

CITY OF BUELLTON

CITY COUNCIL AGENDA

**Regular Meeting of November 10, 2016 at 6:00 p.m.
City Council Chambers, 140 West Highway 246
Buellton, California**

Materials related to an item on this agenda, as well as materials submitted to the City Council after distribution of the agenda packet, are available for public inspection in the Office of the City Clerk, located at 107 West Highway 246, during normal business hours.

CALL TO ORDER

Mayor Ed Andrisek

PLEDGE OF ALLEGIANCE

ROLL CALL

Council Members John Connolly, Leo Elovitz, Holly Sierra, Vice Mayor Dan Baumann, and Mayor Ed Andrisek

REORDERING OF AGENDA

PUBLIC COMMENTS

Speaker Slip to be completed and turned in to the City Clerk prior to commencement of meeting. Any person may address the Council on any subject pertaining to City business, including all items on the agenda not listed as a Public Hearing, including the Consent Agenda and Closed Session. Limited to three (3) minutes per speaker. By law, no action may be taken at this meeting on matters raised during Public Comments not included on this agenda.

CONSENT CALENDAR

(ACTION)

The following items are considered routine and non-controversial and are scheduled for consideration as a group. Any Council Member, the City Attorney, or the City Manager may request that an item be withdrawn from the Consent Agenda to allow for full discussion. Members of the Public may speak on Consent Agenda items during the Public Comment period.

- 1. Minutes of October 27, 2016 Regular City Council Meeting**
- 2. List of Claims to be Approved/Ratified for Payment to Date for Fiscal Year 2016-17**
- 3. Acceptance and Filing of Stormwater Management Program Annual Report**
❖ (Staff Contact: Public Works Director Rose Hess)
- 4. Reduction of Bond for Village Specific Plan**
❖ (Staff Contact: Public Works Director Rose Hess)

- 5. **Consideration of Memorandum of Understanding with Santa Barbara County Regarding Stormwater Resources Control Plan**
❖ *(Staff Contact: Public Works Director Rose Hess)*
- 6. **Resolution No. 16-23 – “A Resolution of the City Council of the City of Buellton, California, Establishing an Appropriation Limit for Fiscal Year 2015-16 Pursuant to Article XIII-B of the California Constitution”**
❖ *(Staff Contact: Finance Director Carolyn Galloway-Cooper)*
- 7. **Resolution No. 16-24 – “A Resolution of the City Council of the City of Buellton, California, Establishing an Appropriation Limit for Fiscal Year 2016-17 Pursuant to Article XIII-B of the California Constitution”**
❖ *(Staff Contact: Finance Director Carolyn Galloway-Cooper)*

PRESENTATIONS

- 8. **Proclamation Honoring Law Enforcement Officers of the Santa Barbara County Sheriff’s Department and the California Highway Patrol**

PUBLIC HEARINGS

COUNCIL MEMBER COMMENTS

COUNCIL ITEMS

WRITTEN COMMUNICATIONS

Written communications are included in the agenda packets. Any Council Member, the City Manager or City Attorney may request that a written communication be read into the record.

COMMITTEE REPORTS

This Agenda listing is the opportunity for Council Members to give verbal Committee Reports on any meetings recently held for which the Council Members are the City representatives thereto.

BUSINESS ITEMS

(POSSIBLE ACTION)

- 9. **Approval of Contract and Budget with the Buellton Chamber of Commerce for Operation of the Visitors Bureau**
❖ *(Staff Contact: City Manager Marc Bierdzinski)*
- 10. **Resolution No. 16-26 – “A Resolution of the City Council of the City of Buellton, California Deciding to Become a Groundwater Sustainability Agency Pursuant to the Sustainable Groundwater Management Act for the Central Management Area”**
❖ *(Staff Contact: Public Works Director Rose Hess)*
- 11. **Consideration of Lease Renewal with Mike Brown for Operation of the Zaca Creek Golf Course**
❖ *(Staff Contact: City Manager Marc Bierdzinski)*

12. Discussion Regarding Possible Elimination of the Parks and Recreation Commission
❖ *(Staff Contact: City Manager Marc Bierdzinski)*

CITY MANAGER'S REPORT

ADJOURNMENT

The next meeting of the City Council will be held on Thursday, December 8, 2016 at 6:00 p.m.

CITY OF BUELLTON

CITY COUNCIL MEETING MINUTES
Regular Meeting of October 27, 2016
City Council Chambers, 140 West Highway 246
Buellton, California

CALL TO ORDER

Mayor Ed Andrisek called the meeting to order at 6:00 p.m.

PLEDGE OF ALLEGIANCE

ROLL CALL

Present: Council Members John Connolly, Leo Elovitz, Holly Sierra, Vice Mayor Dan Baumann and Mayor Ed Andrisek

Staff: City Manager Marc Bierdzinski, Finance Director Carolyn Galloway-Cooper, Public Works Director Rose Hess, City Attorney Steve McEwen, Station Commander Lt. Shawn O'Grady, and City Clerk Linda Reid

REORDERING OF AGENDA

None

PUBLIC COMMENTS

Sue Schwartz, representing the Buellton Senior Center, announced the Senior Center will host Sunday Brunch on November 6 from 10:30 a.m. to 2:00 p.m. at the Santa Ynez Valley Foundation building. Ms. Schwartz handed out flyers describing the event.

Judith Dale, representing the Santa Barbara County Parks Commission, announced that 8,000 fish are being placed in Lake Cachuma on November 8.

CONSENT CALENDAR

- 1. Minutes of September 22, 2016 Regular City Council Meeting**
- 2. List of Claims to be Approved and Ratified for Payment to Date for Fiscal Year 2016-17**

- 3. **Revenue and Expenditure Reports through September 30, 2016**
- 4. **Financial Report for First Quarter Ending September 30, 2016**
- 5. **Annual Report for Fiscal Year 2015-16 from Visit Santa Ynez Valley**

MOTION:

Motion by Council Member Sierra, seconded by Council Member Elovitz approving Consent Calendar Items 1 through 5 as listed.

VOTE:

Motion passed by a roll call vote of 5-0.
 Council Member Connolly – Yes
 Council Member Elovitz – Yes
 Council Member Sierra - Yes
 Vice Mayor Baumann – Yes
 Mayor Andrisek – Yes

PRESENTATIONS

- 6. **Proclamation Declaring October 2016 Energy Awareness Month**

Mayor Andrisek presented Dave Cross, Program Manager with Santa Barbara County Energy Watch Program with a proclamation declaring October 2016 as Energy Awareness Month. Mr. Cross accepted the proclamation and thanked the Council for their support.

PUBLIC HEARINGS

- 7. **Resolution No. 16-21 – “A Resolution of the City Council of the City of Buellton, California, Setting Forth Water and Wastewater Connection Fees in the City of Buellton”**

RECOMMENDATION:

That the City Council consider adoption of Resolution 16-21.

STAFF REPORT:

Public Works Director Hess presented the staff report.

SPEAKERS/DISCUSSION:

Mayor Andrisek opened the public hearing at 6:17 p.m. There being no public comment, Mayor Andrisek closed the public hearing at 6:18 p.m.

DOCUMENTS:

Staff report with attachments as listed in the staff report.

MOTION:

Motion by Council Member Sierra, seconded by Council Member Connolly approving Resolution No. 16-21 – “A Resolution of the City Council of the City of Buellton, California, Setting Forth Water and Wastewater Connection Fees in the City of Buellton”

VOTE:

Motion passed by a roll call vote of 5-0.

Council Member Connolly - Yes

Council Member Elovitz - Yes

Council Member Sierra - Yes

Vice Mayor Baumann - Yes

Mayor Andrisek – Yes

COUNCIL MEMBER COMMENTS/ITEMS

Mayor Andrisek announced that Cottage Hospital had a Health Fair on October 1 and the event had a good turnout. Mayor Andrisek announced he and his wife attended the Mayor’s Ball on October 8 with the proceeds supporting the United Way’s literacy program. Mayor Andrisek displayed an easy voter guide which is available outside the Buellton Library to help residents with making voting choices.

WRITTEN COMMUNICATIONS

None

COMMITTEE REPORTS

Council Member Sierra announced that she attended the board meetings for Santa Barbara County Association of Governments (SBCAG) and Air Pollution Control District (APCD) and provided oral reports regarding the meetings.

Mayor Andrisek announced that he attended the California Joint Powers Insurance Authority’s Annual Risk Management Education Forum in Indian Wells and discussed the Forum.

Mayor Andrisek announced that he attended the Indian Gaming Board Meeting and provided an oral report regarding the meeting.

BUSINESS ITEMS**8. Discussion Regarding Zaca Creek Preschool****RECOMMENDATION:**

That the City Council receive the update regarding Zaca Preschool.

STAFF REPORT:

City Manager Bierdzinski presented the staff report.

SPEAKERS/DISCUSSION:

Florene Bednersh addressed the City Council and shared the solution to keeping Zaca Creek Preschool open and provided a press release for the record.

The City Council thanked all parties for their efforts to keep Zaca Creek Preschool open.

Council Member Elovitz requested that the Zaca Preschool provide an update as to how they are doing in the future and how the City can help them moving forward.

9. Discussion and Direction Regarding Recreational Vehicle Parking**RECOMMENDATION:**

That the City Council discuss recreational vehicle (RV) and trailer parking and direct staff on proposed changes to the ordinance.

STAFF REPORT:

City Manager Bierdzinski presented the staff report.

SPEAKERS/DISCUSSION:

Barbara Knecht, Buellton, expressed her displeasure with the number of recreational vehicles, boats, and trailers in front yards and on City streets and that Council consider placing limits on where these items can be parked.

Terry Westfall, Buellton, spoke about RV parking in Buellton and asked the Council to change the ordinance to prohibit parking RV's in front yards.

Peggy Brierton, Buellton, discussed how the ordinance language should address the extension of the driveway for parking.

The City Council discussed the following issues:

- Options for storing RV's and trailers
- Prohibiting storage of RV's and trailers in the front yard setback
- Extending the driveway for parking RV's and trailers in the front setback
- Allowing residents a grace period to find a storage solution

DIRECTION:

The City Council agreed by consensus to direct staff to prepare an ordinance revising the current RV parking regulations to include: no more than 2 RV, boat or trailer units on the property, storage in the backyard or in the front setback area on the extension of the existing driveway (limited to one), and setbacks will be 10 feet from front property line and five feet from side property line.

10. Consideration of Contract Renewal with the Buellton Chamber of Commerce for Operation of the Visitors Bureau

RECOMMENDATION:

That the City Council approve the draft contract with the Buellton Chamber of Commerce for operation of the Visitors Bureau.

STAFF REPORT:

City Manager Bierdzinski presented the staff report.

SPEAKERS/DISCUSSION:

Peggy Brierton, Buellton, requested that the new contract include the process for grant requests.

Shelby Sim, representing Visit Santa Ynez Valley, discussed his support for the Visitors Bureau.

Ron Anderson, President of the Buellton Chamber of Commerce, requested the Council allow a four year contract, rather than a two year contract.

Kathy Vreeland, Executive Director of the Buellton Chamber of Commerce spoke about the proposed contract and the suggested changes from the Chamber Board.

Pete Robertson, discussed the contract language and how it relates to the proposed budget.

The City Council discussed the following issues:

- Support for a four year contract with a fiscal review every two years
- The Visitors Bureau to implement the economic development policies of the City
- Conceptually approving the contract subject to the Visitors Bureau providing a revised budget

DOCUMENTS:

Staff report with attachments as listed in the staff report.

MOTION:

Motion by Vice Mayor Baumann, seconded by Council Member Connolly conceptually approving the draft contract with the Buellton Chamber of Commerce for operation of the Visitors Bureau for a four year term and having the Visitors Bureau bring back a revised budget at the November 10 Council meeting.

VOTE:

Motion passed by a roll call vote of 5-0.
Council Member Connolly - Yes
Council Member Elovitz - Yes

Council Member Sierra - Yes
Vice Mayor Baumann - Yes
Mayor Andrisek – Yes

11. Resolution No. 16-22 – “A Resolution of the City Council of the City of Buellton, California, Designating School Zones Around Oak Valley Elementary School and Jonata Middle School and Reducing the Speed Limit to 15 Miles Per Hour (MPH)”

RECOMMENDATION:

That the City Council approve Resolution No. 16-22.

STAFF REPORT:

Public Works Director Hess presented the staff report.

DOCUMENTS:

Staff report with attachments as listed in the staff report.

SPEAKERS/DISCUSSION:

Lieutenant O’Grady spoke about the proposed reduced speed limit and doing what is best for the community.

Principal Rheinschild, discussed school safety involving children.

Marcilo Sarquilla, Buellton Unified School District Board Member, invited Public Works Director Hess to visit the schools in the morning and afternoon to provide suggested changes.

Shelby Sim, spoke in support of safety improvements and the lack of crosswalks near the schools.

The City Council discussed the following issues:

- Discussion of speed limits and application of speed limit regulations
- Adding flashing lights adjacent to the school when kids get out of school
- Enforcing the laws that we have in place
- Make people aware with other safety improvements and increased law enforcement

DIRECTION:

The City Council agreed by consensus to keep the speed limit as is and look at other options for traffic safety improvements.

CITY MANAGER’S REPORT

City Manager Bierdzinski provided an informational report to the City Council.

ADJOURNMENT

Mayor Andrisek adjourned the regular meeting at 8:20 p.m. The next regular meeting of the City Council will be held on Thursday, November 10, 2016 at 6:00 p.m.

Ed Andrisek
Mayor

ATTEST:

Linda Reid
City Clerk

BACK-UP/SUPPORT DATA IS AVAILABLE FOR COUNCIL REVIEW IN CITY HALL

The following is a list of claims to be ratified and approved for payment by the City Council at the **November 10, 2016** Council Meeting.

Listed below is a brief summary of the attached claims:

EXHIBIT A *	A/P Packet #APPKT00379	166,132.84 (2 pages)
	A/P Packet #APPKT00376	69,606.61 (2 pages)
	A/P Packet #APPKT00373	183,381.02 (3 pages)
	Utility Packet #UBPKT00426	305.17 (1 page)

Total Packets:	<u>\$419,425.64</u>
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EXHIBIT B	<u>\$63,548.70</u>
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Council Payroll	10/27/2016	2,197.71
Staff Payroll	10/28/2016	39,827.19

TOTAL AMOUNT OF CLAIMS:	Total Payroll:	<u>\$42,024.90</u>
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<u>\$524,999.24</u>

* The A/P Packets above will be approved on Council Agenda date of 11/10/2016
 Checks to be signed on 11/10/16 tie to A/P Packet #APPKT00379
 Checks previously signed by staff to avoid late fees relate to:
 A/P Packets #APPKT00373 and APPKT00376
 Utility Packet #UBPKT00426



City of Buellton, CA

Check Register

Packet: APPKT00379 - 2016-11-10 CITY COUNCIL - PAYMENT

By Check Number

Vendor Number	Vendor Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
Bank Code: General Checking-General Checking						
000065	BURKE, WILLIAMS & SORENSEN, LLF	11/10/2016	Regular	0.00	10,301.85	33705
000107	CITY OF LOMPOC	11/10/2016	Regular	0.00	1,666.66	33706
000655	COAST NETWORKX, INC.	11/10/2016	Regular	0.00	1,289.52	33707
000132	SB CO ANIMAL SVCS, HEALTH & REC	11/10/2016	Regular	0.00	9,159.25	33708
000450	SB CO SHERIFF'S DEPARTMENT	11/10/2016	Regular	0.00	143,715.56	33709

Bank Code General Checking Summary

Payment Type	Payable Count	Payment Count	Discount	Payment
Regular Checks	7	5	0.00	166,132.84
Manual Checks	0	0	0.00	0.00
Voided Checks	0	0	0.00	0.00
Bank Drafts	0	0	0.00	0.00
EFT's	0	0	0.00	0.00
	7	5	0.00	166,132.84 ✓

Fund Summary

Fund	Name	Period	Amount
999	POOLED CASH	11/2016	166,132.84
			<u>166,132.84</u>



By Check Number

Vendor Number	Vendor Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
Bank Code: General Checking-General Checking						
000303	ART MERCADO	10/28/2016	Regular	0.00	50.00	33682
001099	Ben Hernandez	10/28/2016	Regular	0.00	444.22	33683
000868	BRIAN DUNSTAN	10/28/2016	Regular	0.00	50.00	33684
000713	COASTAL COPY Inc	10/28/2016	Regular	0.00	484.92	33685
000118	COASTAL COPY, INC.	10/28/2016	Regular	0.00	707.63	33686
000121	COC/BBA/VISITORS INFORMATION	10/28/2016	Regular	0.00	34,292.14	33687
000122	COMCAST CABLE	10/28/2016	Regular	0.00	214.89	33688
000140	DAN HEEDY	10/28/2016	Regular	0.00	50.00	33689
000664	ESRI	10/28/2016	Regular	0.00	1,388.00	33690
000199	FOSTER D. REIF	10/28/2016	Regular	0.00	50.00	33691
001040	Frontier Communications	10/28/2016	Regular	0.00	1,802.79	33692
001100	Joanna Crookston	10/28/2016	Regular	0.00	200.00	33693
000812	KOSMONT & ASSOCIATES, INC. dba	10/28/2016	Regular	0.00	3,017.30	33694
000280	LEE CENTRAL COAST NEWSPAPERS	10/28/2016	Regular	0.00	991.16	33695
000954	MICHAEL MacEACHERM	10/28/2016	Regular	0.00	1,302.33	33696
000335	MUNICIPAL CODE CORPORATION	10/28/2016	Regular	0.00	75.60	33697
000855	PACIFIC COAST BUSINESS TIMES INC	10/28/2016	Regular	0.00	44.99	33698
000955	SUE BAKER	10/28/2016	Regular	0.00	78.00	33699
001051	THOMAS T PETERSEN dba	10/28/2016	Regular	0.00	945.00	33700
000529	TRANSFIRST HEALTH & GOVERNMEI	10/28/2016	Regular	0.00	152.87	33701
000894	VISITSYV	10/28/2016	Regular	0.00	22,973.65	33702
000782	WAGE WORKS	10/28/2016	Regular	0.00	141.00	33703
001063	Wells Fargo Vendor Fin Serv	10/28/2016	Regular	0.00	150.12	33704

Bank Code General Checking Summary

Payment Type	Payable Count	Payment Count	Discount	Payment
Regular Checks	29	23	0.00	69,606.61
Manual Checks	0	0	0.00	0.00
Voided Checks	0	0	0.00	0.00
Bank Drafts	0	0	0.00	0.00
EFT's	0	0	0.00	0.00
	29	23	0.00	69,606.61 ✓

Fund Summary

Fund	Name	Period	Amount
999	POOLED CASH	10/2016	69,606.61
			<u>69,606.61</u>



By Check Number

Vendor Number	Vendor Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
Bank Code: General Checking-General Checking						
000839	A-OK POWER EQUIPMENT INC. dba	10/24/2016	Regular	0.00	104.67	33641
000661	AQUA-METRIC SALES, CO.	10/24/2016	Regular	0.00	1,481.72	33642
000028	ARAMARK UNIFORM SERVICES INC	10/24/2016	Regular	0.00	393.44	33643
000718	AUTOSYS, INC.	10/24/2016	Regular	0.00	849.80	33644
000076	CAL-COAST IRRIGATION, INC.	10/24/2016	Regular	0.00	14.67	33645
000090	CaPERS LONG-TERM CARE PROGRA	10/24/2016	Regular	0.00	84.25	33646
000750	CENTER FOR HEARING HEALTH, INC.	10/24/2016	Regular	0.00	515.00	33647
000101	CITY OF SOLVANG	10/24/2016	Regular	0.00	321.76	33648
001097	Clean Harbors Env. Services	10/24/2016	Regular	0.00	14,616.33	33649
000655	COAST NETWORK, INC.	10/24/2016	Regular	0.00	95.00	33650
000122	COMCAST CABLE	10/24/2016	Regular	0.00	472.49	33651
000598	ENGEL & GRAY, INC.	10/24/2016	Regular	0.00	6,008.12	33652
000965	FASTRAK SOFTWARE, INC	10/24/2016	Regular	0.00	149.00	33653
000193	FIRST NATIONAL BANK OF OMAHA	10/24/2016	Regular	0.00	7,484.77	33654
	Void	10/24/2016	Regular	0.00	0.00	33655
000649	FLUID RESOURCE MANAGEMENT, IN	10/24/2016	Regular	0.00	15,842.12	33656
000826	GENUINE PARTS COMPANY INC	10/24/2016	Regular	0.00	184.43	33657
000237	IRON MOUNTAIN	10/24/2016	Regular	0.00	47.18	33658
000248	JCI JONES CHEMICALS, INC.	10/24/2016	Regular	0.00	3,406.42	33659
000395	JOSE RAFAEL RUIZ dba	10/24/2016	Regular	0.00	1,800.00	33660
000545	KROS ANDRADE dba	10/24/2016	Regular	0.00	936.01	33661
000280	LEE CENTRAL COAST NEWSPAPERS	10/24/2016	Regular	0.00	854.61	33662
000326	MNS ENGINEERS, INC.	10/24/2016	Regular	0.00	56,863.75	33663
	Void	10/24/2016	Regular	0.00	0.00	33664
000342	NIELSEN BUILDING MATERIALS,INC	10/24/2016	Regular	0.00	344.45	33665
000669	O'CONNOR & SONS dba	10/24/2016	Regular	0.00	105.00	33666
000350	OLIVERA'S REPAIR, INC	10/24/2016	Regular	0.00	70.99	33667
001059	On-Site Business & IT Solutions Inc.	10/24/2016	Regular	0.00	167.67	33668
000352	P G & E	10/24/2016	Regular	0.00	40,800.42	33669
000861	POLYDYNE INC.	10/24/2016	Regular	0.00	1,146.96	33670
000379	POSTMASTER	10/24/2016	Regular	0.00	565.00	33671
001096	Quality Inn Buellton	10/24/2016	Regular	0.00	7,500.00	33672
001001	R & M ENTERPRISES DIESEL TOWINC	10/24/2016	Regular	0.00	257.46	33673
000465	SP MAINTENANCE SERVICES, INC.	10/24/2016	Regular	0.00	2,821.00	33674
000489	STEVE'S WHEEL & TIRE	10/24/2016	Regular	0.00	22.16	33675
000862	TYLER TECHNOLOGIES, INC.	10/24/2016	Regular	0.00	11.80	33676
000535	UNDERGROUND SERVICE ALERT	10/24/2016	Regular	0.00	18.00	33677
000556	VERIZON WIRELESS	10/24/2016	Regular	0.00	607.61	33678
000582	VINTAGE WALK, LLC OWNERS ASSO	10/24/2016	Regular	0.00	104.00	33679
000677	WALLACE GROUP	10/24/2016	Regular	0.00	16,281.42	33680

Check Register

Packet: APPKT00373-2016-10-20 Special Run - PAYMENT

Vendor Number	Vendor Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
001067	WEST.COM	10/24/2016	Regular	0.00	31.54	33681

Bank Code General Checking Summary

Payment Type	Payable Count	Payment Count	Discount	Payment
Regular Checks	72	39	0.00	183,381.02
Manual Checks	0	0	0.00	0.00
Voided Checks	0	2	0.00	0.00
Bank Drafts	0	0	0.00	0.00
EFT's	0	0	0.00	0.00
	72	41	0.00	183,381.02



Fund Summary

Fund	Name	Period	Amount
999	POOLED CASH	10/2016	183,381.02
			<u>183,381.02</u>



City of Buellton, CA

Refund Check Register

Refund Check Detail

UBPKT00426 - Refunds 01 UBPKT00425 Regular

Account	Name	Date	Check #	Amount	Code	Receipt	Amount	Type
06-09700-006	CHENG, GENIE	11/2/2016	33710	48.50			48.50	Generated From Billing
20-00600-001	RARIG CONSTRUCTION INC.	11/2/2016	33711	256.67			256.67	Generated From Billing
Total Refunded Amount:				305.17				

Revenue Code Summary

Revenue Code	Amount
996 - UNAPPLIED CREDITS	305.17
Revenue Total:	305.17

General Ledger Distribution

Posting Date: 11/02/2016

Fund:	Account Number	Account Name	Posting Amount	IFT
020 - WATER FUND	020-10000	Claim On Pooled Cash	-305.17	Yes
	020-22420	Unapplied Credits	305.17	
	020 Total:		0.00	
999 - POOLED CASH	999-10001	Pooled Cash - General Checking	-305.17	
	999-27000	Due To Other Funds	305.17	Yes
	999 Total:		0.00	
Distribution Total:			0.00	

CITY OF BUELLTON
City Council Agenda Staff Report

City Manager Review: MPB
Council Agenda Item No.: 3

To: The Honorable Mayor and City Council

From: Rose Hess, Public Works Director

Meeting Date: November 10, 2016

Subject: Acceptance and Filing of Stormwater Management Program Annual Report

BACKGROUND

As part of the City's Stormwater Management Program and as required by the Regional Water Quality Control Board (RWQCB), the City completes Annual Reports to demonstrate activities throughout the year that help the City achieve permit compliance. During this second permit year, the Annual Report consists of on-line reporting for compliance.

Attachment 1 is a copy of the on-line forms submitted and subsequently approved and accepted by the RWQCB.

There were no violations or substantial issues noted. The City continues to partner with other local agencies to accomplish the overall water quality goals for our region.

A copy of the Annual Report is provided on the City's webpage.

FISCAL IMPACT

Acceptance and Filing of the Annual Report will have no fiscal impact.

RECOMMENDATION

Staff recommends that Council accept and file the Annual Report.

ATTACHMENT

Attachment 1 - 2015-2016 SWMP Annual Report

2015-2016

Phase II Small MS4 Annual - Report

REPORTING PERIOD:07/01/2015 - 06/30/2016

WDID No: 3 42M2000150

Permittee Information

City of Buellton

Marc Bierdzinski

marcb@cityofbuellton.com

PO Box 1819

Buellton

CA

93427

Phase II Small MS4 Annual - Report - 2015-2016
Questions & Answers

Q No.	Text	DropDown Answer	CheckBoxAnswer	DescriptiveAnswer	Date Answer	Number Answer
	GENERAL					
1	Per Section E.1., did you continue to implement your previously approved storm water management plan? If 'No', please provide a brief explanation in the comments section. (Years 1 - 5) (Please note: This question is for renewal permittees only. If you are a new permittee, please select 'NA')	Yes				
2	If you relied on another entity (co-permittee or SIE) to implement one or more of the permit requirements did the co-permittee or SIE meet the permit requirements that were implemented on your behalf? (Years 1 - 5) If 'Yes', please attach a copy of the agreement that you may have with the other entity. If 'No', please provide a brief explanation.	Yes				
	PROGRAM MANAGEMENT					
3	Reviewed and/or revised any relevant ordinances or other regulatory mechanisms, or adopted any new ordinances or regulatory mechanisms to obtain adequate legal authority as specified by Section E.6.a.(ii)(a-j)? (pgs. 20-22, Year 2) If 'No', please provide a brief explanation in the comments section.	N/A				
4	Certified legal authority, as specified by section E.6.b.? (page 22, Year 2) If 'Yes', attach required statement signed by an authorized signatory certifying adequate legal authority to comply with all Order requirements. (E.6.b.(ii)(a-e), page 22). (Year 2) If "No", please provide a brief explanation.	N/A				
5	Developed and began implementation of Enforcement Response Plan as specified by Section E.6.c.(ii)(a-f)? (pgs. 22-24, Year 3); OR Implemented the Enforcement Response Plan as specified in Section E.6.c.(ii)(a-f)? (Years 4-5) If 'No', please provide a brief explanation.	Yes				
	EDUCATION AND OUTREACH					
6	Selected one or more of the Public Education and Outreach options? (E.7.a, page 25.) (Year 1) If yes, which option was selected to comply with section E.7.? Provide answer in comments section. (Year 1) For countywide/regional collaborative option selection, upload required attachment: agreement confirming collaboration with other MS4s. (Year 1)	N/A				

7	Developed and began implementation of storm water public education and outreach program as specified by section E.7.a.(ii)(a - m)? (pgs. 25-27, Year 2); OR Continued implementation of storm water public education and outreach program as specified by section E.7.a.(ii)(a - m)? (pgs. 25-27, Year 3-5) If 'No', please provide a brief explanation.	Yes				
8	Developed and began implementation of a public education strategy that established education tasks based on water quality problems, target audiences and anticipated task effectiveness? (E.7.a.(ii)a, page26) (Year 2); OR Continued implementation of a public education strategy that established education tasks based on water quality problems, target audiences and anticipated task effectiveness? (Years 3-5) If 'No', please provide a brief explanation. THIS QUESTION IS REDUNDANT WITH THE QUESTIONS DIRECTLY ABOVE AND HAS BEEN REMOVED. YOU HAVE NO NEED TO ANSWER THIS QUESTION	N/A				
9	Developed and implemented a training program for all staff who, as part of their normal job responsibilities, may be notified of, come into contact with, or otherwise observe an illicit discharge or illegal connection to the storm drain system, as specified by section E.7.b.1.(ii)(a-g), page 27) (Year 3); OR Continued to implement the training program for all appropriate staff? (Years 4-5) If 'NA', please provide a brief explanation.	Yes				
10	Provided construction outreach and education training for staff implementing construction site storm water runoff control program, as specified by section E.7.b.2.a(ii)(a-c), page 28 (Years 2-5) If 'NA', please provide a brief explanation.	Yes				
11	Developed and distributed educational materials to construction site operators, as specified by section E.7.b.2(b)(ii)(a-d), (page 29, Year 3); OR Continued to distribute educational materials? (Years 4-5) If 'NA', please provide a brief explanation.	Yes				
12	Updated existing storm water website, as necessary, to include information on appropriate selection, installation, implementation and maintenance of BMPs? (E.7.b.2.(b)(ii)(d), page 29) (Years 3-5) If 'No', please provide a brief explanation.	Yes				
13	Trained employees on how to incorporate pollution prevention/good housekeeping techniques into Permittee operations, as specified by section E.7.b.3.(ii)(a-d), pages 29-30 (Years 2-5) If 'NA', please provide a brief explanation.		Yes			
	PUBLIC INVOLVEMENT AND PARTICIPATION PROGRAM					

14	Involved the public in the development and implementation of activities related to the program, as specified by section E.8.(ii)(a-e)? (Years 2-5) If 'No', please provide a brief explanation.	Yes				
	ILLICIT DISCHARGE DETECTION AND ELIMINATION					
15	Created and/or maintained outfall map? (E.9.a., page 31) (Years 2-5) If 'No', please provide a brief explanation.	Yes				
16	Included in the outfall map, location of all outfalls that are operated by the Permittee within the urbanized area, drainage areas, and land use(s) contributing to those outfalls that are operated by the Permittee, and that discharge within the Permittee's jurisdiction to a receiving water? (E.9.a(ii)(a), page 31) (Year 2) If 'No', please provide a brief explanation.	N/A				
17	Included in the outfall map, the location (and name, where known to the Permittee) of all water bodies receiving direct discharges from those outfall pipes? (E.9.a(ii)(b), page 31) (Year 2) If 'No', please provide a brief explanation.	N/A				
18	Included in the outfall map, priority areas, as specified in E.9.a.(ii)(c)(1-8), pages 31 -32. (Year 2) If 'No', please provide a brief explanation.	N/A				
19	Included in the outfall map, field sampling stations? (E.9.a(ii)(d), page 32) (Year 2) If 'No', please provide a brief explanation.	N/A				
20	Included in the outfall map, the permit boundary? (E.9.a(ii)(e), page 32) (Year 2) If 'No', please provide a brief explanation.	N/A				
21	Maintained inventory of all industrial/commercial facilities/sources within the Permittee's jurisdiction (regardless of ownership) that could discharge storm water pollutants to the MS4? (E.9.b., page 32) (Year 2) If 'No', please provide a brief explanation.	N/A				
22	Included in the inventory, the facility name, address, nature of business/activity, physical location of storm drain receiving discharge, name of receiving water and if the facility/source is tributary to a Clean Water Act Section 303(d) listed water body segment or water body segment subject to a TMDL? (E.9.b(ii)(a), page 32) (Year 2) If 'No', please provide a brief explanation.	N/A				

23	Included in the inventory: vehicle salvage yards, metal and other recycled materials collection facilities, waste transfer facilities, vehicle mechanical repair, maintenance or cleaning; building trade central facilities or yards; corporation yards; landscape nurseries and greenhouses; building material retailers and storage; plastic manufacturers; other facilities designated by the Permittee or Regional Water Board to have reasonable potential to contribute to pollution of storm water runoff? (E.9.b(ii)(b), page 33) (Year 2) If 'No', please provide a brief explanation.	N/A				
24	Determined if facilities that are required to be covered under the Statewide Industrial General Permit (IGP) have done so and notified Regional Water Board of any non-filers? (E.9.b(ii)(c), page 33) (Year 2) Attached copies of the notification of non-filers to the Regional Water Board (E.9.b(ii)(c)page 33) (Year 2) If 'No', please provide a brief explanation.	N/A				
25	Updated the inventory annually? (E.9.b(ii)(d), page 33) (Years 2-5) If 'No', please provide a brief explanation.	Yes				
26	Developed and implemented procedures to proactively identify illicit discharges originating from priority areas identified in Section E.9.a.(ii)(c), at least once over the length of the permit term. OR, established a self-certification program where Permittees require reports from authorized parties demonstrating the prevention and elimination of illicit discharges at their facilities in priority areas at least once over the length of the permit term? (E.9.b(ii)(e), page 33) (Year 2) OR Implemented the procedures established per E.9.b.(ii).(e).? (Years 3-5) If 'No', please provide a brief explanation.	Yes				
27	Conducted field sampling of any outfalls that were flowing or ponding when it had been more than 72 hours after the last rain event (i.e., were suspected of illicit discharges) during outfall inventory mapping (under section E.9.a., page 31)? (E.9.c., page 34) (Year 2) If 'No', please provide a brief explanation.	N/A				

28	Conducted monitoring for the parameters listed in Table 1 (page 34), or for parameters selected by Permittee based on local knowledge of pollutants of concern in priority areas? (E.9.c(ii)(a), page 34) (Years 2-5) If tailored parameter action levels, attach justification and modifications to parameters If 'No', please provide a brief explanation.	No		<p>No. The City of Solvang did not have any outfalls flowing or ponding more than 72 hours after a rain event, and therefore, the City did not conduct any field sampling.</p> <p>Yes. The City of Buellton conducted field sampling of River View Park West (Outfall ID 1A) and East (Outfall ID 2A) Outfall Structures that had ponded more than 72 hours after a rain event and conducted monitoring for parameters listed within Table 1 (page 34) with the exception of fluoride. The City of Buellton does not fluoridate their tap water but adds chlorine to disinfect their tap water. The City of Buellton substituted total chlorine (field test) as an alternative indicator parameter than fluoride to help identify tap or irrigation water from natural water sources.</p>		
29	Verified that indicator parameter action levels in Table 2 (page 35), or tailored parameter action levels were not exceeded? (E.9.c(ii)(b), page 35) (Years 2-5) If tailored parameter action levels, attach justification and modifications to parameter action levels. If 'No', please provide a brief explanation.	No		<p>No. The City of Solvang did not have any outfalls flowing or ponding more than 72 hours after a rain event, and therefore, the City did not conduct any field sampling.</p> <p>Yes. The City of Buellton verified if indicator parameter action levels within Table 2 or tailored parameter action levels were exceeded. The City also consulted with the Central Coast Regional Water Quality Control Board Staff regarding Sample Results/Action Levels for the following indicator parameters: Outfall ID 1A - Specific Conductivity 2500 umhom/cm and Total Chlorine 0.05 mg/L; Outfall ID 2A - Specific Conductivity 2160 umhom/cm and Total Chlorine 0.03 mg/L.</p>		
30	Conducted follow-up investigations per Section E.9.d. if the action level concentrations were exceeded? (E.9.c(ii)(c), page 35) (Years 2-5) If 'No', please provide a brief explanation.	No		<p>No. The City of Solvang did not have any outfalls flowing or ponding more than 72 hours after a rain event, and therefore, the City did not conduct any field sampling; and therefore did not conduct any monitoring or follow-up investigations.</p> <p>No. Based on previous discussions with the Central Coast Regional Water Quality Control Board, City of Buellton did not conduct any additional follow-up investigations. The local geology can contribute to the exceedances of specific conductivity and are most likely background levels. The total residual chlorine is lower than domestic water source and would be investigated if over 1 ppm.</p>		
31	Developed written procedures for conducting investigations into the source of all suspected illicit discharges? (E.9.d.ii(a-e), page 36) (Year 2) If 'No', please provide a brief explanation.	N/A				
32	Investigated within 24 hours, non-storm water discharges suspected of being sanitary sewage and/or significantly contaminated? (E.9.d.ii)(a), page 36) (Years 2-5) If 'No', please provide a brief explanation.	Yes				

33	Prioritized investigations of suspected sanitary sewage and/or significantly contaminated discharges over investigations of non-storm water discharges suspected of being cooling water, wash water, or natural flows? (E.9.d.(ii)(b), page 36) (Years 2-5) If 'No', please provide a brief explanation.	Yes				
34	Reported immediately the occurrence of any flows believed to be an immediate threat to human health or the environment to local Health Department? (E.9.d.(ii)(c), page 36? (Years 2-5) If 'No', please provide a brief explanation.	No		No. The City of Buellton nor the City of Solvang had any flows believed to be a threat to human health or the environment that needed to be immediately reported to the local health department.		
35	Determined and documented through investigations the source of all non-storm water discharges? (E.9.d.(ii)(d), page 36) (Years 2-5) If 'No', please provide a brief explanation.	Yes				
36	Implemented corrective actions to eliminate illicit discharges as specified in section E.9.d.(ii)(e), page 36. (Years 2-5) If 'No', please provide a brief explanation.	Yes				
37	Developed and began implementing a spill response plan? (E.9.e., page 36) (Year 1); OR Continued to implement a spill response plan (Years 2 -5) If 'No', please provide a brief explanation.	Yes				
	CONSTRUCTION SITE STORM WATER RUNOFF CONTROL PROGRAM					
38	Developed an enforceable construction site storm water runoff control ordinance for all projects that disturb less than one acre of soil? (E.10., page 37) (Year 2) If 'No', please provide a brief explanation.	N/A				
39	Created, maintained, and continuously updated an inventory of all projects subject to local construction site storm water runoff control ordinance according to the minimum requirements listed in section E.10.a(ii)(a-h) ? (E.10.a., page 37) (Years 1-5) If 'No', please provide a brief explanation.	Yes				
40	Developed procedures that include the minimum requirements listed in section E.10.b(ii)(a-e) to review and approve construction plan documents? (i.e., erosion and sediment control plans). (E.10.b., page 38) (Year 1) If 'No', please provide a brief explanation.	N/A				
41	Used legal authority to implement procedures for inspecting public and private construction projects and conducted enforcement as necessary? (E.10.c, page 39). (Years 2-5) If 'No', please provide a brief explanation.	Yes				
42	Conducted inspections, at a minimum, at priority construction sites prior to land disturbance, during active construction and following active construction? (E.10.c.(ii), page 39) (Years 2-5) If 'No', please provide a brief explanation.	Yes				

43	Included in inspection, an assessment of compliance with the Permittee's construction site storm water control ordinance and other applicable ordinances? (E.10.c.(ii), page 39) (Years 2-5) If 'No', please provide a brief explanation.	Yes				
44	Active site inspections included inspections of BMP maintenance, BMP effectiveness and verification of no pollutant of concern discharge? (E.10.c.(ii), page 39) (Years 2-5) If 'No', please provide a brief explanation.	Yes				
45	Based inspection prioritization criteria on project threat to water quality (includes soil erosion potential, site slope, project size and type, sensitivity of receiving water bodies, proximity to receiving water bodies, non-storm water discharges, projects more than one acre that are not subject to the CGP and past record of non-compliance)? (E.10.c.(ii), page 39) (Years 2-5) If 'No', please provide a brief explanation.	Yes				
	POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR PERMITTEE OPERATIONS PROGRAM					
46	Developed and maintained an inventory of Permittee-owned or operated facilities within your jurisdiction that are a threat to water quality, as specified in E.11.a(ii), page 40. (Years 2-5) If 'No', please provide a brief explanation.	Yes				
47	Developed and submitted a map that identifies the location of inventoried Permittee-owned/operated facilities, storm drainage system corresponding to the each of the facilities and the receiving water, facility name and management including contact information? (E.11.b., page 41) (Year 2) If 'No', please provide a brief explanation.	N/A				
48	Conducted annual inspections of and assessed the pollutant discharge potential for all Permittee-owned facilities to identify Hotspots, as specified in section E.11.c., page 41. (Year 3); If 'No', please provide a brief explanation	Yes				
49	Developed and implemented SWPPPs for hotspots as specified in section E.11.d.(ii)(a-c), page 42-43)? (Year 4) If 'No', please provide a brief explanation.	N/A				
50	Conducted quarterly visual inspection of hotspots and hotspot discharge locations? (E.11.e.(ii)(a and c), page 43) (Year 5) If 'No', please provide a brief explanation.	N/A				
51	Conducted annual comprehensive hotspot inspection? (E.11.e(ii)(b), page 43) (Year 5) If 'No', please provide a brief explanation.	N/A				
52	Inspected each inventoried facility that is not a hotspot once during permit term? (E.11.e(ii)(d), page 44) (Year 5) If 'No', please provide a brief explanation.	N/A				

53	Implemented procedures to assess and prioritize maintenance of storm drain system infrastructure and assigned a high priority to each catch basin meeting any of the criteria listed in section E.11.f(ii)(1-5), page 44? (Year 2) If 'No', please provide a brief explanation.	N/A				
54	Began maintenance of storm drain systems according to the procedures and priorities developed according to section E.11.g.(ii)(a-e), page 45? (Year 3) If 'No', please provide a brief explanation. THIS QUESTION IS REDUNDANT WITH THE QUESTIONS DIRECTLY BELOW AND HAS BEEN REMOVED. YOU HAVE NO NEED TO ANSWER THIS QUESTION	N/A				
55	Developed and implemented a strategy to inspect storm drain systems, based on the priorities assigned in section E.11.f.(ii), page 44. (E.11.g.(ii)(a), page 45). (Year 3); OR Continued to implement the strategy to inspect storm drain systems? (Years 4-5) If 'No', please provide a brief explanation.	Yes				
56	Developed and implemented a schedule to clean high priority catch basins and other systems? (E.11.g.(ii)(b), page 45) (Year 3); OR Continued to implement a schedule to clean high priority catch basins? (Years 4-5) If 'No', please provide a brief explanation.	Yes				
57	Ensured that each catch basin in high foot traffic areas includes a legible storm water awareness message? (E.11.g.(ii)(c), page 45) (Years 3-5) If 'No', please provide a brief explanation.	Yes				
58	Reviewed and maintained high priority facilities and removed trash and debris from high priority areas prior to the rainy season? (E.11.g.(ii)(d), page 45). (Years 3-5) If 'No', please provide a brief explanation.	Yes				
59	Developed and maintained a procedure to dewater and dispose of materials extracted from catch basins that ensures that water removed during the catch basin cleaning process and waste material will not reenter the MS4? (E.11.g.(ii)(e), page 45). (Year 3) Continued to implement a procedure to dewater and dispose of materials extracted from catch basins? (Years 4-5) If 'No', please provide a brief explanation.	Yes				
60	Developed program to assess O&M activities for potential to discharge pollutants and inspected all O&M BMPs quarterly as specified in section E.11.h.(ii)(a-d), page 45-46? (Year 3) If 'No', please provide a brief explanation. THIS QUESTION IS REDUNDANT WITH THE QUESTIONS DIRECTLY BELOW AND HAS BEEN REMOVED. YOU HAVE NO NEED TO ANSWER THIS QUESTION	N/A				

61	Developed and implemented a program that includes activities listed in section E.11.h.ii(a)(1-8), page 46, to assess O & M activities and subsequently developed applicable BMPs? (E.11.h(ii)(a), page 46) (Year 3); OR Continued to implement a program to assess O&M activities? (Years 4-5) If 'No', please provide a brief explanation.	Yes				
62	Identified all materials that could be discharged from each of these O&M activities, and which materials contain pollutants? (E.11.h(ii)(b), page 46) (Years 3-5) If 'No', please provide a brief explanation.	Yes				
63	Developed and identified a set of BMPs that, when applied during Permittee O&M activities, will reduce pollutants in storm water and non-storm water discharges? (E.11.h(ii)(c), page 46) (Year 3); OR Continued to implement identified BMPs for O&M activities? (Years 4-5) If 'No', please provide a brief explanation.	Yes				
64	Evaluated all BMPs implemented during O&M activities quarterly? (E.11.h(ii)(d), page 46) (Years 3-5) If 'No', please provide a brief explanation.	No		No. The City of Buellton and Solvang will begin quarterly inspections following the approval of the O&M Assessment Program. Each City will evaluate BMPs implemented during municipal O&M activities as identified during inspection of a scheduled maintenance activity.		
65	Developed and implemented a process for incorporating water quality and habitat enhancement into new and rehabilitated flood management projects? (E.11.i, page 46-47) (Year 3); OR Continued to implement the process for incorporating water quality enhancement into flood management projects? (Years 4-5) If 'No', please provide a brief explanation.	Yes				
66	Implemented a landscape design and maintenance program to reduce the amount of water, pesticides, herbicides and fertilizers used by Permittee? (E.11.j., page 47) (Years 2-5) If 'No', please provide a brief explanation.	Yes				
67	Evaluated pesticides, herbicides and fertilizers used and application activities performed and identified pollution prevention and source control opportunities? (E.11.j(ii)(a), page 47) (Year 2) If 'No', please provide a brief explanation.	N/A				
68	Implemented practices that reduced the discharge of pesticides, herbicides and fertilizers as specified in section E.11.j(ii)(b)(1-4), page 47-48)? (Years 2-5) If 'No', please provide a brief explanation.	Yes				
69	Implemented educational activities for municipal applicators and distributors? (E.11.j(ii)(b)(1), page 47) (Years 2-5) If 'No', please provide a brief explanation.	Yes				
70	Implemented landscape management measures that rely on non-chemical solutions, including the measures specified in section E.11.j.(ii)(b)(2)(a-i), page 47? (Years 2-5) If 'No', please provide a brief explanation.	Yes				

71	Collected and properly disposed of unused pesticides, herbicides and fertilizers? (E.11.j(ii)(b)(3), page 48)(Years 2-5) If 'No', please provide a brief explanation.	Yes				
72	Minimized irrigation runoff by using an evapotranspiration-based irrigation schedule and rain sensors? (E.11.j(ii)(b)(4), page 48), (Years 2-5) If 'No', please provide a brief explanation.	Yes				
73	Recorded the types and amounts of pesticides, herbicides and fertilizers used in the permit area? (E.11.j(ii)(c), page 48) (Years 2-5) If 'No', please provide a brief explanation.	Yes				
	POST CONSTRUCTION STORMWATER MANAGEMENT PROGRAM					
74	Regulated development to comply with sections E.12.b. through E.12.l of permit? (E.12.a., page 48) (Years 2-5) If 'No', please provide a brief explanation.	NA		These requirements are superseded by the Central Coast adopted Post-Construction Requirements (PCRs). The Cities shall comply with the adopted and approved Stormwater Management Requirements for Development Projects in the Central Coast Region dated July 12, 2013.		
75	Required implementation of site design measures for all projects that create and/or replace 2,500- 5,000 square feet of impervious surface (including single family homes, that are not part of a larger plan of development)? (E.12.b., page 48-49) (Years 2-5) If 'No', please provide a brief explanation.	NA		These requirements are superseded by the Central Coast adopted Post-Construction Requirements (PCRs). The Cities shall comply with the adopted and approved Stormwater Management Requirements for Development Projects in the Central Coast Region dated July 12, 2013.		
76	Implemented standards, including measures for site design, source control, runoff reduction, storm water treatment and baseline hydromodification management, on projects that create and/or replace more than 5,000 square feet of impervious surface (Regulated Projects)? (E.12.c., pages 49 -51) (Years 2-5) If 'No', please provide a brief explanation.	N/A		These requirements are superseded by the Central Coast adopted Post-Construction Requirements (PCRs). The Cities shall comply with the adopted and approved Stormwater Management Requirements for Development Projects in the Central Coast Region dated July 12, 2013.		
77	Required Regulated Projects to implement source control measures? (E.12.d., page 51-52) (Years 2-5) If 'No', please provide a brief explanation.	NA		These requirements are superseded by the Central Coast adopted Post-Construction Requirements (PCRs). The Cities shall comply with the adopted and approved Stormwater Management Requirements for Development Projects in the Central Coast Region dated July 12, 2013.		
78	Required Regulated Projects to implement LID standards designed to reduce runoff, treat storm water, and provide baseline hydromodification management to the extent feasible, to meet the Numeric Sizing Criteria for Storm Water Retention and Treatment under section E.12.e(ii)c., page 53. (E.12.e., page 52-56)? (Years 2-5) If 'No', please provide a brief explanation.	NA		These requirements are superseded by the Central Coast adopted Post-Construction Requirements (PCRs). The Cities shall comply with the adopted and approved Stormwater Management Requirements for Development Projects in the Central Coast Region dated July 12, 2013.		

79	Developed and implemented hydromodification management procedures for Regulated Projects that created and/or replaced one acre or more of impervious surface as specified by section E.12.f? (pgs. 56 - 57, Year 3); OR Continued to implement hydromodification management procedures for Regulated Projects? (Years 4-5) If 'No', please provide a brief explanation.	NA		These requirements are superseded by the Central Coast adopted Post-Construction Requirements (PCRs). The Cities shall comply with the adopted and approved Stormwater Management Requirements for Development Projects in the Central Coast Region dated July 12, 2013.		
80	Developed and/or modified enforceable mechanisms to implement E.12.b through E.12.f., if necessary? (E.12.g., page 58) (Years 3-5) If 'No', please provide a brief explanation.	NA		These requirements are superseded by the Central Coast adopted Post-Construction Requirements (PCRs). The Cities shall comply with the adopted and approved Stormwater Management Requirements for Development Projects in the Central Coast Region dated July 12, 2013.		
81	Implemented an O&M verification program for storm water treatment and baseline hydromodification structural controls measures on all Regulated Projects, as specified by section E.12.h.(ii)(a-e), page 58-60? (Years 2-5) If 'No', please provide a brief explanation.	NA		These requirements are superseded by the Central Coast adopted Post-Construction Requirements (PCRs). The Cities shall comply with the adopted and approved Stormwater Management Requirements for Development Projects in the Central Coast Region dated July 12, 2013.		
82	Inventoried and assessed the maintenance condition of structural post-construction BMPs within your jurisdiction? (E.12.i., page 60) (Years 3-5) If 'No', please provide a brief explanation.	NA		These requirements are superseded by the Central Coast adopted Post-Construction Requirements (PCRs). The Cities shall comply with the adopted and approved Stormwater Management Requirements for Development Projects in the Central Coast Region dated July 12, 2013.		
83	Developed and maintained a plan to inventory, map and determine the relative maintenance condition of structural post-construction BMPs as specified by section E.12.i(ii)(a-d), page 60-61? (Year 3); OR Continued to implement plan to inventory, map and assessment of maintenance condition of post-construction BMPs? (Years 4-5) If 'No', please provide a brief explanation.	NA		These requirements are superseded by the Central Coast adopted Post-Construction Requirements (PCRs). The Cities shall comply with the adopted and approved Stormwater Management Requirements for Development Projects in the Central Coast Region dated July 12, 2013.		
84	Conducted an analysis of the landscape code to correct gaps and impediments impacting effective implementation of post-construction standards? (E.12.j(ii)(a), page 61) (Year 1) If 'No', please provide a brief explanation.	N/A				
85	Completed any changes to the landscape code to effectively administer post-construction requirements? (E.12.j(ii)(b), page 61) (Years 2-5) If 'No', please provide a brief explanation.	No		The City of Buellton and the City of Solvang did not find any impediments with administering the post construction requirements during the Municipal Landscape Gap Analysis but the Cities are considering future opportunities to improve that were identified during the analysis and/or adopt a new ordinance to align with the Department of Water Resource's Model Water Efficient Landscape Ordinance (MWELO).		
86	Implemented post-construction storm water management requirements based on a watershed-process approach as specified by section E.12.k, page 62? (Years 1 - 5)	NA		These requirements are superseded by the Central Coast adopted Post-Construction Requirements (PCRs). The Cities shall comply with the adopted and approved Stormwater Management Requirements for Development Projects in the Central Coast Region dated July 12, 2013.		

87	Proposed alternative post-construction requirements that achieved multiple-benefits as specified by section E.12.I., page 62? (Years 1 - 5)	No		Neither the City of Buellton or the City of Solvang submitted a proposal to the Regional Water Board or the Executive Officer to obtain approval for alternative post-construction measures for multiple-benefit projects.		
	WATER QUALITY MONITORING					
88	Indicate which water quality monitoring approach applies to your jurisdiction. Check all that apply.		303(d) Monitoring			
89	If you selected TMDL Monitoring or 303(d) Monitoring, did you consult with your Regional Water Board within Year 1 of the permit to determine monitoring study design and implementation schedule? (Year 1) If 'No', please provide a brief explanation.	N/A				
90	Indicate if you are or will be conducting water quality monitoring individually or as part of a regional program. (Years 1 and 2) If regional program, list the name of the program in the text box below. If a Permittee has a population less than 50,000 AND is not required to conduct ASBS, TMDL or 303(d) Monitoring (Sections E.13.(a)-(c)), then enter N/A					
91	Provide a status update regarding the development (including consultation with Regional Boards, if applicable), submittal and/or approval of the monitoring study design and implementation schedule. (Year 1)					
92	Upload the Monitoring Study Design and any available results for the monitoring option that applies to your jurisdiction. (Year 2)					
93	Provide a summary of the implementation of the water quality monitoring program and related results. (Year 3 - 5) Upload the Monitoring Study Results. {required}			On 3/4/16, Santa Barbara County Project Clean Water received Executive Officer Approval for the revised Urban Stormwater Monitoring Plan (USWMP) and the Quality Assurance Plan (QAPP) that was submitted with the 2014-2015 Annual Report. The first year of wet weather urban runoff was initiated in Year 3. Four storms were monitored at a total of 6 sites representing different land use types. The monitoring program is a coordinated effort with the cities of Buellton, Solvang, Goleta and Carpinteria. Wet weather monitoring will continue through permit term.		
	PROGRAM EFFECTIVENESS ASSESSMENT					
94	Developed and implemented a Program Effectiveness Assessment and Improvement Plan (PEAIP) that includes the minimum requirements listed in section E.14.a(ii)(a-f), page 70-72)? (Year 2) Continued to implement the PEAIP? (Years 3-5) If 'No', please provide a brief explanation. If 'Yes', upload required PEAIP as attachment. {required if 'Yes'}	Yes				

95	Provide a description of implementation of the Program Effectiveness Assessment and Improvement Plan, a summary of data obtained through effectiveness assessment measures and the short and long-term progress of the storm water program and an analysis of the data as described on page 72 of the permit. Upload as an attachment. (Years 3 - 5) {required}					
96	Identified and summarized BMP and/or program modification identified in priority program areas that will be made in next permit term? (E.14.b.(ii)(a-d), page 72-73) (Year 5) If 'No', please provide a brief explanation. If 'yes', upload required PEAIIP as attachment. {required if 'Yes'}	N/A				
	TOTAL MAXIMUM DAILY LOADS COMPLIANCE REQUIREMENTS					
97	Attached TMDL implementation status report that includes the information listed in section E.15.d(i-iv), page 74 of permit? (Years 1-5) {required if 'Yes'} If 'No', please provide a brief explanation.	NA		Although the Santa Ynez River is a 303(d) impaired water body, it was not identified within "Phase II Permit Traditional Small MS4 Attachment G-Region Specific Requirements" that outlines Regional Water Board Approved TMDLs.		
	ADDITIONAL INFORMATION					
98	Optional: If you have any additional information, reports or attachments that you would like to provide to describe your storm water program please use the text box and/or the upload attachment button below. (Years 1 - 5)					

**Phase II Small MS4 Annual - Report - 2015-2016
CERTIFICATION**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: Rose Hess	Title: Director of Public Works	Date: 10/14/2016
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**Phase II Small MS4 Annual - Report - 2015-2016
ATTACHMENTS**

Attachment Title	Description	Date Uploaded	Attachment Type	Attachment Hash	Doc Part No/Total Parts
USWMP 2015-2018	Phase II Small MS4 Annual Report 2015-2016-USWMP 2015-2018	2016-10-06 11:52:46.0	Supporting Documentation	cae76ff2bfbff110cdd81fa0ee7a91c604e9c3212251c2ced856991c9ac4	1/1
Phase II Small MS4 Annual Report 2013-2014-Attachment 1-Item 2-Buellton and Solvang MOU-112513	Phase II Small MS4 Annual Report 2013-2014-Attachment 1-Item 2-Buellton and Solvang MOU-112513	2016-10-04 13:39:23.0	Supporting Documentation		1/1
PEAIP Buellton and Solvang	Phase II Small MS4 Annual Report 2015-2016-PEAIP-Buellton and Solvang	2016-10-06 12:03:06.0	Supporting Documentation	3688936dc72a206d3f852524b37036bd3a74b0ba6ff1ac234b3af939c723478	1/1
PEAIP_Map-Buellton	PEAIP Map-Buellton	2016-10-06 12:03:10.0	Supporting Documentation	495b7015834e62f1f77182493c1465592b5460f743deded4ff93eabe4a68c9	1/1
Outfall_Map-Solvang	Outfall Map-Solvang	2016-10-06 12:03:11.0	Supporting Documentation	52faf850a0246bc345c1db5e95e4306d4df96577994a733712716242aa465c9	1/1
QAPP for USWMP for 2015-2018	Phase II Small MS4 Annual Report 2015-2016-QAPP for USWMP 2015-2018-No Attachments	2016-10-06 16:20:31.0	Supporting Documentation	3a91c3c6f6f304aea366f2d533b40ef83a5c6ee365eb27c36dd89dcae1	1/1
Santa Barbara County Memorandum-Transmittal of 303d Monitoring Program Results 2015-2016-101416	Phase II Small MS4 Annual Report 2015-2016-SBC Memorandum-Transmittal of 303d MPR 2015-2016-101416	2016-10-13 18:55:10.0	Supporting Documentation	859c4fcf2331e3bb0dee5a31c6c0f05f6d352c3848c846960abb2253971a8	1/1
PEAIP Annual Summary-Buellton and Solvang	Phase II Small MS4 Annual Report 2015-2016-PEAIP Annual Summary-Buellton and Solvang-101416	2016-10-14 13:12:27.0	Supporting Documentation	d05feb2ae683bd66a1b7c9c5d3d675fe96deef1d393da5c3913533716c5	1/1
PEAIP-GeoSyntec Consultants-Storm Water Pollutant Model Results-Buellton	Phase II Small MS4 Annual Report 2015-2016-PEAIP-GSC SWPLM Results-Buellton-041516	2016-10-13 18:41:24.0	Supporting Documentation	ad301399c73bd2b819974c734e788e14b2a34524a2c46094c4d60798fa9f54	1/1
PEAIP-GeoSyntec Consultants-Storm Water Pollutant Model Results-Solvang	Phase II Small MS4 Annual Report 2015-2016-PEAIP-GSC SWPLM Results-Solvang-041516	2016-10-13 18:41:31.0	Supporting Documentation	58a1b2ba5b1b832a867e43a7ff2bb3c5cab338ad42f1f4eb686c6869bd85ce5	1/1

Urban Storm Water Monitoring Plan 2015-2018

For the NPDES Phase II Small MS4 General Permit
Sections E.13.c 303(d) *Monitoring* and E.14.a *Program Effectiveness Assessment
and Improvement Plan*

For the following Regulated MS4s:

City of Goleta
City of Carpinteria
City of Buellton
City of Solvang
Unincorporated Santa Barbara County

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Introduction

The NPDES Municipal General Permit E.13.c. 303(d) Monitoring section outlines requirements as follows:

All Permittees that discharge to waterbodies listed as impaired on the 303(d) list where urban runoff is listed as the source, shall consult with the Regional Water Board within one year of the effective date of the permit to assess whether monitoring is necessary and if so, determine the monitoring study design and a monitoring implementation schedule. Permittees shall implement monitoring of 303(d) impaired water bodies as specified by the Regional Water Board Executive Officer.

During initial consultations with the Santa Barbara County MS4s (August 19, 2014), Regional Water Board staff indicated that permittees should monitor for pollutants typically associated with wet weather discharges, rather than limit monitoring to listed impairments for the County's receiving waters. Regional Water Board staff also indicated that, for MS4s, instream monitoring was less important than discharge monitoring (specifically, pollutant *loading*). In an email dated July 25, 2014, Regional Water Board staff also provided supplemental guidance to Permittees as follows:

- Prepare and submit a draft plan for 303(d) monitoring program by January 1, 2015. Incorporate: catchment-based discharge monitoring; source tracking/source ID; synthesis and reporting of data. Receiving water monitoring not required.
- Prepare and submit a Quality Assurance Project Plan (QAPP), for 303(d) monitoring program by May 1, 2015.
- Prepare to initiate monitoring program by Year 3: July 1, 2015.
- Prepare to submit monitoring results with Year 3 and subsequent Annual Reports (E.14.a.iii)

In conjunction with this guidance, the Regional Water Board staff also identified that BMP Effectiveness Assessment should include a pollutant loading model, as follows:

Identify Steps to Quantify Pollutant Loads and Pollutant Load Reductions Achieved by the Program as a Whole (E.14.a):

- Evaluate and select flow and pollutant loading models
- Prioritize load quantification by catchment: e.g., determine annual average volume of discharge to receiving waters from outfalls draining priority areas and quantify pollutant loads for catchments with largest volumes first; or, use available constituent concentration data from existing data to screen for problem outfalls
- Provide schedule for completing pollutant load quantification to inform submittal of Stormwater Program Modifications by Year 5 (E.14.b)

The Cities of Carpinteria, Goleta, Buellton and Solvang, and the County of Santa Barbara determined that monitoring and modeling requirements are related insofar as the future monitoring results should inform future modeling efforts. Therefore, this monitoring plan is designed so that the results will be useable for future refinement of the County-wide pollutant load model.

Goals and Objectives of Monitoring

The goal of this monitoring effort is to characterize pollutant concentrations and loads from representative MS4 discharge locations within the County, excluding the City of Santa Barbara. The objective of this effort is to collect sufficient data to inform, update, or calibrate the land use-based pollutant load model. The monitoring program is defined for a period of three years, at which time continuing monitoring, or revisions to this plan, will be considered.

This monitoring program focuses on pollutants typically associated with wet weather MS4 discharges in key watersheds. Samples will be taken at the outfalls discharging into impaired waterbodies. The results of monitoring will then be used to inform a pollutant load model.

Observation of velocity, depth and area of flow will inform flow estimates for each sampling event. These values will not be used to compute loading but rather to document field conditions at the time of sampling. Loading will not be specifically determined for each sampling location. Water quality data from the sampling sites will be used as Event Mean Concentrations for each land use. A model will then determine runoff volume based on rainfall and watershed character and loading will be computed as a total annual load for the entire MS4. The pollutant load results will be used to support model calibration and allow a more accurate prediction of local conditions. The model results will then be used to prioritize catchments, i.e. rank or categorize catchments by their generated pollutant load. This will help identify potential locations for and prioritize BMPs to improve overall program effectiveness and success.

Over time as the monitoring data is used to inform the model, the model results will be used as part of implementing the Permittee's Program Effectiveness Assessment and Improvement Plans, by allowing the Permittees to assess subwatersheds with existing BMPs, compare pollutant loading between subwatersheds, and better tailor future BMPs by focusing on areas of potentially higher pollutant load.

Pollutant Parameters

Pollutants of concern were selected based upon the following criteria:

1. Pollutants are representative of typical MS4 wet weather discharges and impairments to urban receiving waters;
2. Pollutants are cost-effective to analyze and don't require special sample collection or handling procedures;
3. Pollutants can be addressed through BMPs in the Permittee's stormwater program (and BMP performance data exist in order to model these pollutants), and
4. Pollutants are of interest to Regional Water Board staff based on initial discussions.

Some pollutants identified on the 303(d) list for County receiving waters were not selected because they did not meet the above criteria. For example, bacteria is not included because it would require special sampling (flow weighted composites might need to be replaced with grab samples) and short hold time requirements. Also, given its ubiquitousness in the natural and urban environments, the uncertainty regarding its sources to/in urban MS4s, and the uncertainty regarding effective source control strategies (and their performance), bacteria has been excluded from this monitoring plan. A preferable approach for addressing bacteria (or "pathogens") is through dry weather monitoring when illicit discharges can be observed. These discharges would then be investigated through source-tracking and special studies to identify source-specific BMPs. Further, bacteria modeling for annual pollutant load based on land use Event Mean Concentrations will be developed.

Similarly, salts (such as chloride, sodium, and boron), legacy chlorinated pesticides (primarily associated with agricultural activities), and selenium (primarily associated with rising groundwater) will not be included as these are primarily dry weather issues and/or not associated with MS4 wet weather discharges. Pollutant effects such as DO, and algae/eutrophication were excluded since they are less associated with wet weather conditions or wet weather MS4 discharges.

Discharges into Orcutt Creek are not included in this plan because that waterbody is subject to TMDLs and therefore subject to a separate monitoring program.

The following parameters will be analyzed:

- Acute Toxicity (*Hyalloella* sp)
- Metals (dissolved Al, Cu, Zn, Cd, Pb, and Fe)
- TSS
- Hardness
- Nutrients
- Temperature
- pH
- Pesticides (listed below)

Pesticides will include organophosphate pesticides, carbamates, pyrethroids, neonicotinoids (acetamidprid, clothianidin, dinotefuran, imidacloprid, thiacloprid, and thiamethoxam), and diuron (including DCPMU, DCPU, and 3,4-DCA).

Site Conditions and Characteristics

Six MS4 outfall sampling locations, each representing drainage areas with varying land use, will be monitored. There were twenty sites tentatively identified; six were selected that best represent the land use character to best inform the model. These are located in Solvang, Buellton, Goleta, and Carpinteria.

The six locations were selected based on the following considerations:

- Safety and accessibility – sampling locations should be safely accessible during wet weather conditions
- Performance – accurate flow estimates and sample collection can be reproduced at that location
- Drainage area characteristics – drainage areas should represent homogenous urban land use to the extent possible, with a large enough area to be representative of typical variability that is expected within that land use type in this study area.

The targeted urban land use categories are:

- Single-family, or low density residential
- Multi-family or high density residential
- Commercial
- Industrial (multiple industrial sites may be necessary to characterize the diversity of “industrial” areas in this study area)

Other potential urban land use categories that are not included, but can be modeled are:

- Transportation (outside of Caltrans, finding an outfall with this homogeneous land use within the MS4 may prove challenging).
- Open Space (these areas generally don’t have storm sewers and may prove similarly challenging)
- Agriculture

Proposed Locations

Monitoring locations are shown in Table 1 and Figure 1 and summarized below.

Watershed: Santa Monica Creek, Franklin Creek, Carpinteria Salt Marsh

City of Carpinteria (medium density residential)

City of Carpinteria (indoor urban agriculture)

Watersheds: San Jose Creek, Las Vegas Creek

City of Goleta (industrial)

City of Goleta (commercial)

Watershed: Santa Ynez River and tributaries

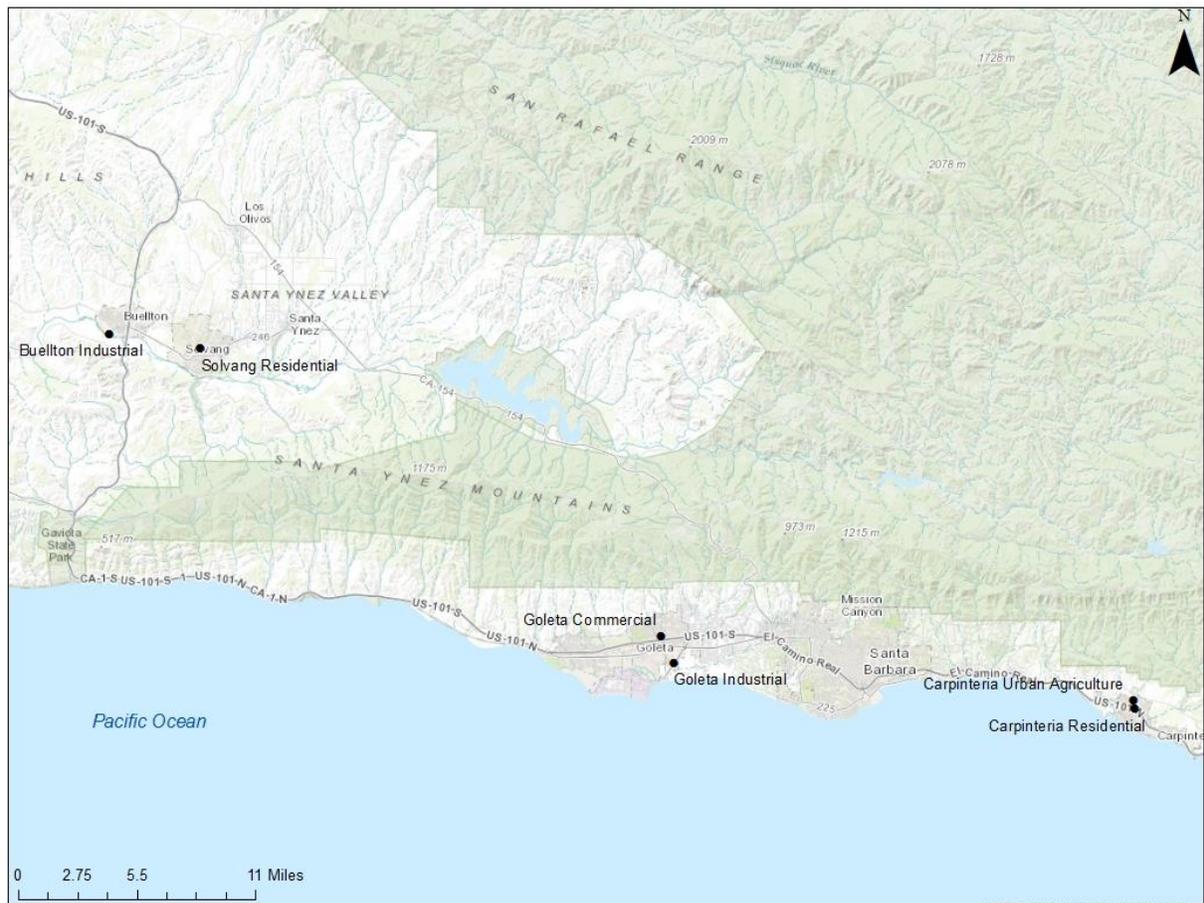
City of Solvang (low density residential)

City of Buellton (industrial)

Table 1. Monitoring Locations

Location	Land Use	Receiving Water
City of Solvang	Low density residential	Santa Ynez River
City of Carpinteria	Medium density residential	Franklin Creek
City of Goleta	Commercial	Las Vegas
City of Buellton	Industrial	Santa Ynez River
City of Goleta	Industrial	San Jose Creek
City of Carpinteria	Indoor Urban Agriculture	Franklin Creek

Figure 1. Monitoring Locations



The County of Santa Barbara will be responsible for the monitoring logistics and managing the lab contracts. This includes tracking and selecting a storm to monitor, providing one or two staff to conduct the sampling, determining the number of time-proportioned aliquots (10 to 12 based on storm depth collected over a period of two hours), and arranging for courier pick-up of sample bottles. The Cities have agreed through an MOU to fund their proportionate cost of the monitoring effort. The Cities may provide an additional staff person so that there are two people working together for safety during the stormwater monitoring activities.

Monitoring Frequency and Event Targeting

Time-paced aliquots will be taken at ten or twelve minute intervals for two hours in duration as the characteristics of the individual storms allow. A minimum number of aliquots will be taken depending on the forecast rain event depth, ranging from 10 for storms 0.2” to 1.0” and 12 for storms greater than 1.0”. Details are shown in the QAPP. Subsequently to the sampling event, data obtained from the County of Santa Barbara Water Resources Division rain gauge network will be used to describe the rainfall pattern and the timing of the sampling. The monitoring program will not include automated samples. Representative composite samples will be generated by combining aliquots. The toxicity aliquots will be combined in the field, resulting in a single composite sample for toxicity analysis. The samples for analysis of the remaining analytes will be collected in aliquots and combined into one composite sample by the analyzing laboratory.

Two sites will be monitored per storm, grouped as follows:

Storm 1 – Carpinteria area (two outfalls)

Storm 2 – Goleta area (two outfalls)

Storm 3 – Santa Ynez (one outfall each from Buellton and Solvang)

During a given year, as many storms will be monitored as possible, but no more than 18 sampling events per year.

Targeted storm events will be those forecast for 50-75% probability of 0.2” or greater over a period of 24 hours. The County’s Water Resources Division hydrologists will provide updated forecast information for the specific sampling locations. The County develops forecasts based on a contracted private weather forecaster, National Weather Service information, and professional judgment based on local experience.

Sample Collection Procedures

Water samples will be manually collected from outfalls during the storm event.

Based upon the prediction of the anticipated storm duration, field staff will collect samples at ten or twelve minute intervals over a period of two hours with a target of achieving 10-12 individual aliquots per storm. Temperature and pH will be measured from the toxicity composite sample. Flow estimates will be based on observation and if possible, direct measurement of velocity and area of flow.

Clean bottles will be supplied by the analyzing laboratories. Samples will be kept on ice and held for a courier service. All hold times for the sample parameters will be followed. Chain of custody forms will be provided to the lab courier.

Quality Assurance Project Plan (QAPP)

All monitoring samples shall be collected and analyzed according to the details presented in the Program QAPP. The QAPP will be prepared consistent with the California Surface Water Ambient Monitoring Program Quality Assurance Program Plan (Sep 1, 2008, or most current).

Data Management and Reporting

Results of the prior season's monitoring will be reported annually under the Municipal General Permit report, via SMARTs, Oct 15th each year. Results will also be uploaded to CEDEN.

As described in the Goals and Objectives section above, a land use-based pollutant load model will be used to calculate wet weather loads produced in the monitoring area, prioritize catchments for BMP placement, and evaluate the performance of existing and future BMPs. The monitoring data collected through the activities described in this Plan will be used to inform the model, by providing site-specific land use pollutant concentration data. As described above, monitoring outfalls will be selected based on their drainage areas consisting of a more or less homogenous land use category. Since land use-based pollutant concentration data are limited, and to our knowledge, there is currently no dataset representing this monitoring area, the proposed monitoring program will allow for more representative and reliable modeling results. Once 8 to 10 storms have been analyzed, the EMCs used in the model will be revised to include our local runoff concentrations, and new modeling results will be reported.

**MEMORANDUM OF UNDERSTANDING
BETWEEN THE CITIES OF SOLVANG AND BUELLTON**

**Regarding the status of the Cities of Buellton and Solvang as Co-Permittees,
and preparation and submittal of Annual Reports required by the
Phase II Small MS4 NPDES Municipal Stormwater General Permit**

This Memorandum of Understanding (MOU or Agreement) is entered into between the City of Buellton and the City of Solvang, referred to herein as the “Parties,” for the purpose of defining agency roles, responsibilities, and commitments in connection with the Parties functioning as Co-Permittees under their respective Phase II Small MS4 NPDES Municipal Stormwater General Permits, and the preparation and submittal of Annual Reports required by the Permits. In consideration of the mutual covenants and conditions contained herein, the Parties agree as follows:

1. Description

The new Phase II Small MS4 NPDES Municipal Stormwater General Permit, adopted by the State Water Resources Control Board on February 5, 2013, includes a provision for agencies regulated under the Permit to comply with certain aspects of the Permit as “Co-Permittees”. Agencies covered under the Permit as Co-Permittees may submit a single joint Annual Report. It is the intent and purpose of this MOU to define the roles and responsibilities of the Parties for the purpose of preparing and submitting joint Annual Reports. The Parties agree that upon execution by both Parties this MOU is to be effective beginning Fiscal Year 2013-14.

2. Lead Agency

The City of Buellton shall be the Lead Agency and sole administrator of the joint Annual Report, and shall be responsible for preparing and submitting the joint Annual Report on behalf of the Parties. The City of Buellton shall also be responsible for contracting with a qualified stormwater consultant, as may be necessary, to prepare the joint Annual Report, and shall be the sole administrator of said consultant contract.

3. Insurance Coverage and Indemnification

The Parties agree to maintain liability insurance in an amount sufficient to protect against claims that may be filed against the Parties for the services they provide. The Parties may elect to self-insure against such claims as provided by their respective government policies, or procure third party insurance coverage.

In lieu of and notwithstanding the pro rata risk allocation which might otherwise be imposed between the parties pursuant to Government Code Section 895.6, the parties agree that all losses or liabilities incurred by a party shall not be shared pro rata but instead the Parties agree that pursuant to Government Code Section 895.4, each of the parties hereto shall fully indemnify and hold each of the other parties, their officers, board members, employees and agents, harmless from any claim, expense or cost,

damage or liability imposed for injury (as defined by Government Code Section 810.8) occurring by reason of the negligent acts or omissions or willful misconduct of the indemnifying party, its officers, board members, employees or agents, under or in connection with or arising out of any work, authority or jurisdiction delegated to such party under this Agreement. No party, nor any officer, board member, employee or agent thereof shall be responsible for any damage or liability occurring by reason of the negligent acts or omissions or willful misconduct of other parties hereto, their officers, board members, employees or agents, under or in connection with or arising out of any work, authority or jurisdiction delegated to such other parties under this Agreement.

4. Funding

It is anticipated that the City of Buellton, as the Lead Agency, will utilize Consultant services to prepare and submit the joint Annual Reports. The Parties will share equally in the net Consultant costs associated with the preparation and submittal of the joint Annual Reports. Staff time costs and incidental costs incurred by each Party in connection with preparation of the joint Annual Report shall be borne separately by each Party.

The Parties agree to annually budget for and commit sufficient funds to complete the preparation and submittal of joint Annual Reports. The funding allocation is subject to final budget approval by the respective city councils. The City of Buellton will bill the City of Solvang annually for its share of the joint Annual Report by approximately October 31. The City of Solvang agrees to make payment to the City of Buellton within 30 days of receipt of invoice.

All other aspects of each Parties stormwater management program shall be administered and funded separately unless identified otherwise in this MOU.

5. Term of Agreement

The Agreement will remain in effect until such time as one of the Parties so chooses to terminate the Agreement. The party choosing to terminate the Agreement shall give the other party a minimum of 6 months advanced notice prior to terminating the Agreement.

6. Annual Reporting

On an annual basis, the City of Buellton shall prepare and submit, or have Consultant prepare and submit Annual Report for both agencies as Co-Permittees to the Regional Water Quality Control Board (RWQCB). The City of Buellton shall be responsible for addressing any comments from RWQCB, and prepare and submit revised Annual Report as may be required.

7. Records

The Parties shall keep such records as may be necessary to assist in completion of Annual Reports. In addition, the City of Buellton shall keep records comprising the

Annual reports, and shall maintain such records for a period of five (5) years. All accounting records shall be kept in accordance with generally accepted accounting principles. Either Party shall have the right to review all such documents and records at any time during City of Buellton's regular business hours upon reasonable notice.

8. Cooperation and Coordination Meetings

Staff of the Parties agree to communicate regularly and cooperate with each other to the full extent as may be required for successful completion of Annual Reports. Staff of the Parties agree to meet at least once annually to discuss implementation of the MOU, and other stormwater management issues of common interest.

9. Contracting for Consultant Services

In March of each year the City of Buellton shall solicit a fee proposal(s) from its qualified Consultant(s) specifically to prepare and submit the joint Annual Report for the purposes of budgeting and cost sharing. The fee amount shall be communicated by the City of Buellton to the City of Solvang by April 15 allowing the Parties to incorporate the appropriate amount in their draft fiscal budgets.

10. Consultant Insurance

The City of Buellton shall require any Consultant performing work in connection with the preparation and submittal of joint Annual Reports to maintain general liability insurance, professional liability insurance, automobile liability insurance, and workers compensation insurance each in amount not less than \$1,000,000 while performing work, and for a period of two years following completion of such work. The insurance certificate shall include the City of Solvang as additional insured. Consultant shall provide both Parties with copies of the Certificates of Insurance, including the endorsement(s) naming the Parties as additional insured. The insurance certificate shall require the insurance carrier to provide 30 days written notice to the Parties in the event of cancellation.

11. Amendment

This MOU may only be amended in writing with consent of both Parties.

12. Termination

Either Party to this MOU may terminate its participation under this Agreement by giving 6 months written notification to the other Party.

13. Points of Contact

All notices referenced in this Agreement shall be in writing and shall be given by first class mail addressed as follows, or at such other address or to such person that the parties may from time to time designate in writing:

City of Buellton
Public Works Director
107 West Highway 246
Buellton, CA 93427

City of Solvang
Public Works Director
411 Second Street
Solvang, CA 93463

Signatures

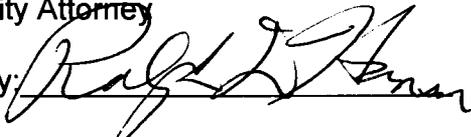
CITY OF BUELLTON



Mark Bierdzinski, City Manager

11-14-2013
Date

Approved as to Form:
Ralph Hanson
City Attorney

By: 

Ralph Hanson, City Attorney for City of
Buellton

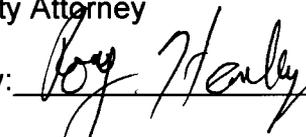
CITY OF SOLVANG



Brad Vidro, City Manager

11-25-13
Date

Approved as to Form:
Roy Hanley
City Attorney

By: 

Roy Hanley, City Attorney for City of
Solvang

**Program Effectiveness Assessment and Improvement Plan
(PEAIP) Framework for Traditional MS4s**

F E B R U A R Y 2 0 1 6

CITY OF BUELLTON AND CITY OF SOLVANG

Program Effectiveness Assessment and Improvement Plan

Prepared by

MNS ENGINEERS, INC.

This *Program Effectiveness Assessment and Improvement Plan* uses the California Stormwater Quality Association (CASQA) guidance document, *A Strategic Approach to Planning for and Assessing the Effectiveness of Stormwater Programs* (February 2015), as its basis and is consistent with the approach described therein. Much of the text in this document is directly from the CASQA guidance document.

Collaborative Project Partners

The Program Effectiveness Assessment and Improvement Plan (PEAIP) were developed by the following agencies involved in this multi-agency PEAIP:

- City of Buellton
- City of Solvang

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Appendix A: Glossary of Terms

Appendix B: PEAIIP Identification of Pollutants of Concern (POCs)

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As shown in Figure 3 above, the COB and COS recognizes other pollutants based on 303(d) listed water bodies where urban runoff has been listed as the source of the pollutant (Table 2). Other sources and factors contribute to these impairments. The 303(d) list does not attribute magnitude to any urban runoff.	9
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1. Introduction

The Phase II Small Municipal Separate Storm Sewer System (MS4) General Permit¹ (Phase II Permit) requires the development and implementation of a *Program Effectiveness Assessment and Improvement Plan* (PEAIP). The PEAIP must address each of the elements outlined in Provision E.14 (traditional small MS4s). The PEAIP must include the strategy that the City of Buellton (COB) and City of Solvang (COS) will use to track the short- and long-term effectiveness of the stormwater program, the specific measures that will be used to assess the effectiveness of the prioritized best management practices (BMPs), groups of BMPs, and/or the stormwater program as a whole, and a description of how the COB and COS will use the information obtained through the PEAIP to improve the stormwater program.

The COB and COS's stormwater program addresses many pollutants of concern (POCs) and implements a wide range of BMPs; however, consistent with Provision E.14 requirements, the PEAIP will present a plan for assessing the effectiveness of a subset of prioritized BMPs that are focused on high- and medium-priority POCs. This approach provides a manageable assessment program that can be improved, targeted, and refined.

The COB and COS has developed this PEAIP as a guide for its stormwater staff to assist them in conducting program effectiveness assessments (EAs). The PEAIP is modeled after the methodology described within the California Stormwater Quality Association (CASQA) document, *A Strategic Approach to Planning for and Assessing the Effectiveness of Stormwater Programs* (February 2015).² The PEAIP outlines the approach that the COB and COS will use to adaptively manage its stormwater program to improve its effectiveness at reducing the identified high- and medium-priority POCs, thereby achieving the maximum extent practicable (MEP) standard and protecting water quality.

The PEAIP is focused on the *impact* that the stormwater program is having rather than the strict *implementation* of the program. By focusing the EA in this manner, the COB and COS will increase their ability to understand if its stormwater program is achieving the intended outcomes and can identify necessary modifications to the program to make it more effective.

This PEAIP addresses the requirements in Provision E.14, as summarized in **Table 1**.

¹ Order No. 2013-0001-DWQ, effective July 1, 2013

² Language from the 2015 CASQA Guidance Document is used as the basis for much of the PEAIP.

Table 1. Phase II Permit PEAIIP Provisions and Corresponding PEAIIP Sections (Traditional MS4s)

Phase II Permit Provision(s)	PEAIIP Section
E.14.a.(i-iii)	1. Introduction
E.14.a.(i) E.14.a.(ii)(b)(5)	2.1. Identification of Sources and Impacts 2.1.2. Urban Runoff and MS4 Contributions ³
E.14.a.(i) E.14.a.(ii)(b)(1)	2.3. Identification of the Stormwater Program Activities
E.14.a.(i) E.14.b.(i) and (ii)	5. Program Reporting and Modifications
E.14.a.(ii)(a)(1)	1.1. Stormwater Program Goals and Objectives
E.14.a.(ii)(a)(2-9)	2. Program Effectiveness Assessment Approach and Development
E.14.a.(ii)(b)(2)	2.2. Identification of the Key Target Audiences 2.2.2. Barriers and Bridges to Action ⁴
E.14.a.(ii)(b)(3)	2.2. Identification of the Key Target Audiences 2.2.1. Target Audience Actions ⁵
E.14.a.(ii)(b)(4)	2.1. Identification of Sources and Impacts 2.1.3. Source Contributions ⁶
E.14.a.(ii)(b)(6)	2.1. Identification of Sources and Impacts 2.1.1. Receiving Water Conditions
E.14.a.(ii)(c-d)	4. Data Assessment and Collection
E.14.a.(ii)(e-f)	3. Management Questions

The schedule for the implementation of the PEAIIP is as follows:

- Year 2 Annual Report (October 15, 2015): Submit the PEAIIP
- Year 3 and Year 4 Annual Reports (October 15, 2016 and October 15, 2017): Describe the implementation of the PEAIIP, summarize the data obtained, and provide an analysis of the data (i.e., the EA)
- Year 5 Annual Report (October 15, 2018): Describe the implementation of the PEAIIP, summarize the data obtained, provide an analysis of the data (i.e., the EA), and describe any program modifications identified

³ Provision E.14.a.(ii)(b)(5) uses the term “MS4 Discharge Quality” for Outcome Level 5; however, the 2015 CASQA Guidance Document and this PEAIIP use the term “Urban Runoff and MS4 Contributions” for Outcome Level 5 to reflect the new approach that has been developed.

⁴ Provision E.14.a.(ii)(b)(2) uses the term “Awareness” for Outcome Level 2; however, the 2015 CASQA Guidance Document and this PEAIIP use the term “Barriers and Bridges to Action” for Outcome Level 2 to reflect the new approach that has been developed.

⁵ Provision E.14.a.(ii)(b)(3) uses the term “Behavior” for Outcome Level 3; however, the 2015 CASQA Guidance Document and this PEAIIP use the term “Target Audience Actions” for Outcome Level 3 to reflect the new approach that has been developed.

⁶ Provision E.14.a.(ii)(b)(4) uses the term “Pollutant Load Reductions” for Outcome Level 4; however, the 2015 CASQA Guidance Document and this PEAIIP use the term “Source Contributions” for Outcome Level 4 to reflect the new approach that has been developed.

1.1. STORMWATER PROGRAM GOALS AND OBJECTIVES

Stormwater programs are inherently complex due to a number of factors such as: the number of pollutant sources (construction, industrial, commercial, residential, new development, etc.), the limited ability to directly control the behaviors of target audiences, the extensive geographic coverage of the programs, the number of constituents that must be addressed, the co-mingling of flows within the drainage system, and the potential impacts to water quality from other sources (wind-blown materials, groundwater seepage, aerial deposition, etc.).

The overall goals of the COB and COS's stormwater management program are to a) reduce the potential impact(s) of pollution from urban areas on waters of the State and waters of the United States (U.S.) and protect their beneficial uses; and b) develop and implement an effective stormwater program that is well-understood and broadly supported by stakeholders.

The core objectives of the stormwater program are to:

1. Identify and make a reasonable effort to control those pollutants in urban runoff that exceed water quality objectives (WQOs), as measured in the waters of the State and waters of the U.S., and protect the beneficial uses of the receiving waters;
2. Comply with the federal and State regulations to eliminate or control, to the MEP, the discharge of pollutants associated with urban runoff from the COB and COS's stormwater drainage system;
3. Develop a cost-effective program which focuses on the prevention of pollution in urban stormwater;
4. Seek cost-effective alternative solutions where prevention is not a practical solution for exceedances of WQOs; and
5. Coordinate the implementation of control measures with other agencies.

The PEAIIP supports these stormwater program goals and objectives by providing a framework for the implementation and assessment of prioritized BMPs focused on the high- and medium-priority POCs, as well as a feedback loop for the adaptive management of the COB and COS's stormwater program. When considered as part of a larger program planning process, assessment principles and approaches can help to guide managers toward implementation strategies with the greatest opportunity for long-term success.

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2. Program Effectiveness Assessment Approach and Development

This PEAIIP was developed to implement a focused evaluation of priority program elements and BMPs, ensuring that they are well-targeted and determining whether intended results are being achieved.

Stormwater program management⁷ can be described by a cycle divided into three phases of activity (**Figure 1**):

- **Program Planning and Modification** – In this phase, the COB and COS is identifying the critical components and POCs for its stormwater program, as well as developing an EA approach and associated management questions to assist in determining if the program is achieving the intended results.
- **Program Implementation** – In this phase, the COB and COS is implementing the program and obtaining the assessment data needed to answer the management questions.
- **Effectiveness Assessment** – In this phase, the COB and COS is conducting EAs, reviewing the results, and determining if any program modifications are necessary. This is typically conducted as a part of the Annual Reports and/or Report of Waste Discharge, but may also be a part of other regulatory requirements such as 303(d) Monitoring or Total Maximum Daily Loads (TMDLs) when proposed or established. Once identified, the COB and COS can make the program modifications and initiate the next round of implementation, leading again to renewed assessment and planning (see **Section 5**).



Figure 1. The Program Management Cycle (CASQA, 2015)

This process is applied repeatedly over time in order to focus the stormwater program in on the most effective BMPs and the achievement of the desired results.

The CASQA EA approach⁸ utilizes a general model that aggregates three primary components from the six outcome levels and associated, general outcome types (**Figure 2**). The three primary components are:

⁷ See 2015 CASQA Guidance Document, Section 3.0: Introduction to Strategic Planning for Stormwater Management Programs

⁸ See 2015 CASQA Guidance Document, Section 2.0: Stormwater Management Approach

- Sources and Impacts (Outcome Levels 4-6) – This component addresses the generation, transport, and fate of urban runoff pollutants. It includes sources (sites, facilities, areas, etc.), stormwater conveyance systems, and the water bodies that ultimately receive the source discharges (receiving waters). This component is typically assessed on a long-term basis.
- Target Audiences (Outcome Levels 2-3) – This component focuses on understanding the behaviors of the people responsible for source contributions. It explores the factors that determine existing behavioral patterns and looks for ways to replace polluting behaviors with non-polluting behaviors. This component is typically assessed on a short- and/or long-term basis.
- Stormwater Programs (Outcome Level 1) – Stormwater programs are the road map for the improvements that managers wish to attain in receiving waters. Their immediate purpose is to describe programs that will facilitate changes in the behaviors of key target audiences. This component is typically assessed on a short-term basis.

The six categories of outcome levels establish a logical and consistent organizational scheme for assessing and relating individual outcomes.

This PEAIIP will focus primarily on the Target Audiences (Outcome Levels 2 and 3) and the Sources and Impacts (Outcome Level 4 and 5) and will provide a plan to collect data that can be used to improve the stormwater program and protect water quality. Assessment at Outcome Level 6 may be undertaken once program implementation has progressed to a point that improvements in outfall and receiving water quality are statistically significant. The timeframe for this level of change to be realized will vary based on a variety of factors.

The approach to be used for each of the outcome levels is described in more detail within this section.

