Last Resolution No. 16-1001
Last Ordinance No. 16-0322

REGULAR MEETING OF THE SOLVANG CITY COUNCIL

COUNCIL CHAMBERS
1644 OAK STREET

November 28, 2016
6:30 p.m.

Please be advised that, pursuant to State Law, any member of the public may address the Council concerning any item on the Agenda. Please be aware that Items on the Consent Calendar are considered to be routine and are normally enacted by one vote of the Council.
If you wish to speak on Items 3, 4, 5, or 6 please do so during Public Communications.
Regular City Council meetings are broadcast live on **Channel 23** in the Santa Ynez Valley, and stream live on the City's website at **www.cityofsolvang.com/City Council**

CALL TO ORDER

ROLL CALL

PLEDGE OF ALLEGIANCE

CITY MANAGERS REPORT

1. **PUBLIC COMMUNICATIONS – WRITTEN OR VERBAL**

   At this time, please direct comments to the City Council regarding Consent Calendar Items or matters NOT on the agenda but within the jurisdiction of the Council. (Speakers are limited to five (**5**) minutes).

2. **COUNCIL COMMENTS AND REQUESTS**

   Comments and requests from City Council Members. No action will be taken at this meeting.

3. **CORRESPONDENCE RECEIVED BY CITY COUNCIL**

4. **APPROVAL OF AGENDA AS PRESENTED**

5. **CITY COUNCIL MINUTES OF NOVEMBER 14, 2016**

   Approval of Draft Minutes.

6. CONSENT AGENDA

a. Receive and file Sheriff's Department report for October 2016
b. Receive and file VisitSYV 2016 3rd Quarter Report
c. Ordinance Amendment to Title 9, Chapter 2 of the Municipal Code to add Residential Water Softener Restrictions
    1. Adopt on second reading, by title only, Ordinance No. 16-_____, an Ordinance of the City of Solvang revising the Sewer Code
d. Recognize and accept the generous monetary donations to the Solvang Parks and Recreation Department Halloween Haunted House from Santa Ynez Valley Youth Recreation, John and Teri Harmon, and the Sheriff's Benevolent Posse
e. Ordinance Amendment to Titles 10 and 11 of the Municipal Code, Building Code Regulations, to adopt and amend the latest editions of the California Building Standards Code and establish Special Permit Processing for Residential Rooftop Solar Systems and Electric Vehicle Charging Stations
    1. Adopt on second reading, by title only, Ordinance No. 16-_____, an Ordinance of the City Council of the City of Solvang amending Titles 10 and 11 of the Solvang Municipal Code to adopt and amend the latest editions of the Constituent Codes of the California Building Standards Code and adopt findings of facts to support the imposition of requirements other than the requirements established by or pursuant to the California Building Standards Code, and establish special permit processing for small residential rooftop solar energy systems and electric vehicle charging stations;
    2. Accept the Exemption to the California Environmental Quality Act pursuant to CEQA Section 15061

REGULAR AGENDA

7. STORMWATER MANAGEMENT PROGRAM ANNUAL REPORT

Receive and file the Stormwater Management Program Year 3 Annual Report for Fiscal Year 2015-16.

8. TAJIGUAS RESOURCE RECOVERY PROJECT AGREEMENT

Review and approval of the Resource Recovery Project Material Delivery Commitment and Processing Services Agreement between the County of Santa Barbara and the City of Solvang.

9. METHOD FOR RESOLVING A TIE VOTE IN THE CITY COUNCIL ELECTION

Discuss and establish a method for resolving a tie vote by lot, if necessary.

10. COUNCIL MEMBER REPORTS (Oral reports: Each Council Member will give oral reports on their activities in relation to the following committee or agencies. In addition, each member may report on items that will be included on the agenda for such committee or agency and seek guidance from the Council as a whole on such items, including on what position to take on behalf of the City)

- Santa Barbara County Association of Governments
- Air Pollution Control Board
- Joint Wastewater Committee

- Finance Committee
- Chumash Tribe
- Indian Gaming Benefit Committee
- California Joint Powers Insurance Authority

11. ADVANCE CALENDAR

Informational Calendar – No Action.

12. CLOSED SESSION

Government Code Section 54956.8 –
Real Property Negotiation, Assessor Parcel No. 139-540-064

13. ADJOURNMENT

Copies of staff reports and supporting documentation pertaining to each item on this agenda are available for public viewing and inspection at City Hall, 1644 Oak Street, Solvang, during regular business hours and on the City's website www.cityofsolvang.com, in addition, any writings relating to an open session agenda item provided to a majority of the Council that is distributed within 72 hours of the meeting, after the posting of the agenda, will be identified and available separately at City Hall and may be posted to the website.

In Compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, you should contact the office of Administrative Services at 688-5575 or the California Relay Service. Notification 48 hours prior to the meeting would enable the City to make reasonable arrangements to ensure accessibility to this meeting.

