision that would otherwise subject the member agencies to liability for any portion of the OCFA's Orange County Employee Retirement System unfunded liability.

As a result, we conclude that, under current law and the current JPA Agreement, member agencies would not have liability for OCFA's pension obligations (or retiree medical benefits) in the event of withdrawal from the OCFA.⁷ As a result, legislation adopted consistent with the proposal supported by the County CEO Legislative Affairs would represent a change in the member agencies' legal obligations.

We hope this proves helpful. Please let me know if you have any questions.

⁴ Cal. Gov't Code § 6508.1 [emphasis added]

⁵ JPA Agreement, Article I, Section 1 [emphasis added.]

⁶ JPA Agreement, Article VI, Section 3 [emphasis added.]

⁷ As noted in footnote 1 above, a separate agreement exists with the City of Santa Ana that would subject Santa Ana to liability for its share of the pension liability.

MEMORANDUM

TO: Tim Cameron, Kim Chamberlain, Chris Killian
Securities Industry and Financial Markets Association

FROM: David R. Carpenter, Collin P. Wedel, Lauren A. McCray

RE: Liability of Municipal Members of a Joint Powers Authority

DATE: September 30, 2013

INTRODUCTION

We are informed that the City of Richmond, California, is considering soliciting other municipalities to form a Joint Powers Authority (“JPA”) to implement its proposed underwater-loan eminent domain plan. Under California law, two or more public entities can enter into an agreement to form a JPA to exercise any common power, including their respective powers of eminent domain. *See* Cal. Gov. Code § 6502; Cal. Civ. Proc. Code § 1240.140.¹ We understand that Richmond may be interested in forming a JPA, on the assumption that cities could insulate themselves from liability or financial obligations arising from the JPA’s implementation of the eminent domain plan. Thus, Richmond may be seeking to form a JPA as a substitute for obtaining full indemnification or liability insurance from private parties who would be financing and/or assisting in administering the eminent domain plan.

You have asked us to research the issue for you. Based on our research, this assumption appears contrary to California statutory law, California public policy doctrines, and the constitutional requirements relating to public entities’ exercise of eminent domain. Accordingly, we believe that individual cities would remain liable, and indeed would be jointly and severally liable, as to any takings damages arising from a JPA’s activities.

¹ Once formed, a JPA becomes a “public entity separate from the parties to the agreement.” Cal. Gov. Code § 6507. In exercising its powers, the JPA “is authorized, in its own name,” to enter into contracts; to acquire, hold, or dispose of property; to incur debts, liabilities, and obligations; and to sue and be sued, among other things. *Id.* § 6508.

ANALYSIS

I. As a Matter of California Statutory Law, Members Likely Would Be Jointly and Severally Liable for Liability Arising from the JPA's Actions

Government Code section 895.2 provides for members' joint and several liability for damages arising from a JPA's actions, as follows:

Whenever any public entities enter into [a joint powers] agreement, they are *jointly and severally liable upon any liability which is imposed by any law* other than this chapter upon any one of the entities or upon any entity created by the agreement *for injury caused by a negligent or wrongful act or omission occurring in the performance of such agreement*. (emphasis added)

See also *id.* Law Revision Comm'n Notes ("[Section 895.2] makes each of the public entities that are parties to [a JPA] jointly and severally liable to the injured party for any torts that may occur in the performance of the agreement."). The joint and several liability required by Section 895.2 is consistent with the default rule set forth in Government Code section 6508.1 that "the debts, liabilities, and obligations of the agency shall be the debts, liabilities, and obligations of the parties to the agreement, unless the agreement specifies otherwise."²

The argument that cities would not be liable for the JPA's conduct likely is based on the "unless the agreement specifies otherwise" language in Section 6508.1, and the California Court of Appeal decision, *Tucker Land Co. v. California*, 94 Cal. App. 4th 1191 (2001). *Tucker* interpreted Section 6508.1 to give JPA members the power not only to *allocate* the JPA's liabilities amongst themselves, but also to agree that the JPA will be *solely* responsible for its obligations and the members will not have any responsibility for its debts. See 94 Cal. App. 4th at 1200-1201. *Tucker*, however, explained that this narrow exception applies only to a JPA's *contractual* obligations; in keeping with Section 895.2, members cannot insulate themselves from liability for the JPA's "torts." *Id.* Presumably, the proposed JPA would argue that eminent

² In a separate paragraph, the provision allows for allocation or indemnification, stating: "A party to the agreement may separately contract for, or assume responsibility for, specific debts, liabilities, or obligations of the agency." Cal. Gov. Code § 6508.

domain is akin to a forced contract for the sale of property, and thus any monetary payments required in the exercise of eminent domain are equivalent to the JPA's "contractual" obligations.