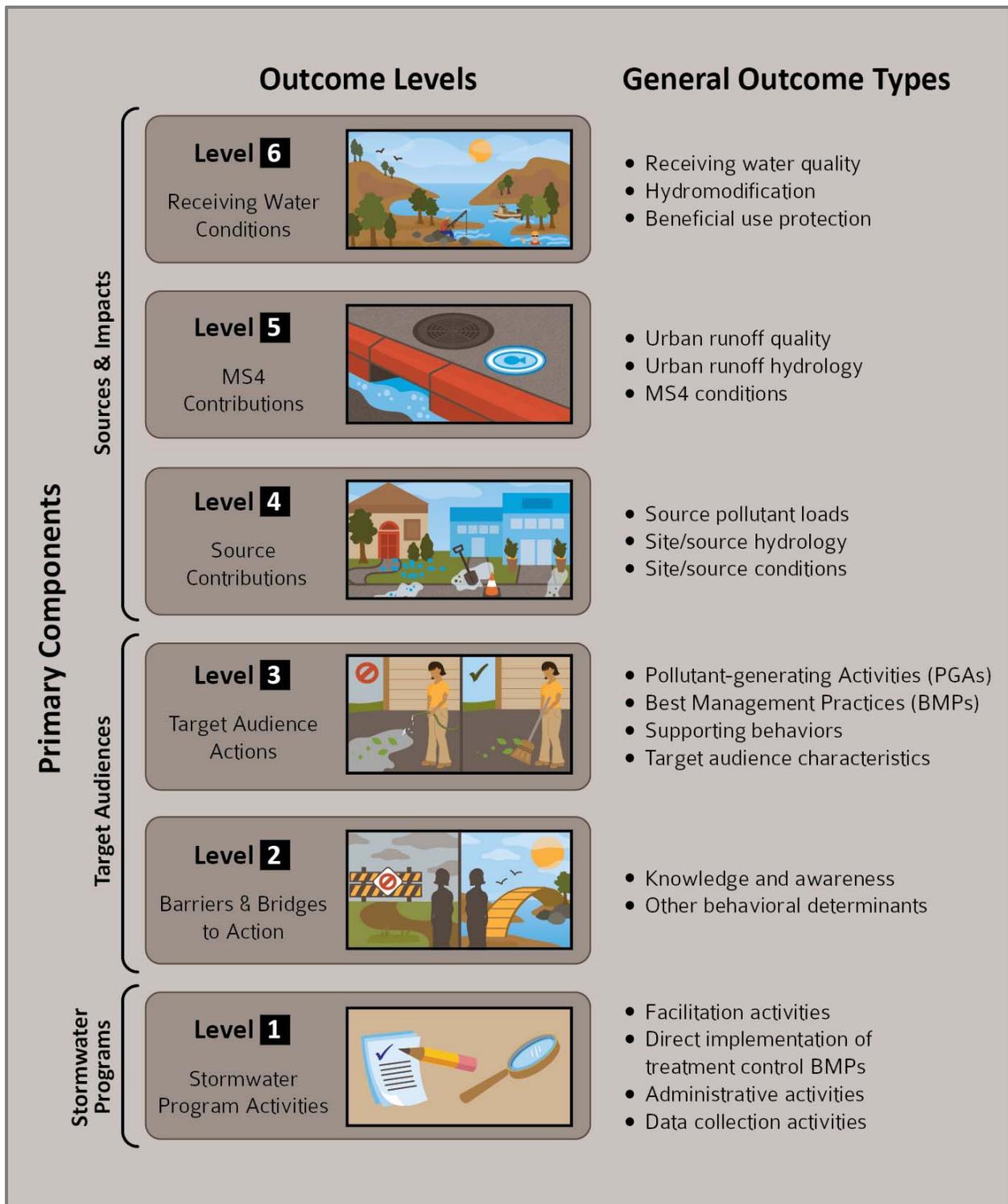


Figure 2. General Stormwater Management Model (CASQA, 2015)

2.1. IDENTIFICATION OF SOURCES AND IMPACTS⁹

2.1.1. Receiving Water Conditions (Outcome Level 6)¹⁰

One of the primary objectives of the stormwater program is the protection of the beneficial uses of the receiving waters. The Phase II Permit recognizes that there is a need to conduct the EA based on prioritized POCs. The number of POCs ultimately selected may be determined by established TMDLs, other known pollutants present in 303(d) listed waterbodies and/or regional issues identified by COB and COS.

This PEaip will focus on high- and medium POCs (see **Section 2.1.2**) and will, over time and to the extent feasible, assess protection of the beneficial uses of the receiving waters through attainment of the water quality objectives (WQO's).

Although Outcome Level 6 assessments (i.e. instream monitoring of receiving water conditions) may occur in future as a part of this effort or as part of a regional effort, COB and COS used current receiving water conditions to focus this PEaip, and in the selection of key metrics to assess the effectiveness of the stormwater program.

In order to identify the POCs for the PEaip, the COB and COS reviewed the a) proposed TMDLs by the Central Coast Regional Water Quality Control Board, b) 2010 303(d) List of Impaired Waterbodies, c) Central Coast Regional Water Quality Control Board (CCRWQCB) April 24th, 2014 Consultation Handout "Solvang – Buellton Urban Water Quality Profile", d) Central Coast Ambient Monitoring Program's (CCAMP) Ambient Water Quality Data, e) COB and COS Storm Water Management Plan's (SWMP) Guidance Document's List of POCs, and f) proposed regional Urban Storm Water Monitoring Plan. Best professional judgment, knowledge of local and/or regional water quality issues and common urban pollutants were also factors in the identification of POCs and summarized in Attachment B. The category of receiving water impairment that was identified and considered to be for prioritization is in **Appendix B** and summarized and ranked below in **Figure 3**.

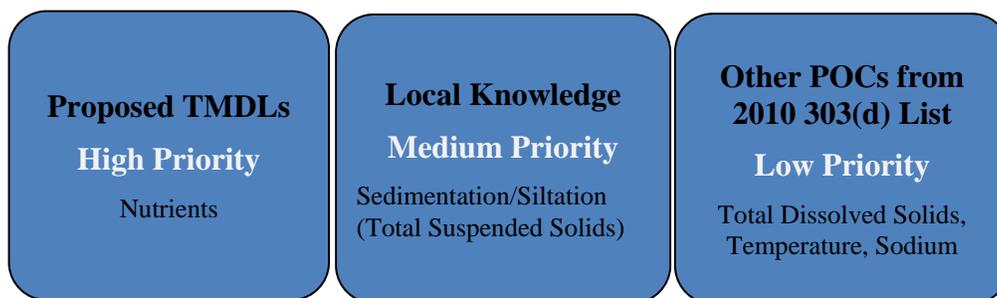


Figure 3. Prioritized POCs for the PEaip

⁹ See 2015 CASQA Guidance Document, Section 4.0: Source and Impact Strategies

¹⁰ See 2015 CASQA Guidance Document, Section 4.2 Outcome Level 6: Receiving Water Conditions.

The highest priority POC was selected because of the proposed TMDL under development by the Central Coast Regional Water Quality Control Board and in consideration of known steelhead habitat sensitivity. Medium-priority POCs continue to be addressed through implementation of the stormwater management program / Guidance Document. Low-priority POCs are also addressed through the stormwater management program, although urban runoff contributions are considered minor, and will not be addressed in this PEAIP.

2.1.2. Urban Runoff and MS4 Contributions (Outcome Level 5)¹¹

Level 5 Outcomes may be measured either within the MS4 or within discharges from the MS4. In either case, evaluation typically focuses on pollutant concentrations or loads, or both. Level 5 Outcomes provide a direct linkage between upstream sources and receiving waters and, as such, are a critical expression of stormwater program success. However, due to the temporal and spatial variability of water quality data, it is extremely challenging and takes many years and a significant amount of data to establish linkages between pollutants in MS4 discharges and the conditions within the receiving waters.

The COB and COS used known urban runoff and MS4 contributions were used to focus the PEAIP and select the key metrics that will be used to assess the effectiveness of the stormwater programs. The COB and COS will focus its evaluation of Outcome Level 5 on the high- and medium-priority POCs and by doing so will help direct the COB and COS’s efforts and provide the basis for the management questions outlined in **Section 3**.

Since TMDLs will have a significant influence on the stormwater program, nutrients are considered to be a high-priority for this PEAIP.

As shown in Figure 3 above, the COB and COS recognizes other pollutants based on 303(d) listed water bodies where urban runoff has been listed as the source of the pollutant (Table 2). Other sources and factors contribute to these impairments. The 303(d) list does not attribute magnitude to any urban runoff.

Table 2. PERMITTEE-Listed Water Bodies

Watershed	Water Body ¹	Pollutant	Source Category
Santa Ynez (314)	Santa Ynez River	Sedimentation/Siltation	Agriculture Resource Extraction Urban Runoff / Storm Sewers
Santa Ynez (314)	Santa Ynez River	Sodium	Agriculture Flow Regulation / Modification Grazing-Related Sources Natural Sources Other Urban Runoff

¹¹ See 2015 CASQA Guidance Document, Section 4.3 Outcome Level 5: MS4 Conditions

Santa Ynez (314)	Santa Ynez River	Temperature, water	Agriculture Disturbed Sites (Land Develop.) Flow Regulation / Modification Grazing-Related Sources Other Urban Runoff
Santa Ynez (314)	Santa Ynez River	Total Dissolved Solids	Agriculture Municipal Point Sources Natural Sources Other Urban Runoff

Note:

1. 2010 303(d) List

Although nutrients and sediment were selected as the high- and medium-priority POCs, the COB and COS recognize the value of considering other pollutants listed on the 303(d) list as well as common urban pollutants. The COB and COS will continue to assess the 303(d) list to understand which TMDLs may be developed in the future and plan for them as needed. Professional judgment and knowledge of local and regional water quality issues will continue to be factors in the identification of priority POCs. Due to the large size of the watershed compared to the urbanized portion and the very small proportion of urban contribution compared to background, agricultural, and runoff affected by water supply-related flow regulation, these pollutants are currently considered a low priority urban source.

In time, the COB and COS will be able to evaluate the effectiveness of its stormwater program at Outcome Levels 5 using our stormwater discharge monitoring results for the selected POCs. Depending upon data availability, Outcome Level 5 may allow the COB and COS to quantify the pollutant concentrations and/or load reductions achieved by the stormwater program. Given the time and data necessary to assess these Outcome Levels, the COB and COS will incorporate these results into long-term effectiveness assessments.

The POCs identified for the PEaip for specific COB and COS are summarized in **Table 3**.

Table 3. High- and Medium-Priority POCs¹

Permittee	PEaip Pollutants for Concern (POCs)	
	Nutrients	Sedimentation/Siltation (Total Suspended Solids)
COB	✓	✓
COS	✓	✓

Note:

1. This table is current as of June 17, 2015. It is dynamic and subject to change as new information is received.

The POC-specific shading shown in **Figure 4** is used throughout the remainder of the document to visually connect the various figures and tables.

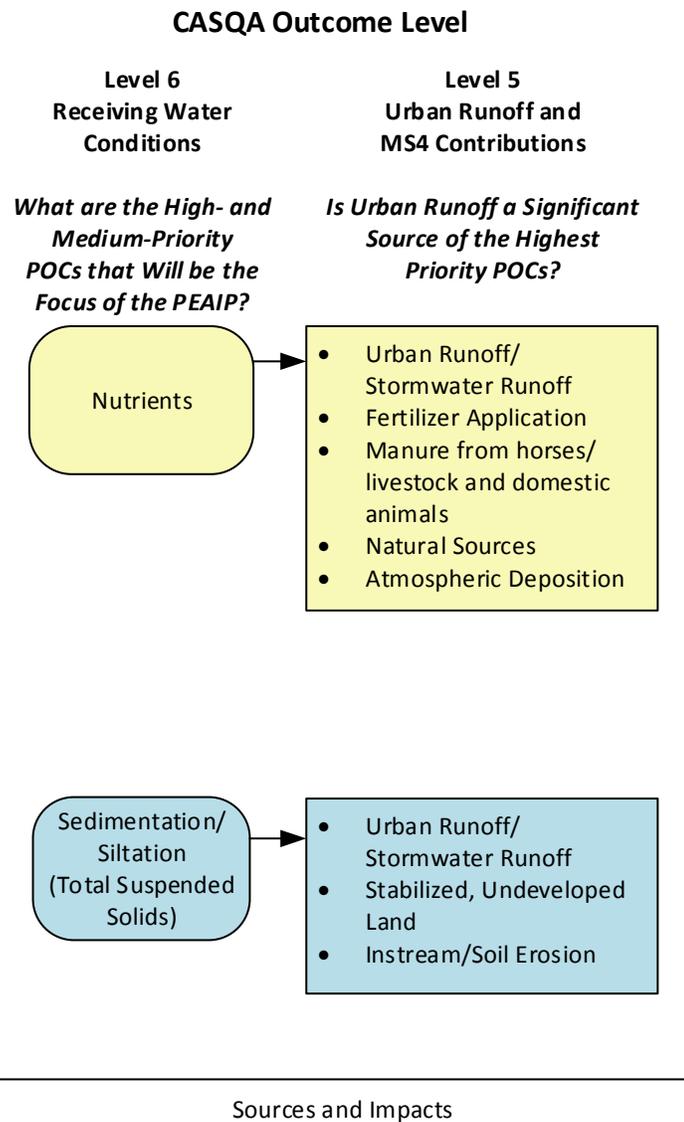


Figure 4. Sources of the High- and Medium-Priority POCs

2.1.3. Source Contributions (Outcome Level 4)¹²

Outcome Level 4 addresses urban sources and the discharges from them. A source is anything with the potential to generate pollutants prior to their introduction to the MS4. Source loadings are the pollutant loadings added by the urban sources to an MS4. Source reductions are the changes in the amounts of pollutants associated with specific sources before and after BMPs are employed. However, it is challenging to measure source loadings and/or reductions achieved by individual and/or groups of BMPs. As a result, the COB and COS will need to rely on direct measurements (where possible) and/or estimates of source reductions.

The COB and COS will focus its evaluation of Outcome Level 4 on the high- and medium-priority POC. Doing so will help direct the COB and COS's efforts and provide the basis for the management questions outlined in **Section 3**.

As management questions are developed, the COB and COS will consider the implementation requirements of future TMDLs, as well as best professional judgment. In order to determine the specific target audiences and the appropriate prioritized BMPs, the COB and COS has evaluated the POCs as they relate to urban land use to identify the primary urban runoff sources of each POC, as shown in **Figure 5**. The COB and COS expects assessment at this Outcome Level to be included in long-term EAs through a 303(d) water quality monitoring program.

The 303(d) water quality monitoring program will be conducted at two locations in urban areas of the Santa Ynez River watershed: Buellton and Solvang. Data will be incorporated into a pollutant load model to estimate average annual baseline pollutant loads -- from the full watersheds, the jurisdictional MS4 areas, and the storm drain system subcatchments -- using a static average-annual land use based spreadsheet calculation.

The model is a static spreadsheet approach that can estimate pollutant load reductions anticipated from BMPs during wet weather loading. Pollutants that can be modeled are: indicator bacteria, nutrients (total nitrogen, total phosphorus, nitrate, total kjeldahl nitrogen, dissolved phosphorus), metals (total copper, total lead, total zinc), and/or TSS. (Refer to the Geosyntec Consultants Modeling Approach Memorandum "Program Effectiveness Assessment and Improvement Plan Approach to Quantify Pollutant Loads and Pollutant Load Reductions dated October 12, 2015 that was submitted through the Storm Water Multiple Application and Report Tracking System Database).

¹² See 2015 CASQA Guidance Document, Section 4.4 Outcome Level 4: Source Contributions

CASQA Outcome Level

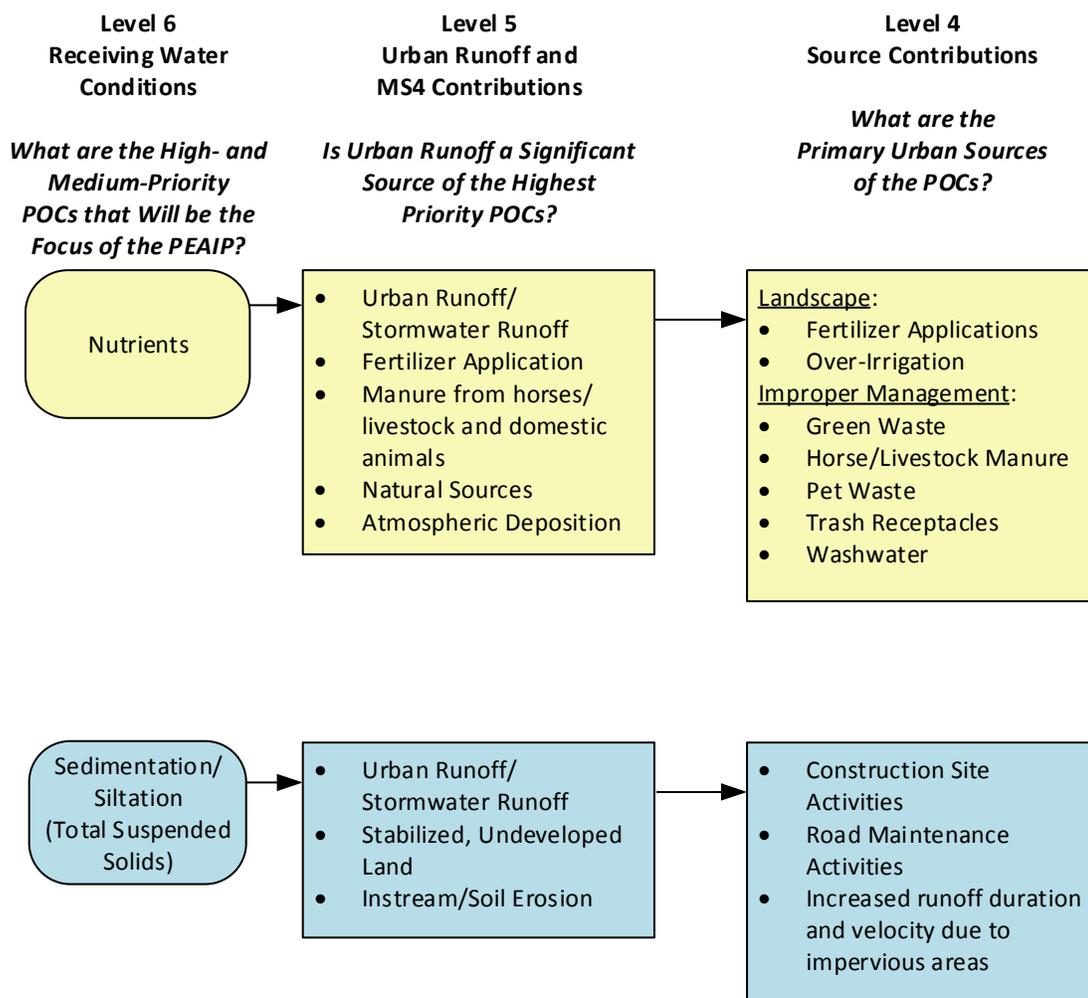


Figure 5. Primary Urban Sources of the High- and Medium-Priority POCs

2.2. IDENTIFICATION OF THE KEY TARGET AUDIENCES (OUTCOME LEVELS 2 AND 3)¹³

This component focuses on the actions of target audiences and the factors that influence them. Target audiences are the individuals and populations that a stormwater program is directed to and may include, but are not limited to, municipal employees, contractors, and the general public. Because source reductions can only be achieved by the people responsible for pollutant loadings, a successful program will be one that is able to induce positive behavioral changes in the target audiences.

Although Outcome Levels 3 (Target Audience Actions) and 2 (Barriers and Bridges to Action) are closely related, they are distinct outcome levels.

- Outcome Level 3 focuses on the identification of target audiences associated with the primary sources of high- and medium priority POCs, as well as the behavioral patterns of these target audiences, with the goal of assessing *behavior change* over time.
- Outcome Level 2 focuses on identification of the factors that influence target audience behaviors, with the goal of using these factors to develop strategies to increase target audience *awareness* of the need to reduce pollutant-generating activities (PGAs) and implement prioritized BMPs. Level 2 Outcomes are often used to gauge progress in, or to refine approaches for, achieving Level 3 Outcomes (see **Section 2.2.2**).

¹³ See 2015 CASQA Guidance Document, Section 5.0: Target Audience Strategies

2.2.1. Target Audience Actions (Outcome Level 3)¹⁴

Level 3 Outcomes address the actions of target audiences and whether or not changes are occurring within these target audiences over time. The major categories of target audience actions are:

- PGAs – behaviors that contribute pollutants to urban runoff (e.g., pressure washing without containment, improper pet waste disposal, spills during materials loading and unloading)
- BMPs – activities or other controls that are implemented to reduce or eliminate discharges of pollutants (e.g., integrated pest management (IPM) practices, implementation of secondary containment)
- Supporting behaviors – include a wide range of potential actions that are distinct from BMP implementation but help support the implementation (e.g., pollution incident reporting, public involvement)

The COB and COS will focus its evaluation of Outcome Level 3 on the actions of target audiences for the high- and medium-priority POCs. The COB and COS has identified the critical target audience(s) for the specific urban runoff source(s) of each high- and medium-priority POC (**Figure 6**), along with management questions that delineate the critical target audience actions (**Section 3**).

The COB and COS will evaluate the effectiveness of its stormwater program at Outcome Level 3 by using the management questions to guide its assessment of target audience implementation of BMPs and reduction of PGAs. It is expected that assessment at this outcome level will be included in the short- and long-term EAs.

¹⁴ See 2015 CASQA Guidance Document, Section 5.2 Outcome Level 3: Target Audience Actions

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CASQA Outcome Level

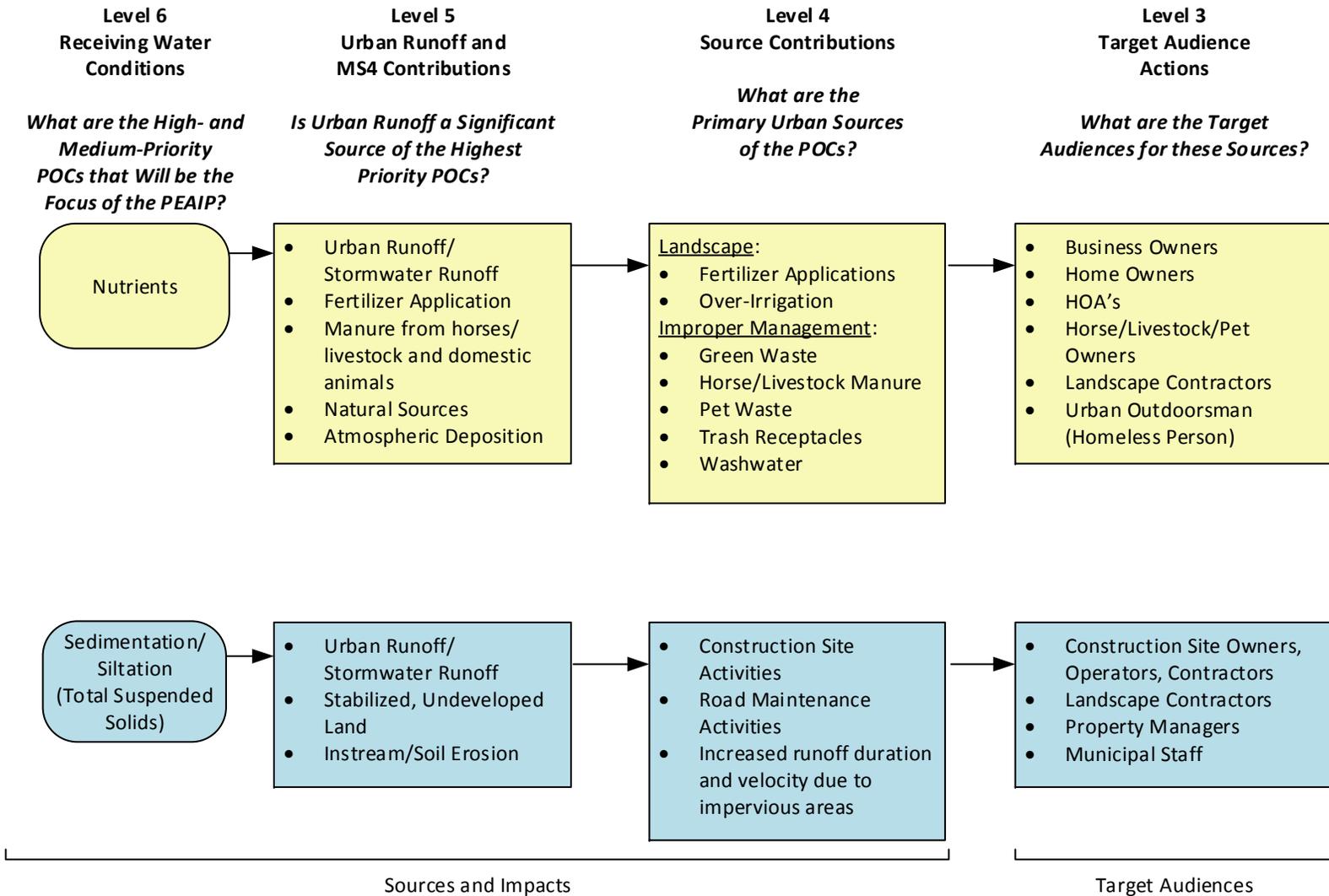


Figure 6. Target Audiences Identified for Urban Runoff Source Contributions of POCs

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2.2.2. Barriers and Bridges to Action (Outcome Level 2)¹⁵

Outcome Level 2 is critical because it forms the basis for achieving desired behavioral changes and provides a means of gauging progress toward achievement. The term “barriers and bridges” refers to the fact that there are factors that may aid or inhibit a desired behavior and that these need to be understood in order to affect the desired change. The targeted audience won’t behave differently unless they understand the problem and are motivated and able to change.

Outcome Level 2 provides a means of gauging whether the prioritized activities (e.g., outreach, municipal staff training) are producing changes in the behavior of the target audiences through increased knowledge, awareness, and changes in attitudes. Examples of Outcome Level 2 range from awareness of basic concepts (e.g., why stormwater pollution is a problem; the difference between storm drains and the sanitary sewer) to specific knowledge (e.g., how to properly dispose of pet waste; how to properly install and maintain a silt fence).

Outcome Level 2 provides a means to gauge progress in, or to refine approaches for, achieving Outcome Level 3. That is, an understanding of whether awareness, knowledge, and/or attitudes have changed will allow the identification of barriers and bridges that may be influencing the desired target audience behavior.

The COB and COS will work to identify barriers and bridges that may be influencing target audience behavior. The COB and COS will assess Outcome Level 2 on an as-needed basis as part of the adaptive management process (**Figure 7**). The COB and COS expects assessment at this Outcome Level to be included in short- and long-term EAs.

¹⁵ See 2015 CASQA Guidance Document, Section 5.3 Outcome Level 2: Barriers and Bridges to Action

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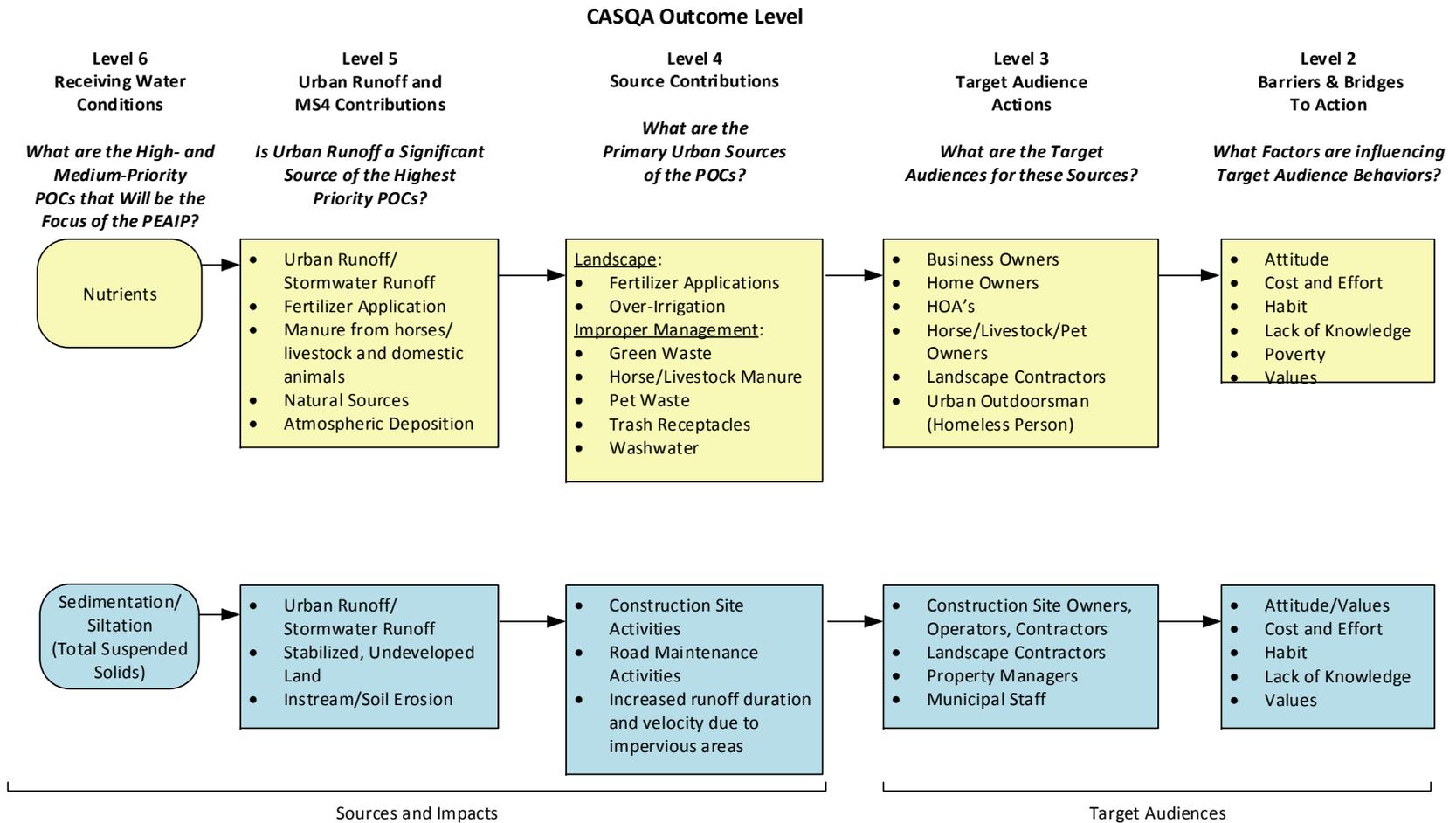


Figure 7. Assessment of Barriers and Bridges to Action

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2.3. IDENTIFICATION OF THE STORMWATER PROGRAM ACTIVITIES (OUTCOME LEVEL 1)¹⁶

Level 1 Outcomes focus on the various activities that are conducted within a program. Examples of these activities include providing education to residents, inspecting businesses, conducting surveys of target audiences, and conducting monitoring. Outcome Level 1 only measures the *implementation* of the stormwater program, rather than the *impact* of the program is having. The EAs will focus on the impact of the stormwater program by assessing Outcome Levels 2 through 5 as they relate to the high- and medium-priority POCs.

Based on the identification of the high- and medium-priority POCs and their potential sources, target audiences, and key implementation activities (prioritized BMPs), the COB and COS has identified the Program Elements for which the implementation of prioritized BMPs will be assessed (**Table 4**).

The COB and COs used this as the basis for both the management questions (see **Section 3**) and the identification of prioritized BMPs, or key implementation activities, for specific target audiences.

¹⁶ See 2015 CASQA Guidance Document, Section 6.0 Program Implementation Strategies and Section 6.2 Step 1-A: Program Implementation Activities

Table 4. Program Elements for Which Prioritized BMPs Will Be Assessed through the Identified Management Questions

Program Element	Phase II Permit Provision(s)	Pollutants of Concern (POCs)	
		Nutrients	Sedimentation/Siltation (Total Suspended Solids)
Education and Outreach	E.7	✓	✓
Public Involvement and Participation	E.8	✓	--
Illicit Discharge Detection and Elimination (IDDE)	E.9	✓	✓
Construction Site Stormwater Runoff Control	E.10	--	✓
Pollution Prevention/Good Housekeeping	E.11	✓	✓
Post Construction Stormwater Management	E.12	--	✓
Water Quality Monitoring	E.13	✓	✓

For each high- and medium-priority POC, a summary of prioritized BMPs for the identified target audiences is provided in

Figure 8. More detail is provided within the management questions (**Section 3**), as well as the data assessment and collection table(s) within **Section 4**.

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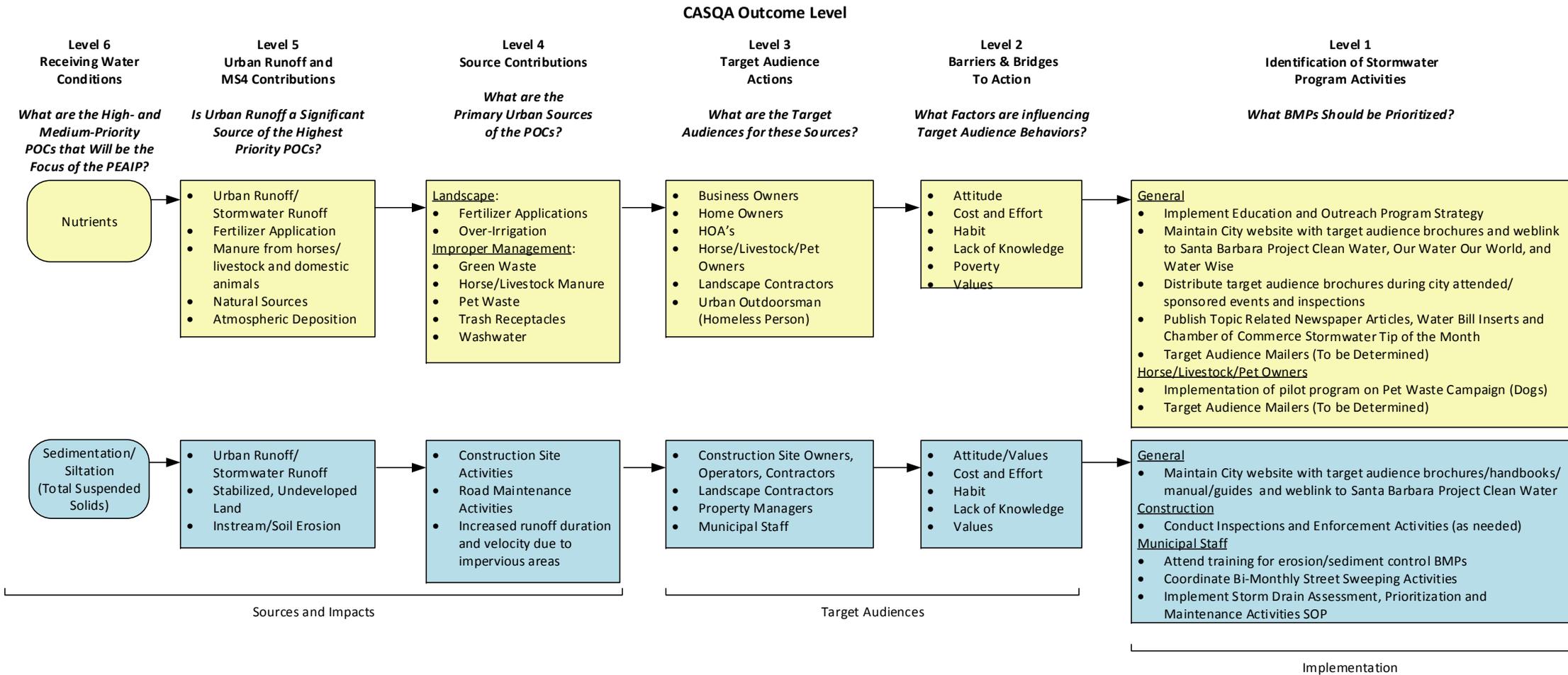


Figure 8. Prioritized BMPs Identified for Target Audiences

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3. Management Questions¹⁷

In order to focus the EAs, the COB and COS has identified management questions for the prioritized BMPs that may be implemented to address the high- and medium-priority POCs.

The assessment data and information collected by the COB and COS (**Section 4**) are focused on Outcome Levels 2 through 5 and will be used to answer programmatic-based management questions related to the prioritized BMPs.

Pursuant to Provision E.14(a)(ii)(e-f), the types of questions that were considered for this PEAIIP include the following:¹⁸

-
- To what extent did implementation of the BMPs, group of BMPs, or stormwater program enhance or change the urban runoff and discharge quality?¹⁹ [OL5]
- To what extent did prioritized BMPs or group of BMPs reduce pollutant loads from their sources to the storm drain system?²⁰ [OL4]
- To what extent did prioritized BMPs or group of BMPs change the target audience's behavior?²¹ [OL3]
- What barriers or bridges are influencing or could influence the target audience's ability or desire to implement the prioritized BMPs or group of BMPs? [OL2]

Section 4 summarizes the management questions and CASQA Outcome Level(s) addressed.

¹⁷ See 2015 CASQA Guidance Document, Section 7.3 Assessment Objectives, Attachment B: Sources and Activities Profile Sheets, and Attachment C: Pollutant Profile Sheets

¹⁸ The PEAIIP is focused on the *impact* that the stormwater program is having rather than the strict *implementation* of the program. Thus, the question listed in Provision E.14.a.(ii)(e)(1) regarding implementation of the Permit requirements is not included in the PEAIIP.

¹⁹ E.14.a.(ii)(f)(1)

²⁰ E.14.a.(ii)(e)(3)

²¹ E.14.a.(ii)(e)(2)

4. Data Assessment and Collection

4.1. DATA ASSESSMENT METHODS²²

During the EA process, the data collected will be assessed and/or analyzed using a variety of methods, such as:

- **Qualitative assessment** includes confirmation that an activity (e.g., construction site inspections) was conducted and/or that a specific task (e.g., completion of a pet waste brochure) was completed, as well as narrative assessment.
- **Descriptive statistics** are numbers that are used to summarize and describe data. Several descriptive statistics are often used at one time, to give a full picture of the data. Examples of descriptive statistics are counts (includes quantification and tabulation), averages, variance, etc. Other information includes: direct quantitative measurements of pollutant load removal, estimates of pollutant load removal for BMPs where direct measurement of pollutant removal is overly challenging, and direct quantitative measurement of behaviors that serve as proxies of pollutant removal or reduction.
- **Comparisons to established reference points** involve comparing collected data to established targets (targeted outcomes, discharge prohibitions, WQOs, required activity levels, etc.) or other reference points (other programs, previous results, baseline values, visual comparison using photographs over time, etc.).
- **Temporal change** is change over time. This includes variability, trends, and changes due to program implementation (e.g., simple change [absolute or %] or statistical trends).
- **Spatial analysis** allows comparisons between watersheds or other geographic areas. Impacts of runoff and/or control measures can be evaluated based on characteristics of the geographic regions (differences in land use, geology and geomorphology, hydromorphology, etc.).

²² See 2015 CASQA Guidance Document, 6.3 Step 1-B Data Collection and Analysis Activities and 7.5 Data Analysis

4.2. DATA COLLECTION METHODS²³

The assessment data will be collected through various means such as:

- **Internal Tracking by Stormwater Program** of internal program data only (e.g., inspection data, public outreach and education efforts)
- **Reporting to Stormwater Program** by third parties only (e.g., BMP maintenance certifications, industrial facility monitoring data)²⁴
- **Site Investigations/Inspections** conducted by stormwater programs to directly observe or assess a practice (e.g., inspections, site visits, complaint investigations)
- **Interviews** conducted by stormwater programs to discern awareness and behavior (e.g., of third parties or stormwater program staff, municipal staff, public focus groups)
- **Surveying** by stormwater programs of third parties or stormwater program staff to discern knowledge, attitudes, awareness, behavior of a target audience (e.g., pre-/post-training surveys, public outreach surveys)
- **Monitoring and Sampling** data obtained directly by stormwater programs or contractors (e.g., receiving water or MS4 sampling, industrial facility visual observations during inspections)
- **Review of External Data Sources** by stormwater program staff (e.g., of data or information obtained via literature, the Regional Water Board, other regulatory programs, online databases, third parties)
- **Special Investigations** can encompass any of the categories above, but normally involve a more intensive one-time focus.

²³ See 2015 CASQA Guidance Document, 6.3 Step 1-B Data Collection and Analysis Activities, 7.4 Data Collection, Attachment B: Sources and Activities Profile Sheets, and Attachment C: Pollutant Profile Sheets

²⁴ The Phase II Permit requires Permittees to identify assessment methods for privately owned BMPs. At this time, the PERMITTEE does not anticipate that these types of BMPs (e.g., structural, treatment control) will need to be evaluated for the high priority POCs that have been identified.

4.3. DATA REQUIREMENTS FOR SELECTED METRICS AND OUTCOME LEVELS

In the table(s) below, the POC-specific management questions representing focused program activities and/or prioritized BMPs are presented by Program Element, along with the assessment methods that will be used during the EA process and the associated assessment data that should be collected for evaluation (**Table 5**). The CASQA outcome levels that may be supported by the EA results are also indicated. Where applicable, the units for the required data are specified.

Although **Table 5** identifies the management questions, data assessment methods, and data collection methods that will initially be used for the EAs, future PEAIPs may modify and/or incorporate other management questions or data assessment/collection methods based on the information gained from the implementation of the PEAIP. Any modifications to the PEAIP will be identified as a part of the Annual Reports.

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Table 5. Nutrients Questions, Data Assessment Methods, and Data Collection Methods, by Program Element

Management Questions	Data Assessment Methods	Data Collection Methods
Education and Outreach [Outcome Level 2-3]		
<ul style="list-style-type: none"> Has the City developed education and outreach materials with information regarding proper use and disposal of fertilizers? Are education and outreach materials available at City designated facilities, City sponsored events or on the City website? Does the City have a targeted pet waste/livestock educational program? Does the County support education for landscape contractors to reduce fertilizer? Are education and outreach materials provided during Fats, Oil and Grease (FOG) and/or Industrial Wastewater Discharge (IWD) Inspections? 	<p>Descriptive Statistics</p> <ul style="list-style-type: none"> Number of education and outreach events participated in and estimated of number of education and outreach materials distributed at City designated facilities, City's sponsored event's Stormwater Display Booth or thru City website Number of education and outreach materials provided during FOG and/or IWD Inspections Number of target audience mailers to landscape contractors, residents along the river/creek with livestock; and/or homebrew beer, wine and distillery waste etc. 	<p>Internal Tracking by Stormwater Program</p> <ul style="list-style-type: none"> Brochure Distribution at City designated facilities, City sponsored events or thru City website City SWMP File Views/Hits (English and/or Spanish) Number of Visitors to the City's sponsored event's Stormwater Display Booth Number of target audience mailers to residents along the river/creek with livestock; landscape contractors; homebrew beer, wine and distillery waste <p>Review of External Data Sources</p> <ul style="list-style-type: none"> Brochure Distribution during FOG and/or IWD Program Inspection
Public Involvement and Participation [Outcome Level 2-3]		
<ul style="list-style-type: none"> Has the City developed opportunities for citizen participation at City's sponsored event's Stormwater Display Booth? Has the City developed opportunities for citizen participation on-line thru the City's Stormwater Webpage or Survey Monkey? 	<p>Qualitative Assessment</p> <ul style="list-style-type: none"> Confirmation of Stormwater Pollution Prevention Interested Parties Sign-Up List at City's sponsored event's Stormwater Display Booth <p>Descriptive Statistics</p> <ul style="list-style-type: none"> Number of Visitors and Stormwater Quiz's Completed via City's sponsored event's Stormwater Display Booth Number of on-line Storm Water Management Program Survey's completed and interested parties sign-up inquiry via the City's Stormwater Webpage or Survey Monkey 	<p>Interviews/Surveys</p> <p>Internal Tracking by Stormwater Program</p> <ul style="list-style-type: none"> Number of Visitors and Stormwater Quiz's Completed via City's sponsored event's Stormwater Display Booth Number of Stormwater Survey's Completed and Interested Parties Sign-up Inquiry via City Stormwater Website or Survey Monkey <p>Review of External Data Sources</p> <ul style="list-style-type: none"> Number of Stormwater Survey's Completed and Interested Parties Sign-up Inquiry via or Survey Monkey

Management Questions	Data Assessment Methods	Data Collection Methods
Illicit Discharge Detection and Elimination [Outcome Level 4]		
<ul style="list-style-type: none"> • Has the City developed IDDE procedures? • Are FOG and IWD Program participants operating in a manner that prevents nutrients from leaving the site? • Are green waste and pet waste collection programs in place? • Does City have legal authority to address non-storm water discharges? 	<p>Qualitative Assessment</p> <ul style="list-style-type: none"> • Confirmation of local waste hauler (green waste) and Christmas Treecycle Program • Confirmation of City Mutt Mitt Stations Bi-weekly Maintenance Program • Confirmation of on-going City Staff IDDE Training • Confirmation of establish City Municipal Code and Certification of Legal Authority <p>Descriptive Statistics</p> <ul style="list-style-type: none"> • Number of IDDE Investigations and/or Inspections and follow-up at facilities with deficiencies • Number of FOG and/or IWD Inspection Reports and/or Violations 	<p>Internal Tracking by Stormwater Program</p> <ul style="list-style-type: none"> • Stormwater Incident Report Form • Mutt Mitt Station Bi-weekly Maintenance Site Investigations/Inspections • City IDDE Site Investigations and/or Inspections with direct observation of an IDDE <p>Review of External Data Sources</p> <ul style="list-style-type: none"> • FOG and/or IWD Inspection Reports and/or Violations • Local Hauler Green Waste Website/Mailers
Pollution Prevention and Good Housekeeping [Outcome Level 2-4]		
<ul style="list-style-type: none"> • Is City effectively implementing BMPs (e.g. Mutt Mitt Stations) that target nutrient reduction in waterways? • Are FOG and/or IWD Program participants implementing a Pollutant Prevention and Good Housekeeping practices? • Are FOG and/or IWD Program participants aware of Cities SWMP requirements? • Are FOG and/or IWD Program participants aware of SWMP requirements for their business activity? • Do the FOG and IWD Program participants believe they are in compliance with the City's SW Program? 	<p>Qualitative Assessment</p> <ul style="list-style-type: none"> • Confirmation of on-going City Staff Training <p>Descriptive Statistics</p> <ul style="list-style-type: none"> • Number of FOG and/or IWD Inspection Reports 	<p>Interviews/Surveying</p> <p>Review of External Data Sources</p> <ul style="list-style-type: none"> • FOG and/or IWD Inspection Reports • FOG and/or IWD Inspection Report Stormwater Questionnaires

Water Quality Monitoring [Outcome Level 5]		
<ul style="list-style-type: none"> Is the urban discharge a significant source of nutrients to receiving water? 	<ul style="list-style-type: none"> Comparing modeled data to established targets Use local data acquired through regional 303(d) monitoring program 	<ul style="list-style-type: none"> Monitoring and sampling results Pollutant load model results

Table 6. Sedimentation/Siltation (Total Suspended Solids) Questions, Data Assessment Methods, and Data Collection Methods, by Program Element

Management Questions	Data Assessment Methods	Data Collection Methods
Education and Outreach [Outcome Level 2-3]		
<ul style="list-style-type: none"> Are City Grading Inspectors trained to review and inspect erosion and sediment control measures? Are there educational opportunities at county sponsored events? Are construction contractors informed of proper erosion and sediment control measures? 	Qualitative Assessment <ul style="list-style-type: none"> Confirmation of on-going City Grading Staff Training Descriptive Statistics Number of new City Grading Staff Trained Number of outreach events participated in and outreach materials distributed to construction contractors Number of connections to construction contractors through grading permits and inspections 	Internal tracking by stormwater program <ul style="list-style-type: none"> Internal Tracking by City Engineering Department and/or Division Training Number of Outreach Event Participation and Brochure Distribution via email Number of connections with Construction Contractors through grading permits and inspections

Illicit Discharge Detection and Elimination [Outcome Level 4]		
<ul style="list-style-type: none"> Does City implement field investigation program for complaints and discoveries of illicit discharges? Does City have legal authority to address non-storm water discharges? 	<p>Qualitative Assessment</p> <ul style="list-style-type: none"> Confirmation that the City has IDDE Procedures (Spill Response Plan) Confirmation of on-going City Staff IDDE Training Confirmations of establish City Municipal Code and Certification of Legal Authority <p>Descriptive Statistics</p> <ul style="list-style-type: none"> Number of IDDE Investigations and/or Inspections and follow-up at facilities with deficiencies 	<p>Internal tracking by stormwater program</p> <ul style="list-style-type: none"> Stormwater Incident Report Form Site Investigations/Inspections City IDDE Site Investigations and/or Inspections with direct observation of an IDDE
Construction Site Stormwater Runoff Control [Outcome Level 2-3]		
<ul style="list-style-type: none"> Are construction sites being managed in compliance with City Municipal Code? Are Stormwater Pollution Prevention Plans (SWPPP), Erosion and Sediment Control Plans (E&SCP) and/or Stormwater Control Plans (SWCP) reviewed prior to permit issuance? Are any sites a potential source of significant sediment discharge? 	<p>Descriptive Statistics</p> <ul style="list-style-type: none"> Number of Construction Sites issued Grading Permits Number of SWPPP, E&SCP and SWCP reviewed prior to issuance of permit Number of Construction Sites designated as a Water Quality Threat Number Construction Site Inspections Number of Verbal Warnings, Stop Work Order, Letter to Correct, Written Notice of Violation, Code Violations, Construction Bond, Penalties, Enforcement Actions (Administrative, Civil or Criminal Actions) 	<p>Internal tracking by stormwater program</p> <ul style="list-style-type: none"> SWPPP, E&SCP and SWCP Construction Site Inspections Construction Sites with Water Quality Threat Verbal Warnings, Stop Work Order, Letter to Correct, Written Notice of Violation, Code Violations, Construction Bond, Penalties, Enforcement Actions (Administrative, Civil or Criminal Actions)

Post-Construction Site Stormwater Runoff Control [Outcome Level 2-3]		
<ul style="list-style-type: none"> Is development being approved in compliance with Post-Construction Requirements (PCRs) and Low Impact Development (LID) Measures to promote runoff volume and rates? 	Descriptive Statistics <ul style="list-style-type: none"> Number of projects reviewed in compliance with PCRs and LID measures 	Internal tracking by stormwater program <ul style="list-style-type: none"> PCR and LID Projects
Pollution Prevention and Good Housekeeping [Outcome Level 2-3]		
<ul style="list-style-type: none"> Are City facilities managed to reduce erosion and promote sediment retention? 	Descriptive Statistics <ul style="list-style-type: none"> Number of Pollution Prevention BMPs implemented at City owned and/or operated facilities 	Internal tracking by stormwater program <ul style="list-style-type: none"> Pollution Prevention and Good Housekeeping BMPs implemented at City owned and/or operated facilities
Water Quality Monitoring [Outcome Level 5]		
<ul style="list-style-type: none"> Is the urban discharge a significant source of sediments to receiving water? 	<ul style="list-style-type: none"> Compare modeled data to established targets Use local data acquired through regional 303(d) monitoring program 	<ul style="list-style-type: none"> Monitoring and sampling results Pollutant load model results

5. Program Reporting and Modifications²⁵

Beginning in Year 3, the PEAIP will be implemented, and EAs will be conducted each year and submitted along with the Annual Report. The completion of EAs is part of the program management cycle (**Figure 9**) and will, over time, inform program modifications.

During the EA process, the COB and COS will evaluate, assess, and/or analyze data and information collected using the methods in **Section 4.1**, and address specific management questions in **Section 4.3**.

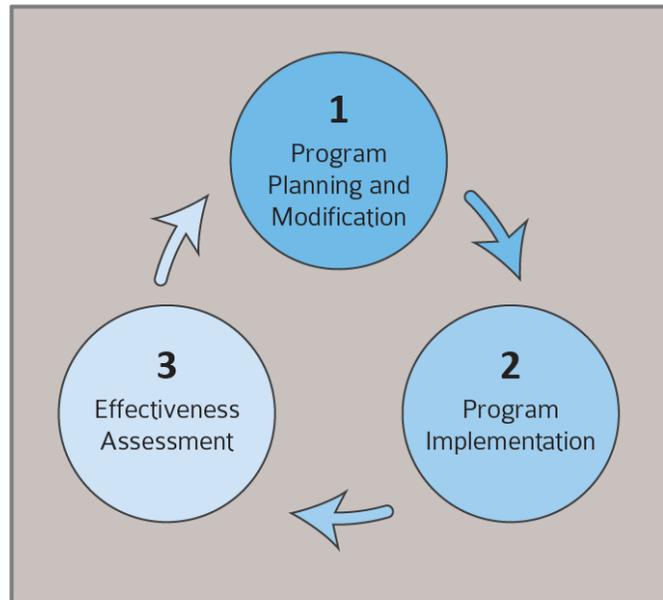


Figure 9. The Program Management Cycle (CASQA, 2015)

The EA may include both written and visual (i.e., tabular, graphical) depictions of the raw data (e.g., inspection data tracked internally by stormwater program) and the analyses that are conducted (e.g., descriptive statistics, qualitative analysis). The COB and COS will consider the results of the analyses along with the POC-specific management questions. Depending on the availability of historical data, the COB and COS expects more complex trends analyses to occur as part of the long-term EAs.

Beginning with the Annual

Beginning with the Annual Report in Year 5, in conjunction with the long-term EAs, the COB and COS will review the EAs and recommendations based on the experience of stormwater staff in implementing the program and identify areas for improvement. The management questions and data collection results will be reviewed and used as the basis for summarizing the short- and long-term progress of the stormwater program towards reducing the potential impacts of urban runoff on receiving waters. The COB and COS will identify modifications that may be necessary to improve program effectiveness at reducing pollutant loads, achieving the MEP standard, and protecting water quality.

The COB AND COS will provide a summary identifying the following types of modifications (as applicable):

²⁵ See 2015 CASQA Guidance Document, Section 7.0 Assessment Tools and Strategies, Section 7.2 Iterative and Adaptive Management, Section 7.3 Assessment Objectives, and Section 8.2 Program Modifications

- Improving upon the PEAIIP by identification of any potential data gaps and/or revisions that may be necessary for the evaluation of the POC-specific management questions;
- Improving upon prioritized BMPs (i.e., key implementation activities) that have not been fully implemented and/or did not achieve the expected result;
- Continuing and expanding upon prioritized BMPs that proved to be effective, including identifying new prioritized BMPs or modifications to existing prioritized BMPs, with the goal of increasing pollutant load reductions;
- Discontinuing BMPs that may no longer be effective; and
- Based upon identification of bridges and barriers, changes in how the COB AND COS intends to provide outreach to target audiences in order to reduce PGAs and increase implementation of prioritized BMPs.

The COB and COS will provide the summary of program modifications with the Year 5 Annual Report and include the identified priority program areas and the schedule to complete the identified modifications during the next permit term. By conducting these assessments and modifying the program as needed, the COB and COS will ensure utilization of the program management cycle.

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List of Appendices

APPENDIX A: GLOSSARY OF TERMS

APPENDIX B: PEAIP IDENTIFICATION OF POLLUTANTS OF CONCERN (POCS)

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Appendix A: Glossary of Terms²⁶

Adaptive Management: Adaptive Management is a structured process of directing decision-making with an aim toward achieving identified goals or milestones and addressing/reducing uncertainty over time.

Assessment Methods: Assessment Methods are processes used to obtain or evaluate assessment data or information. Depending on the particular outcome and/or management questions, numerous assessment methods may be used.

Best Management Practice (BMP): Defined in 40 CFR 122.2 as schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce pollutants discharged to waters of the United States.

California Stormwater Quality Association (CASQA): Since 1989 CASQA has been a leader in the stormwater field. CASQA represents a diverse range of stormwater quality management organizations and individuals, including cities, counties, special districts, industries, and consulting firms throughout the state. The Effectiveness Assessment Subcommittee has provided input and guidance on stormwater program effectiveness assessment issues since 2004; developing a standardized conceptual approach to evaluating municipal program elements in 2007 and updating that approach in 2015.

Effectiveness Assessment (EA): Effectiveness Assessment includes the methods and activities that stormwater managers use to evaluate how well their programs are working, and to identify modifications necessary to improve them. EA is the mechanism by which feedback is evaluated to enable ongoing adaptive management.

Program Management Cycle: The Program Management Cycle broadly divides stormwater program management into three phases:

1. Program planning and modification;
2. Program implementation; and
3. Effectiveness assessment.

Over time, the repeated application of this process—each phase continuously informing the next—should result in the improvement of stormwater programs and the achievement of the desired results that they are designed to achieve.

Maximum Extent Practicable (MEP): The technology-based standard established by Congress in CWA section 402(p)(3)(B)(iii) for storm water that operators of MS4s must meet. Technology-based standards establish the level of pollutant reductions that dischargers must achieve, typically by treatment or by a combination of source and/or treatment control BMPs. MEP primarily emphasizes pollution prevention and source control BMPs (as the first line of defense) in combination with treatment methods serving as a backup (additional line of defense). MEP considers economics and is generally, but not necessarily, less stringent than best available technology or best available. A definition for MEP is not provided either in the statute or in the regulations. Instead the definition of MEP is dynamic and will be defined by the following

²⁶ The Glossary of Terms is primarily based on the Glossary of Acronyms and Terms in the *Strategic Approach to Planning for and Assessing the Effectiveness of Stormwater Programs*, CASQA 2015

process over time: municipalities propose their definition of MEP by way of the programs set forth in their stormwater management plans/programs. Their total collective and individual activities conducted pursuant to the runoff management programs becomes the proposal for MEP as it applies both to overall effort, as well as to specific activities (e.g., MEP for street sweeping, or MEP for MS4 maintenance).

In the absence of a definition, the State Water Resources Control Board defined MEP as set forth in a memo dated 11 February 1993, entitled "Definition of Maximum Extent Practicable," Elizabeth Jennings, Senior Staff Counsel.²⁷

Municipal Separate Storm Sewer System (MS4)²⁸: An MS4 is a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains) that is:

- Owned by a state, city, town, village, or other public entity that discharges to waters of the U.S.;
- Designed or used to collect or convey stormwater;
- Not a combined sewer; and
- Not part of a Publicly Owned Treatment Works (POTW) (sewage treatment plant).

Outcome Level: The CASQA approach utilizes a series of six categories of outcomes to establish a logical and consistent organizational scheme for assessing and relating individual outcomes. The outcome levels represent a general progression of conditions that are assumed to be related in a sequence of causal relationships.

- **Outcome Level 6 (Receiving Water Conditions):** Level 6 Outcomes describe receiving water conditions. They can apply either to existing conditions or to improvements that will be sought over time through program implementation.
- **Outcome Level 5 (MS4 Contributions):** Level 5 Outcomes may be measured within the MS4, or as discharges from it. Evaluation typically focuses on pollutant concentrations and/or loads. Level 5 Outcomes provide a direct linkage between upstream sources and receiving waters and are a critical expression of program success.
- **Outcome Level 4 (Source Contributions):** Level 4 Outcomes measure reductions in the discharge of pollutants from sources.
- **Outcome Level 3 (Target Audience Actions):** Level 3 Outcomes address the actions of target audiences, and whether or not changes are occurring over time. The major categories of target audience actions are pollutant-generating activities (PGAs); best management practices (BMPs) and supporting behaviors.
- **Outcome Level 2 (Barriers and Bridges to Action):** Level 2 Outcomes provide a means of gauging whether activities are producing changes in the awareness, knowledge, or attitudes of target audiences. Level 2 Outcomes are often used to gauge progress in, or to refine approaches for, achieving Level 3 Outcomes.

²⁷ http://www.swrcb.ca.gov/water_issues/programs/stormwater/docs/def_mep_bj_21193.pdf

²⁸ Based on the definition in Title 40 Code of Federal Regulations §122.26 (b)(8)

- **Outcome Level 1 (Stormwater Program Activities):** Level 1 Outcomes, which are often defined by specific stormwater permit requirements, address a variety of stormwater program activities. This outcome level measures the *implementation* of the program, not the *impact* that the stormwater program is having.

Phase II MS4 Permit: The Phase II Permit, issued in 1999, requires regulated small MS4s in urbanized areas, as well as small MS4s outside the urbanized areas that are designated by the permitting authority, to obtain NPDES permit coverage for their stormwater discharges. Each regulated MS4 is required to develop and implement a stormwater management program/approach to reduce and/or eliminate the discharge of pollutants from the MS4 to the maximum extent practicable (MEP) and effectively prohibit discharges of non-stormwater into its MS4, unless such discharges are authorized.

Pollutant of Concern (POC): A pollutant that is reasonably expected to be present in urban runoff and may reasonably be expected to affect the designated uses of the receiving water. Urban runoff pollutants of concern may include sediments, non-sediment solids, nutrients, pathogens, oxygen-demanding substances, petroleum hydrocarbons, heavy metals, floatables, polycyclic aromatic hydrocarbons (PAHs), trash, and/or pesticides and herbicides.

Program Element: Program Elements are distinct components of a stormwater program that focus on reducing pollutants from a particular activity or pollutant source/target audience. The Program Elements for the Phase II municipal stormwater program include the following:

- Program Management
- Education and Outreach
- Public Involvement and Participation
- Illicit Discharge Detection and Elimination
- Construction
- Pollution Prevention/Good Housekeeping
- Post Construction
- Water Quality Monitoring

Receiving Water Conditions: Receiving Water Conditions can include any chemical, biological, or physical parameter that can be measured or assessed in receiving waters (i.e., chemical concentrations, dissolved oxygen levels, biological integrity, species diversity, eutrophication, microbiological or toxicological conditions, hydromodification).

Source: “Source” means anything with the potential to generate pollutants prior to their introduction to the MS4. A typical program broadly addresses the following source categories: residential areas, construction and development sites, commercial and industrial sources, and municipal operations. Sources may alternatively be defined by the populations associated with areas, facilities, or activities, e.g., residents, dog-walkers, mobile car washers, or restaurant employees.

Source Contribution: Source Contribution can refer either to a source loading or to a reduction in that loading. Source loadings are the pollutant loadings added by sources to a MS4. Source reductions are changes in the amounts of pollutants associated with specific sources before and after control measures are employed.

Target Audience: A “Target Audience” consists of the people (individuals and populations) that are expected to gain knowledge or engage in the behaviors that a stormwater program is intended to elicit. BMPs and other controls are implemented by many types of third parties, so the term “target audience” is broadly defined and virtually any group of people could be a target audience, including municipal staff members, the general public, elected and appointed officials, other government agencies, etc.

Appendix B: PEAIIP Identification of Pollutants of Concern (POCs)

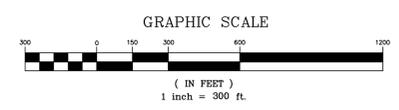
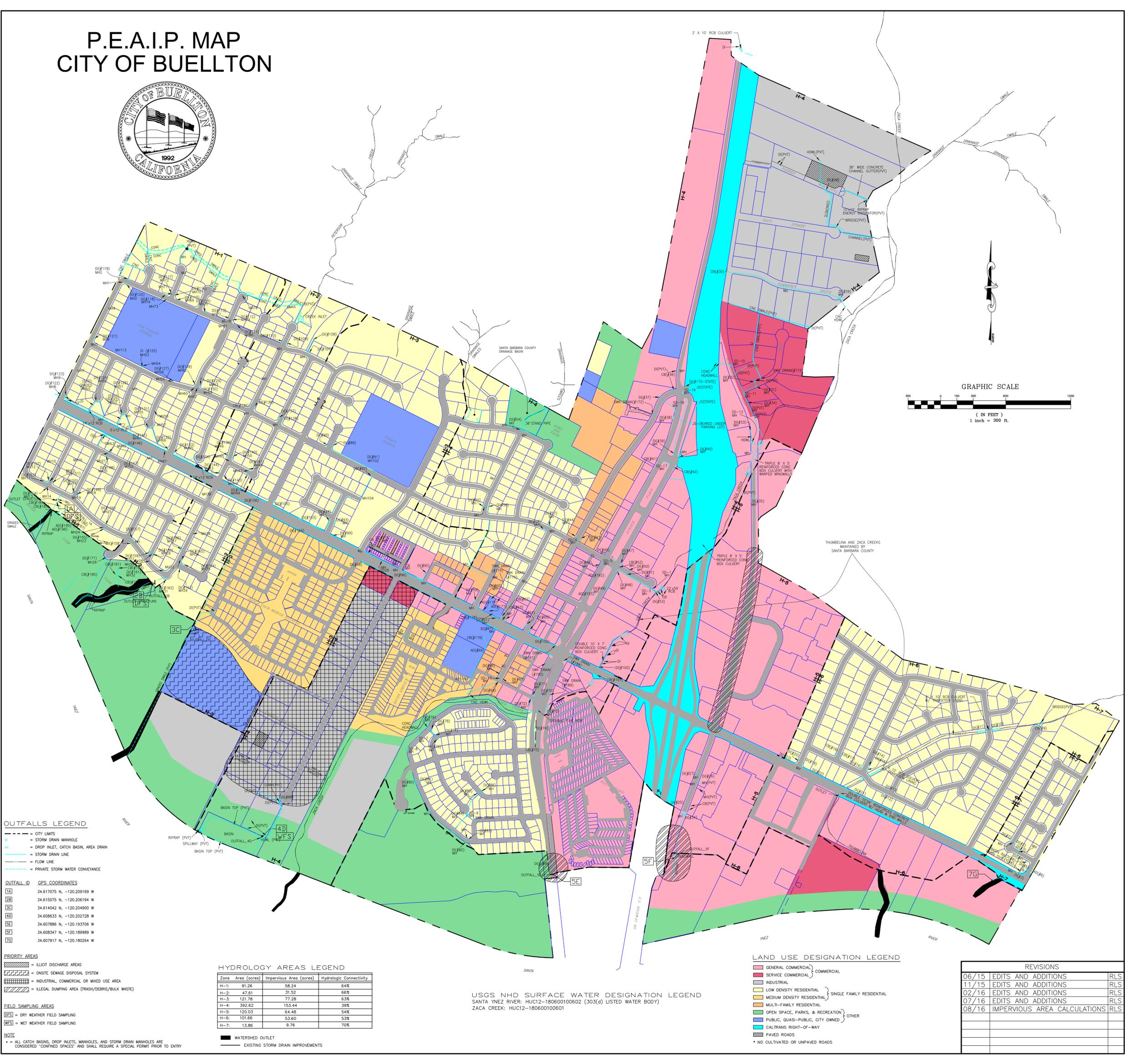
**PROGRAM EFFECTIVENESS ASSESSMENT AND IMPROVEMENT PLAN (PEAIP)
IDENTIFICATION OF POLLUTANTS OF CONCERN (POCs)
CITY OF BUELLTON AND CITY OF SOLVANG**

2010 Integrated Report Clean Water Act Section 303(d) Listed Report Category 5 Santa Ynez River (Cachuma Lake to below city of Lompoc)	Solvang – Buellton Urban Water Quality Profile CCRWQCB Consultation April 24, 2014 Santa Ynez River at Highway 101 Monitoring Site	Central Coast Ambient Monitoring Program (CCAMP)	Urban Storm Water Monitoring Plan 2015-2018 Santa Barbara County, Buellton, Carpinteria, Goleta, Solvang	Buellton and Solvang SWMP Target POCs
Sedimentation / Siltation (Total Suspended Solids)	Sedimentation / Siltation (Total Suspended Solids)	Sedimentation / Siltation (Total Suspended Solids)	Acute Toxicity (Hyalalela azteca)	Sediments - (Total Suspended Solids)
Sodium (Na)	Sodium (Na)	Nitrogen, Total	Dissolved Aluminum (Al)	Pathogens - Fecal Coliform
Temperature	Temperature	Temperature	Dissolved Copper (Cu)	Pathogens - Total Coliform
Total Dissolved Solids (TDS)	Total Dissolved Solids (TDS)	Total Suspended Solids (TSS) (duplicate)	Dissolved Zinc (Zn)	Pathogens - Escherichia Coli (E. Coli)
	Total Suspended Solids (TSS) (duplicate)	OrthoPhosphate as P	Dissolved Cadmium (Cd)	Nutrients - Phosphorus (P)
	Temperature (duplicate)	Algae-filamentous	Dissolved Lead (Pb)	Nutrients - Nitrogen
	Ammonia as Nitrate (N)	Nitrogen, Total Kjeldahl	Dissolved Iron (Fe)	Nutrients - Nitrate (NO3)
	Fecal Coliform	Silica as SiO2	Hardness	Nutrients - Nitrite (NO2)
	Total Coliform	Flow, Field Measurement	Total Suspended Solids (TSS)	Detergents (MBAS)
	Total Dissolved Solids (TDS) (duplicate)		Pesticides	Gross Pollutants (Litter, Trash and Debris)
	Conductivity		Nutrients	Hydrocarbon (Oil and Grease, Lubricants)
	Dissolved Oxygen (DO)			Metals
	Toxicity-Fish Survival / Reproduction in Water			Pesticides

COLOR KEY AND NOTES:

CCAMP COLOR CODE	Rating	Excellent	Good	Fair	Poor	Very Poor	Not Listed within CCAMP
	When NO goal is available	0-25%	25-50%	50-75%	75-100%		
OTHER COLOR CODE		Under CCRWQCB Review					
BENEFICIAL USE GROUP	Aquatic Life						

P.E.A.I.P. MAP CITY OF BUELLTON



- OUTFALLS LEGEND**
- - - - - CITY LIMITS
 - STORM DRAIN MANHOLE
 - DROP INLET, CATCH BASIN, AREA DRAIN
 - STORM DRAIN LINE
 - FLOW LINE
 - PRIVATE STORM WATER CONVEYANCE

OUTFALL ID GPS COORDINATES

OUTFALL ID	GPS COORDINATES
1A	34.617075 N, -120.209169 W
2B	34.615075 N, -120.206194 W
3C	34.614042 N, -120.204900 W
4D	34.608633 N, -120.202728 W
5E	34.607886 N, -120.193706 W
6F	34.608347 N, -120.189989 W
7G	34.607917 N, -120.180264 W

- PRIORITY AREAS**
- ▨ ILICIT DISCHARGE AREAS
 - ▨ ONSITE SEWAGE DISPOSAL SYSTEM
 - ▨ INDUSTRIAL, COMMERCIAL OR MIXED USE AREA
 - ▨ ILLEGAL DUMPING AREA (TRASH/DEBRIS/BULK WASTE)

- FIELD SAMPLING AREAS**
- DRY WEATHER FIELD SAMPLING
 - WET WEATHER FIELD SAMPLING

NOTE
* = ALL CATCH BASINS, DROP INLETS, MANHOLES, AND STORM DRAIN MANHOLES ARE CONSIDERED "CONFINED SPACES" AND SHALL REQUIRE A SPECIAL PERMIT PRIOR TO ENTRY

HYDROLOGY AREAS LEGEND

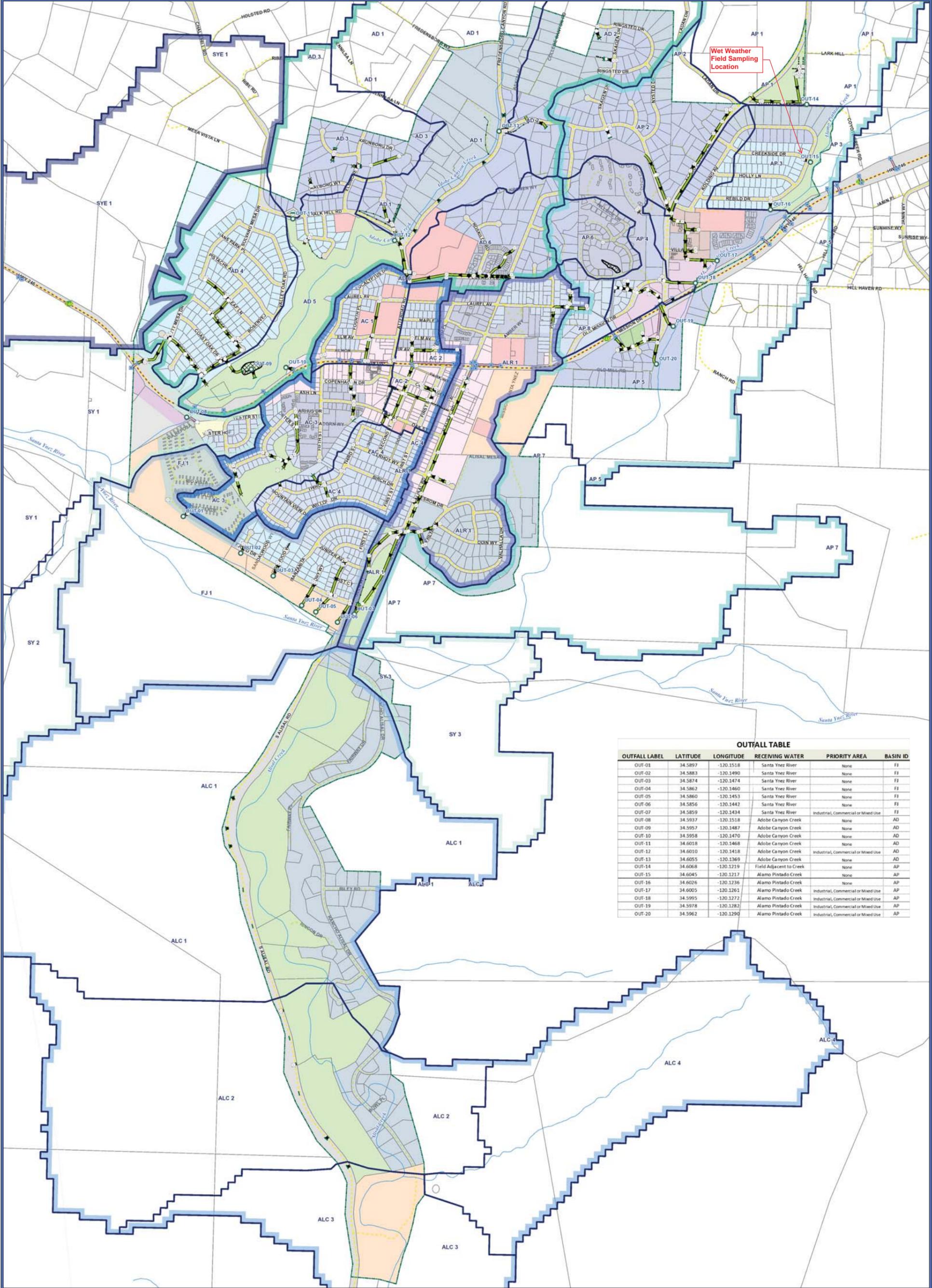
Zone	Area (acres)	Impervious Area (acres)	Hydrologic Connectivity
H-1:	91.26	58.24	64%
H-2:	47.61	31.52	66%
H-3:	121.78	77.28	63%
H-4:	392.62	153.44	39%
H-5:	120.03	64.48	54%
H-6:	101.66	53.60	53%
H-7:	13.86	9.76	70%

USGS NHD SURFACE WATER DESIGNATION LEGEND
SANTA YNEZ RIVER: HUC12-180600100602 (303(d) LISTED WATER BODY)
ZACA CREEK: HUC12-180600100601

- LAND USE DESIGNATION LEGEND**
- GENERAL COMMERCIAL
 - SERVICE COMMERCIAL
 - INDUSTRIAL
 - LOW DENSITY RESIDENTIAL
 - MEDIUM DENSITY RESIDENTIAL
 - MULTI-FAMILY RESIDENTIAL
 - OPEN SPACE, PARKS, & RECREATION
 - PUBLIC, QUASI-PUBLIC, CITY OWNED
 - CALTRANS RIGHT-OF-WAY
 - PAVED ROADS
 - * NO CULTIVATED OR UNPAVED ROADS

REVISIONS

DATE	DESCRIPTION	BY
06/15	EDITS AND ADDITIONS	RLS
11/15	EDITS AND ADDITIONS	RLS
02/16	EDITS AND ADDITIONS	RLS
07/16	EDITS AND ADDITIONS	RLS
08/16	IMPERVIOUS AREA CALCULATIONS	RLS



Wet Weather Field Sampling Location

OUTFALL TABLE					
OUTFALL LABEL	LATITUDE	LONGITUDE	RECEIVING WATER	PRIORITY AREA	Basin ID
OUT-01	34.5897	-120.1518	Santa Ynez River	None	FJ
OUT-02	34.5883	-120.1490	Santa Ynez River	None	FJ
OUT-03	34.5874	-120.1474	Santa Ynez River	None	FJ
OUT-04	34.5862	-120.1460	Santa Ynez River	None	FJ
OUT-05	34.5860	-120.1453	Santa Ynez River	None	FJ
OUT-06	34.5856	-120.1442	Santa Ynez River	None	FJ
OUT-07	34.5859	-120.1434	Santa Ynez River	Industrial, Commercial or Mixed Use	FJ
OUT-08	34.5937	-120.1518	Adobe Canyon Creek	None	AD
OUT-09	34.5957	-120.1487	Adobe Canyon Creek	None	AD
OUT-10	34.5958	-120.1470	Adobe Canyon Creek	None	AD
OUT-11	34.6018	-120.1468	Adobe Canyon Creek	None	AD
OUT-12	34.6010	-120.1418	Adobe Canyon Creek	Industrial, Commercial or Mixed Use	AD
OUT-13	34.6055	-120.1369	Adobe Canyon Creek	None	AD
OUT-14	34.6068	-120.1219	Field Adjacent to Creek	None	AP
OUT-15	34.6045	-120.1217	Alamo Pintado Creek	None	AP
OUT-16	34.6026	-120.1236	Alamo Pintado Creek	None	AP
OUT-17	34.6005	-120.1261	Alamo Pintado Creek	Industrial, Commercial or Mixed Use	AP
OUT-18	34.5995	-120.1272	Alamo Pintado Creek	Industrial, Commercial or Mixed Use	AP
OUT-19	34.5978	-120.1282	Alamo Pintado Creek	Industrial, Commercial or Mixed Use	AP
OUT-20	34.5962	-120.1290	Alamo Pintado Creek	Industrial, Commercial or Mixed Use	AP

City of Solvang

- Key to Features**
- City Boundary
 - Tax Assessment Parcels
 - Creeks & Streams
 - City Zoning - By Code
 - 1-E-1
 - 10-R-1
 - 20-R-1
 - 3-E-1
 - 7-R-1
 - 8-R-1
 - AG
 - C-2
 - C-3
 - DR
 - M-1
 - M-2
 - M-3
 - P-1
 - P-O
 - REC
 - RES
 - TRC
 - Outfall Structures
 - CATCH BASIN AND MANHOLE
 - CATCH BASIN, INLET, DRAP
 - HEADWALL, ENDWALL
 - JUNCTION STRUCTURE
 - RIP RAP
 - STORM DRAIN MANHOLE
 - STORM DRAIN CLEANOUT
 - Storm Drain Pipe
 - Channels & Waterways
 - DITCH, WATERWAY, V DITCH
 - CULVERT
 - SWALE
 - Basin Structures
 - RETENTION BASIN
 - DETENTION BASIN
 - Drainage Sub-Basin
 - Drainage Basin
 - AC
 - AD
 - ALC



QUALITY ASSURANCE PROJECT PLAN for URBAN STORM WATER MONITORING PLAN 2015-2018

For the NPDES Phase II Small MS4 General Permit
Sections E.13.c 303(d) *Monitoring* and E.14.a *Program Effectiveness Assessment and
Improvement Plan*

Version 1.0
October 13, 2015

For the following Regulated MS4s:

City of Goleta
City of Carpinteria
City of Buellton
City of Solvang
Unincorporated Santa Barbara County

Group A. Project Management

A1.Title and Approval Sheet

PROJECT NAME: Urban Storm Water Monitoring Program

DATE: October 13, 2015

NAME OF RESPONSIBLE ORGANIZATION: County of Santa Barbara, Project Clean Water

Quality Assurance Project Plan (QAPP) Revision Number: Version 1.0

APPROVAL SIGNATURES

Permittee Organization – County of Santa Barbara Project Clean Water

Project Title	Name	Position	Signature	Date
Project Manager	John Karamitsos	Manager	<i>Signed John Karamitsos</i>	
Project QA Officer	Cathleen Garnand	Civil Engineering Associate	<i>Signed Cathleen Garnand</i>	
Field Technician	Bree Belyea	Engineering Technician Specialist	<i>Signed Bree Belyea</i>	

Permittee Organization – Other MS4s

Project Title	Name	Position	Signature	Date
Representative for City of Goleta	Everett King	Environmental Services Coordinator	<i>Signed Everett King</i>	
Representative for City of Carpinteria	Erin Maker	Environmental Coordinator	<i>Signed Erin Maker</i>	
Representative for City of Buellton	Rose Hess	City Engineer	<i>Signed Rose Hess</i>	
Representative for City of Solvang	Bridget Elliot	Associate Engineer	<i>Signed Bridget Elliot</i>	

Contract Laboratories

Project Title	Name	Position	Signature	Date
Weck Labs, Inc. QA Officer	Alan Ching	Laboratory Director of Quality Assurance	<i>Signed Alan Ching</i>	
ABC Labs, Inc. QA Officer	Michael Machuzak	Laboratory Manager, Senior Scientist	<i>Signed Michael Machuzak</i>	

Central Coast Regional Water Quality Control Board

Project Title	Name	Position	Signature	Date
Permit Manager	Dominic Roques	Municipal Coordinator	<i>Signed Dominic Roques</i>	

QA Officer	Karen Worcester	Senior Environmental Scientist	<i>Signed Karen Worcester</i>	
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The presence of a signature on this QAPP is an acknowledgement of Santa Barbara County Project Clean Water’s lead role in the Monitoring Program. The names signify willingness to participate in the Monitoring Program, and provide personnel, material, and budgetary support as appropriate.

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A3.Distribution List

All key project participants and regulators will receive copies of this Quality Assurance Project Plan (QAPP) and any approved revisions of this plan as listed below:

County of Santa Barbara

- John Karamitsos, Manager
- Cathleen Garnand, Civil Engineering Associate
- Bree Belyea, Engineering Technician Specialist

City of Goleta

- Everett King, Environmental Services Coordinator

City of Carpinteria

- Erin Maker, Environmental Coordinator

City of Buellton

- Rose Hess, City Engineer

City of Solvang

- Bridgett Elliot, Associate Engineer

Geosyntec Consultants

- Brandon Steets, Associate

Weck Laboratories, Inc.

- Alan Ching, QA Director

Aquatic Bioassay Consulting Laboratories, Inc.

- Michael Machuzak, QA Manager

Central Coast Regional Water Quality Control Board

- Dominic Roques, Municipal Coordinator
- Karen Worcester, QA Officer

A4.Project/Task Organization

County of Santa Barbara

The County will conduct all field sampling and contract management for outsourced analyses. The partner Cities will provide field sampling staff as needed. See Table 1 for individual personnel responsibilities.

Water Quality Testing Laboratories

Aquatic Bioassay & Consulting Laboratories, Inc. (ABC Labs) will be the contract laboratory for the acute toxicity screening. Weck Laboratories, Inc. (Weck Labs) will test for metals, TSS, hardness, nutrients, and pesticides.

Table 1. Personnel Responsibilities

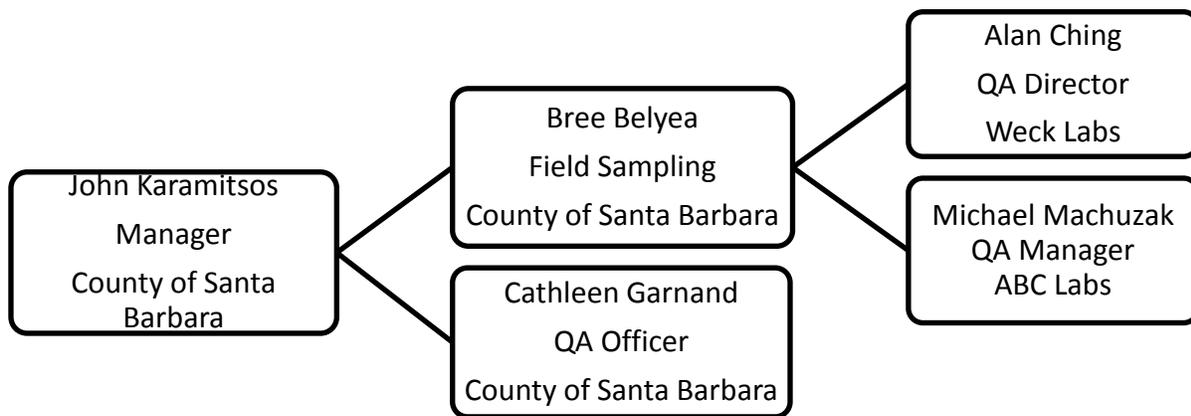
Name	Title	Organization	Project Role	Contact Information
John Karamitsos	Manager	County of Santa Barbara, Project Clean Water	Project Manager	805.568.3373 johnk@cosbpw.net
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Bree Belyea	Engineering Tech Specialist	County of Santa Barbara, Project Clean Water	Field Sampling, Lab Coordinator	805.568.3321 bbelyea@cosbpw.net
Michael Machuzak	Laboratory Manager	ABC Laboratories, Inc.	QA Manger for Acute Toxicity Testing	(805)643-5621 michaelm@aquabio.org

Alan Ching	QA Director	Weck Laboratories, Inc.	QA Director	(626)336-2139 alan.ching@wecklabs.com
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Quality Assurance Officer Role and QAPP Maintenance

Cathleen Garnand will review all project data. She is responsible for ensuring that all QA parameters are met, including field sampling and transport, and laboratory testing. Mrs. Garnand plays an advisory role in aspects of data collection and reporting. She will coordinate with the contract labs to ensure appropriate QA measures are upheld. Bree Belyea will maintain and update the approved quality assurance project plan (QAPP) as needed.

Figure 1. Organizational Chart and Responsibilities



A5.Problem Definition/Background

For the purposes of the Urban Storm Water Monitoring Program, the County of Santa Barbara and Partner Cities are required to perform urban catchment-based discharge monitoring and source tracking/source identification. The overall goal of the monitoring is to meet the requirements specified in the NPDES Municipal General Permit E.13.c. 303(d) Monitoring section and to characterize pollutant concentrations and loads from representative MS4 discharge locations within the County. These water quality data can then be used to inform the development of a County-wide pollutant load model.

303(d) Monitoring Requirements

The General Permit E.13.c. 303(d) Monitoring outlines requirements as follows:

All Permittees that discharge to waterbodies listed as impaired on the 303(d) list where urban runoff is listed as the source, shall consult with the Regional Water Board within one year of the effective date of the permit to assess whether monitoring is necessary and if so, determine the monitoring study design and monitoring implementation schedule. Permittees shall implement monitoring of 303(d) impaired water bodies as specified by the Regional Water Board Executive Officer.

During consultations with the County (August 19, 2014) Regional Water Board staff indicated that instream monitoring was less important than discharge monitoring (specifically, pollutant *loading*). This monitoring program focuses on pollutants typically associated with wet weather MS4 discharges in key watersheds.

A6. Project/Task Description

Storm water samples will be collected at outfalls representing drainage areas with specific land uses. Samples will be taken at the outfalls discharging into urban waterbodies. As many storms as possible will be monitored each storm season. It is unlikely there will be more than nine suitable storms each year. Two sites will be sampled during each storm. All water samples will be tested for toxicity and will be analyzed for trace metals, total suspended solids, nutrients, and hardness. Temperature and pH will also be measured. The outcome of the toxicity screening will dictate which samples will be further analyzed for the presence of pesticides. There will be coordination with Weck Laboratories to archive samples to allow for the delayed pesticide screening within the required hold times.

The pollutants of concern were selected based upon the following criteria:

1. Pollutants are representative of typical MS4 wet weather discharges and impairments to urban receiving waters
2. Pollutants are cost-effective to analyze and don't require special sample collection or handling procedures
3. Pollutants can be addressed through BMPs in the Permittee's stormwater program (and BMP performance data exist in order to model these pollutants)
4. Pollutants are of interest to Regional Water Board staff based on initial discussions.

Table 2. Target Analytes

Analyte	WQS	unit	Method Detection Limits	Method Reporting Limits	Source WQS
TSS			-	5.0 mg/l	
DP	0.3	mg/l			Santa Maria River Nutrient/Bacteria TMDL wet weather WLA for MS4s
Ammonia			0.048 mg/l	0.10 mg/l	
Nitrate, Nitrite, Nitrate+Nitrite	8	mg/l	10 ug/l	100 ug/l	Santa Maria River Nutrient/Bacteria TMDL wet weather WLA for MS4s
Nitrogen, total Kjeldahl			0.050 mg/l	0.10 mg/l	
Phosphorus, Dissolved	0.3	mg/l	0.0014 mg/l	0.010 mg/l	Santa Maria River Nutrient/Bacteria TMDL wet weather WLA for MS4s
Orthophosphate, Total & Dissolved			0.83 ug/l	10 ug/l	
Copper, dissolved	13	ug/l	0.13 ug/l	0.50 ug/l	CTR default value (acute freshwater criteria, hardness -100 mg/l)
Copper, total	14	ug/l	0.13 ug/l	0.50 ug/l	CTR default value (acute freshwater criteria, hardness -100 mg/l)
Iron, Total & Dissolved	1000	ug/l	0.91 ug/l	20 ug/l	USEPA Aquatic Life Criteria, acute freshwater
Lead, Total & Dissolved	82	ug/l	0.031 ug/l	0.20 ug/l	CTR default value (acute freshwater criteria, hardness -100 mg/l)
Zinc, Total & Dissolved	120	ug/l	0.94 ug/l	5.0 ug/l	CTR default value (acute freshwater criteria, hardness -100 mg/l)
Carbamate Pesticides	2.1	ug/l	0.30-0.60 ug/l	2.0 ug/l	USEPA Aquatic Life Criteria, acute freshwater
Pyrethroid Pesticides	0.8	ug/l	0.50-2.4 ng/l	2.0 ng/l	USEPA Aquatic Life Criteria, acute freshwater
Diuron	80	ug/l		0.5 ug/l	USEPA 2003 Aquatic Life Benchmarks, acute freshwater
Acetamiprid	10.5	ug/l		0.5 ug/l	USEPA 2003 Aquatic Life Benchmarks, acute freshwater
Clothianidin	11	ug/l		0.5 ug/l	USEPA 2003 Aquatic Life Benchmarks, acute freshwater
Dinotefuran	6360	ug/l		0.5 ug/l	USEPA 2003 Aquatic Life Benchmarks, acute freshwater
Imidacloprid	34.5	ug/l		0.5 ug/l	USEPA 2003 Aquatic Life Benchmarks, acute freshwater
Thiacloprid	18.9	ug/l		0.5 ug/l	USEPA 2003 Aquatic Life Benchmarks, acute freshwater
Thiamethoxam	17.5	ug/l		0.5 ug/l	USEPA 2003 Aquatic Life Benchmarks, acute freshwater

A Storm Report will be drafted and provided to the partner Cities after each storm sampling event. This report will contain details on the outcome of the sampling event (actual rainfall, timing of the storm, locations sampled) and any deviations from the Monitoring Plan that may have occurred.

Work Schedule

Table 3. Work Schedules

Permit Year	Date	Task
Permit Year 2	November 2014	Submit Monitoring Plan
Permit Year 2	July 2015	Submit QAPP
Permit Year 3-5	July 2015-June 2016 and annually thereafter	Sample all suitable storms, up to 9 per year, and submit storm reports to Partner Cities
Permit Year 3-5	May 2016, and annually thereafter	Review Quality Control data and conduct assessments.
Permit Year 3-5	May 2016-June 2016 and annually thereafter	Compile data for annual reporting process
Permit Year 3-5	October 2016 and annually thereafter	Submit project data to SMARTS and CEDEN

Geographic Location

All sampling sites are located within Santa Barbara County. Figure 2 shows an overview map of the sampling

areas within Santa Barbara County and Figure 3-6 show specific sampling locations. Table 4 summarizes site locations and land use.