November 14, 2016

Santa Ynez Valley Alliance

Dear Mayor Richardson and Solvang City Council Members,

RE: Solvang Sphere of Influence & Annexation proposals

A recent article in the *Santa Ynez Valley News* (October 4, 2015) described the council's support for expanding Solvang's Sphere of Influence (SOI) and future annexation of parcels currently in the jurisdiction of Santa Barbara County. The proposal is far more extensive than the article suggests however, and the issue far more complex.

The Santa Ynez Valley Alliance urges the city council to reconsider this proposal because what is currently proposed is not in the best interests of the city or the surrounding community. Parts of the proposal are in direct conflict with longstanding Santa Barbara County policy, specific measures found in the Santa Ynez Community Plan (2009), Solvang General Plan policies, and a specific Solvang Greenbelt Resolution adopted in 2000.

In addition, the proposal encourages the expansion of the City and accompanying sprawl beyond logical geographic boundaries that already exist. Although this proposal may expand the area of the Council's jurisdiction, it does not constitute good planning.

Your staff has pointed out "the City's General Plan does not contain policies which directly address annexation." This is because the vision for Solvang's establishment did not embrace continual expansion such as we see in Santa Maria.

Your staff has also noted "the Land Use and Open Space/Conservation Elements contain policies and objectives calling for preservation of agricultural lands within the General Plan Study area and Sphere of Influence." With this in mind, why are agricultural lands—most of them currently in the County's jurisdiction, but some within Solvang's SOI—being considered for annexation into the City of Solvang?

Solvang adopted a Greenbelt Resolution in 2000 recognizing the value of undeveloped agricultural land that "serves as a permanent separation between the communities of Solvang and Buellton." For purposes of this resolution a greenbelt is "a defined geographical area which cities agree not to annex and the County agrees to retain in open space or agricultural uses."

POST OFFICE BOX 941
SANTA YNEZ, CA. 93460
info@santaynezvalleyalliance.org
www.santaynezvalleyalliance.org

The resolution specifically states that the identified greenbelt area depicted "shall not be annexed by the City of Solvang and the City does not endorse nor supports development for other than agricultural and open space uses." Nevertheless, parts of your Western Study Area are specifically within the identified greenbelt area.

The small island of industrially zoned urban land in this area, currently within the County but within Solvang's SOI, is a logical candidate for annexation. The Council's discussion of potential land uses in this area has included "retail uses along Highway 246…industrial area(s) and parkland north and south of retail areas." Although the Council has noted the "opportunity to create an attractive entrance to the city" it is unclear what specific development might occur on agricultural land that both City and County policy already targets for preservation.

Additional retail uses along Highway 246 sounds like urban sprawl extending beyond the natural geographic boundary that currently encompasses the Village and impacting the identified greenbelt on Solvang's western edge.

Solvang's Greenbelt Resolution noted longstanding County policies specific to the Santa Ynez Valley that particularly protect agricultural land and greenbelt / buffer areas: "Future residential development should not be located on prime food producing or pasture land…the beauty of the land should be preserved by limiting urban sprawl and creating buffer zones to maintain the individual character of each town."

The Santa Ynez Community Plan (pg. 200) specifically identifies three community separators that would be impacted by the current SOI/Annexation proposal:

- "The "Greenbelt" along Highway 246, between the incorporated Cities of Buellton and Solvang;
- "The southern portion of the Alamo Pintado corridor separating Ballard from the City of Solvang;
- "Highway 246 between the City of Solvang and Santa Ynez Township."

The SYVCP notes the need to protect these areas in the face of "increased development pressure due to the proximity of urbanized areas and location along travel corridors."

Development of the Western Study Area would clearly impact the first greenbelt identified.

Development of the Northeastern Study Area in the Alamo Pintado corridor and along Highway 246 east of Solvang would impact the second and third greenbelts identified. Parcels 10 to 13 in this area would appear to be flagrant conversion of prime agricultural and pasture land to urban uses. Potential opportunities cited by the Council are "conversion to parkland and residential areas."

Some of these parcels adjoin Sunny Fields Park. Is expansion of the park envisioned? For what purpose? The existing configuration of land uses and development along this boundary of the city functions admirably as a distinct transition from urban to rural with the buffering of the existing park. Adding residential uses north or west of the park would constitute sprawl.

It is unclear exactly what may be proposed for the parcels in the Mission Study Area although "parkland and other uses which are compatible with the Santa Ines Mission" are cited. This area already enjoys specific longstanding protection under Santa Barbara County policy: "Open space should be used as settings for unique and historic areas. The rural view to the east of Mission Santa Ynez (sic) should be preserved in open space, and in agricultural use wherever possible."

Why this very important land should now come within Solvang's SOI and potentially be annexed and subject to urban uses needs to be explained. Solvang does have an adjoining undeveloped parcel identified for recreational use. What warrants the change in jurisdiction for these parcels?

Parkland is cited as a potential use for all three-study areas. Although residents and visitors greatly appreciate parkland we can't help but note that Solvang already has substantial parkland. Hans Christian Andersen Park is very large and incorporates a number of improvements. Sunny Fields is very popular and has a variety of facilities. Solvang Park is the focus of many downtown events. The city also has the aforementioned parcel adjacent to the Village Collection. In addition, the Santa Ynez River and Los Padres Forest offer recreational opportunities.