In this context, however, any takings damages would be more akin to "tort" liability, requiring joint and several liability under Government Code section 895.2. There are two main scenarios in which a JPA would face liability on a scale that would require looking to its members for compensation: either the seizure power was not lawfully asserted in the first place, or the planned purchase prices are so unreasonably low that the JPA lacks the funds to pay any "just compensation."³ In either case, liability would then stem from a constitutional violation—*i.e.*, a "wrongful" or "negligent" act—and would sound in tort. *See City of Monterey v. Del Monte Dunes at Monterey, Ltd.*, 526 U.S. 687, 709 (1999) (stating, in takings case brought by property owner, that "there can be no doubt that claims brought pursuant to § 1983 [to vindicate constitutional rights] sound in tort," and rejecting dissent's arguments that eminent domain is essentially an instance of quasi-contract); *id.* at 715 (plurality opinion) (where damages arise from takings violation, "the cause of action sounds in tort and is most analogous to the various actions that lay at common law to recover damages for interference with property interests"); *Rose v. California*, 19 Cal. 2d 713, 724 (1942) (rejecting notion that claim for takings damages "is strictly a suit on implied contract;" instead, it arises from a "self-executing constitutional" requirement to pay just compensation for taking or substantial impairment of property); *see also Crane-McNab v. Cnty. of Merced*, No. 08-1218, 2010 WL 4024936, at *8 (E.D. Cal. Oct. 13, 2010) (citing Government Code section 895.2 and holding that County could be liable for inverse condemnation, nuisance, and negligence claims arising from JPA-owned landfill).

³ Presumably, any JPA would be sufficiently funded to pay for the seizures and proceedings, at least if everything goes according to the assumptions of the plan's proponents about the legality and cost of the seizures. The question of whether JPA members can be held jointly and severally liable would only be relevant if those assumptions turn out to be wrong and the JPA is facing steeper liability than what it budgeted for.

Provisions in California's Eminent Domain Law confirm that the Legislature would view damages arising from the proposed eminent domain plan as akin to "tort" damages and would intend for Section 895.2 to apply. For example, if the JPA acquires property pursuant to a "quick take" procedure, but a court later rejects the right to take, California law requires "the payment of *all damages proximately caused by the proceeding and its dismissal as to that property.*" Cal. Civ. Proc. Code § 1268.620 (emphasis added). A property owner can also sue for "actual damage to or substantial interference with" property "cause[d]" by pre-condemnation activities, whether or not a taking actually is completed. *Id.* § 1245.060(a). The Legislature's choice of wording in these provisions demonstrates its belief that this relief is akin to a tort remedy. *See, e.g., Dillon v. Legg*, 68 Cal. 2d 728, 737 (1968) ("[The] principles of foreseeability, proximate cause and consequential injury . . . generally govern tort law.").

As further examples, the JPA would be liable for litigation expenses if (a) the "right to take" is rejected as unlawful; or (b) the jury or court requires a substantially higher "just compensation" amount than the JPA's private financiers are offering or willing to provide. *See* Cal. Civ. Proc. Code § 1268.610(a) (litigation expenses awarded if eminent domain proceeding is dismissed or abandoned); *id.* § 1250.410(b) (litigation expenses awarded when offer to purchase is found "unreasonable" in light of evidence and ultimate award). The Legislature's decision to require the payment of litigation expenses—in contrast to the normal "American rule" that attorneys' fees are not recoverable—further reflects its intent to compensate property owners for all losses resulting from the actual or threatened exercise of eminent domain, *particularly* when the public entity has acted wrongfully (beyond its power), negligently (initiating proceedings it later abandons), or otherwise unreasonably (making low-ball offers).

In sum, our research indicates that liability arising from a JPA's implementation of the proposed plan would properly be viewed as falling under Government Code section 895.2, and thus, as a matter of statutory law, the JPA's members would remain jointly and severally liable.

II. California Public Policy Doctrines Would Nullify any Attempt by Cities to Insulate Themselves from Liability

Regardless of whether takings damages sound in “contract” or “tort,” public policy doctrines would likely preclude Richmond and other municipalities from using a JPA formation agreement to inoculate themselves against liability.