Figure 2. Overview Map of Project Area

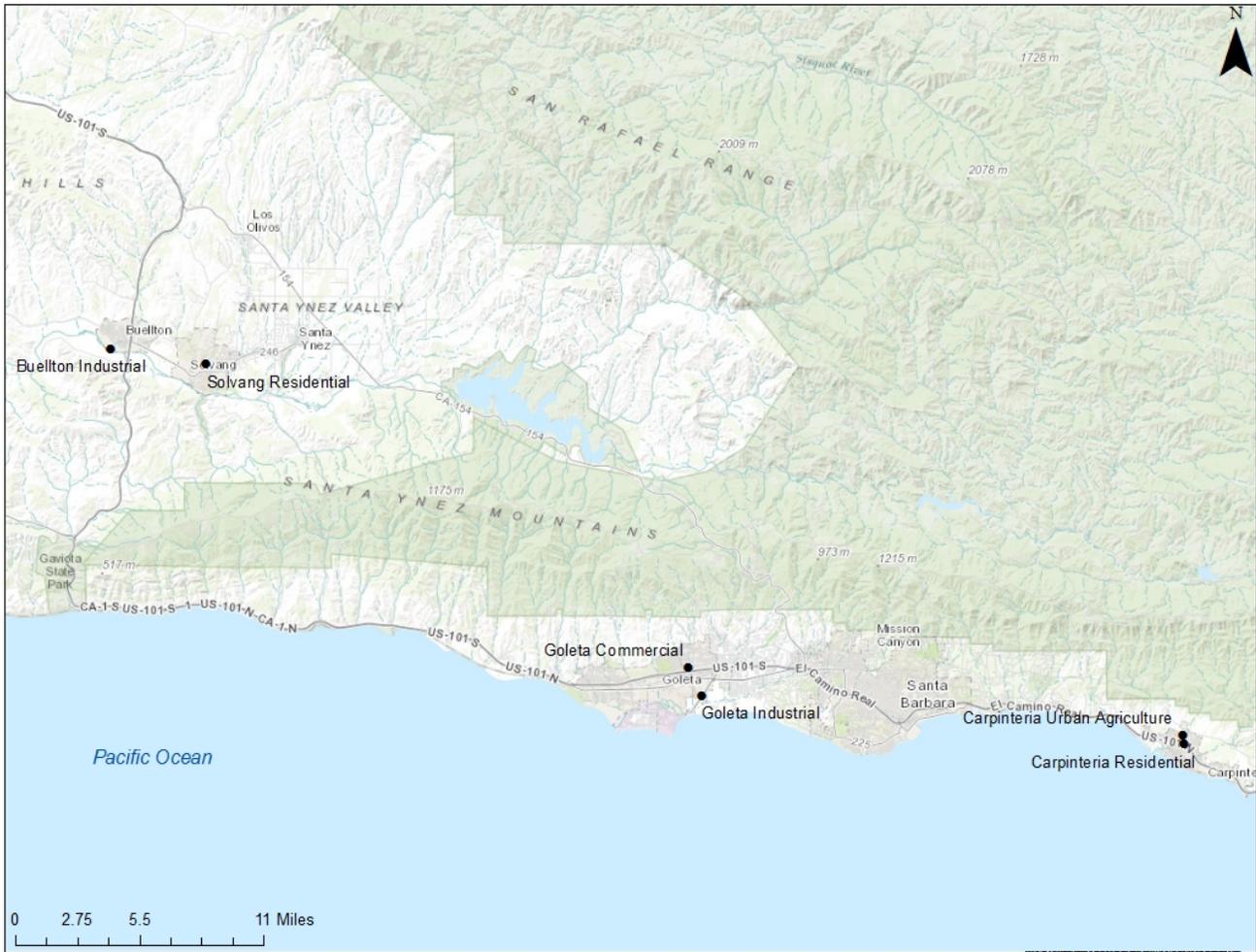


Figure 3. Buellton Monitoring Site

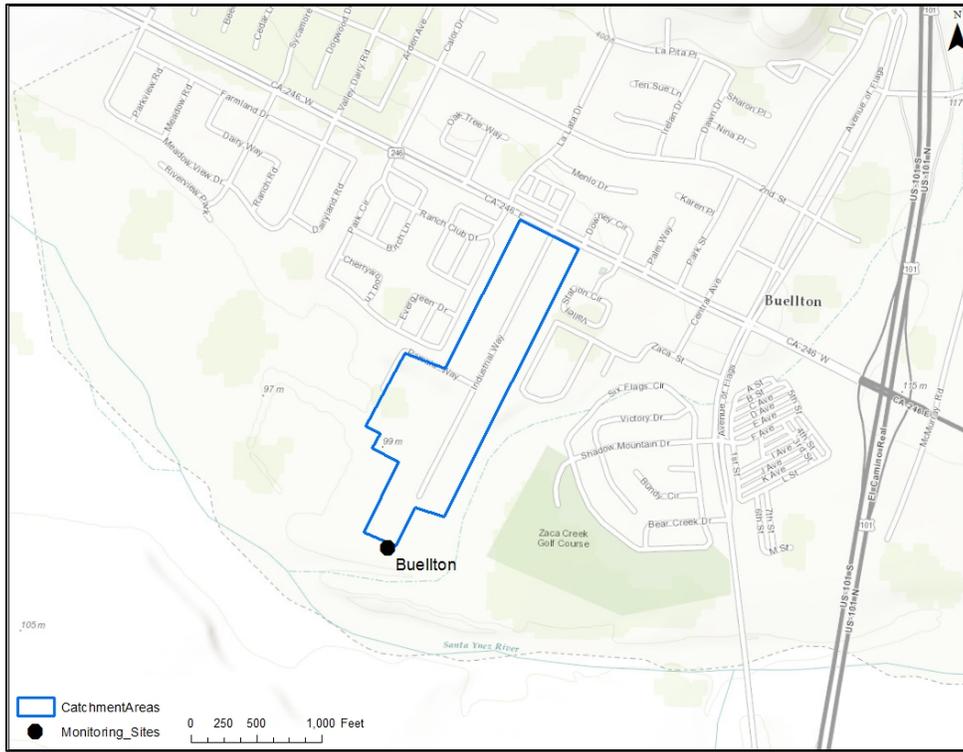


Figure 4. Solvang Monitoring Site

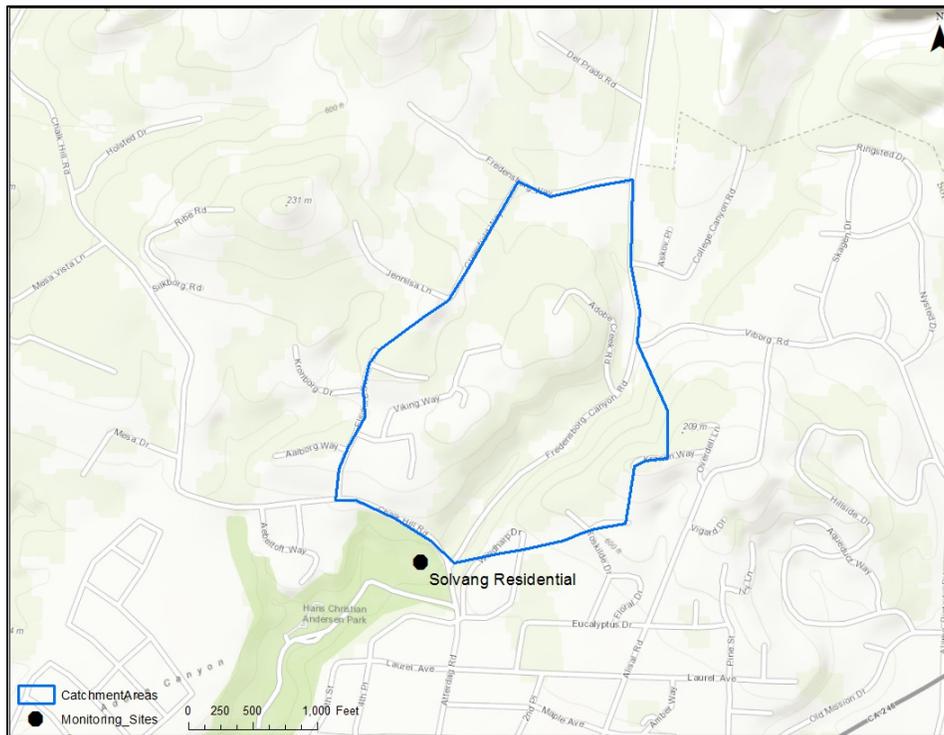


Figure 5. Carpinteria Monitoring Sites



Figure 6. Goleta Monitoring Sites

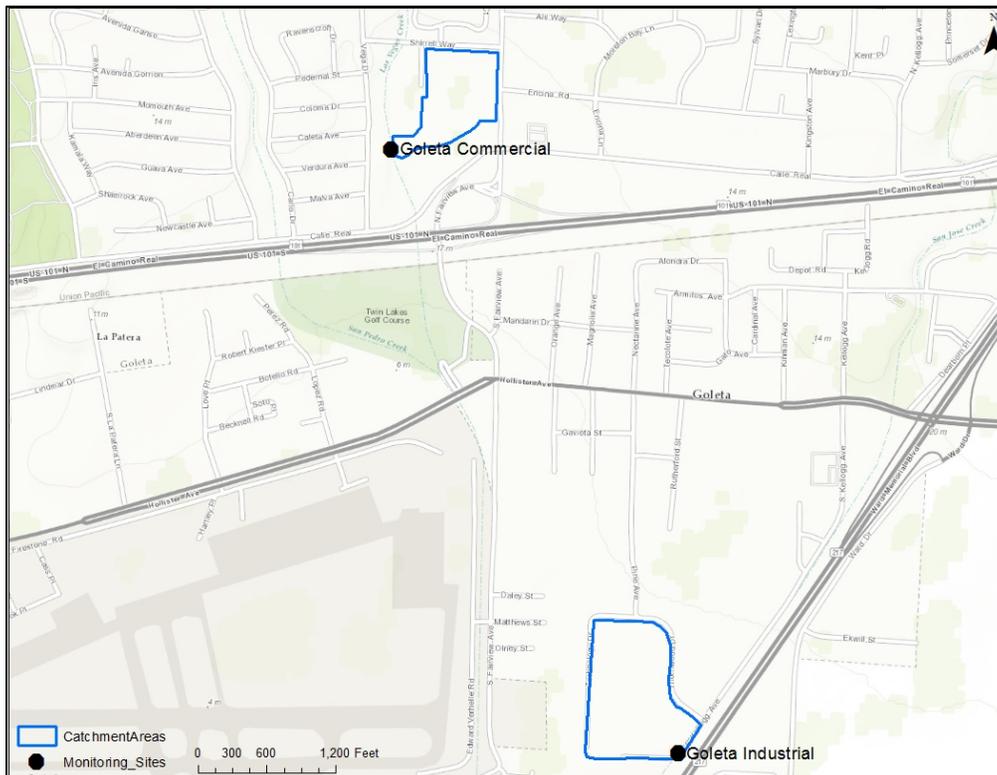


Table 4. Location and Land Use of Sampling Sites

Location	Land Use	Receiving Water	Drainage Acres
City of Solvang	Low density residential	Santa Ynez River	114.8
City of Carpinteria	Medium density residential	Franklin Creek	25.9
City of Goleta	Commercial	Las Vegas	11.8
City of Buellton	Industrial	Santa Ynez River	31.2
City of Goleta	Industrial	San Jose Creek	21.1
City of Carpinteria	Indoor Urban Agriculture	Franklin Creek	82.2

Constraints

Santa Barbara County has received 50% or less of average annual rainfall since 2012. The main foreseeable limitation is the uncertainty of rain events for the duration of the project.

A7. Quality Objectives and Criteria for Measurement Data

Consistency in the collection and analysis of data is achieved through the application of universal Measurement Quality Objectives (MQOs). As defined by the U.S. Environmental Protection Agency (EPA), these are acceptance criteria for data quality attributes such as precision, accuracy, and completeness. Adherence to the MQOs ensures that data generated will be of known and documented quality and support submitting project data to CEDEN. Numerical MQOs for the constituents being sampled are listed in Section B4. All MQOs are taken from SWAMP 2013 tables.

Accuracy is a measure of how closely the analytical result or field measurement represents the true quantity found in the sample and will be determined by measuring recoveries using matrix spikes, laboratory control spikes, and/or reference materials. Method blanks will be utilized to check for contamination.

Precision describes the degree to which repeated measurements under the same conditions produce the same results. Precision will be calculated using relative percent differences (RPD) obtained through duplicate analysis of samples, such as laboratory control spike duplicates and matrix spike duplicates.

Data completeness is a measure of the amount of successfully collected and analyzed data relative to the amount of data planned to be collected for the project. The Monitoring Plan requires every field site to be sampled during each storm season, for a minimum of three datasets per sampling site over the duration of the project. All suitable storms (up to nine per year) will be monitored each year. Any additional sampling events

each year will serve as a buffer in case of human error or equipment failure. These additional data will also help inform the development of the pollutant loading model.

Representativeness is a qualitative measure of the degree to which the environmental data generated by the monitoring program accurately and precisely represent actual environmental conditions. In this study, representativeness is addressed by the overall design of the monitoring program; by selecting appropriate sampling locations, and by maintaining the integrity of the samples after collection.

Bias is the systemic or persistent distortion of a measurement process that causes under or over prediction of sampled or measured values relative to the true value. Bias will be assessed through negative controls (blanks). Detectable quantities in the blanks would indicate positive bias.

There are no previously collected data for this Project.

A8.Special Training Needs/Certification

Specialized Training or Certifications

No specialized training or certifications are required of Project personnel for this project. All field personnel have received health and safety training as well as general field training to ensure consistency and comparability. Both Weck and ABC labs are ELAP certified.

Training and Certification Documentation

A complete listing of laboratory accreditation certificates is available directly from the contract laboratories. Training records for individual laboratory tasks are maintained at the laboratories and are available upon request from the QA Officer of each facility.

A9.Documents and Records

The following documents, records, and electronic files will be produced:

- Quality Assurance Project Plan
- Monitoring Plan
- Storm Reports (drafted and submitted to partner Cities after each storm sampling event)
- Field Sampling Data Sheets (internal documentation available upon request)
- Chain of Custody (COC) Forms (exchanged for signatures with labs and kept on file)
- Lab Sample Disposition Logs (internal documentation available upon request from contract laboratories)
- Calibration Logs for measurements of water quality standards (internal documentation available upon request Labs)
- Refrigerator Logs (internal documentation available upon request from contract laboratories)
- Equipment Calibration and Maintenance Logs (internal documentation available upon request from permittee and contract laboratories)
- Quality Assurance data (internal documentation available upon request from contract laboratories)

Following each monitoring event, the Field Technician shall provide the Program QA Officer with copies of completed field logs and copies of the chain-of-custody forms for all samples submitted for analysis. At a minimum, the following sample-specific information will be provided for each sample collected.

- Sample ID (unique for each sample and replicate)
- Monitoring location (e.g., latitude/longitude coordinates)
- Number of sub-samples in composite (if appropriate)
- Quality Control (QC) sample type (if appropriate)
- Date and time(s) of collection
- Requested analyses (specific parameters or method references)

In compliance with email guidance from the Regional Board email dated July 25, 2014, monitoring results will be reported annually under the Municipal General Permit Report via SMARTS. Results will also be uploaded to CEDEN. The Year 3 Annual Report (October 15, 2016) will be the first report to incorporate these results. Data generated under this Monitoring Plan will be entered into the California Environmental Data Exchange Network (CEDEN).

Copies of this QAPP will be distributed by the QA Officer to all parties directly involved in this project. Any future amended QAPPs will be distributed in the same fashion. All originals of the first and subsequent amended QAPPs will be held by the County. Field sampling data sheet and chain of custody forms will be stored at County offices for 5 years. Electronic copies of documents will be stored on the County of Santa Barbara Public Works server network. These servers are backed up daily.

Group B. Data Generation and Acquisition

B1. Sampling Process Design (Sampling Design and Logistics)

The Urban Storm Water Monitoring Program is designed to meet NPDES Phase II Small MS4 Municipal General Permit requirements and produce quality, representative data that can also be used to inform a County-wide pollutant load model.

Composite samples are used to determine average concentrations of pollutants. Storm events with a 50-75% probability of producing 0.2" or greater will trigger a sampling event. The County's Water Resources Division hydrologists will provide updated forecast information and the quantified precipitation forecast for the specific storm event.

Two sites will be monitored per storm. Aliquots will be collected at twenty minute intervals and subsequently combined into one composite sample. The samples will be drawn by hand from the outfall openings. The number of aliquots will vary based off predicted storm characteristics as shown in Table 5, taken from the Caltrans Stormwater Monitoring Protocols. Some estimation is necessary to predict the forecasted storm rainfall depth to determine the number of representative aliquots to draw.

Table 5. Composite Sampling Aliquot Requirements

Total Event Precipitation	Minimum Acceptable Number of Aliquots	Percent Capture Requirement
0-0.25"	6	85
0.25-0.5"	8	80
0.5-1"	10	80
>1"	12	75

Sample collection points were evaluated based on the following criteria: safe access during wet weather conditions, the possibility of reproducing accurate flow monitoring and sample collection, and drainage area representative of a specific land use to the extent possible. Sampling locations have been selected to represent drainages with specific land use. Multiple locations representing the different land use target types were surveyed and primary sample sites were selected. If a site becomes inaccessible, a secondary site with the same land use characteristics will replace the original site.

The project activity schedules are changeable due to the variable nature of the rain events being monitored. Samples will be delivered to the contract lab the day of collection if possible, or held on ice and transferred the next day if sampling occurs outside of normal business hours. A courier service or overnight shipping will be utilized to ensure the laboratory receives the samples with adequate time to meet the sample holding time limits. Hold times are shown in Section B3. All data collected are used to achieve objectives and there are no data that will be collected for informational purposes only.

Natural variability in pollutant concentrations during a rain event is expected. Variability is addressed by taking time-spaced aliquots over the duration of the storm and compositing the samples before laboratory analysis. Bias can be minimized through consistent staff training and emphasis on SOPs for sample collectors.

B2.Sampling (Sample Collection) Methods

A multi-bottle, time-proportional composite sampling protocol will be followed. Time spaced aliquots will be taken every ten or twelve minutes for two hours as the characteristics of the individual storms allow. This approach was selected because it offers the most convenience for manual sampling while providing a better representation of the overall event concentration than a single grab sample. Consideration was given to various methods, such as the use of automatic samplers, and it was determined this approach would be representative while practical. Consideration was also given to the various methods of composite sampling such as time-based, time-proportional, and weight-proportional approaches described in the Caltrans Guidance Manual for stormwater monitoring.

Samples are collected in pre-sterilized bottles or containers provided by the contract laboratories. The type and size of the container and any required preservatives will be appropriate for the constituents to be analyzed. The aliquot volume is predetermined based on the total sample volume required by the analyzing laboratories.

The contract laboratories will handle sample and byproduct disposal and decontamination according to their SOPs. The lab can be contacted if additional information is needed. If problems with field sampling are identified, the Field Technician and QA Officer will discuss and implement corrective actions. Corrective actions will be detailed in the Storm Report for the associated sampling event.

Sample bottles will be pre-labeled with site name, laboratory, required analysis and sampler initials prior to collection. Date and time will be recorded at the time of collection. Glass sample bottles will be wrapped with bubble wrap when feasible. Samples will be stored in coolers with ice until received by the laboratories. A courier or shipping service with sample handling experience will be employed by the lab to transport the samples. The Field Technician is responsible for filling out the Chain of Custody form with field sample details and transferring samples and forms to the courier or shipper. The chain-of-custody (COC) form, provided by the laboratory in advance, shall include event name, sample site ID, date and time of sampling, number of bottles, requested analyses, sampler name(s), and relevant comments. See Appendices D and E for Chain of Custody forms. COCs shall travel with the samples until logged in at the laboratory. The laboratory shall verify that samples match those noted on the COC. Any discrepancies or problems shall be documented during the login procedure and be reported to the laboratory QA Officer, who will notify County staff.

Samples for the target parameters will be collected according to the SWAMP SOP in Appendix A: Collections of Water and Bed Sediment Samples with Associated Field Measurements and Physical Habitat in California. Version 1.1 updated March 2014. Sample containers, volumes, preservative, and hold times are provided in Table 6-11.

Table 6. Sample Handling and Custody for Acute Toxicity (From SWAMP 2013 Table)

Sample Handling/Collection	
Test Parameter	Recommended Conditions
Relevant Media	Water
Sample Container Type	Amber glass
Sample Preservation	Wet or blue ice in field; 0 - 6 °C refrigeration in laboratory; dark at all times
Sample Receipt Temperature	0 - 6 °C
Holding Time	<48 hours @ 0 - 6 °C; dark

Table 7. Sample Handling and Custody for Metals (From SWAMP 2013 Table)

Analyte	Recommended Container ¹	Recommended Preservation ^{2,3}	Required Holding Time ⁴
Trace Metals ⁸ (Dissolved)	P	Filter within 15 minutes of collection; HNO ₃ to pH<2 within 48 hours and at least 24 hours prior to analysis	6 months at room temperature following acidification
Trace Metals ⁸ (Total)	P	HNO ₃ to pH<2 within 48 hours and at least 24 hours prior to analysis	6 months at room temperature following acidification

¹ "P" is polyethylene; "G" is glass; "PA" is any plastic that is made of a sterilizable material (polypropylene or other autoclavable plastic)

² Per 40 CFR 136.3, aqueous samples must be preserved at ≤6 °C, and should not be frozen unless data demonstrating that sample freezing does not adversely impact sample integrity is maintained on file and accepted as valid by the regulatory authority. The preservation temperature does not apply to samples that are analyzed immediately (within 15 minutes).

³ Per 40 CFR 136.3, an aqueous sample may be collected and shipped without acid preservation. However, acid must be added at least 24 hours before analysis to dissolve any metals that adsorb to the container walls. If the sample must be analyzed within 24 hours of collection, add the acid immediately.

⁴ Each "Required Holding Time" is based on the assumption that the "Recommended Preservation" (or a method-mandated alternative) has been employed. If a "Required Holding Time" for filtration, preservation, preparation, or analysis is not met, the project manager and SWAMP Quality Assurance Officer must be notified. Regardless of preservation technique, data not meeting the "Required Holding Time" will be appropriately flagged in the SWAMP database.

⁵ If the analytical method doesn't include preservation, analysis must occur within 24 hours.

⁶ Methylmercury samples may be shipped to the laboratory unpreserved if they are collected in fluoropolymer bottles, filled to the top with no head space, capped tightly, and maintained at ≤6 °C from the time of collection until preservation. The samples must be acid-preserved within 48 hours of sampling.

⁷ Including the species selenite, selenate, and selenocyanate

⁸ With the exception of mercury, methylmercury, hexavalent chromium, and selenium speciation

Table 8. Sample Handling and Custody for TSS (From SWAMP 2013 Table)

Parameter	Recommended Container ¹	Recommended Preservation ²	Required Holding Time ³
Suspended Sediment Concentration	G, P	Cool to ≤6 °C	7 days
Total Suspended Solids			
Total Dissolved Solids	P	Cool to ≤6 °C	7 days

¹ "P" is polyethylene; "G" is glass

² Per 40 CFR 136.3, aqueous samples must be preserved at ≤6 °C, and should not be frozen unless data demonstrating that sample freezing does not adversely impact sample integrity is maintained on file and accepted as valid by the regulatory authority. The preservation temperature does not apply to samples that are analyzed immediately (less than 15 minutes).

³ Each "Required Holding Time" is based on the assumption that the "Recommended Preservation" (or a method-mandated alternative) has been employed. If a "Required Holding Time" for filtration, preservation, preparation, or analysis is not met, the project manager and SWAMP Quality Assurance Officer must be notified. Regardless of preservation technique, data not meeting the "Required Holding Time" will be appropriately flagged in the SWAMP database.

Table 9. Sample Handling and Custody for Hardness (From SWAMP 2013 Table)

Analyte	Recommended Container ¹	Recommended Preservation ^{2,3}	Required Holding Time ⁴
Hardness (as CaCO ₃)	P	Cool to ≤6 °C; HNO ₃ or H ₂ SO ₄ to pH<2	6 months

Table 10. Sample Handling and Custody for Nutrients (From SWAMP 2013 Table)

Analyte	Recommended Container ¹	Recommended Preservation ²	Required Holding Time ³
Ammonia (as N)	P	Cool to ≤6 °C; samples may be preserved with 2 mL of H ₂ SO ₄ per L	48 hours; 28 days if acidified
Kjeldahl Nitrogen (Total)	P	Cool to ≤6 °C; H ₂ SO ₄ to pH<2	7 days; 28 days if acidified
Nitrate (as N)	P	Cool to ≤6 °C	48 hours (unless calculated from nitrate + nitrite (as N) and nitrite (as N) analyses)
Nitrate + Nitrite (as N)	P	Cool to ≤6 °C; H ₂ SO ₄ to pH<2	48 hours; 28 days if acidified
Nitrite (as N)	P	Cool to ≤6 °C	48 hours
Nitrogen (Total)	P	Cool to ≤6 °C; H ₂ SO ₄ to pH <2	28 days
Orthophosphate (Dissolved, as P; Soluble Reactive Phosphorus)	P	Filter within 15 minutes of collection ⁴ ; cool to ≤6 °C	48 hours
Orthophosphate (Total, as P)	P	Cool to ≤6 °C	48 hours
Phosphorus (Dissolved, as P)	P	Filter within 15 minutes of collection; cool to ≤6 °C; H ₂ SO ₄ to pH <2	28 days
Phosphorus (Elemental)	G	Cool to ≤6 °C	48 hours
Phosphorus (Total, as P)	P	Cool to ≤6 °C; H ₂ SO ₄ to pH <2	28 days

¹ "P" is polyethylene; "G" is glass

² Per 40 CFR 136.3, aqueous samples must be preserved at ≤6 °C, and should not be frozen unless data demonstrating that sample freezing does not adversely impact sample integrity is maintained on file and accepted as valid by the regulatory authority. The preservation temperature does not apply to samples that are analyzed immediately (less than 15 minutes).

³ Each "Required Holding Time" is based on the assumption that the "Recommended Preservation" (or a method-mandated alternative) has been employed. If a "Required Holding Time" for filtration, preservation, preparation, or analysis is not met, the project manager and SWAMP Quality Assurance Officer must be notified. Regardless of preservation technique, data not meeting the "Required Holding Time" will be appropriately flagged in the SWAMP database.

⁴ Per 40 CFR 136.3, the immediate filtration requirement in orthophosphate measurement is to assess the dissolved or bio-available form of orthophosphorus (i.e., that which passes through a 0.45-micron filter), hence the requirement to filter the sample immediately upon collection (i.e., within 15 minutes of collection).

Table 11. Sample Handling and Custody for Pesticides (From SWAMP 2013 Table)

Matrix	Recommended Container ²	Recommended Preservation ⁴	Required Holding Time ²
Carbamate Pesticides Organochlorine Pesticides Organophosphate Pesticides Wastewater Organochlorine Pesticides	G	Cool to ≤6 °C; pH 5-9	7 days until extraction, 40 days after extraction
Diesel Range Organics Triazine Pesticides	G	Cool to ≤6 °C	7 days until extraction, 40 days after extraction
Glyphosate	G	Cool to ≤6 °C; store in the dark; 0.008% Na ₂ S ₂ O ₃ if residual chlorine is present; freeze to ≤-20 °C	18 months (14 days if unfrozen)
Phenols⁵	G	Cool to ≤6 °C; 0.008% Na ₂ S ₂ O ₃ if residual chlorine is present	7 days until extraction, 40 days after extraction
Polychlorinated Biphenyls (as Congeners/Aroclors)	G	Cool to ≤6 °C	1 year until extraction, 1 year after extraction
Polynuclear Aromatic Hydrocarbons	G	Cool to ≤6 °C; store in the dark; 0.008% Na ₂ S ₂ O ₃ if residual chlorine is present	7 days until extraction, 40 days after extraction
Pyrethroids	G	Cool ≤ 6 °C in the dark; samples must be extracted or preserved according to laboratory procedures with suitable preservative or extraction solvent within 72 hours of collection	7 days until extraction, 40 days after extraction
Surfactants	G	Cool to ≤6 °C, store in the dark	7 days until extraction, 40 days after extraction

¹ Pyrethroids information applies to a whole water matrix.

² "G" is glass

³ Per 40 CFR 136.3, aqueous samples must be preserved at ≤6 °C, and should not be frozen unless data demonstrating that sample freezing does not adversely impact sample integrity is maintained on file and accepted as valid by the regulatory authority. The preservation temperature does not apply to samples that are analyzed immediately (less than 15 minutes).

⁴ Each "Required Holding Time" is based on the assumption that the "Recommended Preservation" (or a method-mandated alternative) has been employed. If a "Required Holding Time" for filtration, preservation, preparation, or analysis is not met, the project manager and SWAMP Quality Assurance Officer must be notified. Regardless of preservation technique, data not meeting the "Required Holding Time" will be appropriately flagged in the SWAMP database.

⁵ This table applies to phenols analysis using gas chromatography. Guidelines for the colorimetric analysis of phenols are located in *Conventional Parameters in Water Table 2: Sample Handling*.

B3. Analytical Methods

There are no recommended reporting limits for toxicity in the 2008 SWAMP QAPRP. There is no in situ or continuous monitoring for this project. No specific method performance criteria are identified.

Laboratory procedures, equipment and instrumentation are described in the supporting document for acute toxicity analysis found in Appendix B. Analytical methods for chemical analyses are included in Appendix C. The SOPs indicate procedures to follow when failures occur, identifying individuals responsible for corrective action and associated documentation. In the case a failure is not specified in the SOP, best professional judgment will be used and the laboratories will communicate to the County about the data quality. The SOPs indicate appropriate sample disposal procedures; if they are not identified in the SOP, they are available in the laboratory general QAPP, which is available upon request. Any modifications to standard methods are indicated in the SOPs.

B4. Quality Control

Acute Toxicity

Acute toxicity will be measured with *Hyalella azteca*, a test organism sensitive to pyrethroid pesticides and used in regulatory programs in the region and included on the alternate species list for EPA/821/R-02/012.

Quality control activities and calculations for acute toxicity analysis are taken from the SWAMP 2013 table and shown in Table 12. Corrective actions are shown in Table 13.

Table 12. Quality Control for Acute Toxicity (From SWAMP 2013 Table)

Negative Controls	Frequency of Analysis	Control Limits
Laboratory Control Water	Laboratory control water consistent with Section 7 of the appropriate EPA method/manual must be tested with each analytical batch.	Laboratory control water must meet all test acceptability criteria (please refer to Section 7 of the appropriate EPA method/manual) for the species of interest.
Conductivity/Salinity Control Water	A conductivity or salinity control must be tested when these parameters are above or below the species tolerance.	Follow EPA guidance on interpreting data and refer to tables below for tolerance ranges.
Additional Control Water	Additional method blanks are required whenever manipulations are performed on one or more of the ambient samples within each analytical batch (e.g., pH adjustments, continuous aeration).	There must be no statistical difference between the laboratory control water and each additional control water within an analytical batch.
Sediment Control	Sediment control consistent with Section 7 of the appropriate EPA method/manual must be tested with each analytical batch of sediment toxicity tests.	Sediment control must meet all data acceptability criteria (please refer to Section 7 of the appropriate EPA method/manual) for the species of interest.
Positive Controls	Frequency of Analysis	Control Limits
Reference Toxicant Tests	Reference toxicant tests must be conducted monthly for species that are raised within a laboratory, or per analytical batch for commercially-supplied or field-collected species.	Last plotted data point (LC50 or EC50) must be within 2 SD of the cumulative mean (n=20). Reference toxicant tests that fall outside of recommended control chart limits are evaluated to determine the validity of associated tests. An out of control reference toxicant test result does not necessarily invalidate associated test results. More frequent and/or concurrent reference toxicant testing may be advantageous if recent problems have been identified in testing.
Field Quality Control	Frequency of Analysis	Control Limits
Sample Duplicate	5% of total project sample count	Recommended acceptable RPD < 20%
Field Blanks	Based on project requirements	No statistical difference between the laboratory control water (or sediment control) and the field blank within an analytical batch
Bottle Blanks	Based on project requirements	No statistical difference between the laboratory control water and the equipment blank within an analytical batch

¹Unless method specifies more stringent requirements.

In special cases where the criteria listed in the above tables cannot be met, EPA minimum criteria may be followed. The affected data should be flagged accordingly.

Test data are reviewed to verify that the test acceptability criteria for a valid test have been met. Any test not meeting the minimum test acceptability criteria is considered invalid. All invalid tests should be repeated with the newly collected sample. If this is not possible, the test should be repeated with an archived sample and all tests must be properly flagged.

Deviations from the summary of recommended test conditions must be evaluated on a project-specific basis to determine the validity of test results. Depending on the degree of the departure and the objective of the test, deviations from recommended conditions may or may not invalidate a test result. Before rejecting or accepting a test result as valid, the reviewer should consider the degree of the deviation and the potential or observed impact of the deviation on the test result. For example, if dissolved oxygen is measured below 4.0 mg/L in one test chamber, the reviewer should consider whether any observed mortality in that test chamber corresponded with the drop in dissolved oxygen.

Table 13. Corrective Actions for Acute Toxicity (From SWAMP 2013 Table)

Negative Controls	Corrective Action
Laboratory Control Water	If tested with in-house cultures, affected samples and associated quality control must be retested within 24 hours of test failure. If commercial cultures are used, they must be ordered within 16 hours of test failure for the earliest possible receipt. Retests must be initiated within 30 hours of receipt, depending on the need for organism acclimation. The laboratory should try to determine the source of the control failure, document the investigation, and document the steps taken to prevent a recurrence.
Conductivity/Salinity Control Water	Affected samples and associated quality control must be flagged.
Additional Control Water	Based on the objectives of the study, a water sample that has similar qualities to the test sample may be used as an additional control. Results that show statistical differences from the laboratory control should be flagged. The laboratory should try to determine the source of variation, document the investigation, and document the steps taken to prevent a recurrence. This is not applicable for TIE method blanks.
Sediment Control	Based on the objectives of the study, a sediment sample that has similar qualities to the test sample may be used as an additional control. Results that show statistical differences from the laboratory control should be flagged. The laboratory should try to determine the source of variation, document the investigation, and document the steps taken to prevent a recurrence.
Positive Controls	Corrective Action
Reference Toxicant Tests	If the LC50 exceeds +/- two standard deviations of the running mean of the last 20 reference toxicant tests, the test should be flagged.
Field Quality Control	Corrective Action
Field Duplicate	For duplicates with a heterogeneous matrix, results that do not meet SWAMP criteria should be flagged. The project coordinator should be notified so that the sampling team can identify the source of variation and perform corrective action prior to the next sampling event.
Field Blanks	If contamination of the field blanks and associated samples is known or suspected, the laboratory should flag the affected data. The project coordinator should be notified so that the sampling team can identify the contamination source(s) and perform corrective action prior to the next sampling event.
Equipment Blanks	If contamination of the field blanks and associated samples is known or suspected, the laboratory should flag the affected data. The project coordinator should be notified so that the sampling team can identify the contamination source(s) and perform corrective action prior to the next sampling event.

Metals

Quality control activities and calculations for metals analysis are taken from the SWAMP 2013 table and shown in Table 14. Corrective actions are shown in Table 15.

Table 14. Quality Control for Metals (From SWAMP 2013 Table)

Laboratory Quality Control	Frequency of Analysis	Measurement Quality Objective
Calibration Standard	Per analytical method or manufacturer's specifications	Per analytical method or manufacturer's specifications
Calibration Verification	Per 10 analytical runs	80-120% recovery
Laboratory Blank	Per 20 samples or per analytical batch, whichever is more frequent	<RL for target analyte
Reference Material ²	Per 20 samples or per analytical batch, whichever is more frequent	75-125% recovery (70-130% for MMHg)
Matrix Spike	Per 20 samples or per analytical batch, whichever is more frequent	75-125% recovery (70-130% for MMHg)
Matrix Spike Duplicate	Per 20 samples or per analytical batch, whichever is more frequent	75-125% recovery (70-130% for MMHg); RPD<25%
Laboratory Duplicate	Per 20 samples or per analytical batch, whichever is more frequent	RPD<25% (n/a if native concentration of either sample<RL)
Internal Standard	Accompanying every analytical run when method appropriate	60-125% recovery
Field Quality Control	Frequency of Analysis	Measurement Quality Objective
Field Duplicate	5% of total project sample count	RPD<25% (n/a if native concentration of either sample<RL), unless otherwise specified by method
Field Blank, Equipment Blank	Per method	Blanks<RL for target analyte

¹ Unless method specifies more stringent requirements

² Not applicable to selenium speciation

Table 15. Corrective Actions for Metals (From SWAMP 2013 Table)

Laboratory Quality Control	Recommended Corrective Action
Calibration Standard	Recalibrate the instrument. Affected samples and associated quality control must be reanalyzed following successful instrument recalibration.
Calibration Verification	Reanalyze the calibration verification to confirm the result. If the problem continues, halt analysis and investigate the source of the instrument drift. The analyst should determine if the instrument must be recalibrated before the analysis can continue. All of the samples not bracketed by acceptable calibration verification must be reanalyzed.
Laboratory Blank	Reanalyze the blank to confirm the result. Investigate the source of contamination. If the source of the contamination is isolated to the sample preparation, the entire batch of samples, along with the new laboratory blanks and associated QC samples, should be prepared and/or re-extracted and analyzed. If the source of contamination is isolated to the analysis procedures, reanalyze the entire batch of samples. If reanalysis is not possible, the associated sample results must be flagged to indicate the potential presence of the contamination.
Reference Material	Reanalyze the reference material to confirm the result. Compare this to the matrix spike/matrix spike duplicate recovery data. If adverse trends are noted, reprocess all of the samples associated with the batch.
Matrix Spike	The spiking level should be near the midrange of the calibration curve or at a level that does not require sample dilution. Reanalyze the matrix spike to confirm the result. Review the recovery obtained for the matrix spike duplicate. Review the results of the other QC samples (such as reference materials) to determine if other analytical problems are a potential source of the poor spike recovery.
Matrix Spike Duplicate	The spiking level should be near the midrange of the calibration curve or at a level that does not require sample dilution. Reanalyze the matrix spike duplicate to confirm the result. Review the recovery obtained for the matrix spike. Review the results of the other QC samples (such as reference materials) to determine if other analytical problems are a potential source of the poor spike recovery.
Laboratory Duplicate	Reanalyze the duplicate samples to confirm the results. Visually inspect the samples to determine if a high RPD between the results could be attributed to sample heterogeneity. For duplicate results due to matrix heterogeneity, or where ambient concentrations are below the reporting limit, qualify the results and document the heterogeneity.
Internal Standard	Check the response of the internal standards. If the instrument continues to generate poor results, terminate the analytical run and investigate the cause of the instrument drift.
Field Quality Control	Recommended Corrective Action
Field Duplicate	Visually inspect the samples to determine if a high RPD between results could be attributed to sample heterogeneity. For duplicate results due to matrix heterogeneity, or where ambient concentrations are below the reporting limit, qualify the results and document the heterogeneity. All failures should be communicated to the project coordinator, who in turn will follow the process detailed in the method.
Field Blank, Equipment Blank	Investigate the source of contamination. Potential sources of contamination include sampling equipment, protocols, and handling. The laboratory should report evidence of field contamination as soon as possible so corrective actions can be implemented. Samples collected in the presence of field contamination should be flagged.

TSS

Quality control activities and calculations for TSS analyses are taken from the SWAMP 2013 table and shown in Table 16. Corrective actions are shown in Table 17.

Table 16. Quality Control for TSS Testing (From SWAMP 2013 Table)

Laboratory Quality Control	Frequency of Analysis	Measurement Quality Objective
Laboratory Blank ²	Per 20 samples or per analytical batch, whichever is more frequent	<RL for target analyte
Laboratory Duplicate ³	Per 20 samples or per analytical batch, whichever is more frequent	RPD<25% (n/a if native concentration of either sample<RL)
Field Quality Control	Frequency of Analysis	Measurement Quality Objective
Field Duplicate	5% of total project sample count	RPD<25% (n/a if native concentration of either sample<RL)
Field Blank, Equipment Blank	Per method	<RL for target analyte

¹ Unless method specifies more stringent requirements

² Not applicable to volatile suspended solids

³ Applicable only to total suspended solids, total dissolved solids, and ash-free dry mass

Table 17. Corrective Actions for TSS Testing (From SWAMP 2013 Table)

Laboratory Quality Control	Recommended Corrective Action
Laboratory Blank	Reanalyze the blank to confirm the result. Investigate the source of contamination. If the source of the contamination is isolated to the sample preparation, the entire batch of samples, along with the new laboratory blanks and associated QC samples, should be prepared and/or re-extracted and analyzed. If the source of contamination is isolated to the analysis procedures, reanalyze the entire batch of samples. If reanalysis is not possible, the associated sample results must be flagged to indicate the potential presence of the contamination.
Laboratory Duplicate	Reanalyze the duplicate samples to confirm the results. Visually inspect the samples to determine if a high RPD between the results could be attributed to sample heterogeneity. For duplicate results due to matrix heterogeneity, or where ambient concentrations are below the reporting limit, qualify the results and document the heterogeneity.
Field Quality Control	Recommended Corrective Action
Field Duplicate	Visually inspect the samples to determine if a high RPD between results could be attributed to sample heterogeneity. For duplicate results due to matrix heterogeneity, or where ambient concentrations are below the reporting limit, qualify the results and document the heterogeneity. All failures should be communicated to the project coordinator, who in turn will follow the process detailed in the method.
Field Blank, Equipment Blank	Investigate the source of contamination. Potential sources of contamination include sampling equipment, protocols, and handling. The laboratory should report evidence of field contamination as soon as possible so corrective actions can be implemented. Samples collected in the presence of field contamination should be flagged.

Hardness

Quality control activities and calculations for hardness analyses are taken from the SWAMP 2013 table and shown in Table 18. Corrective actions are shown in Table 19.

Table 18. Quality Control for Hardness Testing (From SWAMP 2013 Table)

Laboratory Quality Control	Frequency of Analysis	Measurement Quality Objective
Calibration Standard	Per analytical method or manufacturer's specifications	Per analytical method or manufacturer's specifications
Calibration Verification	Per 10 analytical runs	80-120% recovery
Laboratory Blank	Per 20 samples or per analytical batch, whichever is more frequent	<RL for target analyte
Reference Material	Per 20 samples or per analytical batch, whichever is more frequent	80-120% recovery
Matrix Spike	Per 20 samples or per analytical batch, whichever is more frequent (n/a for chlorophyll a and pheophytin a)	80-120% recovery
Matrix Spike Duplicate	Per 20 samples or per analytical batch, whichever is more frequent (n/a for chlorophyll a and pheophytin a)	80-120% recovery; RPD<25% for duplicates
Laboratory Duplicate	Per 20 samples or per analytical batch, whichever is more frequent (chlorophyll a/pheophytin a: per method)	RPD<25% (n/a if native concentration of either sample<RL)
Internal Standard	Accompanying every analytical run as method appropriate	Per method
Field Quality Control	Frequency of Analysis	Measurement Quality Objective
Field Duplicate ²	5% of total project sample count	RPD<25% (n/a if native concentration of either sample<RL)
Field Blank, Travel Blank, Equipment Blank	Per method	<RL for target analyte

¹ Unless method specifies more stringent requirements

² Field duplicate relative percent differences are not calculated for chlorophyll a analyses for bioassessment

Table 19. Corrective Actions for Hardness Testing (From SWAMP 2013 Table)

Laboratory Quality Control	Recommended Corrective Action
Calibration Standard	Recalibrate the instrument. Affected samples and associated quality control must be reanalyzed following successful instrument recalibration.
Calibration Verification	Reanalyze the calibration verification to confirm the result. If the problem continues, halt analysis and investigate the source of the instrument drift. The analyst should determine if the instrument must be recalibrated before the analysis can continue. All of the samples not bracketed by acceptable calibration verification must be reanalyzed.
Laboratory Blank	Reanalyze the blank to confirm the result. Investigate the source of contamination. If the source of the contamination is isolated to the sample preparation, the entire batch of samples, along with the new laboratory blanks and associated QC samples, should be prepared and/or re-extracted and analyzed. If the source of contamination is isolated to the analysis procedures, reanalyze the entire batch of samples. If reanalysis is not possible, the associated sample results must be flagged to indicate the potential presence of contamination.
Reference Material	Reanalyze the reference material to confirm the result. Compare this to the matrix spike/matrix spike duplicate recovery data. If adverse trends are noted, reprocess all of the samples associated with the batch.
Matrix Spike	The spiking level should be near the midrange of the calibration curve or at a level that does not require sample dilution. Reanalyze the matrix spike to confirm the result. Review the recovery obtained for the matrix spike duplicate. Review the results of the other QC samples (such as reference materials) to determine if other analytical problems are a potential source of the poor spike recovery.
Matrix Spike Duplicate	The spiking level should be near the midrange of the calibration curve or at a level that does not require sample dilution. Reanalyze the matrix spike duplicate to confirm the result. Review the recovery obtained for the matrix spike. Review the results of the other QC samples (such as reference materials) to determine if other analytical problems are a potential source of the poor spike recovery.
Laboratory Duplicate	Reanalyze the duplicate samples to confirm the results. Visually inspect the samples to determine if a high RPD between the results could be attributed to sample heterogeneity. For duplicate results due to matrix heterogeneity, or where ambient concentrations are below the reporting limit, qualify the results and document the heterogeneity.
Internal Standard	Check the response of the internal standards. If the instrument continues to generate poor results, terminate the analytical run and investigate the cause of the instrument drift.
Field Quality Control	Recommended Corrective Action
Field Duplicate	Visually inspect the samples to determine if a high RPD between results could be attributed to sample heterogeneity. For duplicate results due to matrix heterogeneity, or where ambient concentrations are below the reporting limit, qualify the results and document the heterogeneity. All failures should be communicated to the project coordinator, who in turn will follow the process detailed in the method.
Field Blank, Travel Blank, Equipment Blank	Investigate the source of contamination. Potential sources of contamination include sampling equipment, protocols, and handling. The laboratory should report evidence of field contamination as soon as possible so corrective actions can be implemented. Samples collected in the presence of field contamination should be flagged.

Nutrients

Quality control activities and calculations for nutrients analyses are taken from the SWAMP 2013 table and shown in Table 20. Corrective actions are shown in Table 21.

Table 20. Quality Control for Nutrients Testing (From SWAMP 2013 Table)

Laboratory Quality Control	Frequency of Analysis	Measurement Quality Objective
Calibration Standard	Per analytical method or manufacturer's specifications	Per analytical method or manufacturer's specifications
Calibration Verification	Per 10 analytical runs	90-110% recovery
Laboratory Blank	Per 20 samples or per analytical batch, whichever is more frequent	<RL for target analyte
Reference Material	Per 20 samples or per analytical batch, whichever is more frequent	90-110% recovery
Matrix Spike	Per 20 samples or per analytical batch, whichever is more frequent	80-120% recovery
Matrix Spike Duplicate	Per 20 samples or per analytical batch, whichever is more frequent	80-120% recovery RPD<25% for duplicates
Laboratory Duplicate	Per 20 samples or per analytical batch, whichever is more frequent	RPD<25% (n/a if native concentration of either sample<RL)
Field Quality Control	Frequency of Analysis	Measurement Quality Objective
Field Duplicate	5% of total project sample count	RPD<25% (n/a if native concentration of either sample<RL)
Field Blank, Travel Blank, Equipment Blank	Per method	<RL for target analyte

¹ Unless method specifies more stringent requirements

Table 21. Corrective Actions for Nutrients Testing (From SWAMP 2013 Table)

Laboratory Quality Control	Recommended Corrective Action
Calibration Standard	Recalibrate the instrument. Affected samples and associated quality control must be reanalyzed following successful instrument recalibration.
Calibration Verification	Reanalyze the calibration verification to confirm the result. If the problem continues, halt analysis and investigate the source of the instrument drift. The analyst should determine if the instrument must be recalibrated before the analysis can continue. All of the samples not bracketed by acceptable calibration verification must be reanalyzed.
Laboratory Blank	Reanalyze the blank to confirm the result. Investigate the source of contamination. If the source of the contamination is isolated to the sample preparation, the entire batch of samples, along with the new laboratory blanks and associated QC samples, should be prepared and/or re-extracted and analyzed. If the source of contamination is isolated to the analysis procedures, reanalyze the entire batch of samples. If reanalysis is not possible, the associated sample results must be flagged to indicate the potential presence of the contamination.
Reference Material	Reanalyze the reference material to confirm the result. Compare this to the matrix spike/matrix spike duplicate recovery data. If adverse trends are noted, reprocess all of the samples associated with the batch.
Matrix Spike	The spiking level should be near the midrange of the calibration curve or at a level that does not require sample dilution. Reanalyze the matrix spike to confirm the result. Review the recovery obtained for the matrix spike duplicate. Review the results of the other QC samples (such as reference materials) to determine if other analytical problems are a potential source of the poor spike recovery.
Matrix Spike Duplicate	The spiking level should be near the midrange of the calibration curve or at a level that does not require sample dilution. Reanalyze the matrix spike duplicate to confirm the result. Review the recovery obtained for the matrix spike. Review the results of the other QC samples (such as reference materials) to determine if other analytical problems are a potential source of the poor spike recovery.
Laboratory Duplicate	Reanalyze the duplicate samples to confirm the results. Visually inspect the samples to determine if a high RPD between the results could be attributed to sample heterogeneity. For duplicate results due to matrix heterogeneity, or where ambient concentrations are below the reporting limit, qualify the results and document the heterogeneity.
Field Quality Control	Recommended Corrective Action
Field Duplicate	Visually inspect the samples to determine if a high RPD between results could be attributed to sample heterogeneity. For duplicate results due to matrix heterogeneity, or where ambient concentrations are below the reporting limit, qualify the results and document the heterogeneity. All failures should be communicated to the project coordinator, who in turn will follow the process detailed in the method.
Field Blank, Travel Blank, Equipment Blank	Investigate the source of contamination. Potential sources of contamination include sampling equipment, protocols, and handling. The laboratory should report evidence of field contamination as soon as possible so corrective actions can be implemented. Samples collected in the presence of field contamination should be flagged.

Pesticides

Quality control activities and calculations for pesticides analyses are taken from the SWAMP 2013 table and shown in Table 22. Corrective actions are shown in Table 23. Analyses of pyrethroid pesticides are shown separately in Tables 24 and 25.

Table 22. Quality Control for Pesticides Testing (From SWAMP 2013 Table)

Laboratory Quality Control	Frequency of Analysis	Measurement Quality Objective
Tuning⁴	Per analytical method	Per analytical method
Calibration	Initial method setup or when the calibration verification fails	<ul style="list-style-type: none"> Correlation coefficient ($r^2 > 0.990$) for linear and non-linear curves If RSD < 15%, average RF may be used to quantitate; otherwise use equation of the curve First- or second-order curves only (not forced through the origin) Refer to SW-846 methods for SPCC and CCC criteria⁴ Minimum of 5 points per curve (one of them at or below the RL)
Calibration Verification	Per 12 hours	<ul style="list-style-type: none"> Expected response or expected concentration $\pm 20\%$ RF for SPCCs = initial calibration⁴
Laboratory Blank	Per 20 samples or per analytical batch, whichever is more frequent	<RL for target analytes
Reference Material	Per 20 samples or per analytical batch (preferably blind)	70-130% recovery if certified; otherwise, 50-150% recovery
Matrix Spike	Per 20 samples or per analytical batch, whichever is more frequent	50-150% or based on historical laboratory control limits (average $\pm 3SD$)
Matrix Spike Duplicate	Per 20 samples or per analytical batch, whichever is more frequent	50-150% or based on historical laboratory control limits (average $\pm 3SD$); RPD < 25%
Surrogate	Included in all samples and all QC samples	Based on historical laboratory control limits (50-150% or better)
Internal Standard	Included in all samples and all QC samples (as available)	Per laboratory procedure
Field Quality Control	Frequency of Analysis	Measurement Quality Objective
Field Duplicate	5% of total project sample count	Per method
Field Blank, Travel Blank, Equipment Blank	Per method	<RL for target analytes

¹ Unless method specifies more stringent requirements; ELISA results must be assessed against kit requirements.

² Pyrethroids quality control guidelines are presented in Table 2 immediately below.

³ All detected analytes must be confirmed with a second column, second technique, or mass spectrometry.

⁴ Mass spectrometry only

Table 23. Corrective Actions for Pesticides Testing (From SWAMP 2013 Table)

Laboratory Quality Control	Recommended Corrective Action
Calibration	Recalibrate the instrument. Affected samples and associated quality control must be reanalyzed following successful instrument recalibration.
Calibration Verification	Reanalyze the calibration verification to confirm the result. If the problem continues, halt analysis and investigate the source of the instrument drift. The analyst should determine if the instrument must be recalibrated before the analysis can continue. All of the samples not bracketed by acceptable calibration verification must be reanalyzed.
Laboratory Blank	Reanalyze the blank to confirm the result. Investigate the source of contamination. If the source of the contamination is isolated to the sample preparation, the entire batch of samples, along with the new laboratory blanks and associated QC samples, should be prepared and/or re-extracted and analyzed. If the source of contamination is isolated to the analysis procedures, reanalyze the entire batch of samples. If reanalysis is not possible, the associated sample results must be flagged to indicate the potential presence of the contamination.
Reference Material	Reanalyze the reference material to confirm the result. Compare this to the matrix spike/matrix spike duplicate recovery data. If adverse trends are noted, reprocess all of the samples associated with the batch.
Matrix Spike	The spiking level should be near the midrange of the calibration curve or at a level that does not require sample dilution. Reanalyze the matrix spike to confirm the result. Review the recovery obtained for the matrix spike duplicate. Review the results of the other QC samples (such as reference materials) to determine if other analytical problems are a potential source of the poor spike recovery.
Matrix Spike Duplicate	The spiking level should be near the midrange of the calibration curve or at a level that does not require sample dilution. Reanalyze the matrix spike duplicate to confirm the result. Review the recovery obtained for the matrix spike. Review the results of the other QC samples (such as reference materials) to determine if other analytical problems are a potential source of the poor spike recovery.
Internal Standard	Check the response of the internal standards. If the instrument continues to generate poor results, terminate the analytical run and investigate the cause of the instrument drift.
Surrogate	Analyze as appropriate for the utilized method. Troubleshoot as needed. If no instrument problem is found, samples should be re-extracted and reanalyzed if possible.
Field Quality Control	Recommended Corrective Action
Field Duplicate	Visually inspect the samples to determine if a high RPD between results could be attributed to sample heterogeneity. For duplicate results due to matrix heterogeneity, or where ambient concentrations are below the reporting limit, qualify the results and document the heterogeneity. All failures should be communicated to the project coordinator, who in turn will follow the process detailed in the method.
Field Blank, Travel Blank, Equipment Blank	Investigate the source of contamination. Potential sources of contamination include sampling equipment, protocols, and handling. The laboratory should report evidence of field contamination as soon as possible so corrective actions can be implemented. Samples collected in the presence of field contamination should be flagged.

¹ Pyrethroids corrective actions are presented in Table 5 immediately below

Table 24. Quality Control for Pyrethroids Testing (From SWAMP 2013 Table)

Laboratory Quality Control	Frequency of Analysis	Measurement Quality Objective
Tuning ²	Per analytical method	Per analytical method
Calibration	Daily, or just prior to analysis; five or more standards spanning the sample result range ³ , with the lowest standard at or below the RL	$r \geq 0.995$ (or $r^2 \geq 0.995$, all curve types not forced through origin)
Calibration Verification	Per 10 analytical samples ⁴	80-120% ⁵
Laboratory Blank	Per 20 samples or per analytical batch, whichever is more frequent	<RL for target analytes
Laboratory Control Sample ⁶	Per 20 samples or per analytical batch, whichever is more frequent	50-150%
Matrix Spike	Per 20 samples or per analytical batch, whichever is more frequent	50-150%
Matrix Spike Duplicate	Per 20 samples or per analytical batch, whichever is more frequent	50-150%; RPD \leq 35%
Surrogate ⁷	Included in all samples and all QC samples	Based on historical laboratory control limits (50-150% or better)
Internal Standard	Included in all samples and all QC samples (as available)	Per laboratory procedure
Field Quality Control ⁸	Frequency of Analysis	Measurement Quality Objective
Field Duplicate	5% of total project sample count	RPD \leq 35%

¹ Unless project specifies more stringent requirements

² Mass spectrometry only

³ Sample results above the highest standard are to be diluted and re-analyzed.

⁴ Analytical samples include samples only and do not include clean-out or injection blanks.

⁵ Limit applies to a mid-level standard; low-level calibration checks near the reporting limit may have a wider range that is project-specific

⁶ Laboratory control samples must be matrix-specific. A clean sediment, roasted sand, or roasted sodium sulfate may be used for sediments.

⁷ Laboratory historical limits for surrogate recovery must be submitted to the SWAMP database in the lab result comment section.

⁸ A technical group consisting of regional, laboratory, and research representatives determined that field blanks do not provide technical value to a pyrethroids data set.

Table 25. Corrective Actions for Pyrethroids Testing (From SWAMP 2013 Table)

Laboratory Quality Control	Recommended Corrective Action
Calibration	Affected samples and associated quality control must be reanalyzed following successful instrument recalibration.
Calibration Verification	Initial calibration is analyzed immediately after calibration and should be from a source different than the calibration curve. Bracketing continuing calibration standards are used every ten sample runs for quantitation per method protocol. The analysis must be halted, the problem investigated, and the instrument recalibrated. All samples after the last acceptable continuing calibration verification must be reanalyzed.
Laboratory Blank	The sample analysis must be halted, the source of the contamination investigated, the samples along with a new laboratory blank prepared and/or re-extracted, and the sample batch and fresh laboratory blank reanalyzed. If reanalysis is not possible due to sample volume, flag associated samples.
Laboratory Control Sample	The LCS is analyzed in the same manner as an environmental sample and the spike recovery demonstrates the accuracy of the method. Affected samples and associated quality control must be reanalyzed following LCS troubleshooting and resolution. After troubleshooting, compare to matrix spike/matrix spike duplicate recovery data. If adverse trends are noted, reprocess all samples associated with the batch.
Matrix Spike	The spiking level should be near the midrange of the calibration curve or at a level that does not require sample dilution. Appropriately spiked results should be compared to the matrix spike duplicate to investigate matrix interference. If matrix interference is suspected, the matrix spike result must be flagged. Appropriately spiked results should be compared to the matrix spike duplicate to investigate matrix interference. If matrix interference is suspected and LCS recoveries are acceptable, the matrix spike and matrix spike duplicate results must be flagged.
Matrix Spike Duplicate	The spiking level should be near the midrange of the calibration curve or at a level that does not require sample dilution. Appropriately spiked results should be compared to the matrix spike to investigate matrix interference. If matrix interference is suspected and LCS recoveries are acceptable, the matrix spike duplicate result must be flagged.
Surrogate	Analyze as appropriate per method. Trouble shoot as appropriate, if no instrument problem is found samples should be re-extracted and re-analyzed if possible.
Internal Standard	Analyze as appropriate per method. Troubleshoot as appropriate. If, after troubleshooting, the responses of the internal standards remain unacceptable, the analysis must be terminated and the cause of drift investigated.
Field Quality Control	Recommended Corrective Action
Field Duplicate	For duplicates with a heterogeneous matrix or ambient levels below the reporting limit, failed results may be flagged. All failures should be communicated to the project coordinator, who in turn will follow the process detailed in the method.

B5. Instrument/Equipment Testing, Inspection, and Maintenance

Laboratory instruments and equipment are inspected and maintained by the State certified contract laboratories. Details about testing schedules, testing criteria, spare parts (location and availability), inspection, personnel responsible, and corrective actions can be obtained from the laboratory if needed. The laboratories will provide pre-sterilized collection bottles and ensure the bottle contain the appropriate preservative prior to

delivery to County staff. There is no field equipment used in this project.

B6. Instrument/Equipment Calibration and Frequency

Both project laboratories maintain calibration practices as part of the method SOPs, performed by laboratory technicians under the direction of the individual lab QA Officers. Details about calibration frequency, test criteria, standards or certified equipment, and corrections of deficiencies can be obtained from the laboratories if needed.

B7. Inspection/Acceptance of Supplies and Consumable

All supplies, containers, and other consumable equipment used in this study will be inspected upon purchase or delivery by the Field Technician. The contracted laboratories will determine that all supplies and consumables comply with acceptance criteria outlined in their Standard Operating Procedures prior to conducting analyses. The laboratories will perform inspections of all project related materials per the acceptance criteria within their respective SOPs.

B8. Non-direct Measurement

Rain gauge data from the County of Santa Barbara Water Resources Division (WRD) will be used to plot a hydrograph of each storm event to inform mixing of the composite samples after each sampling session. WRD has 75 rain gauges County-wide that are calibrated annually each September.

B9. Data Management

The County of Santa Barbara and the contracted laboratories will be responsible for the project's data handling and storage. The data produced during this project will be managed following SWAMP protocols and be held in a SWAMP-compatible database at the County. Laboratory data will be transferred to the County in .pdf format and compiled into the database. Data will be reviewed to ensure that they are consistent with the format of the database and other data records. The County database is backed up on a daily basis. Original raw data sheets are stored at the contracted laboratory. All data are compiled and analyzed by the Field Technician. The QA Officer is responsible for overall data quality review. There is no continuous monitoring raw data. There are no identified procedures to demonstrate the acceptability of hardware and software configurations.

Group C. Assessment and Oversight

C1. Assessments and Response Actions

Assessments will be conducted by the QA Officer at the end of each storm season. Assessments will include:

1. Review of field notebooks and datasheets for completeness.

2. Review of laboratory data against SWAMP QA Tables.
3. If necessary, request for corrective action to laboratory QA officers.
4. Confirm corrective actions have been taken.
5. Review of electronic data formatted by Field Technician.
6. Request for corrective action, including data flagging, to Field Technician.
7. Confirm corrective actions have been taken.

A log of assessment activities for this Project will be maintained by the QA Officer and summarized for the Project Manager to review before the annual Municipal General Permit reporting is submitted via SMARTS. The QA Officer has the authority to issue stop work orders.

The laboratories will also conduct assessment activities, and the laboratory QA Officers can be contacted if more information is required.

C2. Reports to Management

A summary of all sampling events will be drafted by the Field Technician and submitted to the QA officer at the end of each rainy season. The summary will include any recommended program changes. Reporting is described in section A9

Group D. Data Validation and Usability

D1. Data review, Verification, and Validation Requirements

Data generated for the field monitoring component of this project will be reviewed by the QA Officer, and compared against the MQOs and the QA/QC practices provided in section A7.

D2. Verification and Validation Methods

In addition to the MQOs presented in Tables 13 through 17, the standard data validation procedures documented in the contract laboratories' Quality Assurance Manuals will be used to accept, reject, or qualify the data generated by the laboratory. Laboratory personnel will verify that the measurement process met all specified MQOs or acceptable deviations explained, for each batch of samples before proceeding with the analysis of a subsequent batch. When QA requirements have not been met, the samples will be reanalyzed when possible and only the results of the reanalysis will be submitted, provided they are acceptable. The contract laboratory's QA Officer will be responsible for validating data generated by the laboratory. All data reported will be assessed for errors in transcription, calculation, and computer input. Field data will be entered electronically and verified against the field data log sheets. The project QA Officer is responsible for reviewing data against the SWAMP MQOs provided in section B5. The project QA Officer will contact the laboratory QA Officer should QC issues be identified and work with them to resolve any data and or procedures that are not consistent with the QC measures described in this document.

D3. Reconciliation with User Requirements

The project is designed to collect data that can be used to characterize pollutant concentrations and loads from representative MS4 discharge locations within the County. The laboratory information produced will be used to estimate a pollutant load for the sampled drainage areas. These results will be used to support model calibration and allow more accurate prediction of local conditions. The model results will then be used to prioritize catchments by their generated pollutant load. This will help identify potential locations for BMPs to improve overall program effectiveness. Data that meet the QA requirements in this document will be considered to meet the user's requirements.

The reports produced by this project will describe some of the limitations of the data. This includes constraints and ability to meet project Measurement Quality Objectives. For data that do not meet MQOs, management has two options: 1. Retain the data for analytical purposes, but flag these data for QA deviations in CEDEN. 2. Do not retain the data and exclude them from all calculations and interpretations. The choice of option is the decision of the Project QA Officer and State Waterboard staff. If qualified data are to be used, then it must be made clear in any associated reporting that these deviations do not alter the conclusions.

Appendix A: Collections of Water and Bed Sediment Samples with Associated Field Measurements and Physical Habitat in California. Version 1.1 updated March 2014

Appendix B: EPA Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms. Fifth Edition October 2002

Appendix C: Weck Laboratories Analytical Methods Standard Operating Procedures

Appendix D: Weck Laboratories Chain of Custody Form

Appendix E: Aquatic Bioassay & Consulting Laboratories Chain of Custody Form

Appendix F: Field Sampling Data Sheet



**County of Santa Barbara Public Works Department
Project Clean Water**

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SCOTT D. MCGOLPIN
Director

THOMAS D. FAYRAM
Deputy Director

Memorandum

Date: October 14, 2016
To: 303(d) Monitoring Partner Agencies:
Erin Maker, City of Carpinteria
Everett King, City of Goleta
Bridget Elliot, City of Solvang
Rose Hess, City of Buellton
Mary Zepeda, MNS representing Buellton and Solvang
From: Cathleen Garnand, County of Santa Barbara
Subject: Transmittal of 303(d) Monitoring Program Results, 2015-2016

Background

In accordance with the NPDES California Phase II General Municipal MS4 Permit section E.13.c requirements, the County, along with partner cities of Carpinteria, Goleta, Solvang, and Buellton, implemented a storm water quality monitoring program. This program, consisting of a Monitoring Plan and QAPP, was approved by the Central Coast Regional Water Quality Control Board in their letter dated March 4, 2016.

The storm water quality monitoring is intended to address both the requirements of E.13.c but also to work toward addressing the program effectiveness assessment approach of E.14.a.iii by focusing on wet weather runoff from urban areas, and using that data to support a pollutant loading model.

The following summary and supporting documents describe implementation of the first year of that monitoring effort.

Summary

During the reporting period of Jul1 2015 – Jun30 2016, four separate wet weather events were monitored at a total of six unique sampling sites. These include:

Date	Rainfall (in)	Location	Type
Jan 5	1.65	Goleta	Commercial

Jan 5	1.43	Carpinteria	Residential
Jan 31	1.11	Carpinteria	Agricultural
Feb 17	0.10	Goleta	Industrial
Mar 5	0.67	Solvang	Residential

The Sampling Log (Attachment 1) describes the storm events that were tracked throughout the year. The log includes details on forecasts, events that were considered but not monitored, and events that we attempted to monitor but had to abort for reasons such as lack of sufficient runoff.

The Preparation Guide (Attachment 2) summarizes planning, storm event thresholds and triggers, and preparation activities. The Preparation Guide includes sampling procedures and storm monitoring contacts.

The lab results are summarized in Attachment 3. Each year, additional monitoring data will be included on this spreadsheet. After three years of successful monitoring, the results will be used for to revise event mean concentrations used in the pollutant load model for the various land use types, as appropriate.

Thresholds and standards do not exist for many of the parameters analyzed, however results that are noteworthy for discussion include the following:

Aluminum

Carpinteria Urban Agriculture, Goleta Industrial: Sources can be metal roofing and gutters, deteriorating scrap metal, also associated with naturally occurring soil and geologic conditions, high concentrations may be linked to erosion in the watershed or within a stream channel. The Water Quality Control Plan for the Central Coast Basin, 2011, established a Maximum Contaminant Level of 1000 ug/l. It is unclear if this references total or dissolved aluminum. The EPA National Recommended Water Quality Aquatic Life Criteria lists Criterion Maximum Concentration at 750 ug/l expressed in terms of total recoverable metal in the water column.

Copper

Goleta Industrial: Possible sources include pesticides and fungicides (anti-fouling coatings), automotive brake pads, and metal and electrical manufacturing.

Cyfluthrin

Goleta Commercial, Carpinteria Residential: Pyrethroid insecticide used for structural pest control and livestock operations.

Dichloran

Goleta Commercial, Carpinteria Residential, Buellton Industrial: Fungicide used commercially on celery and lettuce, post-harvest treatment for cut flowers, not available for retail sale. No reported uses recorded with the Agricultural Commissioner's Office for 2016 in Santa Barbara County. No water quality standards. Not sure of possible sources.

Fipronil

Carpinteria Residential: Phenylpyrazole insecticide used for structural pest control, and flea and tick treatments for pets.

L-Cyhalothrin

Carpinteria Urban Agriculture, Goleta Industrial, Solvang Residential: Pyrethroid insecticide used for crop protection, structural pest control, and for treating parks, recreational areas, and athletic fields.

Lead

Goleta Industrial: Possible sources, tire wear, lubricating oil and grease, bearing wear, paint, and batteries.

Permethrin

Carpinteria Urban Agriculture and Solvang Residential: Pyrethroid insecticide used as crop protectant, and for indoor and outdoor residential pest control. Also a common ingredient in lice and scabies treatments.

Perylene-d12

All sites: No water quality standards. Polycyclic aromatic hydrocarbon.

Triphenyl phosphate

All sites: No water quality standards yet. Used as a plasticizer in varnishes and lacquers, and fire retardant in electronics, hydraulic fluids and glues.

Zinc

All sites : Major sources are galvanized surfaces (roofs, gutters, flashing, fencing, guard rails, downspouts and drainage pipes), and wear debris from vehicle tires.
Highest at the Goleta Industrial site, where most buildings in the drainage area have metal roofing.

Toxicity

Hyalella azteca was the test organism used.

Sample date	Site Name	% Survival in 100% Sample	% Survival in Control
1/5/2016	Carpinteria Residential	5	100
1/5/2016	Goleta Commercial	90	100
1/5/2016	Buellton Industrial	90	100
1/31/2016	Carpinteria Agriculture	65	95
2/17/2016	Goleta Industrial	75	90
3/5/2016	Solvang Residential	95	95

The field data and raw data from the laboratory analysis are available at FTP site:

[ftp://pwftp.countyofsb.org/Water/FTP/PROJECT%20CLEAN%20WATER/Lab%20Data%20303\(d\)%20Monitoring/](ftp://pwftp.countyofsb.org/Water/FTP/PROJECT%20CLEAN%20WATER/Lab%20Data%20303(d)%20Monitoring/)

Attachment 1 - Sampling Log for 2015/16

Rainfall data sources and distance to sampling locations

Carpinteria: Santa Barbara County Flood Control District Official Daily Rainfall Record Station 208, Carpinteria Fire Station, within 0.75 miles of both Carpinteria sampling locations.

Goleta: National Weather Service Station KSBA, Santa Barbara Airport, within 1 mile of both Goleta sampling locations.

Buellton: Santa Barbara County Flood Control District Official Daily Rainfall Record Station 233 Buellton Fire Station #31, 0.50 miles.

Solvang: Santa Barbara County Flood Control District Official Daily Rainfall Record Station 393 Solvang PW Water, 1.3 miles.

15 November 2015

Rain 0.08", B Belyea visited both Goleta sites. Both locations had significant flow within an hour of the rain starting. After the rain stopped, flow had decreased significantly, but was strong enough to sample after 25 minutes at the industrial site and 40 minutes at the commercial site.

M Zepeda visited Buellton site.

Thursday 10 Dec 2015 PM through Friday 11 Dec 2015

Forecast Rain likely (~0.25").

Planned to sample Thursday evening/night, storm arrived later than forecast and rainfall amount was minimal.

Considered sampling pre-dawn on Friday, did not go out, storm was too small.

13 December 2015

Rain 0.11". B Belyea evening sampling at Goleta Commercial site with C Garnand. Rain stopped before all samples were collected, filled three of five amber liter bottles.

For Goleta Commercial site, arrive asap, site flows very quickly after rain starts.

19 December 2015

Rain 0.18". C Garnand and E Maker daytime sampling at Carpinteria Residential site. B Belyea provided input on storm duration from Goleta, drops started at 11am, fully raining at 11:27am, no rain in downtown SB at 11:35am, stopped raining in Goleta at 12:24pm, barely sprinkling in Goleta at 12:34pm, started raining 12:42pm in Carp, no runoff in gutters downtown SB at 1:08pm storm moved very fast and had nothing behind the front. Gutter water at Carp residential site had black tint, not opaque, question of asphalt resurfacing upstream. No samples

21 December 2015

Forecast: Tuesday Chance of light rain (~0.10" to ~0.25")

20% chance (South Coast) / 70% chance (North County)

3 January 2016

Forecast storm arrival pushed back, majority of rain to fall between midnight and nine am Jan 4, looks to be spotty, fast moving storm. No rainfall.

5 January 2016

Sampled Goleta Commercial, Buellton Industrial, and Carpinteria Residential. Temperature and pH not measured at any site on this date.

Rain 1.65". B Belyea sampled Goleta Commercial, joined later by C Garnand. B Belyea in office at 620am, worried might miss storm if wait til 8am to start. First sample 702am, last sample 851am, rain stopped by 915am. Sampling surface runoff at outfall to Las Vegas Creek, water was clear with brown tint, and odorless, trash present in runoff.

Rain 1.43". E Maker sampled Carpinteria Residential. First sample 740am, last 930am. Sampling runoff flowing into drop inlet at El Carro Lane and Sterling Ave. Water was murky, brown, odorless, and had an oily sheen.

Rain 0.64". M Zepeda and B Elliott sampled Buellton Industrial. First sample at 803am, last 953am. Sampling outfall to retention basin, water was cloudy, brown, and odorless.

19 January 2016

Rain 0.48" over 10 hours, light rain intensity not enough to create flows. Did not sample, forecast discussion mentioned weak cold front moving through the area, but will weaken considerably as it rounds Point Conception.

31 January 2016

Rain 1.11". E Maker and C Garnand sampled Carpinteria Urban Agriculture. First sample 1037am, last 1237pm. Sampling outfall to Franklin Creek, site odor of sulfides, water was murky with sediment, brown, and odorless. Water was clear by 12pm. Air temp 16C, water temp 13C, pH 6.6

17 February 2016

Rain 0.10". B Belyea sampled Goleta Industrial. First sampling 340pm, rain stopped and sky cleared to partly cloudy, flow stopped, only six samples collected. Waited at home about 4 miles west of sample site, returned to site after started raining again, light rain but enough to start flow and resume sampling. Sample 7 at 622pm, last sample at 712pm. Sampling surface runoff entering drop inlet at South Kellogg Ave and School Bus Lane, water was cloudy, brownish black, odorless and had an oily sheen. Air temp 16C, water temp 12C, pH 6.5. Only 0.01" rain in Santa Ynez, so did not try to sample Solvang site.

5 March 2016

Rain 0.67". B Belyea sampled Solvang Residential, hard rain during drive from Goleta to Solvang, rain to light rain for the entire duration of sampling. First sample 1030pm, last sample 1230am. Sampling surface runoff entering drop inlet at intersection of Rebuild Drive and Creekside Drive. Water was clear, colorless, and had no odor. Air temp 12C, water temp 14C, pH 8.2

Attachment 2 – Preparation Guide

Pre-Event:

1. PCW staff will be responsible for tracking the long-range forecast and making go/no-go decision to sample. Prediction of storm event exceeding 0.25" within 3 days will trigger notification and PCW staff will confirm the team of two people who will perform the sampling. 2 days prior to event, Weck Labs and Aquatic Bioassay Consulting labs will be notified.
2. 24 hours prior, if the storm looks promising, a standby 2-hr window will be set for sampling. If storm moves faster than original expected, samplers will be contacted to determine whether they can adjust their schedules; if not, a back-up team member may be required.
3. PCW staff will make final decision to begin sampling.
4. Samplers will report either to OSH parking lot for Goleta sampling, or to the Sterling Ave. location for Carpinteria sampling. Samplers are responsible for providing their own transportation to staging area, but can join PCW staff and vehicle during the sampling.

<p>Samplers shall arrive prepared:</p> <ol style="list-style-type: none"> 1. Dressed appropriately for the weather 2. With own rain gear and safety boots 	<p>PCW will provide:</p> <ol style="list-style-type: none"> 1. Nitrile gloves 2. Sampling bottles, 6 amber glass plus 1 plastic gallon carboy. 3. Thermometer and pH probe (unless cities have their own pH probe) 4. Safety cones for traffic, if working in gutter. 5. Flashlights and lighting, if night. 6. Safety vest(s) 7. Camera (take pictures) 8. Towel
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Sampling Procedures:

1. Water will be collected using the stainless steel sampling cup and transferred into 1-liter glass amber bottles (no preservatives). The stainless steel cup will be rinsed with deionized or tap water prior to initial use, and at conclusion of sampling.
2. Note that for storms forecasted to be 0.25" - 1", 500 ml aliquots, or half of one-liter amber bottle, will be taken at approximately **12 minute intervals** over a period of approximately two hours, resulting in 10 total aliquots filling 5 one-liter amber bottles. For storms >1" storm with large QPF during the sampling will be **10 minute intervals**, resulting in 12 aliquots filling 6 one-liter amber bottles. (Note: the lab will perform the compositing).
3. Amber bottles will be kept on ice throughout sampling event
4. PCW staff will arrange for bottles to be collected by the lab couriers.
5. For the toxicity plastic container, try to approximate the ounces listed in the table

	0.25"-1.0"	interval	>1" storm	interval
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Standard 2 hours	10 samples	12 minutes	12 samples	10 minutes
Abbreviated 1 hour	10 samples	6 minutes	12 samples	5 minutes
1 gallon toxicity	10 samples 12.8 oz/sample		12 samples 10.67 oz/sample	

Contact numbers:

Water Resources/PCW Reception Bree Belyea Cathleen Garnand John Karamitsos Erin Maker Mary Zepeda Everett King	568-3440 cell 698-0621, office 568-3321 cell 403-0742 office 568-3561 cell 598-7735 office 568-3373 (Fridays 739-8761) cell 637-2763 office cell 722-7140 cell 509-2468
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Analyte	Water Quality Standard	WQS Units	Source WQS	Detection Limit	Units	5 Jan 2016	5 Jan 2016	31 Jan 2016		17 Feb	5 Mar 2016
						Goleta	Carpinteria	Buellton	Urban	Goleta	Solvang
						Commercial	Residential	Industrial	Agriculture	Industrial	Residential
Toxicity % survival in 100% sample	n/a	n/a	n/a			90	5	90	65	75	95
pH	6.5-8.3		Water Quality Control Plan for the Central Coast Basin,			n/a	n/a	n/a	6.6	6.5	8.2
1-(3,4-Dichlorophenyl)-3-methylurea				0.14	ug/l	ND	ND	ND	ND	ND	ND
1-(3,4-Dichlorophenyl)urea				0.070	ug/l	ND	ND	ND	ND	ND	ND
1,3-Dimethyl-2-nitrobenzene					ng/l	534	538	495	469	831	589
3,4-Dichloroaniline				0.12	ug/l	ND	ND	ND	ND	ND	ND
3-Hydroxycarbofuran				0.48	ug/l	ND	ND	ND	ND	ND	ND
Acetamiprid	10.5 ug/l		OPP Aquatic Life Benchmarks, acute invertebrates		ug/l	ND	ND	ND	ND	ND	ND
Aldicarb	10 ug/l		OPP Aquatic Life Benchmarks, acute invertebrates	0.38	ug/l	ND	ND	ND	ND	ND	ND
Aldicarb sulfone	140 ug/l		OPP Aquatic Life Benchmarks, acute invertebrates	0.45	ug/l	ND	ND	ND	ND	ND	ND
Aldicarb sulfoxide	21.5 ug/l		OPP Aquatic Life Benchmarks, acute invertebrates	0.41	ug/l	ND	ND	ND	ND	ND	ND
Allethrin	1.05 ug/l		OPP Aquatic Life Benchmarks, acute invertebrates	0.85	ng/l	ND	ND	ND	ND	ND	ND
Aluminum, Dissolved				1.3	ug/l	11	15	29	40	58	19
Aluminum, Total	1000 ug/l		Water Quality Control Plan for the Central Coast Basin, Municipal/Domestic, 2011	1.3	ug/l	290	940	980	1600	2000	370
Ammonia as N				0.048	mg/l	0.17	0.20	0.14	0.18	0.87	ND
Azinphos methyl (Guthion)	0.08 ug/l		OPP Aquatic Life Benchmarks, acute invertebrates	5.5	ng/l	ND	ND	ND	ND	ND	ND
Bifenthrin	800 ng/l		OPP Aquatic Life Benchmarks, acute invertebrates	0.79	ng/l	3.3	28	2.0	5.6	ND	ND
Bolstar/Sulprofos				4.6	ng/l	ND	ND	ND	ND	ND	ND
Cadmium, Dissolved	1.8 ug/l		USEPA Aquatic Life Ambient Water Quality Criteria, acute freshwater 2016	0.041	ug/l	ND	ND	ND	ND	0.19	ND
Cadmium, Total	5.733 ug/l		USEPA Aquatic Life Ambient Water Quality Criteria, acute freshwater 2016	0.041	ug/l	ND	ND	0.13	0.12	0.44	0.14
Calcium, Total				0.0160	mg/l	4.90	6.50	8.49	9.77	24.0	11.0
Carbaryl	0.85 ug/l		OPP Aquatic Life Benchmarks, acute invertebrates	0.48	ug/l	ND	ND	ND	ND	ND	ND
Carbofuran	1.115 ug/l		OPP Aquatic Life Benchmarks, acute invertebrates	0.59	ug/l	ND	ND	ND	ND	ND	ND
Chlorpyrifos	0.05 ug/l		OPP Aquatic Life Benchmarks, acute invertebrates	6.9	ng/l	ND	ND	ND	ND	ND	ND
Clothianidin	11 ug/l		OPP Aquatic Life Benchmarks, acute invertebrates		ug/l	ND	ND	ND	ND	ND	ND
Copper, Dissolved	10 ug/l		Water Quality Control Plan for the Central Coast Basin, Aquatic Life, 2011	0.13	ug/l	4.5	4.9	5.6	5.1	31	8.6
Copper, Total				0.13	ug/l	9.1	12	12	13	46	12
Coumaphos	0.037 ug/l		OPP Aquatic Life Benchmarks, acute invertebrates	5.1	ng/l	ND	ND	ND	ND	ND	ND
Cyfluthrin	12.5 ng/l		OPP Aquatic Life Benchmarks, acute invertebrates	0.83	ng/l	2.5	14	ND	ND	ND	3.5
Cypermethrin	210 ng/l		OPP Aquatic Life Benchmarks, acute invertebrates	0.66	ng/l	2.8	4.5	3.8	ND	ND	ND
Deltamethrin/Tralomethrin	0.055 ug/l		OPP Aquatic Life Benchmarks, acute invertebrates	1.9	ng/l	ND	ND	ND	ND	ND	ND
Demeton-o				10	ng/l	ND	ND	ND	ND	ND	ND
Demeton-s				10	ng/l	ND	ND	ND	ND	ND	ND
Desulfinylfipronil	100 ug/l		OPP Aquatic Life Benchmarks, acute invertebrates	2.0	ng/l	6.8	110	9.2	ND	ND	3.1
Diazinon	105 ng/l		OPP Aquatic Life Benchmarks, acute invertebrates	5.2	ng/l	10	ND	ND	58	ND	ND
Dichloran				0.80	ng/l	3.2	2.0	3.6	ND	ND	ND
Dichlorvos	0.035 ug/l		OPP Aquatic Life Benchmarks, acute invertebrates	2.9	ng/l	ND	ND	ND	ND	ND	ND
Dimethoate	21.5 ug/l		OPP Aquatic Life Benchmarks, acute invertebrates	6.2	ng/l	ND	ND	ND	ND	ND	ND
Dinotefuran	484150 ug/l		OPP Aquatic Life Benchmarks, acute invertebrates		ug/l	ND	ND	ND	0.85	ND	ND
Disulfoton	1.95 ug/l		OPP Aquatic Life Benchmarks, acute invertebrates	10	ng/l	ND	ND	ND	ND	ND	ND
Diuron	80 ug/l		OPP Aquatic Life Benchmarks, acute invertebrates	0.060	ug/l	ND	ND	ND	ND	ND	ND
Ethoprop	22 ug/l		OPP Aquatic Life Benchmarks, acute invertebrates	6.7	ng/l	ND	ND	ND	ND	ND	ND
Ethyl parathion				5.4	ng/l	ND	ND	ND	ND	ND	ND
Fenpropathrin (Danitol)	0.265 ug/l		OPP Aquatic Life Benchmarks, acute invertebrates	2.0	ng/l	ND	ND	ND	ND	ND	ND
Fensulfothion				2.9	ng/l	ND	ND	ND	ND	ND	ND
Fenthion				3.8	ng/l	ND	ND	ND	ND	ND	ND
Fenvalerate/Esfenvalerate				0.98	ng/l	ND	ND	ND	ND	ND	ND
Fipronil	110 ng/l		OPP Aquatic Life Benchmarks, acute invertebrates	2.0	ng/l	27	170	15	ND	ND	3.1
Fipronil sulfide				2.0	ng/l	ND	12	ND	ND	ND	ND
Fipronil sulfone	360 ng/l		OPP Aquatic Life Benchmarks, acute invertebrates	2.0	ng/l	23	300	45	ND	ND	12
Hardness as CaCO3, Total	>100 = hard, <100=soft	mg/l CaCO3	Water Quality Control Plan for the Central Coast Basin, 2011	0.0894	mg/l	14.9	22.8	28.6	36.6	76.2	34.1
Imidacloprid	34.5 ug/l		OPP Aquatic Life Benchmarks, acute invertebrates		ug/l	ND	ND	ND	ND	ND	ND
Iron, Dissolved	5000 ug/l		Water Quality Control Plan for the Central Coast Basin, Agricultural, 2011	0.91	ug/l	ND	ND	42	96	84	ND
Iron, Total				0.91	ug/l	380	1200	1500	2100	2800	580
L-Cyhalothrin	3.5 ng/l		OPP Aquatic Life Benchmarks, acute invertebrates	1.2	ng/l	ND	ND	ND	11	140	48
Lead, Dissolved	50 ug/l		Water Quality Control Plan for the Central Coast Basin, Municipal/Domestic, 2011	0.031	ug/l	ND	ND	ND	0.21	0.61	ND
Lead, Total				0.031	ug/l	0.92	1.7	2.0	5.2	8.5	0.55
Linuron	60 ug/l		OPP Aquatic Life Benchmarks, acute invertebrates		ug/l	n/a	n/a	n/a	n/a	ND	ND
Magnesium, Total				0.0120	mg/l	0.657	1.60	1.81	2.97	3.97	1.62
Malathion	0.1 ug/l		USEPA Aquatic Life Criteria, chronic freshwater	7.6	ng/l	ND	ND	ND	ND	34	ND
Merphos				5.8	ng/l	ND	ND	ND	ND	ND	ND
Methiocarb	3.5 ug/l		OPP Aquatic Life Benchmarks, acute invertebrates	0.57	ug/l	ND	ND	ND	ND	ND	ND
Methomyl	2.5 ug/l		OPP Aquatic Life Benchmarks, acute invertebrates	0.30	ug/l	ND	ND	ND	ND	ND	ND
Methyl parathion				6.3	ng/l	ND	ND	ND	ND	ND	ND
Mevinphos				4.2	ng/l	ND	ND	ND	ND	ND	ND
Naled	0.07 ug/l		OPP Aquatic Life Benchmarks, acute invertebrates	7.6	ng/l	ND	ND	ND	ND	ND	ND

Nitrate as N			0.041	mg/l	0.15	0.42	0.13	2.8	1.2	0.18	
Nitrate as NO3	45 mg/l	Water Quality Control Plan for the Central Coast Basin, municipal supply, 2011			0.6645	1.8606	0.5759	12.404	5.316	0.7974	values determined by multiplying Nitrate as N by factor of 4.43
Nitrite as N			10	ug/l	ND	ND	ND	ND	160	ND	
Nitrite as NO2	10000 ug/l	Water Quality Control Plan for the Central Coast Basin, livestock watering, 2011							526.4		values determined by multiplying Nitrite as N by factor of 3.29
Nitrogen, Total	0.38 mg/l	USEPA Nutrient Criteria Rivers and Streams Ecoregion III, 2002	0.060	mg/l	1.2	25	0.93	3.8	5.3	0.70	
NO2+NO3 as N			10	ug/l	170	440	160	2900	1400	200	
o-Phosphate as P			0.0017	mg/l	0.16	0.18	0.13	0.91	0.20	0.17	
o-Phosphate as P, dissolved			1.7	ug/l	160	180	130	870	ND	170	
Oxamyl	90 ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.48	ug/l	ND	ND	ND	ND	ND	ND	
Pendimethalin	140 ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.50	ng/l	9.3	2.6	2.6	ND	ND	ND	
Permethrin	10.6 ng/l	OPP Aquatic Life Benchmarks, acute invertebrates	5.0	ng/l	8.8	ND	9.7	12	ND	20	
Perylene-d12				ng/l	215	197	303	224	162	206	
Phorate	0.3 ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	3.0	ng/l	ND	ND	ND	ND	ND	ND	
Phosphorus as P, Total	0.02188 mg/l	USEPA Nutrient Criteria Rivers and Streams Ecoregion III, 2002	0.035	mg/l	0.19	0.24	0.21	1.1	0.66	0.24	
Phosphorus, Dissolved			0.035	mg/l	0.15	0.17	0.13	0.93	0.26	0.15	
Prallethrin	3.1 ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.92	ng/l	ND	ND	ND	ND	ND	ND	
Propoxur (Baygon)	5.5 ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.60	ug/l	ND	ND	ND	ND	ND	ND	
Ronnel (Fenclorphos)			4.1	ng/l	ND	ND	ND	ND	ND	ND	
Stirophos (Tetrachlorvinphos)	0.95 ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	3.1	ng/l	ND	ND	ND	ND	ND	ND	
Sumithrin (Phenothrin)	2.2 ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	2.4	ng/l	ND	ND	ND	ND	ND	ND	
Tefluthrin	0.035 ug/l	OPP Aquatic Life Benchmarks, acute invertebrates	0.93	ng/l	ND	ND	ND	ND	ND	ND	
Thiacloprid	18.9 ug/l	OPP Aquatic Life Benchmarks, acute invertebrates		ug/l	ND	ND	ND	ND	ND	ND	
Thiamethoxam	17.5 ug/l	OPP Aquatic Life Benchmarks, acute invertebrates		ug/l	ND	ND	ND	ND	ND	ND	
TKN			0.050	mg/l	1.0	24	0.77	0.94	4.0	0.51	
Tokuthion (Prothiofos)			7.8	ng/l	ND	ND	ND	ND	ND	ND	
Total Suspended Solids				mg/l	19	46	36	100	73	42	
Trichloronate			6.7	ng/l	ND	ND	ND	ND	ND	ND	
Triphenyl phosphate				ng/l	1010	620	742	709	1010	893	
Triphenyl phosphate				ng/l	671	326	542	334	919	348	
Zinc, Dissolved	4 ug/l	Water Quality Control Plan for the Central Coast Basin, Aquatic Life, 2011	0.94	ug/l	61	13	29	32	150	10	
Zinc, Total			0.94	ug/l	92	41	73	84	300	22	



**City of Buellton and City of Solvang
Stormwater Program Effectiveness Assessment and Improvement Plan (PEAIP)
Annual Summary 2015-2016**

1. PEAIP Summary Introduction:

The City of Buellton (COB) and City of Solvang (COS) prepared and submitted to the State Water Resources Control Board a multi-agency PEAIP for Year 2 on October 13, 2015 through the Storm Water Multiple Application and Report Tracking System (SMARTS) Database. COB and COS subsequently submitted a revision dated February 19, 2016 to be uploaded with Year 3 Annual Report. This report summarizes implementation of the PEAIP for Year 3 of the National Pollutant Discharge Elimination System's (NPDES) Phase II Municipal Small Separate Sewer (MS4) General Permit, for calendar year July, 1 2015 through June 30, 2016.

The purpose of the PEAIP is to track the short- and long-term effectiveness of the stormwater program, the specific measures that will be used to assess the effectiveness of the prioritized best management practices (BMPs), the groups of BMPs, and/or the stormwater program as a whole. The purpose of the PEAIP is also to provide a description of how the COB and COS will use the information obtained through the PEAIP to improve the stormwater program. The PEAIP outlines the approach that the COB and COS will use to adaptively manage its stormwater program to improve its effectiveness at reducing the identified high- and medium-priority Pollutants of Concern (POCs), thereby achieving the maximum extent practicable (MEP) standard and protecting water quality. The PEAIP is focused on the *impact* that the stormwater program is having rather than the strict *implementation* of the program. By focusing the Effectiveness Assessment in this manner, the COB and COS will increase their ability to understand if its stormwater program is achieving the intended outcomes and can identify necessary modifications to the program to make it more effective.

The PEAIP for Year 3 focused *primarily* on the California Stormwater Quality Association (CASQA) Outcome Levels for Target Audiences (Outcome Levels 2-3), and the Sources and Impacts (Outcome Level 4-5). The COB and COS developed management questions for high-priority POCs (Nutrients) and the medium-priority POCs (Sedimentation/Siltation and Total Suspended Solids), and then conducted a data collection assessment of each of these POCs. The data collected will be utilized by both the COB and COS to improve the stormwater program and protect water quality.