What is driving the need for more parkland? Or does the city council have something else in mind, such as a regional sports complex or retail development? If this is driving the expansion of Solvang's SOI and annexation, it should be disclosed.

Finally, in light of the ongoing drought, the need to import water, and Solvang's immense CCWA debt, it is hardly prudent to plan such a major water-guzzling project. Furthermore, a regional sports complex would entail its own expense and numerous substantial impacts, including traffic.

Thank you for your consideration of our comments.

Mark Oliver
President
Santa Ynez Valley Alliance

MINUTES OF THE REGULAR MEETING OF THE
SOLVANG CITY COUNCIL

Council Chambers
1644 Oak Street
Solvang, CA 93463

November 14, 2016
Monday
6:30 pm

CALL TO ORDER: Mayor for a Day Linda Johansen called the meeting to order at 6:30 p.m.

ROLL CALL:

PRESENT: Mayor Richardson, Council Members Duus, Jamieson, Skytt, and Zimmerman

STAFF: Brad Vidro, City Manager; Roy Hanley, City Attorney; Arleen T. Pelster, Planning & Economic Development Director; Matt van der Linden, Public Works Director; Lt. Shawn O'Grady; and Lisa S. Martin, City Clerk

PLEDGE OF ALLEGIANCE: Led by Mayor for a Day Johansen

Mayor Richardson returned to the dias.

CITY MANAGERS REPORT: Informational report only

1. **PUBLIC COMMUNICATIONS – WRITTEN OR VERBAL**

Tracy Farhad, SCVB
- Tourism update
- Invited the Council and the public to the Marketing reception on November 17th at 10:00 a.m.
- Grand Marshals for Julefest are the Nielsens

Fred Kovol, Solvang Resident
- Economic development focuses on businesses and tourism only, no on the residents
- Concerned about insufficient street lighting and lack of sidewalks on Alisal Road

Mark Oliver, Santa Ynez Valley Alliance
- Urged the City not to move forward with a sphere of influence change
- Not in the best interest of the City of Solvang
- Not consistent with the Santa Ynez Valley Community Plan (see pg. 210 of document), nor the City's General Plan

Bob Field, Citizen
- It is important to maintain the rural buffers between the Santa Ynez Valley communities
- The Council needs to be more explicit in their sphere of influence intentions, need a more complete story
- How does a potential annexation benefit the City, and who does it benefit

2. COUNCIL REQUESTS

None.

3. CORRESPONDENCE RECEIVED BY COUNCIL

No discussion – informational only.

4. APPROVAL OF AGENDA AS PRESENTED

No changes to the agenda.

5. CITY COUNCIL MINUTES OF OCTOBER 24, 2016

Motion *made by Council Member Skytt to approve the minutes as written, seconded by Council Member Duus, and* ***carried*** *with a verbal response of 5 ayes.*

6. CONSENT AGENDA

a. Approval of Warrant Register
b. Award Professional Services Agreement – Engineering Services for Mission Drive Intersection and Crosswalk Improvement Project
    1. Approve a Professional Services Agreement with LaChaine & Associates in the amount of $48,000, and authorize execution of the Agreement by the Mayor; and
    2. Authorize the City Manager to execute contract amendments if within the contingency amount of $8,000.
c. Authorize the Mayor to execute the Agreement for Land Development Improvements for The Merkantile/Valley Plaza redevelopment project
d. Adopt on Second Reading, by title only, an Amendment to Title 10, Chapter 1, Building Code Regulations, to add Regulations for Residential Short Term/Vacation Rentals
    1. Review proposed amendments to Title 10 of the Municipal Code, to amend Building Code Regulations for Short Term/Vacation Rentals; and
    2. Adopt on second reading, by title only, amendments to Title 10; and
    3. Accept the Exemption to the California Environmental Quality Act pursuant to CEQA Section 15061; or
    4. Provide alternate direction to staff.

Mayor Richardson pulled Item 6b for discussion.

Staff report by Matt van der Linden, Public Works Director. No changes to what Council approved other than one minor bulb-out added at Fourth and Mission as it lacked the necessary width.

Mayor Richardson opened Item 6b to public comment at 7:14 p.m.

Fred Kovol, Solvang Resident

- With this project, there is no way that Highway 246 can ever be widened

The item was closed to public comment at 7:15 p.m.

Motion *to approve the Consent Agenda made by Council Member Duus, seconded by Council Member Jamieson, and* ***carried*** *with a roll call vote of 5 ayes.*

REGULAR AGENDA

7. FIRST READING OF PROPOSED AMENDMENT TO BUILDING CODE REGULATIONS, TITLES 10 AND 11 OF THE MUNICIPAL CODE, TO ADOPT AND AMEND THE LATEST EDITIONS OF THE CALIFORNIA BUILDING STANDARD CODES AND ESTABLISH SPECIAL PERMIT PROCESSING FOR RESIDENTIAL ROOFTOP SOLAR SYSTEMS AND ELECTRIC VEHICLE CHARGING STATIONS

Staff report by Bryan Spain, Contract Building Official. The changes to these California Building Codes are more in line with the International Building Codes.