For example, *Tucker* recognizes that the “alter ego” doctrine can apply to hold members liable where (a) the interests of the JPA and the municipality are virtually indistinguishable, and (b) treating the acts or debts in question as those of the JPA alone would lead to an inequitable result. *See Tucker*, 94 Cal. App. 4th at 1202 (citing *Sonora Diamond Corp. v. Super. Ct.* 83 Cal. App. 4th 523, 538 (2000)). These factors likely would apply in this context because the JPA would have no real existence, and serve no real function, other than to exercise each city’s eminent domain power within that city’s respective jurisdiction. Especially if the primary organizational purpose of the JPA is simply to insulate cities from liability, the equities would weigh decisively in favor of holding the cities directly liable when necessary to ensure that property owners subjected to the eminent domain plan are fully compensated, as the Federal and State Constitutions require.⁴

In addition, California law renders void, as against public policy, contractual provisions that are designed “directly or indirectly, to exempt any one from responsibility for his own fraud, or willful injury to the person or property of another, or violation of law, whether willful or negligent.” Cal. Civ. Code § 1668. As expanded by the California Supreme Court in *Tunkl v. Regents of University of California*, 60 Cal. 2d 92, 95 (1963), and subsequent cases, liability disclaimers will be considered contrary to public policy so long as the subject matter of the agreement affects the public interest. *See id.* at 99-101 (listing categories of agreements that

⁴ In contrast, *Tucker*—which involved a JPA’s obligations to repay a note—declined to apply the doctrine on its facts because, among other things, (1) the plaintiff had willingly contracted with the JPA, knew or should have known that the members would not be obligated on the debt, and thus assumed the risk of non-payment; and (2) there was no evidence of any “abuse of organizational formalities” designed to help members avoid liability for their actions. 94 Cal. App. 4th at 1201-02.

qualify as affecting the public interest). Most notably, in its list of agreements for which liability could not be disclaimed, *Tunkl* included agreements that result in “the person or property of the purchaser [being] placed under the control of the seller.” *Id.* at 101. Here, an agreement between municipalities for the purpose of exercising eminent domain over privately held mortgage loans squarely would affect this kind of public interest. As noted above, the default rule under Government Code section 6508.1 is that cities will remain responsible for a JPA’s liabilities. Whatever discretion Section 6508.1 provides cities to alter the default rule by agreement and disclaim liability for the JPA’s conduct, the scope of that discretion should be limited by Civil Code section 1668, and should not allow members to disclaim liability for actions implicating private parties’ constitutional-protected property rights.

III. The Constitution’s Requirement that Municipalities Provide “Just Compensation” Overrides any Contractual Attempt to Evade Liability

In any event, because the duty to pay just compensation (both for the property itself and for incidental damages) is a *constitutional* obligation, that obligation necessarily overrides any statutory or contractual privilege public entities may have to exempt themselves from liability. For example, in *Rose v. California*, 19 Cal. 2d 713 (1942), the California Supreme Court rejected the State’s statutory immunity defense to an inverse condemnation claim, explaining that no legislative or agency action can shield the government from its obligation to pay constitutionally required compensation. *Id.* at 725-26 (explaining that “the legislature by statutory enactment may not abrogate or deny a right granted by the Constitution” and that “counties, cities, and other political subdivisions are held liable where they take property, not upon the ground that are authorized by statute to be sued, but because of the constitutional provision requiring compensation to be made for such taking”).

Although Government Code section 6508.1, as interpreted by *Tucker*, may allow members to limit their liability for a JPA’s contractual debts, this statutory provision cannot

authorize JPA members to exempt themselves from a constitutional obligation to pay just compensation for a taking. “To hold otherwise would be to say that the Constitution itself gives a right which the legislature”—or in this case, public entities forming the JPA— “may deny by failing or refusing to provide a remedy.” *Rose*, 19 Cal. 2d at 725; *cf. City of St. Louis v. Praprotnik*, 485 U.S. 112, 126-27 (1988) (plurality opinion) (“If . . . a city[] . . . could insulate the government from liability simply by delegating [its] policymaking authority to others, § 1983 could not serve its intended purpose.”).

CONCLUSION

Accordingly, whatever reason the City of Richmond may have for wanting to form a JPA, insulating itself from liability should not be one of them. Cities cannot contract around the constitutional liability arising out of an ill-conceived eminent domain plan.