In order to determine the specific target audiences and the appropriate prioritized BMPs, the COB and COS reviewed the following: a) proposed TMDLs by the Central Coast Regional Water Quality Control Board, b) 2010 303(d) List of Impaired Waterbodies, c) Central Coast Regional Water Quality Control Board (CCRWQCB) April 24th, 2014 Consultation Handout "Solvang – Buellton Urban Water Quality Profile", d) Central Coast Ambient Monitoring Program's (CCAMP) Ambient Water Quality Data, e) COB and COS Storm Water Management Plan's (SWMP) Guidance Document's List of POCs, and f) proposed regional Urban Storm Water Monitoring Plan. Best professional judgment, knowledge of local and/or regional water quality issues and common urban pollutants were also factors in the identification of POCs.

Target audiences for each source of high- and medium-priority POCs have been identified and the COB and COS have actively taken steps, during each permit year, to identify and

bridge communication and action barriers through the selection and implementation of prioritized BMPs.

The prioritized BMPs reflect stormwater program activities that are intended to change behaviors of target audiences and result in pollutant source mitigation. The prioritized BMPs, listed below in Figure 8 Prioritized BMP Identified for Target Audiences within COB and COS PEAIIP, are being implemented as part of the Cities stormwater program, and where applicable, corresponding data was collected and analyzed at the close of Permit Year 3 in order to assess program effectiveness and identify opportunities for program improvement.

2. Data Summary – Program Assessment

In accordance to the NPDES Phase II MS4 General Permit's Section E.7, both the COB and COS have developed and implemented a Stormwater Education and Outreach Program Strategy. The program's goal is to inform people of the impacts of stormwater discharge on water bodies and the steps they can take to reduce pollutants in stormwater and how they can become involved in restoration activities.

The Cities education and outreach campaign involves a combination of: (1) implementing a pilot Community Based Social Marketing (CBSM) campaign to promote changes in people's behavior related to management of dog waste that will improve the quality of the Cities stormwater and surface waters; (2) conducting surveys or quizzes; (3) provide education and outreach materials (i.e. printed materials, billboard, mass transit advertisement, television advertisements, and websites) to target audiences as appropriate; (4) utilizing public input in developing outreach through event participation; (5) providing availability of water efficient/pesticide and fertilizer application/stormwater brochures within each City office and/or website; (6) promoting reporting of illicit discharges or connections'; (7) providing availability of pesticide and fertilizer application within each City office and/or website; (8) provide educational materials to school children to promote stormwater pollution prevention; and (9) Develop messaging to reduce discharges from organized car washes, mobile cleaning and pressure washing activities.

On each of the City's stormwater website, an online survey was conducted to assess the public's knowledge on their Stormwater Management Program (SWMP). Based on the lack of participation in the online survey received for Year 2 (4 Responses COB; 10 Responses COS), Year 3 (1 Responses COB; 6 Responses COS), the Cities altered their approach to promoting the online surveys by directing the community through Water Bill Inserts and Chamber of Commerce E-Newsletters to survey weblink and/or provided direct mailers to target audiences as described below within the POCs data summary to achieve the MEP standard.

For the PEAIIP, the COB and COS focused its data assessment for Nutrients and Sedimentation/Siltation (Total Suspended Solids) using the Management Questions, Data Assessment and Data Collection Methods outlined within Table 5 and 6 of the COB and COS PEAIIP. The data assessment for each POC consisted primarily of a qualitative assessment and/or a descriptive statistic methodology and the data collection methods included internal tracking by stormwater program, review of external data sources, interviews/surveys, site investigations/inspections; and monitoring and sampling as described below within COB and COS PEAIIP.

The data summary for the high-and medium-priority POCs by program element are as follows:

NUTRIENTS

Education and Outreach [CASQA Outcome Level 2-3]

COB Data Assessment/Collection:

During Year 3, COB participated in 3 education and outreach events (Buellton BBQ Bonanza, State of the City, Santa Ynez Valley Earth Day Event) and sponsored a Stormwater Display Booth at each event. The numbers of education and outreach materials distributed during events related to Nutrients (Gardener's Guide to Clean Water; Home Owner's Guide to BMPs; Recognizing and Reporting Stormwater Pollution; Protecting Water Quality from Urban Runoff) are as follows: Buellton BBQ Bonanza (37 Visitors; 8 Brochure Distribution 8); State of the City (15 Visitors; 9 Brochure Distribution); and Santa Ynez Valley Earth Day (168 Visitors; 17 Brochure Distribution).

The COB also distributed brochures through brochure displays at designated City facilities (City Hall Main Office, Planning Department and the Santa Ynez Valley Botanical Garden). The numbers of education and outreach materials distributed at the City facilities related to Nutrients (61 Gardener's Guide to Clean Water; 2 Home Owner's Guide to BMPs; 0 Business Owner's Guide to BMPs, 30 Recognizing and Reporting Stormwater Pollution; 2 Protecting Water Quality from Urban Runoff) as well as had 4197 File Views/Hits (2284 English; 1913 Spanish) thru the City's website. The COB also provides weblinks to additional resources on the City's website to the Santa Barbara County Project Clean Water, Our Water Our World and the Less is More website.

In addition, the COB's Authorized Contract Staff distributed 153 education and outreach materials distributed during Fats, Oil and Grease (FOG) and Industrial Waste Discharge (IWD) Inspection related to Nutrients (40 Business Owner's Guide to BMPs; 4 Beverage Manufacturing and Stormwater; 10 Mobile Cleaning – Food Service; 37 Restaurant Owners Guide; 38 FOG Program; 24 COB – SWRCB Industrial Storm Water Pollution Prevention Plan Requirements).

COB also sent a "Buellton Residents Neighboring the Santa Ynez River with Livestock" target audience mailers to 3 property owners to obtain assistance with the reduction and/or elimination of nutrients that have the potential to end up in the river should they come in contact with stormwater runoff. The COB also sent a "Homebrew Beer, Wine and Distillery Waste" target audience mailer to 46 current residents of a residential community to provide residents information on the COB's Storm Water Management and Discharge Control Ordinance as well as emailed the COB BMPs for Landscape Maintenance to the Landscape Maintenance Contractor. For the documents the COB has posted on their website, there were more File Views/Hits on the website for the Spanish version than the English version of the stormwater brochures. Based on these results, the COB will pursue additional Spanish education and outreach activities.

COS Data Assessment/Collection:

During Year 3, the COS participated in 3 education and outreach events (Recycle: What, Why and How, State of the City, Santa Ynez Valley Earth Day Event) and sponsored a Stormwater Display Booth at each event. The numbers of education and outreach materials distributed during events related to Nutrients (Gardener's Guide to Clean Water; Home

Owner's Guide to BMPs; Recognizing and Reporting Stormwater Pollution; Protecting Water Quality from Urban Runoff) are as follows: Santa Ynez Valley Earth Day (168 Visitors; 17 Brochure Distribution). At the Recycle: What, Why and How and State of the City event, there were no brochures taken from the Stormwater Display Booths. In previous years, the COS set up a Stormwater Display Booth at the Solvang Farmers Market where more brochures taken; therefore, the COS will focus on a Solvang Farmers Market and Earth Day Event to meet this permit requirement.

The COS also distributed brochures through brochure displays at City Planning/Public Works/Building Department. The numbers of education and outreach materials distributed at the City Planning Department were not counted nor were the File Views/Hits on the COS's website. The COS also provides weblinks to additional resources on the City's website to the Santa Barbara County Project Clean Water, Our Water Our World and the Less is More website. To improve the effectiveness of the brochure counts in Year 4, an additional brochure display has been installed at City Hall Main Office and brochure counts are taken monthly.

In addition, the COS mailed "Notification – Drainage Inspection & Maintenance" target audience mailers to 57 property owners/tenants to obtain assistance ensure drainage areas are kept clean and to remind them that yard waste, leaves, fireplace ashes, pet waste and manure pollutants are not allowed in or along the watercourse or any other part of the storm drain system. The COS also sent BMPs for Landscape Maintenance to the COS's Landscape Maintenance Contractor and to Skytt Mesa LLMD for their Landscape Maintenance Contractor. In Year 4, the COS will pursue additional Spanish education and outreach materials after looking at COB's results.

Public Involvement and Participation [CASQA Outcome Level 2-3]

COB Data Assessment/Collection:

In addition to COB stormwater website online survey discussed in the Program Assessment Section above, the COB and COS conducted an additional online survey for business that was promoted through the Chamber of Commerce E-Newsletter and the Buellton Buzz (Water Bill Insert) and received 11 responses for Year 2 and 1 responses for Year 3 that included 22.22% of the responses were from Restaurants and 77.78% responses were from Other types of business such as Real Estate, Professional Services, Service/Self Storage, Internet Sales, Real Estate Financing and Advertising. Although the Cities did not receive any responses from the following types of businesses, the Cities continue to modify their education and outreach strategy to these target audiences: Beverage/Distillery/ Wine Production; Beverage Tasting/Storage, Building Material Retailers and Storage, Corporate Yard, Gas Station, Landscape, Manufacturing and Processing, Metal and other Recycled Material Collection, Mobile Cleaning, Transportation and Vehicle Mechanical Repair, Maintenance or Cleaning Businesses. The survey results gave the Cities information about the general business population but were not able to isolate specific target audience results. In Year 4, the Cities began an additional education and outreach activity by launching a "Stormwater Pollution Prevention for Restaurant Owners" Direct Mailer Campaign (41 Mailers COB and 60 Mailers COS) to Restaurant Owners with an invitation to participate in an online Stormwater Management Program Survey for Restaurants.

The COB Contract Staff also initiated an annual survey during their FOG and IWD Program Inspections beginning Year 2 (11 FOG Questionnaires) and Year 3 (27 FOG and 11 IWD

Questionnaires) to engage the target audience with the following 3 questions: (1) Are you familiar with the COB's Storm Water Program?; (2) Are you aware of the requirements for your type of business activity?; and (3) Do you believe your business is in compliance with the City's Storm Water Program?. The FOG and IWD Questionnaires showed more than 50% were unaware of their business activities impact to stormwater. Based on the results, COB Contract Staff will continue to engage FOG and IWD Program participants by conducting the Stormwater Questionnaires and providing stormwater outreach related materials during the inspection.

The COB also participated in education and outreach events (Buellton BBQ Bonanza, State of the City, Santa Ynez Valley Earth Day Event). The number of Stormwater Quiz's/Survey's and Interested Parties Sign-up Inquiry at the Stormwater Display Booth are as follows: Buellton BBQ Bonanza (37 Visitors; 5 Stormwater Quiz; 0 Interested Parties Sign-up); State of the City (15 Visitors; 0 Stormwater Quiz; 0 Interested Parties Sign-up); and Santa Ynez Valley Earth Day (168 Visitors 168; 3 Stormwater Quiz; 8 Stormwater Survey; 1 Interested Parties Sign-up). The COB did not have any additional Interested Parties Sign-ups through the City's Stormwater Website or the online business survey. There no changes to the survey or quizzes at outreach events at this time until the COB have comparable data through ongoing surveys.

COS Data Assessment/Collection:

In addition to the COS stormwater website online survey discussed in the Program Assessment Section above, the COB and COS conducted an additional online survey for business that was promoted through the Chamber of Commerce E-Newsletter and the Buellton Buzz (Water Bill Insert) and received 11 responses for Year 2 and 1 responses for Year 3 that included 22.22% of the responses were from Restaurants and 77.78% responses were from Other types of business such as Real Estate, Professional Services, Service/Self Storage, Internet Sales, Real Estate Financing and Advertising. Although the Cities did not receive any responses from the following types of businesses, the Cities continues to modify their education and outreach strategy to these target audiences: Beverage/Distillery/ Wine Production; Beverage Tasting/Storage, Building Material Retailers and Storage, Corporate Yard, Gas Station, Landscape, Manufacturing and Processing, Metal and other Recycled Material Collection, Mobile Cleaning, Transportation and Vehicle Mechanical Repair, Maintenance or Cleaning Businesses. The survey results gave the Cities information about the general business population but were not able to isolate specific target audience results. In Year 4, the Cities began an additional education and outreach activity by launching a "Stormwater Pollution Prevention for Restaurant Owners" Direct Mailer Campaign (41 Mailers COB and 60 Mailers COS) to Restaurant Owners with an invitation to participate in an online Stormwater Management Program Survey for Restaurants.

The COS also participated in education and outreach events (Recycle: What, Why and How, State of the City, Santa Ynez Valley Earth Day Event). The number of Stormwater Quiz's/Survey's and Interested Parties Sign-up Inquiry at the Stormwater Display Booth are as follows: Santa Ynez Valley Earth Day (168 Visitors 168; 3 Stormwater Quiz; 8 Stormwater Survey; 1 Interested Parties Sign-up). For the booths at the Recycle: What, Why and How and State of the City event, there were no quizzes taken during the event. The COS did not have any additional Interested Parties Sign-ups through the City's Stormwater Website or the online business survey. There no changes to the survey or quizzes at outreach events at this time until the COS have comparable data through ongoing surveys.

Illicit Discharge Detection and Elimination [CASQA Outcome Level 4]

COB Data Assessment/Collection:

During Year 3, the COB continues to implement its Illicit Discharge Detection and Elimination (IDDE) Program through Buellton Municipal Code (BMC) Title 15 Stormwater Chapter 15.01 Stormwater Management and Discharge Control also known as the Stormwater Management and Discharge Ordinance and the COB Stormwater Program Management Certification Statement which provides the COB full legal authority to implement and enforce each of the NPDES Phase II MS4 General Permit requirements. The COB also developed a draft Enforcement Response Plan that includes enforcement measures and tracking of the types of enforcement responses.

The COB has also implemented a Spill Response Plan which provides guidance to City Staff and Authorized Contract Staff responding to a complaint or notice of a spill discharge or illicit connection; and conducting an investigation to locate and identify the source of a non-stormwater discharge. During Year 3 (rescheduled dates in Year 4), both City Staff and Authorized Contract Staff (11 City Staff and 13 City Contract Staff) were provided IDDE and Staff and Site Operator Training. The training has provided an increase in stormwater general awareness amongst staff and has result in and an increase in reporting of possible illicit discharges or connections. In Year 3, there were 2 out of 3 site investigations associated with nutrient related discharges. All nutrient related investigations were located within the residential zone. Form these investigations, the COB issued 2 written notices and 2 notices of violations with all incidents resolved and the City continues provide education and outreach activities related to nutrients in Year 4.

In addition, the COB's Stormwater Program Coordinator reviewed all FOG and IWD inspection reports and/or violations for non-stormwater discharges which were resolved through the FOG program without impacts to receiving water quality. Although the COB had implemented an IDDE Program, the City does not have enough comparable data at this time to warrant any changes to the program. The COB will continue education and outreach efforts to help minimize and eliminate pollutants from entering the storm drain system.

As part of the Stormwater Management Program, the COB continues to contract with a local waste hauler for management of green waste and coordinates and promotes the annual Christmas Treecycle Program through the Chamber of Commerce E-Newsletter, Buellton Buzz (Water Bill Insert) and both the COB and Waste Hauler websites. This program allows residents to drop off their trees until 2nd week in January for mulching and reuse within the community. The COB also maintains 10 Mutt Mitt Stations (5 River View Park; 3 Oak Valley Park; 1 PAWS Dog Park; 1 Via Corona Road). There are 4 additional Mutt Mitt Stations (1 North and 1 South Side along Highway 246 near the corner of Sycamore Drive; and 1 North and 1 South Side along Highway 246 near the corner of Valley Dairy) that are being maintained by Buellton Veterinary Clinic. In Year 4, the COB will review the recommendations from the pilot pet waste campaign to determine additional implementation measures.

COS Data Assessment/Collection:

During Year 3, the COS continues to implement its IDDE Program through SMC Title 14 Stormwater Management also known as the Stormwater Management Ordinance and the

COS Stormwater Program Management Certification Statement which provides the COS full legal authority to implement and enforce each of the NPDES Phase II MS4 General Permit requirements.

The COS has also implemented a Spill Response Plan which provides guidance to City Staff and Authorized Contract Staff responding to a complaint or notice of a spill discharge or illicit connection; and conducting an investigation to locate and identify the source of a non-stormwater discharge. In Year 3, the 6 new City employees were provided IDDE and Staff and Site Operator. The training has provided an increase in stormwater general awareness amongst staff and has result in and an increase in reporting of possible illicit discharges or connections. In Year 3, there were 4 out of 10 site investigations associated with nutrient related discharges. All nutrient related investigations were located within the commercial zone. Form these investigations, the COS issued 4 verbal warnings and 1 written notice with all incidents resolved and the City has targeted restaurants for additional stormwater education and outreach activities in Year 4.

As part of the Stormwater Management Program, the COS continues to contract with a local waste hauler for management of green waste and coordinates/promotes green waste recycling in the community through the waste hauler. The COS continues to maintain Mutt Mitt Stations (Hans Christian Andersen Park, Sunny Fields Park, Solvang Parks, and Veterans Memorial Building). In Year 4, the COS will review the recommendations from the pilot pet waste campaign to determine additional implementation measures.

Pollution Prevention and Good Housekeeping [CASQA Outcome Level 2-4]

COB Data Assessment/Collection:

During Year 2, the COB launched “Close the Poop Loop”, a pilot pet waste campaign, aimed to target unattended dog waste throughout the City. The campaign was created in collaboration with the Cities of Carpinteria, Goleta, Guadalupe, Lompoc, Santa Barbara, Santa Maria, Solvang and the County of Santa Barbara’s Project Clean Water to encourage residents to pick up after their dogs and toss the waste in the trash. The Mutt Mitt Program’s efforts to continue to provide pet waste disposal bags at River View Park, Oak Park and PAWS Dog Park for use by the public, has helped reduce or eliminate pet waste at those locations. In total, the Mutt Mitt Program’s Bi-weekly Maintenance provided approximately 72,000 bags during Year 3. The results of Year 2 pilot pet waste campaign Pre- and Post-campaign Survey Results indicated that there was 0% change even though the COB developed strategic partnerships with 2 pet-related businesses within the targeted areas to display campaign materials to local dog owners in places they frequent and from people they trust as well as target 1 dog related event and conducted various messaging campaigns. In Year 4, the COB will review the recommendations from the pilot pet waste campaign to determine additional implementation measures.

The COB Contract Staff conducted a total of 70 FOG and 16 IWD Program Inspections with 69 FOG Inspections with no stormwater violations; and all16 IWD Inspections indicating no stormwater violations. As mentioned within the Education and Outreach [CASQA Outcome Level 2-3] Section, the COB Contract Staff initiated an annual survey during their FOG and IWD Program Inspections beginning Year 2 (11 FOG Questionnaires) and Year 3 (27 FOG and 11 IWD Questionnaires) to engage the target audience with the following 3 questions: (1) Are you familiar with the COB's Storm Water Program?; (2) Are you aware of the requirements for your type of business activity?; and (3) Do you believe your business is in

compliance with the City's Storm Water Program? The FOG and IWD Questionnaires showed more than 50% were unaware of their business activities impact to stormwater. Based on the results, the COB Contract Staff will continue to engage FOG and IWD Program participants by conducting the Stormwater Questionnaires and providing stormwater outreach related materials during the inspection. In Year 4, the COB will modify its FOG Questionnaire/Survey to address good housekeeping behaviors and habits.

The COB continues to provide IDDE and Staff and Site Operator Training as described within the Illicit Discharge Detection and Elimination [CASQA Outcome Level 4] Section above.

COS Data Assessment/Collection:

During Year 2, the COS has launched a Close the Poop Loop, a pilot pet waste campaign, aimed to target unattended dog waste throughout the City. The campaign was created in collaboration with the Cities of Carpinteria, Goleta, Guadalupe, Lompoc, Santa Barbara, Santa Maria, Buellton and the County of Santa Barbara's Project Clean Water to encourage residents to pick up after their dogs and toss it in the trash. The Mutt Mitt Program's efforts to continue to provide pet waste disposal bags at Hans Christian Andersen Park, Sunny Fields Park, Solvang Parks, and Veterans Memorial Building for use by the public, has helped reduce or eliminate pet waste at those locations. In total, the Mutt Mitt Program's Bi-weekly Maintenance provided approximately 8,000 bags during Year 3. The results of Year 2 pilot pet waste campaign Pre- and Post-campaign Survey Results indicated that there was 0% change even though the COS developed strategic partnerships with 3 pet-related businesses within the targeted areas to display campaign materials to local dog owners in places they regularly frequent and from people they trust as well as target 1 dog related event and conducted various messaging campaigns. In Year 4, the COS will review the recommendations from the pilot pet waste campaign to determine additional implementation measures.

In Year 3; the COS's FOG Program is managed by the Waste Water Division and did not conduct any surveys. In Year 4, the COS will incorporate a FOG Questionnaire/Survey during their routine inspections. The questionnaire/survey will include the following 3 questions as well as questions to gauge good housekeeping behaviors and habits: (1) Are you familiar with the COS's Storm Water Program?; (2) Are you aware of the requirements for your type of business activity?; and (3) Do you believe your business is in compliance with the City's Storm Water Program?

The COS continues to provide IDDE and Staff and Site Operator Training as described within the Illicit Discharge Detection and Elimination [CASQA Outcome Level 4] Section above.

Water Quality Monitoring [CASQA Outcome Level 5]

Both the COB and COS are participating in the Santa Barbara County Public Works Department's regional water quality monitoring program. The draft Urban Storm Water Monitoring Plan (titled Receiving Water Monitoring Plan) FY 2015-2018 was submitted to Region 3 Water Board on December 29, 2014. This plan included a regional monitoring approach for Cities of Buellton, Solvang, Carpinteria, Goleta and the County of Santa Barbara. The Quality Assurance Project Plan along with the updated Urban Storm Water Monitoring Plan, revised to address comments from the Regional Board was submitted on October 13, 2015 through the SMARTS Database. On March 4, 2016, Santa Barbara

County Project Clean Water received Executive Officer Approval for the revised Urban Stormwater Monitoring Plan (USWMP) and the Quality Assurance Plan (QAPP). Monitoring was initiated during Year 3 and results will be reported as part of the Year 3 and subsequent Annual Reports.

The results of the USWMP will provide a land use-based pollutant load model that will be used to calculate wet weather loads produced in the monitoring area, prioritize catchments for BMP placement, and evaluate the performance of existing and future BMPs. The monitoring data collected in Year 3 through the activities described in this Plan were used to inform the model, by providing site-specific land use pollutant concentration data. As described within the USWMP, the monitoring outfalls will be selected based on their drainage areas consisting of a more or less homogenous land use category. Once 8 to 10 storms have been analyzed, the EMCs used in the model will be revised to include our local runoff concentrations, and new modeling results will be reported.

SEDIMENTATION/SILTATION (Total Suspended Solids)

Education and Outreach [CASQA Outcome Level 2-3]

COB Data Assessment/Collection:

During Year 3, the COB has implemented a Spill Response Plan which provides guidance to City Staff and Authorized Contract Staff responding to a complaint or notice of a spill discharge or illicit connection; and conducting an investigation to locate and identify the source of a non-stormwater discharge. Both City Staff and Authorized Contract Staff (4 City Staff and 9 City Contract Staff) were provided IDDE; Staff and Site Operator Training; and Permittee Staff Training. The training has provided an increase in stormwater general awareness amongst staff and has result in and an increase in reporting of possible illicit discharges or connections.

The COB maintained connections with 6 construction contractors through issuance of grading permits and inspections which occur at various frequencies (Prior to Land Disturbance; Prior to Rainy Season; Prior to any Forecast Storm (50% or Greater); During Rainy Season; After Rain Events that cause Runoff; 24-Hour Interval during Extended Rain Event; During Active Construction; Following Active Construction; and/or Monthly) to ensure the construction contractors are informed of proper erosion and sediment control measures.

Additionally, the COB also provided each construction contractor a copy of EPA's Construction Outreach Poster (24 in x 36 in) "Stormwater and the Construction Industry" (via hand delivered and email). The poster which was modified to include the COB contact information and Storm Drain Curb Marker Logo "Only Rain, Down the Storm Drain" contains both written and visual examples on how to "Maintain your BMPs" at a construction site. The COB made it clear that the poster does not replace BMP requirements listed with the sites Stormwater Pollution Plan (SWPPP) and/or Erosion and Sediment Control Plan (E&SCP) nor does it eliminate any additional BMPs that the construction contractor may be implementing as part of their plan. The EPA's Construction Outreach Poster (24 in x 36 in) "Stormwater and the Construction Industry" was also added to the COB website for availability to the construction industry. In addition, the COB uploaded "Prevent Soil Erosion on Your Property – A Homeowner's Guide to Erosion Control" guide onto the City's website as additional education and outreach materials for Homeowners.

The COB also participated in promoting County of Santa Barbara Project Clean Water's Storm Water Workshop "Requirements for Land Development Projects: Using the Updated Storm Water Technical Guide and Calculator. The free workshop for land development professionals, civil engineers, architects, geotechnical engineers, development, agents, contractors and municipal staff. The workshop was held at 3 optional locations on November 18, 2015 (San Luis Obispo), November 19, 2015 (UCSB) and November 20, 2015 (Santa Maria). The COB made 8 education and outreach connections to Stormwater Professionals through the City Engineering Department via phone and/or email correspondence. The COB also made 29 additional connections to Storm Water Professionals regarding 2 free workshops being held on 5/17/16 and 5/19/16 which focuses on design, construction, water quality volume, maintenance and inspection of the permeable paver. In Year 4, the COB will continue to distribute workshop information to local Stormwater Professionals and investigate the feasibility and logistics in organizing a stormwater workshop for construction site operators.

COS Data Assessment/Collection:

During Year 3, the COS has implemented a Spill Response Plan which provides guidance to City Staff and Authorized Contract Staff responding to a complaint or notice of a spill discharge or illicit connection; and conducting an investigation to locate and identify the source of a non-stormwater discharge. There were 2 City Staff that were provided IDDE; Staff and Site Operator Training; and Permittee Staff Training. The training has provided an increase in stormwater general awareness amongst staff and has result in and an increase in reporting of possible illicit discharges or connections.

The COS maintained connections with 3 construction contractors through issuance of grading permits and inspections which occur at various frequencies to ensure the construction contractors are informed of proper erosion and sediment control measures.

Additionally, the COS also provided each construction contractor a copy of EPA's Construction Outreach Poster (24 in x 36 in) "Stormwater and the Construction Industry" (via hand delivered and email). The poster which was modified to include the COS contact information and Storm Drain Curb Marker Logo "No Dumping, Drains to River" contains both written and visual examples on how to "Maintain your BMPs" at a construction site. The COS made it clear that the poster does not replace BMP requirements listed with the sites Stormwater Pollution Plan (SWPPP) and/or Erosion and Sediment Control Plan (E&SCP) nor does it eliminate any additional BMPs that the construction contractor may be implementing as part of their plan. The EPA's Construction Outreach Poster (24 in x 36 in) "Stormwater and the Construction Industry" was also added to the COS website for availability to the construction industry. In addition, the COS distributed "Prevent Soil Erosion on Your Property – A Homeowner's Guide to Erosion Control" within May's Water Bill as well as uploaded the guide onto the City's website as additional education and outreach material for Homeowner's.

The COS also participated in promoting County of Santa Barbara Project Clean Water's Storm Water Workshop "Requirements for Land Development Projects: Using the Updated Storm Water Technical Guide and Calculator. The free workshop for land development professionals, civil engineers, architects, geotechnical engineers, development, agents, contractors and municipal staff. The workshop was held at 3 optional locations on

November 18, 2015 (San Luis Obispo), November 19, 2015 (UCSB) and November 20, 2015 (Santa Maria). The COS made 24 education and outreach connections to Stormwater Professionals through the City Engineering Department via phone and/or email correspondence. The COS also made 29 additional connections to Storm Water Professionals regarding 2 free workshops being held on 5/17/16 and 5/19/16 which focuses on design, construction, water quality volume, maintenance and inspection of the permeable paver. In Year 4, the COS will continue to distribute workshop information to local Stormwater Professionals and investigate the feasibility and logistics in organizing a stormwater workshop for construction site operators.

Illicit Discharge Detection and Elimination [CASQA Outcome Level 4]

COB Data Assessment/Collection:

During Year 3, the COB continues to implement its IDDE Program through BMC Title 15 Stormwater Chapter 15.01 Stormwater Management and Discharge Control also known as the Stormwater Management and Discharge Ordinance and the COB Stormwater Program Management Certification Statement which provides COB full legal authority to implement and enforce each of the NPDES Phase II MS4 General Permit requirements. The COB also developed a draft Enforcement Response Plan that includes enforcement measures and tracking of the types of enforcement responses.

The COB has also implemented a Spill Response Plan which provides guidance to City Staff and Authorized Contract Staff responding to a complaint or notice of a spill discharge or illicit connection; and conducting an investigation to locate and identify the source of a non-stormwater discharge. During Year 3, both City Staff and Authorized Contract Staff (11 City Staff and 13 City Contract Staff) were provided IDDE and Staff and Site Operator Training. The training has provided an increase in stormwater general awareness amongst staff and has result in and an increase in reporting of possible illicit discharges or connections. In Year 3, there were no site investigations associated with sedimentation/siltation related discharges from construction site. As part of the Stormwater Management Program, the COB continues to work with construction contractors to resolve any corrective actions and/or discrepancies found during the inspection.

COS Data Assessment/Collection:

During Year 3, the COS continues to implement its IDDE Program through SMC Title 14 Stormwater Management also known as the Stormwater Management Ordinance and the COS's Stormwater Program Management Certification Statement which provides the City full legal authority to implement and enforce each of the NPDES Phase II MS4 General Permit requirements. The COS also developed a draft Enforcement Response Plan that includes enforcement measures and tracking of the types of enforcement responses. In Year 3, there were 6 out of 10 site investigations associated with sedimentation/siltation related discharges from construction sites. From these investigations, the COS issued 5 verbal warnings/written notices and 1 administrative citation as a result of construction activities. As part of the Stormwater Management Program, the COS continues to work with construction contractors to resolve any corrective actions and/or discrepancies found during the inspection.

The COS has also implemented a Spill Response Plan which provides guidance to City Staff responding to a complaint or notice of a spill discharge or illicit connection; and

conducting an investigation to locate and identify the source of a non-stormwater discharge. There were 2 City Staff that were provided IDDE; Staff and Site Operator Training; and Permittee Staff Training. The training has provided an increase in stormwater general awareness amongst staff and has result in and an increase in reporting of possible illicit discharges or connections.

Construction Site Stormwater Runoff Control [Outcome Level 2-3]

COB Data Assessment/Collection:

During Year 3, the COB issued 3 new construction site grading permits. Since all 3 construction sites are working under a SWPPP approved by the State Water Resources Control Board. All 3 construction sites had an E&SCP, the COB does not consider sites with an E&SCP a water quality threat as long as the site continues to actively implement the E&SCP.

Two of the construction sites received discretionary approval after March 6, 2014 and required the submittal of a Storm Water Control Plan (SWCP) which was developed for compliance with Post Construction Requirements (PCRs) and Low Impact Development Measures. The COB completed the review and approval of each sites SWCP during the projects construction phase due to late submittal. The COB has implemented a new plan check process to avoid late submittals in the future.

The COB also continued to inspection 6 construction sites which are occur at various frequencies to ensure the construction contractors are informed of proper erosion and sediment control measures. For these 6 construction sites and in total, the COB conducted the following inspections with some sites having duplicate monthly inspections: 6 Prior to Land Disturbance; 4 Prior to Rainy Season; 93 Prior to any Forecast Storm (50% or Greater); 97 During Rainy Season; 12 After Rain Events that cause Runoff; 33 24-Hour Interval during Extended Rain Event; 94 During Active Construction; 10 Following Active Construction; 65 Monthly). As part of the Stormwater Management Program, the COB will continue to monitor the erosion and sediment control measures. Due to the high volume of construction inspections, the COB will re-evaluate the frequency of inspections to ensure effective use of resources while still complying with the NPDES Phase II MS4 General Permit requirements.

COS Data Assessment/Collection:

During Year 3, the COS monitored 3 construction sites. Construction at 2 sites began in prior years. The COS also issued 1 new construction site grading permit but this new project is currently on hold. One of the construction sites is working under a SWPPP approved by the State Water Resources Control Board. All 3 construction sites have an E&SCP, the COS does not consider sites with an E&SCP a water quality threat as long as the site continues to actively implement the E&SCP. It should be noted that all 3 construction sites received discretionary approval prior to March 6, 2014; and therefore, these sites did not require the submittal of a SWCP to comply with PCRs and LID Measures. There was also 1 residential construction site that was not required to implement an E&SCP because it fell below the regulatory threshold requiring a SWPPP or a SWCP. Even though the residential construction site was not required to implement an E&SCP, the City requested that the construction documents include an E&SCP for City review and approval.

As a result of our learning experience with this residential project, the COS will require an E&SCP for all future construction sites that are requesting a grading permit.

The COS also inspected the 3 construction sites and 1 residential construction site at various frequencies to ensure the construction contractors were informed of proper erosion and sediment control measures. As part of the Stormwater Management Program, the COS will continue to monitor the erosion and sediment control measures. The COS will re-evaluate the frequency of inspections to ensure effective use of resources while still complying with the NPDES Phase II MS4 General Permit requirements.

Post-Construction Site Stormwater Runoff Control [CASQA Outcome Level 2-3]

COB Data Assessment/Collection:

During Year 3, there were 2 construction sites received discretionary approval after March 6, 2014, Both sites required the submittal of SWCP to comply with PCRs and LID Measures. The COB completed the review and approval of each sites SWCP during the projects construction phase due to late submittal. The COB has implemented a new plan check process to avoid late submittals in the future.

COS Data Assessment/Collection:

During Year 3, there were no construction sites that received discretionary approval after March 6, 2014 that required a submittal of a SWCP to comply with PCRs and LID Measures. Out of 3 construction sites, there was 1 construction site that implemented a LID Measure.

Pollution Prevention and Good Housekeeping [CASQA Outcome Level 2-3]

COB Data Assessment/Collection:

During Year 3, the COB Street Sweeping Maintenance Contractor continues to conduct Bi-Monthly Street Sweeping Activities on all municipal streets (residential and arterial roads but not private roads), alleyways, and parking lots based on a pre-determined frequency and route. By conducting street sweeping activities, the COB minimized sedimentation/siltation from the entering the storm drain conveyance system. The COB also developed and implemented a Storm Drain System Assessment, Prioritization and Maintenance Standard Operating Procedure (SOP) to comply with the NPDES Phase II MS4 General Permit.

In response to a Central Coast Regional Water Quality Control Board Inspection, the COB installed interim erosion and sediment controls at the Waste Water Treatment Plan until removal of piles of old accumulated materials have been completed. In addition, the COB installed Sediment Control BMPs (fiber rolls) around the excavated areas at Reservoir 1 to eliminate any sediment from leaving the site.

The Storm Drain Maintenance Contractor (SDMC) inspected and cleaned all 137 catch basins and drop inlets and 10 area drains. COB also worked with a Landscape Maintenance Contractor (LMC) to schedule annual maintenance activities on 3 above-ground conveyance systems. During the inspection/maintenance activity, the SDMC was able to remove buckets of sediment/sand/dirt/rocks (including trash and debris) from the Storm Drain System. Based on the results of these activities, the COB also updated its inventory for Year 4 to include newly identified structures, replace/install damaged/missing

Storm Drain Curb Markers; and facilitated storm drain infrastructure repairs. In Year 4, the COB will continue to work with a SDMC and LMC to conduct inspection/maintenance activities on the City's Storm Drain System. The City will compare Year 3 and Year 4 inspection results to prioritize inspection and maintenance activities in order to ensure effective use of resources while still complying with the NPDES Phase II MS4 General Permit requirements.

COS Data Assessment/Collection:

During Year 3, the COS Street Sweeping Maintenance Contractor continues to conduct Street Sweeping Activities on all municipal streets (residential and arterial city streets) bi-monthly, downtown village area once per month, alleys downtown every month, and Hans Christian Andersen Park and Sunny Fields Park quarterly. By conducting street sweeping activities, the COS minimized sedimentation/siltation from the entering the storm drain conveyance system to comply with the NPDES Phase II MS4 General Permit.

In response to erosion control and soil preservation concerns during the rainy season, all Public Works Divisions were instructed to inspect areas around their facilities that may be prone to erosion during heavy storms. Various maintenance activities were identified. Staff was instructed to add fiber rolls, erosion control blankets, and native grass seeds to all areas recently disturbed during routine maintenance activities. Public Works staff was provided various BMP installation details and received instructions on installation of the BMPs.

The COS also developed and implemented a Storm Drain System SOP for Assessing & Prioritizing Maintenance Activities to comply with all required program elements of the NPDES Phase II MS4 General Permit. The COS has over 300 storm drain structures in its inventory. The COS does not have the resources to inspect and clean all storm drain structures annually. The COS used their GIS database to develop a method for prioritizing and assessing the inventory. All high-priority areas were inspected and minor maintenance was performed. Additional maintenance will be scheduled during Year 4. The City is going to continue with the assessment method describe above for the remainder of this permit term.

Water Quality Monitoring [CASQA Outcome Level 5]

Both the COB and COS are participating in the Santa Barbara County Public Works Department's regional water quality monitoring program. The draft Urban Storm Water Monitoring Plan (titled Receiving Water Monitoring Plan) FY 2015-2018 was submitted to Region 3 Water Board on December 29, 2014. This plan included a regional monitoring approach for Cities of Buellton, Solvang, Carpinteria, Goleta and the County of Santa Barbara. The Quality Assurance Project Plan along with the updated Urban Storm Water Monitoring Plan, revised to address comments from the Regional Board was submitted on October 13, 2015 through the SMARTS Database. On March 4, 2016, Santa Barbara County Project Clean Water received Executive Officer Approval for the revised Urban Stormwater Monitoring Plan (USWMP) and the Quality Assurance Plan (QAPP). Monitoring was initiated during Year 3 and results will be reported as part of the Year 3 and subsequent Annual Reports.

The results of the USWMP will provide a land use-based pollutant load model that will be used to calculate wet weather loads produced in the monitoring area, prioritize catchments for BMP placement, and evaluate the performance of existing and future BMPs. The Plan

will be used to inform the model, by providing site-specific land use pollutant concentration data. As described within the USWMP, the monitoring outfalls were selected based on their drainage areas consisting of a more or less homogenous land use category. The first year of wet weather urban runoff was initiated in Year 3. Four storms were monitored at a total of 6 sites representing different land use types. Once 8 to 10 storms have been analyzed, the event mean concentrations used in the model will be revised to include our local runoff concentrations, and new modeling results will be reported.

3. Short- and Long-Term Program Effectiveness

The City of Buellton and the City of Solvang have two short term goals. Comply with the NPDES Phase II MS4 General Permit requirements and to fully implement the SOPs developed during this permit term to minimize the identified high- and medium-priority POCs from entering the Storm Drain System. Continue to collect and track program data that will be used to modify and improve each City's Storm Water Management Program.

The long term goal of the effectiveness assessment program is to reduce pollutants from the MS4 to the maximum extent practicable. By applying Best Management Practices that are effective in reducing or eliminating the discharge of pollutants to the waters of the U.S. Through the emphasis of pollutant reduction and source control BMPs to prevent pollutants from entering storm water run-off. Our Cities recognize that this is a dynamic process and may require changes over time as we gain experience and as new science and technologies become available.



Prepared for

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Storm Water Pollutant Load Model – Results for the City of Buellton MS4 Permit Area

Buellton, CA

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1. Introduction

The Load, Prioritization, and Reduction Model (LPRM) was developed to aid the participating agencies within the County of Santa Barbara (Cities of Goleta, Carpinteria, Solvang, and Buellton, and the County of Santa Barbara) in:

- Quantifying average annual existing (baseline) pollutants loads from rainfall occurring in the MS4 Permit area;
- Prioritizing catchments for BMP implementation; and
- Estimating the anticipated load reductions resulting from implementation of the Program Effectiveness Assessment and Improvement Plans (PEAIPs).

The LPRM fulfills the requirements specified by the 2013 California Phase II General Municipal Separate Storm Sewer System (MS4) Permit (MS4 Permit) and the July 25, 2014, Central Coast Regional Water Quality Control Board (Regional Board) “Effectiveness Assessment and Monitoring” guidance letter. A discussion of the modeling approach and the default model values are included in the PEAIP Approach to Quantify Pollutant Loads and Pollutant Load Reductions (Geosyntec, 2015a). The PEAIP LPRM Guidance Document Memorandum (Geosyntec, 2015b) describes the model organization, how users can add new BMPs and extract model results for future annual reports, how to modify model defaults, and how model calculations are performed.

This report summarizes the LPRM inputs and results for the PEAIP implementation through 2015.

1.1 MS4 Permit Area

The MS4 Permit regulates discharges from the storm drain system of designated municipalities, referred to as MS4 discharges. The City of Buellton is located in Santa Barbara County, and the MS4 Permit area encompasses approximately 1.6 square miles (Figure 1). The MS4 Permit area is a relatively small portion of the Santa Ynez watershed, whose runoff is mostly from open space and agriculture. The Buellton MS4 permit area is grouped into 8 land uses, including single family residential (39%), commercial (30%), open space (13%), industrial (11%), education (4.0%), and multi-family residential (2.3%).

Runoff from highways 101 and 246, which runs through the center of the MS4 permit area, is covered under the Caltrans MS4 permit and is therefore not the responsibility of the City of Buellton. Therefore, all the Caltrans areas have been removed from this analysis. The City of Buellton is also not responsible for discharges from Industrial General Permit (IGP) parcels, which are covered under a separate IGP permit, so these parcels are also removed from the analysis of the MS4 permit area

1.2 Overview of Model Features

The LPRM utilizes spatial data from GIS, including land use and soil data, to estimate runoff volume and pollutant loading for modelable pollutants¹. Specifically, the major output features of the LPRM are as follows:

- Quantification of average annual baseline loads from the MS4 Permit area, for runoff volume and up to 15 pollutants;
- Prioritization of catchments (and land uses), based on pollutant contributions and jurisdictional pollutant priorities, for BMP implementation; and
- Estimation of anticipated runoff volume and pollutant load reductions achieved by BMP implementation since 2013.

¹ As discussed in the PEAIIP Approach to Quantify Pollutant Loads and Pollutant Load Reductions Memo, the first step in modeling exercise was to identify pollutants for which land use event mean concentration data existed. These pollutants were called modelable pollutants.

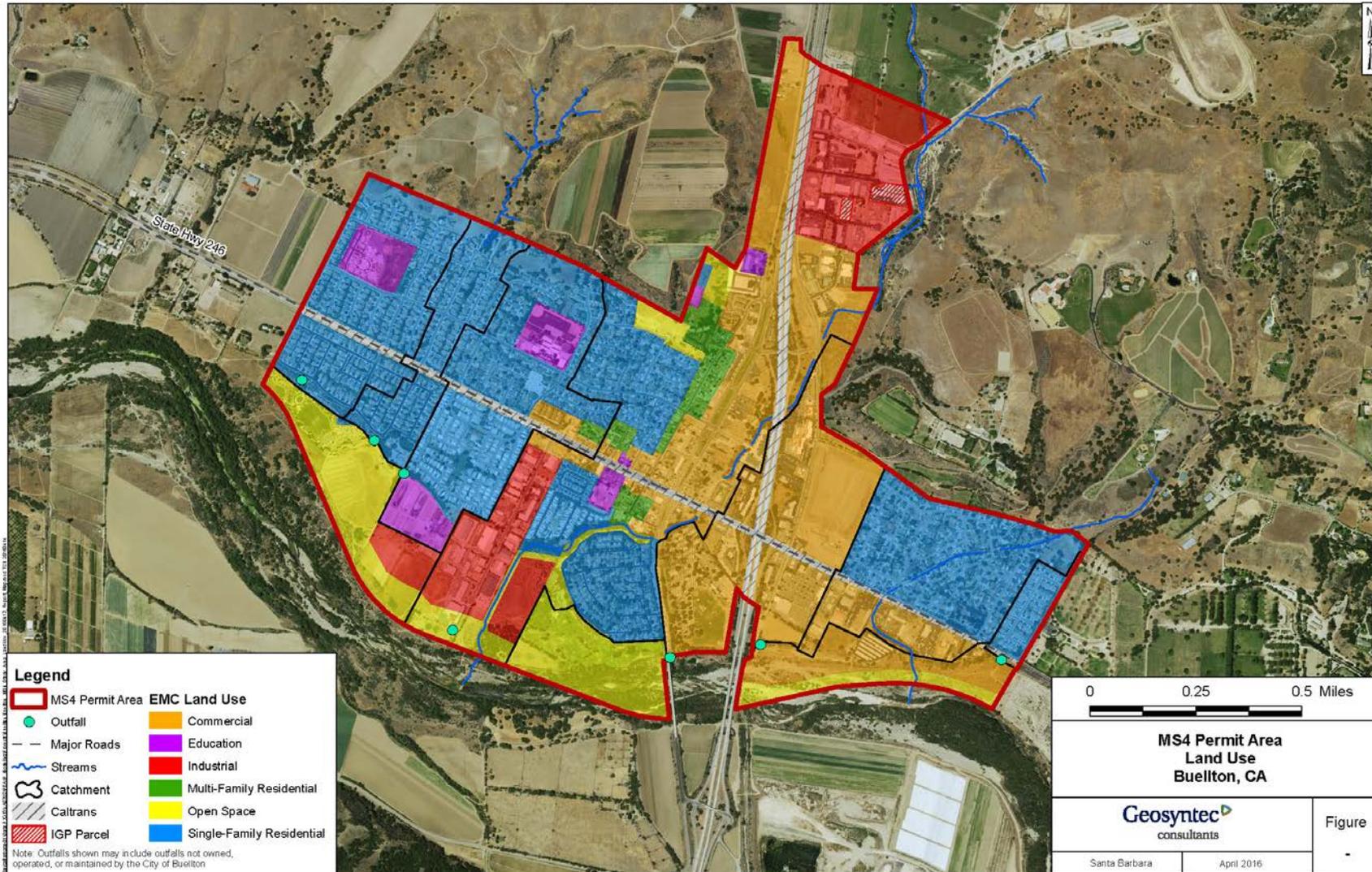


Figure 1. MS4 Permit Area

2. Model Inputs

The PEAIIP Approach to Quantify Pollutant Loads and Pollutant Load Reductions Memo discusses the default datasets and inputs required for the LPRM. The sections below are intended to describe variations from the default datasets in the used in the LPRM and inputs selected for the LPRM; as well as provide context for these changes and selections. Several default datasets for the LPRM have not been modified from what was described in the Modeling Approach Memo, including:

- Modelable pollutants;
- Pervious runoff coefficients by hydrologic soil group;
- Land use pollutant EMCs;
- Priority pollutants (i.e., dissolved phosphorus, dissolved copper, dissolved zinc, and fecal coliform); and
- Weighting factors for computing multi-pollutant CPI scores

2.1 Soils

The soil data, a SSURGO database acquired from the Natural Resources Conservation Service (United States Department of Agriculture), was characterized by hydrologic groups (A, B, C, or D), to help define the runoff potential of each soil type in the PLRM (Figure 2). Hydrologic soil group A is defined by a high saturated hydraulic conductivity (i.e., high infiltration potential) and therefore has low runoff potential. Alternatively, hydrologic soil group D has high runoff potential and low saturated hydraulic conductivity. In areas where the SSURGO database did not provide a hydrologic soil group, the average pervious runoff coefficient of the four soil groups (0.075) was used.

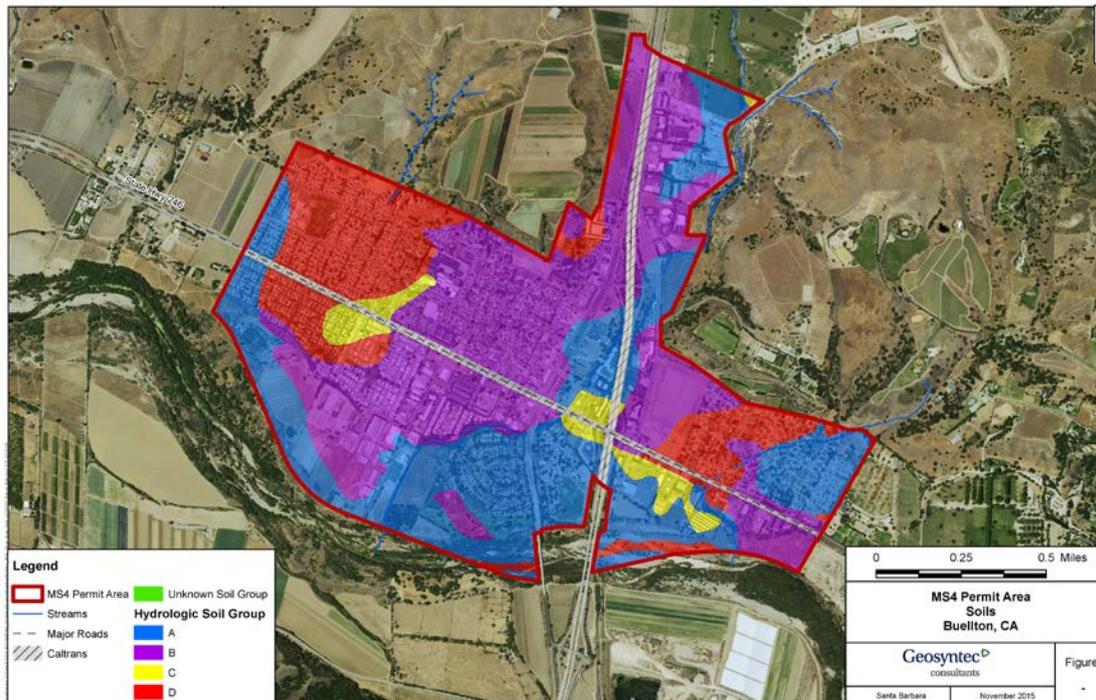


Figure 2. MS4 Permit Area Soils

2.2 Land Use EMC Groups and Imperviousness

The City of Buellton’s general land use categories covering the MS4 Permit area contained varying and unique descriptors which were more detailed than the eight EMC land use groups used in the LPRM. Table B-15 shows how these general land use categories were initially classified into the eight land use EMCs for the LPRM. This table also shows percent imperviousness values for the detailed land uses developed based on available literature, including Los Angeles County Hydrology Manual land use imperviousness used as defaults in SBPAT (Geosyntec, 2012) and values determined for Ventura County and used in the Draft Santa Clara River Indicator Bacteria TMDL Implementation Plan (County of Ventura, 2015). Using this detailed land use dataset accounts for the variation in percent impervious values throughout each specific land use and provides results more representative of the modeled area.

Additionally, to calculate watershed loads, EMC land use groups and imperviousness were needed for area outside the MS4 permit area, but within the watershed. Table B-16 shows how EMC land use groups and average imperviousness were assigned to the parcel dataset downloaded from the County of Santa Barbara GIS Catalog (County of Santa Barbara, 2015), which was used to classify land use within the County of Santa Barbara but outside of the participating agencies MS4 Permit areas (i.e., for use in watershed analyses).

All EMC land use and imperviousness classifications shown in Appendix B served as a starting point for determining input to the LPRM. Adjustments were made to both land use EMC groups and imperviousness based on visual observation of aerial imagery or local knowledge of the area.

2.3 Precipitation Data

A rainfall station was selected for each area that was in close proximity and contained at least 30 years of data in the Period of Record (POR) (Figure 3). Historical rainfall data was downloaded from the County of Santa Barbara Public Works Department² for Buellton Fire Station, Goleta Fire Station #14, and Carpinteria Fire Station. The average annual rainfall depth (calculated from the total water year depths over the POR) was calculated and each jurisdictional area (and watershed) was assigned an average annual rainfall depth based on proximity to each of the three gages (Table 1).

Table 1. Selected Rainfall Station Information

Rainfall Station	Station #	Jurisdictions Influenced	Annual Precipitation Depth (inches)				Period of Record (years)
			Average	Median	Min	Max	
Buellton Fire Station #31	233	Buellton, Solvang, and County Unincorporated - North County	16.8	14.7	5.9	41.6	61
Goleta Fire Station #14	440	Goleta and County Unincorporated - South County	18.5	16.5	6.9	47.9	74
Carpinteria Fire Station	208	Carpinteria and County Unincorporated - South	19.2	17.3	5.8	51.5	67

² <http://cosb.countyofsb.org/pwd/pwwater.aspx?id=3790>



Figure 3. Rainfall Stations and MS4 Permit Areas

2.4 Hydrologic Calibration

Since the runoff coefficient is determined using an empirical formula that does not account for site-specific conditions, a calibration was performed to adjust the runoff coefficients. The calibration compared the LPRM calculated annual discharge volumes to streamflow gage observed annual discharge volumes in Atascadero Creek. The selected streamflow gauge is in the Goleta Slough watershed, a predominately urban drainage area, with nearly 30 years of data. This comparison was conducted for years with greater than 4,000 ac-ft of measured streamflow, which minimized error while also analyzing an adequate number of years (12). The runoff coefficients in the LPRM are adjusted based on a constant factor to minimize the overall difference between the observed and predicted annual volumes, which was determined to be 1.03.

2.5 BMPs Modeled

The LPRM is capable of quantifying the anticipated wet weather pollutant load reductions achieved by a variety of BMPs that could be implemented within the MS4 Permit area. BMP performance for BMPs implemented since 2013 have been evaluated and are presented herein. PEAIIP BMP implementation by the City of Buellton since 2013 can be grouped into three categories for modeling. These categories, redevelopment (Section 2.5.1), brake pad copper

phase-out legislation (Section 2.5.2), and other non-quantifiable non-structural BMPs (Section 2.5.3), are discussed below. Non-quantifiable non-structural BMPs include programs that target wet weather pollutant sources to the MS4; however, sufficient data do not exist to model pollutant load reductions from these programs separately. Therefore, a percent reduction is assumed for these programs based on best professional judgement, as outlined in Section 2.5.3.

2.5.1 Redevelopment

Redevelopment projects are subject to the 2013 Post-Construction Stormwater Management Performance Requirements for Development Projects in the Central Coast Region (PCRs), based on the area of net impervious surface that the project creates and/or replaces. These PCRs require³ that:

1. Projects that create and/or replace 2,500 or more square feet of net impervious surface - provide site design and runoff reduction;
2. Projects that create and/or replace 5,000⁴ or more square feet of net impervious surface - implement LID standards that capture and treat the runoff volume from the project site produced during the 85th percentile 24-hour storm event;
3. Projects that create and/or replace 15,000 or more square feet of net impervious surface - implement stormwater control measures that capture and retain on site the runoff volume from the project site produced during the 95th percentile 24-hour storm event; or
4. Projects that create and/or replace 22,000 or more square feet of net impervious surface - implement stormwater control measures to control peak flows to not exceed pre-project flows for the 2-year through 10-year events.

Therefore, over time, the measures implemented by these projects will result in pollutant load reductions from the MS4 Permit area relative to existing conditions. Redevelopment projects that implement post-construction requirements may be entered into the LPRM as they are completed.

To model the average percent capture of annual stormwater runoff volume⁵ associated with post construction projects that trigger Performance Requirement No. 2, the following steps were taken:

- A LID BMP was sized to capture runoff from the 85th percentile 24-hour storm for one parcel of each applicable land use (single-family residential, multi-family residential, commercial, industrial, and education) and for two assumed hydrologic soil types (A and D), which takes into account the typical imperviousness for each land use group and a range of potential soil conditions (i.e., infiltration capacity).

³ All preceding (i.e., less stringent requirements) are also required for the larger projects

⁴ Excluding detached single family houses

⁵ To keep the modeling assumptions and scenarios simpler and more straightforward a volume-based full treatment option (i.e., no infiltration) was evaluated as an alternative to the flow-through treatment option.

- Each BMP was modeled in EPA’s Storm Water Management Model (SWMM) over an average rainfall year to determine the percentage of annual runoff captured by each land use and soil combination-specific LID BMP.
- The percent capture results for both land use-soil combinations (i.e., commercial-soil type A and commercial-soil type D) were averaged to determine an average percent capture for each land use.

The average percent capture values for each land use from the above analysis are incorporated into the LPRM and represent the percentage of annual runoff from redevelopment parcels that will be captured and treated by LID BMPs (Table 2).

Table 2. Modeled Percent Capture for Projects Triggering Performance Requirement #2 (sized to 85th percentile event) by Land Use

Land Use	% Capture
Residential	86%
Commercial	89%
Industrial	88%
Education	88%
Transportation	89%

The portion of runoff volume that is not captured (and instead bypasses) is assumed to have the same effluent concentration as the influent concentration. Since project-specific details and constraints related to infiltration are unknown (e.g., soils not conducive to infiltration, limited depth to groundwater), the LPRM provides three types of projects for the user to select in regards to treatment vs. infiltration:

- 1) Infiltration: 100 percent of the captured volume is infiltrated through the BMP, and therefore completely removed from the discharge;
- 2) Infiltration and Treatment: 50 percent of the captured volume is infiltrated through the BMP and 50 percent is not infiltrated, thus requiring treatment and discharge (flow-through treatment); and
- 3) Treatment: 100 percent of the captured volume is treated and discharged (flow-through treatment).

In the LPRM, the percentage that is captured and infiltrated is completely removed from the discharge and therefore an effluent concentration is not required. For the remaining percentage that is treated and discharged (for project types 2 and 3 above), the anticipated effluent

concentration of a biofilter (representing bioretention with underdrains)⁶ is applied to this volume based on mean values from the International Stormwater BMP Database (Geosyntec, 2012). The effluent concentrations selected are shown in Table 3.

Table 3. Redevelopment LID Project Effluent Concentrations

TSS	Tot P	Diss P	NH3	NO3	TKN	Diss Cu	Tot Cu	Tot Pb	Diss Zn	Tot Zn	Fecal Col.
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	#/100mL
18.1	0.14	0.07	0.18	0.37	0.98	8.3	8.8	4.2	34.7	37.6	5,890

The LPRM calculates the pollutant load reductions achieved by redevelopment BMPs by finding the difference between the parcel (i.e., pre-BMP) runoff volume and pollutant loads and the post-BMP runoff volume and pollutant loads. Calculations are performed such that the BMP effluent concentration is not higher than the BMP influent concentration (i.e., implementation of a BMP cannot increase pollutant concentrations). If the effluent concentration is greater than the influent water quality concentration, then the post-BMP treated runoff concentration is set equal to the influent concentration for that pollutant.

The LPRM also supports a redevelopment BMP where the project is subject to Performance Requirement No. 3 (i.e., BMP sizing to retain the 95th percentile, 24-hour duration rainfall event). To model the average annual percent capture associated with these post-construction projects, the same steps outline above were followed. However, the LID BMP was instead sized to capture runoff from the 95th percentile, 24-hour storm event. The average annual percent capture by land use determined from the analysis, as shown in Table 4, is incorporated into the LPRM and represents the percentage of annual runoff from redevelopment parcels that will be captured and subject to runoff retention requirements. Instead of providing options for infiltration vs. treatment, this BMP assumes 100 percent infiltration, which completely removes the runoff volume from the discharge.

⁶ Effluent quality assigned to treat underdrain discharge is based on the better performing characteristics of the “media filter” and “bioretention” categories for each pollutant.

Table 4. Modeled Percent Capture for Projects Triggering Performance Requirement #3 (sized to 95th percentile event) by Land Use

Land Use	% Capture ⁷
Residential	100%
Commercial	100%
Industrial	100%
Education	100%
Transportation	100%

As of 2015, no redevelopment projects that trigger the LID post construction requirements are in construction or have been completed. The estimated pollutant load reductions from future redevelopment projects will be modeled in the year they are completed.

2.5.2 Brake Pad Copper Phase-out Legislation

The TDC Environmental study (TDC Environmental, 2013), discussed in the PEAIIP Approach to Quantify Pollutant Loads and Pollutant Load Reductions Memo, identifies three possible implementation scenarios, the least aggressive of which estimates that a 55 percent load reduction in copper will be achieved by 2032 due to the brake pad phase out. Therefore, the LPRM assumes a 55 percent total load reduction for copper (total copper and dissolved copper) due to the elimination of copper in brake pads over a 20-year period from 2013 to 2032. This translates into a 2.75 percent load reduction in copper each year (assuming a linear reduction over the time period), as shown in Table 5. This is the only BMP currently supported by the model that requires input by the user on a yearly basis, in order to demonstrate gradual brake pad phase-out over a 20-year period. All other BMPs only need to be entered to the LPRM once to quantify general reductions (i.e., other non-structural BMPs (CBSM)) or once per new project implemented (i.e., redevelopment).

Table 5. Load Reduction per Year from Brake Pad Copper Phase-out Legislation BMP (2013-2032)

BMP Type	Diss Cu	Tot Cu
	lb	lb
Brake Pad Copper Phase-out Legislation	2.75%	2.75%

⁷ These reductions are based on continuous simulation results for an average rainfall year (2003 was selected), however other "average" years or a longer, multi-year simulation period may result in less than 100% capture.

2.5.3 Other Non-quantifiable Non-structural BMPs (CBSM)

The Santa Barbara County jurisdictions recently implemented a Community Based Social Marketing (CBSM) program, which focuses on education and public outreach to dog owners. This program targets public awareness, behavioral changes, and sustainable control of pet waste at (and avoidance of) the “source”. Based on best professional judgment and consistent with other Southern California MS4 Permits, Reasonable Assurance Analysis modeling efforts have assumed a flat fixed percent reduction of 5-10% where data are lacking to support another value. This assumption is acceptable to Los Angeles and Orange County Regional Boards. Therefore, the LPRM assumes a total five percent reduction in bacteria (fecal coliform) based on best professional judgement and Regional Board acceptance for this BMP, as shown in Table 6.

Table 6. Load Reduction from Other Non-structural (CBSM) BMP

BMP Type	Fecal Col.
	10 ¹² MPN
Other Non-structural BMPs (CBSM)	5%

3. Model Results

The LPRM is capable of modeling the following pollutants: total suspended solids, total and dissolved phosphorus, ammonia, nitrate, total kjeldahl nitrogen, dissolved and total copper, total lead, dissolved and total zinc, and fecal coliform. The City of Buellton results for the identified priority pollutants – dissolved phosphorus, dissolved copper, dissolved zinc, and fecal coliform (see PEAIIP Approach to Quantify Pollutant Loads and Pollutant Load Reductions Memo for the basis of this pollutant prioritization) -- are presented in the following sections. Results for remaining pollutants modeled by the LPRM are included in Appendix A.

3.1 Baseline Loading

The LPRM produces average annual baseline loads (i.e., current conditions, or after the effective date of new MS4 Permit but before the addition of new BMPs or enhancement of existing BMPs according to the PEAIIP) for the MS4 Permit area, shown in Section 3.1.1. In addition, the LPRM estimates pollutant loading from the entire surrounding watershed in order to provide information on the relative contribution of the MS4 Permit area to the receiving waters. Results for watershed pollutant loads are included in Section 3.1.2.

3.1.1 Baseline Loads for the MS4 Permit Area

Results for average annual baseline loads of the four priority pollutants identified for the City of Buellton MS4 Permit area are shown in Table 7. The total baseline watershed load is also included (to be discussed in subsequent sections). Nutrients and TSS were also identified as a

pollutant of concern for the Santa Ynez watershed. Therefore, results for nitrate TSS are also presented.

Table 7. Average Annual Baseline Loads for Priority Pollutants

Pollutant	Average Annual MS4 Baseline Load	Average Annual Watershed Baseline Load
Dissolved Phosphorus (lb)	570	77,000
Dissolved Copper (lb)	24	1,600
Dissolved Zinc (lb)	340	14,000
Fecal Coliform (10 ¹² MPN)	96	6,200
Nitrate (lb)	1,400	1,200,000
TSS (lbs)	222,900	4,300,000

Figure 4 through Figure 6 show the average annual baseline pollutant loads per acre for each EMC land uses within the MS4 Permit area. These plots illustrate which land uses are generating the greatest pollutant loading per unit area and they roughly reflect land use event mean concentrations (EMCs). However, other factors also contribute to loading by land use, most notably, imperviousness and the resultant runoff volume from a particular land use.

In general these charts show that industrial (high imperviousness and EMCs) and commercial (high imperviousness and EMCs) land uses contribute the most significant pollutant loadings of nutrients and metals. Industrial (high imperviousness and EMC), multi-family residential (high EMCs), and education (high EMC) provide the most significant bacteria loading. These charts, coupled with the land use map of the MS4 Permit area (Figure 1), can be utilized to target implementation of distributed structural BMPs or non-structural BMPs, since these are more cost-effectively sited by land use.

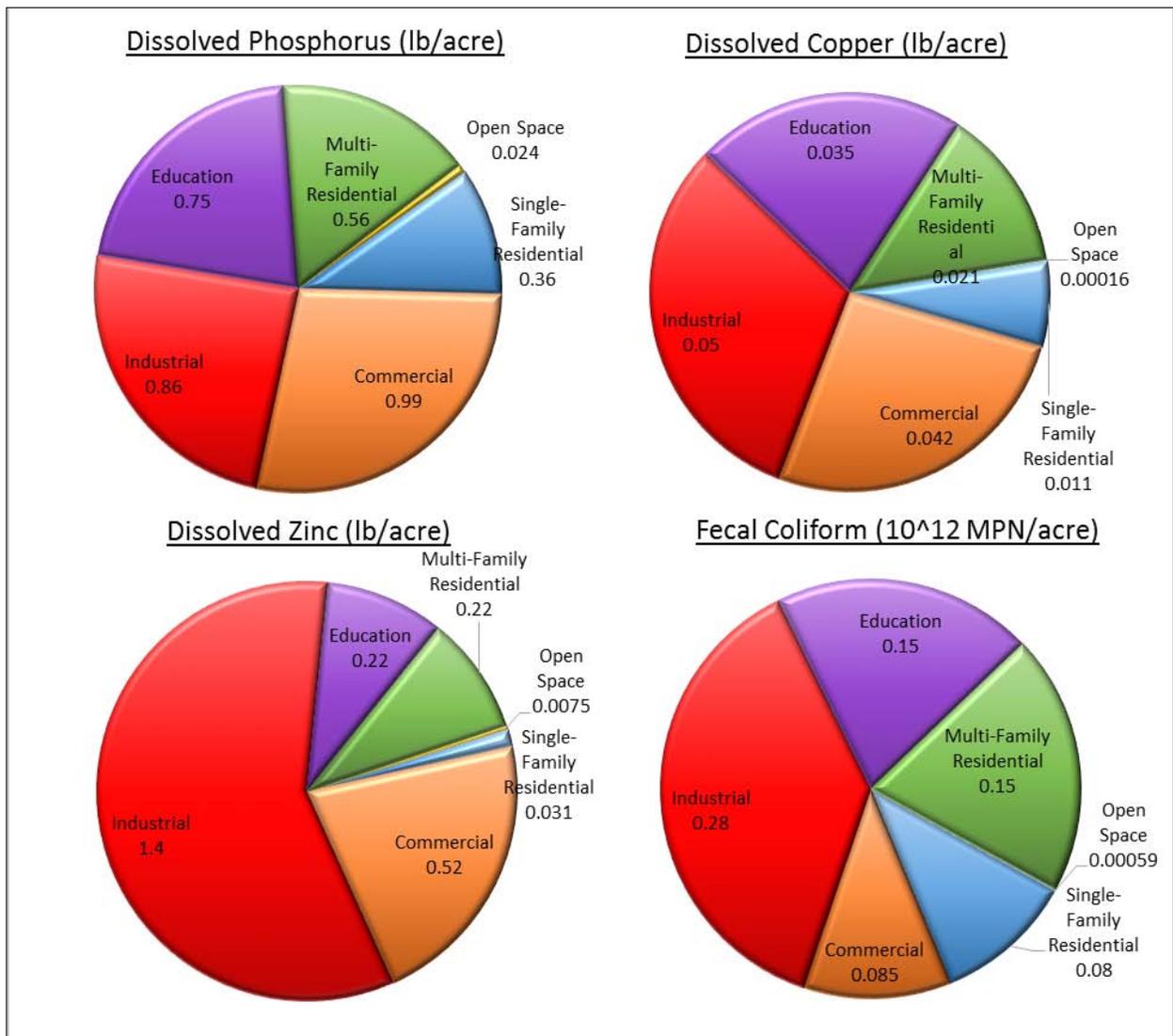


Figure 4. Average Annual Pollutant Loads per Acre for MS4 Permit Area by Land Use

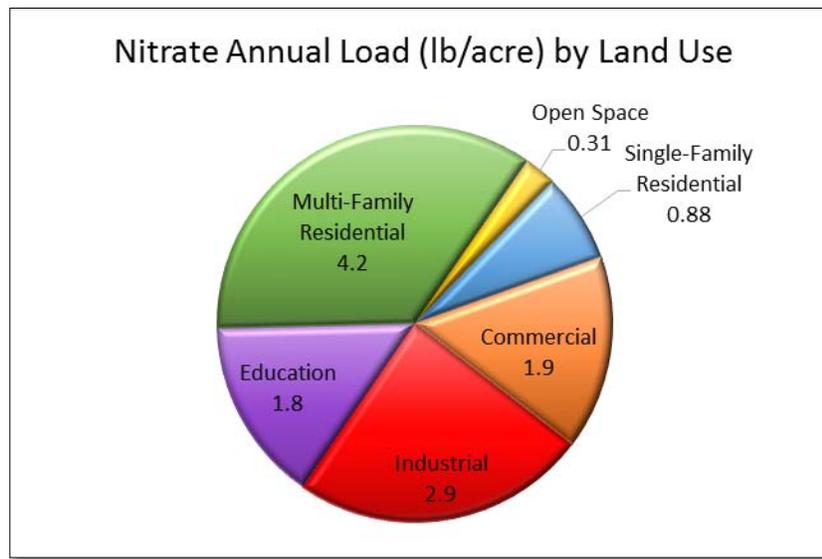


Figure 5. Average Annual Pollutant Loads per Acre for MS4 Permit Area by Land Use (for Nitrate)

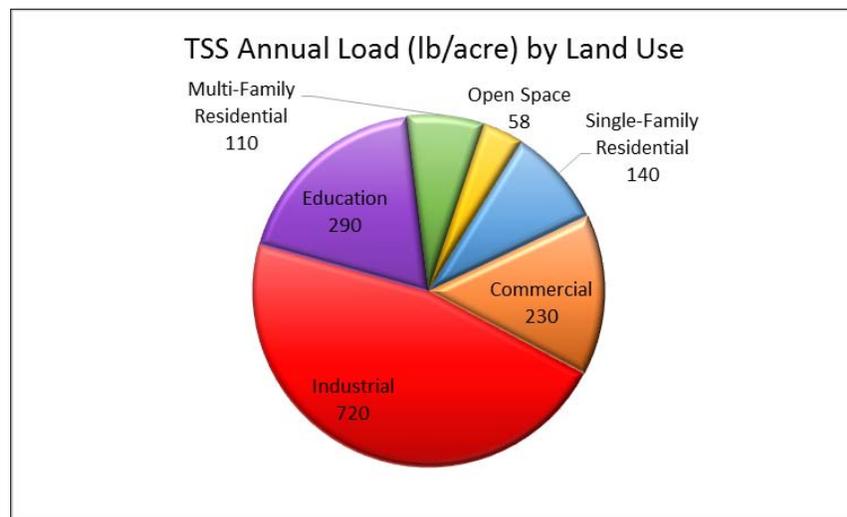


Figure 6. Average Annual Pollutant Loads per Acre for MS4 Permit Area by Land Use (for TSS)

3.1.2 Baseline Loads for Santa Ynez Watershed

The City of Buellton MS4 Permit area is located within the Santa Ynez Watershed, as shown in Figure A-18 in Appendix A. The LPRM analyzed the average annual baseline pollutants loads within the entire watershed, including a breakdown of contributions from MS4 and non-MS4 areas. Results for this watershed analysis are displayed in Figure 7 through Figure 9. These charts show that the City of Buellton’s pollutant loading contributions to the Santa Ynez watershed are minor, ranging from 1-2 percent of the total watershed pollutant loads. Therefore, BMPs implemented by the City of Buellton will only have a minor impact on the total watershed load. In general, agriculture is the most significant contributor of dissolved phosphorus (41%),

dissolved copper (32%), fecal coliform (42%), and nitrate (68%). Open space is the most significant contributor of dissolved zinc (43%) and TSS (59%) loads to the watershed.

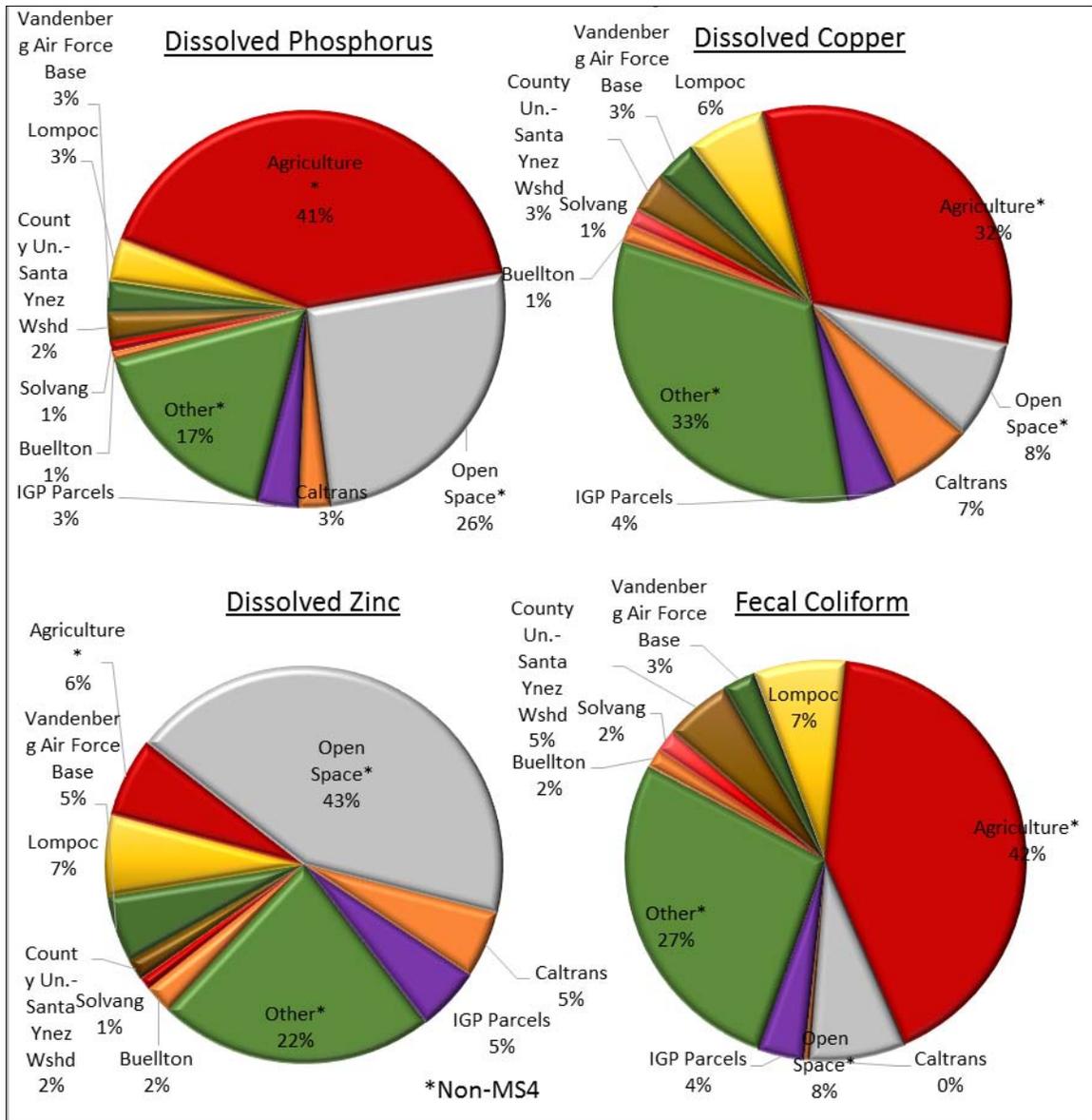


Figure 7. Percent of Average Annual Pollutant Load by MS4 Jurisdictions and non-MS4 Land Use (Santa Ynez watershed)

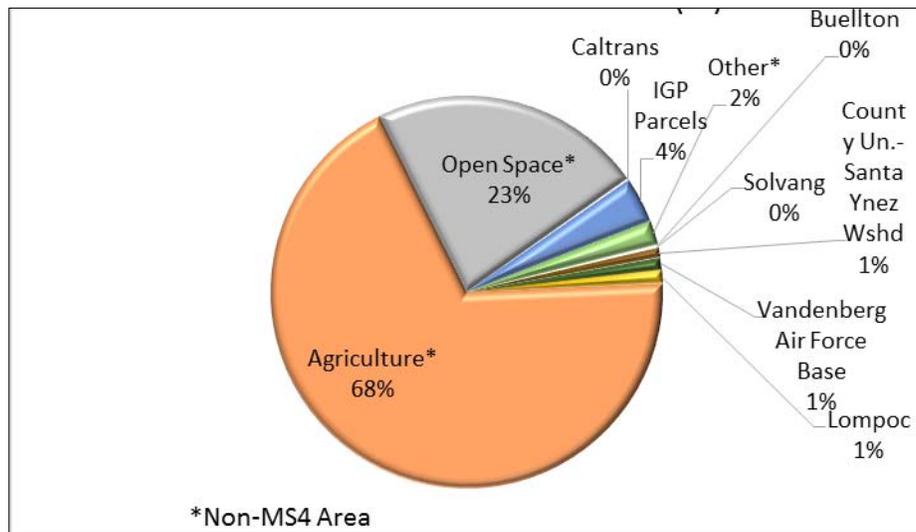


Figure 8. Percent of Average Annual Pollutant Load by MS4 Jurisdictions and non-MS4 Land Use (Santa Ynez watershed) (for nitrate)

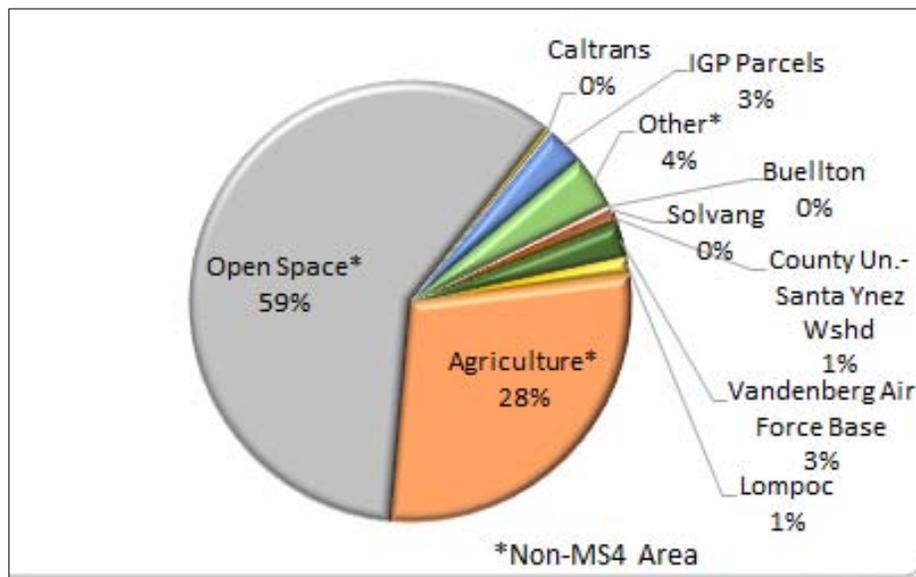


Figure 9. Percent of Average Annual Pollutant Load by MS4 Jurisdictions and non-MS4 Land Use (Santa Ynez watershed) (for TSS)

3.2 Prioritization

The LPRM also produces results for catchment prioritization, which reflect the relative magnitude of pollutant loading (per unit area) by catchment and illustrate the priority among catchments for certain types of BMP implementation. Catchment prioritization index (CPI) scores were developed for individual pollutants and multiple pollutants weighted based on priority. For the multiple pollutant weighting, pollutants that are identified on the State’s 303(d)

list or have an applicable TMDL for the water body in question are assigned a higher priority. The weighting value for water body-pollutant combinations with a 303(d)-listing is 2, water body-pollutant combinations with an approved TMDL have a weighting factor of 3, and all other priority pollutants have a weight factor of 1 (i.e., no adjustment to the pollutant-specific CPI). CPI scores range from one to five in order to easily compare scores among catchments, with one representing smaller loads per unit area and five representing larger loads per unit area. Details of the catchment prioritization process are included in the PEAIIP Approach to Quantify Pollutant Loads and Pollutant Load Reductions Memorandum (Geosyntec, 2015b). Pollutant weight factors for the City of Buellton are shown in Table 8.

Table 8. Priority Pollutant Weights for Catchment Prioritization

Pollutant	Weight Factor
Dissolved Phosphorus	3
Dissolved Copper	1
Dissolved Zinc	1
Fecal Coliform	1

The overall CPI scores by catchment for the MS4 Permit area, with priority pollutants weighted based on watershed-specific priorities are illustrated in Figure 10. Maps reflecting pollutant CPI scores for individual priority pollutants and TSS are included in Appendix A.

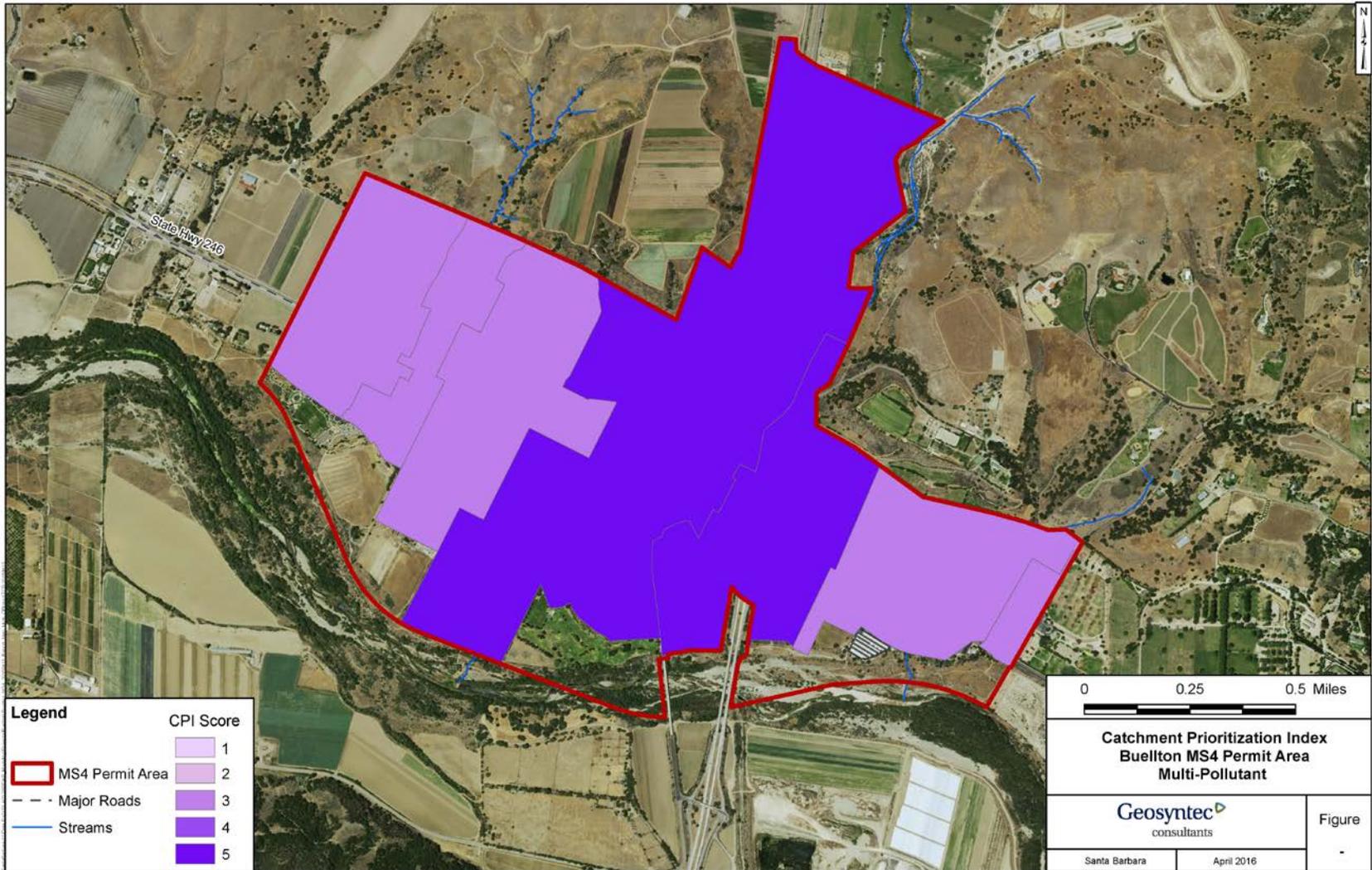


Figure 10. Multi-Pollutant CPI Map

3.3 BMP Load Reductions

The LPRM evaluates anticipated average annual runoff volume and pollutant load reductions resulting from implementation of BMPs within the MS4 Permit area. Figure 11 through Figure 15 illustrate the average annual baseline load and the average annual load after BMP implementation has occurred through a given year, after accounting for reductions achieved by previously implemented BMPs (i.e., to prevent double counting), and the breakdown of load reduction by BMP type for the priority pollutants. Load reductions reflecting all pollutants analyzed by the LPRM are included in Appendix A.

These plots illustrate the portion of the annual baseline load that has been reduced by BMP implementation and which BMP type is achieving the greatest anticipated load reductions. The jurisdiction may perform a cost-benefit analysis to compare the cost of implementation of different BMPs with the anticipated load reduction, in order to implement the most cost-effective BMPs.

The load reduction in dissolved copper was achieved by the brake pad phase-out legislation BMP, while the other non-quantified non-structural (CBSM) BMP provided the load reduction for bacteria. It is anticipated that future redevelopment will contribute to load reductions in dissolved phosphorus and dissolved zinc in future implementation years.

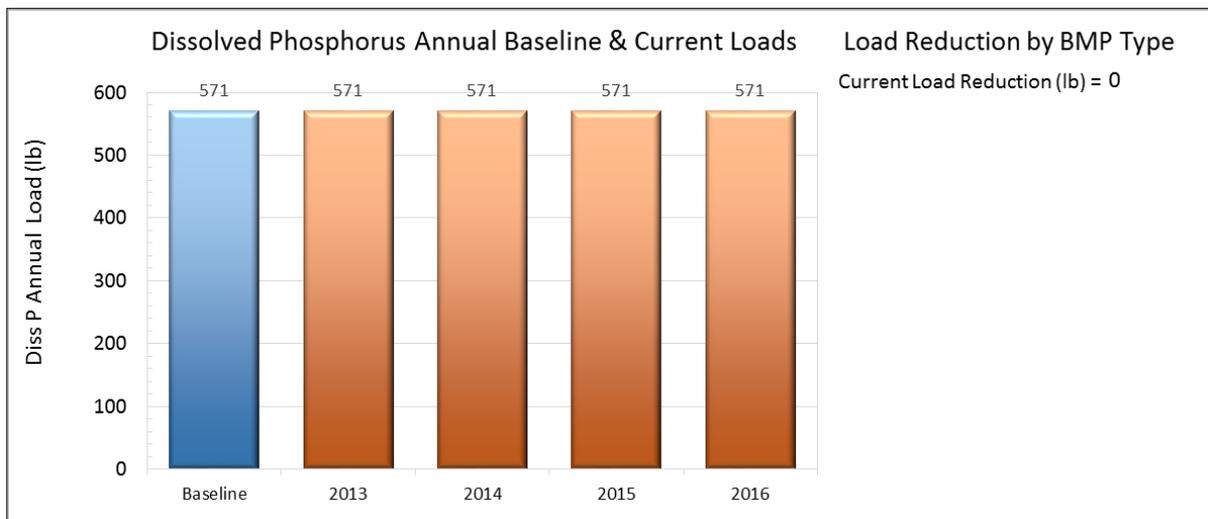


Figure 11. Dissolved Phosphorus Annual Loads and Reductions

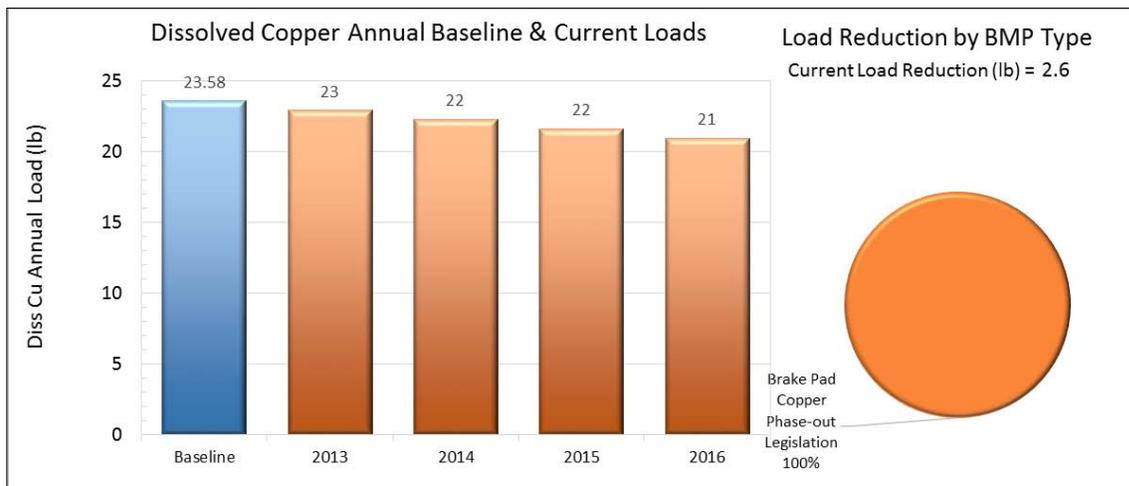


Figure 12. Dissolved Copper Annual Loads and Reductions

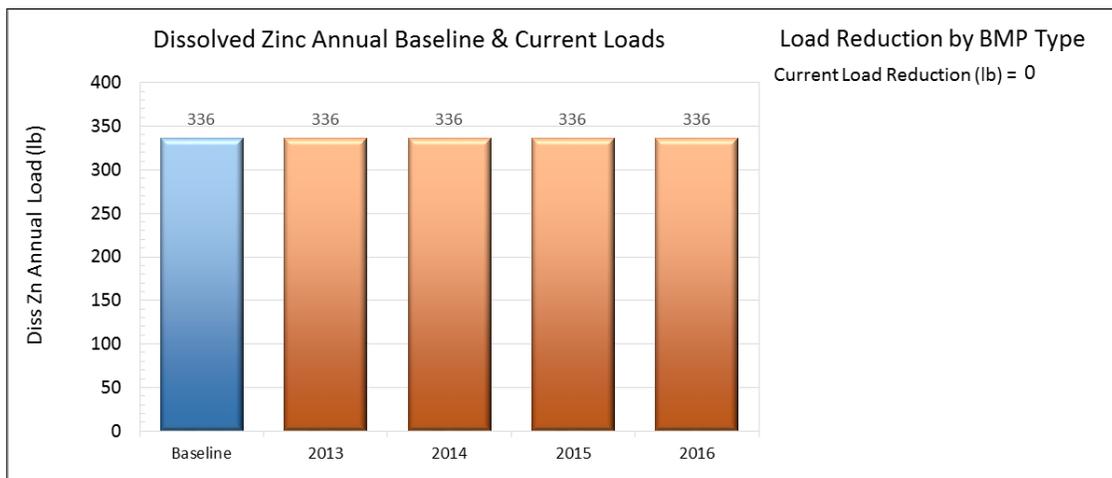


Figure 13. Dissolved Zinc Annual Loads and Reductions

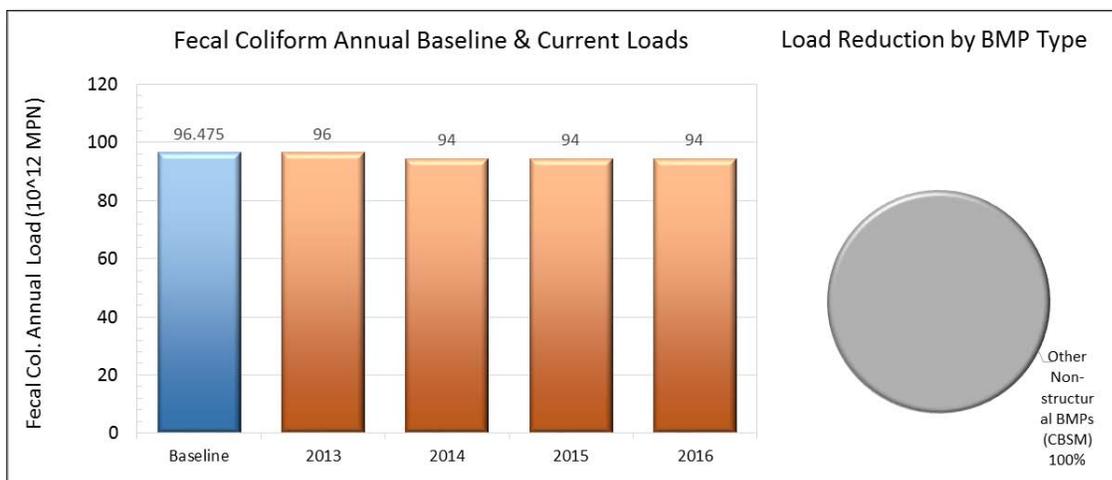


Figure 14. Fecal Coliform Annual Loads and Reductions

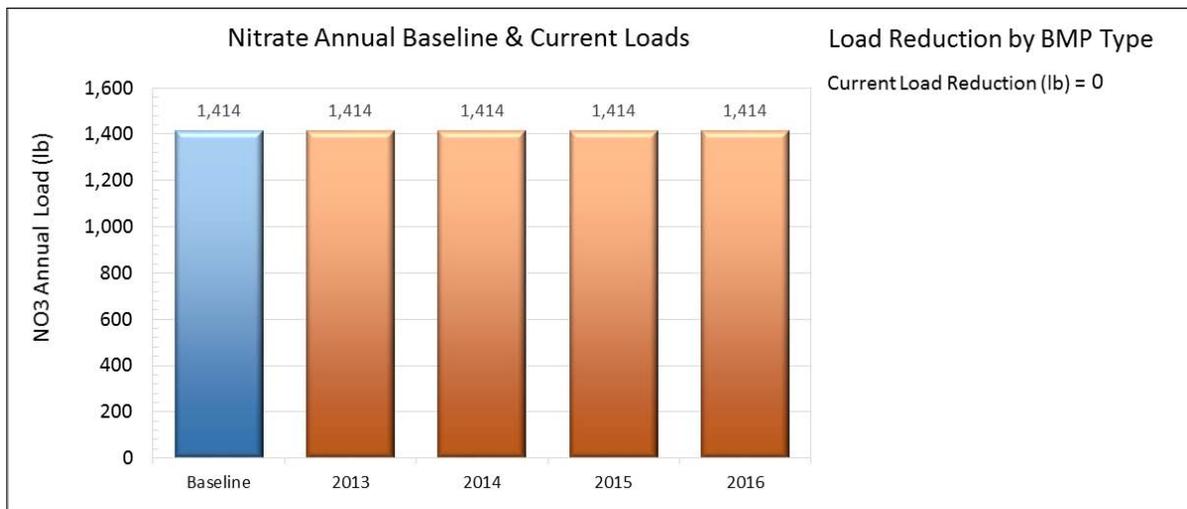


Figure 15. Nitrate Annual Loads and Reductions

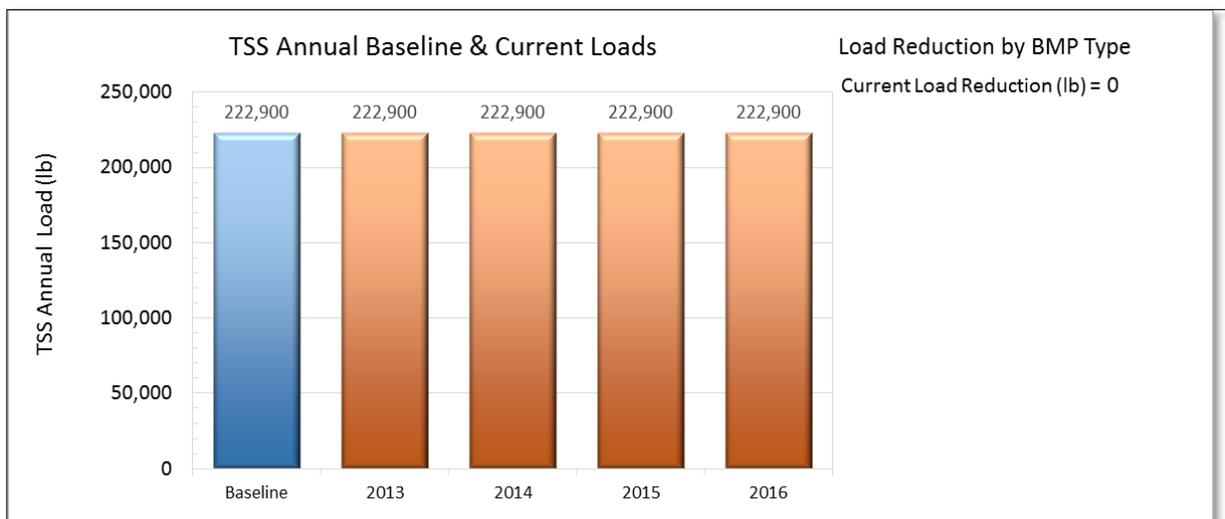


Figure 16. TSS Annual Loads and Reductions

3.4 Long-Term Planning

The LPRM can be used as a planning tool in addition to a BMP implementation tracking tool. It is anticipated that, in the future, other non-structural BMPs may be added and structural retrofit opportunities may be sought (e.g., through state grant funding), potentially resulting in a load reduction chart such as Figure 17.