Council Member Duus asked what changes are proposed to the Title 24 Energy Codes.

Bryan Spain responded that the energy codes will be more strict, approximately 20% tighter as far as building envelope requirements.

Mayor Richardson inquired as to whether it was a requirement for us to follow the California Codes.

Bryan Spain indicated that local jurisdictions can adopt minor changes due to climatic, topographic or site environment applicable to the area.

City Attorney Hanley added that we don't have the ability to find special circumstances to loosen the California codes.

Council Member Skytt asked if there is anything in the codes yet regarding hydrogen fueling stations. Bryan Spain answered that nothing is yet required by code.

Council Member Jamieson asked about ground mount solar systems. Bryan Spain confirmed that ground mounted solar is allowed to be permitted however it would not receive the special permit processing as they include a structural element.

Mayor Richardson opened the item to public comment at 7:24 p.m.

Fred Kovol, Solvang Resident

- Questions on the proposed building codes and associated ordinance

The item was closed to public comment at 7:27 p.m.

Motion *made by Council Member Skytt to approve the staff recommendation and adopt Resolution 16-1001, seconded by Council Member Duus, and* ***carried*** *with a roll call vote of 5-0.*

8. INTRODUCTION FOR FIRST READING BY TITLE ONLY, AN AMENDMENT TO TITLE 9, CHAPTER 2 REVISING THE SEWER CODE TO ADD RESIDENTIAL WATER SOFTENER RESTRICTIONS

Staff report by Matt van der Linden, Public Works Director. Requiring these high efficiency dual tank units should reduce our TDS levels by 20-30%.

Council Member Skytt asked how long these high efficiency water softener units have been available. Staff responded that they have been available since 2009.

Council Member Skytt also inquired if the Santa Ynez Community Services District is required to meet our requirements for their wastewater discharge. Matt van der Linden responded affirmatively, as our agreement with them requires that they meet our standards.

Council Member Zimmerman questioned whether we have a gauge on how SYCSD's discharge levels compare to ours. Staff answered that in previous reports, their discharge is slightly lower in TDS's.

Matt van der Linden explained that if we implement the wellhead treatment, we could require that their discharge meet the same TDS level as our discharge.

Mayor Richardson discussed that he had researched dual tank softener units and could find no evidence that they reduced the salt discharge, only that they more efficiently utilized water. Matt van der Linden indicated that typical softeners regenerate too early, using more salt.

Mayor Richardson commented that he doesn't see any language regarding existing systems being grandfathered in, and discussed the Wellhead Treatment Study. Does not want to spend $20,000 on a study that's going to come back with a cost of millions of dollars to implement well head treatment, when we are not going to spend millions to do so. Would rather the City use the $20,000 for customer rebates to upgrade to the more efficient systems.

Council Member Zimmerman noted that it might be money well spent now to determine the actual cost of treating/softening the water at the wellhead.

Council Member Duus added that with all of the Federal and State regulations, we could be forced to treat the water within a few years anyway.

Council Member Skytt discussed that if the State implements new regulations there will be many cities trying to prepare these studies at the same time and therefore the cost for the study will be more. The timing is better now. He also did some research and did find the State codes that refer to the requirements that staff have proposed in the ordinance.

Mayor Richardson disagreed, seeing no advantage to performing the study now if inflation, etc. will cause the costs to go up if we don't do the project right away.

City Attorney Hanley discussed that the proposed requirements will at least show the Regional Water Quality Control Board that we are taking an incremental step to correct the TDS levels. The study also shows goodwill.

<u>Mayor Richardson opened the item to public comment at 8;12 p.m.</u>

Fred Kovol, Solvang Resident

- In the minutes of the September 12, 2016 meeting you made three mandates, now you are going in the opposite direction

- Next year there will be mandates for nitrates and ammonia

- TDS levels have been exceeding the allowable for several years

The item was closed to public comment at 8:19 p.m.

Council Member Jamieson stated that we need to take action on this.

Motion *made by Council Member Duus to approve the budget adjustment of $20,000 for the Wellhead Water Treatment Study, seconded by Council Member Jamieson, and* ***carried*** *with a roll call vote of 5-0.*

Council Member Duus doesn't like the January 2019 date if we are making progress on the wellhead treatment. Would like the date changed to 2022. Would also like the language changed to clarify that we are requiring portable exchange tanks systems or high efficiency water softening units with an efficiency rating of not less than 4,000 grains of hardness removed per pound of salt used in regeneration, not necessarily dual tank systems.

City Attorney Hanley indicated that the words "dual tank" and "dual" (as relating to a sensor system) could be removed.