The assumptions modeled for this **example hypothetical BMP implementation scenario** in the City of Goleta over the next 20 years, include:

- Redevelopment was implemented on all applicable land uses, using estimated annual redevelopment rates developed for the Los Angeles region (shown in Table 9).

Table 9. Estimated Annual Redevelopment Rates (City of Los Angeles Bureau of Sanitation, 2012)

Land Use	Annual Redevelopment Rate (% of total land use area)
Residential	0.18
Commercial	0.15
Industrial	0.34
Education	0.16
Transportation	2.7

- A structural infiltration-based BMP (infiltration basin) was modeled with a drainage area of 100 acres, 50 acres of single-family residential land use and 50 acres of commercial land use. It was assumed that the infiltration basin would capture 80 percent of the influent runoff volume and result in a 100 percent volume reduction of captured runoff. It was assumed that the infiltration basin was completed 15 years from now.
- The implementation of non-structural BMPs which do not have quantified reductions are modeled for the entire MS4 Permit area, assuming their combined benefit results increase each year to an estimated 10 percent reduction of all pollutant loads in 20 years from now.

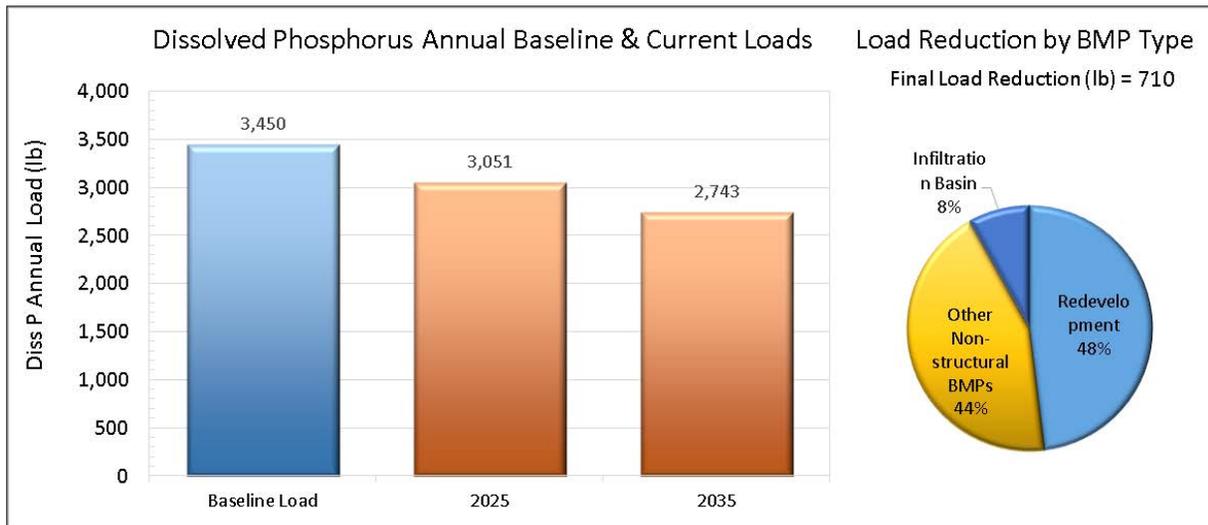


Figure 17. Dissolved Phosphorus Annual Loads and Reductions

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Appendix A – Supplemental Results

A.1 Baseline Loading

The average annual baseline loadings within the Buellton MS4 Permit area for all pollutants analyzed by the LPRM are shown in Table A-10.

Table A-10. Average Annual Baseline Loading for All Pollutants for the MS4 Permit area

Pollutant	Average Annual Baseline Load
Runoff (cu ft)	32,250,000
Total Suspended Solids - TSS (lb)	222,900
Total Phosphorus - Tot P (lb)	762
Dissolved Phosphorus – Diss P (lb)	571
Ammonia – NH3 (lb)	1,710
Nitrate – NO3 (lb)	1,414
Total Kjeldahl Nitrogen –TKN (lb)	6,133
Dissolved Copper – Diss Cu (lb)	24
Total Copper – Tot Cu (lb)	56
Total Lead – Tot Pb (lb)	24
Dissolved Zinc – Diss Zn (lb)	336
Total Zinc – Tot Zn (lb)	493
Fecal Coliform (10 ¹² MPN)	96

Table A-11 shows the distribution of the average annual baseline loads per land use acre for all pollutants, illustrating which land uses are generating the greatest pollutant loading per unit area.

Table A-11. Average Annual Baseline Loading per Acre for the MS4 Permit Area by Land Use for All Pollutants

Land Use	Runoff	TSS	Tot P	Diss P	NH3	NO3	TKN	Diss Cu	Tot Cu	Tot Pb	Diss Zn	Tot Zn	Fecal Col.
	cu ft/acre	lb/acre	10 ¹² MPN										
Single-Family Residential	18,000	140	0.45	0.36	0.55	0.88	3.3	0.011	0.021	0.013	0.031	0.081	0.08
Commercial	55,000	230	1.4	0.99	4.1	1.9	12	0.042	0.11	0.042	0.52	0.81	0.085
Industrial	53,000	720	1.3	0.86	2	2.9	9.5	0.05	0.11	0.054	1.4	1.8	0.28
Education	46,000	290	0.86	0.75	1.1	1.8	4.9	0.035	0.057	0.01	0.22	0.34	0.15
Transportation													
Multi-Family Residential	45,000	110	0.65	0.56	1.4	4.2	5.1	0.021	0.034	0.013	0.22	0.35	0.15
Agriculture													
Open Space	4,300	58	0.032	0.024	0.029	0.31	0.26	0.0002	0.0028	0.0008	0.0075	0.007	0.0006

The City of Buellton MS4 Permit area is located within the Santa Ynez watershed, as shown in Figure A-18. Average annual baseline loading within the Santa Ynez watershed, including a breakdown of contributions from MS4 and non-MS4 areas, is shown in Table A-12 for all pollutants.

Table A-12. Average Annual Baseline Watershed Loading for All Pollutants

Area	Runoff	TSS	Tot P	Diss P	NH3	NO3	TKN	Diss Cu	Tot Cu	Tot Pb	Diss Zn	Tot Zn	Fecal Col.
	cu ft	lb	lb	lb	lb	lb	lb	lb	lb	lb	lb	lb	10 ¹² MPN
Buellton MS4 Area	1%	0%	1%	1%	2%	0%	1%	1%	1%	1%	2%	2%	2%
Other MS4 Permit Areas	9%	5%	7%	9%	15%	3%	12%	15%	9%	12%	15%	14%	17%
Agriculture*	7%	28%	56%	41%	38%	68%	30%	32%	35%	34%	6%	27%	42%
Open Space*	69%	59%	19%	26%	24%	23%	37%	8%	35%	32%	43%	25%	7.7%
Caltrans	1%	0%	2%	3%	1%	0%	1%	7%	3%	2%	5%	4%	0%
IGP Parcels	2%	3%	4%	3%	4%	4%	3%	4%	3%	3%	5%	5%	4%
Other*	11%	4%	12%	17%	16%	2%	15%	33%	15%	16%	22%	22%	27%
Total Watershed	5.07E+09	8.1E+07	136,724	77,267	99,428	1,155,554	560,049	1,613	6,627	2,057	14,288	23,118	6,211

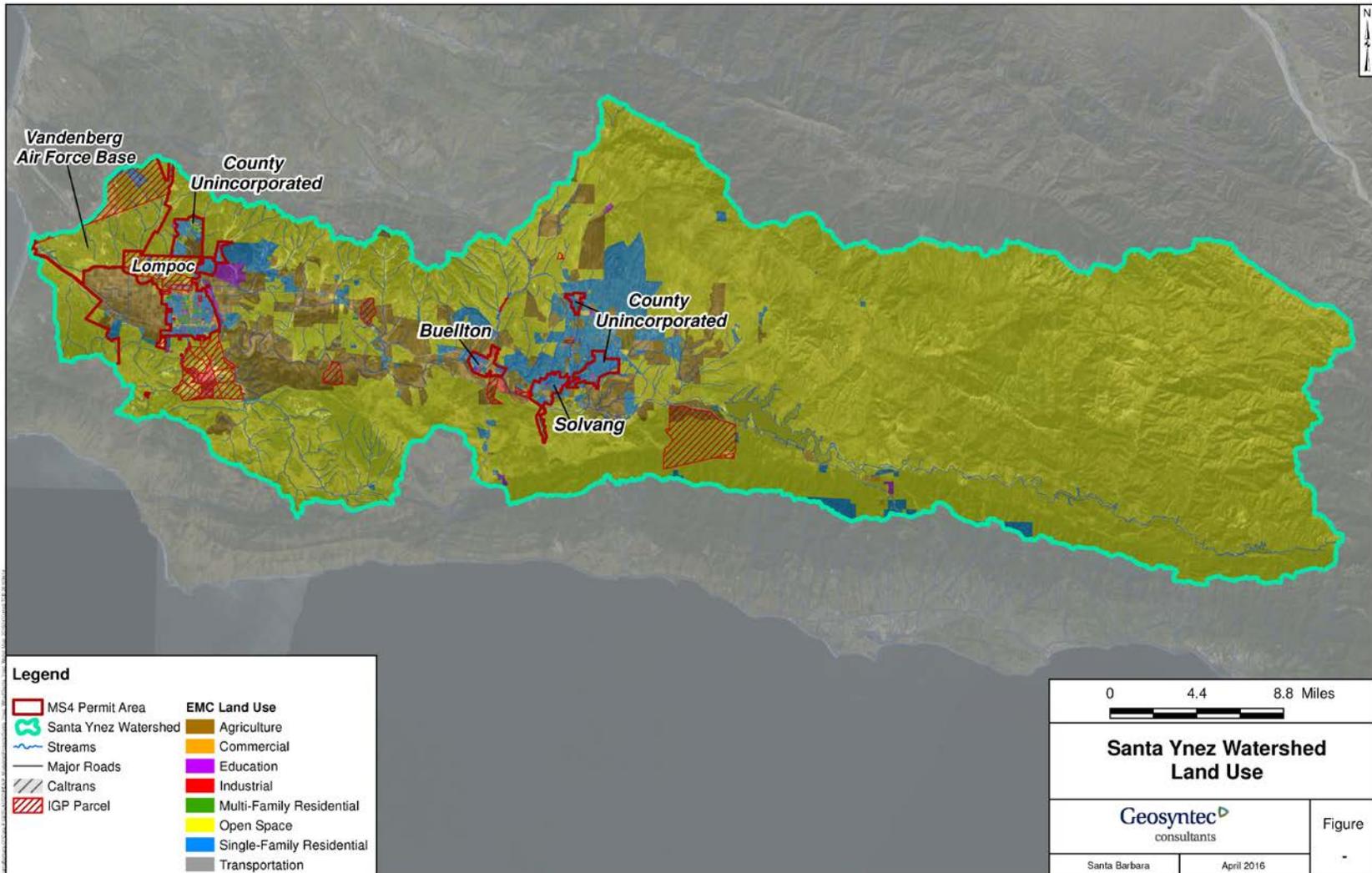


Figure A-18. Santa Ynez Watershed

A.2 Prioritization

The LPRM produces catchment prioritization results for individual pollutants. Estimated annual baseline loads are used to develop pollutant catchment prioritization index (PCPI) scores that represent the relative magnitude of pollutant loading per unit area in each catchment. These PCPI scores for priority pollutants are displayed in Figure A-19 through Figure A-24.

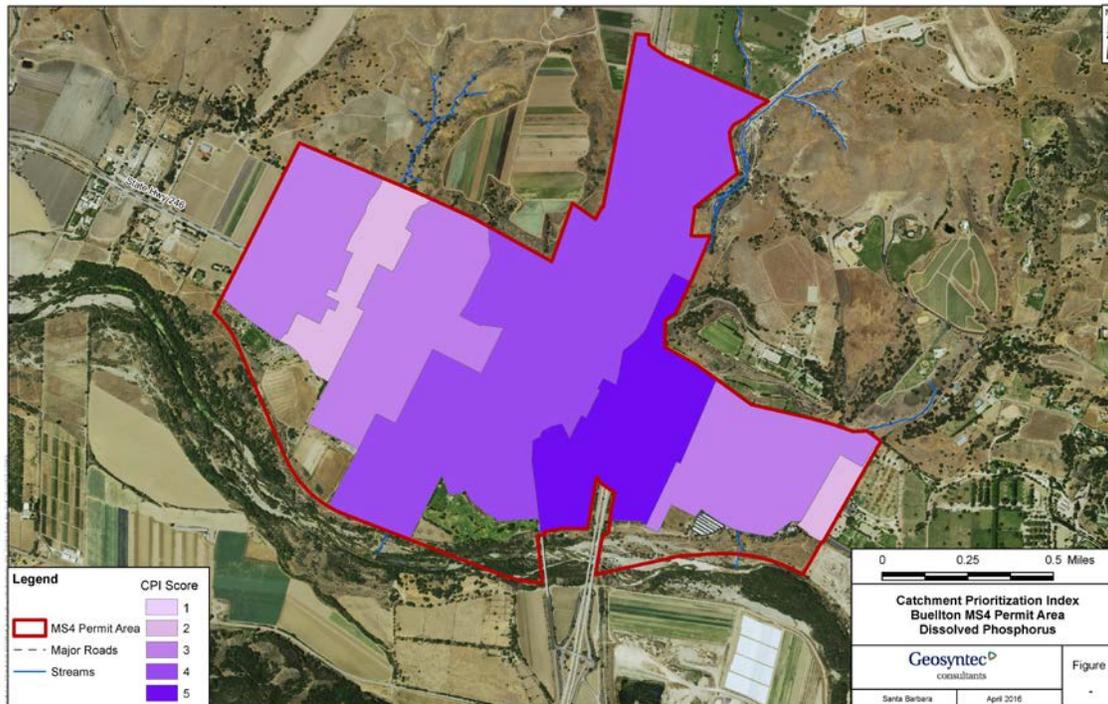


Figure A-19. CPI Scores for Dissolved Phosphorus

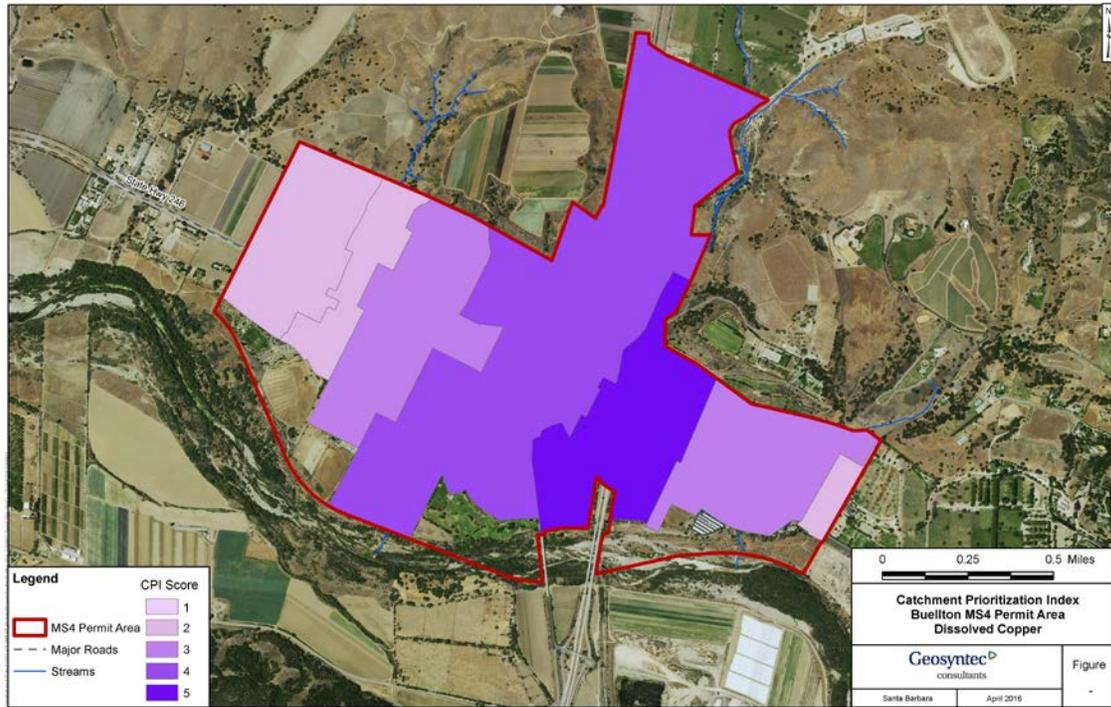


Figure A-20. CPI Scores for Dissolved Copper

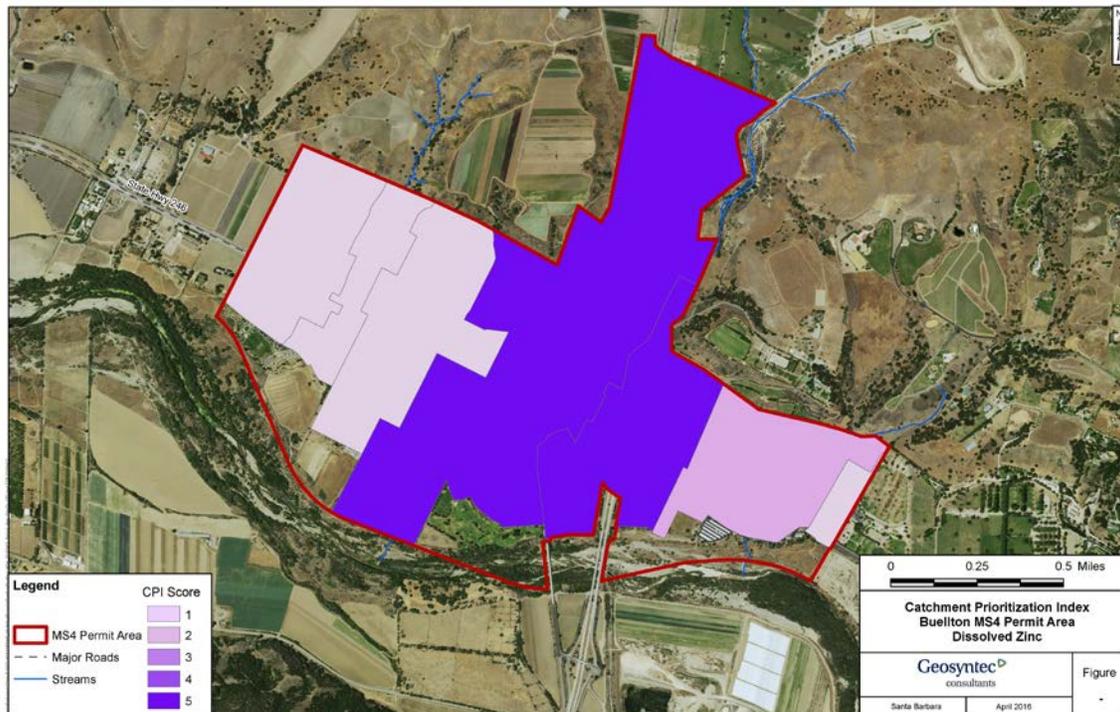


Figure A-21. CPI Scores for Dissolved Zinc

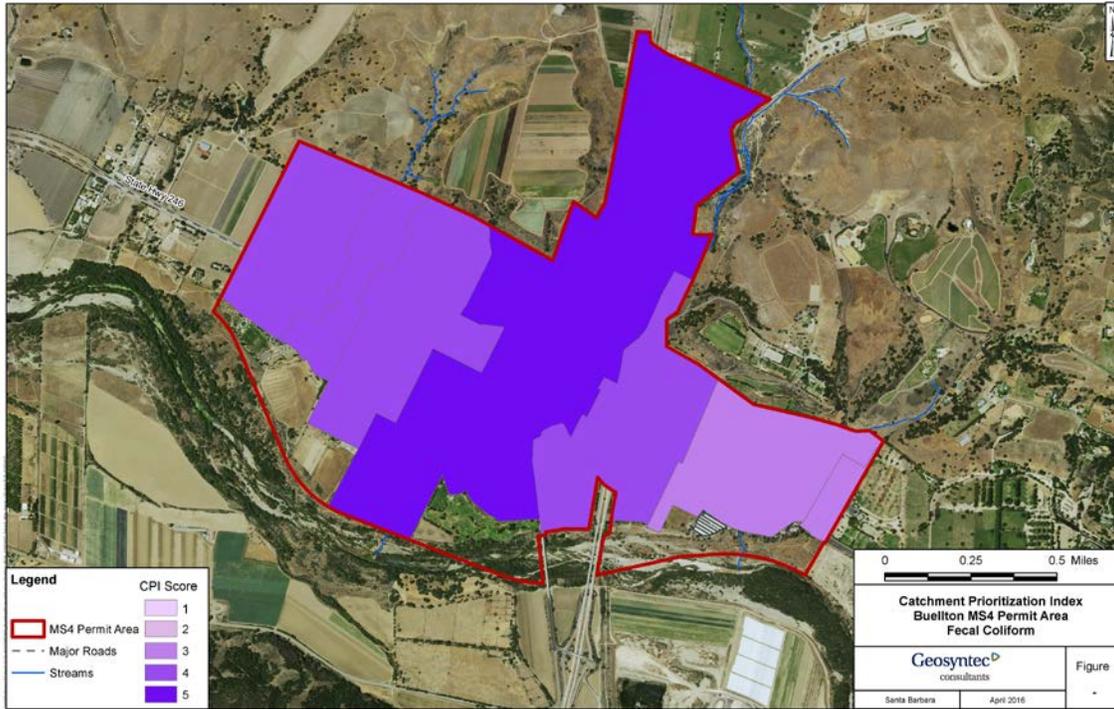


Figure A-22. CPI Scores for Fecal Coliform

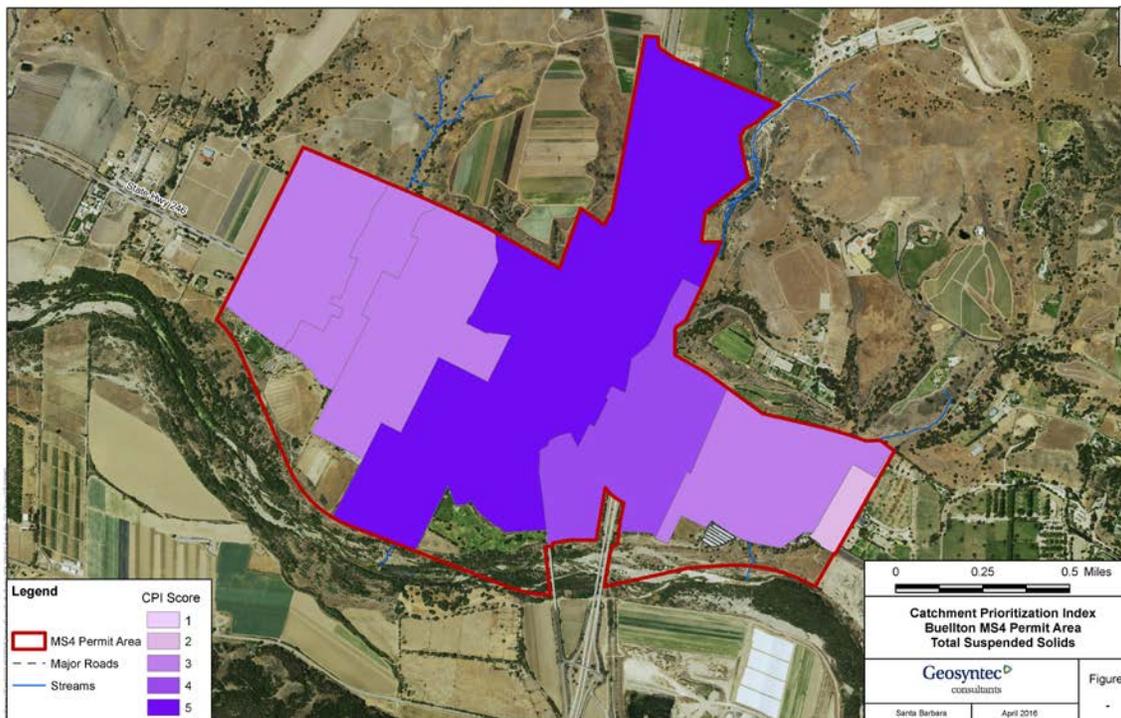


Figure A-23. CPI Scores for TSS

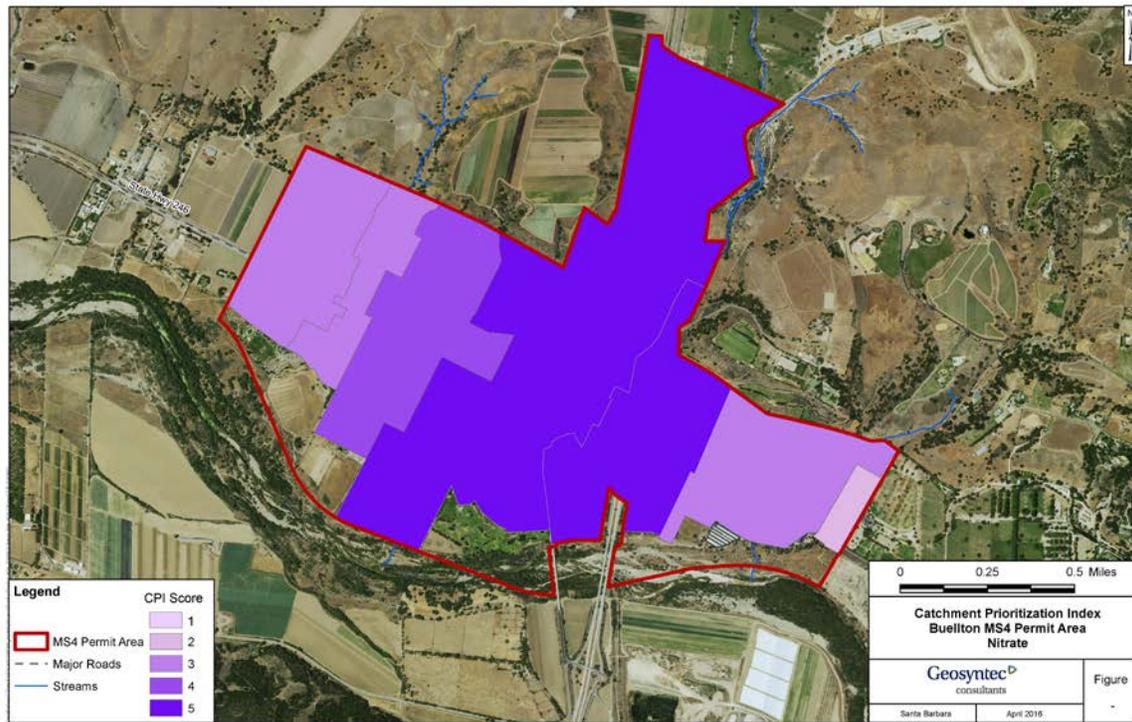


Figure A-24. CPI Scores for Nitrate

A.3 Reductions

Anticipated runoff volume and pollutant load reductions achieved by implementation of BMPs within the MS4 Permit area are evaluated by the LPRM. Table A-13 shows annual baseline and current loads, after subtracting reductions achieved by BMPs, for all pollutants analyzed. Table A-14 shows the current load reductions achieved by each BMPs implemented for all pollutants analyzed.

Table A-13. Total Load Reduction for All Pollutants

Load	Runoff	TSS	Tot P	Diss P	NH3	NO3	TKN	Diss Cu	Tot Cu	Tot Pb	Diss Zn	Tot Zn	Fecal Col.
	cu ft	lb	lb	lb	lb	lb	lb	lb	lb	lb	lb	lb	10 ¹² MPN
Baseline	32,250,000	222,900	762	571	1,710	1,414	6,133	23.58	55.52	23.69	336	493	96.475
Reduction								2.6	6.1				2
% Reduction	0%	0%	0%	0%	0%	0%	0%	11.0%	11.0%	0%	0%	0%	2.1%
Current	32,250,000	222,900	762	571	1,710	1,414	6,133	20.98	49.42	23.69	336	493	94.475
Current Load by Year													
2013	32,250,000	222,900	762	571	1,710	1,414	6,133	23	54	24	336	493	96
2014	32,250,000	222,900	762	571	1,710	1,414	6,133	22	52	24	336	493	94
2015	32,250,000	222,900	762	571	1,710	1,414	6,133	22	51	24	336	493	94
2016	32,250,000	222,900	762	571	1,710	1,414	6,133	21	49	24	336	493	94

Table A-14. BMP Load Reductions for All Pollutants

BMP Type	Runoff	TSS	Tot P	Diss P	NH3	NO3	TKN	Diss Cu	Tot Cu	Tot Pb	Diss Zn	Tot Zn	Fecal Col.
	cu ft	lb	lb	lb	lb	lb	lb	lb	lb	lb	lb	lb	10 ¹² MPN
Redevelopment													
Brake Pad Copper Phase-out Legislation								2.6	6.1				
Other Non-structural BMPs (CBSM)													2.0

Appendix B – Supplemental Model Input Data

B.1 Inside MS4 Permit Area

Table B-15. Typical Imperviousness and EMC Land Use Groups based on Land Use¹

Land Use	Imperviousness (%)	EMC Land Use Group
GENERAL COMMERCIAL	91	Commercial
INDUSTRIAL	88	Industrial
LOW DENSITY RESIDENTIAL	21	Single-Family Residential
MEDIUM DENSITY RESIDENTIAL	42	Single-Family Residential
MULTI- FAMILY RESIDENTIAL	74	Multi-Family Residential
OPEN SPACE_PARKS and RECREATION	5	Open Space
PUBLIC_QUASI-PUBLIC	75	Education
SERVICE COMMERCIAL	91	Commercial

¹ Some values of imperviousness and EMC land use classifications were adjusted based on visual inspection of aerial imagery or knowledge of the area.

B.2 Outside MS4 Permit Area

Table B-16. Land Use and Imperviousness in the County of Santa Barbara (outside MS4 Permit area)

Land Use	EMC Land Use	Imperviousness (%)
Air Force Base	Varies based on aerial imagery	Varies based on aerial imagery
APARTMENTS, 5 OR MORE UNITS	Multi-Family Residential	74
AUDITORIUMS, STADIUMS	Commercial	91
AUTO SALES, REPAIR, STORAGE, CAR WASH, ETC	Commercial	91
BANKS, S&LS	Commercial	91
BEACHES, SAND DUNES	Open Space	1
BED AND BREAKFAST	Multi-Family Residential	74
BOWLING ALLEYS	Commercial	91
CAMPS, CABINS	Open Space	2
CHURCHES, RECTORY	Education	82
CLUBS, LODGE HALLS	Education	47
COLLEGES	Education	47
COMMERCIAL (MISC)	Commercial	91
COMMERCIAL AND OFFICE CONDOS,PUDS	Commercial	91
CONDOS,COMMUNITY APT PROJS	Multi-Family Residential	86
DAIRIES	Agriculture	42

Land Use	EMC Land Use	Imperviousness (%)
DANCE HALLS	Commercial	91
DAY CARE	Education	68
DEPARTMENT STORES	Commercial	95
DRIVE-IN THEATRES	Commercial	91
DRY FARMS (MISC)	Open Space	1
FEED LOTS	Agriculture	2
FIELD CROPS-IRRIGATED	Agriculture	2
FIELD CROPS, DRY	Open Space	1
FLOWERS	Agriculture	2
GOLF COURSES	Open Space	3
HEAVY INDUSTRY	Industrial	90
HIGHWAYS AND STREETS	Transportation	91
HORSES	Agriculture	42
HOSPITALS	Commercial	74
HOTELS	Multi-Family Residential	96
INDUSTRIAL CONDOS,PUDS	Industrial	80
INDUSTRIAL, MISC	Industrial	80
INSTITUTIONAL (MISC)	Education	82
IRRIGATED FARMS, MISC	Agriculture	2
LIGHT MANUFACTURING	Industrial	80
LUMBER YARDS, MILLS	Industrial	91
MINERAL PROCESSING	Industrial	10
MINING	Industrial	10
MISCELLANEOUS	Open Space	2
MIXED USE-COMMERCIAL/RESIDENTIAL	Commercial	82
MOBILE HOME PARKS	Multi-Family Residential	74
MOBILE HOMES	Multi-Family Residential	74
MORTUARIES,CEMETERIES,MAUSOLEUMS	Education	10
NURSERIES,GREENHOUSES	Agriculture	15
OFFICE BUILDINGS, MULTI-STORY	Commercial	91
OFFICE BUILDINGS, SINGLE STORY	Commercial	91
OPEN STORAGE, BULK PLANT	Commercial	40
ORCHARDS	Agriculture	2
ORCHARDS, IRRIGATED	Agriculture	2
OTHER FOOD PROCESSING, BAKERIES	Commercial	91
PACKING PLANTS	Industrial	91
PARKING LOTS	Transportation	91
PARKS	Open Space	1
PASTURE-IRRIGATED	Agriculture	2

Land Use	EMC Land Use	Imperviousness (%)
PASTURE OF GRAZING, DRY	Open Space	1
PETROLEUM AND GAS	Industrial	91
PIPELINES,CANALS	Water	100
POULTRY	Industrial	91
PROFESSIONAL BUILDINGS	Commercial	91
PUBLIC BLDGS,FIREHOUSES,MUSEUMS,POST OFFICES,ETC	Commercial	91
RACE TRACKS, RIDING STABLES	Agriculture	42
RANCHO ESTATES (RURAL HOME SITES)	Single-Family Residential	12
RECREATION	Education	10
RECREATIONAL OPEN (MISC)	Open Space	1
RESIDENTIAL INCOME, 2-4 UNITS	Multi-Family Residential	74
REST HOMES	Education	80
RESTAURANTS,BARS	Commercial	91
RETAIL STORES, SINGLE STORY	Commercial	96
RIGHTS OF WAY,SEWER,LAND FILLS,ETC	Open Space	1
RIVERS AND LAKES	Water	100
SCHOOLS	Education	82
SERVICE STATIONS	Commercial	91
SHOPPING CENTERS (NEIGHBORHOOD)	Commercial	91
SHOPPING CENTERS (REGIONAL)	Commercial	95
SINGLE FAMILY RESIDENCE	Single-Family Residential	42
STORE AND OFFICE COMBINATION	Commercial	91
SUPERMARKETS	Commercial	91
TREE FARMS	Agriculture	2
TRUCK CROPS-IRRIGATED	Agriculture	2
UTILITY,WATER COMPANY	Industrial	91
VACANT	Open Space	1
VINES AND BUSH FRUIT-IRRIGATED	Agriculture	2
VINEYARDS	Agriculture	2
WAREHOUSING	Industrial	91
WASTE	Industrial	96
WATER RIGHTS,PUMPS	Industrial	91
WHOLESALE LAUNDRY	Commercial	91
TRANSPORTATION	Transportation	91



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Storm Water Pollutant Load Model – Results for the City of Solvang MS4 Permit Area

Solvang, CA

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1. Introduction

The Load, Prioritization, and Reduction Model (LPRM) was developed to aid the participating agencies within the County of Santa Barbara (Cities of Goleta, Carpinteria, Solvang, and Buellton, and the County of Santa Barbara) in:

- Quantifying average annual existing (baseline) pollutants loads from rainfall occurring in the MS4 Permit area;
- Prioritizing catchments for BMP implementation; and
- Estimating the anticipated load reductions resulting from implementation of the Program Effectiveness Assessment and Improvement Plans (PEAIPs).

The LPRM fulfills the requirements specified by the 2013 California Phase II General Municipal Separate Storm Sewer System (MS4) Permit (MS4 Permit) and the July 25, 2014, Central Coast Regional Water Quality Control Board (Regional Board) “Effectiveness Assessment and Monitoring” guidance letter. A discussion of the modeling approach and the default model values are included in the PEAIP Approach to Quantify Pollutant Loads and Pollutant Load Reductions (Geosyntec, 2015a). The PEAIP LPRM Guidance Document Memorandum (Geosyntec, 2015b) describes the model organization, how users can add new BMPs and extract model results for future annual reports, how to modify model defaults, and how model calculations are performed.

This report summarizes the LPRM inputs and results for the PEAIP implementation through 2015.

1.1 MS4 Permit Area

The MS4 Permit regulates discharges from the storm drain system of designated municipalities, referred to as the MS4 discharges. The City of Solvang is located in Santa Barbara County, and the MS4 Permit area encompasses approximately 2.4 square miles (Figure 1). The MS4 Permit area is a relatively small portion of the Santa Ynez watershed, whose runoff is mostly from open space and agriculture. The Solvang MS4 permit area is grouped into 8 land uses, including single family residential (60%), open space (18%), multi-family residential (6.4%), commercial (6.0%), agriculture (3.6%) education (3.2%), and transportation (2.7%).

Runoff from highway 246, which runs through the center of the MS4 permit area, is covered under the Caltrans MS4 permit and is therefore not the responsibility of the City of Solvang. Therefore, all the Caltrans areas have been removed from this analysis. The City of Solvang is also not responsible for discharges from Industrial General Permit (IGP) parcels, which are covered under a separate IGP permit, so these parcels are also removed from the analysis of the MS4 permit area.

1.2 Overview of Model Features

The LPRM utilizes spatial data from GIS, including land use and soil data, to estimate runoff volume and pollutant loading for modelable pollutants¹. Specifically, the major output features of the LPRM are as follows:

- Quantification of average annual baseline loads from the MS4 Permit area, for runoff volume and up to 15 pollutants;
- Prioritization of catchments (and land uses), based on pollutant contributions and jurisdictional pollutant priorities, for BMP implementation; and
- Estimation of anticipated runoff volume and pollutant load reductions achieved by BMP implementation since 2013.

¹ As discussed in the PEAIIP Approach to Quantify Pollutant Loads and Pollutant Load Reductions Memo, the first step in modeling exercise was to identify pollutants for which land use event mean concentration data existed. These pollutants were called modelable pollutants.

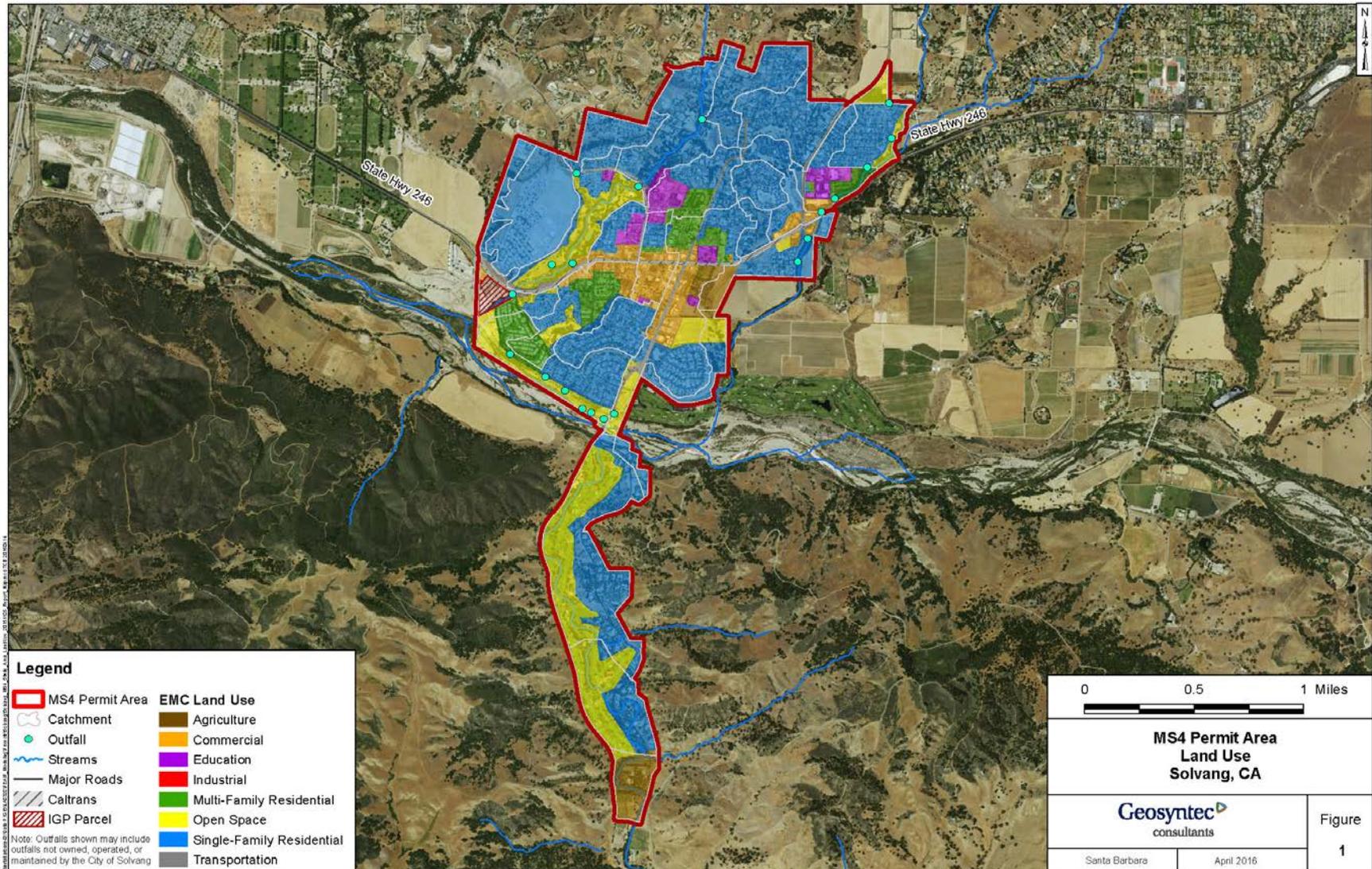


Figure 1. MS4 Permit Area

2. Model Inputs

The PEAIIP Approach to Quantify Pollutant Loads and Pollutant Load Reductions Memo discusses the default datasets and inputs required for the LPRM. The sections below are intended to describe variations from the default datasets in the used in the LPRM and inputs selected for the LPRM; as well as provide context for these changes and selections. Several default datasets for the LPRM have not been modified from what was described in the Memo, including:

- Modelable pollutants;
- Pervious runoff coefficients by hydrologic soil group;
- Land use pollutant EMCs;
- Priority pollutants (i.e., dissolved phosphorus, dissolved copper, dissolved zinc, and fecal coliform); and
- Weighting factors for computing multi-pollutant CPI scores

2.1 Soils

The soil data, a SSURGO database acquired from the Natural Resources Conservation Service (United States Department of Agriculture), was characterized by hydrologic groups (A, B, C, or D), to help define the runoff potential of each soil type in the PLRM (Figure 2). Hydrologic soil group A is defined by a high saturated hydraulic conductivity (i.e., high infiltration potential) and therefore has low runoff potential. Alternatively, hydrologic soil group D has high runoff potential and low saturated hydraulic conductivity. In areas where the SSURGO database did not provide a hydrologic soil group, the average pervious runoff coefficient of the four soil groups (0.075) was used.

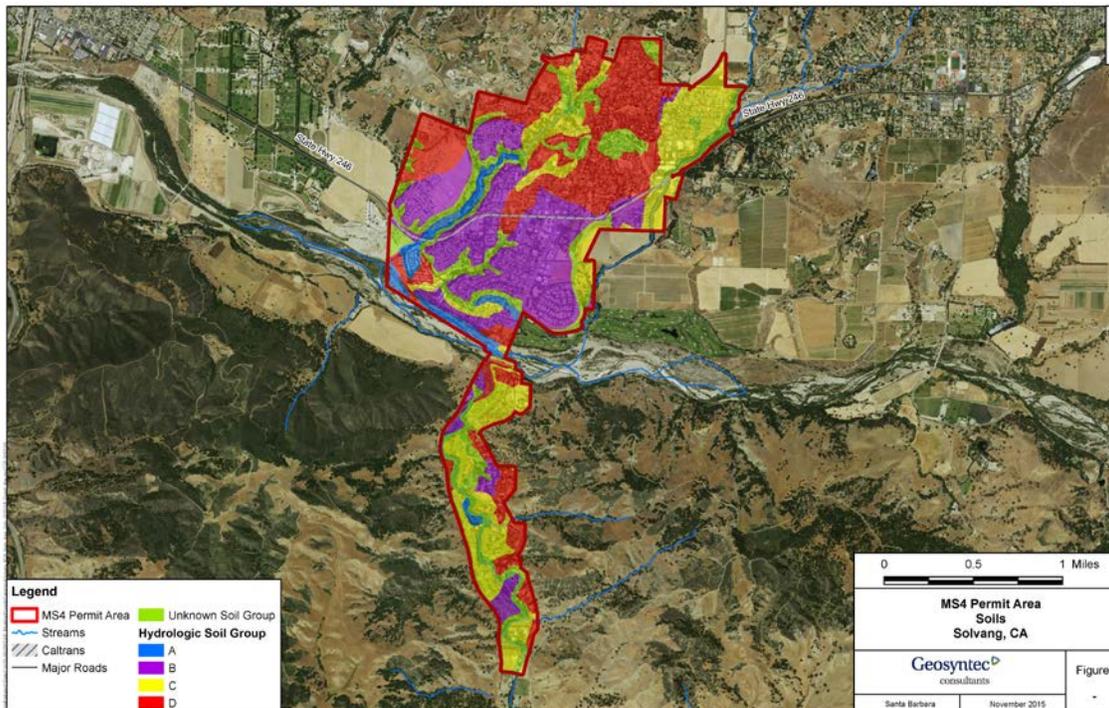


Figure 2. MS4 Permit Area Soils

2.2 Land Use EMC Groups Imperviousness

The City of Solvang’s general land use categories covering the MS4 Permit area contained varying and unique descriptors which were more detailed than the eight EMC land use groups used in the LPRM. Table B-15 shows how these general land use categories were initially classified into the eight land use EMCs for the LPRM. This table also shows percent imperviousness values for the detailed land uses developed based on available literature, including Los Angeles County Hydrology Manual land use imperviousness used as defaults in SBPAT (Geosyntec, 2012) and values determined for Ventura County and used in the Draft Santa Clara River Indicator Bacteria TMDL Implementation Plan (County of Ventura, 2015). Using this detailed land use dataset accounts for the variation in percent impervious values throughout each specific land use and provides results more representative of the modeled area.

Additionally, to calculate watershed loads, EMC land use groups and imperviousness were needed for area outside the MS4 permit area, but within the watershed. Table B-16 in Appendix B shows how EMC land use groups and average imperviousness were assigned to the parcel dataset downloaded from the County of Santa Barbara GIS Catalog (County of Santa Barbara, 2015), which was used to classify land use within the County of Santa Barbara but outside of the participating agencies MS4 Permit areas (i.e., for use in watershed analyses).

All EMC land use and imperviousness classifications shown in Appendix B served as a starting point for determining input to the LPRM. Adjustments were made to both land use EMC groups and imperviousness based on visual observation of aerial imagery or local knowledge of the area.

2.3 Precipitation Data

A rainfall station was selected for each area that was in close proximity and contained at least 30 years of data in the Period of Record (POR) (Figure 3). Historical rainfall data was downloaded from the County of Santa Barbara Public Works Department² for Buellton Fire Station, Goleta Fire Station #14, and Carpinteria Fire Station. The average annual rainfall depth (calculated from the total water year depths over the POR) was calculated and each jurisdictional area (and watershed) was assigned an average annual rainfall depth based on proximity to each of the three gages (Table 1).

Table 1. Selected Rainfall Station Information

Rainfall Station	Station #	Jurisdictions Influenced	Annual Precipitation Depth (inches)				Period of Record (years)
			Average	Median	Min	Max	
Buellton Fire Station #31	233	Buellton, Solvang, and County Unincorporated - North County	16.8	14.7	5.9	41.6	61
Goleta Fire Station #14	440	Goleta and County Unincorporated - South County	18.5	16.5	6.9	47.9	74
Carpinteria Fire Station	208	Carpinteria and County Unincorporated - South	19.2	17.3	5.8	51.5	67

² <http://cosb.countyofsb.org/pwd/pwwater.aspx?id=3790>



Figure 3. Rainfall Stations and MS4 Permit Areas

2.4 Hydrologic Calibration

Since the runoff coefficient is determined using an empirical formula that does not account for site-specific conditions, a calibration was performed to adjust the runoff coefficients. The calibration compared the LPRM calculated annual discharge volumes to streamflow gage observed annual discharge volumes in Atascadero Creek. The selected streamflow gauge is in the Goleta Slough watershed, a predominately urban drainage area, with nearly 30 years of data. This comparison was conducted for years with greater than 4,000 ac-ft of measured streamflow, which minimized error while also analyzing an adequate number of years (12). The runoff coefficients in the LPRM are adjusted based on a constant factor to minimize the overall difference between the observed and predicted annual volumes, which was determined to be 1.03.

2.5 BMPs Modeled

The LPRM is capable of quantifying the anticipated wet weather pollutant load reductions achieved by a variety of BMPs that could be implemented within the MS4 Permit area. BMP performance for BMPs implemented since 2013 have been evaluated and are presented herein. PEAIIP BMP implementation by the City of Solvang since 2013 can be grouped into three categories for modeling. These categories, redevelopment (Section 2.5.1), brake pad copper

phase-out legislation (Section 2.5.2), and other non-quantifiable non-structural BMPs (Section 2.5.3), are discussed below. Non-quantifiable non-structural BMPs include programs that target wet weather pollutant sources to the MS4; however, sufficient data do not exist to model pollutant load reductions from these programs separately. Therefore, a percent reduction is assumed for these programs based on best professional judgement, as outlined in Section 2.5.3.

2.5.1 Redevelopment

Redevelopment projects are subject to the 2013 Post-Construction Stormwater Management Performance Requirements for Development Projects in the Central Coast Region (PCRs), based on the area of net impervious surface that the project creates and/or replaces. These PCRs require³ that:

1. Projects that create and/or replace 2,500 or more square feet of net impervious surface - provide site design and runoff reduction;
2. Projects that create and/or replace 5,000⁴ or more square feet of net impervious surface - implement LID standards that capture and treat the runoff volume from the project site produced during the 85th percentile 24-hour storm event;
3. Projects that create and/or replace 15,000 or more square feet of net impervious surface - implement stormwater control measures that capture and retain on site the runoff volume from the project site produced during the 95th percentile 24-hour storm event; or
4. Projects that create and/or replace 22,000 or more square feet of net impervious surface - implement stormwater control measures to control peak flows to not exceed pre-project flows for the 2-year through 10-year events.

Therefore, over time, the measures implemented by these projects will result in pollutant load reductions from the MS4 Permit area relative to existing conditions. Redevelopment projects that implement post-construction requirements may be entered into the LPRM as they are completed.

To model the average percent capture of annual stormwater runoff volume⁵ associated with post construction projects that trigger Performance Requirement No. 2, the following steps were taken:

- A LID BMP was sized to capture runoff from the 85th percentile 24-hour storm for one parcel of each applicable land use (single-family residential, multi-family residential, commercial, industrial, and education) and for two assumed hydrologic soil types (A and D), which takes into account the typical imperviousness for each land use group and a range of potential soil conditions (i.e., infiltration capacity).

³ All preceding (i.e., less stringent requirements) are also required for the larger projects

⁴ Excluding detached single family houses

⁵ To keep the modeling assumptions and scenarios simpler and more straightforward a volume-based full treatment option (i.e., no infiltration) was evaluated as an alternative to the flow-through treatment option.

- Each BMP was modeled in EPA’s Storm Water Management Model (SWMM) over an average rainfall year to determine the percentage of annual runoff captured by each land use and soil combination-specific LID BMP.
- The percent capture results for both land use-soil combinations (i.e., commercial-soil type A and commercial-soil type D) were averaged to determine an average percent capture for each land use.

The average percent capture values for each land use from the above analysis are incorporated into the LPRM and represent the percentage of annual runoff from redevelopment parcels that will be captured and treated by LID BMPs (Table 2).

Table 2. Modeled Percent Capture for Projects Triggering Performance Requirement #2 (sized to 85th percentile event) by Land Use

Land Use	% Capture
Residential	86%
Commercial	89%
Industrial	88%
Education	88%
Transportation	89%

The portion of runoff volume that is not captured (and instead bypasses) is assumed to have the same effluent concentration as the influent concentration. Since project-specific details and constraints related to infiltration are unknown (e.g., soils not conducive to infiltration, limited depth to groundwater), the LPRM provides three types of projects for the user to select in regards to treatment vs. infiltration:

- 1) Infiltration: 100 percent of the captured volume is infiltrated through the BMP, and therefore completely removed from the discharge;
- 2) Infiltration and Treatment: 50 percent of the captured volume is infiltrated through the BMP and 50 percent is not infiltrated, thus requiring treatment and discharge (flow-through treatment); and
- 3) Treatment: 100 percent of the captured volume is treated and discharged (flow-through treatment).

In the LPRM, the percentage that is captured and infiltrated is completely removed from the discharge and therefore an effluent concentration is not required. For the remaining percentage that is treated and discharged (for project types 2 and 3 above), the anticipated effluent

concentration of a biofilter (representing bioretention with underdrains)⁶ is applied to this volume based on mean values from the International Stormwater BMP Database (Geosyntec, 2012). The effluent concentrations selected are shown in Table 3.

Table 3. Redevelopment LID Project Effluent Concentrations

TSS	Tot P	Diss P	NH3	NO3	TKN	Diss Cu	Tot Cu	Tot Pb	Diss Zn	Tot Zn	Fecal Col.
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	#/100mL
18.1	0.14	0.07	0.18	0.37	0.98	8.3	8.8	4.2	34.7	37.6	5,890

The LPRM calculates the pollutant load reductions achieved by redevelopment BMPs by finding the difference between the parcel (i.e., pre-BMP) runoff volume and pollutant loads and the post-BMP runoff volume and pollutant loads. Calculations are performed such that the BMP effluent concentration is not higher than the BMP influent concentration (i.e., implementation of a BMP cannot increase pollutant concentrations). If the effluent concentration is greater than the influent water quality concentration, then the post-BMP treated runoff concentration is set equal to the influent concentration for that pollutant.

The LPRM also supports a redevelopment BMP where the project is subject to Performance Requirement No. 3 (i.e., BMP sizing to retain the 95th percentile, 24-hour duration rainfall event). To model the average annual percent capture associated with these post-construction projects, the same steps outline above were followed. However, the LID BMP was instead sized to capture runoff from the 95th percentile, 24-hour storm event. The average annual percent capture by land use determined from the analysis, as shown in Table 4, is incorporated into the LPRM and represents the percentage of annual runoff from redevelopment parcels that will be captured and subject to runoff retention requirements. Instead of providing options for infiltration vs. treatment, this BMP assumes 100 percent infiltration, which completely removes the runoff volume from the discharge.

⁶ Effluent quality assigned to treat underdrain discharge is based on the better performing characteristics of the “media filter” and “bioretention” categories for each pollutant.

Table 4. Modeled Percent Capture for Projects Triggering Performance Requirement #3 (sized to 95th percentile event) by Land Use

Land Use	% Capture ⁷
Residential	100%
Commercial	100%
Industrial	100%
Education	100%
Transportation	100%

As of 2015, one redevelopment project that triggers the LID post construction requirements is in progress, however has not been completed. The estimated pollutant load reductions from this redevelopment project will be modeled in the year it is completed.

2.5.2 Brake Pad Copper Phase-out Legislation

The TDC Environmental study (TDC Environmental, 2013), discussed in the Modeling Approach Memo, identifies three possible implementation scenarios, the least aggressive of which estimates that a 55 percent load reduction in copper will be achieved by 2032 due to the brake pad phase out. Therefore, the LPRM assumes a 55 percent total load reduction for copper (total copper and dissolved copper) due to the elimination of copper in brake pads over a 20-year period from 2013 to 2032. This translates into a 2.75 percent load reduction in copper each year (assuming a linear reduction over the time period), as shown in Table 5. This is the only BMP currently supported by the model that requires input by the user on a yearly basis, in order to demonstrate gradual brake pad phase-out over a 20-year period. All other BMPs only need to be entered to the LPRM once to quantify general reductions (i.e., other non-structural BMPs [CBSM]) or once per new project implemented (i.e., redevelopment).

Table 5. Load Reduction from Brake Pad Copper Phase-out Legislation BMP

BMP Type	Diss Cu	Tot Cu
	lb	lb
Brake Pad Copper Phase-out Legislation	2.75%	2.75%

2.5.3 Other Non-quantifiable Non-structural BMPs (CBSM)

The Santa Barbara County jurisdictions recently implemented a Community Based Social Marketing (CBSM) program, which focuses on education and public outreach to dog owners.

⁷ These reductions are based on continuous simulation results for an average rainfall year (2003 was selected), however other "average" years or a longer, multi-year simulation period may result in less than 100% capture.

This program targets public awareness, behavioral changes, and sustainable control of pet waste at (and avoidance of) the “source”. Based on best professional judgment and consistent with other Southern California MS4 Permits, Reasonable Assurance Analysis modeling efforts have assumed a flat fixed percent reduction of 5-10% where data are lacking to support another value. This assumption is acceptable to Los Angeles and San Diego County Regional Boards. Therefore, the LPRM assumes a total five percent reduction in bacteria (fecal coliform) based on best professional judgement and Regional Board acceptance for this BMP, as shown in Table 6.

Table 6. Load Reduction per Year from Other Non-structural (CBSM) BMP (2013-2032)

BMP Type	Fecal Col.
	10 ¹² MPN
Other Non-structural BMPs (CBSM)	5%

3. Model Results

The LPRM is capable of modeling the following pollutants: total suspended solids, total and dissolved phosphorus, ammonia, nitrate, total kjeldahl nitrogen, dissolved and total copper, total lead, dissolved and total zinc, and fecal coliform. The City of Solvang results for the identified priority pollutants – dissolved phosphorus, dissolved copper, dissolved zinc, and fecal coliform (see PEAIP Approach to Quantify Pollutant Loads and Pollutant Load Reductions Memo for the basis of this pollutant prioritization) -- are presented in the following sections. Nitrate was also identified as a pollutant of concern, so results for nitrate are also presented in the following sections. Results for remaining pollutants modeled by the LPRM are included in Appendix A.

3.1 Baseline Loading

The LPRM produces average annual baseline loads (i.e., current conditions on the effective date of new MS4 Permit before the addition of new BMPs or enhancement of existing BMPs according to the PEAIP) for the MS4 Permit area, shown in Section 3.1.1. In addition, the LPRM estimates pollutant loading from the entire surrounding watershed in order to provide information on the relative contribution of the MS4 Permit area to the receiving waters. Results for watershed pollutant loads are included in Section 3.2.

3.1.1 Baseline Loads for the MS4 Permit Area

Results for average annual baseline loads of the four priority pollutants identified for the City of Solvang MS4 Permit area are shown in Table 7. Nitrate was also identified as a pollutant of concern, so results for nitrate are also included in the following sections. The total baseline watershed load is also included (to be discussed in subsequent sections).

Table 7. Average Annual Baseline Loads for Priority Pollutants

Pollutant	Average Annual MS4 Baseline Load	Average Annual Watershed Baseline Load
Dissolved Phosphorus (lb)	670	77,000
Dissolved Copper (lb)	24	1,600
Dissolved Zinc (lb)	140	14,000
Fecal Coliform (10 ¹² MPN)	120	6,200
Nitrate (lb)	2,500	1,200,000
TSS (lb)	252,700	4,300,000

Figure 4 through Figure 6 show the average annual baseline pollutant loads per acre for each of the EMC land uses within the MS4 Permit area. These plots illustrate which land uses are generating the greatest pollutant loading per unit area and they roughly reflect land use event mean concentrations (EMCs). However, other factors also contribute to loading by land use, most notably, imperviousness and the resultant runoff volume from a particular land use.

In general these charts show that transportation (high imperviousness), industrial (high imperviousness and EMCs) and commercial (high imperviousness and EMCs) land uses contribute the most significant pollutant loadings of nutrients and metals. Industrial (high imperviousness and EMC) provides the most significant bacteria loading, with the remaining bacteria load fairly distributed among other land uses. These charts, coupled with the land use map of the MS4 Permit area (Figure 1), can be utilized to target implementation of distributed structural BMPs or non-structural BMPs, since these are more cost-effectively sited by land use.

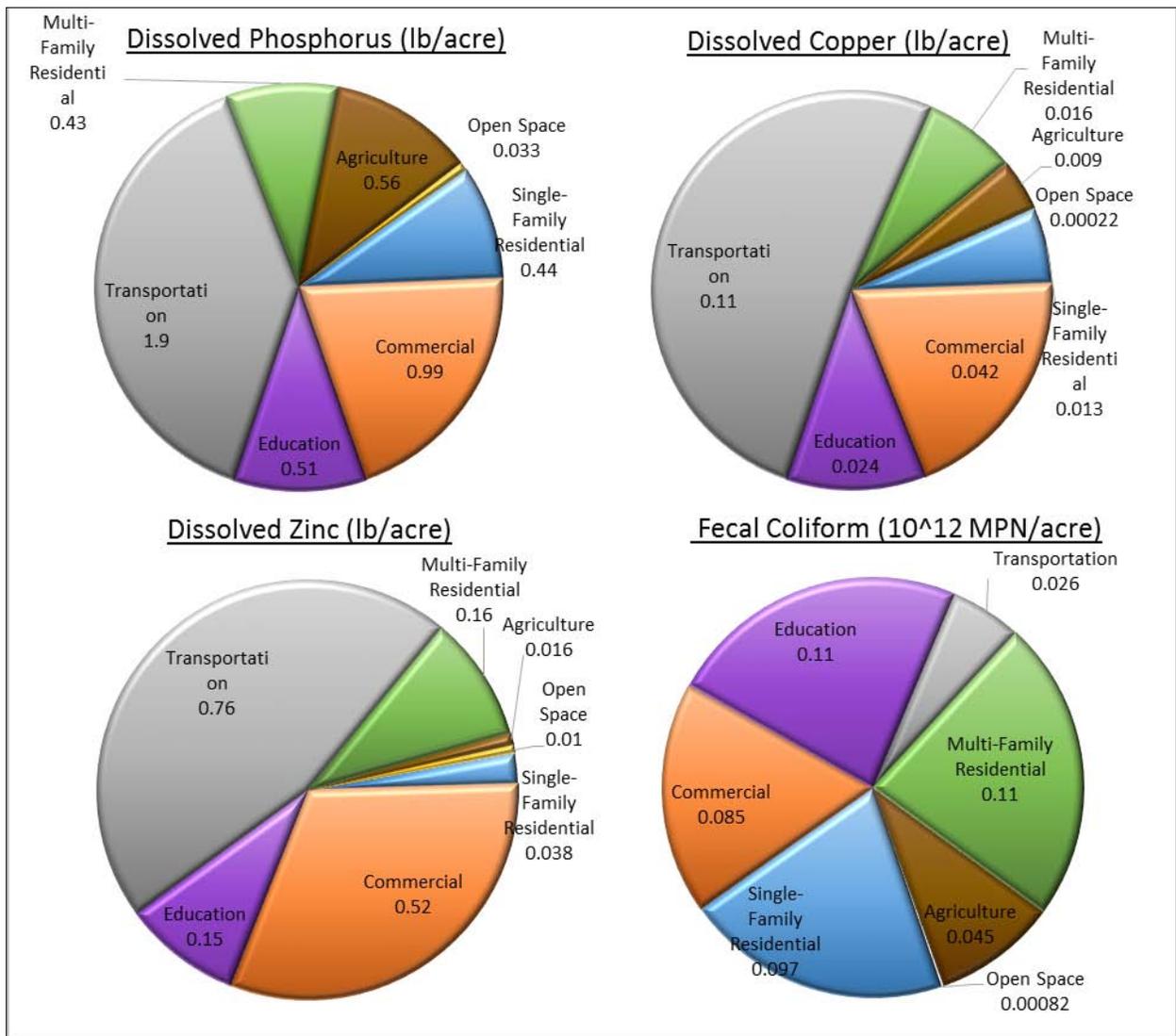


Figure 4. Average Annual Pollutant Loads per Acre for MS4 Permit Area by Land Use

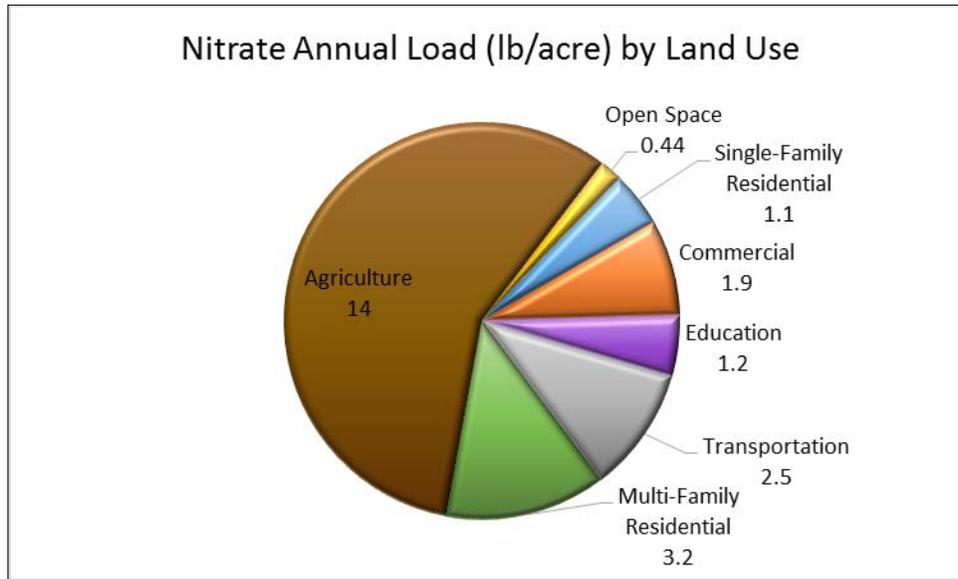


Figure 5. Average Annual Pollutant Load per Acre for MS4 Permit Area by Land Uses (Nitrate)

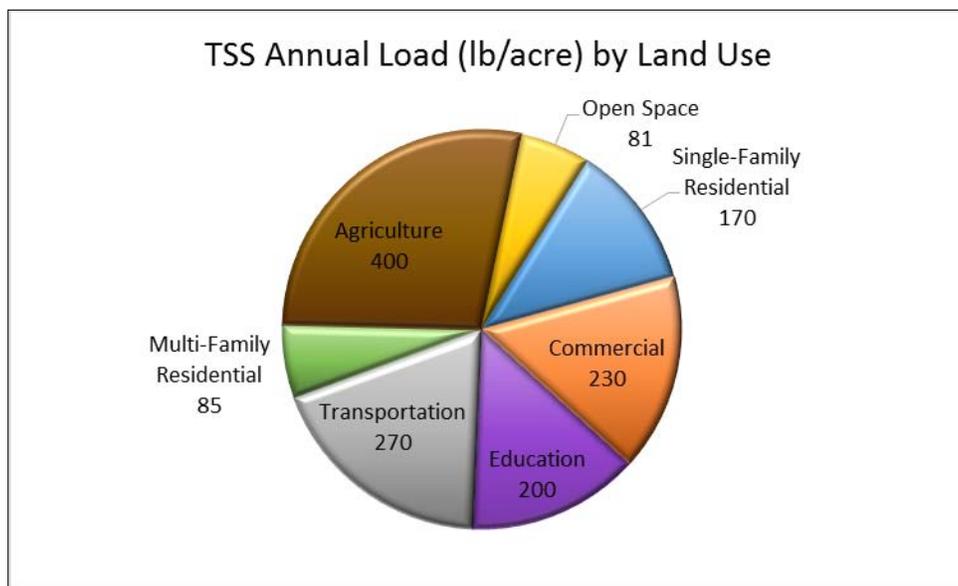


Figure 6. Average Annual Pollutant Load per Acre for MS4 Permit Area by Land Uses (TSS)

3.1.2 Baseline Loads for Santa Ynez Watershed

The City of Solvang MS4 Permit area is located within the Santa Ynez Watershed, as shown in Figure A-18 in Appendix A. The LPRM analyzed the average annual baseline pollutants loads within the entire watershed, including a breakdown of contributions from MS4 and non-MS4

areas. Results for this watershed analysis are displayed in Figure 7 through Figure 9. These charts show that the City of Solvang’s pollutant loading contributions to the Santa Ynez watershed are minor, ranging from 0-2 percent of the total watershed pollutant loads. Therefore, BMPs implemented by the City of Solvang will only have a minor impact on the total watershed load. In general, agriculture is the most significant contributor of dissolved phosphorus (41%), dissolved copper (32%), fecal coliform (42%), and nitrate (68%). Non-MS4 open space is the most significant contributor of dissolved zinc (43%) and TSS (59%) loads to the watershed.

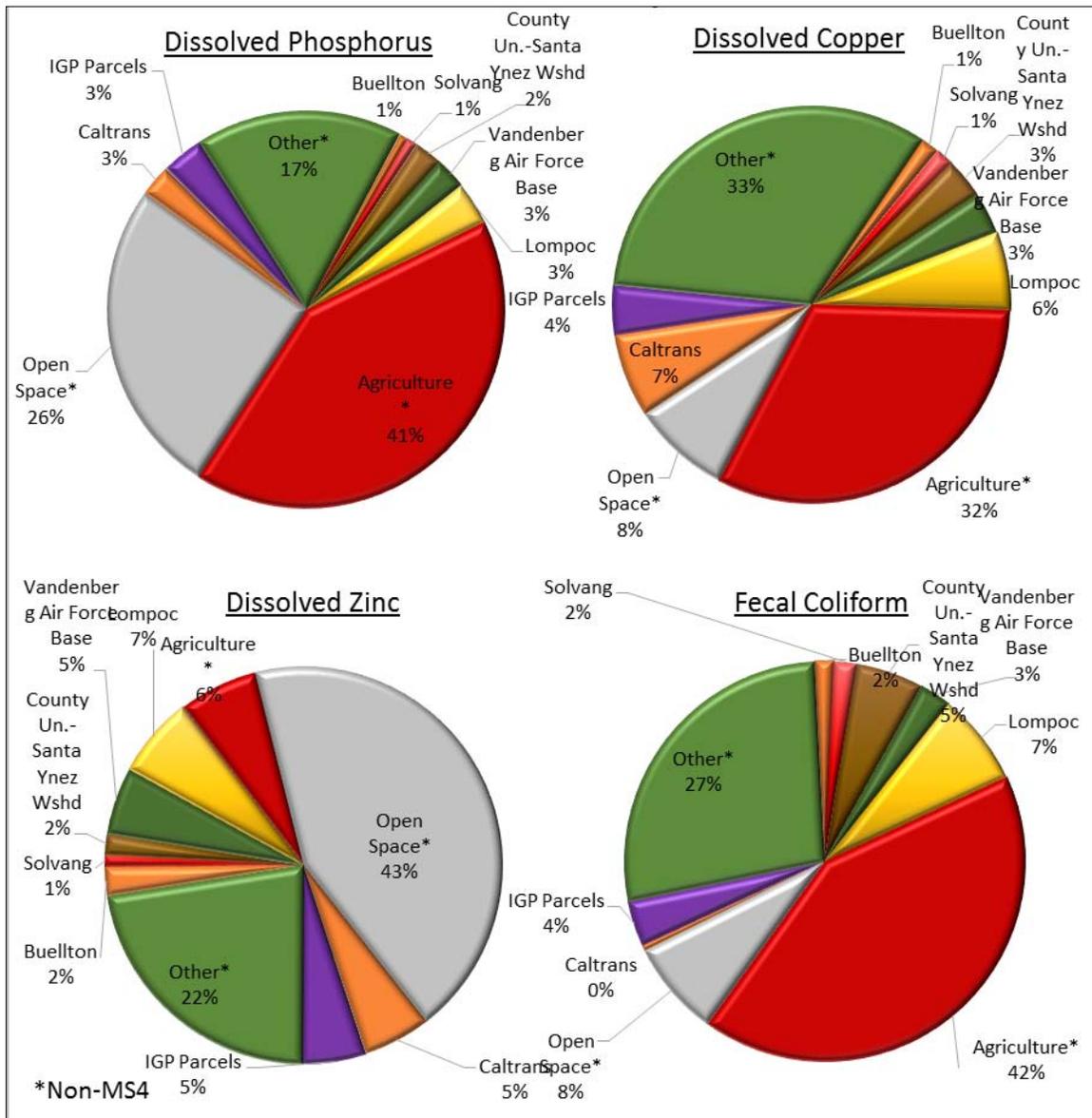


Figure 7. Percent of Average Annual Pollutant Load by MS4 Jurisdictions and non-MS4 Land Use (Santa Ynez Watershed)

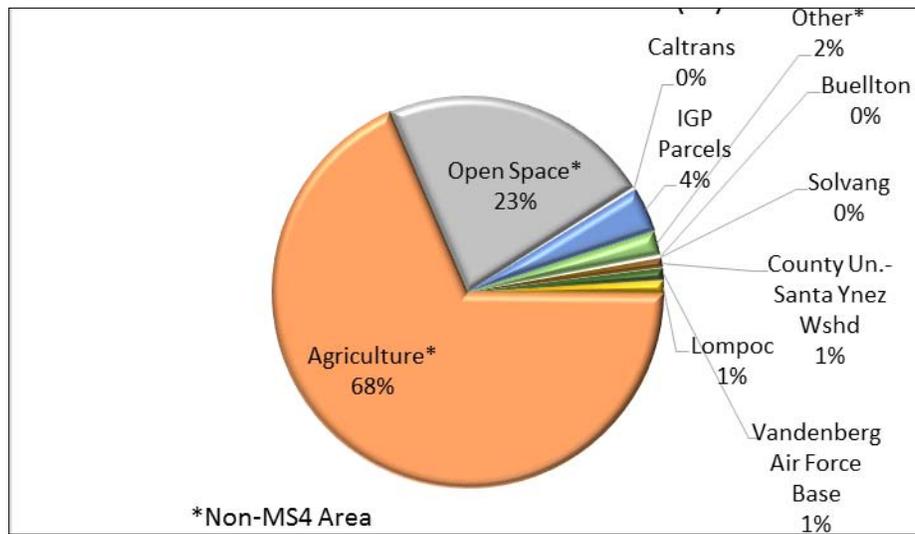


Figure 8. Percent of Average Annual Pollutant Load by MS4 Jurisdictions and non-MS4 Land Use (Santa Ynez watershed) (for nitrate)

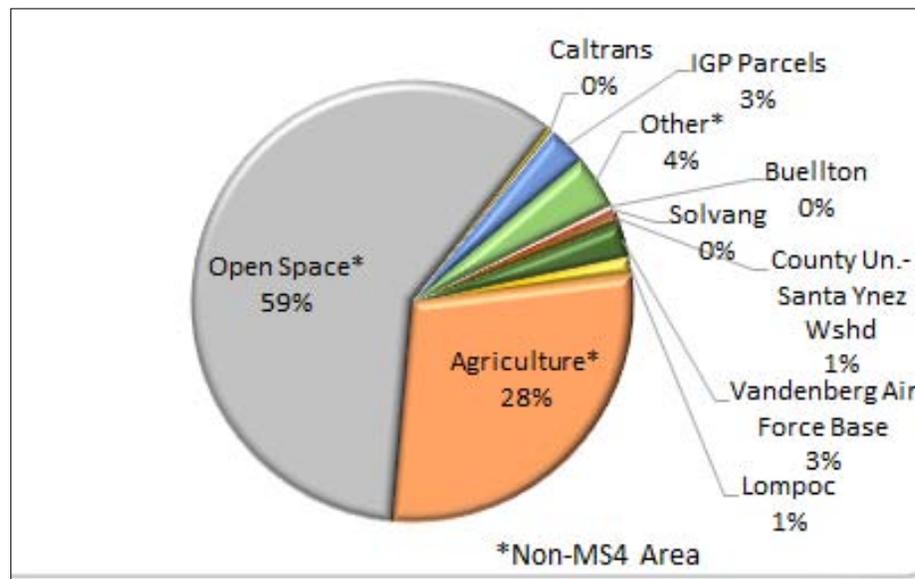


Figure 9. Percent of Average Annual Pollutant Load by MS4 Jurisdictions and non-MS4 Land Use (Santa Ynez watershed) (for TSS)

3.2 Prioritization

The LPRM also produces results for catchment prioritization, which reflect the relative magnitude of pollutant loading (per unit area) by catchment and illustrate the priority among catchments for certain types of BMP implementation. Catchment prioritization index (CPI) scores were developed for individual pollutants and multiple pollutants weighted based on priority. For the multiple pollutant weighting, pollutants that are identified on the State’s 303(d)

list or have an applicable TMDL for the water body in question are assigned a higher priority. The weighting value for water body-pollutant combinations with a 303(d)-listing is 2, water body-pollutant combinations with an approved TMDL have a weighting factor of 3, and all other priority pollutants have a weight factor of 1 (i.e., no adjustment to the pollutant-specific CPI). CPI scores range from one to five in order to easily compare scores among catchments, with one representing smaller loads per unit area and five representing larger loads per unit area. Details of the catchment prioritization process are included in the PEAIP Approach to Quantify Pollutant Loads and Pollutant Load Reductions Memorandum (Geosyntec, 2015b). Pollutant weight factors for the City of Solvang are shown in Table 8.

Table 8. Priority Pollutant Weights for Catchment Prioritization

Pollutant	Weight Factor
Dissolved Phosphorus	3
Dissolved Copper	1
Dissolved Zinc	1
Fecal Coliform	1

The overall CPI scores by catchment for the MS4 Permit area, with priority pollutants weighted based on watershed-specific priorities are illustrated in Figure 10. Maps reflecting pollutant CPI scores for individual priority pollutants and TSS are included in Appendix A.

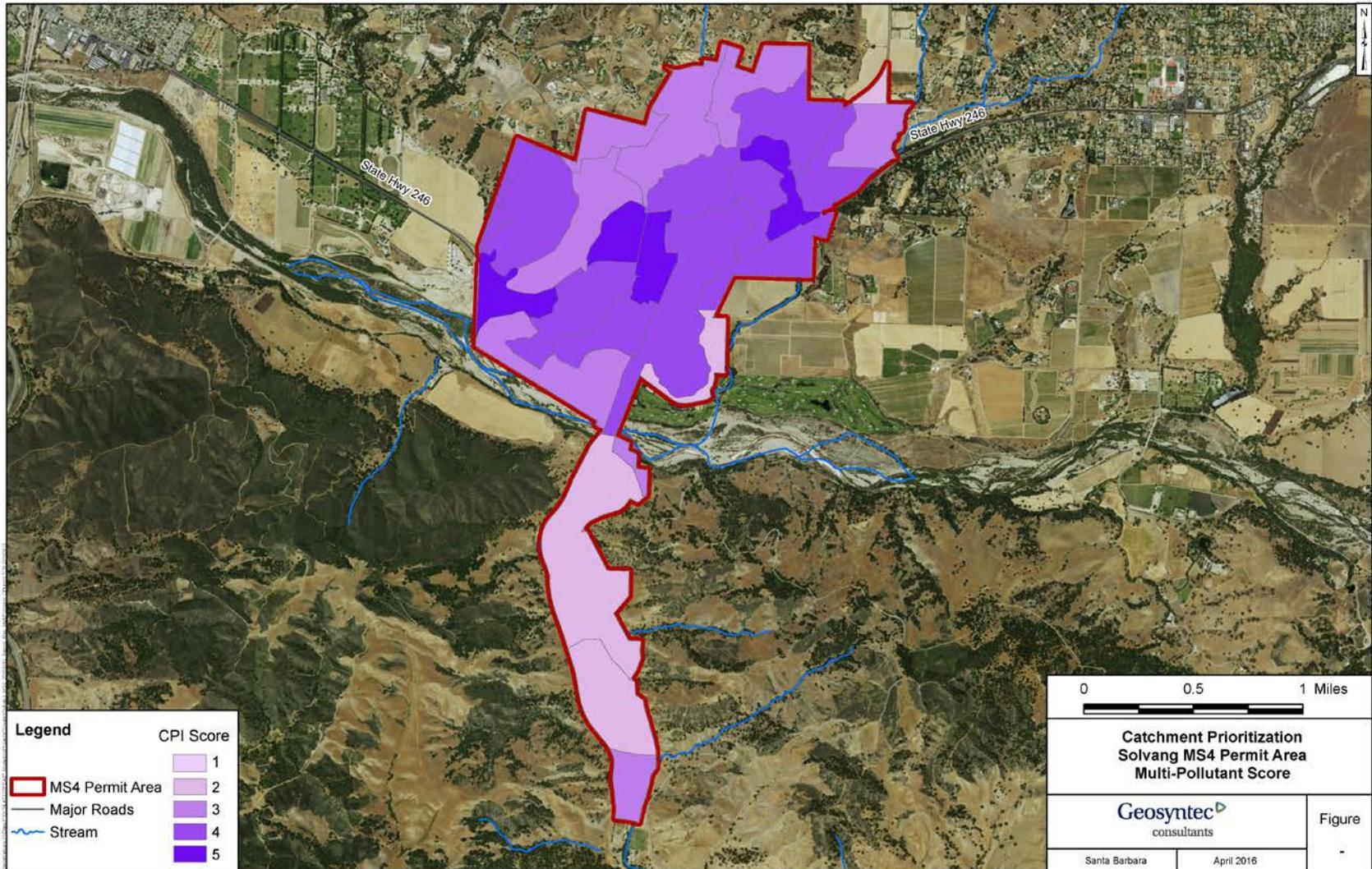


Figure 10. Multi-Pollutant CPI Map

3.3 BMP Load Reductions

The LPRM evaluates anticipated average annual runoff volume and pollutant load reductions resulting from implementation of BMPs within the MS4 Permit area. Figure 11 through Figure 16 illustrate the average annual baseline load and the average annual load after BMP implementation has occurred through a given year, after accounting for reductions achieved by previously implemented BMPs (i.e., to prevent double counting), and the breakdown of load reduction by BMP type for the priority pollutants. Load reductions reflecting all pollutants analyzed by the LPRM are included in Appendix A.

These plots illustrate the portion of the annual baseline load that has been reduced by BMP implementation and which BMP type is achieving the greatest anticipated load reductions. The jurisdiction may perform a cost-benefit analysis to compare the cost of implementation of different BMPs with the anticipated load reduction, in order to implement the most cost-effective BMPs.

The load reduction in dissolved copper was achieved by the brake pad phase-out legislation BMP, while the other non-quantified non-structural (CBSM) BMP provided the load reduction for bacteria. It is anticipated that future redevelopment will contribute to load reductions in dissolved phosphorus and dissolved zinc in future implementation years.