Motion *made by Council Member Skytt to approve the first reading of Ordinance No. 16-___ with the verbiage changes to paragraph B and a date change to 2022, seconded by Council Member Duus, and* ***carried*** *with a roll call vote of 5-0.*

9. CITY SIDEWALK MASTER PLAN 2016 UPDATE – FINAL DRAFT

Council Member Skytt inquires of the City Attorney whether he needs to step down if his property is within 500 feet of a citywide project. City Attorney Hanley responds that if the decision affects the public in the same way that it affects the council member, then there is no conflict.

Staff report by Matt van der Linden, Public Works Director.

Mayor Richardson opened the item to public comment at 7:23 p.m.

Fred Kovol, Solvang Resident

- Discussed the need for sidewalks on Fir Avenue and Alisal Road.

The item was closed to public comment at 9:04 p.m.

Council Member Duus lives in the area and is in full agreement with the red, Priority 1 sidewalks due to kids needing a safe route to school. Possibly we could split the yellow, Priority 2 sidewalks into more and less critical, create a Priority 3.

Council Member Zimmerman questioned if the timeline for Priority 1 sidewalks was ten years. Staff answered affirmatively. Council Member Zimmerman indicated that a ten year timeline didn't sound like a "priority."

Council Member Skytt led discussion regarding sidewalks on Elm, Laurel Ave, and Second Place.

Council Member Duus agreed that down the hill on Laurel to the school should be a Priority 1.

Council Member Jamieson questioned how we have the room on Fifth Street to add a sidewalk, especially with the hotel parking. Matt van der Linden responded that it's very close, but doable. The final engineering will be brought back before Council.

Council Member Duus would like to take the money from Elm, Fourth, and western Laurel, where there are already sidewalks on one side of the street) and see how far it gets us on engineering the stretch of Laurel between Second and Alisal.

Motion *made by Council Member Duus to move Elm, Fourth, and western Laurel to Priority 2 and upgrade eastern Laurel to Priority 1, seconded by Council Member Skytt, and* ***carried*** *with a roll call vote of 5-1 with Council Member Zimmerman voting No.*

10. FISCAL YEAR 2015-16 FINANCIAL REVIEW

Staff report by Santa Featherson, Administrative Services Director.

Mayor Richardson opened the item to public comment at 9:52 p.m.

Fred Kovol, Solvang Resident

- Item should have been first on the regular agenda

The item was closed to public comment at 9:54 p.m.

There was Council consensus to accept the report.

11. COUNCIL MEMBER REPORTS (Oral reports: Each Council Member will give oral reports on their activities in relation to the following committee or agencies. In addition, each member may report on items that will be included on the agenda for such committee or agency and seek guidance from the Council as a whole on such items, including on what position to take on behalf of the City)

- Santa Barbara County Association of Governments
- Air Pollution Control Board
- Finance Committee
- Joint Wastewater Committee
- Chumash Tribe
- Water Committee
- Indian Gaming Benefit Committee
- California Joint Powers Insurance Authority

None.

12. ADVANCE CALENDAR

Information only, no action.

13. CLOSED SESSION

No reportable action.

14. <u>ADJOURNMENT</u> Mayor Richardson adjourned the City Council meeting at 10:27 p.m.

M E M O R A N D U M

Date: November 17, 2016

To: Solvang City Council

From: Senior Deputy Charlie Uhrig

Subject: Solvang Statistics and Activity Report for October

CC: Lt. Shawn O'Grady

This statistics report is designed to provide a general overview of law enforcement activity in the City of Solvang for the month of October. The report highlights and describes patterns of activity, significant felonies in the city, and noteworthy performances by deputies assigned to the Solvang station.

Burglary:

One burglary was reported in Solvang during the month of October.

On 10-19-16 **(case16-15203),** Solvang Patrol responded to the 1500 block of Mission Drive to a report of a commercial burglary. Deputies contacted the reporting party who is also a part owner/manager. She said that unknown person(s) had broken into the business, via a window, and had stolen $300 cash from two registers. No forensic evidence was able to be obtained from the point of entry or the cash registers. She said video surveillance was possibly available, but not until later in the week. On 10-24-16 the deputy contacted the other part owner, who had viewed the video and wanted to update the loss value. He told the deputy that the video was not clear enough to show the single suspect's face, but only an outline of the body. He said the person appeared to be male, with a stocky build, wearing a hooded sweatshirt and using a crowbar on the cash register. Due to the damage and full replacement of one of the cash registers and actually $700 cash taken, the loss value was upgraded to $1250. The case is suspended pending further leads.

Other Significant Activity:

During the month of October deputies conducted 84 traffic stops which resulted in 27 citations written for various offenses, including 12 moving violations and 2 Driving without a License. There were 7 alarm calls and 4 calls for 9-1-1 follow ups. In addition, there were 12 traffic related investigations during the month of October. There were no coroner cases reported in Solvang during the month of October.