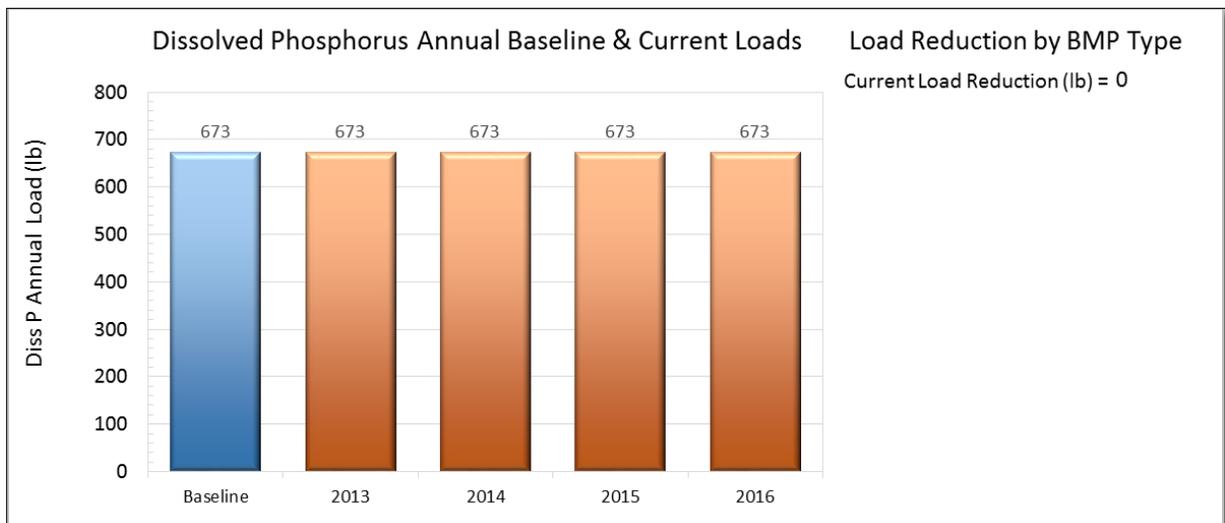


Figure 11. Dissolved Phosphorus Annual Loads and Reductions

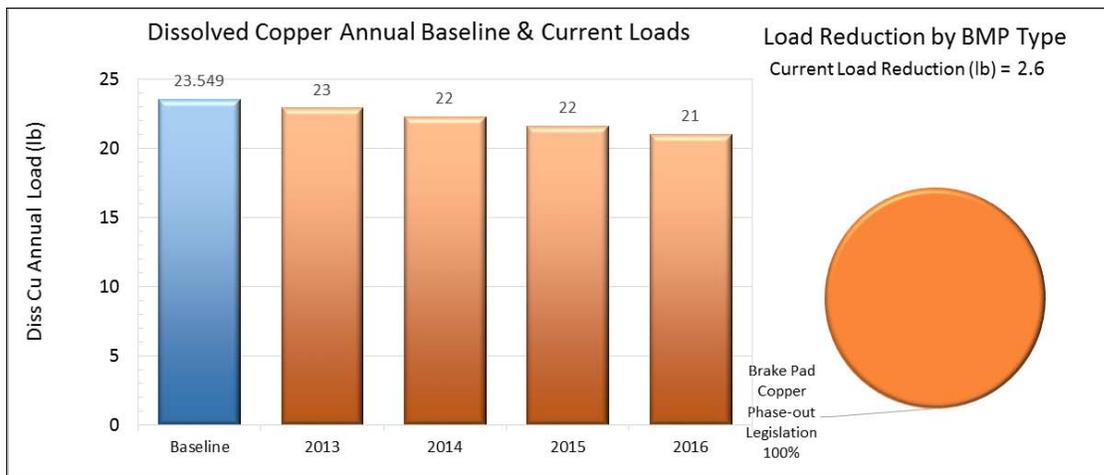


Figure 12. Dissolved Copper Annual Loads and Reductions

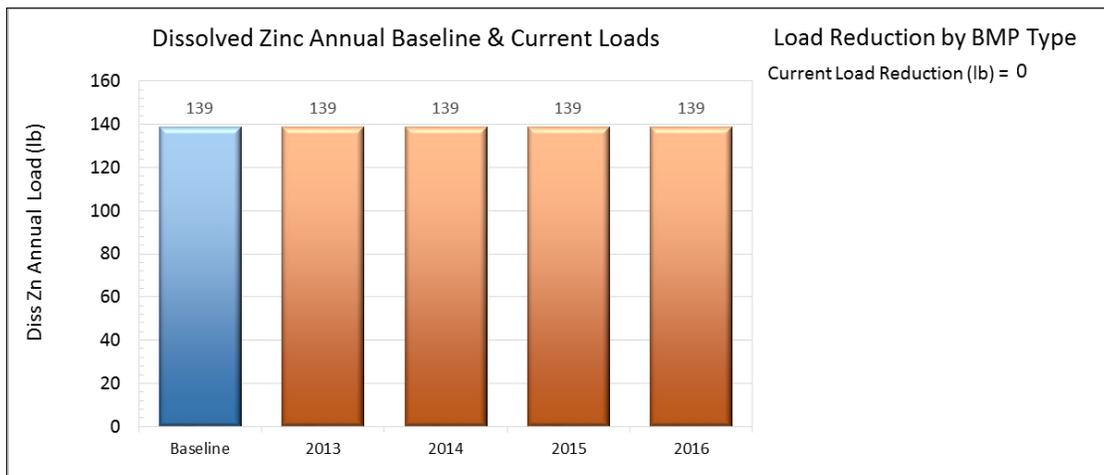


Figure 13. Dissolved Zinc Annual Loads and Reductions

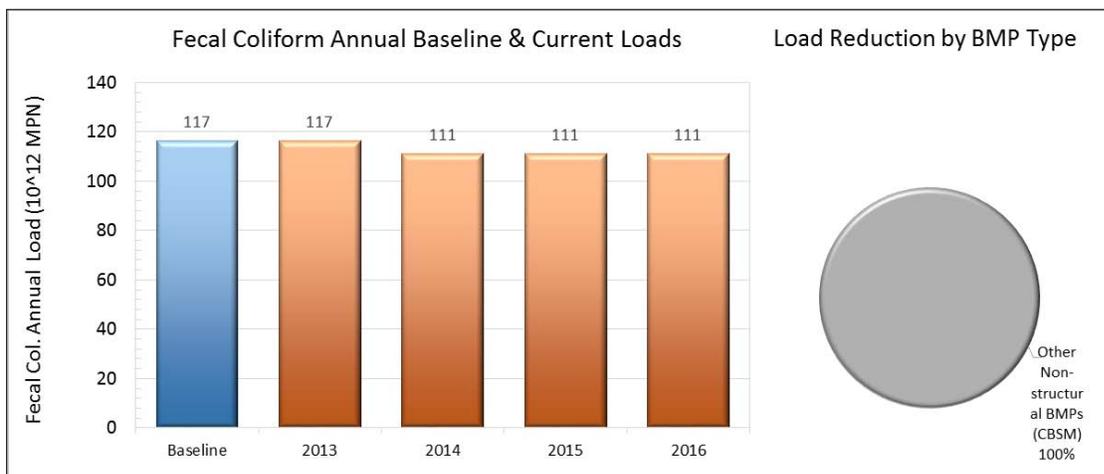


Figure 14. Fecal Coliform Annual Loads and Reductions

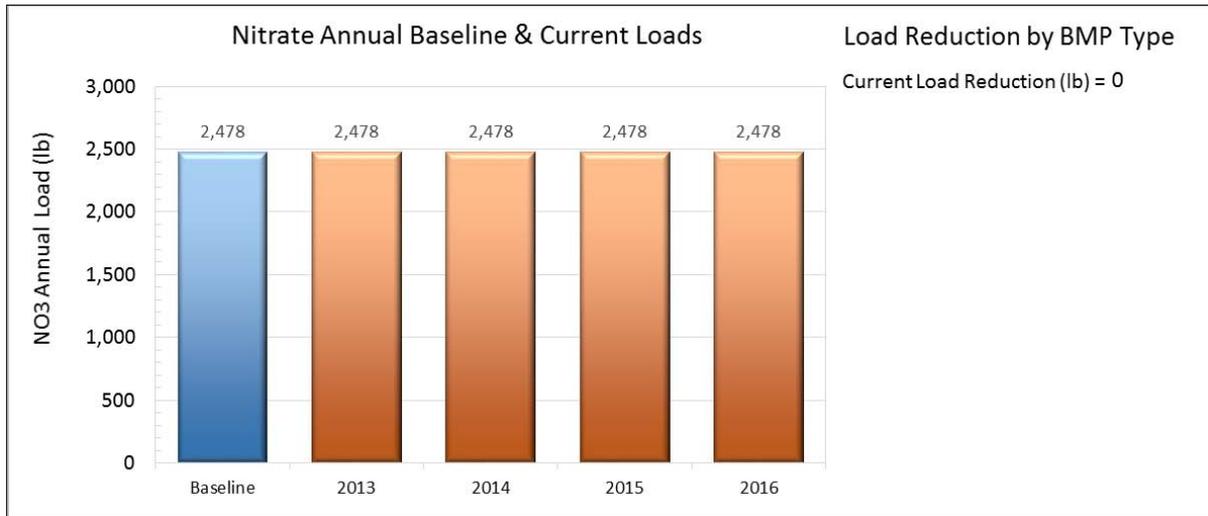


Figure 15. Nitrate Annual Loads and Reductions

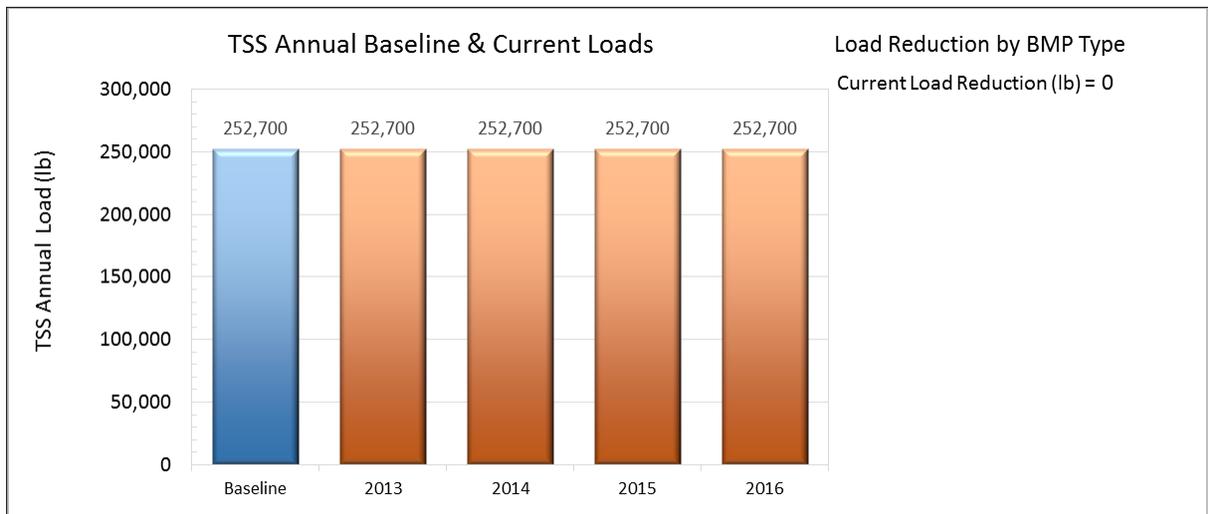


Figure 16. TSS Annual Loads and Reductions

3.4 Long-Term Planning

The LPRM can be used as a planning tool in addition to a BMP implementation tracking tool. It is anticipated that, in the future, other non-structural BMPs may be added and structural retrofit opportunities may be sought (e.g., through state grant funding), potentially resulting in a load reduction chart such as Figure 17.

The assumptions modeled for this **example hypothetical BMP implementation scenario** in the City of Goleta over the next 20 years, include:

- Redevelopment was implemented on all applicable land uses, using estimated annual redevelopment rates developed for the Los Angeles region (shown in Table 9).

Table 9. Estimated Annual Redevelopment Rates (City of Los Angeles Bureau of Sanitation, 2012)

Land Use	Annual Redevelopment Rate (% of total land use area)
Residential	0.18
Commercial	0.15
Industrial	0.34
Education	0.16
Transportation	2.7

- A structural infiltration-based BMP (infiltration basin) was modeled with a drainage area of 100 acres, 50 acres of single-family residential land use and 50 acres of commercial land use. It was assumed that the infiltration basin would capture 80 percent of the influent runoff volume and result in a 100 percent volume reduction of captured runoff. It was assumed that the infiltration basin was completed 15 years from now.
- The implementation of non-structural BMPs which do not have quantified reductions are modeled for the entire MS4 Permit area, assuming their combined benefit results increase each year to an estimated 10 percent reduction of all pollutant loads in 20 years from now.

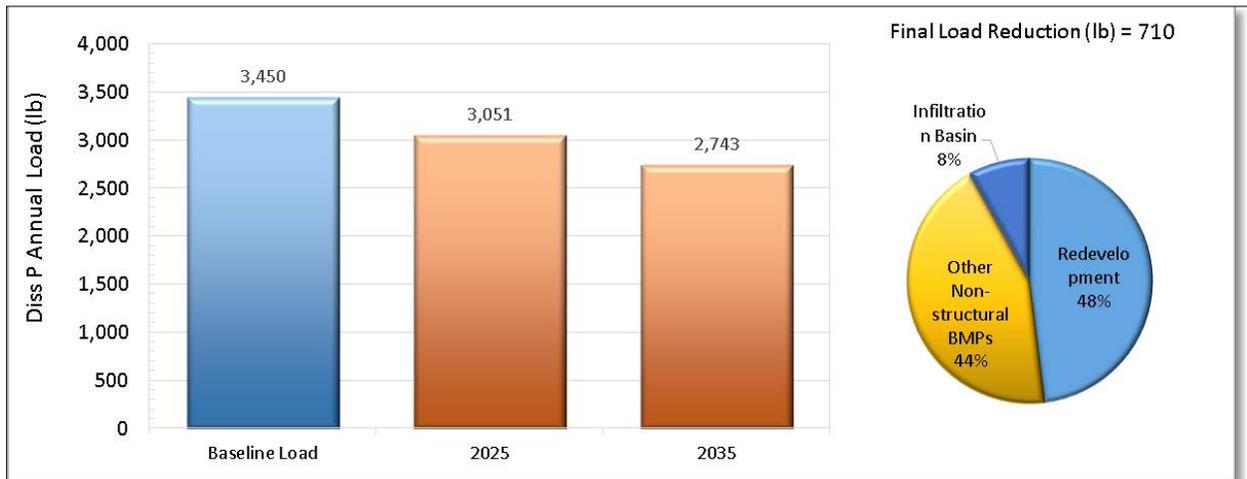


Figure 17. Dissolved Phosphorus Annual Loads and Reductions

4. References

- City of Los Angeles Bureau of Sanitation, 2012. *Total Maximum Daily Load for Toxic Pollutants in Ballona Creek Estuary Implementation Plan*. June 2012.
- County of Santa Barbara, 2015. County GIS Spatial Catalog. <http://cosb.countyofsb.org/gis/>. Retrieved September 2015.
- County of Ventura, 2015. *Indicator Bacteria Total Maximum Daily Load Draft Implementation Plan for the Lower Santa Clara River Watershed*. Prepared by Geosyntec Consultants. March 2015.
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- Geosyntec Consultants, 2015a. Memorandum: Program Effectiveness Assessment and Improvement Plan Approach to Quantify Pollutant Loads and Pollutant Load Reductions. October 2015.
- Geosyntec Consultants, 2015b. *Memorandum: Program Effectiveness Assessment and Improvement Plan Model Guidance Document*. November 2015.
- TDC Environmental, 2013. *Estimate of Urban Runoff Copper Reduction in Los Angeles County from the Brake Pad Copper Reductions Mandated by SB 346*. February.

Appendix A – Supplemental Results

A.1 Baseline Loading

The average annual baseline loadings within the Solvang MS4 Permit area for all pollutants analyzed by the LPRM are shown in Table A-10.

Table A-10. Average Annual Baseline Loading for All Pollutants for the MS4 Permit area

Pollutant	Average Annual Baseline Load
Runoff (cu ft)	33,850,000
Total Suspended Solids - TSS (lb)	252,700
Total Phosphorus - Tot P (lb)	874
Dissolved Phosphorus – Diss P (lb)	673
Ammonia – NH3 (lb)	1,216
Nitrate – NO3 (lb)	2,478
Total Kjeldahl Nitrogen –TKN (lb)	5,845
Dissolved Copper – Diss Cu (lb)	24
Total Copper – Tot Cu (lb)	47
Total Lead – Tot Pb (lb)	21
Dissolved Zinc – Diss Zn (lb)	139
Total Zinc – Tot Zn (lb)	250
Fecal Coliform (MPN ¹²)	117

Table A-11 shows the distribution of the average annual baseline loads per acre for all pollutants, illustrating which land uses are generating the greatest pollutant loading per unit area.

Table A-11. Average Annual Baseline Loading for the MS4 Permit Area by Land Use for All Pollutants

Land Use	Runoff	TSS	Tot P	Diss P	NH3	NO3	TKN	Diss Cu	Tot Cu	Tot Pb	Diss Zn	Tot Zn	Fecal Col.
	cu ft/acre	lb/acre	10 ¹² MPN/acre										
Single-Family Residential	22,000	170	0.55	0.44	0.67	1.1	4.1	0.013	0.026	0.016	0.038	0.099	0.097
Commercial	55,000	230	1.4	0.99	4.1	1.9	12	0.042	0.11	0.042	0.52	0.81	0.085
Industrial													
Education	32,000	200	0.59	0.51	0.79	1.2	3.4	0.024	0.039	0.0071	0.15	0.23	0.11
Transportation	55,000	270	2.3	1.9	1.3	2.5	6.3	0.11	0.18	0.031	0.76	1	0.026
Multi-Family Residential	34,000	85	0.49	0.43	1.1	3.2	3.8	0.016	0.026	0.0096	0.16	0.27	0.11
Agriculture	6,400	400	1.3	0.56	0.66	14	2.9	0.009	0.04	0.012	0.016	0.11	0.045
Open Space	6,000	81	0.045	0.033	0.041	0.44	0.36	0.00022	0.0039	0.0011	0.01	0.0098	0.00082

The City of Solvang MS4 Permit area is located within the Santa Ynez watershed, as shown in Figure A-18. Average annual baseline loading within the Santa Ynez watershed, including a breakdown of contributions from MS4 and non-MS4 areas, is shown in Table A-12 for all pollutants.

Table A-12. Average Annual Baseline Watershed Loading for All Pollutants

Area	Runoff	TSS	Tot P	Diss P	NH3	NO3	TKN	Diss Cu	Tot Cu	Tot Pb	Diss Zn	Tot Zn	Fecal Col.
	cu ft	lb	lb	lb	lb	lb	lb	lb	lb	lb	lb	lb	10 ¹² MPN
Solvang MS4 Area	0.67%	0.31%	0.64%	0.87%	1.2%	0.22%	1.0%	1.5%	0.71%	1.0%	0.98%	1.1%	1.9%
Other MS4 Permit Areas	9.0%	5.0%	6.7%	9.1%	15%	3.0%	12%	15%	8.9%	12%	16%	15%	17%
Agriculture*	7%	28%	56%	41%	38%	68%	30%	32%	35%	34%	6%	27%	42%
Open Space*	69%	59%	19%	26%	24%	22%	37%	8%	35%	32%	44%	25%	7.7%
Caltrans	1.1%	0.33%	1.8%	2.6%	1.3%	0.22%	1.1%	6.8%	2.7%	1.6%	5.5%	4.3%	0.43%
IGP Parcels	2.4%	2.8%	3.7%	3.4%	3.7%	3.7%	3.2%	4.0%	3.5%	3.5%	5.2%	5.2%	3.7%
Other*	11%	4%	12%	17%	16%	2%	15%	33%	15%	16%	22%	22%	27%
Total Watershed	5.08E+09	8.11E+07	136,400	77,300	99,000	1,155,600	560,400	1,615	6,630	2,054	14,240	23,100	6,237

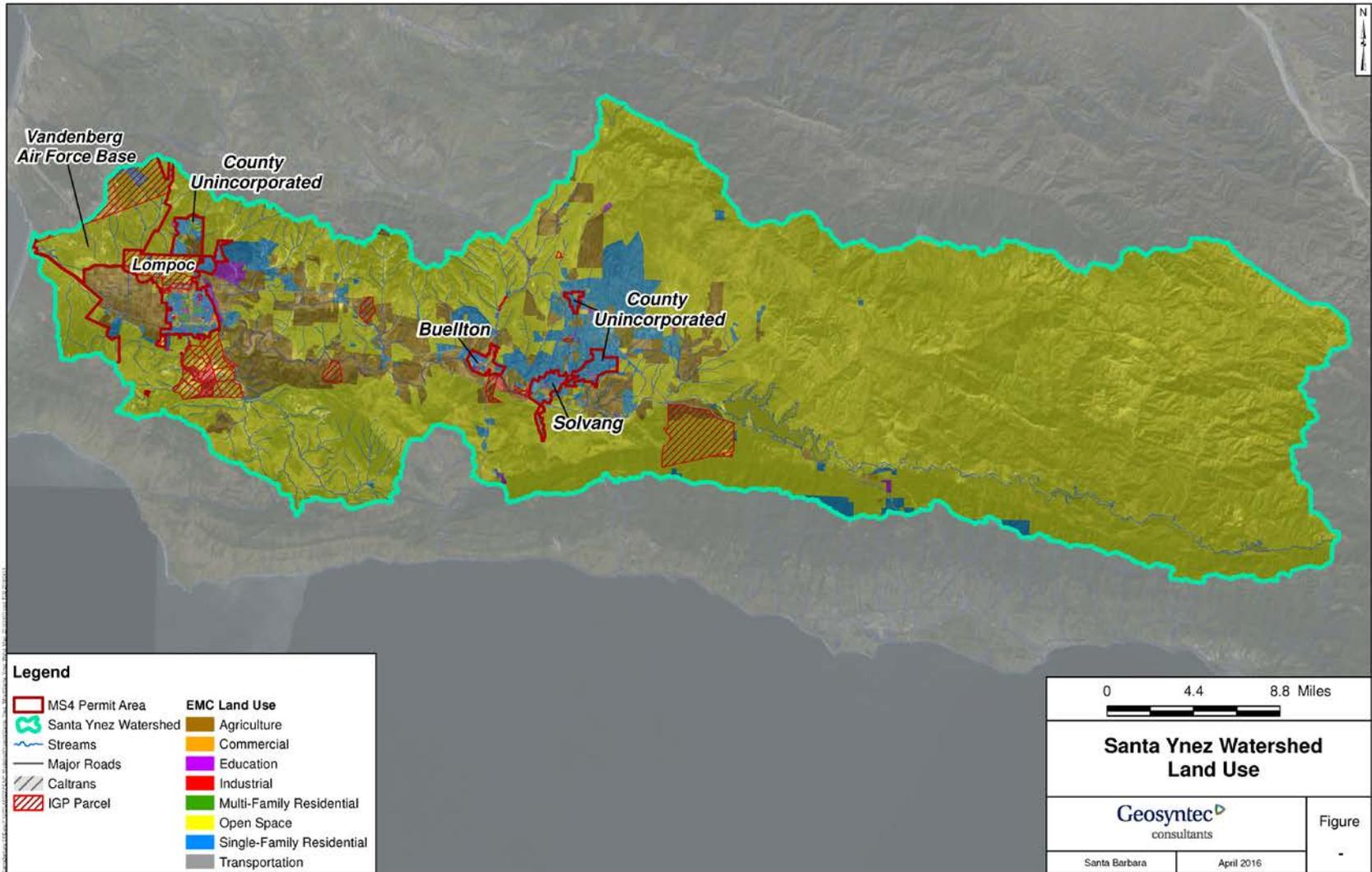


Figure A-18. Santa Ynez Watershed

A.2 Prioritization

The LPRM produces catchment prioritization results for individual pollutants. Estimated annual baseline loads are used to develop pollutant catchment prioritization index (PCPI) scores that represent the relative magnitude of pollutant loading per unit area in each catchment. These PCPI scores for priority pollutants are displayed in Figure A-19 through Figure A-24.

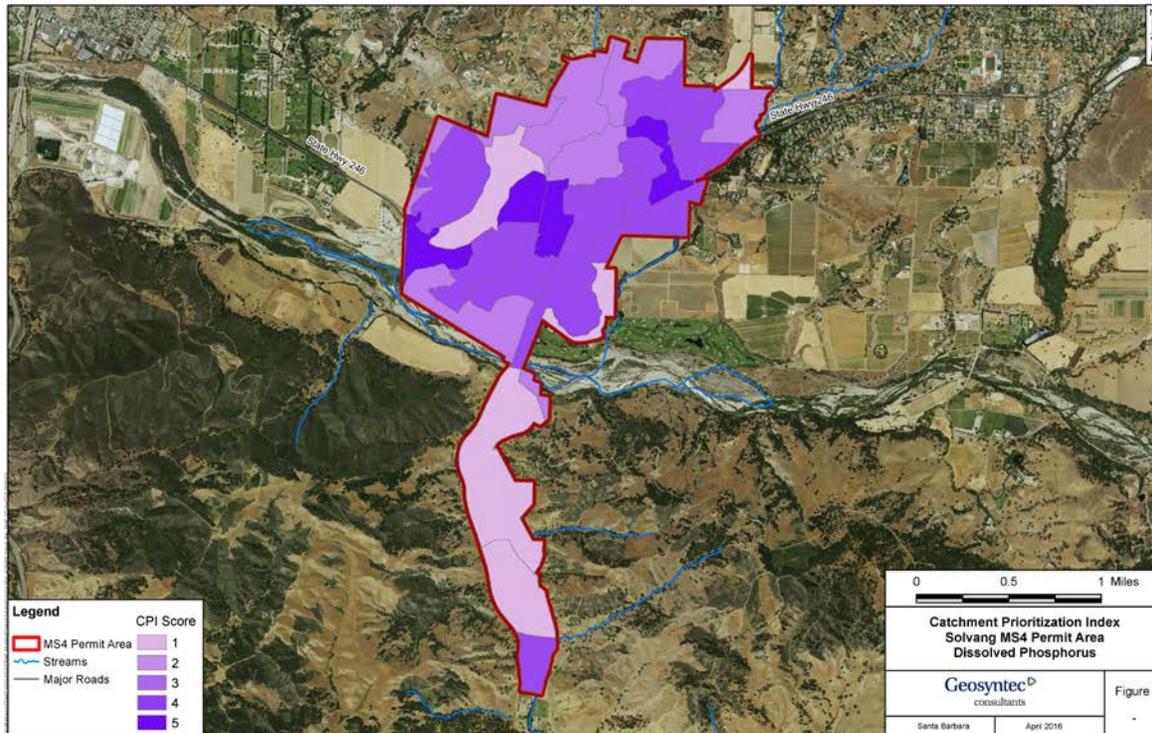


Figure A-19. CPI Scores for Dissolved Phosphorus

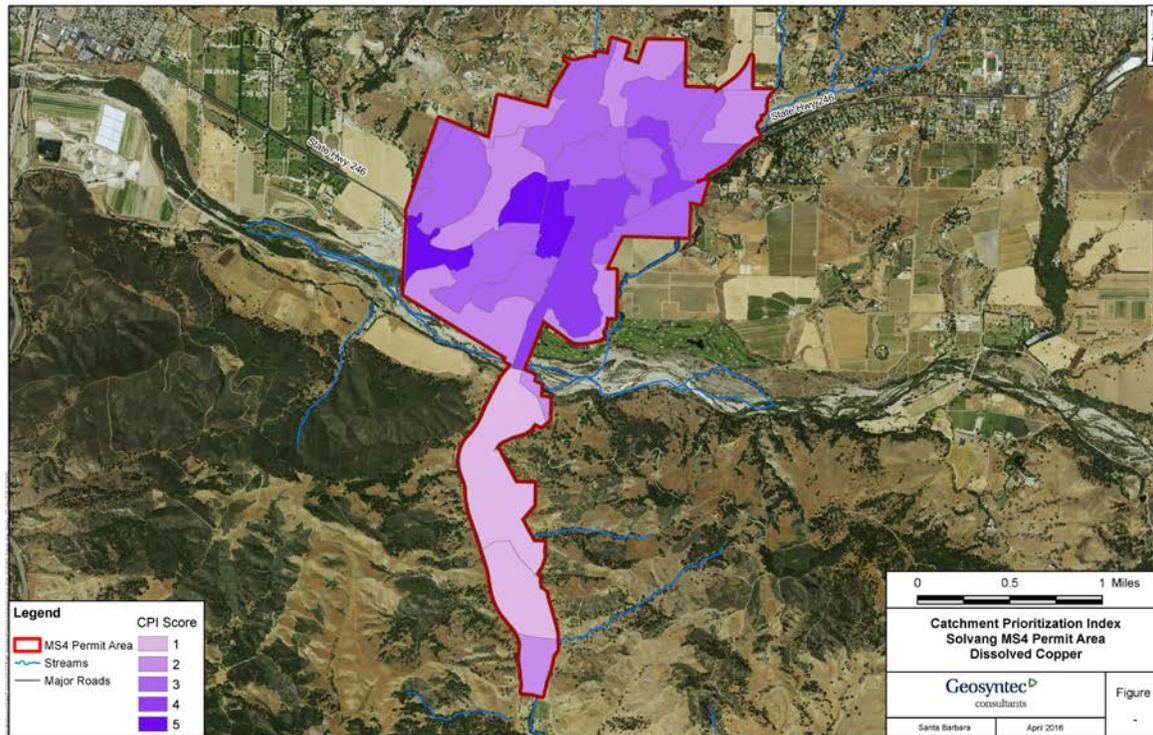


Figure A-20. CPI Scores for Dissolved Copper

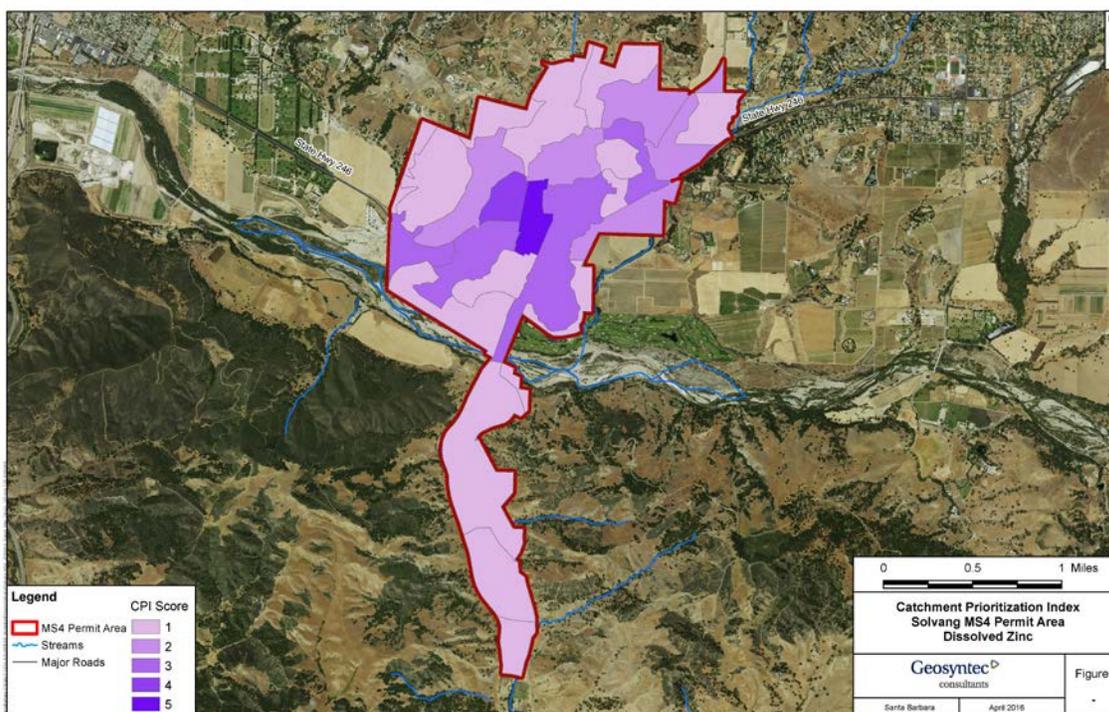


Figure A-21. CPI Scores for Dissolved Zinc

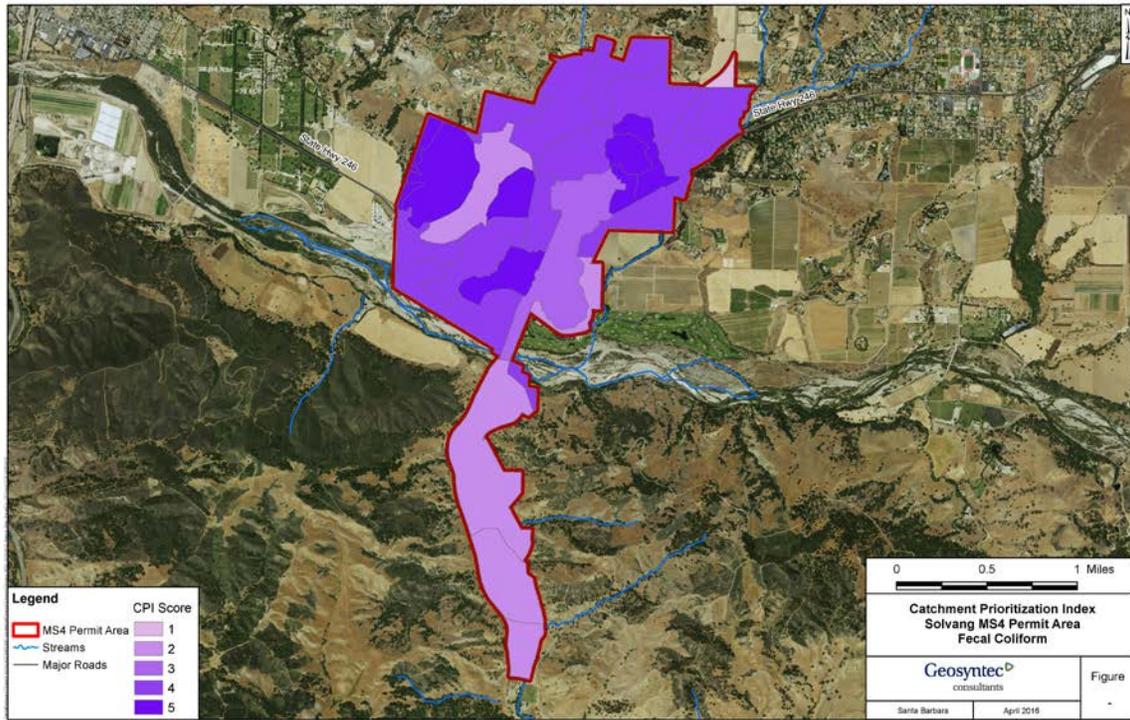


Figure A-22. CPI Scores for Fecal Coliform

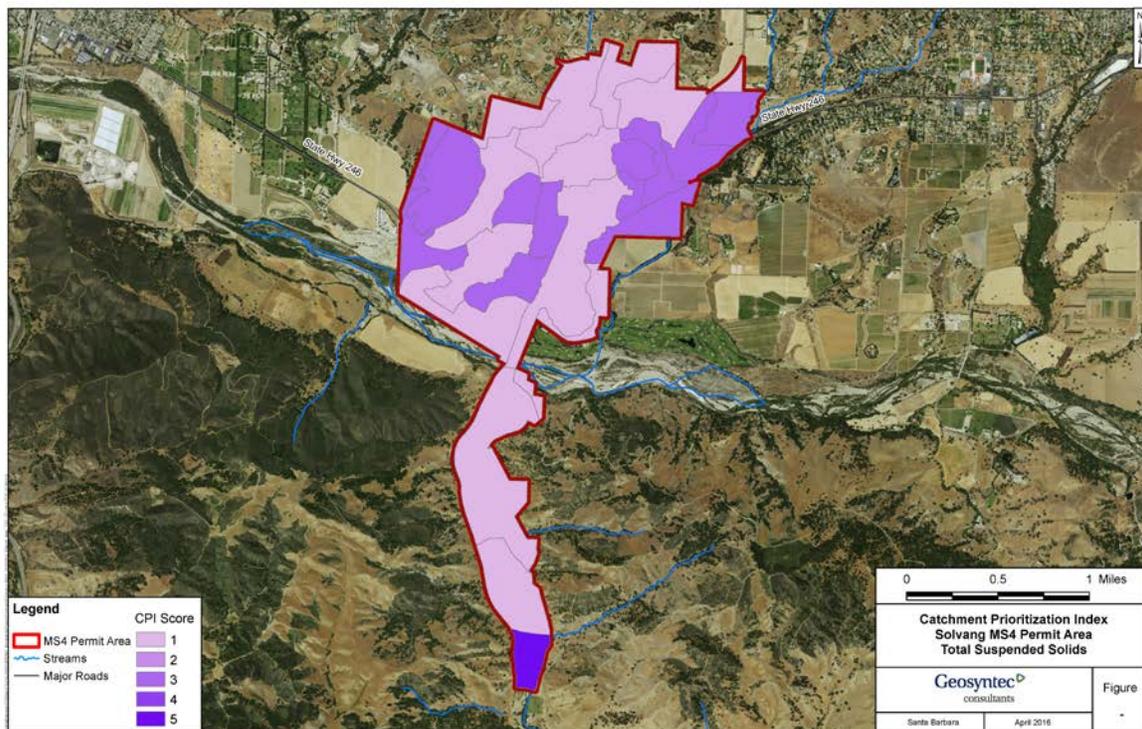


Figure A-23. CPI Scores for TSS

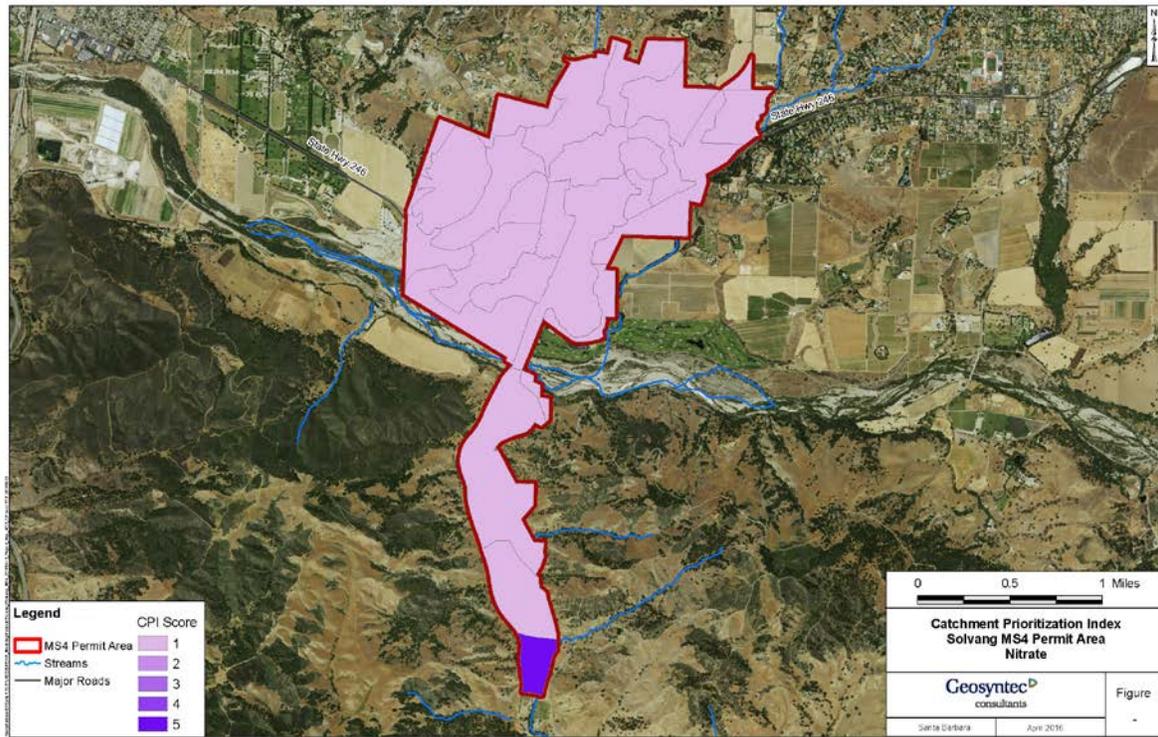


Figure A-24. CPI Scores for Nitrate

A.3 Reductions

Anticipated runoff volume and pollutant load reductions achieved by implementation of BMPs within the MS4 Permit area are evaluated by the LPRM. Table A-13 shows annual baseline and current loads, after subtracting reductions achieved by BMPs, for all pollutants analyzed. Table A-14 shows the current load reductions achieved by each BMPs implemented for all pollutants analyzed.

Table A-13. Total Load Reduction for All Pollutants

Load	Runoff	TSS	Tot P	Diss P	NH3	NO3	TKN	Diss Cu	Tot Cu	Tot Pb	Diss Zn	Tot Zn	Fecal Col.
	cu ft	lb	lb	lb	lb	lb	lb	lb	lb	lb	lb	lb	10 ¹² MPN
Baseline	33,850,000	252,700	874	673	1,216	2,478	5,845	23.549	47.4	21.32	139	250	117
Reduction								2.6	5.2				5.2
% Reduction	0%	0%	0%	0%	0%	0%	0%	11.0%	11.0%	0%	0%	0%	4.5%
Current	33,850,000	252,700	874	673	1,216	2,478	5,845	20.949	42.2	21.32	139	250	111
Current Load by Year													
2013	33,850,000	252,700	874	673	1,216	2,478	5,845	23	46	21	139	250	117
2014	33,850,000	252,700	874	673	1,216	2,478	5,845	22	45	21	139	250	111
2015	33,850,000	252,700	874	673	1,216	2,478	5,845	22	44	21	139	250	111
2016	33,850,000	252,700	874	673	1,216	2,478	5,845	21	42	21	139	250	111

Table A-14. BMP Load Reductions for All Pollutants

BMP Type	Runoff	TSS	Tot P	Diss P	NH3	NO3	TKN	Diss Cu	Tot Cu	Tot Pb	Diss Zn	Tot Zn	Fecal Col.
	cu ft	lb	lb	lb	lb	lb	lb	lb	lb	lb	lb	lb	MPN ^12
Redevelopment													
Brake Pad Copper Phase-out Legislation								2.6	5.2				
Other Non-structural BMPs (CBSM)													5.2

Appendix B – Supplemental Model Input Data

B.1 Within MS4 Permit Area

Table B-15. Typical Imperviousness and EMC Land Use Groups based on Land Use¹

Land Use	EMC Land Use Group	Imperviousness (%)
1 Dwelling Unit / 3 Acres	Single-Family Residential	21
1 Dwelling Unit / Acre	Single-Family Residential	21
10,000 Square Feet	Single-Family Residential	42
20,000 Square Feet	Single-Family Residential	21
7,000 Square Feet	Single-Family Residential	42
8,000 Square Feet	Single-Family Residential	42
Agricultural	Agriculture	2
Design Residential ²	Multi-Family Residential	42
General Commercial	Commercial	91
Institutional	Education	47
Light Industry	Industrial	80
Mobile Home Park	Multi-Family Residential	74
Professional Institutional	Education	47
Professional Office	Commercial	91
Recreational	Open Space	3
Resource Management	Open Space	1
Retail Commercial	Commercial	91
Tourist Related Commercial	Commercial	91
Transportation	Transportation	91

¹ Some values of imperviousness or EMC land use classifications were adjusted based on visual inspection of aerial imagery or knowledge of the area.

² Imperviousness for “Planned” or “Design” land use designations were predominately determined by visual inspection of aerial imagery to reflect current land use designations.

B.2 Outside MS4 Permit Area

Table B-16. Land Use and Imperviousness in the County of Santa Barbara (outside MS4 Permit area)

Land Use	EMC Land Use	Imperviousness (%)
Air Force Base	Varies based on aerial imagery	Varies based on aerial imagery
APARTMENTS, 5 OR MORE UNITS	Multi-Family Residential	74
AUDITORIUMS, STADIUMS	Commercial	91
AUTO SALES, REPAIR, STORAGE, CAR WASH, ETC	Commercial	91
BANKS, S&LS	Commercial	91

Land Use	EMC Land Use	Imperviousness (%)
BEACHES, SAND DUNES	Open Space	1
BED AND BREAKFAST	Multi-Family Residential	74
BOWLING ALLEYS	Commercial	91
CAMPS, CABINS	Open Space	2
CHURCHES, RECTORY	Education	82
CLUBS, LODGE HALLS	Education	47
COLLEGES	Education	47
COMMERCIAL (MISC)	Commercial	91
COMMERCIAL AND OFFICE CONDOS,PUDS	Commercial	91
CONDOS,COMMUNITY APT PROJS	Multi-Family Residential	86
DAIRIES	Agriculture	42
DANCE HALLS	Commercial	91
DAY CARE	Education	68
DEPARTMENT STORES	Commercial	95
DRIVE-IN THEATRES	Commercial	91
DRY FARMS (MISC)	Open Space	1
FEED LOTS	Agriculture	2
FIELD CROPS-IRRIGATED	Agriculture	2
FIELD CROPS, DRY	Open Space	1
FLOWERS	Agriculture	2
GOLF COURSES	Open Space	3
HEAVY INDUSTRY	Industrial	90
HIGHWAYS AND STREETS	Transportation	91
HORSES	Agriculture	42
HOSPITALS	Commercial	74
HOTELS	Multi-Family Residential	96
INDUSTRIAL CONDOS,PUDS	Industrial	80
INDUSTRIAL, MISC	Industrial	80
INSTITUTIONAL (MISC)	Education	82
IRRIGATED FARMS, MISC	Agriculture	2
LIGHT MANUFACTURING	Industrial	80
LUMBER YARDS, MILLS	Industrial	91
MINERAL PROCESSING	Industrial	10
MINING	Industrial	10
MISCELLANEOUS	Open Space	2
MIXED USE-COMMERCIAL/RESIDENTIAL	Commercial	82
MOBILE HOME PARKS	Multi-Family Residential	74
MOBILE HOMES	Multi-Family Residential	74
MORTUARIES,CEMETERIES,MAUSOLEUMS	Education	10

Land Use	EMC Land Use	Imperviousness (%)
NURSERIES, GREENHOUSES	Agriculture	15
OFFICE BUILDINGS, MULTI-STORY	Commercial	91
OFFICE BUILDINGS, SINGLE STORY	Commercial	91
OPEN STORAGE, BULK PLANT	Commercial	40
ORCHARDS	Agriculture	2
ORCHARDS, IRRIGATED	Agriculture	2
OTHER FOOD PROCESSING, BAKERIES	Commercial	91
PACKING PLANTS	Industrial	91
PARKING LOTS	Transportation	91
PARKS	Open Space	1
PASTURE-IRRIGATED	Agriculture	2
PASTURE OF GRAZING, DRY	Open Space	1
PETROLEUM AND GAS	Industrial	91
PIPELINES, CANALS	Water	100
POULTRY	Industrial	91
PROFESSIONAL BUILDINGS	Commercial	91
PUBLIC BLDGS, FIREHOUSES, MUSEUMS, POST OFFICES, ETC	Commercial	91
RACE TRACKS, RIDING STABLES	Agriculture	42
RANCHO ESTATES (RURAL HOME SITES)	Single-Family Residential	12
RECREATION	Education	10
RECREATIONAL OPEN (MISC)	Open Space	1
RESIDENTIAL INCOME, 2-4 UNITS	Multi-Family Residential	74
REST HOMES	Education	80
RESTAURANTS, BARS	Commercial	91
RETAIL STORES, SINGLE STORY	Commercial	96
RIGHTS OF WAY, SEWER, LAND FILLS, ETC	Open Space	1
RIVERS AND LAKES	Water	100
SCHOOLS	Education	82
SERVICE STATIONS	Commercial	91
SHOPPING CENTERS (NEIGHBORHOOD)	Commercial	91
SHOPPING CENTERS (REGIONAL)	Commercial	95
SINGLE FAMILY RESIDENCE	Single-Family Residential	42
STORE AND OFFICE COMBINATION	Commercial	91
SUPERMARKETS	Commercial	91
TREE FARMS	Agriculture	2
TRUCK CROPS-IRRIGATED	Agriculture	2
UTILITY, WATER COMPANY	Industrial	91
VACANT	Open Space	1

Land Use	EMC Land Use	Imperviousness (%)
VINES AND BUSH FRUIT-IRRIGATED	Agriculture	2
VINEYARDS	Agriculture	2
WAREHOUSING	Industrial	91
WASTE	Industrial	96
WATER RIGHTS,PUMPS	Industrial	91
WHOLESALE LAUNDRY	Commercial	91
TRANSPORTATION	Transportation	91

Report_Summary

Report Summary Text File - Auto-generated by SMARTS on 10/14/2016 14:17:59

Name of Report: Phase II Small MS4 Annual Report - Traditionals 2015 - 2016 Annual

Certifier Name: Rose Hess

Certifier Title: Director of Public Works

Certifier Password Hash:

4e1ffe8558da4a65ec301aa56411a53c70684a2a605feb5997e1932e062464c8

Certifier User Account ID: 626600

Certification Computer IP: 198.143.34.1

Certification Executed On:

WARNING - Unable to Retrieve Certifier Details or Confirmation Number

2015-2016

Phase II Small MS4 Annual - Report

REPORTING PERIOD:07/01/2015 - 06/30/2016

WDID No: 3 42M2000150

Permittee Information

City of Buellton

Marc Bierdzinski

marcb@cityofbuellton.com

PO Box 1819

Buellton

CA

93427

Phase II Small MS4 Annual - Report - 2015-2016
Questions & Answers

Q No.	Text	DropDown Answer	CheckBoxAnswer	DescriptiveAnswer	Date Answer	Number Answer
1	Did the Permittee upload the Central Coast Post-Construction Stormwater Requirements annual reporting form and all other documents required in the form? Access form here. If the form does not open, right click on the hyperlink and chose the option, 'Save Target As'. To get full utilization of the form, the form must be viewed and completed using Adobe software. Adobe Reader can be downloaded for free.	Yes				

**Phase II Small MS4 Annual - Report - 2015-2016
CERTIFICATION**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: Rose Hess	Title: Director of Public Works	Date: 10/14/2016
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**Phase II Small MS4 Annual - Report - 2015-2016
ATTACHMENTS**

Attachment Title	Description	Date Uploaded	Attachment Type	Attachment Hash	Doc Part No/Total Parts
Central Coast Post-Construction SWMR Annual Report Form-Buellton	Central Coast Post-Construction SWMR Annual Report Form-Buellton-FY2015-2016	2016-10-06 11:10:05.0	Supporting Documentation	505a4e248e636cd9276fc018e9b8db24ea54fdd01784fd37eab8ea159525e7e9	1/1
Central Coast Post-Construction SWMR Annual Report Form-Solvang	Central Coast Post-Construction SWMR Annual Report Form-Solvang-FY2015-2016	2016-10-06 11:10:09.0	Supporting Documentation	5cddc3d124d6d6b2b6c865c69460915df6847c43e27badf7f96b967cbae1911f	1/1

Central Coast Post-Construction Stormwater Management Requirements (PCRs)

Resolution No. R3-2013-0032
Annual Reporting Form
August 2014 Version

Due Date: By October 15, 2014 and October 15 annually thereafter, Permittees must submit this reporting form.

Instructions: Complete form electronically. Answer questions and supply requested information for the Reporting Period only. Upload completed form to Storm Water Multiple Application and Report Tracking System (SMARTS) and name the file, "PCRs Annual Report [insert reporting period]". Also, upload requested attachments to SMARTS using specified nomenclature.

SECTION I: GENERAL PERMITTEE INFORMATION

WDID# and Permittee Name

County:

SECTION II: REPORTING PERIOD

Reporting Period:

SECTION III: COMPLETED PROJECTS

How many projects, that received occupancy completion documentation (e.g., Certificate of Occupancy) during the Reporting Period, created and/or replaced \geq 2,500 square feet of impervious surface?

SECTION III: CONTINUED ...

Project categories based on created and/or replaced impervious surface area		Number of Projects in each category that received occupancy completion documentation (e.g., Certificate of Occupancy) during the Reporting Period and had an approval per PCRs Provision B.1.c
Lower Bound	Upper Bound	
≥ 2,500 square feet	<5,000 square feet Net Impervious Area (all projects except single-family homes) and <15,000 square feet Net Impervious Area (only single-family homes)	0
≥5,000 square feet Net Impervious Area (all projects except single-family homes) and ≥15,000 square feet Net Impervious Area (only single-family homes)	<15,000 square feet (all projects except single-family homes) and <15,000 square feet Net Impervious Area (only single-family homes)	0
≥15,000 square feet (all projects except single-family homes) and ≥15,000 square feet Net Impervious Area (only single-family homes)	<22,500 square feet	0
≥22,500 square feet	N/A	0
Total		0

SECTION IV: PROJECTS SUBJECT TO POST-CONSTRUCTION REQUIREMENTS

Performance Requirements*	Number of Projects subject to Performance Requirements that received completion documentation during the Reporting Period	Number of Projects with structural Water Quality Treatment, Runoff Retention, and/or Peak Management controls	Number of Projects where field verification of Site Design, Water Quality Treatment, Runoff Retention, and/or Peak Management controls was completed	Number of Projects where field verification confirmed <u>ALL</u> Site Design, Water Quality Treatment, Runoff Retention, and/or Peak Management controls were implemented in accordance with PCRs
Only No. 1	0	N/A		
Only Nos. 1 and 2		0		
Only Nos. 1, 2, and 3			0	
Only Nos. 1, 2, 3, and 4				0
Total	0	0	0	0

* Only include projects once in table. For example, if a project triggers all four performance requirements, only address that project in the, "Only Nos. 1, 2, 3, and 4" row. Do not also count the project in the cells for the above three rows.

SECTION V: SPECIAL CIRCUMSTANCES AND ALTERNATIVE COMPLIANCE

Note: If the Permittee did not grant any Special Circumstances and/or Alternative Compliance for Projects that received completion documentation during the Reporting Period, skip Section V.

To add another Project, click 'Add Row'

Add Row

Delete Row

Names of Projects that received completion documentation during the Reporting Period and the Permittee granted Special Circumstances and/or Alternative Compliance	Alternative Compliance type (Select all that apply)									If technical infeasibility is rationale for Alternative Compliance, does Project's Stormwater Control Plan adequately demonstrate basis for infeasibility?
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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A

SECTION V: CONTINUED ...

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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A

SECTION VI: MITIGATION PROJECTS CONSTRUCTED FOR ALTERNATIVE COMPLIANCE

Were there any mitigation projects constructed for Alternative Compliance during the Reporting Period? Yes No
If yes, did the Permittee upload to SMARTS the below information?

- A summary description of mitigation projects constructed during the Reporting Period comparing the expected aggregate results of Alternative Compliance projects to the results that would otherwise have been achieved by meeting the numeric Performance Requirements on-site. The summary should quantitatively compare results. For example, if the Alternative Compliance project is mitigating for a project that could not fully meet Performance Requirement No. 3 onsite, then the summary should quantify the following: 1) onsite retention volume required by Performance Requirement No. 3, 2) volume of runoff actually retained on site, and 3) volume of runoff retained at the Alternative Compliance project site.
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SMARTS upload title: *"PCRs Annual Report [insert reporting period] – Mitigation Projects"*

SECTION VII: LONG-TERM OPERATION AND MAINTENANCE

Did the Permittee upload to SMARTS a copy (e.g., screenshot) of the structural Stormwater Control Measure Operation and Maintenance database that shows all entries from the Reporting Period (see PCRs Provision E.3)? Yes No

SMARTS upload title: *"PCRs Annual Report [insert reporting period] – Long-Term Operation and Maintenance"*

SECTION VIII: ADDITIONAL UPLOADS

Did the Permittee upload to SMARTS information to demonstrate Performance Requirement No. 1 was applied to all applicable projects during the Reporting Period (including sample checklist)? Yes No

SMARTS upload title: *"PCRs Annual Report [insert reporting period] – Performance Req No1 Implementation"*

Central Coast Post-Construction Stormwater Management Requirements (PCRs)

Resolution No. R3-2013-0032
Annual Reporting Form
August 2014 Version

Due Date: By October 15, 2014 and October 15 annually thereafter, Permittees must submit this reporting form.

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SECTION V: CONTINUED ...

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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A

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Report_Summary

Report Summary Text File - Auto-generated by SMARTS on 10/14/2016 14:18:09

Name of Report: Central Coast Post-Construction Stormwater Requirements Annual Reporting 2015 - 2016 Annual

Certifier Name: Rose Hess

Certifier Title: Director of Public Works

Certifier Password Hash:

4e1ffe8558da4a65ec301aa56411a53c70684a2a605feb5997e1932e062464c8

Certifier User Account ID: 626600

Certification Computer IP: 198.143.34.1

Certification Executed On:

WARNING - Unable to Retrieve Certifier Details or Confirmation Number

CITY OF BUELLTON
City Council Agenda Staff Report

City Manager Review: MPB
Council Agenda Item No.: 4

To: The Honorable Mayor and City Council

From: Rose Hess, City Engineer

Meeting Date: November 10, 2016

Subject: Reduction of Bond for Village Specific Plan

BACKGROUND

With the recordation of the Village Specific Plan Tract Map on November 8, 2012, a Subdivision Improvement Agreement and Bond was put in effect for the required off-site improvements that included water, sewer, storm drain and road improvements (and appurtenant facilities) on Highway 246 and McMurray Road.

Work and cost estimates were split into South McMurray/Hwy 246 Improvements and North McMurray/Valley Vineyard Circle.

The developer has requested a reduction of the improvement bond posted for the improvements that have been completed. Staff has reviewed the line items and project progress and approves a reduction of \$65,000 from the South McMurray/Hwy 246 Improvements and a reduction of \$298,200 from the North McMurray/Valley Vineyard Circle. In addition, \$72,640 for the equivalent administrative contingency may be reduced.

The original bond 388661S, in the amount of \$2,274,324 may be reduced by \$435,840. The revised final bond amount will be \$1,838,484.

Reduction of the bond amount does not mean the City accepts or approves any of the improvements. Nor does it relieve the developer of any responsibilities or duties to repair, maintain or correct for any portions of the bond that has been reduced. Acceptance and approval is not made until the improvements are wholly complete.

FISCAL IMPACT

Approval of the reduction of bond for the Village Specific Plan will not cause any fiscal impact to the City.

RECOMMENDATION

That the City Council authorize the reduction of Bond Number 388661S by \$435,840 for a remaining bond balance of \$1,838,484 for the Village Specific Plan.

CITY OF BUELLTON
City Council Agenda Staff Report

City Manager Review: MPB
Council Agenda Item No.: 5

To: The Honorable Mayor and City Council

From: Rose Hess, Public Works Director

Meeting Date: November 10, 2016

Subject: Consideration of Memorandum of Understanding with Santa Barbara County Regarding Stormwater Resources Control Plan

BACKGROUND

In 2014, the California Legislature adopted the Stormwater Resources Planning Act (Senate Bill 985) requiring public agencies to develop a Stormwater Resources Plan in order to receive grants for stormwater and dry weather runoff capture projects from a bond act. In order to take advantage of the funding available for any future projects, the County of Santa Barbara has agreed to take the lead on the Stormwater Resources Plan.

On March 18, 2016, the County of Santa Barbara submitted a Planning Grant application on behalf of ten Cooperating Entities and various Stakeholders to prepare a Santa Barbara County-wide Integrated Stormwater Resources Plan.

On June 30, 2016, the grant was awarded in the full requested amount of \$462,830. The awarded grant was one of 28 approved applications totaling \$9.5 million from a field of 45 requests for approximately \$15,500,000.

On July 26, 2016, the County was contacted by the Water Resources Control Board Division of Financial Assistance to begin the grant negotiation and execution process.

On August 17, 2016, the Cooperating Entities met for the first time since the grant was awarded in order to discuss the pending process which, if approved, will consist of an open, collaborative of Cooperating Entities, formally recognized Stakeholders, and other interested parties. The Memorandum of Understanding between Cooperating Entities will outline this process, which would be managed through the contracted professional services of a consultant. The ten Cooperating Entities comprised of six Cities (Buellton, Carpinteria, Goleta, Guadalupe, Lompoc, and Solvang); three Water Districts (Carpinteria Valley, Goleta, and Montecito); and the University of California at Santa Barbara.

The proposed regional, watershed-based plan will improve the management of stormwater resources throughout Santa Barbara County by identifying water system improvements which increase user self-reliance on local water supplies. Water system improvements, in both management techniques and infrastructure, will be achieved through the following project types: 1) stormwater and dry weather runoff capture projects; 2) surface water treatment facilities; and 3) green infrastructure. The Plan will develop an evaluation matrix for the identification, benefit quantification, and prioritization of these projects in a manner that efficiently provides for the equitable allocation of limited grant funding sources for project implementation within the County. An approved plan will be necessary to obtain future grant funding awards pursuant to the mandates of the Stormwater Resource Planning Act (SB 285) adopted by the California Legislature in 2014.

As awarded, the \$462,830 grant requires a local match of \$462,909. The proposed budget within the approved grant application included \$278,840 in qualifying County and Cooperating Entity local match efforts expended after November 1, 2014, pursuant to the State Water Board's Stormwater Grant Program Funding Guidelines for administering Proposition 1 funds (adopted December 15, 2015). The remaining \$184,069 in required local match will consist primarily of County and Cooperating Entity staff time costs.

FISCAL IMPACT

Approval of the MOU will require the City to provide local match in support of the awarded Grant. However, the City has historically and currently budgets funds dedicated to stormwater activities which will be utilized as "in-kind" services for the local match.

RECOMMENDATION

Staff recommends that Council approve the MOU and authorize the City Manager to execute the MOU.

ATTACHMENT

Attachment 1 – MOU for Santa Barbara County-wide Integrated Stormwater Resource Plan

MEMORANDUM OF UNDERSTANDING (MOU)

Between Cooperating Entities

For Participation in the Development and Implementation of a

Santa Barbara County-wide Integrated Stormwater Resource Plan

Pursuant to

Proposition 1 Water Quality, Supply, and Infrastructure Improvement Act

Stormwater Grant Program

Grant Agreement No. D1612610 (Project Identification No. 35586)

Draft
July 28, 2016

This Memorandum of Understanding (MOU) is entered into by and between local and State government agencies, and special districts within Santa Barbara County, as listed in Appendix A, and hereinafter referred to as “Cooperating Entities.”

1. Purpose of this MOU

Under this MOU, the Cooperating Entities commit to participate in, and make a financial and/or service oriented contribution toward, the development of a comprehensive Santa Barbara County-wide Integrated Stormwater Resource Plan (Integrated SRP) pursuant to The Water Quality, Supply, and Infrastructure Improvement Act (Public Resources Code Section 75001-75009) also known as Proposition 1), and in accordance with Water Code Section 10565 (as amended by Senate Bill 985, Stats. 2014, Ch. 555, Sxn. 5), and Section 10563, subdivision (c)(1), which requires a Stormwater Resource Plan (SRP) as a condition of receiving funds for stormwater and dry weather runoff capture projects from any bond approved by voters after January 2014. This MOU sets forth the mutual responsibilities of the Cooperating Entities in the development of the subject Integrated SRP.

2. Background

Proposition 1, approved by voters in November 2014, authorizes \$200 million in grants for multi-benefit stormwater management projects. A Proposition 1 Planning Grant for the Integrated SRP project was approved by the State Water Resources Control Board (SWRCB), in the amount of \$462,830.00, on July 13, 2016.

Public agencies/entities that receive grants for stormwater and dry weather runoff capture projects are subject to the Stormwater Resource Plan Guidelines (Guidelines) promulgated by the SWRCB. The Guidelines state that each agency/entity should develop a watershed-based SRP prior to applying for bond funds associated with individual stormwater and dry weather runoff capture projects. Individual projects within a watershed are indicated as ranging from small retrofits (such as standardized parkway curb cuts and tree wells in public rights-of-way) to creation of constructed natural wetlands and/or installation of underground vaults that store and infiltrate or reuse the captured runoff.

Stormwater planning and management on a watershed basis involves collaboration of local governments, utilities, and other stakeholder groups to analyze the hydrology, storm drain/runoff conveyance systems, opportunity sites, and other habitat or community needs within subwatersheds. Coordinated stormwater management, monitoring, and evaluation on a watershed basis minimizes monitoring costs and maximizes the value of monitoring results across programs intended to protect beneficial uses.

The Stormwater Management Planning Act (implemented through Water Code Section 10563) substantively focuses on diverting runoff from existing storm drains, channels, or conveyance structures to sites (particularly publicly owned sites) that can clean, infiltrate and/or use the runoff.

3. Principles

Recognizing the importance of a comprehensive Integrated SRP, the Cooperating Entities endorse the following *Principles* for integrated regional stormwater resource planning.

- 3.1 Be consistent with the State’s standards for SRPs, as specified in Section 10560 *et. seq.* of the Water Code, and related guidelines, and meet or exceed the expected scoring criteria used by the State in its SRP approval process.
- 3.2 Establish a process for on-going decision-making among cooperating entities, with inclusive and participatory public involvement to ensure meaningful input.
- 3.3 Share the costs of SRP planning, analysis, coordination, and project development through: 1) monetary contributions; and/or 2) staff time/in-kind services. NGO’s, as specified herein, meeting certain time commitment requests, will be exempted from the monetary contributions afforded all other members of the Cooperating Entities.
- 3.4 Adopt a regional approach which coordinates stormwater resource planning across jurisdictional boundaries in Santa Barbara County, sets priorities on a regional basis, and considers issues common to watersheds and sub-watersheds.
- 3.5 Adopt an integrated approach to address the complex inter-relationships across strategies for stormwater resource planning, and other water management issues as well as sensitivity to water provision and resources in the context of global climate change.
- 3.6 Incorporate an appropriate level of scientific watershed assessment information.
- 3.7 Modify the plan to continue as an informational “roadmap” toward meeting objectives, but not as a regulatory or enforceable mandate.
- 3.8 Recognize the need for a long-term perspective, which includes monitoring of project and plan implementation.
- 3.9 Provide for adaptive management for future revisions to the Plan.
- 3.10 Provide for coordination with other SRP planning efforts in the Central Coast Region.
- 3.11 Provide an inclusive process which seeks involvement from, and opportunities to collaborate with, a wide range interests including the general public, agriculture, environmental groups, watershed groups, wetlands groups, academic institutions, adjacent region representatives, and NGOs.

4. Scope of a Stormwater Resource Plan

The Cooperating Entities understand and accept that a final Integrated SRP must consider a range of stormwater resource management strategies to meet the plan’s objectives. These strategies must cover certain State-specified categories and may include other categories.

4.1 Consistent with the State’s SRP guidelines, the Plan **should** include or provide formal reference to the following provisions:

- a. California Environmental Quality Act (CEQA) Compliance
- b. Consistency with Water Quality Control Plans and Applicable Water Quality Control Policies

- c. Submission to Entities Overseeing Integrated Regional Water Management Plans and Other Local Plans
- d. Consistency with Applicable NPDES and Waste Discharge Permits
- e. Modification of a River or Stream Channel
- f. Monitoring

4.2 Pursuant to Appendix A of the Guidelines, Mandatory Required Elements consist of:

- a. Plan Development
- b. Identification of Projects
- c. Prioritization of Projects
- d. Plan Implementation
- e. Water Quality Compliance

4.2 Pursuant to Appendix A of the Guidelines, Recommendations consist of:

- a. Watershed and Sub-watershed descriptions using the CalWater watershed and USGS Hydrological Unit designations
- b. Collaboration between agencies/entities to address local, regional, and watershed-wide obstacles by working together to maximize environmental outcomes that result from joint government/organizational efforts
- c. Quantitative Methods for Identification and Prioritization of Stormwater and Dry Weather Runoff Capture Projects
- d. Identification and Prioritization of Multiple Benefit Projects
- e. Implementation Strategy and Schedule
- f. Education, Outreach, and Public Participation

5. Schedule

Following is a tentative schedule of Grant events:

Task:	Time of Completion:
Stormwater Resource Plan: Planning Grant Application solicitation	January 19 - March 18, 2016
SRP Planning Grant Approval	July 13, 2016
Implementation Grants Available: Round 1	Summer, 2016
SRP Consultant Selection Process	>
SRP Preparation	>
SRP Submittal	>
SRP Approval	>
Implementation Grants Available: Round 2	Summer, 2018
Round 2 Implementation Grant Award	Fall, 2018

Since the Integrated SRP must to conform to Proposition 1 guidelines, obtaining a planning grant will assist County-wide interests in defraying their direct costs.

6. Roles and Responsibilities

In order to develop an effective Integrated SRP, the Cooperating Entities agree to recognize the County of Santa Barbara Public Works Department (Agency) as the single eligible contracting entity. The Agency may engage a consultant to serve as Project Manager for Integrated SRP development, including data collection, analysis, coordinating stakeholder and public involvement, and overall coordination of plan and grant application preparation. Prior to hiring the consultant, the Agency will obtain advance concurrence of a majority of the Cooperating Entities as to the consultant qualifications and terms of contract.

The Integrated SRP team includes the Project Manager, Cooperating Entities, Steering Committee, and Stakeholders. Each will be responsible for, and participate in, SRP development and implementation as follows:

6.1 Project Manager

The Agency shall act as or engage a Project Manager to provide overall coordination of the SRP effort. The project manager shall prepare agendas and chair the Cooperating Entities and Steering Committee meetings. In addition, the Project Manager shall implement a public participation process that shall include regular workshops for stakeholders and other interested parties as well as establishing and maintaining a website pertaining to Prop 1 that is accessible to the Cooperating Entities and the public. The project manager shall be responsible for the monitoring of Prop 1 and informing the Cooperating Entities regarding developments.

6.2 Cooperating Entities

The Cooperating Entities shall consist of the signatories to this MOU, and may consist of local and State government agencies, special districts, and non-governmental organizations (NGOs). Cooperating Entities' meetings are open to the public. A forum for public comment will be provided at each Cooperating Entities meeting. Decisions by the Cooperating Entities will be based on consensus whenever possible, or by a vote of a simple majority of all members participating in a meeting, each entity that is signatory to this MOU having one vote. Cooperating Entities shall participate in regular meetings and take part in decisions pertaining to the Integrated SRP preparation process, project finances, consultant selection, revision of the Integrated SRP, and planning grant proposals. The Cooperating Entities are listed on Attachment A.

6.3 Steering Committee

The Steering Committee shall consist of a subset of the Cooperating Entities. Any signatory to the MOU may join the Steering Committee by providing written intent to attend Steering Committee meetings on a regular basis and to act as a Steering Committee member. The Steering Committee will be comprised, at a minimum, of each of the following agencies or organizations: Santa Barbara

County, represented by the Agency or the Project Manager; two Incorporated Cities; and one Water District.

The Steering Committee is an open forum for the proposal and vetting of ideas. Steering Committee members shall be expected to exercise a high degree of leadership, which may include conducting workshops and/or preparing reports and presentations. The Steering Committee shall recommend or propose actions to the Cooperating Entities, the meetings of which will be the forum to obtain general consensus. Decisions within the Steering Committee will be based on consensus whenever possible, or by a vote of a simple majority of all members participating in a meeting, each entity that is signatory to this MOU having one vote.

The Steering Committee responsibilities will include the development of Integrated SRP objectives and criteria for ranking projects. Input from all Cooperating Entities and Stakeholders shall be solicited for this process.

6.4 **Stakeholders**

Stakeholders shall be defined as all interested parties that are not participating in the process as Cooperating Entities. Stakeholders may fall into the following categories: (1) Wholesale and retail water purveyors, including a local agency, mutual water company, or a water corporation as defined in Section 241 of the Public Utilities Code; (2) wastewater agencies; (3) flood control agencies; (4) municipal and county governments and special districts; (5) electrical corporations, as defined in Section 218 of the Public Utilities Code; (6) Native American tribes that have lands within the region; (7) self-supplied water users, including agricultural, industrial, residential, park districts, school districts, colleges and universities, and others; (8) environmental stewardship organizations, including watershed groups, fishing groups, land conservancies, and environmental groups; (9) community organizations, including landowner organizations, taxpayer groups, and recreational interests; (10) industry organizations representing agriculture, developers, and other industries appropriate to the region; (11) State, Federal, and regional agencies or universities, with specific responsibilities or knowledge within the region; (12) Disadvantaged Community members and representatives, including environmental justice organizations, neighborhood councils, and social justice organizations; (13) any other NGOs or interested groups appropriate to the region.

Stakeholder involvement will be actively solicited through web-sites, media noticing, personal contact, and the posting of notices. Solicitation of Stakeholders shall be among the responsibilities of Cooperating Entities and Steering Committee members. Stakeholder involvement is expected to vary over the course of Integrated SRP development. The list of Stakeholders is included as Appendix B.

7. Financial Considerations

Each of the Cooperating Entities (with the exception of NGOs that qualify for an exemption from monetary participation) agree to in-kind time and materials commitments, and shall be solely responsible for costs for staff time devoted to Integrated SRP development.

The Cooperating Entities agree to actively encourage participation by all public agencies with a direct or indirect interest in water resources.

7.1 Non-Governmental Organizations

It is recognized that some organizations that wish to participate in the Integrated SRP process as Cooperating Entities and/or Steering Committee members may not have the means by which to make a financial contribution. In lieu of a financial contribution, these organizations may make an “in kind” contribution consisting of the commitment of time and labor in support of the Integrated SRP/Prop 1 process. Pursuant to language in the PUC Section 75005(k), commonly known as Proposition 84, Chapter 2 Integrated Regional Water Management, Nonprofit Organizations are defined as "any nonprofit corporation qualified to do business in California, and qualified under Section 501 (c) 3, 501 (c) (4) or 501 (c) (5) of the Internal Revenue Code." The option of “in-kind” service in lieu of a financial contribution will extend only to those meeting this definition.

Examples of “In-kind” contributions include but are not limited to:

- 7.1.1 Attendance at and participation in Cooperating Entities and Steering Committee meetings.
- 7.1.2 Organization and/or conducting of informational, workshops and meetings.
- 7.1.3 Production and/or distribution of written materials necessary to conduct business relevant to the Integrated SRP process.
- 7.1.4 Solicitation of involvement by Stakeholders.
- 7.1.5 Review of, and comment on, documents produced as part of the Integrated SRP process.

7.2. For Financial Management: Pending, to be addressed in a separate MOU.

8. Termination of Participation

Any signatory to the MOU may terminate its participation in this MOU after 30 days written notification to all other signatories.

9. Addition of Parties

Entities may join the Integrated SRP Cooperating Entities by submitting a written request to the Cooperating Entities and receiving their approval. Entities joining the Cooperating Entities or Steering Committee will be subject to all of the provisions of, and be required to make a financial or in-kind contribution in accordance with, this MOU.

10. Defend and Hold Harmless

Tort Liability. Government Code Section 895.2 imposes certain tort liability jointly upon public agencies solely by reason of such public agencies being parties to an agreement as defined in Government Code Section 895. Therefore, the Parties hereto, as between themselves, pursuant to the authorization contained in Government Code Sections 895.4 and 895.6, each assumes the full liability imposed upon it or any of its officers, agents, representatives or employees by law for injury caused by a negligent or wrongful act or omission occurring in the performance of this Agreement, to the same extent that such liability would be imposed in the absence of Government Code Section 895.2. To achieve this purpose, each Party indemnifies and holds harmless the other Party for any loss, cost, or expense, including reasonable attorneys' fees that may be imposed upon or incurred by such other Party solely by virtue of Government Code Section 895.2.

11. Term of this MOU:

The provisions of this MOU will end: (i) on December 31, 2017; or (ii) when Cooperating Entities sign a new MOU that specifically covers ongoing coordination of the Integrated SRP process, whichever occurs first.

12. Counterparts:

This MOU may be executed in counterparts. Each counterpart shall have the same effect as an original.

13. Notices

All notices or other official correspondence relating to MOU matters between the Cooperating Entities shall be addressed to:

John Karamitsos, Project Clean Water Manager
Water Resources Division
Public Works Department
County of Santa Barbara
123 E. Anapamu St.
Santa Barbara, CA 93101

In witness whereof, the Cooperating Entities hereto have executed this MOU effective at the time that a majority of the parties listed in Appendix A have approved and executed this MOU.

SANTA BARBARA COUNTY
SCOTT MCGOLPIN
PUBLIC WORKS DIRECTOR
BY: _____

DATE: _____

APPROVED AS TO FORM:
MICHAEL GHIZZONI
COUNTY COUNSEL

BY: _____
Deputy

APPROVED AS TO INSURANCE:
RAY ARMATORIO, ARM, AIC
RISK PROGRAM ADMINISTRATOR

BY: _____

APPROVE AS TO ACCOUNTING:
ROBERT W. GEIS, CPA
AUDITOR-CONTROLLER

BY: _____
Deputy

SIGNATURE OF COOPERATING PARTNER

BY: _____

NAME: _____

TITLE: _____

AGENCY/ORGANIZATION: _____

DATE: _____

Appendix A: List of Potential Cooperating Entities

The final list of Cooperating Entities will be based on the signatories to the subject MOU.

County Agencies:

- Public Works Department
 - Water Resources Division
 - Resource Recovery and Waste Management Division

Cities:

- City of Buellton
- City of Carpinteria
- City of Goleta
- City of Guadalupe
- City of Lompoc
- City of Solvang

Water Districts:

- Carpinteria Valley Water District
- Goleta Water District
- Montecito Water District

Universities:

- University of California at Santa Barbara

Appendix B: Stakeholder List

Cities:

- City Santa Barbara
- City of Santa Maria

Non Governmental Organizations:

- Heal the Ocean
- Santa Barbara Channelkeepers

Sanitary and Water Conservation Districts:

- Carpinteria Sanitary District
- Goleta Sanitary District
- Goleta West Sanitary District
- Santa Maria Valley Water Conservation District
- Santa Ynez River Water Conservation District
- Santa Ynez River Water Conservation District, ID #1

Community Services Districts:

- Casmalia Community Services District
- Cuyama Community Services District
- Vandenberg Village Community Services District

Joint Powers Agencies:

- Cachuma Operations and Maintenance Board (COMB)
- Cachuma Conservation Release Board (CCRB)
- Central Coast Water Authority (CCWA)

Special Districts:

- Cachuma Resource Conservation District (CRCD)

Native Americans:

- Santa Ynez Band of Chumash Indians

Others:

- USFS Los Padres National Forest
- Santa Barbara County Action Network (SBCAN)
- Santa Rita Hills Wine Growers Alliance
- La Purisima Audubon Society
- Guadalupe-Nipomo Dunes Center
- UCSB Sedgwick Reserve
- Arguello Group, (North Santa Barbara County) Los Padres Chapter of the Sierra Club

Appendix C: Expected Contributions from Cooperating Entities

TBD

CITY OF BUELLTON
City Council Agenda Staff Report

City Manager Review: MPB
Council Agenda Item No.: 6

To: The Honorable Mayor and City Council

From: Carolyn Galloway-Cooper, Finance Director

Meeting Date: November 10, 2016

Subject: Resolution No. 16-23 – “A Resolution of the City Council of the City of Buellton, California, Establishing an Appropriation Limit for Fiscal Year 2015-16 Pursuant to Article XIII-B of the California Constitution”

BACKGROUND

The City’s limitation is calculated each year and established by a resolution of the City Council. Staff is revising the limitation due to an interest rate adjustment for 2015-16, originally adopted by Resolution No. 15-15 on June 11, 2015.

In 1979, the voters of the State of California passed Proposition 4, the “Gann Initiative”, which added Article XIII-B to the State Constitution. This Article provides that the City’s annual appropriations be subject to certain State limitations based upon budgeted appropriations for Fiscal Year 1978-79 and adjusted annually for changes in population and cost of living or personal income. New legislation under Proposition 98 and 111 modified the original provisions of the law, allowing exemptions for qualified capital projects and adjustment factor changes.

The limitation for fiscal year 2015-16 is \$9,803,890. The Gann spending limitation is calculated by taking the prior year’s limitation of \$9,339,493 and adjusting it by the growth factor in the California Per Capita Personal Income and the change in the population within the City of Buellton. The appropriations subject to the limit is \$5,442,991, which is under limit by \$4,360,899 less than the appropriation limit.

Therefore, the City of Buellton is in compliance with Article XIII-B of the California Constitution for fiscal year 2015-16. The Article XIII-B is not a restricting factor for the City of Buellton due to the combination of modest population growth and continued General Fund spending on qualified capital projects. These factors will continue to be monitored annually and if the use of alternative growth factors as authorized by Proposition 111 would result in a more advantageous appropriation limit, staff will revise the appropriations limit.

Per Government Code 7910 documentation used in the determination of the appropriations limit is available to the public upon request.

FISCAL IMPACT

There will be no fiscal impact to the City because appropriations are below the limit.

RECOMMENDATION

That the City Council adopt Resolution No. 16-23 – “A Resolution of the City Council of the City of Buellton, California, Establishing an Appropriation Limit for Fiscal Year 2015-16 Pursuant to Article XIII-B of the California Constitution”

ATTACHMENTS

Resolution No. 16-23 with Calculation of Appropriations Limit for Fiscal Year 2015-16
attached as Exhibit A

Attachment 1 - Letter dated May 2015 from California Department of Finance

RESOLUTION NO. 16-23

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF BUELLTON, CALIFORNIA, ESTABLISHING AN APPROPRIATION LIMIT FOR FISCAL YEAR 2015-16 PURSUANT TO ARTICLE XIII-B OF THE CALIFORNIA CONSTITUTION

WHEREAS, Article XIII-B of the California Constitution provides that the total annual appropriations limit of this City shall not exceed the appropriations limit for the prior year, except as adjusted for changes in the cost of living or personal income and population, or as otherwise provided for in said Article XIII-B and implementing State statutes; and

WHEREAS, pursuant to said Article XIII-B of said California Constitution, the City is required to set its appropriation limit for each fiscal year, and has made available to the public the documentation used in the determination of said appropriation limit; and

WHEREAS, in 1990, the voters of California adopted Proposition 111 which amended Article XIII-B of the California Constitution; and

WHEREAS, among the changes implemented by Proposition 111 are adjustments to the growth factors used to calculate the annual appropriation limit; and

WHEREAS, Proposition 111 established Fiscal Year 1986-87 as the base year for calculating the annual Appropriation Limit and permits the City to re-establish the annual Appropriation Limit for all succeeding years based upon the new growth factors; and

WHEREAS, a resolution establishing the annual appropriations limit is to be adopted at a regularly scheduled meeting of the City Council.

WHEREAS, all legal prerequisites have occurred prior to the adoption of this Resolution.

NOW, THEREFORE, THE CITY COUNCIL DOES RESOLVE, DECLARE, DETERMINE, AND REQUEST AS FOLLOWS:

SECTION 1. The City Council hereby finds that the above recitations are true and correct and, accordingly, are incorporated as a material part of this Resolution.

SECTION 2. The Council of the City of Buellton elects to use the change in California per capita income as the cost of living adjustment factor and the annual population change for the City of Buellton as the population adjustment.

SECTION 3. The appropriation limit is amended for Fiscal Year 2015-16 and is hereby set forth as Exhibit "A" in the amount of \$9,803,890.

SECTION 4. The City reserves the right to adjust or amend the appropriations limit based upon the use of alternative growth factors as authorized by Proposition 111 if such changes or revisions would result in a more advantageous appropriation limit, now or in the future.

SECTION 5. The City Clerk shall certify to the adoption of this Resolution.

PASSED, APPROVED and ADOPTED by the Buellton City Council, this 10th day of November, 2016.

Ed Andrisek
Mayor

ATTEST:

Linda Reid
City Clerk

EXHIBIT "A"

CITY OF BUELLTON
Calculation Using Per Capita Personal Income and Population Change
Annual Appropriations Subject to Gann Limit
Fiscal Year 2015-16

Appropriations Subject to Limitation

Fiscal year 2015-16 adopted revenues	\$6,665,000
Less:	
Non-proceeds of tax	(1,222,009)
Qualified Capital Outlay	
Plus:	
User-fees in excess of costs	-
	<hr/>
Total Appropriations Subject to limitation	<u>\$5,442,991</u>

Appropriations Limit

Fiscal year 2014-15 appropriation limit, adopted	\$9,339,493
A. California per Capita adjustment	1.0382
B. Population adjustment	<u>1.0111</u>
Change factor (A X B)	1.0497
Increase in appropriation limit	<u>\$ 464,397</u>
Fiscal year 2015-16 appropriation limit	<u>\$9,803,890</u>



DEPARTMENT OF
FINANCE
OFFICE OF THE DIRECTOR

EDMUND G. BROWN JR. ■ GOVERNOR
STATE CAPITOL ■ ROOM 1145 ■ SACRAMENTO CA ■ 95814-4998 ■ WWW.DOF.CA.GOV

May 2015

Dear Fiscal Officer:

Subject: Price and Population Information

Appropriations Limit

The California Revenue and Taxation Code, section 2227, mandates the Department of Finance (Finance) to transmit an estimate of the percentage change in population to local governments. Each local jurisdiction must use their percentage change in population factor for January 1, 2015, in conjunction with a change in the cost of living, or price factor, to calculate their appropriations limit for fiscal year 2015-16. Attachment A provides the change in California's per capita personal income and an example for utilizing the price factor and population percentage change factor to calculate the 2015-16 appropriations limit. Attachment B provides city and unincorporated county population percentage change. Attachment C provides population percentage change for counties and their summed incorporated areas. The population percentage change data excludes federal and state institutionalized populations and military populations.

Population Percent Change for Special Districts

Some special districts must establish an annual appropriations limit. Consult the Revenue and Taxation Code section 2228 for further information regarding the appropriations limit. Article XIII B, section 9(C), of the State Constitution exempts certain special districts from the appropriations limit calculation mandate. The Code and the California Constitution can be accessed at the following website: <http://leginfo.legislature.ca.gov/faces/codes.xhtml>.

Special districts required by law to calculate their appropriations limit must present the calculation as part of their annual audit. Any questions special districts have on this issue should be referred to their respective county for clarification, or to their legal representation, or to the law itself. No state agency reviews the local appropriations limits.

Population Certification

The population certification program applies only to cities and counties. Revenue and Taxation Code section 11005.6 mandates Finance to automatically certify any population estimate that exceeds the current certified population with the State Controller's Office. **Finance will certify the higher estimate to the State Controller by June 1, 2015.**

Please Note: Prior year's city population estimates may be revised.

If you have any questions regarding this data, please contact the Demographic Research Unit at (916) 323-4086.

MICHAEL COHEN
Director
By:

KEELY M. BOSLER
Chief Deputy Director

Attachment

- A. **Price Factor:** Article XIII B specifies that local jurisdictions select their cost of living factor to compute their appropriation limit by a vote of their governing body. The cost of living factor provided here is per capita personal income. If the percentage change in per capita personal income is selected, the percentage change to be used in setting the fiscal year 2015-16 appropriation limit is:

Per Capita Personal Income	
Fiscal Year (FY)	Percentage change over prior year
2015-16	3.82

- B. Following is an example using sample population change and the change in California per capita personal income as growth factors in computing a 2015-16 appropriation limit.

2015-16:

Per Capita Cost of Living Change = 3.82 percent
 Population Change = 0.93 percent

Per Capita Cost of Living converted to a ratio: $\frac{3.82 + 100}{100} = 1.0382$

Population converted to a ratio: $\frac{0.93 + 100}{100} = 1.0093$

Calculation of factor for FY 2015-16: $1.0382 \times 1.0093 = 1.0479$

Fiscal Year 2015-16

Attachment B
Annual Percent Change in Population Minus Exclusions*
January 1, 2014 to January 1, 2015 and Total Population, January 1, 2015

County City	<u>Percent Change</u>	<u>--- Population Minus Exclusions ---</u>		<u>Total</u>
	2014-2015	1-1-14	1-1-15	1-1-2015
Santa Barbara				
Buellton	0.41	4,911	4,931	4,931
Carpinteria	0.44	13,487	13,547	13,547
Goleta	1.54	30,298	30,765	30,765
Guadalupe	0.47	7,171	7,205	7,205
Lompoc	3.93	39,971	41,541	43,479
Santa Barbara	0.53	90,592	91,068	91,088
Santa Maria	0.69	101,383	102,087	102,087
Solvang	2.01	5,381	5,489	5,489
Unincorporated	0.96	134,472	135,765	139,052
County Total	1.11	427,666	432,398	437,643

*Exclusions include residents on federal military installations and group quarters residents in state mental institutions, state and federal correctional institutions and veteran homes.

CITY OF BUELLTON
City Council Agenda Staff Report

City Manager Review: MPB
Council Agenda Item No.: 7

To: The Honorable Mayor and City Council

From: Carolyn Galloway-Cooper, Finance Director

Meeting Date: November 10, 2016

Subject: Resolution No. 16-24 – “A Resolution of the City Council of the City of Buellton, California, Establishing an Appropriation Limit for Fiscal Year 2016-17 Pursuant to Article XIII-B of the California Constitution”

BACKGROUND

The City’s limitation is calculated each year and established by a resolution of the City Council. Staff is revising the limitation due to an interest rate adjustment for 2016-17, originally adopted by Resolution No. 16-15 on June 9, 2016.

In 1979, the voters of the State of California passed Proposition 4, the “Gann Initiative”, which added Article XIII-B to the State Constitution. This Article provides that the City’s annual appropriations be subject to certain State limitations based upon budgeted appropriations for Fiscal Year 1978-79 and adjusted annually for changes in population and cost of living or personal income. New legislation under Proposition 98 and 111 modified the original provisions of the law, allowing exemptions for qualified capital projects and adjustment factor changes.

The limitation for fiscal year 2016-17 is \$10,428,497. The Gann spending limitation is calculated by taking the prior year’s limitation of \$9,803,890 and adjusting it by the growth factor in the California Per Capita Personal Income and the change in the population within the City of Buellton. The appropriations subject to the limit is \$5,751,491, which is under limit by \$4,677,006 less than the appropriation limit.

Therefore, the City of Buellton is in compliance with Article XIII-B of the California Constitution for fiscal year 2016-17. The Article XIII-B is not a restricting factor for the City of Buellton due to the combination of modest population growth and continued General Fund spending on qualified capital projects. These factors will continue to be monitored annually and if the use of alternative growth factors as authorized by Proposition 111 would result in a more advantageous appropriation limit, staff will revise the appropriations limit.

Under Government Code section 7910, documentation used in the determination of the appropriations limit is available to the public upon request.

FISCAL IMPACT

There will be no fiscal impact to the City because appropriations are below the limit.

RECOMMENDATION

That the City Council adopt Resolution No. 16-24 – “A Resolution of the City Council of the City of Buellton, California, Establishing an Appropriation Limit for Fiscal Year 2016-17 Pursuant to Article XIII-B of the California Constitution”

ATTACHMENTS

Resolution No. 16-24 with Calculation of Appropriations Limit for Fiscal Year 2016-17
attached as Exhibit A
Attachment 1 - Letter dated May 2016 from California Department of Finance

RESOLUTION NO. 16-24

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF BUELLTON, CALIFORNIA, ESTABLISHING AN APPROPRIATION LIMIT FOR FISCAL YEAR 2016-17 PURSUANT TO ARTICLE XIII-B OF THE CALIFORNIA CONSTITUTION

WHEREAS, Article XIII-B of the California Constitution provides that the total annual appropriations limit of this City shall not exceed the appropriations limit for the prior year, except as adjusted for changes in the cost of living or personal income and population, or as otherwise provided for in said Article XIII-B and implementing State statutes; and

WHEREAS, pursuant to said Article XIII-B of said California Constitution, the City is required to set its appropriation limit for each fiscal year, and has made available to the public the documentation used in the determination of said appropriation limit; and

WHEREAS, in 1990, the voters of California adopted Proposition 111 which amended Article XIII-B of the California Constitution; and

WHEREAS, among the changes implemented by Proposition 111 are adjustments to the growth factors used to calculate the annual appropriation limit; and

WHEREAS, Proposition 111 established Fiscal Year 1986-87 as the base year for calculating the annual Appropriation Limit and permits the City to re-establish the annual Appropriation Limit for all succeeding years based upon the new growth factors; and

WHEREAS, a resolution establishing the annual appropriations limit is to be adopted at a regularly scheduled meeting of the City Council.

WHEREAS, all legal prerequisites have occurred prior to the adoption of this Resolution.

NOW, THEREFORE, THE CITY COUNCIL DOES RESOLVE, DECLARE, DETERMINE, AND REQUEST AS FOLLOWS:

SECTION 1. The City Council hereby finds that the above recitations are true and correct and, accordingly, are incorporated as a material part of this Resolution.

SECTION 2. The Council of the City of Buellton elects to use the change in California per capita income as the cost of living adjustment factor and the annual population change for the City of Buellton as the population adjustment.

SECTION 3. The appropriation limit is amended for Fiscal Year 2016-17 and is hereby set forth as Exhibit "A" in the amount of \$10,428,497.

SECTION 4. The City reserves the right to adjust or amend the appropriations limit based upon the use of alternative growth factors as authorized by Proposition 111 if such changes or revisions would result in a more advantageous appropriation limit, now or in the future.

SECTION 5. The City Clerk shall certify to the adoption of this Resolution.

PASSED, APPROVED and ADOPTED by the Buellton City Council, this 10th day of November, 2016.

Ed Andrisek
Mayor

ATTEST:

Linda Reid
City Clerk

EXHIBIT "A"

CITY OF BUELLTON
Calculation Using Per Capita Personal Income and Population Change
Annual Appropriations Subject to Gann Limit
Fiscal Year 2016-17

Appropriations Subject to Limitation

Fiscal year 2016-17 adopted revenues	\$6,999,437
Less:	
Non-proceeds of tax	(1,247,946)
Qualified Capital Outlay	
Plus:	
User-fees in excess of costs	-
	<hr/>
Total Appropriations Subject to limitation	<u>\$5,751,491</u>

Appropriations Limit

Fiscal year 2015-16 appropriation limit, adopted	\$ 9,803,890
A. California per Capita adjustment	1.0537
B. Population adjustment	<u>1.0095</u>
Change factor (A X B)	1.0637
Increase in appropriation limit	<u>\$ 624,607</u>
Fiscal year 2016-17 appropriation limit	<u>\$10,428,497</u>



DEPARTMENT OF
FINANCE
OFFICE OF THE DIRECTOR

EDMUND G. BROWN JR. • GOVERNOR
STATE CAPITOL ■ ROOM 1145 ■ SACRAMENTO CA ■ 95814-4998 ■ WWW.DOF.CA.GOV

May 2016

Dear Fiscal Officer:

Subject: Price Factor and Population Information

Appropriations Limit

The California Revenue and Taxation Code, section 2227, requires the Department of Finance (Finance) to transmit an estimate of the percentage change in population to local governments. Each local jurisdiction must use their percentage change in population factor for January 1, 2016, in conjunction with a change in the cost of living, or price factor, to calculate their appropriations limit for fiscal year 2016-17. Attachment A provides the change in California's per capita personal income and an example for utilizing the price factor and population percentage change factor to calculate the 2016-17 appropriations limit. Attachment B provides the city and unincorporated county population percentage change. Attachment C provides the population percentage change for counties and their summed incorporated areas. The population percentage change data excludes federal and state institutionalized populations and military populations.

Population Percent Change for Special Districts

Some special districts must establish an annual appropriations limit. The Revenue and Taxation Code, section 2228 provides additional information regarding the appropriations limit. Article XIII B, section 9(C) of the California Constitution exempts certain special districts from the appropriations limit calculation mandate. The Code and the California Constitution can be accessed at the following website: <http://leginfo.legislature.ca.gov/faces/codes.xhtml>.

Special districts required by law to calculate their appropriations limit must present the calculation as part of their annual audit. Any questions special districts have on this requirement should be directed to their county, district legal counsel, or the law itself. No state agency reviews the local appropriations limits.

Population Certification

The population certification program applies only to cities and counties. Revenue and Taxation Code section 11005.6 mandates Finance to automatically certify any population estimate that exceeds the current certified population with the State Controller's Office. **Finance will certify the higher estimate to the State Controller by June 1, 2016.**

Please Note: Prior year's city population estimates may be revised.

If you have any questions regarding this data, please contact the Demographic Research Unit at (916) 323-4086.

MICHAEL COHEN
Director
By:

AMY COSTA
Chief Deputy Director

Attachment

- A. **Price Factor:** Article XIII B specifies that local jurisdictions select their cost of living factor to compute their appropriation limit by a vote of their governing body. The cost of living factor provided here is per capita personal income. If the percentage change in per capita personal income is selected, the percentage change to be used in setting the fiscal year 2016-17 appropriation limit is:

Per Capita Personal Income	
Fiscal Year (FY)	Percentage change over prior year
2016-17	5.37

- B. Following is an example using sample population change and the change in California per capita personal income as growth factors in computing a 2016-17 appropriation limit.

2016-17:

Per Capita Cost of Living Change = 5.37 percent
 Population Change = 0.90 percent

Per Capita Cost of Living converted to a ratio: $\frac{5.37 + 100}{100} = 1.0537$

Population converted to a ratio: $\frac{0.90 + 100}{100} = 1.0090$

Calculation of factor for FY 2016-17: $1.0537 \times 1.0090 = 1.0632$

Fiscal Year 2016-17

Attachment B
Annual Percent Change in Population Minus Exclusions*
January 1, 2015 to January 1, 2016 and Total Population, January 1, 2016

County City	<u>Percent Change</u>	<u>--- Population Minus Exclusions ---</u>		<u>Total</u>
	2015-2016	1-1-15	1-1-16	1-1-2016
Santa Barbara				
Buellton	0.45	4,935	4,957	4,957
Carpinteria	0.97	13,794	13,928	13,928
Goleta	1.80	30,684	31,235	31,235
Guadalupe	0.62	7,303	7,348	7,348
Lompoc	0.58	41,007	41,244	44,116
Santa Barbara	0.25	92,938	93,170	93,190
Santa Maria	1.41	102,948	104,404	104,404
Solvang	1.41	5,375	5,451	5,451
Unincorporated	1.02	137,413	138,814	142,088
County Total	0.95	436,397	440,551	446,717

*Exclusions include residents on federal military installations and group quarters residents in state mental institutions, state and federal correctional institutions and veteran homes.



City of Buellton



PROCLAMATION HONORING LAW ENFORCEMENT OFFICERS OF THE SANTA BARBARA COUNTY SHERIFF'S DEPARTMENT AND THE CALIFORNIA HIGHWAY PATROL

WHEREAS, law enforcement officers of the Santa Barbara County Sheriff's Department and the California Highway Patrol play an essential role in safeguarding the rights and freedoms of the citizens of Buellton; and

WHEREAS, law enforcement officers throughout our country are committed to all of our communities, neighborhoods, and families; and

WHEREAS, law enforcement officers risk their lives each and every day in order to ensure public safety and enforce the laws of the land; and

WHEREAS, our law enforcement officers have nobly undertaken the vital role of protecting life and property against violence and disorder; and

WHEREAS, the City of Buellton would like to express its gratitude to our law enforcement department personnel and commend those who, by their faithful and loyal devotion to their responsibilities, have established for themselves an enduring reputation of the highest order; and

WHEREAS, it is important that all citizens know and understand the problems, duties, and responsibilities of the Santa Barbara County Sheriff's Department and California Highway Patrol and that law enforcement officers recognize their duty to serve the people by safeguarding life and property, by protecting them against violence and disorder, and by protecting the innocent against deception and the weak against oppression or intimidation.

NOW, THEREFORE, I, Ed Andrisek, Mayor of the City of Buellton, hereby recognize and honor all law enforcement officers of the Santa Barbara County Sheriff's Department and the California Highway Patrol and thank them for their service to the community.

PRESENTED this 10th day of November 2016



Mayor

CITY OF BUELLTON
City Council Agenda Staff Report

City Manager Review: MPB
Council Agenda Item No.: 9

To: The Honorable Mayor and City Council

From: Marc Bierdzinski, City Manager

Meeting Date: November 10, 2016

Subject: Approval of Contract and Budget with the Buellton Chamber of Commerce for Operation of the Visitors Bureau

BACKGROUND

At the City Council meeting of October 27, 2016, the City Council conceptually approved the contract with the Chamber of Commerce for operation of the Visitors Bureau (VB), contingent upon submittal of a revised budget for the VB. Attachment 1 is the contract as conceptually approved by the City Council. The revised VB budget will be provided under separate cover.

The Chamber of Commerce Board of Directors met on November 1, 2016, to review the contract. The Chamber Board approved the wording as noted in Attachment 1 and have signed the contract.

FISCAL IMPACT

The City Council included a budget line item of \$400,000 for operation of the Visitors Bureau.

RECOMMENDATION

Staff recommends that the City Council approve the contract and VB budget and authorize the mayor to sign the contract. The signed contract shall then be forwarded to the Chamber of Commerce Board of Directors for approval and signature.

ATTACHMENT

Attachment 1 – Contract

Service Contract by and between the City of Buellton and the Buellton Business Association/Chamber of Commerce for Operation of a Visitors Bureau

This CONTRACT by and between the CITY OF BUELLTON, a California General Law City (hereinafter referred to as CITY) and the BUELLTON BUSINESS ASSOCIATION/CHAMBER OF COMMERCE (hereinafter referred to as BBA/COC) for operation of a VISITORS BUREAU (hereinafter referred to as BUREAU) for advertising and promotion of city facilities and attraction of tourists to CITY (the CONTRACT) is entered into on the 10th day of November 2016, by and between the CITY and the BBA/COC on the following terms and conditions.

NOW, THEREFORE, THE PARTIES AGREE, in consideration of the foregoing facts and the conditions and terms set forth herein, as follows:

1. AGREEMENT TO CONTRACT FOR SERVICES

1.1 CITY hereby engages BBA/COC to operate and maintain a BUREAU to:

- Attract visitors to the CITY, with emphasis on overnight stays
- Promote and invite trade and business meetings, celebrations, and conventions whereby non-resident businesses and individuals may become acquainted with the CITY
- Advertise, promote and provide information regarding CITY facilities, local products, art work, agricultural, mineral, climatic, educational and other features, CITY musical and other cultural activities, conventions and other gatherings, and such other assets of the CITY as the BBA/COC and CITY deem worthy of advertising and promotion (CITY FACILITIES)
- Contract and work with a marketing/advertising firm(s) to identify target markets and develop a strategic PR and marketing campaign to target those markets
- Using advice from the marketing/advertising firm(s), identify months and weeks of low visitation rates and develop a strategic marketing plan to increase visitation numbers during these time periods and include this task in the yearly budget and marketing plan
- Brief the Economic Development Task Force on the methodology used to identify the City's biggest target markets, and present a strategic marketing plan designed to capture these markets

The above-described tasks shall be accomplished by such means within the budgetary restraints of BUREAU, under the following four general categories:

- Operation of a Visitor's Information Center

- Provide grants and developing specific projects
- Attend trade shows and conferences and support economic development
- Use a professional marketing/advertising firm, selected through a Request for Qualifications (RFQ) process, with advice from CITY, to plan and implement a strategic marketing plan

2. TERM OF THIS CONTRACT, TERMINATION, AMENDMENT AND RENEWAL

2.1 Term of this Contract. This CONTRACT shall become effective as of November 10, 2016, and shall be in effect until June 30, 2020.

2.2 Termination. Either party may terminate this CONTRACT without cause upon 60 days written notice given to the other as provided in Section 9.4 of the CONTRACT.

2.3 Amendment or Renewal of this Contract. This CONTRACT shall be reviewed for renewal 60 days prior to expiration as noted in Section 2.1

3. CONSIDERATION TO BE PAID FOR SERVICES OF BBA/COC'S OPERATION OF BUREAU

In consideration of the services to be provided by BUREAU on behalf of the CITY, CITY will provide a sum equal to \$400,000 per fiscal year in monthly payments of \$33,333 starting November 1, 2016, to BBA/COC exclusively for BUREAU services rendered during the TERM. These funds will be placed in a checking account separate from BBA/COC funds and a separate accounting of the dispersal of said funds will be kept by BUREAU. Said consideration shall be paid by the CITY within 30 days of the beginning of the month. BUREAU will provide a detailed monthly report of all expenditures to the CITY that is understandable to a lay person. In the event of an earlier termination pursuant to Subsection 2.2, the CITY shall pay the monthly payment through the effective date of termination and the amount of the final monthly payment shall be calculated on a pro rata basis for each day of the final month that the CONTRACT is in effect. The fiscal sum shall be reviewed every two years beginning in April 2018.

4. SPECIFIC SERVICES SHALL BE REQUIRED OF THE BUREAU

The Bureau shall provide services to the CITY in the following four areas, with associated breakdown of funding associated with each task. The budget/strategic plan/marketing plan (Budget) shall be formatted to follow these tasks. The percentage funding for each category shall be updated and revised each fiscal year as part of BUREAU's budget. The percentages noted shall be in effect until June 30, 2017.

4.1 Task 1 – Operation of a Visitor’s Information Center (CENTER)

- a. Budget: percentage to be determined by approved annual budget as submitted to the City Council per Section 5.1.a.
- b. The CENTER shall be housed in suitable quarters staffed by competent personnel, shall be open not less than 42 hours a week and shall provide promotional material, advertising, direction and advice and other information about CITY FACILITIES and commercial and visitor facilities to those seeking information at the CENTER.
- c. BUREAU shall provide telephone service, including fax service, at CENTER to respond to inquiries about commercial and visitor facilities, and events and requests for directions and advice.
- d. BUREAU shall maintain Visitor Bureau (VB) website and such other applications, advertisements, ad words, trip planning, advice, and consultation as the budget allows and BUREAU recommends.

4.2 Task 2 – Grants and Specific Projects

- a. Budget: percentage to be determined by approved annual budget as submitted to the City Council per Section 5.1.a.
- b. BUREAU shall provide monetary grants, and/or sponsorships to organizations for events held within the Santa Ynez Valley that will increase tourism and general commercial activity within the CITY.
- c. BUREAU shall undertake specific projects that promote tourism and increase commercial activity within the CITY.
- d. All proposed grants and specific projects for the fiscal year shall not exceed the budgeted amount unless notification from BUREAU is provided to the City Manager pursuant to Section 5.1.g.

4.3 Task 3 – Support of CITY Economic Development Activities

- a. Budget: percentage to be determined by approved annual budget as submitted to the City Council per Section 5.1.a.

b. BUREAU shall implement CITY economic development policies and objectives through attendance at trade shows and conferences.

c. BUREAU shall provide support to CITY economic development activities and may establish its own programs and/or participate with other entities in the Valley for the betterment of the CITY economy.

4.4 Task 4 – Promotion and Advertising

a. Budget: percentage to be determined by approved annual budget as submitted to the City Council per Section 5.1.a.

b. BUREAU shall promote tourism within the CITY and shall promote CITY facilities, such as the Botanic Gardens, PAWS Park, Zaca Creek Golf Course, and Riverview Park.

c. Using the marketing/advertising firm selected through the RFQ process, BUREAU shall identify target markets and develop a strategic PR and marketing campaign to target those markets, and identify months and weeks of low visitation rates and develop a strategic marketing plan to increase visitation numbers during these time periods and include this task in the yearly budget and marketing plan.

d. BUREAU shall develop a strategic marketing/advertising/promotions/public relations plan to capture and identify the top tier markets.

e. BUREAU shall work with other organizations to promote Buellton as a destination and as part of the greater Santa Ynez Valley.

5. **REPORTING REQUIREMENTS**

5.1 Reporting Requirements

a. Prior to June 1st of each year, BUREAU shall submit to the City Council a proposed budget/strategic plan/marketing plan (Budget) for BUREAU's entire operation for the upcoming fiscal year. The line item Budget shall include the following: a description of operation and activities of BUREAU's information office; a description of planned conference and trade show attendance; grants, projects, and sponsorships for the upcoming fiscal year; and the activities and reporting standards for the strategic plan and marketing plan prepared by the firm or firms selected through the RFQ process. The Budget shall also include a line item budget and include a narrative describing whether or

not the goals and projects from the prior fiscal year were met. The Economic Development Task Force may provide input on the plan prior to a presentation to the full City Council;

b. By September 30th, BUREAU shall submit to the City Council the Annual Fiscal Year-end Report for the BUREAU's activities. The Annual report shall contain a list of programs and specific tasks that occurred, the attendance at each event, total visitation numbers, and the amount of grants or funding provided to other organizations (including the BBA/COC). The Annual Report shall also state whether the objectives and marketing plans from the budget were met and describe the effectiveness of the plan and programs.

c. BUREAU shall submit a semi-annual progress report to the City Manager by January 31st. Report shall then be presented to the City Council at a regularly scheduled City Council meeting. The semi-annual report shall describe how the goals and activities described in the Budget have or have not been achieved, and shall include all reporting data from the marketing firm or firms, and a listing of grants and sponsorships.

d. By no later than the last day of each month, BUREAU shall submit to the City Manager monthly financial accounting statements for the prior month. These monthly financial accounting statements must include the activities and expenditures for the prior month.

e. All reports required by subsections (a) through (d) of this section shall be posted on CITYs Website and made available to the public for inspection.

f. If BUREAU fails to provide the reports required in subsections (a) through (d) of this section, the CITY may withhold any funds owed to BUREAU until such time as the reports are submitted. Failure to submit the reports within 90 days will result in the loss of the funds for those months not in compliance.

g. Any changes to the BUREAU's budget allocation percentages noted in Section 4 during the current budget year shall be reported to the City Manager. The reason for the changes shall be provided. The City Manager shall then report such changes to the City Council.

6. HOLD HARMLESS AND INDEMNITY

BUREAU shall indemnify, protect, defend and hold harmless CITY, and any and all of its employees, officials and agents from and against any liability (including liability for claims, suits, actions, arbitration proceedings, administrative proceedings, regulatory proceedings,

losses, expenses or costs of any kind, whether actual, alleged or threatened, including attorney's fees and costs, court costs, interest, defense costs, and expert witness fees), which arises out of, is a consequence of, or is in any way attributable to, in whole or in part, the performance of this CONTRACT by BUREAU or by any individual or entity for which BUREAU is legally liable, including but not limited to officers, agents, employees or sub-contractors of BUREAU and the BBA/COC. The provisions of this section do not apply to claims occurring as a result of CITY's sole negligence. The provisions of this section shall not release CITY from liability arising from gross negligence or willful acts or omissions of CITY or any and all of its officials, employees and agents.

7. INSURANCE

The BUREAU and/or the BBA/COC shall during the TERM provide all workers' compensation insurance at BUREAU's and/or BBA/COC's expense for any and all employees employed by the BUREAU and/or the BBA/COC and shall defend, protect, indemnify and hold harmless CITY, its officers, employees and agents from any claim arising from the failure of BBA/COC or the BUREAU to provide such workers' compensation insurance. BUREAU and/or BBA/COC shall maintain public liability and property damage insurance in the amount of \$1,000,000 which names the CITY as an additional insured. Certificates of insurance for public liability and property damage insurance showing the CITY as additional insured shall be provided to the CITY within 14 days of the execution of this CONTRACT. Failure to provide insurance required by this Section 7 shall be a material breach of this CONTRACT.

8. BREACHES OF THE TERMS OF THIS CONTRACT

In the event of a breach of a term or condition of this CONTRACT by one party, the other party shall give written notice to the breaching party of the alleged breach as provided in Section 10.4, below. The breaching party shall have 30 days within which to cure said breach. If said breach is not cured within the 30-day period, the non-breaching party shall have the right to terminate this CONTRACT by written notice given as provided in Section 10.4 and said termination shall be effective at delivery of said notice as said delivery is deemed to have occurred pursuant to Section 10.4, below. The forgoing notwithstanding, this Section 8 shall not operate to limit the use of all legal remedies available to the non-breaching party.

9. NO DISCRIMINATION IN EMPLOYMENT AND CONTRACTS

The BBA/COC and BUREAU shall refrain from any discriminatory practices with respect to race, country of origin or ethnicity, gender, sexual preferences, age or religions in its membership practices and operations, in the employment of personnel for BUREAU (including

the BBA/COC) and in contracting for services rendered by or through it pursuant to this CONTRACT.

10. MISCELLANEOUS PROVISIONS

10.1 Complete Agreement Between the Parties. This CONTRACT represents the complete agreement of the parties regarding the subject matter contained herein and no prior or contemporaneous, written or oral, representation by one party to the other which it is not contained herein shall have any effect on the matters contained herein.

10.2 Construction. This CONTRACT has been entered into and executed in the State of California and it shall be construed pursuant to California law. The use of headings, captions and numbers in this CONTRACT is for the purpose of ease of reading and identification of information and such headings, captions and numbers shall not be construed to alter the plain meaning of the text of this CONTRACT. This CONTRACT shall not be construed against or in favor of either party by reason of the fact that one party acted as scrivener for the mutually agreed upon terms contained herein.

10.3 Authorization to Execute. Each party represents to the other that the person or persons executing this CONTRACT on behalf of that party has been duly authorized to do so.

10.4 Notice. Whenever notice is required to be given by one party to the other pursuant to this CONTRACT or is necessary to exercise a term or condition of this CONTRACT, the party giving notice shall do so in writing, which shall be dated and delivered by either personal messenger, commercial messenger, or United State Postal Service with postage prepaid to the other party at the address set forth below or such other address as either party may provide the other in writing from time to time. When delivery is personal or by messenger said notice shall be deemed received when delivered. When notice is sent by the United State Postal Service, notice shall be deemed delivered upon the 5th day after the postmark shown on the envelope in which said notice is sent. The addresses to which notice should be sent are:

If to CITY: City of Buellton
 Attn: City Manager
 107 W. Highway 246
 P.O. Box 1819
 Buellton, CA 93427

If to BUREAU: Buellton Business Association/Chamber of
 Commerce
 Attn: Executive Director

597 Avenue of Flags, Suite 101
P.O. Box 231
Buellton, CA 93427

Cc: President of BBA/COC

10.5 Independent Contractor Status. It is understood and agreed by the parties that the BBA/COC and its BUREAU are operating as an independent contractor in conducting the duties and obligations under this CONTRACT and that neither party shall be deemed or construed to be an employee or agent of the CITY. The BBA/COC and/or its BUREAU has represented to CITY that the BBA/COC and its BUREAU have an employer identification number and will and shall make all tax reports and statements required by federal and state law.

10.6 Records and Audit. All records of the BBA/COC that pertain to BUREAU and all records of BUREAU shall be open to inspection by the CITY upon reasonable notice during normal business hours. Upon request of the CITY, the BBA/COC will submit to an audit of BUREAU operations conducted by a certified public accountant to evaluate BUREAU's compliance with its budget as provided in Section 5.1.a of this CONTRACT. Monthly expenditure reports on the use of the funds shall be provided to the CITY.

This CONTRACT has been executed as of the date first noted above.

CITY OF BUELLTON

By: _____
Ed Andrisek, Mayor

BUELLTON BUSINESS ASSOCIATION/CHAMBER OF COMMERCE

By: _____
Ron Anderson, President

ATTEST:

Linda Reid, City Clerk

Kathy Vreeland, BBA/COC Executive Director

CITY OF BUELLTON
City Council Agenda Staff Report

City Manager Review: MPB
Council Agenda Item No.: 10

To: The Honorable Mayor and City Council

From: Rose Hess, Public Works Director

Meeting Date: March 24, 2016

Subject: Resolution No. 16-26 - “A Resolution of the City Council of the City of Buellton, California, Deciding to Become a Groundwater Sustainability Agency Pursuant to the Sustainable Groundwater Management Act for the Central Management Area”

BACKGROUND

In March 24, 2016, the City Council approved a Memorandum of Understanding with the Santa Ynez Valley River Water Conservation District (District) which provided our intent to partner with the District to comply with the Sustainable Groundwater Management Act (SGMA).

The City of Buellton is located within the Central Management Area of the Santa Ynez River Valley Groundwater Basin. Members of this Central Management Area would consist of the City of Buellton, the Santa Ynez Valley River Water Conservation District and the County of Santa Barbara. The County of Santa Barbara will not be a voting member of the Groundwater Sustainability Agencies (GSA).

The District would take the lead in the management of the GSA and implementation of the SGMA program. The City of Buellton will share 50 percent of the financial responsibilities for any studies undertaken through the GSA, with the exception of the initiating consulting contract. The District will pay the cost of the initial work to establish the GSA. Future work will be coordinated with the City so that appropriate monies are budgeted annually.

Attachment 1 is the Memorandum of Agreement (MOA) that formalizes the creation of the GSA for the Central Management Area. Formation of the GSA is required by the State prior to June 30, 2017. The GSA must adopt a Groundwater Sustainability Plan by January 31, 2022.

Under SGMA, failure to satisfy either deadline could result in State intervention and regulation. Entering into the MOA is the most efficient and cost effective way to manage our own groundwater resources.

FISCAL IMPACT

Approval of Resolution 16-26 and the MOA has no current fiscal Impact. The City's share of future costs under the MOA will be incorporated with the appropriate budget process. The City would incur the expenses to comply with SGMA whether or the City was part of the GSA. If the City was not part of the GSA, the City would be responsible for any costs in their entirety.

RECOMMENDATION

Staff recommends that Council consider approval of Resolution 16-26 - "A Resolution of the City Council of the City of Buellton, California, Deciding to Become a Groundwater Sustainability Agency Pursuant to the Sustainable Groundwater Management Act for the Central Management Area" and authorize the City Manager to execute the MOA for the formation of the GSA.

ATTACHMENT

Resolution No. 16-26

Attachment 1 –Draft Memorandum of Agreement for the Formation of a GSA

RESOLUTION NO. 16-26

**RESOLUTION OF THE CITY COUNCIL OF BUELLTON,
CALIFORNIA, DECIDING TO BECOME A
GROUNDWATER SUSTAINABILITY AGENCY
PURSUANT TO THE SUSTAINABLE GROUNDWATER
MANAGEMENT ACT FOR THE CENTRAL
MANAGEMENT AREA**

WHEREAS, the California legislature passed a statewide framework for sustainable groundwater management, known as the Sustainable Groundwater Management Act (California Water Code § 10720 et seq.) as amended, which became effective January 1, 2015; and

WHEREAS, pursuant to the Sustainable Groundwater Management Act (SGMA), sustainable groundwater management is intended to occur pursuant to Groundwater Sustainability Plans that are created and adopted by local Groundwater Sustainability Agencies; and

WHEREAS, Bulletin 118 describes the Santa Ynez River Valley Groundwater Basin (Basin) in three portions: eastern, central, and western; the western portion consists of the Lompoc Plain, Lompoc Terrace, and Lompoc Uplands; the central portion is the Buellton Uplands, and the eastern portion is the Santa Ynez Uplands; For purposes of administering its groundwater usage program and other water management functions, the Santa Ynez River Water Conservation District (District) also generally recognizes these hydrogeologic units; for the purpose of implementing SGMA, each portion of the Basin as described by DWR is designated as a corresponding groundwater “Management Area” as defined by the Act, this Resolution concerns the central portion of the Basin, known as the “Central Management Area”; and

WHEREAS, pursuant to California Water Code §10723(a), a Local Agency or combination of Local Agencies, as defined in California Water Code §10721(n), may decide to become or form a Groundwater Sustainably Agency; and

WHEREAS, the City of Buellton (City) overlies a portion of the Central Management Area, has a water supply, manages water and has land-use responsibilities, and is therefore a “Local Agency” as defined by California Water Code §10721 (n); and

WHEREAS, Santa Ynez River Water Conservation District (District) is a California Water Conservation District formed and operating pursuant to an in accordance with Division 21 of the California Water Code (commencing with Water Code §74000) and overlies over ninety-nine percent of the Central Management Area, manages water and has water management powers and is therefore a “Local Agency” as defined within California Water Code 10721 (n); and

WHEREAS, the Santa Barbara County Water Agency (County Water Agency) overlies the Central Management Area including the less than 1 percent not overlain by the District. The County Water Agency is therefore a “Local Agency” as defined by the California Water Code 10721 (n); and

WHEREAS, the City, District, and County Water Agency collectively include all of the lands within the Central Management Area of the Basin; and

WHEREAS, the City desires to form a Groundwater Sustainability Agency in conjunction with the District and the County Water Agency, and which may include at a later time other Local Agencies and other legally authorized entities; and

WHEREAS, the City in conjunction with the District and County Water Agency held a public hearing on November 8, 2016 pursuant to California Water Code section §10723(b), after publication of notice of such hearing pursuant to California Government Code section §6066; and

WHEREAS, at the public hearing, the City, District and County Water Agency considered oral and written comments to the extent provided by the public; and

WHEREAS, it would be in the best interests of the City to form a Groundwater Sustainability Agency, in conjunction with the District and the County Water Agency.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF BUELLTON DOES RESOLVE, DETERMINE, FIND, AND ORDER AS FOLLOWS:

1. That the foregoing is true and correct.
2. That the City of Buellton herein decides to form a Groundwater Sustainability Agency in conjunction with the District and County Water Agency, known as the Central Management Area Groundwater Sustainability Agency (Agency), and which shall have all the powers granted to a groundwater sustainability agency pursuant to the Sustainable Groundwater Management Act.
3. That the portion of the groundwater basin that the Agency hereby created shall manage shall be that portion of the basin as depicted in the notification provided to the Department of Water Resources as the Central Management Area, pursuant to California Water Code 10723.8, and which boundary may be modified from time to time.
4. That the Agency hereby created shall consider the interests of all beneficial uses and users of groundwater, as well as those responsible for implementing groundwater sustainability plans, as required by California Water Code section §10723.2.
5. That the Agency hereby created shall establish and maintain a list of persons interested in receiving notices regarding plan preparation, meeting announcements, and availability of draft plans, maps, and other relevant documents, as required by California Water Code section §10723.4.
6. That the City Manager of the City of Buellton shall be authorized to execute a Memorandum of Agreement or other legal agreement(s) with the District and the County Water Agency, and cause notice to be given to the California Department of Water Resources of the

decision of the City in conjunction with the District and County Water Agency to create the above referenced Groundwater Sustainability Agency.

PASSED, APPROVED and ADOPTED, by the Buellton City Council on the 10th day of November 2016.

Ed Andrisek
Mayor

ATTEST:

Linda Reid
City Clerk

10/27/2016 DRAFT

**MEMORANDUM OF AGREEMENT
FOR FORMATION OF A GROUNDWATER SUSTAINABILITY AGENCY FOR THE
CENTRAL MANAGEMENT AREA
IN THE SANTA YNEZ RIVER VALLEY GROUNDWATER BASIN UNDER THE
SUSTAINABLE GROUNDWATER MANAGEMENT ACT**

THIS MEMORANDUM OF AGREEMENT (“MOA”) is made and effective as of _____, 2016, by and between the Parties executing the MOA below, each a “Party” and collectively the “Parties,” with reference to the following facts:

A. In 2014, the State of California enacted the Sustainable Groundwater Management Act (Water Code Sections 10720 et seq.), referred to in this MOA as the “SGMA” or “Act,” as subsequently amended, pursuant to which certain public agencies may become “Groundwater Sustainability Agencies” (GSA) and adopt “Groundwater Sustainability Plans” (GSP) in order to manage and regulate groundwater in underlying groundwater basins. The Act defines “basin” as a basin or sub-basin identified and defined in California Department of Water Resources (DWR) Bulletin 118. Each Party is a local public agency located within the Santa Ynez River Valley Groundwater Basin (Bulletin 118, Basin No. 3-15, “Basin”) and is qualified to become a GSA and adopt a GSP under the Act for all or a portion of the Basin.

B. Bulletin 118 describes the Basin as being in three portions, that being Eastern, Central and Western. It further describes the Western Portion as consisting of the Lompoc Plain, Lompoc Terrace and Lompoc Uplands; the Central Portion as the Buellton Uplands and the Eastern Portion as the Santa Ynez Uplands. For purposes of administrating its groundwater usage program and other water management functions, the Santa Ynez River Water Conservation District (District) also generally recognizes these various hydro-geologic units. For the purpose of implementing SGMA, each portion of the Basin as described by DWR and recognized by the District, is designated as a groundwater “Management Area” as defined by the Act.

C. The Parties are the agencies qualified to be a GSA under the Act for the Central (Buellton Uplands) Management Area of the Basin, as that Area is recognized by Bulletin 118 and the District. The map attached hereto as Exhibit A designates the boundaries of the Central Management Area (CMA) and the other Management Areas of the Basin.

D. It was determined that separate GSAs for each of the three Management Areas would be most efficient to implement SGMA in the Basin. The three GSAs will be managed by an Intra-Basin Coordination Agreement, with the District as the point of contact with DWR, pursuant to §10727.6 of the Act and California Code of Regulations, Title 23, §357.4. On May 23, 2016, the Parties, along with the other agencies qualified to be a GSA within the Basin, entered into a MOU (SGMA Implementation MOU) which recognized the three Management Areas of the Basin which correspond to DWR’s three portions, and outlined the process for formation of GSAs and development of GSPs for the Basin. These three Management Areas cover the entire Basin that is subject to SGMA. Attached as Exhibit B is a chart of the anticipated organization of the three GSAs.

E. For the purpose of SGMA, there are two exclusions from the Act including “de minimis” produced water (two or less acre-feet/year) and water extracted from river alluvium. Bedrock wells in the CMA generally produce two acre-feet/year or less which is considered “de minimis” by SGMA and therefore not generally subject to the Act. The Santa Ynez River Alluvium zone is generally recognized as constituting “under flow” of the Santa Ynez River, and thereby not “groundwater” for purposes of SGMA and not regulated by the Act. The water produced in river alluvium falls under the jurisdiction of the State Water Resources Control Board (SWRCB), to the extent applicable.

F. The Parties wish to provide a framework to form a GSA and to implement SGMA in the CMA, such that the implementation is through local control and management and is implemented effectively, efficiently, fairly and at a reasonable cost.

THEREFORE, in consideration of the mutual promises set forth below and to implement the goals described above, the Parties agree as follows:

1. Formation of the Central Management Area GSA for the Buellton Uplands (CMA). The purpose of this MOA is to form a GSA for the CMA prior to June 30, 2017, and to facilitate a cooperative and ongoing working relationship between the Parties that will allow them to explore, study, evaluate, develop and implement mutually beneficial approaches and strategies for development of a GSP for the CMA. By execution of this MOA, the Parties collectively determine and elect to be the GSA for the Central (Buellton Uplands) Management Area of the Basin. It is presumed the CMA GSA will be the sole GSA for this portion of the Basin.

2. Organization of the Management Area. The District covers approximately 99.95% of the CMA including the City of Buellton and the Bobcat Springs Mutual Water Company. The Santa Barbara County Water Agency (“County Water Agency”) covers the remaining 0.05% of the CMA that is not within the District. The City of Buellton, the District and the County Water Agency represent all of the public agencies (as defined by the Act) that are eligible to form a GSA in the CMA. The formation of the CMA GSA is supported by the following:

- a. The District has monitored groundwater production and groundwater storage in the Basin, including the CMA, since 1979.
- b. The District and the City of Buellton prepared a Groundwater Basin Management Plan for the CMA in October 1995. The plan was approved under AB 3030.
- c. Buellton practices conjunctive use during wet and dry periods between the Santa Ynez river channel and the CMA in coordination with the Districts’ water rights releases under SWRCB Order 89-18.
- d. Areas of the CMA represented by the County Water Agency have “de minimis” groundwater production, if any, and represent less than 0.05% of the total Management Area. Therefore, the County Water Agency will not be a voting Committee member of the CMA GSA nor will it have any financial responsibility for funding the GSA or GSP activities for the CMA, except for the cost of its staff participation in meetings.

- e. In addition to the consideration of the interests of groundwater users in the CMA GSA, the Santa Barbara County Planning and Development Department, Bob Cat Springs Mutual Water Company, and members of the agricultural community, will be invited to participate on the GSA's Advisory Committee.

3. Development of Groundwater Sustainability Plans ("GSPs"). Separate GSPs will be developed for each of the three Management Areas, including the CMA. The GSPs will be prepared incorporating the Coordination Agreement for the Basin, as provided for in Section §10727.6 of the Act. The District will coordinate efforts of the Parties and be the point of contact with DWR, as defined by the Act, to meet and cooperatively develop the GSP for the CMA. In developing the GSP this GSA shall consider all beneficial uses and users of groundwater in the CMA, including the interests listed at Section §10723.2 of the Act.

4. GSA Governing Body. There is hereby established a GSA Committee for the CMA which shall be subject to the following:

- a. The District and the City of Buellton shall each have one vote in the CMA GSA and will be represented by a person or persons from their respective entities. The County Water Agency will be an ex-officio member and will have non-voting status as a member of the GSA. The County Water Agency will be represented by one person or persons as appointed by the County Water Agency Board of Directors.
- b. The GSA Committee may adopt resolutions, bylaws and policies to provide further details for conducting its affairs consistent with this MOA and applicable law and amend same from time to time. Meetings of the GSA Committee shall be called, noticed and conducted subject to the provisions of the Ralph M Brown Act (Govt. Code sections 54950 et seq.)
- c. A quorum of the GSA Committee to transact business shall be both voting members. Since there are only two voting members of the CMA, in order to pass any proposition or resolution, a unanimous vote will be required.
- d. The composition, voting procedures and powers of the GSA Committee shall be reviewed and reaffirmed or modified as part of the process to adopt a GSP, which is due no later than January 30, 2022.

5. Powers/Development of GSP. The GSA Committee shall have all the powers that a GSA is authorized to exercise as provided by the Act, including developing a GSP consistent with the Act and DWR's regulations and imposing fees to pay for GSA and GSP activities. The GSA Committee shall proceed in a timely fashion to develop a GSP for the CMA, including considering the interests of all beneficial users of groundwater within the CMA as prescribed by Section §10723.2 of the Act, as well as the requirements set forth in the Coordination Agreement for the Basin.

6. Costs. The voting Parties each shall bear the costs incurred with respect to activities under this MOA to participate on the GSA Committee and its proceedings and related matters. Costs incurred to retain consultants to assist with development of the GSP and perform related studies as approved by the GSA Committee and to implement the GSP shall be borne by the voting

Parties in equal portions, unless otherwise agreed to by the voting Parties. The Parties may consider levying a charge pursuant to the Act. There are several vehicles to capture costs for implementing SGMA pursuant to §10730 et seq. of the Act. The County Water Agency, as an ex-officio member, is only responsible for its own costs to attend and participate on the GSA Committee and is not responsible for any other costs contemplated in this MOA or related to the CMA GSA or GSP.

7. Staff. Each Party shall designate a principal contact person, if other than the designated GSA Committee member, and other appropriate staff members and consultants to participate on such Party's behalf in activities undertaken pursuant to this MOA. The District shall be responsible for meetings and other activities under this MOA with the GSA Committee and principal contact persons for the other Parties, and shall be the point of contact with DWR. Informal staff meetings may occur as needed.

8. Ongoing Cooperation. The Parties acknowledge that activities under this MOA will require the frequent interaction between them in order to pursue opportunities and resolve issues that arise. The Parties shall work cooperatively and in good faith. The goal of the Parties shall be to preserve flexibility with respect to the implementation of the Act and consistency with the other GSAs in the Basin, as per the Coordinating Agreement.

9. Notices. Any formal notice or other formal communication given under the terms of this MOA shall be in writing and shall be given personally, by facsimile, by electronic mail (email), or by certified mail, postage prepaid and return receipt requested. Any notice shall be delivered or addressed to the Parties at the addressees' facsimile numbers or email addresses set forth below under each signature and at such other address, facsimile number or email address as shall be designated by notice in writing in accordance with the terms of this Agreement. The date of receipt of the notice shall be the date of actual personal service, confirmed facsimile transmission or email, or three days after the postmark on certified mail.

10. Entire Agreement/Amendments/Counterparts. This MOA incorporates the entire and exclusive agreement of the Parties with respect to the matters described herein and supersedes all prior negotiations and agreements (written, oral, or otherwise) related thereto. This MOA may be amended only in a writing executed by all of the voting Parties. This MOA may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

11. Termination/Withdrawal. This MOA shall remain in effect unless terminated by the unanimous consent of the voting Parties. Upon 60 days written notice, any of the Parties may withdraw from this MOA and the MOA shall remain in effect for the remaining Parties. A withdrawing voting Party shall be liable for expenses incurred through the effective date of the withdrawal and for its share of any contractual obligations incurred by the CMA GSA while the withdrawing voting Party was a party to this Agreement.

12. Assignment. No rights or duties of any of the Parties under this MOA may be assigned or delegated without the express prior written consent of all of the other Parties, and any attempt to assign or delegate such rights or duties without such written consent shall be null and void.

13. Indemnification. In lieu of and notwithstanding any provision of law, including, but not limited to, California Government Code § 895 *et seq.*, the Parties agree to indemnify, defend (with counsel reasonably approved by the County Water Agency) and hold harmless the County Water Agency and its officers, officials, employees, agents and volunteers from and against any and all claims, actions, losses, damages, judgments, and/or liabilities arising out of this MOA from any cause whatsoever, including the acts, errors or omission of any person or entity and for any costs or expenses (including but not limited to attorneys' fees) incurred by the County Water Agency on account of any claim except where such indemnification is caused by the sole negligence or willful misconduct of the County Water Agency.

IN WITNESS WHEREOF, the Parties have executed this MOA as of the date first above written.

CITY OF BUELLTON

By: _____

Address: _____

Email _____

Facsimile _____

SANTA YNEZ RIVER WATER CONSERVATION DISTRICT

By: _____

Address: _____

Email _____

Facsimile _____

SANTA BARBARA COUNTY WATER AGENCY

By: _____ (Signature on following page)

Address: _____

Email _____

Facsimile _____

ATTEST:

Mona Miyasato
County Executive Officer
Clerk of the Board, Ex Officio Clerk of the
Santa Barbara County Water Agency

By: _____
Deputy Clerk

**SANTA BARBARA COUNTY WATER
AGENCY:**

By: _____
Chair, Board of Directors

Date:

RECOMMENDED FOR APPROVAL:

Santa Barbara County Water Agency

By: _____
Department Head

APPROVED AS TO FORM:

Risk Management

By: _____
Risk Management

APPROVED AS TO FORM:

Michael C. Ghizzoni
County Counsel

By: _____
Deputy County Counsel

**APPROVED AS TO ACCOUNTING
FORM:**

Theodore A. Fallati, CPA
Auditor-Controller

By: _____
Deputy

EXHIBIT A

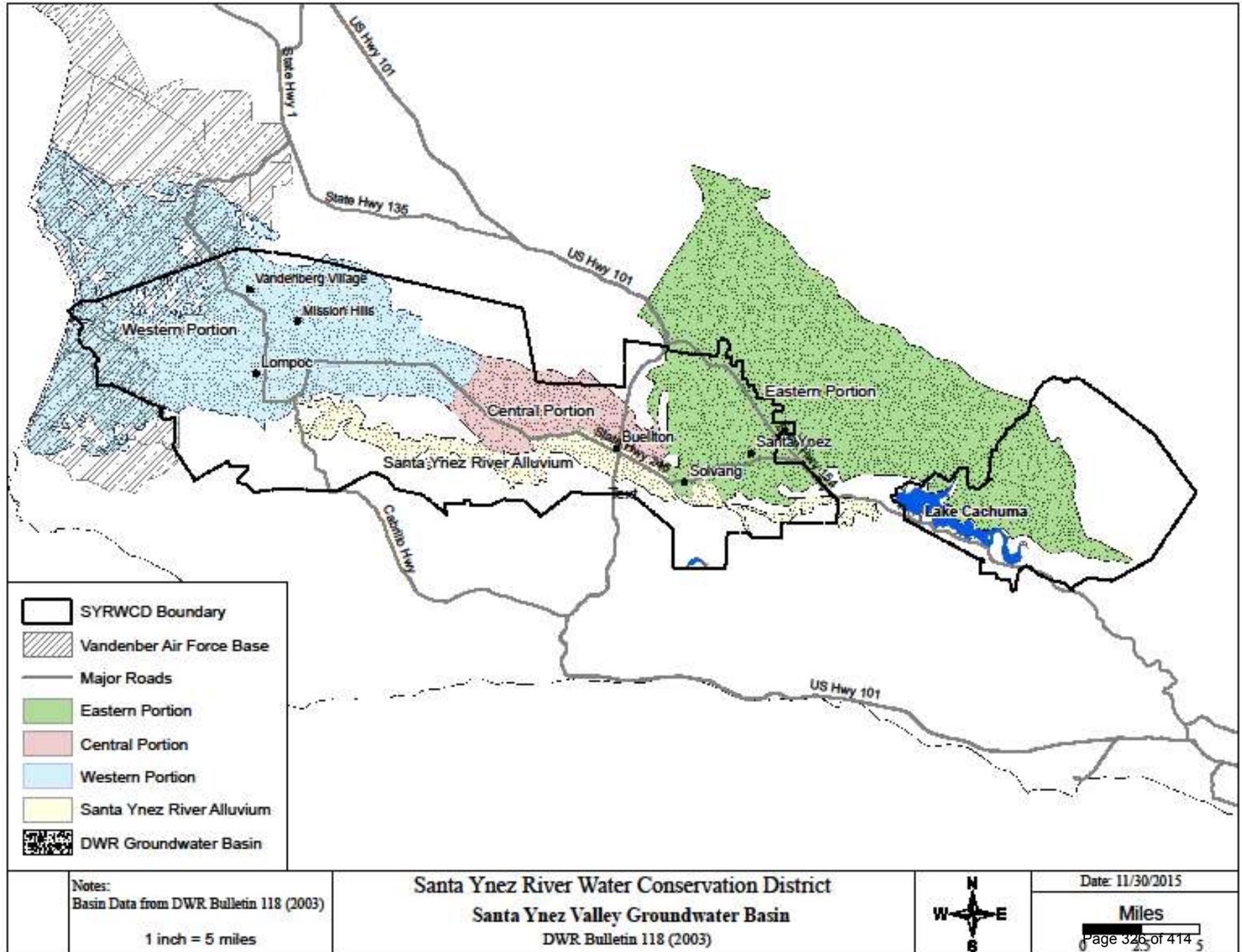
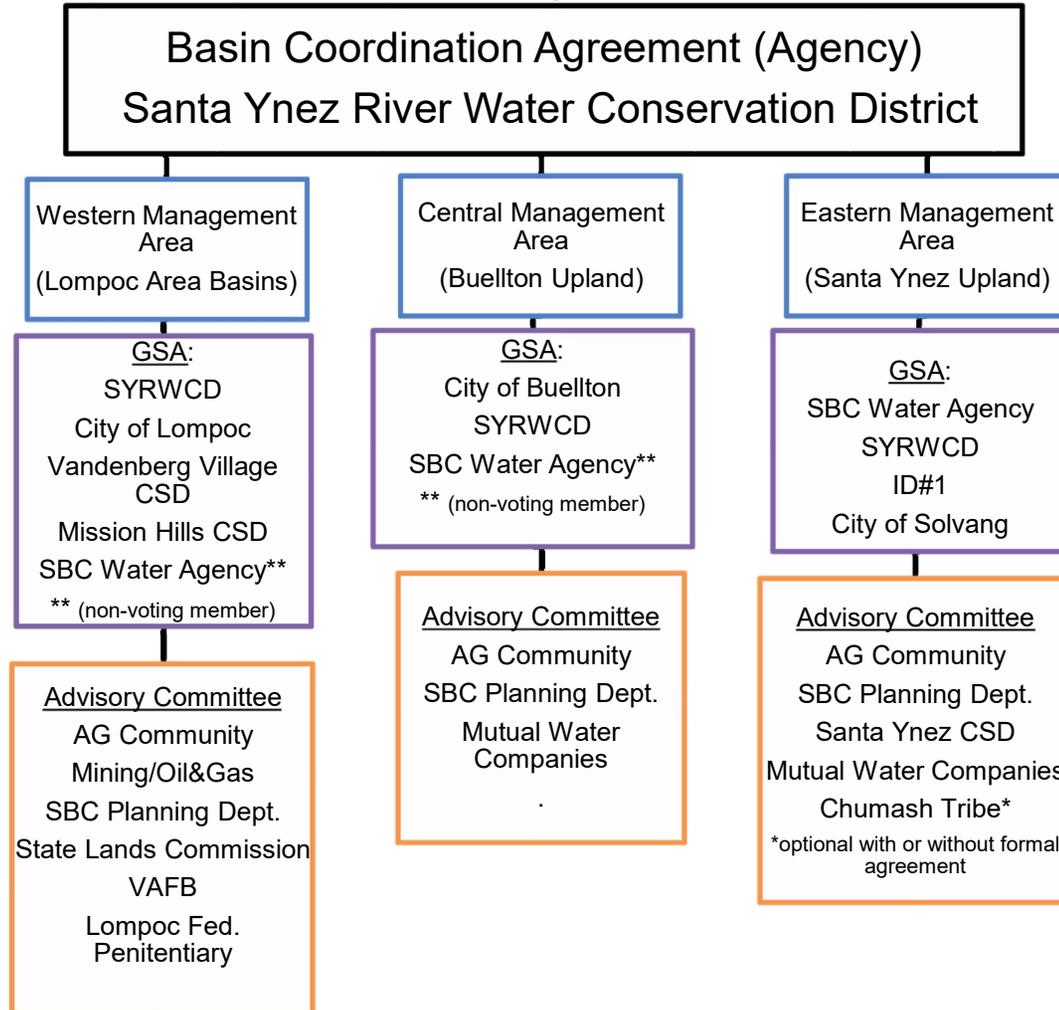


EXHIBIT B

Santa Ynez River Valley Basin GSA Organization



CITY OF BUELLTON
City Council Agenda Staff Report

City Manager Review: MPB
Council Agenda Item No.: 11

To: The Honorable Mayor and City Council

From: Marc Bierdzinski, City Manager

Meeting Date: November 10, 2016

Subject: Consideration of Lease Renewal with Mike Brown for Operation of the Zaca Creek Golf Course

BACKGROUND

The current lease with Mike Brown to operate the Zaca Creek Golf Course expires on December 11, 2016. Mr. Brown has submitted a request to extend his lease for five years (Attachment 1) in accordance with Section 2.4 of his lease agreement with the City (Attachment 2). Attachment 1 also contains financial data for the past three years. Mr. Brown is current with all his lease payments to the City.

Attachment 2 also includes two lease amendments as summarized below:

- Amendment No. 1 (2014): changed the lessee to Mike Brown and amended the youth golf and activities section of the lease.
- Amendment No. 2 (2015): allowed Mr. Brown, in lieu of paying his lease payments, to make \$15,000 worth of improvements to the golf course. Mr. Brown made course improvements and continued to make his lease payments (he never took advantage of the deferred lease payments allowed through this contract amendment).

Attachment 3 is proposed lease Amendment No. 3 extending the term of the lease for five years until December 11, 2021.

Mr. Brown is also working with Public Works Director Rose Hess on using money in the City's tree planting account to plant new trees at the golf course.

Staff is in support of this request. We continue to receive positive comments on the golf course operation and the number of persons playing the course is rising. Mr. Brown and his staff have also done a great job in maintaining the golf course.

FISCAL IMPACT

The City will continue to receive its \$1,250 per month lease payment.

RECOMMENDATION

That the City Council authorize the City Manager to amend the Zaca Creek Golf Course lease (Amendment No. 3) to extend the lease by five years until December 11, 2021.

ATTACHMENTS

Attachment 1 – Request from Mike Brown to extend the lease, plus five years of data

Attachment 2 – Lease and lease amendments

Attachment 3 – Lease amendment No. 3

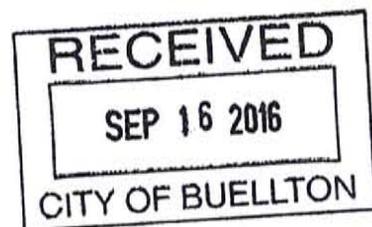
ATTACHMENT 1

To whom it may concern,

My name is Mike Brown and I lease Zaca Creek Golf Course form the city of Buellton. We have a five year contract that is coming to an end. This letter is to inform you that we would like to exercise our first five year option to extend.



Mike Brown,
805-720-4080



Zaca Creek Golf Course

PROFIT AND LOSS

January - June, 2016

	TOTAL
Income	
Sales	0.00
Beer Income	6,810.00
Cart Fees Income	10,031.00
Food Income	2,811.00
Green Fees Income	66,146.00
Merchandise Income	3,751.00
Pull Cart Income	1,858.00
Range Income	2,818.00
Total Sales	94,225.00
Total Income	\$94,225.00
Cost of Goods Sold	
Costs Of Goods	197.70
Beer/Alcohol	2,977.88
Coca-Cola Company Supplies	1,580.64
Food & Merchandise	1,537.64
Total Costs Of Goods	6,293.86
Total Cost of Goods Sold	\$6,293.86
Gross Profit	\$87,931.14
Expenses	
Advertising and Promotion	141.46
Bank Service Charges	73.60
Charitable Contributions	270.00
Dues and Subscriptions	230.00
Employee Bonuses and Benefits	225.00
Equipment Rental	387.57
Fuel/Diesel	939.25
Golf Cart Monthly Payment	2,625.54
Insurance Expense	379.34
Licenses and Permits	261.00
Office Supplies	388.73
Parts & Supplies	
Golf supplies	2,862.55
Irrigation Parts	1,019.57
Material/Sand	1,740.30
Parts	411.21
Total Parts & Supplies	6,033.63
Postage and Delivery	94.00
Professional Services	2,379.00
Aeration of Greens Tees Fairway	900.00
Bookkeeper	177.00
Front Desk Help	7,536.03
General Labor	5,424.00
Grounds & Maintenance	18,770.00
Lessons	50.00
Management	16,500.00

Total Professional Services	51,736.03
Rent Expense	7,500.00
Repairs and Maintenance	1,588.20
City Owned Mower Repair	300.00
Total Repairs and Maintenance	1,888.20
Travel Expense	60.01
Uncategorized Expense	47.96
Utilities	
Comcast	673.62
Electric/Gas	2,743.54
Water/Sewage	639.79
Total Utilities	4,056.95
Total Expenses	\$77,338.27
Net Operating Income	\$10,592.87
Other Expenses	
Other Miscellaneous Expense	38.74
Total Other Expenses	\$38.74
Net Other Income	\$ -38.74
Net Income	\$10,554.13

Cash Basis

Zaca Creek Golf Course

PROFIT AND LOSS

January - December 2015

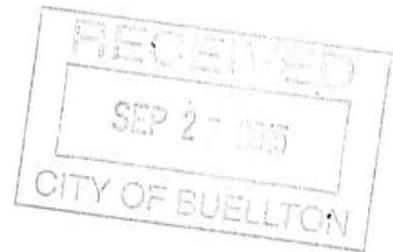
	TOTAL
Income	
Reimbursed Expenses	45.00
Sales	0.00
Beer Income	11,589.00
Cart Fees Income	23,281.00
Food Income	6,022.00
Green Fees Income	124,212.00
Merchandise Income	8,720.00
Pull Cart Income	3,823.00
Range Income	5,337.00
Total Sales	182,984.00
Total Income	\$183,029.00
Cost of Goods Sold	
Costs Of Goods	
Beer/Alcohol	5,552.15
Coca-Cola Company Supplies	3,253.48
Food & Merchandise	5,060.06
Total Costs Of Goods	13,865.69
Total Cost of Goods Sold	\$13,865.69
Gross Profit	\$169,163.31
Expenses	
Advertising and Promotion	50.00
Automobile Expense	155.30
Bank Service Charges	118.60
Charitable Contributions	527.00
Donations & Contributions	2,578.00
Dues and Subscriptions	579.96
Equipment Purchased	4,700.00
Equipment Rental	74.50
Events	1,769.99
Fuel/Diesel	3,752.87
Golf Cart Monthly Payment	5,251.08
Insurance Expense	1,873.00
Licenses and Permits	486.00
Merchant Fees	52.00
Office Supplies	2,386.50
Parts & Supplies	
Chemicals/Spray	272.66
Golf supplies	13,498.07
Irrigation Parts	1,274.72
Material/Sand	3,151.05
Parts	2,640.48
Total Parts & Supplies	20,836.98
Postage and Delivery	78.48
Printing and Reproduction	89.50
Professional Services	3,281.00

Accounting CPA	910.00
Aeration of Greens Tees Fairway	300.00
Bookkeeper	525.00
Front Desk Help	11,426.00
General Labor	12,574.00
Grounds & Maintenance	27,750.00
Management	37,750.00
Total Professional Services	94,516.00
Rent Expense	15,000.00
Repairs and Maintenance	1,227.49
Taxes	
Property Taxes	627.98
Total Taxes	627.98
Travel Expense	
Meals and Entertainment	151.26
Total Travel Expense	151.26
Utilities	
Comcast	1,400.48
Electric/Gas	6,540.97
Water/Sewage	1,100.62
Total Utilities	9,042.07
Total Expenses	\$165,924.56
Net Operating Income	\$3,238.75
Net Income	\$3,238.75

Cash Basis

Zaca Creek Golf Course
Profit and Loss
January - December 2014

	Total
<hr/>	
Income	
Alcohol Income	4,388.00
Cart Fees Income	7,862.00
Food Income	3,119.50
Green Fees Income	138,927.60



	Total
Merchandise Income	1,715.00
Pull Cart Income	2,725.00
Range Income	1,824.00
Total Income	\$160,561.10
Cost of Goods Sold	
Food & Merchandise	2,789.00
Beer/Alcohol	1,905.93
Coca-Cola Company Supplies	2,324.79
Total Food & Merchandise	7,019.72
Total Cost of Goods Sold	\$7,019.72
Gross Profit	\$153,541.38
Expenses	
Advertising and Promotion	60.00
Automobile Expense	364.83
Bank Service Charges	455.50
Charitable Contributions	2,252.00
Discount/Free Golf	

	Total
Short/loss	31.00
Total Discount/Free Golf	31.00
Dues and Subscriptions	150.00
Employee Bonuses and Benefits	1,354.32
Equipment Purchased	1,797.99
Equipment Rental	646.45
Events	2,616.46
Fuel/Diesel	5,352.68
Golf Cart Monthly Payment	2,187.95
Insurance Expense	2,314.00
Lease Improvements	640.00
Licenses and Permits	524.00
Merchant Fees	2,282.24
Office Supplies	3,965.99
Parts & Supplies	1,496.15
Chemicals/Spray	267.88
Golf supplies	3,768.82
Irrigation Parts	422.35

	Total
Material/Sand	1,921.07
Parts	4,799.13
Total Parts & Supplies	12,675.40
Postage and Delivery	98.19
Printing and Reproduction	27.98
Professional Services	
Accounting CPA	695.00
General Labor	6,828.50
Grounds & Maintenance	7,648.00
Janitorial Expense	3,635.25
Management	50,310.00
Total Professional Services	69,116.75
Rent Expense	15,000.00
Repairs and Maintenance	886.75
City Owned Mower Repair	597.64
Total Repairs and Maintenance	1,484.39
Sales Tax Paid	567.51
Taxes	1,137.00

	Total
Property Taxes	614.73
Total Taxes	1,751.73
Utilities	
Cable/Internet	30.00
Comcast	1,359.49
Electric/Gas	12,213.82
Trash	95.00
Water/Sewage	971.16
Total Utilities	14,669.47
Total Expenses	\$142,386.83
Net Operating Income	\$11,154.55
Net Income	\$11,154.55

Tuesday, Sep 22, 2015 01:14:25 PM PDT GMT-7 - Accrual Basis

This report was created using QuickBooks Online Plus.

ZACA CREEK GOLF COURSE LEASE

by and between

CITY OF BUELLTON,
a California Municipal corporation
("Landlord")

and

SIERRA TURF, INC.,
a California corporation
("Tenant")

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LIST OF EXHIBITS

Exhibit A	Property (Legal Description and Map)
Exhibit B	Golf Course Improvements Operations Specifications
Exhibit C	Golf Course Operations Specifications
Exhibit D	Golf Course Maintenance Specifications

BASIC INFORMATION

1. **Landlord:** CITY OF BUELLTON a California Municipal corporation
107 West Highway 246
P. O. Box 1810
BUELLTON, CA 93427
Attn: City Manager
Email: johnk@cityofbuellton.com
Telephone: (805) 688-5177
Facsimile: (805) 686-0086

2. **Tenant:** SIERRA TURF INC.,
a California corporation
1066 Mesa Road
Nipomo, CA 93444
Email: mike@sierraturf.com
Telephone: (805) 929-2888

3. **Effective Date:** December 5, 2011.

4. **Site:** That certain real property legally described in and depicted on Exhibit A, commonly known and referred to Zaca Creek Golf Course, 223 Shadow Mountain Drive, in the City of Buellton, County of Santa Barbara, State of California, Assessor's Parcel Number 099-690-034.

5. **Permitted Use:** Operation of a 9 hole golf course, driving range, putting green, pro shop, as well as limited ancillary uses.

6. **Term:** Five (5) years, commencing on the Effective Date of the Lease as set forth in Article 2.

7. **Base Rent:** As set forth in Article 3, \$1,250 per month commencing June 1, 2012. Subject to modification/renegotiation after 2 years.

8. **Construction Pay:** As set forth in Section 5.9, commencing on the Effective Date, \$1,000 per week, until May 30, 2012, for Tenant to perform the Golf Course Improvements as set forth in Exhibit B.

The Basic Information set forth above, the Recitals below, and all exhibits attached hereto are incorporated into and made a part of the following Lease. If there is any conflict between the Basic Information and terms of the Lease, the terms of the Lease shall control.

LANDLORD'S INITIALS JK

TENANT'S INITIALS MB

ZACA CREEK GOLF COURSE LEASE

This Zaca Creek Golf Course Lease ("**Lease**") is made and entered into December 5, 2011 ("**Effective Date**"), by and between the CITY OF BUELLTON, a California Municipal corporation ("**Landlord**" or "**City**"), and SIERRA TURF INC., a California corporation ("**Tenant**").

I. RECITALS

A. Landlord owns that certain parcel of land located at 223 Shadow Mountain Drive, in the City of Buellton, County of Santa Barbara, State of California, Assessor's Parcel Number 099-690-034, as more particularly shown on Exhibit "A" attached hereto and incorporated herein by reference (the "**Zaca Creek**" or "**Site**").

B. Landlord desires to facilitate the improvement, operation and maintenance of Zaca Creek as a recreational amenity for residents of Buellton (the "**Project**");

C. The Buellton City Council has determined that it is in the best interests of the City, and for the common benefit of the citizens residing in the City, to allow for the Project by leasing Zaca Creek to the Tenant.

D. On July 29, 2011, City and Tenant entered into an agreement to renovate Zaca Creek golf course greens and other associated duties (the "**SIERRA TURF CONTRACT**").

E. Landlord and Tenant wish to enter into this Lease as the most expeditious means for Landlord to satisfy its desire to improve, operate and maintain Zaca Creek as a recreational opportunity for the residents of Buellton and visitors to the Santa Ynez Valley.

E. This Lease sets forth the terms and conditions under which the Zaca Creek will be leased to Tenant, and imposes certain requirements on the improvement, operation and maintenance of Zaca Creek.

F. Landlord desires to lease to Tenant, and Tenant desires to lease from Landlord, Zaca Creek, all as further set forth herein.

II. AGREEMENT

NOW, THEREFORE, in consideration of the foregoing Recitals and for other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, Landlord and Tenant hereby agree as follows.

ARTICLE 1. BUILDING AND PROPERTY

1.1. Condition of Building and Site.

1.1.1. AS IS. Zaca Creek, its grounds, buildings and other improvements, is being leased to Tenant in its current, existing, "AS IS" condition with no warranty express or implied by Landlord regarding the presence of Hazardous Materials or the condition of the soil, its geology, the presence of known or unknown seismic faults, or the suitability of the Site for the Improvements. Tenant is familiar with the physical, environmental, and legal condition thereof, and has had the opportunity to inspect and re-inspect the same (as applicable) before execution of this Lease.

1.1.2. Termination of the SIERRA TURF CONTRACT. Landlord and Tenant agree that as of the Effective Date of the Lease, the SIERRA TURF CONTRACT shall be deemed, without notice, to be terminated and all provisions for service at the Site shall be in accordance with the terms of this Lease.

1.1.3. Environmental Conditions. Tenant shall have the right, at its sole cost and expense, to engage its own environmental consultant to conduct any "Phase 1" and/or "Phase 2" investigations of the Site, and Landlord shall promptly be provided a copy of all test results and reports. If remedial work is required, then during the time period for construction of the Improvements, Tenant shall perform, or cause to be performed, without cost or expense to Landlord, all remedial work and Tenant shall obtain the issuance of closure letters from all government agencies which have asserted jurisdiction and shall provide closure letters to Landlord. All costs of remedial work shall be paid by Tenant at its expense. Tenant acknowledges that Landlord undertook a Phase I investigations of the Site in 2011 and that Landlord has provided Tenant with copies of the reports on the condition of the Site known to the Landlord. Landlord makes no representations or warranties with respect to the accuracy, completeness, methodology of preparation or otherwise concerning the contents of any information or reports made available to Tenant regarding any inspections, engineering, environmental or other matters pertaining to the Site. Tenant acknowledges that Landlord has requested that Tenant inspect fully all portions of the Site and investigate all matters relevant thereto and to rely solely upon the results of Tenant's own inspections or other information obtained or otherwise available to Tenant, rather than any information that may have been provided by Landlord to Tenant.

1.1.4. Release. Tenant hereby fully waives, releases, remises, acquits and forever discharges Landlord and its officers, officials, agents, attorneys, representatives, employees, volunteers, independent Tenants, invitees, customers, licensees, assignees and subtenants, of and from any from all and any manner of damages, costs, expenses (including attorneys' fees and costs), compensation, rights, demands, liabilities, obligations, claims, fines, penalties, orders actions, or causes of actions, in law or equity, of whatever kind or nature, whether known or unknown, whether now existing or hereinafter arising ("collectively, "**Claims**"), which arise from or relate in any manner to the (i) Site, (ii) the physical and environmental conditions, including the presence of Hazardous Materials (as defined in Section 12.1) of the Building, the Site (including subsurface conditions), any portion thereof, or any improvements thereon; and (iii) any Law applicable thereto. By releasing and forever discharging claims both known and unknown which are related to or which arise under or in connection with the items set

out above, the Tenant expressly waives any rights under California Civil Code section 1542, which provides:

"A general release does not extend to claims which the creditor does not know or suspect to exist in his or her favor at the time of executing the release, which if known by him or her must have materially affected his or her settlement with the debtor."

1.2. Lease of Site. Landlord hereby leases and demises to Tenant, and Tenant hereby leases and hires from Landlord, the Site, as of the Effective Date, for the Term and upon the covenants and conditions set forth herein. Tenant's interest in the Site is referred to herein as the "**Leasehold Interest.**"

ARTICLE 2. TERM

2.1. Term. The "**Term**" of this Lease shall be five (5) years.

2.2. Commencement Date. The Term shall commence on the Effective Date.

2.3. Expiration Date. The Term shall expire on that date which is one (1) day before the fifth (5) anniversary of the Effective Date ("**Expiration Date**").

2.4 Extension of Term. Landlord and Tenant may agree, at their respective sole discretion, to extend the Term of this Lease for two (2) additional periods of five (5) years ("each an **Extended Term**"). The first extension shall commence, if at all, upon the expiration of the initial five (5) year Term ("**Initial Term**") and end five (5) years later ("**First Extended Term**"). The second extension shall commence, if at all, upon expiration of the First Extended Term and end five (5) years later ("**Second Extended Term**"). If the First Extended Term does not commence, the second option to extend shall automatically terminate. In no event shall any extension commence if Tenant is in default under this Lease. Any reference to Term in this Lease shall include the Extended Term as long as Landlord and Tenant have agreed to an Extended Term.

2.4.1 Request for Extension. Tenant shall request an Extended Term by giving written notice to Landlord no more than 12 months and no fewer than 6 months prior to the expiration of the Term.

2.4.2 Conditions of Extended Term. Each Extended Term shall be upon all of the terms and conditions of this Lease, as may be modified by Landlord and Tenant.

ARTICLE 3. RENT

3.1. Rent. The term "**Rent**" means the amounts identified in Basic Information Section 7 ("**Base Rent**"). Tenant's obligation to pay Rent under this Lease shall survive the Term to the extent any part of such obligation has not been fulfilled during the Term.

3.2. Manner of Payment. All Rent under this Lease shall commence as of the Commencement Date. Tenant shall pay to Landlord, at Landlord's address designated in the Basic Information Section 1, or at such other address as Landlord may from time to time designate in writing to Tenant for the payment of Rent, the Base Rent designated in Basic Information Section 7, without notice, demand, offset or deduction, in advance, on the first day of each month of the Term.

3.3. Application of Payments. All payments received by Landlord from Tenant shall be applied to the oldest obligation owed by Tenant to Landlord. No designation by Tenant, either in a separate writing, on a check or money order, or otherwise shall modify this Article 3 or have any force or effect.

ARTICLE 4. TAXES AND ASSESSMENTS

4.1. Personal Property Taxes. Tenant shall pay before delinquency all taxes, assessments, license fees and other charges levied and assessed against Tenant or Landlord with respect to any Personal Property (defined in Section 7.3) ("**Personal Property Taxes**") which may become payable during the Term or are attributable to Tenant's use or occupancy of the Site. On demand by Landlord, Tenant shall furnish Landlord with satisfactory evidence of these payments. Notwithstanding the foregoing, Tenant shall have the right to contest the imposition or collection of any such Personal Property Taxes which Tenant reasonably believes was improperly assessed or calculated.

4.2. Statement Regarding Possessory Interest Taxes. This Lease creates a possessory property interest in Tenant. Tenant acknowledges and agrees that Tenant's leasehold and/or other property interests may be subject to property taxation, and Tenant to the payment of property taxes levied on the interest. Such taxes are referred to herein as "**Possessory Interest Taxes**," and shall be paid by Landlord during the term of this Lease.

4.3. Taxes. Excepting any Possessory Interest Taxes as set forth in section 4.2, Tenant shall pay all before delinquency taxes, impositions, general or special assessment, surcharge, fee, levy, penalty, bond, or similar charge is levied on any business conducted on the Site or any portion thereof) general and special taxes including gross receipts tax, excise tax levied by any Taxing Authority (defined below) including with respect to Landlord's receipt of Rent or ownership, management or operation of the Site (collectively, "**Taxes**"), now or in the future levied and assessed against the Site, or any improvements, any portion thereof, or any improvements thereon by any authority having the power to tax, including any federal, state or county government or any political subdivision thereof ("**Taxing Authority**"). In the event any Personal Property Taxes, and other Taxes, as described in this Article 4 or any other costs to be borne by or due from Tenant are not assessed or charged against the Site separately from other Landlord-owned property, Landlord shall reasonably allocate such on a pro-rata basis.

4.4. Tenant's Tax Liability Prorated. Tenant's liability to pay any Taxes and new assessments shall be prorated on the basis of a 365-day year to account for any fractional portion of a fiscal tax year included in the Term at its inception and expiration or other termination in accordance with this Lease.

4.5. Tax Contest. Tenant shall not seek a reduction in the assessed valuation of the Site, or contest any Taxes that are to be paid by Tenant without Landlord's prior written consent. If Landlord consents and Tenant seeks a reduction or contests the Taxes, Tenant shall remain obligated to pay all Taxes prior to delinquency. Landlord shall not be required to join in any proceeding or contest brought by Tenant.

ARTICLE 5. USE, CHARACTER, OPERATION AND MAINTENANCE COVENANTS

5.1. General. Tenant covenants and agrees on behalf of itself and its successors and assigns that Tenant shall use and continuously operate a 9 hole golf course, driving range, putting green, pro shop, as well as limited ancillary uses, as further set forth and specified in Exhibit C. ("**Permitted Use**"). Tenant shall not commit waste in the Site, any portion thereof, or any improvements thereon. Tenant's failure to continuously operate Zaca Creek, pursuant to the Permitted Use, or failure to comply with other provisions of this Article 5, shall constitute a material default under this Lease.

5.1.1. Tenant's Responsibilities. Tenant, at its expense, will be responsible for managing, operating, maintaining, marketing and conducting golf related programs Zaca Creek in a prudent and business-like manner and in accordance with the Permitted Uses. Tenant's responsibilities and authority are specified in Exhibit C.

5.1.2. City Events. Tenant agrees the City will be allowed the free use of the Site, including and any of the improvements and facilities, for City sponsored events four (4) times per year. City will coordinate with Tenant at least thirty (30) prior to an event and Tenant will be responsible to adjust golfing operations as necessary.

5.1.3. Community Trail. Tenant acknowledges that the City may install, at its own cost and expense, a community trail on the southwest edge of the Site. Tenant will work with City to design and maintain the trail so to minimize conflicts between golf uses and public trail use.

5.1.4. First Tee Program. Tenant agrees and acknowledges that the First Tee Program shall be allowed free use of the Site to conduct golf activities. The times and conditions for such use shall be determined by Tenant and the responsible parties of the First Tee Program and submitted to the Landlord for approval.

5.2. Operating Covenant. Tenant acknowledges that continuous operation of Zaca Creek is necessary for the use of the Site as an ideal location for golf recreational uses and that Tenant's failure to open or remain open will be detrimental to both the image and the economics of the Site, and this Lease.

5.2.1. Tenant shall keep Zaca Creek open to the public seven (7) days per week, except as specified in Exhibit C.

5.2.2. For each day of operation, Zaca Creek must be open to the public during the daylight hours each day.

5.3. General Use Prohibitions. Tenant covenants and agrees that in connection with the use and operation of the Site, and any portion thereof, Tenant will not:

5.3.1. Use or permit the use of any reasonably objectionable advertising medium including any loudspeakers, phonographs, public address systems, sound amplifiers, radio or broadcast within the Site in such manner that any sounds reproduced, transmitted or produced shall be directed primarily beyond the Site (provided, however, that nothing herein shall be deemed to prohibit the installation and use of a public address system for golf events or security purposes; or

5.3.2. Permit undue accumulations of garbage, trash, rubbish or any other refuse; or

5.3.3. Create, cause, maintain or permit any nuisance (as the same may be defined by applicable Law) in, on or about the Site; or

5.3.4. Commit or suffer to be committed any waste in, on or about the Site; or

5.3.5. Use or allow the Site to be used for any unlawful purpose; or

5.3.6. Do or permit to be done anything which in any way unreasonably disturbs the occupants of neighboring property; or

5.3.7. Cause or permit any insurance coverage on the improvements or Site to become void or voidable or make it impossible to obtain any required insurance at commercially reasonable rates; or

5.3.8. Intentionally cause or knowingly permit any material structural damage to or deterioration of the Site, or improvements or any portion thereof, or to any adjacent public or private property or improvements; or

5.3.9. Violate any law, ordinance or regulation (including the BUELLTON Municipal Code) applicable to the Site; or,

5.3.10. Any activities not appropriate to a first class golf course; or,

5.3.11. Activities prohibited by any permits and approvals issued by the City of BUELLTON; or,

5.3.12. Activities that are or would be in violation of any applicable use restrictions imposed upon Landlord by any other agreement to which Landlord is a party.

5.4. Non-Discrimination. Tenant covenants and agrees that there shall be no discrimination against or segregation of any person or group of persons on account of race, color, creed, religion, sex, marital status, sexual orientation, source of income, age, physical or mental handicap, medical condition, national origin or ancestry in the use, occupancy or enjoyment of the Site or any portion thereof.

5.5. Rules. Landlord reserves the right at any time to impose reasonable rules and regulations as, in Landlord's judgment, may from time to time be necessary for the operation, management, safety, care and cleanliness of the Site, any portion thereof, or any improvements thereon, for the preservation of good order therein, or for the convenience of other occupants and tenants of the Site, if any. Tenant shall abide by any additional rules or regulations which are ordered or requested by any governmental or military authority. Tenant shall cooperate with Landlord to effect the intent of this Section 5.5. Landlord shall not be responsible to Tenant or to any other person for the non-observance, non-compliance, or violation of the foregoing by Tenant by any other tenant, occupant, or other persons, or Landlord's failure to enforce, any of the foregoing, or any other terms or provisions of any other tenant's or occupant's lease.

5.6. General Standards of Maintenance. Tenant covenants and agrees that it shall maintain, or cause to be maintained, the Site, all portions thereof and all improvements thereon in accordance with the standards contained in Exhibit D.

5.7. Tenant's Reports to Landlord. Tenant shall provide Landlord with written reports summarizing Tenant's activities under the Lease. The written report shall be submitted quarterly for the first two (2) years from the Commencement Date, with annual written reports thereafter.

5.8. Books, Records and Accounts. Tenant shall keep and maintain complete and accurate books, records and accounts related to the operation of Zaca Creek and shall undertake a yearly audit by an independent accounting firm for presentation to Landlord. Landlord may request an inspection of such books and records provided Landlord submits the request no less than twenty one (21) days in advance to Tenant. Any inspection may take place during normal business hours.

5.9. Construction of Improvements, Payment, Performance Bond. Tenant shall construct or cause to be constructed the Golf Course Improvements ("**Improvements**" as defined in Exhibit B and, for the purposed of this Lease, shall include any and all existing buildings and structures on the Site) within the time and in the manner set forth in Exhibit B, all in a workmanlike manner and in professionally rendered finishes and in full conformity with the plans and drawings approved by the Landlord and/or the City. The cost of the Improvements shall be allocated between

Landlord and Tenant as set forth in Exhibit B; however, the total cost to the Landlord for Improvements, as determined by invoices submitted to Landlord, shall not exceed the total amount of \$25,000.00. Any and all costs above such amount shall be the sole responsibility of Tenant. Landlord agrees that it will pay the cost of one city employee for 120 hours for transitional services and to assist in the Improvements. Within seven (7) days following the Effective Date, Tenant shall file with the City a faithful performance bond, in the amount shown in Exhibit B, guaranteeing the construction of the Improvements required by Tenant.

5.10. Timely Completion. Tenant shall take all steps necessary to enable it to commence, and will commence the construction and installation of the Improvements and will diligently prosecute and complete such work. In the event Tenant fails to meet any deadline for the Improvements set forth in Exhibit B, after first taking into account any extensions of time required in accordance with this Lease, and does not cure such failure within thirty (30) days of receipt of written notice from Landlord of such failure or, if such failure cannot be cured within thirty (30) days, Tenant does not commence to cure within thirty (30) days and thereafter diligently prosecute such cure to completion (and in any event complete such cure within ninety (90) days following the date of Landlord's initial written notice), then, at Landlord's option (upon written notice, but without any further cure period), this Lease shall terminate, and be null and void, and of no further force or effect.

5.11. Protection of Landlord. Nothing in this Lease shall be construed as constituting the consent of Landlord, expressed or implied, to the performance of any labor or the furnishing of any materials in connection with any construction by any Tenant, subtenant, laborer or materialman, nor as giving Tenant or any other person any right, power or authority to act as agent of, or to contract for or permit the rendering of any services, or the furnishing of any materials, in such manner as would give rise to the filing of mechanics' liens or other claims against the Site, the Building, the Improvements, any portion thereof, or any improvements thereon. Landlord shall have the right at all reasonable times to post, and keep posted, on the Site, the Improvements, any portion thereof, or any improvements thereon, any notices which Landlord may reasonably deem necessary for the protection of Landlord and of such property and improvements from mechanics' liens or other claims. Tenant shall give Landlord 10 days' prior written notice of the commencement of any construction to be done to enable Landlord to post such notices. In addition, Landlord may in its reasonable discretion require Tenant to furnish to Landlord at Tenant's expense reasonable improvement security, including completion and labor and materials bonds, prior to commencement of any such construction. Tenant shall make, or cause to be made, prompt payment of all monies due and legally owing to all persons doing any construction or furnishing any materials or supplies to Tenant or any of its Tenants or subtenants in connection therewith.

5.12. Liens and Stop Notices. Tenant shall keep the Site, the Improvements, any portion thereof, and any improvements thereon, free and clear of all stop notices, mechanics' liens, and other liens on account of any construction performed by or on

behalf of Tenant or persons claiming under Tenant. Tenant agrees to and shall indemnify and save Landlord harmless against any and all liability, loss, damages, costs, attorneys' fees, and all other expenses on account of claims of lien of laborers or materialmen or others for construction performed by or on behalf of Tenant or materials or supplies furnished to Tenant or persons claiming under Tenant. If a claim of a lien or stop notice is given or recorded affecting the Site, the Improvements, any portion thereof, or any improvements thereon, Tenant shall within thirty (30) days of such recording or service: (a) pay and discharge the same; (b) effect the release thereof by recording and delivering to Landlord a surety bond described in California Civil Code Section 3143, or successor statute in sufficient form and amount which results in the removal of such lien from the Building, the Site, the Improvements, all portions thereof, and all improvements thereon; or (c) otherwise obtain or effect the release thereof. Should any claims of lien be filed against the Building, the Site, the Improvements, any portion thereof, or any improvements thereon, or any action be commenced affecting the title to such property, the party receiving notice of such lien or action shall forthwith give the other party written notice thereof.

ARTICLE 6. PREVAILING WAGES.

Tenant acknowledges and agrees that any construction, repairs, maintenance, or alterations made by or on behalf of Tenant to the Site, Improvements, any portion thereof, or any improvements thereon ("**Improvement Work**"), whether paid for in whole or part by Landlord or which are considered to have been paid for in whole or part by Landlord (e.g. which become Landlord's property upon the expiration or other termination of this Lease), will constitute "construction, alteration, demolition, installation, or repair work done under contract and paid for in whole or in part out of public funds..." California Labor Code Section 1720. Accordingly, Tenant shall comply with applicable prevailing wage policies as set forth in the City of BUELLTON Municipal Code, applicable California Labor Code requirements pertaining to "**public works**" (California Labor Code Section 1720 et seq., as amended from time to time and implementing regulations), the Davis-Bacon Act (sec. 1-7, 46 Stat. 1949, as amended; Pub. L. 74-403, 40 U.S.C. 276a-276a-7, as amended from time to time and implementing regulations), and other applicable Laws addressing the payment of prevailing wages in connection with any Improvement Work (collectively, "**Prevailing Wage Laws**"). Tenant shall require the general Tenant for any Improvement Work to submit, upon request by Landlord, certified copies of payroll records to Landlord and to maintain and make records available to Landlord and its designees for inspection and copying to ensure compliance with Prevailing Wage Laws. Tenant shall also include in its general Tenant agreement, and in all of its subleases and other contracts, a provision in a form acceptable to Landlord which obligates the general Tenant and others as applicable, (a) to comply with, and to require that their respective subtenants, Tenants and/or subtenants comply with, Prevailing Wage Laws, and (b) upon request by Landlord to submit certified copies of payroll records to Landlord and to maintain and make such payroll records available to Landlord and its designees for inspection and copying during regular business hours at the Site or at another location within the City of BUELLTON. Tenant shall defend, indemnify and hold harmless Landlord and its officers, officials, employees, volunteers, agents and representatives (collectively,

"Indemnitees") from and against any and all Claims arising out of or in any way connected with Tenant's obligation to comply with all Laws with respect to any Improvement Work and/or Prevailing Wage Laws, including all Claims that may be made by Tenants, subtenants or other third party claimants pursuant to Labor Code Section 1726. Tenant hereby waives, releases and discharges forever the Indemnitees from any and all present and future Claims arising out of or in any way connected with Tenant's obligation to comply with all Laws with respect to the Improvement Work and Prevailing Wage Laws.

ARTICLE 7. OWNERSHIP OF IMPROVEMENTS AND PERSONAL PROPERTY

7.1. Ownership of Improvements During Term. The Site, Improvements, or any part thereof, shall, during the Term, be and remain the property of Landlord; provided, however, Tenant's rights and powers with respect to the Improvements shall be and shall remain subject to the terms and limitations of this Lease. Tenant hereby agrees not to market, sell, promise to sell, or otherwise enter into a contract to sell, the Site or the Improvements. Tenant further agrees not to encumber, promise to encumber, or otherwise enter into a contract to encumber, the Site or the Improvements in any manner that would impair Landlord's rights, in, to, or ownership thereof as contemplated under Section 7.2.

7.2. Ownership upon Termination or Expiration. Upon the expiration or other termination of this Lease for any reason, or upon foreclosure of Tenant's Leasehold Interest (including transfer of Tenant's Leasehold Interest via any instrument of assignment or transfer in lieu of the foreclosure), the Improvements, and all other improvements on the Site, shall, without compensation to Tenant, become Landlord's property (broom clean and in good condition and repair, reasonable wear and tear excepted) free and clear of all claims to or against them by Tenant or any third person.

7.3. Removal and Ownership of Personal Property at Termination or Expiration. "**Personal Property**" means personal property owned or used by Tenant or any of Tenant's Parties on or about the Site, any portion thereof, or any improvements thereon, together with any Trade Fixtures. "**Tenant's Parties**" means, individually and collectively, Tenant's officers, officials, agents, representatives, employees, volunteers, independent Tenants, invitees, customers, licensees, assignees, and subtenants.

7.3.1. During Term. Any Personal Property that may be removed without damage to the structural integrity of the Site or the Improvements may be removed by Tenant from time to time during the Term. Tenant shall repair all damage caused by any such removal.

ARTICLE 8. SERVICES

8.1. Services. After the Effective date until May 30, 2012, Landlord shall provide any and all utilities and services to the Site, as defined below, at Landlord's sole cost and expense. Effective June 1, 2012, Tenant, at Tenant's sole cost and expense,

shall be responsible and directly contract and pay for any and all utilities and services required or desired by Tenant in connection with its use or occupancy of the Site, or any portion thereof, or any other improvements, including telephone, computers and cable lines, wiring, materials, security, heat, air conditioning, gas, sewer, electricity, refuse, sewage, garbage, pest control services, and any other utilities, materials, or services supplied to or serving the Site, or any portion thereof, or any other improvements now or in the future located thereon (including any construction), together with any repair, installation, maintenance thereof, and infrastructure therefor to the extent located on the Site ("**Services**"). Tenant shall hold Landlord harmless from and against any and all demands, liability, claims, actions and damages to any person or property, costs and expenses, including reasonable attorneys' fees, arising out of or connected with the provision and payment of the Services supplied to or serving the Site, any portion thereof, or any improvements thereon. Tenant, at its expense, shall comply with federal, state, or local governmental controls, rules, regulations, or restrictions on the use or consumption of Services during the Term.

8.2. Water Services. Notwithstanding Section 8.1, above, Landlord shall, at its sole cost and expense, provide all water service to the Site during the term of the Lease.

8.3. Utility Easements. Tenant shall permit any authorized public agency or public utility company, with the approval of Landlord, and/or shall grant to Landlord such easements over Tenant's interest in the Site, any portion thereof, or any improvements thereon, as applicable, as are required for the installation, existence, maintenance, and operation of Services.

ARTICLE 9. INSURANCE

9.1. Insurance Provided. Following the Effective Date, Tenant shall provide the following forms and amounts of insurance. Such insurance shall be primary to and not contributing with any other insurance, self insurance or joint self insurance maintained by Landlord and shall name the Landlord as an additional insured.

9.2. Tenant. Tenant shall, at Tenant's expense, obtain and keep in force at all times during the Term the following "**Tenant's Insurance**," and shall be liable for all premiums, deductibles, and self-insured amounts, if any, in connection therewith. Tenant's Insurance shall not have a deductible amount exceeding Five Thousand Dollars (\$5,000).

9.2.1. Commercial General Liability Insurance. A policy of commercial general liability insurance (occurrence form) having a combined single limit of not less than Two Million Dollars (\$2,000,000) per occurrence and Two Million Dollars (\$2,000,000) annual aggregate, providing coverage for, among other things, blanket contractual liability (including Tenant's indemnification obligations under this Lease), premises liability, products and completed operations liability, owner's protective coverage, broad form property damage, and bodily injury (including wrongful death) and advertising injury coverage. If necessary, Tenant shall provide for restoration of the aggregate limit.

9.2.2. Workers' Compensation and Employer's Liability Insurance. Workers' compensation insurance, if required by Law, which complies with all applicable state statutes and regulatory requirements, and employer's liability insurance coverage in statutory amounts.

9.2.3. Site Insurance. "All risk" property insurance including fire and extended coverage, sprinkler leakage, vandalism and malicious mischief coverage, covering damage to or loss to the Site, any portion thereof, or any improvements thereon (together with, if the property of Tenant's Parties is to be kept in the or about the foregoing, warehouse's legal liability or bailee customers insurance property belonging to Tenant's Parties and located in or about the foregoing), in an amount not less than the full replacement cost thereof. In the event that there shall be a dispute as to the amount which comprises full replacement cost, the decision of Landlord or the mortgagees of Landlord shall be presumptive.

9.2.4. Other Insurance. Any other form or forms of insurance as Landlord or the mortgagees of Landlord may reasonably require from time to time, in form, amounts and for insurance risks against which a prudent tenant would protect itself, but only to the extent such risks and amounts are available in the insurance market at commercially reasonable costs.

9.3. General.

9.3.1. Insurance Companies. Tenant's Insurance shall be written by companies licensed to do business in California and having a "General Policyholders Rating" of at least A-VII (or such higher rating as may be required by a lender having a lien on the Leasehold Interest) as set forth in the most current issue of "Best's Insurance Guide."

9.3.2. Certificates of Insurance. Tenant shall deliver to Landlord certificates of insurance for Tenant's Insurance, in the form of the ACORD standard certificate of insurance, prior to the Commencement Date. Tenant shall, at least thirty (30) days prior to expiration of the policy, furnish Landlord with certificates of renewal or "binders" thereof. Each certificate shall expressly provide that such policies shall not be cancelable or otherwise subject to modification except after thirty (30) days' prior written notice to the parties named as additional insureds as required in this Lease. If Tenant fails to maintain any insurance required in this Lease, Tenant shall be liable for all losses and costs resulting from said failure.

9.3.3. Additional Insureds. Landlord, its elected officials, officers, employees, volunteers, lenders, agents, representatives, Tenants and each of their successors and assigns shall be named as additional insureds on the commercial general liability policy required by this Lease. An additional insured endorsement naming such parties as additional insured(s) shall be attached to the certificate of insurance.

9.3.4. Primary Coverage. Tenant's Insurance shall be primary, without right of contribution from any Landlord's Insurance.

9.3.5. Umbrella/Excess Insurance. Any umbrella liability policy or excess liability policy shall provide that if the underlying aggregate is exhausted, the excess coverage will drop down as primary insurance. The limits of Tenant's Insurance shall not limit Tenant's liability under this Lease.

9.3.6. Waiver of Subrogation. Tenant waives any right to recover against Landlord for claims for damages to Tenant's Personal Property to the extent covered (or required by this Lease to be covered) by Tenant's Insurance. This provision is intended to waive fully, and for the benefit of Landlord, any rights and/or claims which might give rise to a right of subrogation in favor of any insurance carrier. The coverage obtained by Tenant pursuant to this Lease shall include a waiver of subrogation endorsement attached to the certificate of insurance.

9.3.7. Notification of Incidents. Tenant shall notify Landlord within twenty-four (24) hours after the occurrence of any accident or incident on or about the Building, the Improvements, the Site, any portion thereof, or any improvements thereon which could give rise to a claim against Landlord, Landlord's Insurance, Tenant, or Tenant's Insurance, except that Tenant shall not be obligated to give Landlord notice of any accident or incident which could give rise to a claim under Tenant's workers' compensation insurance. Tenant's notice shall be accompanied by a copy of any report(s) relating to the accident or incident.

ARTICLE 10. INDEMNITY; LIABILITY EXEMPTION

10.1. Indemnity. Except to the extent claims are caused by Landlord's sole negligence or willful misconduct, Tenant shall indemnify, protect, defend, and hold harmless Landlord and its elected officials, officers, employees, volunteers, lenders, agents, representatives, Tenants and each of their successors and assigns from and against any and all claims, judgments, causes of action, damages, penalties, costs, liabilities, and expenses, including all costs, attorneys' fees, expenses and liabilities incurred in the defense of any such claim or any action or proceeding brought thereon, arising at any time during or after the Term as a result (directly or indirectly) of or in connection with (a) any Tenant default under this Lease (including in the performance or non-performance of any obligation on Tenant's part to be performed under the terms of this Lease); (b) Tenant's performance of the work of Improvements (including design, development, and construction) (c) Tenant's or Tenant's Parties use of the Site, any portion thereof, or any improvements thereon, the conduct of Tenant's business or any activity, work or thing done, permitted or suffered by Tenant or Tenant's Parties in or about the Site or any portion thereof, or any improvements thereon; (d) any act, error or omission of Tenant or Tenant's Parties in or about the Building, the Site, Improvements, any portion thereof, or any improvements thereon; (e) loss of, injury or damage to, or destruction of property (including merchandise or inventory), including loss of use resulting from such loss, injury, damage, or destruction; or (f) any resulting economic loss, consequential damages, or exemplary damages (collectively, "**Indemnification**"). Tenant shall provide such Indemnification by and through counsel reasonably acceptable to Landlord. The obligations of Tenant under this Section 10.1 shall survive

the expiration or other termination of this Lease with respect to any claims or liability arising prior to such expiration or other termination.

10.2. Not A Construction Contract. This Lease is not intended nor shall it be construed to be a construction contract. To the extent this Lease is construed by a court of law to be a construction contract, all indemnity obligations construed to be related to construction contracts shall be read as if including the carve out "except to the extent claims are caused by the sole or active negligence or willful misconduct of the indemnified party."

10.3. Exemption of Landlord from Liability. Tenant, as a material part of the consideration to Landlord, hereby assumes all risk of damage to property (including the Personal Property, the Improvements, the Site, any portion thereof and any improvements thereon), and injury to or death of persons in, upon or about Personal Property, the Improvements, the Site, any portion thereof, or any improvements thereon, arising from any cause, and Tenant hereby waives all claims in respect thereof against Landlord, except to the extent such claims are caused by Landlord's sole negligence or willful misconduct. Tenant hereby agrees that Landlord shall not be liable for injury to Tenant's business or any loss of income therefrom or for damage to the Personal Property, or injury to or death of Tenant, Tenant's Parties or any other person in or about the Improvements, the Site, any portion thereof, or any improvements thereon, whether such damage or injury is caused by fire, steam, electricity, gas, water or rain, or from the breakage, leakage or other defects of sprinklers, wires, appliances, plumbing, air conditioning or lighting fixtures, or from any other cause, whether said damage or injury results from conditions arising within or about the Personal Property, the Building, Improvements, the Site, any portion thereof, or any improvements thereon or from other sources or places, and regardless of whether the cause of such damage or injury or the means of repairing the same is inaccessible to Tenant, except damage or injury caused solely by Landlord's sole negligence or willful misconduct. Landlord shall not be liable for any damages arising from any act or neglect of any other tenant or occupant, if any, of the Personal Property, the Improvements, the Site, any portion thereof, or any improvements thereon, or Landlord's failure to enforce the terms of any agreements with parties other than Tenant.

ARTICLE 11. ENVIRONMENTAL MATTERS

11.1. Environmental Compliance. Neither Tenant nor any of Tenant's Parties shall use, handle, store, transport, treat, generate, release or dispose of any Hazardous Materials anywhere in, on, under or about the Personal Property, the Site, Improvements, any portion thereof, or any improvements thereon. Tenant shall cause any and all Hazardous Materials (defined below) brought onto, used, generated, handled, treated, stored, released or discharged on or under the Personal Property, the Site, the Building, Improvements, any portion thereof, or any improvements thereon to be removed therefrom and transported for disposal in accordance with applicable Laws, including Hazardous Materials Laws (defined below). Landlord shall have the right to enter the Personal Property, the Site, Improvements, any portion thereof, or any improvements thereon from time to time to conduct tests, inspections and surveys

concerning Hazardous Materials and to monitor Tenant's compliance with its obligations concerning Hazardous Materials and Hazard Materials Laws. Tenant shall immediately notify Landlord in writing of: (a) any release or discharge of any Hazardous Material; (b) any voluntary clean-up or removal action instituted or proposed by Tenant, (c) any enforcement, clean-up, removal or other governmental or regulatory action instituted or threatened, or (d) any claim made or threatened by any person against Landlord, Tenant, the Personal Property, the Site, Improvements, the Building, any portion thereof, or any improvements thereon relating to Hazardous Materials or Hazardous Materials Laws. Tenant shall also supply to Landlord as promptly as possible, and in any event within five (5) business days after Tenant receives or sends same, copies of all claims, reports, complaints, notices, warnings or asserted violations relating in any way to the Personal Property, the Site, Improvements, the Building, any portion thereof, or any improvements thereon or Tenant's use thereof and concerning Hazardous Materials or Hazardous Materials Laws. In the event Tenant institutes a cleanup or removal action, Tenant shall provide copies of all work plans and subsequent reports submitted to the governmental agency with jurisdiction to Landlord in a timely manner. **"Hazardous Materials Laws"** means all laws, codes, rules, orders, ordinances, directives, regulations, permits, or other requirements of federal, state, county, municipal or governmental authorities having jurisdiction, now in force or which may hereafter be in force concerning the management, use, generation, storage, transportation, presence, discharge or disposal of Hazardous Materials. **"Hazardous Materials"** means any and all pollutants, wastes, flammables, explosives, radioactive materials, hazardous or toxic materials, hazardous or toxic wastes, hazardous or toxic substances, carcinogenic materials or contaminants and all other materials governed, monitored, or regulated by any Federal, State or local Law or regulation, including the Comprehensive Environmental Response, Compensation and Liability Act, the Hazardous Substances Account Act, and/or the Resources Conservation and Recovery Act, together with asbestos, asbestos-containing materials, hydrocarbons, polychlorinated biphenyl ("PCB") or PCB-containing materials, petroleum, gasoline, petroleum products, crude oil or any fraction, product or by-product thereof.

11.2. Tenant's Indemnification. Except to the extent caused by Landlord's sole negligence or willful misconduct, Tenant shall indemnify, defend and hold Landlord harmless from any claims, causes of action, liabilities, losses, damages, injunctions, suits, fines, penalties, costs or expenses (including attorneys' fees and expenses and consultant fees and expenses) caused or alleged to have been caused by the presence of Hazardous Materials in, on, under, about, or emanating from the Personal Property, the Building, Improvements, the Site, any portion thereof, or any improvements thereon, including any bodily injury, death, property damage, natural resource damage, decrease in value of the Site, the Building, Improvements, any portion thereof, or any improvements thereon, caused or alleged to have been caused by Tenant or Tenant's Parties' use, storage, handling, treatment, generation, presence, discharge or release of Hazardous Materials in violation of Tenant's obligations under this Lease, whether such claims, causes of action or liabilities are first asserted during the Term or thereafter, and including claims made against Landlord with respect to bodily injury, death or property damage sustained by third parties caused or alleged to have been caused by Tenant or

Tenant's Parties' use, storage, handling, treatment, generation, presence, discharge or release of Hazardous Materials.