On 10-14-16 **(case 16-14998),** a deputy was alerted by a passing motorist, about a vehicle traveling westbound on Mission Drive, who was "all over the road." The deputy was able to conduct a traffic stop for observed violations in the 1100 block of Mission Drive. Upon contacting the driver, the deputy saw that the driver, and his passenger, both appeared under the influence of a controlled substance. The preliminary investigation also revealed neither the driver or passenger had identification on them. During a consensual search of the vehicle, a metal container was located, containing a white crystalline powder, and brown packaging materials, and an additional container filled with marijuana. Also inside the vehicle were multiple pairs of men's blue jeans with price tags and security ink tags still attached and a red backpack, which were believed stolen from a Ross Department Store.

In addition, a pat down search of the driver yielded a syringe. During the subsequent search of the passenger, he admitted to multiple warrants for his arrest. The driver was arrested for multiple felonies including: possession of a controlled substance, possession of stolen property, and sales of Marijuana. He was transported and booked into County Jail. The passenger was cited for the misdemeanor warrants and released on scene.

On 10-16-16 **(case 16-15098),** Solvang Patrol conducted a traffic stop of a vehicle for traffic-related violations in the 1500 block of Mission Drive. The driver of the vehicle failed to yield and a pursuit was initiated. During the initial pursuit through downtown Solvang, and subsequently back to Mission Drive/Highway 246 and Highway 101, the vehicle was operated upon a highway with wanton disregard for safety and was involved in two separate single vehicle traffic collisions in Buellton. The driver, who was found unconscious and severely injured in the second vehicle rollover, was a Parolee at Large (PAL), and had absconded from CDC Parole and disabled his GPS device on 10-07-16. The suspect was treated at the scene and transported to Marian Hospital for treatment of his injuries. During a search of his vehicle, possible stolen property was recovered, to include various articles of jewelry, electronics, household items, and construction tools. It was also learned that the suspect was under the influence of a controlled substance, and a 290 registrant. He was arrested for multiple felonies including, evading, hit and run, possession of stolen property, and eventually booked into County Jail after treatment of his injuries.

On 10-20-16 **(case 16-15301),** a Solvang Deputy was on patrol in the 1700 block of Mission Drive, when he saw a subject he recognized from previous contacts. The deputy conducted a records check of the subject and discovered he had a $25,000 felony warrant for multiple offenses. The deputy eventually contacted the suspect in the 1900 block of Mission Drive. The suspect was cooperative and was arrested for the felony warrants, transported and booked into County Jail.

Murder:

No murders were reported in Solvang for the month of October.

Rape:

One rape was reported in Solvang for the month of October.

On 10-20-16 **(case 16-15293),** deputies responded to a report of a rape which had occurred four years ago in Solvang. The victim said she was the victim of the assault from a former roommate, and had chosen at that time to not report it, due to the remorse of the suspect. The victim said she now wanted only to document the incident but still did not want to proceed with any prosecution at this time. The deputies took the report for documentation purposes only. The case is closed.

Robbery:

No robberies were reported in Solvang during the month of October.

Domestic Assault/Assault:

There were no cases of felony domestic violence reported for the month of October. There was one child abuse case and two elder abuse cases reported for the month of October. There were also two cases of misdemeanor domestic violence reported in Solvang, including one which resulted in a mental health referral. After subsequent interviews, no arrests were made in either of those reported misdemeanor cases. There was also a violation of a domestic violence Restraining Order reported in Solvang. That case was sent to the District Attorney's Office for filing.

Grand Theft:

No grand thefts were reported in Solvang during the month of October.

Auto Theft

No thefts of an auto were reported in Solvang during the month of October.

Misdemeanors/Thefts:

There were two vandalisms and three petty thefts reported during the month of October, including a theft from an unlocked vehicle in the 300 block of Fifth Street.
There were also two Fraud cases reported from victims in residential areas of Solvang, involving mail theft and forged checks. At the writing of this report, the cases are still pending surveillance video from the bank, which has the same suspect signature cashing the victims' checks at a Santa Maria branch.

Arrests:
During the month of October, deputies made a total of 13 arrests, including 3 felony arrests. These arrests also included the following types of Misdemeanor arrests: 5 for DUI, 2 for Public Intoxication and 1 for Narcotics.

See felony arrests in the significant activity recap.

Monthly Activity Report for October

This is the October end of the month report from the Solvang Community Resource Deputy. It highlights all the activities, meetings, and presentations by the Community Resource Deputy for the month of October.

MEETINGS:

On October 4, I met with SYHS Staff to discuss the upcoming Homecoming parade.

On October 6, I met with Sheriff Volunteer Team personnel regarding the upcoming groundbreaking ceremony in Santa Maria.

On October 25, I attended a City Staff meeting.

PRESENTATIONS:

No presentations were given in the month of October.

ACTIVITIES:

On October 3, I delivered to and picked up our North County Community Response Vehicle (CRV) from Sheriff's Headquarters.

On October 4, I picked up equipment from the County Administration Office's.

On October 5, I picked up several more pieces of equipment for the upcoming North County Branch Jail Groundbreaking ceremony in Santa Maria.

On October 6, I assisted with a dry-run set-up of equipment for the upcoming ceremony, including coordinating Sheriff Volunteer Team (SVT) personnel.

On October 7, I coordinated and worked a traffic detail for the SYHS Homecoming parade. No incidents to report.

On October 7, I worked a security detail at the SYHS Homecoming Game and Dance.

On October 8, I coordinated a security detail at the Vintners Celebration of Harvest Festival and worked a security detail at the Vets Hall.

On October 11, I assisted at the North County Branch Jail Groundbreaking ceremony, along with several SVT personnel.

On October 12 and 13, I worked at the Middle Schools Girls Basketball Tournament.

On October 28, I worked a security/traffic detail for the Golden Inn groundbreaking ceremony in Santa Ynez. I also worked a Mobile Patrol detail in Isla Vista for the annual Halloween activities.

On October 29 and 31, I coordinated and worked a security/traffic detail for the Haunted House and Street Festival. We had a couple Sheriff Volunteer Team personnel assist with the event. No incidents to report and about 1,100 persons paid each evening to walk through the Haunted House.

CITY OF SOLVANG STATISTICS 2015

ACTIVITY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YTD Total
Log Entries	291	271	354	395	355	398	447	394	370	374	358	342	**4349**
OAI Reports	35	49	38	45	57	54	54	47	46	49	47	43	**564**
Trfc Invest.	11	13	15	10	13	11	12	12	12	8	2	8	**127**
Coroner	0	0	2	0	0	0	1	0	0	0	0	1	**4**
Burglaries	**1**	**5**	**0**	**1**	**8**	**8**	**1**	**2**	**6**	**0**	**4**	**0**	**36**
Attempts	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
Residential	0	1	0	0	1	0	1	1	0	0	3	0	**7**
Vehicle	0	0	0	0	2	0	0	0	6	0	0	0	**8**
Commercial	1	3	0	1	6	8	0	1	0	0	1	0	**21**
Other	0	1	0	0	0	0	0	0	0	0	0	0	**1**
Felonies	**4**	**1**	**5**	**2**	**2**	**2**	**4**	**6**	**6**	**7**	**2**	**8**	**49**
Murder	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Rape	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Robbery	0	0	0	0	0	0	0	2	2	0	0	0	**4**
Assault	2	0	4	1	0	1	3	0	0	2	1	2	**16**
Grand Theft	1	0	1	2	0	0	0	2	2	3	1	2	**14**
Auto Theft	1	0	0	0	0	1	0	0	1	1	0	0	**4**
Other	0	1	0	1	1	0	1	2	1	1	0	4	**12**
Misd./Thefts	0	2	3	0	1	1	1	1	3	7	4	3	**26**
Arrests	**11**	**6**	**5**	**11**	**14**	**12**	**14**	**13**	**10**	**13**	**9**	**8**	**126**
Misd.	8	5	2	9	13	9	10	8	8	10	8	7	**97**
Felony	3	1	3	2	1	3	4	5	2	3	1	1	**29**
DUI	3	2	0	5	4	1	3	2	2	2	0	2	**26**
Public Intox.	2	0	1	0	2	1	3	2	4	3	3	3	**24**
Narcotic	1	1	0	3	1	4	2	1	1	3	2	0	**19**
Citations	**8**	**5**	**23**	**38**	**15**	**21**	**8**	**15**	**20**	**16**	**22**	**12**	**203**
Moving	1	1	9	21	8	6	0	2	8	5	6	7	**74**
Equipment	0	1	14	3	0	6	2	4	1	4	5	1	**41**
Other	7	1	0	12	7	9	6	9	11	6	11	4	**83**
Parking	0	2	0	2	0	0	0	1	4	1	1	0	**11**
Viborg Rd.	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Skate Park	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

CITY OF SOLVANG STATISTICS 2016

ACTIVITY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YTD Total
Log Entries	255	282	317	340	423	351	452	410	420	356			**3606**
OAI Reports	45	35	34	33	65	51	54	52	47	58			**474**
Trfc Invest.	10	5	10	13	9	7	9	9	10	12			**94**
Coroner	0	0	0	2	1	0	0	0	0	0			**3**
Burglaries	**4**	**1**	**2**	**1**	**0**	**4**	**6**	**2**	**0**	**1**			**21**
Attempts	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**1**	**0**			**3**
Residential	1	0	0	0	0	1	1	2	0	0			**5**
Vehicle	2	0	2	0	0	1	5	0	0	0			**10**
Commercial	1	1	0	1	0	2	0	0	0	1			**6**
Other	0	0	0	0	0	0	0	0	0	0			**0**
Felonies	**3**	**5**	**1**	**4**	**3**	**7**	**2**	**4**	**3**	**4**			**36**
Murder	0	0	0	0	0	0	0	0	0	0			**0**
Rape	0	0	0	0	0	0	0	0	0	1			**1**
Robbery	0	0	1	0	0	0	0	0	0	0			**1**
Assault	1	1	0	0	1	2	0	1	1	0			**7**
Grand Theft	1	1	0	0	0	3	0	2	0	0			**7**
Auto Theft	0	0	0	0	0	1	0	0	0	0			**1**
Other	1	3	0	4	2	1	2	1	2	3			**19**
Misd./Thefts	7	1	2	3	3	5	7	2	2	4			**36**
Arrests	**12**	**7**	**3**	**8**	**16**	**13**	**14**	**9**	**14**	**13**			**109**
Misd.	9	3	2	4	13	9	10	7	11	10			**78**
Felony	3	4	1	4	3	4	4	2	3	3			**31**
DUI	4	2	1	0	2	1	0	1	4	5			**20**
Public Intox.	0	0	0	2	4	2	8	2	3	2			**23**
Narcotic	1	1	1	1	2	1	2	0	2	1			**12**
Citations	**5**	**8**	**10**	**14**	**23**	**16**	**13**	**17**	**15**	**27**			**148**
Moving	1	0	1	5	4	2	4	7	5	12			**41**
Equipment	4	3	1	2	1	4	3	4	3	7			**32**
Other	0	4	8	6	16	6	5	5	7	8			**65**
Parking	0	1	0	1	2	4	1	1	0	0			**10**
Viborg Rd.	**0**	**1**	**0**	**2**	**0**	**0**	**1**	**2**	**1**	**1**			**8**