ARTICLE 12. DAMAGE OR DESTRUCTION

12.1. Restoration.

12.1.1. Insured Damage. No loss or damage by fire or any other cause resulting in either partial or total destruction of the Building, Improvements, the Site, any portion thereof, or any improvements thereon, shall (except as otherwise provided in Section 12.1.2, below) operate to terminate this Lease or to relieve or discharge Tenant from the payment of any Rent, or other amounts payable hereunder, as and when they become due and payable, or from the performance and observance of any of the agreements, covenants and conditions herein contained to be performed and observed by Tenant. Tenant covenants to repair, reconstruct, and/or replace or cause to be repaired, reconstructed and/or replaced the Site, any portion thereof, and any improvements thereon, including any Personal Property owned by Tenant and used or intended to be used in connection with the Site, so damaged or destroyed. Tenant also covenants that all insurance proceeds will be applied to the repair, reconstruction and/or replacement described herein. Tenant's failure to make such full repair, restoration and replacement under any conditions in which it was elected or required so to do shall constitute a default by Tenant under this Lease.

12.1.2. Uninsured Damage. Notwithstanding the provisions of Section 12.1.1, if, during the Term, (i) the Site or Improvements are totally destroyed or rendered inaccessible or if the remaining portion of the Site or Improvements is rendered unsuitable (as defined herein) for Tenant's continued use, from a risk not covered ninety percent (90%) by the insurance required to be carried by Tenant under this Lease, and (ii) the cost of restoration exceeds fifty percent (50%) of the replacement cost of the Building or Improvements immediately before the damage or destruction, then either Landlord or Tenant may elect to terminate this Lease by giving notice to the other party within thirty (30) days after Landlord's determination of the restoration cost and replacement value. The Improvements shall be deemed unsuitable for Tenant's continued use if, following a reasonable amount of reconstruction and allowing a reasonable time for resuming operations, Tenant's business in the Site or Improvements could not be operated at an economic level substantially equivalent to the economic level at which Tenant's business was operating before the damage occurred and the decline in such economic level is directly attributable to the damage.

12.2. Procedures for Repair and Restoration. In the event of any damage or destruction, Tenant shall promptly give Landlord written notice of such damage or destruction and the date on which such damage or destruction occurred. Tenant shall promptly make proof of loss and shall proceed promptly to collect, or cause to be collected, all valid claims which Tenant may have against insurers or others based upon any such damage or destruction. Except as otherwise provided above, amounts received on account of any losses pursuant to insurance policies shall be used and

expended for the purpose of fully repairing or reconstructing the portions of the Building or Improvements which has been destroyed or damaged.

ARTICLE 13. CONDEMNATION

13.1. Definitions. “**Condemnation**” means: (a) the exercise of any governmental power in eminent domain, whether by legal proceedings or otherwise, by a condemnor, and (b) a voluntary sale or transfer to any condemnor, either under threat of condemnation or while legal proceedings for condemnation are pending. “**Date of Taking**” means the date the condemnor has the right to possession of the property being condemned. “**Award**” means all compensation, sums or anything of value awarded, paid or received on a total or partial condemnation. “**Condemnor**” means any public or quasi-public authority, or private corporation or individual, having the power of condemnation.

13.2. Parties’ Rights and Obligations to be Governed by Lease. If during the Term there is any Condemnation of all or any part of the Site, the Improvements, or any other improvements now or hereafter located on the Site, including any Personal Property owned by Tenant and used or intended to be used in connection with the Site, Improvements or the Building, or any interest in this Lease, the rights and obligations of the parties shall be determined pursuant to the provisions of this Article 13.13. Each party waives the provisions of the Code of Civil Procedure Section 1265.130 allowing either party to petition the Superior Court of the County of Santa Barbara State of California to terminate this Lease in the event of a partial taking or Condemnation of the Site.

13.3. Total Condemnation. If the entirety of the Site and/or the entirety of the Building or Improvements is totally taken by Condemnation, this Lease shall terminate on the Date of Taking.

13.4. Effect of Partial Condemnation. If a portion of the Improvements or Site are taken by condemnation, this Lease shall remain in effect, except that Tenant may elect to terminate this Lease if the remaining portion of the Site, Improvements or Building is rendered unsuitable (as defined herein) for Tenant’s continued use. The remaining portion of the Building, Improvements or the Site shall be deemed unsuitable for Tenant’s continued use if, following a reasonable amount of reconstruction and allowing a reasonable time for resuming operations, Tenant’s business in the Improvements could not be operated at an economic level substantially equivalent to the economic level at which Tenant’s business was operating before the damage occurred and the decline in such economic level is directly attributable to the damage. Tenant must exercise its right to terminate by giving Landlord written notice of its election within 90 days after the nature and extent of the taking have been finally determined. Such notice shall also specify the date of termination, which shall not be prior to the Date of Taking. Failure to properly exercise the election provided for in this Section 13.4 will result in this Lease continuing in full force and effect.

13.5. Restoration of Improvements. If in Tenant's and Landlord's judgment it is reasonably possible and economically feasible to restore the Improvements, Tenant shall be entitled to use that portion of the Award allocable to the Improvements (but not any portion allocable to the Site) as is necessary to restore or to add on to the Improvements so that the area and approximate layout of the Improvements will be substantially the same after the Date of Taking as it was before the Date of Taking. If it is not reasonably possible and economically feasible to so restore the area and layout of the Improvements, the remaining provisions of this Article 13 shall govern the rights of the parties.

13.6. Award. If the Site, any portion thereof, or any improvements thereon is taken in connection with a Condemnation, that portion of the Award allocable thereto shall belong to Landlord. Tenant shall be entitled to receive: (a) the value of any leasehold improvements, merchandise, and Personal Property owned by Tenant taken in connection with such Condemnation, and (b) loss of Tenant's or its subtenant's business goodwill, if agreed to be paid by the Condemnor or awarded by a court; provided, however, that Tenant irrevocably assigns and transfer to Landlord all rights to an interests in that portion of the Award attributable to any leasehold bonus value, if any, to extent the Rent payable by Tenant under this Lease is below the then current fair market value of the Site, and relinquishes any claim thereto, right to make a claim thereon, or interest therein.

ARTICLE 14. ASSIGNMENT AND SUBLETTING

14.1. Landlord's Consent. Tenant shall not assign, sublet or otherwise transfer, whether voluntarily or involuntarily or by operation of Law, this Lease, the Improvements, the Site, any portion thereof, or any improvements thereon.

ARTICLE 15. TENANT DEFAULTS AND LANDLORD'S REMEDIES

15.1. Defaults by Tenant. Tenant shall be in default under this Lease upon occurrence of any of the following:

15.1.1. Tenant shall at any time be in default in the payment of Rent or any other monetary sum called for by this Lease for more than ten (10) days following written notice from Landlord to Tenant; or

15.1.2. Tenant shall at any time be in default in the keeping and performing of any of its other covenants or agreements herein contained, and should such other default continue for thirty (30) days after written notice thereof from Landlord to Tenant specifying the particulars of such default, or if such other default is of a nature that curing such default will take more than thirty (30) days Tenant has failed to commence such cure within such thirty (30) day period and to thereafter diligently pursue completion of such cure; or

15.1.3. Tenant assigns, sells, transfers, conveys, encumbers, hypothecates or leases the whole or any part of the Improvements, the Site, any portion thereof, or any improvements thereon in violation of this Lease; or

15.1.4. Except as otherwise expressly permitted in this Lease, there is any change in control of Tenant, or any other act or transaction involving or resulting in a change in the identity of the parties in control of Tenant or the degree of such control; or

15.1.5. Tenant is in default under any other provision of this Lease beyond expiration of any applicable cure period.

15.2. Remedies. Upon the occurrence of any such default, in addition to any and all other rights or remedies of Landlord hereunder, or by Law or in equity provided, Landlord shall have the sole option to exercise the following rights and remedies:

15.2.1. Terminate this Lease by giving Tenant notice of termination. On the giving of such notice, all Tenant's rights under this Lease shall terminate. Immediately following notice of termination, Tenant shall surrender and vacate the Improvements, the Site, all portions thereof, and all improvements thereon, leaving them in broom clean condition; and Landlord may reenter and take possession thereof and eject all parties in possession, or eject some and not others, or eject none. Termination under this subsection shall not relieve Tenant from the payment of any sum then due to Landlord or from any claim for damages previously accrued or then accruing against Tenant.

15.2.2. Without terminating this Lease, Landlord may at any time and from time to time relet the Improvements, the Site, any portion thereof, or any improvements thereon for the account and in the name of Tenant or otherwise. Any reletting may be for the remainder of the Term or for a longer or shorter period. Landlord may execute any leases made under this provision either in Landlord's name or in Tenant's name, and shall be entitled to all rents from the use, operation, and occupancy of the Improvements, the Site, any portion thereof, and any improvements thereon. Tenant hereby appoints Landlord its attorney-in-fact for purpose of such leasing. Tenant shall nevertheless pay to Landlord on the due dates specified in this Lease the equivalent of all sums required of Tenant under this Lease, less the revenue received by Landlord from any reletting or attornment, plus Landlord's expenses, including (by way of example), but not limited to, remodeling expenses, Landlord's brokerage and advertising costs and attorneys' fees and costs. No act by or on behalf of Landlord under this subsection shall constitute a termination of this Lease unless Landlord gives Tenant written notice of termination.

15.2.3. Even though Landlord may have relet the Building, Improvements, the Site, portions thereof, or improvements thereon, Landlord may thereafter elect to terminate this Lease and all of Tenant's rights thereunder, including all of Tenant's rights in or to the Building, Improvements, the Site, any portion thereof, and/or any improvements thereon.

15.2.4. Landlord shall have the remedy described in California Civil Code section 1951.4 (lessor may continue lease in effect after lessee's breach and abandonment and recover rent as it becomes due, if lessee has right to sublet or assign, subject only to reasonable limitations), as amended from time to time, and successor statutes thereto.

15.3. Damages. Should Landlord elect to terminate this Lease, Landlord shall be entitled to recover from Tenant, as damages:

15.3.1. The worth at the time of the award of the unpaid Rent that had been earned at the time of termination of this Lease;

15.3.2. The worth at the time of the award of the amount by which the unpaid Rent that would have been earned after the date of termination of this Lease until the time of award exceeds the amount of the loss of Rent that Tenant proves could have been reasonably avoided;

15.3.3. The worth at the time of the award of the amount by which the unpaid Rent for the balance of the Term of this Lease after the time of award exceeds the amount of the loss of Rent that Tenant proves could have been reasonably avoided; and

15.3.4. Any other amount (and court costs) necessary to compensate Landlord for all detriment proximately caused by Tenant's default, including costs of alterations and improvements in connection with reletting.

15.4. Cumulative. Each right and remedy of Landlord provided for herein or now or hereafter existing at Law or in equity, by statute or otherwise shall be cumulative and shall not preclude Landlord from exercising any other rights or remedies provided for in this Lease or now or hereafter existing at Law or in equity, by statute or otherwise. No payment by Tenant of a lesser amount than the Rent nor any endorsement on any check or letter accompanying any check or payment of Rent shall be deemed an accord and satisfaction of full payment of Rent; and Landlord may accept such payment without prejudice to Landlord's right to recover the balance of such Rent or to pursue other remedies.

ARTICLE 16. MISCELLANEOUS

16.1. Holding Over. If Tenant shall hold over on the Site after the expiration of the Term hereof with the consent of Landlord, such holding over shall be construed to be only a tenancy from month to month, subject to all the covenants, conditions and obligations contained in this Lease. Tenant hereby agrees to pay to Landlord as monthly rental 1/12th of the amount which is one hundred fifty percent (150%) of the highest amount of total annual Rent paid by Tenant to Landlord during the last year of the Term.

16.2. Attorneys' Fees. In the event that any action is brought by either party hereto as against the other party hereto for the enforcement or declaration of any right or remedy in or under this Lease or for the breach of any covenant or condition of this Lease, the prevailing party shall be entitled to recover, and the other party agrees to pay, all fees and costs to be fixed by the court therein including, but not limited to, attorneys' fees.

16.3. Quiet Possession. So long as Tenant is not in default under this Lease and is paying the Rent and performing all of the covenants and conditions of this Lease, Tenant shall quietly have, hold and enjoy the Site during the Term without interruption or disturbance from Landlord or any other persons claiming by, through or under Landlord.

16.4. Force Majeure. Except as to the payment of Rent, subject to the limitations set forth below, performance by either party hereunder shall not be deemed to be in default, and all performance and other dates specified in this Lease shall be extended, where delays are due to: remediation or removal of previously undiscovered Hazardous Materials that may be required by Law, regulation or prudent business practice; war; insurrection; strikes; lockouts; riots; floods; earthquakes; fires; casualties; acts of God; acts of the public enemy; epidemics; quarantine restrictions; freight embargoes; governmental restrictions or priority; litigation, including court delays; severe weather; lack of reasonable availability of labor or materials; acts or omissions of the other party; or acts or failures to act of the City (in its capacity as a municipal corporation only and not as a Landlord under this Lease) or any other public or governmental agency or entity. An extension of time for any such cause shall be for the period of the enforced delay and shall commence to run from the time of the commencement of the cause, if notice by the party claiming such extension is sent to the other party within thirty (30) days of the commencement of the cause. Times of performance under this Lease may also be extended in writing by the mutual agreement of Landlord and Tenant. Tenant expressly agrees that adverse changes in economic conditions, either of Tenant specifically or the economy generally, changes in market conditions or demand, and/or Tenant's inability to obtain financing or other lack of funding, or to complete the Improvements shall not constitute grounds of enforced delay pursuant to this Section 16.4. Tenant expressly assumes the risk of such adverse economic or market changes and/or financial inability, whether or not foreseeable as of the Commencement Date.

16.5. Notices. All notices to be given hereunder shall be in writing and mailed postage prepaid by certified or registered mail, return receipt requested, or delivered by personal or courier delivery, or sent by facsimile (immediately followed by one of the preceding methods), to Landlord's address and Tenant's address set forth in Basic Information Sections 1 and 2, or to such other place as Landlord or Tenant may designate in a written notice given to the other party. Notices shall be deemed served upon the earlier of receipt or three (3) days after the date of mailing.

16.6. Waiver. No waiver of any breach of any of the terms, covenants, agreements, restrictions or conditions of this Lease shall be construed to be a waiver of any other breach of the same or other terms, covenants, agreements, restrictions and conditions hereof.

16.7. Surrender. Upon the expiration or other termination of the Term of this Lease, and notwithstanding anything herein contained to the contrary, Tenant shall surrender to Landlord the Building, Improvements, the Site, all portions thereof, and all

improvements thereon, broom clean and in good condition and repair, reasonable wear and tear excepted.

16.8. Binding on Successors and Assigns. Subject to the restrictions set forth herein regarding assignment of the Leasehold Interest, each of the terms, covenants and conditions of this Lease shall extend to and be binding on and shall inure to the benefit of not only Landlord and Tenant, but to each of their respective heirs, administrators, executors, successors and assigns. Whenever in this Lease reference is made to either Landlord or Tenant, the reference shall be deemed to include, wherever applicable, the heirs, administrators, executors, successors and assigns of such parties, the same as if in every case expressed.

16.9. Landlord's Right to Enter Building and the Site. Landlord and its authorized representatives shall have the right to enter the Improvements, and the Site at all reasonable times, after giving Tenant twenty-four (24) hours prior written notice (except in emergency in which case no notice shall be required), for any reasonable purpose, including: to determine whether the Site, Improvements, the Building, or any other improvements on the Site is in good condition and whether Tenant is complying with its obligations under this Lease; to do any necessary maintenance and to make any restoration to the Improvements, the Site, any portion thereof, or improvements thereon that Landlord has the right or obligation to perform; to serve, post or keep posted any notices required or allowed under the provisions of this Lease; to post "for rent" or "for lease" signs during the last two (2) years of the Term, or during any period while Tenant is in default; to show the Improvements, and the Site to prospective lenders, brokers, agents, buyers, tenants or persons interested in an exchange Landlord shall have the right but not the obligation to maintain and repair, remove or replace, add to or generally improve, utilities and the facilities owned by Landlord, another public agency or public utility company, whether under, on, upon, or over the Improvements, the Site, any portion thereof, or any improvements thereon; and Landlord has the right but not the obligation to do any act or thing reasonably necessary for the safety or preservation of the Improvements, and the Site, any portion thereof, or any improvements thereon if any excavation or other construction is undertaken or is about to be undertaken on any adjacent property or nearby street. Landlord shall not be liable in any manner for any inconvenience, disturbance, loss of business, nuisance, or other damage arising out of Landlord's entry on the Improvements, the Site, any portion thereof, or any improvements thereon as provided in this Section 16.9 other than any property damage, bodily injury, or death caused by the sole negligence or willful misconduct of Landlord, its agents, employees or Tenants. Tenant shall not be entitled to an abatement or reduction of Rent if Landlord exercises any rights reserved in this Section 16.9.

16.10. Disclaimer of Partnership. The relationship of the parties hereto is that of Landlord and Tenant, and it is expressly understood and agreed that Landlord does not in any way nor for any purpose become a partner of Tenant or a joint venturer with Tenant in the conduct of Tenant's business or otherwise.

16.11. No Recordation. Tenant shall not record this Lease or any Memorandum of this Lease, or similar document except to the extent required (i) for Tenant to be able

to obtain a leasehold title policy insuring Tenant's Leasehold Interest in the Site, or (iii) by any Leasehold Mortgagee. Any such document shall be in a form reasonably satisfactory to Landlord.

16.12. Quitclaim. At the expiration or other termination of the Term, Tenant shall execute, acknowledge and deliver to Landlord within thirty (30) days after written demand from Landlord to Tenant, any quitclaim deed or other document required by any reputable title company to remove the cloud of this Lease from the Building, the Site, any portion thereof, or any improvements thereon.

16.13. Interpretation. The titles to the sections of this Lease are not a part of this Lease and shall have no effect upon the construction or interpretation of any part of this Lease. As used in this Lease, masculine, feminine or neuter gender and the singular or plural number shall each be deemed to include the others where and when the context so dictates. The word "including" shall be construed as if followed by the words "without limitation." This Lease shall be interpreted as though prepared jointly by both parties.

16.14. Severability. If any term, provision, condition or covenant of this Lease or its application to any party or circumstances shall be held, to any extent, invalid or unenforceable, the remainder of this Lease, or the application of the term, provision, condition or covenant to persons or circumstances other than those as to whom or which it is held invalid or unenforceable, shall not be affected, and shall be valid and enforceable to the fullest extent permitted by Law.

16.15. Legal Advice. Each party represents and warrants to the other the following: they have carefully read this Lease, and in signing this Lease, they do so with full knowledge of any right which they may have; they have received independent legal advice from their respective legal counsel as to the matters set forth in this Lease, or have knowingly chosen not to consult legal counsel as to the matters set forth in this Lease; and, they have freely signed this Lease without any reliance upon any agreement, promise, statement or representation by or on behalf of the other party, or their respective agents, employees, or attorneys, except as specifically set forth in this Lease, and without duress or coercion, whether economic or otherwise.

16.16. Time of Essence. Time is expressly made of the essence with respect to the performance by the parties of each and every obligation and condition of this Lease.

16.17. Nonliability. No member, official or employee of Landlord shall be personally liable to Tenant, or any successor in interest, in the event of any default or breach by Landlord or for any amount which may become due to Tenant or its successors, or on any obligations under the terms of this Lease. Tenant hereby waives and releases any claim it may have against the members, officials or employees of Landlord with respect to any default or breach by Landlord or for any amount which may become due to Tenant or its successors, or on any obligations under the terms of this Lease.

16.18. Applicable Law. The laws of the State of California, without regard to conflict of Laws principles, shall govern the interpretation and enforcement of this Lease.

16.19. Covenants and Conditions. Each obligation of the parties hereunder, including, without limitation, Tenant's obligation for the payment of Rent, shall be construed to be both a covenant and a condition of this Lease.

16.20. Integration. This Lease, including all recitals of exhibits and attachments to each of the foregoing, constitute the entire agreement between the parties and there are no conditions, representations or agreements regarding the matters covered by this Lease which are not expressed herein.

16.21. Amendments to this Lease. Landlord and Tenant agree to mutually consider reasonable requests for amendments to this Lease that may be made by either of them, subtenants of Tenant, lending institutions or bond counsel or financial consultants to Landlord or Tenant, provided such requests are consistent with this Lease and would not materially alter the basic business terms included herein. No amendment hereto shall be effective unless in writing and signed by the parties hereto.

16.22. Compliance With Laws. Tenant, at Tenant's expense, shall comply with all applicable Hazardous Materials Laws, statutes, labor codes, laws, codes, rules, orders, zoning, ordinances, directives, regulations, regulations, permits, or other requirements of federal, state, county, municipal, or other governmental authorities having jurisdiction, now in force or which may hereafter be in force (individually "**Law**" and collectively "**Laws**"), which shall impose any duty upon Landlord or Tenant with respect to the use, occupancy, or alteration of the Improvements, the Site, any portion thereof, or any improvements thereon.

16.23. Commission. Each party represents to the other that it has not been represented by any broker in connection with this Lease, and that no real estate broker's commission, finder's fee or other compensation (individually and collectively, "**Commission**") is due or payable. Each party agrees to indemnify and hold the other harmless from any claims or liability, including reasonable attorneys' fees, in connection with a claim by any person for a Commission based upon any statement, representation or agreement of the other party.

16.24. Relocation Waiver. Tenant fully releases and discharges Landlord from: (i) all and any manner of rights, demands, liabilities, obligations, claims, or cause of actions, in law or equity, of whatever kind or nature, whether known or unknown, whether now existing or hereinafter arising, which arise from or relate in any manner to the relocation of Tenant's business operations or the relocation of any person or persons, business or businesses, or other occupant or occupants located on the Site following expiration or other termination of this Lease, including the specific waiver and release of any right to any relocation benefits, assistance and/or payments under Government Code Sections 7260 et seq. ("**Relocation Assistance Law**"), notwithstanding that such relocation assistance, benefits and/or payments may be

otherwise required under the Relocation Assistance Law or other Law; and (ii) compensation for any interest in Tenant's business operations, the Building, the Site, any portion thereof, or any improvements thereon, including leasehold bonus value, fixtures, furniture, or equipment, loss of business goodwill, severance damage, attorneys' fees or any other compensation of any nature whatsoever. Tenant acknowledges and agrees that the release and waiver set forth in this Section is material consideration for Landlord's lease of the Site and sale of the Building to Tenant on the terms set forth herein and that, but for this release and waiver, Landlord would not have entered into this Lease.

16.25. Counterparts. The parties hereto agree that this Lease may be executed in counterparts, each of which shall be deemed an original, and said counterparts shall together constitute one and the same agreement, binding all of the parties hereto, notwithstanding all of the parties are not signatory to the original or the same counterparts. For all purposes, including, without limitation, recordation, filing and delivery of this Lease, duplicate unexecuted and unacknowledged pages of the counterparts may be discarded and the remaining pages assembled as one document.

[Signatures on following page]

IN WITNESS WHEREOF, the parties have executed this Lease as of the Effective Date.

LANDLORD:

CITY OF BUELLTON a California Municipal corporation

By: [Signature]

Name: John Kunkel

Its: City Manager

ATTEST:

[Signature]
Linda Reid, City Clerk

APPROVED AS TO FORM:

[Signature]
Ralph D. Hanson, City Attorney

--AND--

TENANT:

SIERRA TURF, INC., a California corporation

By: [Signature]

Name: Mike Brown

Its: President

By: [Signature]

Name: Chantelle Brown

Its: Secretary

APPROVED AS TO FORM:

By: _____

Name: _____

Its: _____

EXHIBIT A
PROPERTY
(LEGAL DESCRIPTION AND SITE MAP)

LEGAL DESCRIPTION

LOT 80 OF TRACT 13,533 UNIT ONE IN THE CITY OF BUELLTON, COUNTY OF SANTA BARBARA, STATE OF CALIFORNIA, AS SHOWN ON MAP FILED BOOK 127, PAGES 94 THROUGH 98 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

EXCEPTING THEREFROM ALL OIL, PETROLEUM AND OTHER HYDROCARBON SUBSTANCES, INCLUDING NATURAL GAS IN, ON AND UNDER SAID LAND, WITHOUT, HOWEVER, THE RIGHT TO ENTER UPON THE SURFACE OF SAID LAND OR INTO THE UPPER 500 FEET OF THE SUBSURFACE THEREOF, MEASURED VERTICALLY FROM SAID SURFACE, AS RESERVED AND EXCEPTED BY MERCHANTS TRUST COMPANY IN DEED RECORDED JANUARY 3, 1914 IN BOOK 140, PAGE 589 OF DEEDS.

EXHIBIT B

GOLF COURSE IMPROVEMENTS

Prior to the operation of the Zaca Creek Golf Course, Tenant shall have completed all the Improvements within the times as set forth below in this Exhibit B. Except as specifically noted below, all costs for completion of the Improvements shall be at the sole cost and expense of Tenant.

Where the Landlord has agreed to pay for the capital cost of the supplies or materials for any Improvement as set forth in this Exhibit B, Tenant shall first obtain three informal bids from suppliers. The bids shall be submitted to the Landlord for prior approval of any contract for such supplies or materials.

As set forth in Section 5.9 of the Lease, Tenant shall provide a faithful performance bond guaranteeing to the City of Buellton the completion of the Improvements. The bond shall be in the amount of \$75,000.00.

Any variation in the scope of the Improvements as set forth in this Exhibit B shall be approved in advance by the City Manager of the City of Buellton.

1. Greens and Course Turf. Renovations of the greens shall continue to completion as specified under the SIERRA TURF CONTRACT. Fairway turf, irrigation, practice areas (not including driving range) and associated improvements shall be brought up to the standards as set forth in Exhibits C & D by May 30, 2012.
2. Driving Range. The driving range, including any and all netting, shall be completed and operational by January 1, 2012. Landlord shall pay for the cost of the driving range netting.
3. Sand traps/Bunkers. Sand traps/bunkers shall be renovated to USGA standards. Landlord shall pay the cost of any approved sand. Completion by May 30, 2012.
4. Patio Cover. A new patio cover shall be in place by May 30, 2012. The design of the patio cover and any associated screening shall be approved by Landlord prior to commencement of any such work. Tenant shall be required to submit appropriate plans and obtain an approved building permit for the patio cover. Landlord shall pay for the cost of any plans, building permit and construction materials for the patio cover. In no event shall play be allowed on the course prior to the completion of the patio cover.
5. Clubhouse/Pro Shop Renovation. Renovations to the Clubhouse/Pro Shop shall conform to the industry standards of similar municipal golf courses including, but not limited to, new carpet, paint, lighting, window treatment, upgraded or new merchandise and food/beverage service areas, together with the provision of all associated golf accessories, as provided in Exhibits C & D, by May 30, 2012. In no event shall play be allowed on the course prior to the completion of the such renovation.
6. Concrete Pad. The concrete slab adjacent to the Clubhouse/Pro Shop shall be re-leveled to prevent water draining to the wall of the Clubhouse/Pro Shop. Completion by May 30, 2012.

Zaca Creek Golf Course

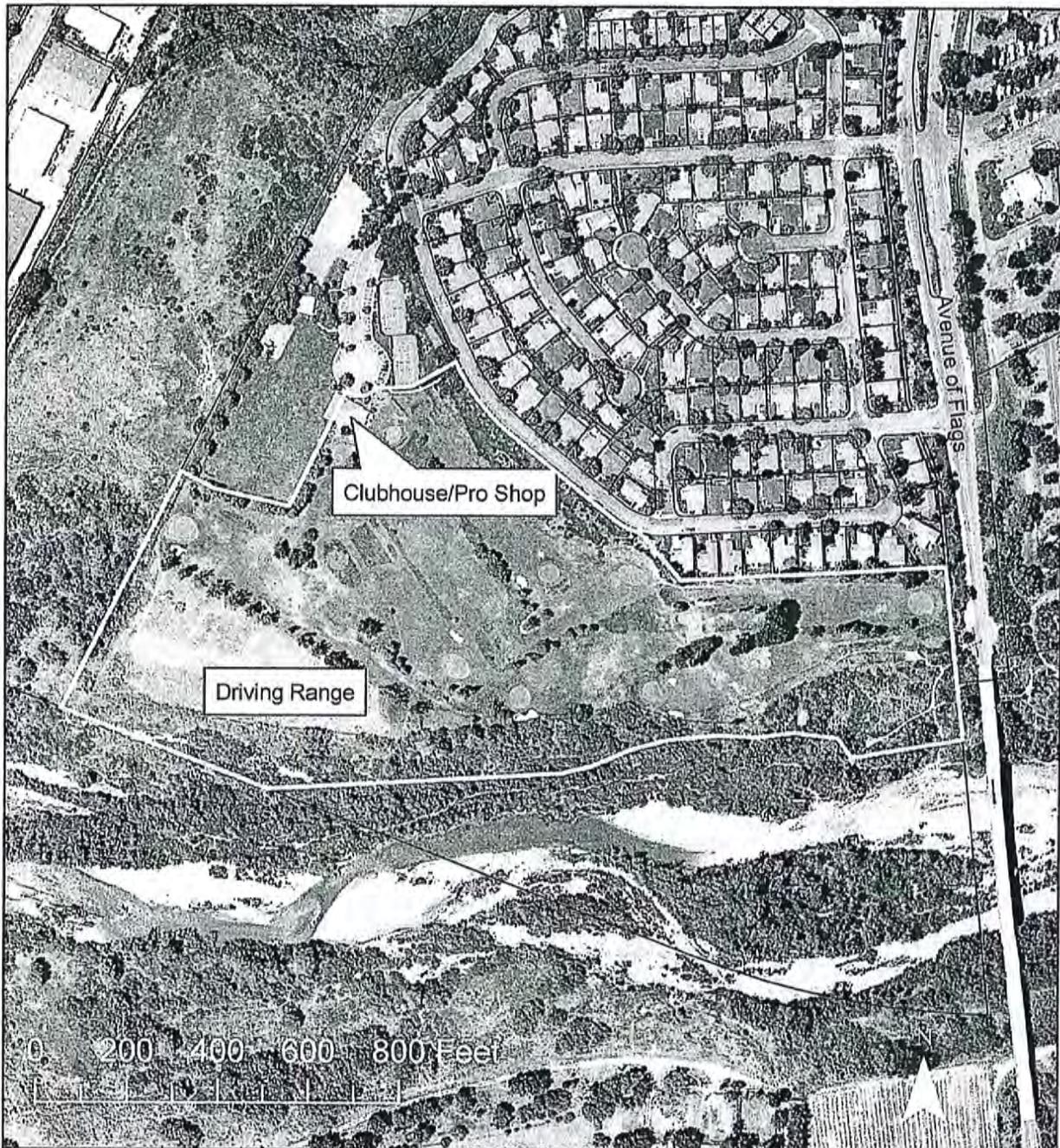


EXHIBIT C

GOLF COURSE OPERATIONS SPECIFICATIONS

I. GOLF OPERATIONS SCOPE OF WORK

The work covered by these Golf Operations Specifications consists of providing labor; services; materials; supplies; golf carts; selecting golf shop furniture, fixtures, equipment, and inventory for sale; and other items as may be required to support the operation of a quality, municipal golf course, golf shop, and practice facility. Except as specified in the Lease, the services according to these specifications shall commence on June 1, 2012 and will continue until termination of the Lease between the golf operations Tenant and the City.

Prior to commencement of operations, the City and the Tenant will identify any additional items required to provide service as anticipated and shall determine on a equitable basis, the financial responsibility for procurement of these items.

II. AGREEMENT TERMS

- A. Golf Operations as specified herein are part of Zaca Creek Golf Course Lease the City and the Tenant.
- B. The Tenant shall be responsible for orderly care, safety, security, maintenance and timely repair of all property which constitutes the golf operation according to applicable laws, permits, licenses and regulations.
- C. The City reserves the right from time to time as conditions warrant to hire outside golf course operations consultants to inspect the golf course and Tenant agrees to carry out reasonable recommendations of the City made as a result of the inspection(s).

III. PERSONNEL & SUPERVISION

- A. Golf operations as identified herein will be conducted under the direct supervision of Tenant.
- B. The Tenant will be responsible to hire, train, manage and compensate the necessary personnel for performance of the work according to these specifications and other terms contained in the agreement documents. Staffing plan must include a qualified golf instructor who is onsite a minimum of 40 hours per week and provide for a minimum of two staff people on duty during pro shop operating hours.

- C. The Tenant will provide uniforms for all staff in both a customer service and maintenance role to ensure identification and high standards of customer service.

IV. HOURS OF OPERATION

- A. Tenant, with the advice and consent of the City, shall determine reasonable hours for public access to services. With the exception of starting time reservation services and Tenant's support for special events, access to golf services, as a minimum, shall be provided between the hours of dawn and dusk each day except as precluded by weather conditions
- B. Any changes in the schedule of hours for golf operation previously agreed shall be subject to approval by the City.
- C. The golf course will be open every of the year, weather permitting, except for Christmas Day.
- D. In the event play and/or use must be temporarily suspended on the golf course due to inclement weather conditions, the decision on when to allow use and/or play to resume will be made by the Tenant.

V. CLUBHOUSE / PRO SHOP

A. Preparation and Appearance

1. The Tenant shall be responsible for the maintenance, cleaning, repair and general appearance of the clubhouse/pro shop (including the food and beverage portion), cart storage, maintenance building and golf shop.
2. All supplies, cleaning equipment and materials and paper goods shall be provided by the Tenant.
3. Cleaning and preparation shall be scheduled not to impact business operations.
4. Maintenance and repairs shall be conducted on a timely basis with minimal impact on business operations.

B. Other Common Space

1. Tenant shall establish a quality standard and schedule and oversee performance of its employees or subtenants to:
 - a. Vacuum carpets and clean as needed.

- b. Clean any provided exterior ash trays daily. No smoking will be permitted within the clubhouse/pro shop
- c. Empty waste baskets and clean daily.
- d. Sweep all building entrances daily.
- e. Dispose of all waste daily.
- f. Dust all desks, counters, chairs, file cabinets, tables and shelves daily.
- g. Clean baseboards weekly.
- h. Clean window glass in the doors inside and out as often as needed.
- i. Clean all windows inside and outside monthly or more often as needed.
- j. Replace defective lamps in light fixtures as soon as possible after discovery.

C. Merchandise Quality/Quantity

- 1. Tenant shall provide and maintain such inventory of golf merchandise as is deemed necessary by mutual consent of the Tenant and the City.
- 2. Tenant shall provide all fixtures necessary for the display and sale of merchandise.
- 3. The Tenant shall offer for sale only goods of premium quality consistent with the quality of goods sold at equivalent daily fee golf courses.
- 4. Inventory shall include at a minimum: clothing for men and women; equipment including, balls, gloves, tees, etc.
- 5. Tenant shall not offer for sale or rental any item of merchandise which the City deems objectionable or beyond the scope of the agreement.
- 6. Prior to commencement of operations, the Tenant will submit copies of its initial purchase orders and City will have the right to subsequently confirm receipt of goods ordered.

D. Pricing

- 1. The Tenant shall have the right to charge competitive prices for the same or similar goods sold at equivalent quality, daily fee golf courses in the area consistent with the cost to provide such goods.
- 2. Prior to initial stocking and sale of golf shop inventory, the Tenant shall submit a price list to the City for approval.
- 3. Subsequently, if the Tenant wishes to materially change prices or the types of goods to be sold, Tenant shall submit a proposed general list of goods and suggested prices to the City for approval. This does not apply

- to items that are placed on sale to prevent inventory from becoming stale in accordance with a previously approved merchandising plan.
4. When an item has a suggested retail price pre-marked and established by the manufacturer or distributor, the Tenant shall not charge the public a price that is higher than the pre-marked price.
 5. Prices for all items for sale shall be marked or displayed.
 6. If in the opinion of the City, the Tenant is charging prices which discourage purchase of items offered for sale, the City may sample pricing for the same or similar goods at equivalent golf courses and Tenant shall reduce prices to a competitive level based upon validation of the City's data by the Tenant.
 7. At the City's request, the Tenant shall discontinue sale of any item of merchandise on City finding(s) that the item(s) is not necessary or in the best interests of the City of the public.

VI. GOLF AND OTHER SERVICES

A. Required Operating Responsibilities

The Tenant will be responsible for providing all golf services at the Course including, at a minimum, the following services and activities:

1. Provide and supervise staff to operate and manage the Course Pro Shop from sunrise to sunset, 7 days a week, except for Christmas day.
2. Provide and maintain an inventory of merchandise for sale in the Pro Shop.
3. Provide and manage golf cart (electric or pull cart) and equipment rentals,
4. Check-in golfers and regulate and control play, including the enforcement of Course rules and regulations.
5. Supervise and control the starting time and reservation system.
6. Collect and deposit daily all revenues, including, but not limited to, monies from green fees, merchandise sales, cart and equipment rentals, lessons, tournaments, gift certificate sales, resident and multi-play cards, and membership programs.
7. Provide quality golf lessons and instruction for all levels of play.
8. Promote golf and golf related activities in cooperation with existing golf clubs, organizations and the City of Buellton.
9. Schedule and facilitate golf tournaments, clinics and junior golf promotions.
10. Work cooperatively and collaboratively with maintenance, food and beverage and City management staff to provide a positive golf experience for all users.

B. Reservations

1. The Tenant shall not discriminate in any way in the scheduling of starting times.
2. The Tenant shall provide maximum access to the starting time reservation system with service available as the season and demand dictates.

3. Golfers shall have timely, consistent access to the reservation system. Those wishing to make telephone reservations should not be kept on hold, nor shall phones be busy any more than the time it takes to complete a single cash transaction (objective should be 15 seconds).
4. Group and tournament events shall be handled by qualified, experienced personnel.

C. Starter/Player Assistants

1. The Tenant shall provide a Starter and a plan for the starter to monitor play and provide a quality experience as players begin each round of golf. Pace of play objectives shall be established by the Tenant, approved by the City and communicated to players before they begin each round of golf.
2. The Tenant shall submit a plan to the City for Golf Course marshal services to promote a comfortable yet brisk pace of play. Any subsequent curtailment or decrease of this service shall be reasonably justified by the Tenant and approved by the City.
3. Any special requirements for group/tournament play will be established by the Tenant, conveyed when reservations are booked and communicated by golf operations staff as groups are checked in.
4. The Tenant shall provide all complimentary, necessary and consumable golf supplies including scoring pencils and "logo" scorecards. Aforementioned items shall be in form, content and quality pre-approved by the City.

D. Rentals

1. The Tenant shall provide and maintain for rental an inventory of quality, recognized brand golf clubs (and cloth or vinyl bags) sufficient to meet player's demands.
2. The Tenant shall provide and maintain for rental a supply of pull carts sufficient to meet player's demands.
3. Prior to commencing rental services, the Tenant will have submitted and the City will have approved a plan for pricing and use of rental equipment and any necessary documents.

E. Practice Areas

1. The Tenant shall be responsible for the quality operation of the practice facilities providing and maintaining a sufficient number of artificial hitting mats, grass tees, putting green(s), sand and turf surfaces for the proper teaching and practice of all phases of the game.
2. Prior to offering access to practice facilities, the Tenant will have submitted and the City will have approved a plan for the use of the practice facilities and the pricing of fees, if any.

F. Lessons

1. The Tenant shall provide golf lessons and training by qualified instructors.
2. The Tenant shall have submitted in its proposal and shall implement a group and individual lesson plan to provide for the teaching and training needs of golfers of differing skill levels, ages, sexes and economic situations.
3. The City expects the Tenant to conduct programs to promote participation in the game of golf and the use of all the golf services.
4. Prior to offering lesson, teaching or any golf training programs, the Tenant will have submitted and the City will have approved a plan for pricing and use of practice facilities.

G. Group Tournament Services

1. The Tenant shall provide group event and tournament scheduling services without discrimination.
2. The Tenant shall promote the use of all other fee services and sale of goods.
3. The Tenant shall implement systems and procedures to allow effective future management of the course and its related support facilities and resources.
4. Prior to accepting reservations and/or fees for group events and tournament activity, the Tenant will have submitted, and the City will have approved, a plan for pricing and use of the facilities.

H. Golf Green Fees

1. Fees and Charges
 - A. Tenant shall keep current a comprehensive schedule of fees for golf play and cart rentals. Standard fees shall be displayed.
2. Establishing of Fees
 - A. Tenant shall conduct an annual, comprehensive survey of green fee and rental rates at comparable golf courses with-in the market area and submit recommendations for fee changes to the City.
 - B. The City must approve all green fee and rental rate changes.
 - C. Fee discounts and special pricing packages must be pre-approved by the City.

VIII. SERVICE GUIDELINES

- A. Tenant shall offer services consistent with the scope and quality of services offered at equivalent daily fee golf courses in the area.
- B. Tenant shall not offer services which the City deems objectionable or beyond the scope of the agreement.
- C. Tenant shall post all fees except those fees which may be negotiated for group/tournament activity or other special uses.

those under repair by the Tenant and those areas where turf is at a level that is not consistent with other associated turf areas.

Tees

1. Mow at proper height according to seasonal conditions.
2. Tee markers placed in healthy areas with tee markers set flat to ground and direction of play.
3. Sand and seed buckets filled and properly placed by tee markers.
4. All tee station equipment cleaned and painted. Ball washer operational.
5. No standing water or mud holes.
6. Weed free and disease free.
7. Pest and vandal damage repaired.
8. Bare areas sodded and leveled.

Roughs

1. Mowed at proper height according to seasonal needs.
2. No standing water or mud holes.
3. Pest and vandal damage repaired.
4. Hazards properly marked.
5. Free of debris that affects play.
6. Ground under repair painted with appropriate white turf paint and roped off neatly and consistently throughout the golf courses. Ground under repair includes those under repair by the Tenant and those areas where turf is at a level that is not consistent with other associated turf areas.

Bunkers

1. Edged as required, by seasonal conditions.
2. Raked – sand not compacted.
3. Proper level of sand.
4. Two to Five operational rakes per bunker, depending on bunker size.
5. Rakes properly maintained.
6. Rakes placed tines down, distributed evenly around the respective bunkers.
7. Bunkers should have 1" lip on lower side.
8. No excess sand buildup on high side.
9. No animal borroughs.
10. No standing water.

Parking Lot

1. Lights operational.
2. Free of debris, litter, leaves, and trimmings.

Golf Course Restrooms

1. Must be clean and stocked daily.
2. Operational and odor free.
3. No graffiti.
4. Lights operational.

5. No worn spots.
6. Lockable partitions.

Cart Paths

1. Edged and clean.
2. Weed free.
3. No standing water.

Irrigation

1. Properly maintained and adjusted.
2. Proper coverage.
3. No evidence of broken lines.
4. No missing or broken valve box lids.
5. All valve boxes visible.
6. Controllers must be locked.
7. Heads, valves and quick couplers are leak free.
8. Irrigation computer information properly kept.
9. Irrigation controller information properly kept.

Equipment

1. Serviced by golf personnel at manufacturer's intervals with proper records.
2. Tenant equipment repaired to meet demands of golf maintenance requirements.
3. Tenant's equipment to include all Tenant safety features.
4. Equipment is kept clean.
5. All equipment maintenance and replacement is the responsibility of Tenant.

Clubhouse – (Exterior) – Parking Lot

1. Walkways level and clean of debris.
2. All surfaces covered properly with paint where appropriate.
3. Exterior lighting working and scheduled properly.
4. All signage accurate and readable.
5. Shrub beds maintained according to specifications.

Trees

1. No dead trees or terminally diseased trees.
2. Trees trimmed, as needed.
3. Properly staked – remove stakes within first year if applicable.
4. Mowed around.
5. Kept in healthy condition.
6. Action plan for dead and diseased trees.

Maintenance Facilities

1. Cleaned regularly.
2. Maintained properly.
3. All regulations for proper storage and disposal of materials are adhered to.

Signage

1. Replace or add, as needed.
2. Proper placement is evident.
3. Clean and readable.

Fence/Nets

1. Repair or replace as needed.
2. In place with no holes.

1.1 SAFETY

- 1.1.1 Tenant agrees to perform all work outlined in these specifications in such a manner as to meet all accepted standards for safe practices during the maintenance and operation and to safely maintain equipment, machines, and materials or other hazards consequential or related to the work; and agrees additionally to accept the sole responsibility for complying with all local, County, State or other legal requirements, including, but not limited to, full compliance with the terms of the applicable O.S.H.A. and CAL.O.S.H.A. Safety Orders, and at all times, protecting all persons, including Tenant's employees, vendors, members of the public or others from foreseeable injury, or damage to their property. Tenant shall identify and inspect all potential hazards at said areas under maintenance and keep a log indicating date inspected and action taken.
- 1.1.2 Tenant shall ensure all required certifications and training methods are adhered to and current.
- 1.1.3 When performing work, the Tenant shall make every effort to keep sidewalks, vehicle travel lanes and driveways open at all times, and honor golf etiquette by performing maintenance tasks within acceptable golf play conditions.
- 1.1.4 It shall be the Tenant's responsibility to inspect and identify, any condition(s) that renders any portion of the areas under maintenance unsafe, as well as any unsafe practices occurring thereon. The Tenant shall be responsible for making corrections, including but not limited to filling holes and replacing valve box covers so as to protect golfers and other members of the public from injury. The Tenant shall cooperate fully with the City in the investigation of any accidental injury or death by the public, Tenant, or any other entity, occurring in the contracted areas, including a complete written report thereof to the GSM within twenty-four (24) hours following the occurrence.

1.2 PROTECTION OF PROPERTY

- 1.2.1 During Periods of Inclement Weather:

EXHIBIT D

GOLF COURSE MAINTENANCE SPECIFICATIONS

1.0 GENERAL REQUIREMENTS

The Tenant shall furnish all labor, equipment, materials, tools, services and special skills required to perform the landscape and other maintenance as set forth in these specifications and in keeping with the highest standards of quality and performance.

Note: Any and all references to the role or duties of Golf Services Manager (GSM) herein shall be deemed to be the representative of the City for golf course matters; however, any references to the GSM shall also mean, and will be the duties and responsibilities of, the Tenant in all obligations to maintain the golf course in conformance to the specifications outlined.

1.0.1 Maintenance Standards

The following standards are further reinforced in the maintenance specifications that follow and are included here in order to acquaint the Tenant with the City's general expectations:

Greens/Collars

1. Mow greens at proper height according to seasonal conditions.
2. Pin placement shall be in healthy turf area according to rotation plan.
3. No standing water or severe turf loss areas.
4. Greens should be consistent on a daily basis utilizing a stimp meter within a one (1) foot range from green with lowest speed to green with highest speed.
5. Weed free and disease free.
6. Bare and stressed areas sodded or plugged.
7. Pest and vandal damage repaired.
8. No foreign grass encroachment from collars.
9. Hole plugs set at proper grade.
10. Ball marks repaired.

*No
Chance*

Fairways

1. Fairways mowed at proper height according to seasonal conditions.
2. No standing water or mud holes.
3. Yardage markers in place and maintained.
4. Cart traffic management devices in place; bare or stressed areas properly addressed.
5. Weed free and disease free.
6. Pest and vandal damage repaired.
7. Ground under repair painted with appropriate white turf paint and roped off neatly and consistently throughout the golf courses. Ground under repair includes

The Tenant will provide supervisory inspection of the golf course during regular hours to prevent or minimize possible damage.

The Tenant shall submit a report identifying any storm damage to the GSM attached to a site map identifying location of damage.

The Tenant's workforce shall continue to accomplish work not affected by such weather, i.e. clean-up and facility maintenance, as well as work caused by the inclement weather.

1.2.2 The Tenant shall exercise due care during the performance of work in protecting from damage all existing facilities, structures and utilities both above surface and underground on the City's property. Any damage to City property deemed to be caused by the Tenant's neglect shall be corrected and paid for by the Tenant at no cost to the City.

1.2.3 If the City requests or directs the Tenant to perform work in a given area, it will be the Tenant's responsibility to verify and locate any underground utility systems and for taking reasonable precaution when working in these areas. Any damage or problems shall be reported immediately to the GSM.

1.3 PESTICIDES

General:

All materials used shall be in strict accordance with and applied within the standards set forth in the EPA regulations and the California Department of Food and Agricultural Code.

Tenant is responsible for obtaining all required permits and maintaining the required usage documentation and to comply with all requests from the Sam Mateo County Agricultural Department to inspect records, licenses, training certificates, equipment and storage facilities. All applicable regulations shall be strictly adhered to, and all required reporting shall be the responsibility of Tenant.

Application of Pesticides:

1.3.1 Timing:

Pesticides shall be applied at times that limit the possibility of contamination from climatic and other factors. Early morning or evening application shall be used when possible to avoid contamination from drift. If applicable, drift control skirted booms must be used when golfers are present if applicable. Small backpack applications may be performed based on weather protection and with

provisions made for the safety of golfers. Applicator shall monitor forecast weather conditions to avoid making application prior to inclement weather to eliminate potential runoff of treated areas. Irrigation water applied after treatment shall be reduced to eliminate runoff. When water is required to increase pesticide efficiency, it shall be applied only in quantities per the label requirements and of which each area is capable of receiving without excessive runoff.

1.3.2 Handling of Pesticides:

Care shall be taken in transferring and mixing pesticides to prevent contaminating areas outside the target area. Application methods shall be used which ensure that materials are confined to the target area. Spray tanks containing leftover materials shall not be drained on the site to prevent contamination. Disposal of pesticides and tank rinsing materials shall be within the guidelines established in the California Department of Food and Agricultural Code or EPA regulations.

1.3.3 Equipment and Methods:

Spray equipment shall be in good operating condition, quality, and design to efficiently apply material to the target area. Avoiding high pressure applications and using water soluble drift agents will minimize drift.

1.3.4 Recommendations:

All pesticide applications shall be in accordance with written recommendations provided by a licensed Pest Control Advisor (PCA) with copies of the written recommendations sent to the GSM. A licensed Qualified Applicator (QAC) shall be on site during application.

1.3.5 Selection of Materials:

Pesticides shall be selected from those approved for golf course use by California Department of Food and Agriculture.

1.4 SOUND CONTROL REQUIREMENTS

1.4.1 The Tenant shall comply with all local sound control and noise level rules, regulations and ordinances, which apply to any work performed pursuant to the contract.

1.4.2 Each internal combustion engine used for any purpose on the job or related to the job shall be equipped with a muffler of a type recommended by the manufacturer of such equipment. No internal combustion engine shall be operated on the project without said muffler.

1.5 CONSTRUCTION EQUIPMENT

The Tenant shall take all necessary precautions for safe operation of equipment and the protection of the public from injury and damage from such equipment.

1.6 INQUIRIES AND COMPLAINTS

- 1.6.1 The Tenant shall have designated responsible management personnel to take the necessary action regarding all inquiries and complaints that may be received from or through the City and/or private citizens during normal work hours.
- 1.6.2 Whenever immediate action is required to prevent impending injury, death or property damage to the facilities being maintained, City may, after reasonable attempt to notify the Tenant, cause such action to be taken by the City work force and shall charge the full cost thereof to the Tenant.
- 1.6.3 All complaints shall be abated as soon as possible after notification to the satisfaction of the City. If any complaint is not abated within a reasonable time, the City shall be notified immediately of the reason for not abating the complaint, followed by a written report to the GSM within three (3) days.

1.7 THE CITY'S RIGHT TO DO WORK

The City reserves the right to do work as required within the contract area. The work referenced herein may include, but is not limited to, capital improvements and/or alterations intended to improve golf course facilities. If such projects materially affect the cost to meet the requirements of the agreement, the Tenant will be asked to submit justification to support the additional costs. Tenant and City will review the justification in order to consider modifications to the Financial Conditions of the agreement.

2.0 SPECIFIC REQUIREMENTS

- 2.1 Tenant shall notify the City prior to use of a sub Tenant on the premise. All sub Tenants shall have appropriate insurance and safety requirements and shall be trained in golf course etiquette procedures prior to any work being performed.
- 2.2 All golf course related plans are property of city and use is restricted to premises. Tenant shall make copies as required to ensure the original set of plans remains in good condition.

2.1 MAINTENANCE RECORDS

The Tenant shall provide the GSM with a written schedule of the work to be

performed during the following month which includes, but is not limited to: general golf course maintenance, aerification, tree trimming, lake maintenance, herbicide/insecticide application, fertilization and replacement of color plants. The report shall be provided in a format developed by Tenant and City and approved by the GSM. If the Tenant finds that it is not possible to maintain the submitted schedule, the GSM shall be advised and a revised schedule submitted.

- 2.1.1 The Tenant shall maintain and keep current a log that records all on-going, seasonal and additional work, and maintenance functions performed on a daily basis by Tenant's personnel. Said report shall be in a form and content acceptable to the GSM.

2.2 TREES

- 2.2.1 All tree trimmings shall be performed on a schedule approved by the GSM and in accordance with the tree, shrub and other wood plan maintenance pruning practices outlined by the American National Standards Institute, Inc. (ANSI). However, such trimming and pruning is a minimum level and shall not relieve Tenant of other responsibilities set forth herein.
- 2.2.2 Trees shall be pruned as required to remove broken or diseased branches. The Tenant shall develop a pruning program, which will promote proper tree scaffolding, strength, and appearance consistent with its intended use. Tenant shall prune trees to allow wind to pass through the tree, reducing and preventing a "sail" effect.
- 2.2.3 Trees located adjacent to vehicular and/or pedestrian traffic ways shall be maintained so as not to obstruct vehicle and/or pedestrian visibility and clearance.
- 2.2.4 Fertilization shall be scheduled as often as required to keep trees in a healthy and desirable condition as outlined in the pruning specifications. Avoid applying fertilizer to root ball or base of main stem; instead, spread evenly in area of drip zone.
- 2.2.5 Tree stakes, ties, and guys shall be checked and corrected as needed. Ties will be adjusted to prevent girdling. Remove unneeded stakes, ties, and guys as required. Re-stake trees, as required, using lodge pole stakes.
- 2.2.6 Prune trees along sidewalks and cart paths to allow ten (10) foot clearance for pedestrians.
- 2.2.7 Ailing or stunted trees, which fail to meet expected growth will receive additional nutrient treatments to correct any deficiencies.

- 2.2.8 Surface roots, which become maintenance or appearance problems, will be removed or additional soil and sod cover shall be placed as required to prevent damage to adjacent areas, mowers and golf carts.
- 2.2.9 Any tree requiring removal, at no fault of Tenant, shall be replaced by the Tenant, at City expense, with prior GSM approval.

2.3 SHRUBS

- 2.3.1 Prune shrubs to retain as much of the natural informal appearance as possible.
- 2.3.2 Shrubs used as formal hedges or screens shall be pruned as required to present a neat, uniform appearance.
- 2.3.3 Remove any spent blossoms or dead flower stocks as required to present a neat, clean appearance.
- 2.3.4 Plants growing over curbing and/or sidewalks shall be trimmed on a natural taper rather than vertical so as not to appear to be hedged.
- 2.3.5 Schedule the application of a commercial fertilizer as often as required to promote optimum growth and healthy appearance to all shrubs.
- 2.3.6 Any plant requiring removal shall be replaced by the Tenant.

2.4 GROUND COVER – NATIVE GRASSES

- 2.4.1 Apply all chemical control (e.g. pesticides) as required to control or prevent pest infestations to protect ornamental plantings.
- 2.4.2 Trim ground cover adjacent to walks, walls and/or fences as required for general containment to present a neat, clean appearance.
- 2.4.3 Cultivate and/or spray herbicide to remove broad-leafed and grass weeds as required. Shrub beds shall be maintained in a weed free condition.
- 2.4.4 Keep ground cover trimmed back from all controller units, valve boxes, quick couplers, or other appurtenances or fixtures. Do not allow ground covers to grow up trees, into curbs, or on structures or walls. Keep trimmed back approximately 4 inches from structure or walls.
- 2.4.5 Fertilization: Schedule fertilization of all ground cover areas with a commercial fertilizer as often as required to promote healthy appearance.
- 2.4.6 Ground cover plants shall be added, as needed, to ensure a solid mass planting

in conformance with the original intent.

2.5 PEST CONTROL ON PLANTS

- 2.5.1 Tenant shall provide complete and continuous control and/or eradication of all plant pests or diseases.
- 2.5.2 Tenant shall supply the proper chemical designated for the pests to be controlled.
- 2.5.3 Tenant shall obtain all necessary regulatory permits and assume responsibility for the use of all chemical controls.

2.6 IRRIGATION SYSTEM

2.6.1 Efficient Use of Water:

- 2.6.1.1 Considerations must be given to soil texture, structure, porosity, water holding capacity, drainage, compaction, precipitation rate, run off, infiltration rate, percolation rate, evapotranspiration, seasonal temperatures, prevailing wind condition, time of day or night, type of grass, plant and root structure. This may include syringing during the day and watering during periods of windy weather.
- 2.6.1.2 Tenant shall be responsible for daily monitoring all systems within premises and correcting for: coverage, adjustment, clogging of lines and sprinkler heads, removal of obstacles, including plant materials which obstruct the spray.
- 2.6.1.4 The soil moisture content on greens, tees and fairways shall be checked regularly and appropriate adjustments made. Adequate soil moisture shall be determined by visual observation, plant resiliency, and turgidity, examining cores removed by soil probe, moisture sensing devices and programming irrigation controllers accordingly.
- 2.6.1.5 Tenant shall observe and note deficiencies occurring from the original design of facilities and review these findings with the GSM so necessary improvements can be considered.
- 2.6.1.6 All leaking or defective valves, lines and sprinkler heads shall be repaired within twenty-four (24) hours at the expense of the Tenant. A report of such repairs shall be given to the GSM weekly.
- 2.6.1.7 Tenant shall turn off all controllers when it is not necessary to irrigate due to adequate rainfall.

2.6.2 System Maintenance

Tenant is aware of the current state of the golf course irrigation system, and accepts full responsibility for the repair and maintenance of the system as is. Any required replacements, repairs, and maintenance to existing components of the system to ensure the system remains in operation are the sole responsibility of the Tenant. Appropriate personnel shall be trained in the use of the master irrigation computer.

2.6.2.1 All controllers are to be kept pest-free and all parts and repairs necessary to maintain the operation are the responsibility of the Tenant.

2.6.2.2 Any repairs made by the Tenant shall be made in accordance with the industry standards and conforming to all related codes and regulations.

2.6.2.3 Tenant shall be responsible for adjusting the height of sprinkler risers necessary to compensate for growth of plant materials.

2.6.2.4 Sprinkler heads and valve boxes shall be kept clear of overgrowth which may obstruct maximum operation.

2.6.2.5 Repairs and/or upgrades made to the irrigation system must be made in accordance with the system's original design with products equal to or higher quality than currently provided.

2.6.2.6 All irrigation repairs and maintenance, including but not limited to, sprinkler heads, piping, fittings, valves, controller boxes, controller supplies, and controller face plates, must be performed utilizing the same manufacturer and type of product as existing materials. Any change to existing materials must have prior approval by the GSM.

2.7 ANIMAL AND RODENT CONTROL

Tenant shall continuously, at a minimum on a weekly basis, control and eradicate rodents and other animal pests as necessary to prevent hazards, holes and destruction of plantings on golf course property. Damage to public or private property due to erosion as a result of rodent activity shall be repaired at the Tenant's expense.

2.8 WEED CONTROL OF PAVED SURFACES

Tenant shall control all weeds growing in cracks, expansion joints and other hard surfaces by the use of chemical or mechanical weed control.

2.9 WEED CONTROL IN LANDSCAPE AREAS

Weed control in landscaped areas shall be accomplished by mulching and the use of both pre-emergent and post-emergent herbicides. Mechanical weed eradication is

unacceptable unless approved by the GSM.

2.10 STRING TRIMMERS

Care shall be exercised with regard to the use of string trimmers to prevent damage to building surfaces, walls, header board, light fixtures, signage, etc. A minimum of 12" bare soil or mulched buffer zone shall be maintained around the circumference at the base of all trees in landscaped areas.

2.11 GREENS

Maintain all turf in accordance with playability and industry wide standards as determined by the GSM, observing the following minimum requirements:

2.11.1 Greens shall be mowed as needed with an approved greens reel type mower at a height of 5/32", or as recommended by the Tenant and approved by the GSM. Frequencies and height of cut may be modified from time to time as deemed necessary by the golf course Tenant with the prior approval of the GSM. All grass clippings must be collected and removed from the site during each mowing operation, including dispersed in a method to prevent unplayable conditions. Greens must be mowed, and rolled if performed, prior to first golfer of day reaching each respective green, including the putting green. Care will be given on clean up lap mowing to reduce turf loss and playability.

2.11.2 Ball cups are to be relocated daily to USGA Standards to enable worn turf spots to recover. Putting and chipping green cups to be changed weekly. Hole positions will be rotated using front, middle, and back locations for each three hole sequence.

45°
2.11.3 Verticutting of greens shall be scheduled bi-weekly or more, including double verticutting, during periods of active turf growth. Each verticutting shall be at 90 degrees to the previous cut. Verticutting activities should match the agronomic requirements of plant growth. This function shall be coordinated to compliment the aerification and topdressing schedules. Combing or brushing may also be done. Verticut depth should be appropriate to playing conditions and agronomic needs. If play conditions are such that greens are not smooth for ball roll (bumpy), Tenant shall utilize verticutting and other agronomic methods to improve golf ball roll.

2.11.4 Aerify greens at least two (2) times per year, in April and August, or more frequently if needed, and remove plugs the same day. Aerification shall be carried out with a minimum of interference to play. Aerification shall be scheduled in November of each year for the following year in conjunction with the GSM and golf professional. All aerification hole sizes, with a minimum of 5/8 inch hollow tine utilized, and spoil locations shall be pre-approved by the GSM. Aerification holes shall penetrate to a depth of three inches. Care should

be taken to have as minimal disturbance to green surface from manual and equipment applications during aerification process. Aerification of greens for agronomic purposes, other than annual regularly scheduled aerifications, shall be reviewed and scheduled with the golf professional to reduce golfer impact.

- 2.11.5 Following all annual regularly scheduled aerifications, a topdressing sand material approved by the GSM shall be applied and brushed into the turf, with follow applications performed as needed. Application shall be done with an approved topdressing spreader. Spot topdressing may be applied to repair damage from ball marks or any other damage. Light topdressing will be done every two weeks during the active growth season to maintain turf playability and agronomic conditions. Turf irrigation requirements shall be adjusted during process to ensure proper agronomic conditions are met.
- 2.11.6 Tenant shall have the soil analyzed after the start of the term of the contract and twice every year thereafter, on dates pre approved by GSM. Apply fertilizer and nutrients in the quantity and type recommended by soil analysis and growing conditions at the time of treatment and in a manner to provide uniform growth of turf. Under normal conditions, 0.5 to 1.2 pounds of actual nitrogen per thousand square feet shall be applied per growing month. Typically, a variety of granular slow release types of material or liquid sprayable fertilizer may be utilized. Use of materials to control salt damage and water infiltration shall be applied to meet the requirements of the turf and playable conditions. Fertilizer shall be applied every three (3) weeks during the active growing season and every five (5) weeks for the remainder of the year.
- 2.11.7 Treat greens with proper chemicals to control insects, disease, weeds and other pests.
- 2.11.8 Greens shall be kept free of foreign grasses and/or broadleaf weeds that tend to creep in from the edges.
- 2.11.9 EC readings should be taken during the spring and fall to determine salts levels and if they are above normal, corrective action taken to reduce to appropriate levels to promote optimum health of the turf.
- 2.11.10 Green speed should be consistent daily on all greens, with the difference between the lowest green speed and the highest green speed no more than one (1) foot in variance on the stimp meter throughout golf course. Green speeds should be no lower than 9 feet in average daily during the months of May, June, July, August, September, and October, and no lower than 9 feet 6 inches daily for the other months. Green speeds should be maintained as high as agronomic conditions and play conditions allow.
- 2.11.12 Debris from trees shall be cleaned prior to mowing and during day as needed to ensure quality playing conditions.

2.11.13 Ball marks shall be repaired daily.

2.12 COLLARS, APPROACH, BANKS AND GREEN SURROUNDS

Maintain all turf in accordance with playability and industry wide standards as determined by the GSM observing the following minimum requirements:

2.12.1 Collars shall be mowed a minimum of two (2) times each week to maintain a height of ½ inch, mowing with a triplex mower

2.12.2 Green surrounds shall be mowed a minimum of (1) time each week to maintain a height of one (1) to 1-1/4 inch or a height as recommended by the Tenant and approved by the GSM. If a rotary mower is used, it shall be specifically designed to prevent scalping of the turf.

2.12.3 Fertilization frequency, types of material and analysis shall be determined from results of bi-annual soil nutrient level testing and growing conditions at the time of treatment. Under normal conditions 0.25 to 0.75 pounds of actual nitrogen per thousand square feet shall be applied every six (6) weeks during the active growth season and every eight (8) weeks for the remainder of the year.. Typically combinations of granular slow release type of materials may be utilized.

2.12.4 Mowing directions should be changed to prevent turf depressions and turf loss.

2.12.5 Approach shall be mowed a minimum of two (2) to three (3) times each week to maintain a height of ½ inch, or a height as recommended by the Tenant and approved by the GSM, cut with a greens type triplex mower

2.12.6 Grass clippings shall be removed and dispersed properly to not negatively affect golf play.

2.12.7 Bunker banks shall be mowed to ensure no rutting occurs and proper turf heights are maintained. If rutting occurs, areas shall be sodded for repair.

2.12.8 Verticutting shall be performed at least two (2) times per year. All other provisions of section 2.11.3 shall be followed.

2.12.9 Aerify at least two (2) times per year, in April and August, or more frequently if needed, and remove plugs the same day. Aerification shall be carried out with a minimum of interference to play. Aerification shall be scheduled in November of each year for the following year in conjunction with the GSM and golf professional. All aerification hole sizes, with a minimum of 5/8 inch hollow tine utilized, and spoil locations shall be pre-approved by the GSM. Aerification holes shall penetrate to a depth of three inches. Care should be taken to have as minimal disturbance to the turf surface from manual and equipment applications

during aerification process. Aerification for agronomic purposes, other than annual regularly scheduled aerifications, shall be reviewed and scheduled with the golf professional to reduce golfer impact.

- 2.12.10 Following all annual regularly scheduled aerifications, a topdressing sand material approved by the GSM shall be applied as needed. Application shall be done with an approved topdressing spreader. Turf irrigation requirements shall be adjusted during process to ensure proper agronomic conditions are met.

2.13 TEE MAINTENANCE

Maintain all turf in accordance with playability and industry wide standards as determined by the GSM, observing the following minimum requirements:

- 2.13.1 Service tees daily by moving tee markers, removing trash and checking benches and ball washers. Change tee towels and water weekly and keep ball washers filled to proper level with water and appropriate cleaning agent. Tee markers shall be moved daily to healthy turf areas, placed at appropriate direction to play.
- 2.13.2 Mow tees two (2) times weekly with reel type mower, with baskets, at height of 1/2 inch or a height as recommended by the Tenant and approved by the GSM. All grass clippings will be collected and dispersed properly for playable conditions.
- 2.13.3 Aerify and topdress tees, with sand and mulch pre-approved by the GSM, at least two (2) times per year, or more frequently if needed, using the appropriate equipment with the minimum of interference to play. Aerification shall be carried out with a minimum of interference to play and plugs removed the same day. Aerification shall be scheduled in November of each year for the following year in conjunction with the Golf Professional and the GSM. All aerification hole sizes, with a minimum of 5/8 inch utilized, and spoil locations shall be pre-approved by the ACR. Care should be taken to have as minimal disturbance to tee surface from manual and equipment applications during aerification process.
- 2.13.4 Fertilization frequency, materials and analysis shall be determined from results of bi-annual soil nutrient level testing and growing conditions at the time of treatment. Under normal conditions, 0.25 to 0.75 pounds of actual nitrogen per thousand square feet shall be applied every six (6) weeks during the active growth season and every eight (8) weeks during the remainder of the year. Typically combinations of granular slow release type of materials may be utilized.
- 2.13.5 Repair worn and damaged turf areas as they occur by topdressing, over seeding or resodding to ensure playability at all times.
- 2.13.6 Tees shall be overseeded, with approved seed by GSM, following aerification

and before topdressing at a rate of 10.33 lbs. per thousand square feet of tee area.

- 2.13.7 Treat tees for control of insects, disease, weeds and other pests as necessary to maintain healthy turf.
- 2.13.8 Trash receptacles are to be emptied daily.
- 2.13.9 A sand and seed container, approved by the GSM, must be available on all Par 3 holes, for use in repairing divots. A container must be set at each respective set of tee markers for each hole. Tee divots shall be filled with sand and seed at a minimum of once per week on all holes and twice per week on par 3 holes.
- 2.13.10 Ample score card and pencil supplies shall be kept in stock at the scorecard station between the No. 1 green and the No. 2 tee.
- 2.13.11 Tee yardage plaques, stations and signs shall be maintained and edged at all times.
- 2.13.12 Tee station items, such as markers, signs, trash cans, ball washers, etc. shall be in good condition and repaired or replaced as needed.
- 2.13.13 Recycle trash containers shall be utilized and all recyclable glass and plastic bottles and aluminum cans shall be collected and turned into appropriate recycle centers.

2.14 FAIRWAY MAINTENANCE

Maintain all fairways in accordance with playability and industry wide standards as determined by the GSM, observing the following minimum requirements:

- 2.14.1 Mow fairway two (2) times weekly at height of 3/4 inch or at a height as recommended by the Tenant and approved by GSM.
- 2.14.2 Aerify all fairways at least one (1) time a year. The equipment used to aerify the fairways shall be Power Take-Off (PTO) or self engine powered to enable a three (3) to five (5) inch coring depth (Toro ProCore or equivalent) utilizing hollow coring, with a minimum of 3/4 inch hollow tine, as recommended by the Tenant and approved by the GSM and cores shall be removed from the fairways. Aerification shall be scheduled in November of each year for the following year in conjunction with the Golf Professional and the GSM. All aerification hole sizes and spoil locations shall be pre-approved by the GSM. Care should be taken to have as minimal disturbance to turf surface from manual and equipment applications during aerification process. Slicing of the fairways at various intervals is recommended to promote turf growth, improve water infiltration, and improve salt damage.

- 2.14.3 Over seed all fairways once per year, in the fall and at a pre- approved date with the GSM and golf professional, with an 80/20 rye/blue seed mix, pre-approved by the GSM, at a minimum rate of 450 lbs. per acre. All seed shall be slit seeded into the soil to ensure adequate soil and seed contact. A post seed application of fertilizer (15-15-15 or equivalent) shall be applied with four (4) weeks of the over seed process at a rate of one (1) lb per thousand of nitrogen. Over seed and topdress (or re-sod) worn or bare areas of fairways as necessary.
- 2.14.4 Treat turf to control weeds, invasive grasses (i.e. Kukuyu), diseases, insects, and other pests as necessary to maintain a weed free and healthy turf, and to eliminate weed infestation.
- 2.14.5 A proper fertilizing and nutrient program shall be performed per soil testing recommendations each calendar year. Fertilization shall occur a minimum of every six (6) weeks during the active growth season and every eight (8) week during the remainder of the year.
- 2.14.6 Policing to control litter shall be done on a regular basis for the removal of all paper, leaves, cans, bottles, tree branches, etc.
- 2.14.7 Excessive turf clippings shall be dispersed by a method of dragging, baskets, vacuumed or blown to ensure proper playable conditions are provided.

2.15 ROUGHS MAINTENANCE

Maintain all turf in accordance with playability and industry wide standards as determined by the ACR, observing the following minimum standards:

- 2.15.1 Mow one (1) time per week at a height of 1-1/2 inches, or a height as recommended by the Tenant and approved by the GSM.
- 2.15.2 Aerify all roughs at least one (1) time per year. The equipment used to aerify the fairways shall be Power take off (PTO) or self engine powered to enable a three (3) to five (5) inch coring depth (Toro Pro Core or equivalent), utilizing hollow tines, with a minimum $\frac{3}{4}$ inch hollow tine, as recommended by the Tenant and approved by the GSM. Aerification shall be scheduled in November of each year for the following year in conjunction with the GSM and golf professional. All aerification hole sizes and spoil locations shall be pre-approved by the GSM. Care should be taken to have as minimal disturbance to green surface from manual and equipment applications during aerification process. Cores shall be removed from the roughs.
- 2.15.3 Overseed and topdress (or resod) worn or bare turf areas as necessary.
- 2.15.4 Fertilization frequency, materials and analysis shall be determined from results

of bi-annual soil nutrient level testing and growing conditions at the time of treatment. Fertilization shall occur a minimum of every six (6) weeks during the active growth season and every eight (8) week during the remainder of the year.

- 2.15.5 Treat turf to control weeds, disease, insects and other pests as necessary to maintain a healthy turf and eliminate weed infestation.

2.16 OTHER TURF AND MAINTENANCE AREAS

These areas consist of areas not detailed above.

- 2.16.1 All debris such as litter and branches shall be removed from the course.
- 2.16.2 All yardage, course markers, ropes and stakes, and signage shall be straight and damage free, and repaired and replaced as needed.
- 2.16.3 Any item that is a safety hazard shall be repaired or replaced immediately,
- 2.16.4 Tenant shall submit annually to GSM a written Integrated Pest Management (IPM) program for the following 12 months detailing annual fertilizer, pesticide, fungicide and other related applications for the golf course.
- 2.16.5 Tenant shall be responsible for repair and service of injection machines and holding tanks (if utilized by Tenant)
- 2.16.6 Tenant shall utilize wood chipping machinery to produce wood chips from tree pruning and care. Wood chips may be spread throughout golf course in pre approved areas by the GSM. No permanent dumping of course debris, such as branches, wood stumps, etc. is approved on the property. Tenant is responsible for costs associated with any removal of debris. Any other course generated debris such as earthen spoils shall be dispersed at locations and with methods pre approved by the GSM.
- 2.16.7 Turf areas surrounding the clubhouse shall be mowed one (1) time per week at a height of 1-1/2 inches.
- 2.16.8 Tenant shall provide, at Tenants sole expense and liability, an effective goose control program to eliminate goose activities, including use of control dog, motorized hand controlled boats, noise makers, and other methods.

2.17 SAND BUNKERS

- 2.17.1 Sand bunkers shall be cleaned and raked, by mechanical method or by hand, a minimum of three (3) times per week.
- 2.17.2 Sand depth shall be randomly checked monthly for depth of sand and shall be

maintained no less than four inches (4") deep. Tenant shall submit written report to City of any bunkers with less than four (4") inches of sand. Additional sand may be added, at City expense, at City sole discretion.

- 2.17.3 Turf shall be mechanically edged along sand bunker edges at a minimum monthly, or more frequently if required, to ensure a neat appearance. Care shall be taken to maintain the design outline of the bunkers to insure the integrity of the bunker shape. Chemical control of sand edges through use of a non-selective herbicide or growth regulator around sand bunkers shall be allowed with pre-approval of GSM.
- 2.17.4 Excess sand in the turf surrounding the trap shall be removed on a regular basis.
- 2.17.5 A minimum of two (2) to five (5) rakes are to be available, depending on bunker size, at all sand bunkers at all times. (Color and style subject to GSM approval.)
- 2.17.6 Bunker sand shall be cultivated as needed, or at a minimum of once per month, to ensure sand is not compacted. Methods should be used to not disturb existing soil below the sand.
- 2.17.7 All debris such as pine needles and cones, branches and other debris shall be removed as needed to ensure playable conditions and reduce sand contamination.
- 2.17.8 Excessive water ponding and silt accumulated by rain falls and irrigation applications shall be removed prior to bunker raking.

2.18 CLUBHOUSE AREAS

2.18.1 Shrub Beds

- 2.18.1.1 Clean up shall occur on a regular basis to ensure that beds are kept free of trash and debris such as paper, cans and bottles, fallen branches, excessive leaves and weeds.
- 2.18.1.2 A fertilizer program shall be a minimum of four (4) applications per year or as needed for health and color.
- 2.18.1.3 Spent flowers, leaves and other landscape debris shall be removed from plant areas daily, or as required.

2.18.2 Seasonal Color Beds

- 2.18.2.1 All color beds shall be regularly cleaned of paper, bottles and cans, fallen branches, excessive leaves and weeds.

2.18.2.2 Weed control shall be accomplished by use of pre-emergent, selective herbicides, mulch and manual weeding. A pest control spray program shall be done as often as necessary for pest control.

2.18.2.3 Beds shall be cultivated by mechanical means on a regular basis or as required, or as directed by the GSM.

2.18.2.4 Color plants shall be replaced a minimum of twice annually and shall be performed on a schedule submitted to and approved by the GSM. The replacement plants shall be 4-inch potted size, spaced per industry standards and planted with the appropriate soil amendments.

2.18.3 Periphery Areas

2.18.3.1 All periphery areas shall be maintained in a manner consistent to industry standards to ensure a healthy and aesthetically pleasing appearance at all times.

2.18.3.2 Areas shall be mowed, weeded, cleaned of litter and other debris on a regular basis (a minimum of once per week). Watering should occur if the area is covered by the irrigation system.

2.18.3.3 Special attention shall be given to periphery areas adjacent to public roadways since these areas are highly visible to the general public and constitute a "first impression" of the overall service level of the course.

2.18.3.4 All areas are to be inspected for erosion problems and repaired as needed.

2.19 PARKING LOTS

2.16.1 Parking lots are to be maintained in a safe condition for use by both vehicles and pedestrians, and cleaned each day to ensure a clean, crisp appearance free from litter and debris, including all landscaped planters on or adjacent to the lots.

2.16.2 All parking lot lighting shall be repaired as needed.

2.20 GRAFFITI

2.20.1 Golf course shall be inspected daily for evidence of graffiti. Special attention shall be given to restrooms, signs, markers, block walls, curbing, paving, tees, utility poles/boxes and/or any other structures of fixtures.

2.20.2 All graffiti shall be eradicated within twenty-four (24) hours of detection.

2.20.3 Graffiti requiring paint over shall be painted over with a color consistent with

that of the original surface.

2.20.4 Graffiti on non-painted surfaces shall be removed by sand or water blasting and area returned to the pre existing condition.

2.21 COURSE ACCESSORY EQUIPMENT

All accessory equipment must be maintained in a clean, safe, functioning condition at all times and repainted as required to present an aesthetically pleasing appearance. Accessory equipment shall include, but not be limited to the following:

NOTE: Must be same or equal to current types and any changes require prior approval of the GSM.

Signage, Shoe brushes, Trash receptacles, Ash urns Greens cups, NCGA Teemarkers, Benches, Sand rakes, Flags and poles, Ball washers, Fairway yardage poles, and sprinkler yardage markers

2.22 CART PATH/STEPS/RAMPS/WALKWAYS/BRIDGES

2.22.1 To be swept or blown clean of debris every Friday or more often as needed.

2.22.2 Concrete paths to be edged and scraped clean a minimum of one (1) time per month, or as needed.

2.22.3 Tenant shall identify all potholes and/or other surface damage or defects to be repaired and report to City. The repair of such areas shall be the responsibility of the City, at City sole discretion.

2.23 RESTROOMS

2.23.1 Restrooms shall be cleaned and sanitized once daily using cleaning and sanitizing agents recognized for use in public restrooms.

2.23.2 Maintenance shall include, but not limited to:

Sweeping and mopping floor, Cleaning and sanitizing basins, metal fixtures, urinals, toilets, and trash receptacles; Cleaning and polishing mirrors

2.23.3 Paper supplies shall be checked and restocked daily, or as needed.

2.23.4 Walls, ceilings, screens and windows shall be cleaned monthly, or as needed.

2.23.5 Leaky or malfunctioning fixtures shall be repaired/replaced immediately upon detection.

2.23.6 Lighting fixtures are to be checked daily with relamping of faulty fixtures provided as needed at time of detection.

2.23.7 Restroom floors which are wet for any reason, including mopping, shall be so marked with proper temporary signage.

2.24 CONSTRUCTION AND/OR REMODELING

Any and all changes in the physical characteristics of any portion of the courses or structures, such as: addition or removal of sand traps, trees, water hazards, native vegetation or other features shall require prior approval by the GSM.

3.0 EXTERIOR OF THE CLUBHOUSE, RESTROOM BUILDINGS, STRUCTURES AND GROUNDS

The City will be responsible for the repairs and maintenance of the building exteriors. The Tenant shall be responsible for the maintenance and repair of the Maintenance facility interior.

AMENDMENT NO. 1 TO THE ZACA CREEK GOLF COURSE LEASE

City of Buellton
and
Mike Brown

This Amendment No. 1 to the Zaca Creek Golf Course Lease (the "Amendment") is made and entered into this 16th day of June 2014 (the "Effective Date"), by and between the City of Buellton, a Municipal Corporation ("Landlord") and Mike Brown, Sole Proprietor ("Tenant").

1. RECITALS

A. On December 5, 2011, the Landlord and Sierra Turf, Inc. entered into the Zaca Creek Golf Course Lease (the "Lease") for operation of a 9-hole golf course. Tenant was a principal owner/shareholder in Sierra Turf, Inc. and primarily responsible for the operation of the Zaca Creek Golf Course pursuant to the requirements of the Lease.

B. Landlord and Tenant desire to amend the Lease to provide for the continued operation of the golf course.

C. On May 22, 2014, the City Council of the City of Buellton authorized the City Manager to enter into an amendment to the Zaca Creek Golf Course Lease as noted in this Amendment.

2. AMENDMENT

The Landlord and Tenant hereby agree as follows:

1. The "Basic Information" of the Lease is hereby amended as provided in Exhibit 1 to this Amendment.

2. Any references to Sierra Turf, Inc., in the Lease shall be to Mike Brown.

3. Tenant shall provide all insurance required pursuant to Article 9 of the Lease within ten (10) days for the Effective Date of this Amendment.

4. Article 5.1.4 be amended to read, as follows:

"5.1.4 Youth Golf and Activities. Tenant agrees and acknowledges that the First Tee Program shall be allowed free use of the Site to conduct golf activities. The times and conditions for such use shall be determined by Tenant and the responsible parties of

the First Tee Program and submitted to the Landlord for approval. In addition to the First Tee Program, or in lieu of, the Tenant shall establish a youth golf program in conjunction with the City's Recreation Department. In addition, children under 18 (with adult supervision) shall be able to use the disc golf course free of charge if such amenity is established on the property."

5. Except as expressly modified herein, all the terms referenced in this Amendment No. 1 shall have the same meaning as the terms defined in the Lease.

6. Except as expressly modified by this Amendment No. 1, all terms and provisions of the Lease shall remain in full force and effect.

In Witness Whereof, the Landlord and Tenant have executed Amendment No. 1 to the Zaca Creek Golf Course Lease.

LANDLORD:

CITY OF BUELLTON, a California Municipal Corporation

By: _____
Marc Bierdzinski, City Manager

ATTEST:

Linda Reid, City Clerk

APPROVED AS TO FORM:



Ralph D. Hanson, City Attorney

TENANT:

MIKE BROWN

By: 

Mike Brown

**EXHIBIT 1
BASIC INFORMATION**

1. Landlord: City of Buellton, a California Municipal Corporation
107 West Highway 246
P.O. Box 1819
Buellton, CA 93427
Attn: City Manager
Email: MarcB@cityofbuellton.com
Phone: 805-688-5177
Fax: 805-686-0086

2. Tenant: Mike Brown
1066 Mesa Road
Nipomo, CA 93444
Email: mike@sierraturf.com
Phone: 805-929-2888

3. Effective Date: December 5, 2011

4. Site: That certain real property described in and depicted on Exhibit A, Commonly known and referred to Zaca Creek Golf Course, 223 Shadow Mountain Drive, in the City of Buellton, County of Santa Barbara, State of California, Assessor's Parcel Number 099-690-034

5. Permitted Use: Operation of a 9 hole golf course, driving range, putting green, pro Shop, as well as limited ancillary uses

6. Term: Five (5) years, commencing on the effective date of the lease as set forth in Article 2

7. Base Rent: As set forth in Article 3, \$1,250 per month commencing June 1, 2012. Subject to modification/renegotiation after 2 years

8. Construction Pay: As set forth in Section 5.9, commencing on the effective date, \$1,000 per week, until May 30, 2012, for Tenant to perform the golf course improvements as set forth in Exhibit B.

The basic information set forth above, the recitals below, and all exhibits attached hereto are incorporated into and made part of the following lease. If there is any conflict between the basic information and terms of the lease, the terms of the lease shall control.

LANDLORD'S INITIALS MMB

TENANT'S INITIALS MB

AMENDMENT NO. 2 TO THE ZACA CREEK GOLF COURSE LEASE

City of Buellton
and
Mike Brown

This Amendment No. 2 to the Zaca Creek Golf Course Lease (the "Amendment") is made and entered into this 16th day of January 2015 (the "Effective Date"), by and between the City of Buellton, a Municipal Corporation ("Landlord"), and Mike Brown, a Sole Proprietor ("Tenant").

1. RECITALS

A. On December 5, 2011, the Landlord and Sierra Turf, Inc. entered into the Zaca Creek Golf Course Lease (the "Lease") for operation of a 9-hole golf course, as fully described as the "Site" in the Lease. Tenant was a principal owner/shareholder in Sierra Turf, Inc. and primarily responsible for the operation of the Zaca Creek Golf Course pursuant to the requirements of the Lease.

B. Landlord and Tenant desire to amend the Lease to provide for the continued operation of the Zaca Creek Golf Course.

C. On May 22, 2014, the City Council of the City of Buellton authorized the City Manager to enter into an amendment to the Zaca Creek Golf Course Lease (Amendment No. 1). Amendment No. 1 was signed and executed on June 16, 2014.

D. On January 8, 2015, the City Council of the City of Buellton authorized the City Manager to enter into an amendment to the Zaca Creek Golf Course Lease as noted in this Amendment No. 2.

2. AMENDMENT

The Landlord and Tenant hereby agree as follows:

A. In lieu of paying the "Base Rent" to the City, as required by the Lease and Amendment No. 1, Tenant shall use one year of lease payments totaling \$15,000, commencing January 2015 (the "2015 Lease Payments"), to pay for improvements to the irrigation lines and sprinkler heads at the Zaca Creek Golf Course improvements. Upon completion of the improvements to the irrigation lines and sprinkler heads at the Site, Tenant shall use any remaining amount of the 2015 Lease Payments, if any, to fix the fences surrounding the Site. Upon completion of repairs to the fences at the Site, Tenant shall give use any remaining 2015

Lease Payments, if any, to perform other Zaca Creek Golf Course improvements as approved by the Public Works Director.

B. Prior to performing the improvements as set forth above above in Paragraph 2(A), Tenant shall submit plans and specifications, and cost estimates, for the proposed improvements to the Public Works Director. Upon the Public Works Director's approval, Tenant shall commence work on the approved improvements.

C. Tenant shall provide documentation to Landlord for all expenses incurred against the 2015 Lease Payments.

D. All work performed by the Tenant using the 2015 Lease Payments shall be completed by December 31, 2015, unless the Landlord provides an extension of time. The decision whether to grant an extension shall be within the Landlord's sole, unfettered discretion.

E. If any portion of the 2015 Lease Payments remain unspent at the end of the deadline specified in Paragraph 2(D), including any authorized extension, Tenant shall pay the unspent portion of the 2015 Lease Payments to the Landlord.

F. Except as expressly modified herein, all the terms referenced in this Amendment No. 2 shall have the same meaning as the terms defined in the Lease.

G. Except as expressly modified by Amendments Nos. 1 and 2, all terms and provisions of the Lease shall remain in full force and effect.

In Witness Whereof, the Landlord and Tenant have executed Amendment No. 2 to the Zaca Creek Golf Course Lease.

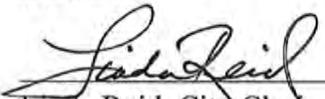
LANDLORD:

CITY OF BUELLTON, a California Municipal Corporation

By: 

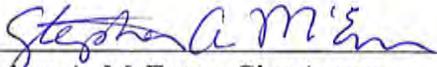
Marc Bierdzinski, City Manager

ATTEST:



Linda Reid, City Clerk

APPROVED AS TO FORM:



Stephen A. McEwen, City Attorney

TENANT:

MIKE BROWN

By: 

Mike Brown

ATTACHMENT 3

AMENDMENT NO. 3 TO THE ZACA CREEK GOLF COURSE LEASE

City of Buellton
and
Mike Brown

This Amendment No. 3 to the Zaca Creek Golf Course Lease (the “Amendment”) is made and entered into this 10th day of November 2016 (the “Effective Date”), by and between the City of Buellton, a Municipal Corporation (“Landlord”), and Mike Brown, a Sole Proprietor (“Tenant”).

1. RECITALS

A. On December 5, 2011, the Landlord and Sierra Turf, Inc. entered into the Zaca Creek Golf Course Lease (the “Lease”) for operation of a 9-hole golf course, as fully described as the “Site” in the Lease. Tenant was a principal owner/shareholder in Sierra Turf, Inc. and primarily responsible for the operation of the Zaca Creek Golf Course pursuant to the requirements of the Lease.

B. Landlord and Tenant desire to amend the Lease to provide for the continued operation of the Zaca Creek Golf Course.

C. On May 22, 2014, the City Council of the City of Buellton authorized the City Manager to enter into an amendment to the Zaca Creek Golf Course Lease (Amendment No. 1). Amendment No. 1 was signed and executed on June 16, 2014.

D. On January 8, 2015, the City Council of the City of Buellton authorized the City Manager to enter into an amendment to the Zaca Creek Golf Course Lease (Amendment No. 2). Amendment No. 2 was signed and executed on January 16, 2015.

E. On November 10, 2016, the City Council of the City of Buellton authorized the City Manager to enter into an amendment to the Zaca Creek Golf Course Lease as noted in this Amendment No. 3.

2. AMENDMENT

The Landlord and Tenant hereby agree as follows:

A. In accordance with Section 2.4 of the Contract, the term of the lease shall be extended five years, with a new expiration date of December 11, 2021. All other terms of Section 2.4 remain in effect.

B. Except as expressly modified herein, all the terms referenced in this Amendment No. 2 shall have the same meaning as the terms defined in the Lease.

C. Except as expressly modified by Amendments Nos. 1, 2 and 3, all terms and provisions of the Lease shall remain in full force and effect.

In Witness Whereof, the Landlord and Tenant have executed Amendment No. 3 to the Zaca Creek Golf Course Lease.

LANDLORD:

CITY OF BUELLTON, a California Municipal Corporation

By: _____
Marc Bierdzinski, City Manager

ATTEST:

Linda Reid, City Clerk

APPROVED AS TO FORM:

Stephen A. McEwen, City Attorney

TENANT:

MIKE BROWN

By: _____
Mike Brown

CITY OF BUELLTON
City Council Agenda Staff Report

City Manager Review: MPB
Council Agenda Item No.: 12

To: The Honorable Mayor and City Council

From: Marc Bierdzinski, City Manager
Kyle Abello, Recreation Coordinator

Meeting Date: November 10, 2016

Subject: Discussion Regarding Possible Elimination of the Parks and Recreation Commission

BACKGROUND

The City Council created the Parks and Recreation Commission in 2004 to advise the City on issues related to the City's parks and recreation programs. This was particularly important when the City had no parks and only a fledging recreation program. Much has changed since 2004. Our park system will soon be fully developed and the City's recreation program is running very smoothly.

Despite the growth of the City's parks and recreation programs, the Parks and Recreation Commission has met only sporadically during the past six years due to a lack of business items or, in some cases, the lack of a quorum. The following is a summary of the number of meetings held each year since 2010:

- 2010: 7, including a joint meeting with the Planning Commission and a joint meeting with the City Council
- 2011: 11, including a joint meeting with the Planning Commission
- 2012: 8
- 2013: 6, including two joint meetings with the Planning Commission
- 2014: 8
- 2015: 7
- 2016: 0

In the past year, three Commission members have resigned. Because only two members now serve on the Commission, no meetings were held this year. We have tried to fill the three vacant Commission seats, but only one person submitted an application. At this point, it does not appear that citizens are interested in serving the Commission. Therefore, staff is asking for City Council concurrence to eliminate the Parks and Recreation Commission.

Recreation Coordinator Abello suggests that, in lieu of a Commission, the City Council could convene an ad hoc committee as needed to review and make comments on any particular topic related to the City's parks and recreation programs. That will make better use of the Recreation Department's staff time and provide focused advice to the City Council. The Commission never had decision-making authority. An ad hoc committee, therefore, would serve the same advisory function as the Commission.

The Parks and Recreation Commission and its members over the years provided valuable service to the City Council. However, since the Commission never met on a regular basis in the past few years, it may be time to consider using an ad hoc committee when park and recreation issues need review.

FISCAL IMPACT

Elimination of the Parks and Recreation Commission would save staff time in preparing agendas and staff reports.

RECOMMENDATION

That the City Council discuss eliminating the Parks and Recreation Commission and instead use an ad hoc committee for parks and recreation issues as needed.