3rd Quarter 2016 Report of the Santa Ynez Valley Hotel Association (dba Visit the Santa Ynez Valley) – Submitted 11/14/16

VisitSYV is reporting activity since the July 2015-16 fiscal annual report. This report is submitted to the City of Solvang, the City of Buellton and the Santa Barbara County Board of Supervisors, in accordance with the fulfillment of the provisions of the SYVTBID.

Financial

TBID Funding received since July 1, 2016 - $232,157
Membership income - $2,125
Total Income - $234,282

Expenses
Advertising/Marketing - $76,592
Grants/Special Projects - $17,841
Travel & Meetings - $6,272
Personnel Costs - $38,263
Contract services - $11,724
Facilities/equipment - $1,321
Operations - $1,986
Credit card fees - $225
Insurance - $3,995
Total expenses - $158,219

Membership

We receive TBID funding from 35 lodging properties and currently have **187 members** that pay a basic membership fee of $250, a nonprofit fee of $125, and trade members where services are traded for membership such as wine, catering, photography.

Marketing

3rd Quarter Web Stats

Since our new **website** debuted on April 6, 2014, we have now **received 1,074,553** pageviews. The site has also garnered **77,410 clicks** to our members' individual websites. The top 5 most popular pages on the site are as follows: (1) **Homepage**; (2) **Wine Tasting**; (3) **Events**; (4) **Where to Stay – Hotels**; (5) **Discover the SYV: Los Olivos**.

Search Engine Optimization
VisitSYV has contracted *Search Engine Pros* to fully optimize the website. We continue to put efforts into Search Engine Optimization monthly, and continue to use the blog for keyword optimization.

109,753 pageviews from July 1, 2016 – September 30, 2016
49,409 total sessions
636 Book Your Stay clicks

Outbound Clicks to Regions:
1,315 outbound clicks to Solvang businesses
4,804 outbound clicks to additional Santa Ynez Valley businesses

Clicks on "Discover SYV" Region Pages within the Site:
1,586 Discover Solvang page
361 Discover Buellton page
413 Discover Ballard
1,123 Discover Santa Ynez
2,007 Discover Los Alamos
3,027 Discover Los Olivos

SANTA YNEZ VALLEY
CALIFORNIA
VISITSYV.COM

Social Media Stats

- VisitSYV's **Facebook** audience has increased to **12,622** likes.
- VisitSYV's **Twitter** account has **3,443** followers.
- VisitSYV's **Instagram** account has **1,537** followers

Santa Ynez Valley Tourism Marketing Co-Operative Campaign (SYVTM Campaign)

VisitSYV completed the third quarter of our marketing campaign with ad agency DVA. With partnership from the Solvang CVB ($25k), we have a $185,000 budget to spread across digital, print, and public relations for 2016.

Public Relations

Public relations efforts in the third quarter of 2016 included drafting and regional/national distribution of press releases highlighting the Santa Ynez Valley as a golf destination (July) and as a wedding destination (September). Media outreach and media visit coordination included drafting and distribution of a fall/winter media invitation to approximately 100 writers, planning of a group media tour for members of the International Food, Wine, and Travel Writers Association, and media visits from Laura Sutherland (Taste & Travel), Jennifer Aspinall (World on a Whim), Lily Diamond (Kale & Caramel), Molly Yeh (My Name is Yeh), Alana Kysar (Fix Feast Flair), Alice Pellerin (Plus un Zeste - France), Cinthia Perreira (Brazilian influencer), and Sharon Boorstin (LA Times).

Total value of public relations media coverage for **Q3 2016 = $417,081**
Total circulation and unique visitors per month of editorial coverage for **Q3 2016 = 5,479,338**

SANTA YNEZ VALLEY
CALIFORNIA
VISITSYV.COM

SYVTM Campaign Print Advertising

The 2016 Campaign creative was featured in the following print in the third quarter:

• Gentry / Destinations Magazine, September

100,000 total print readership

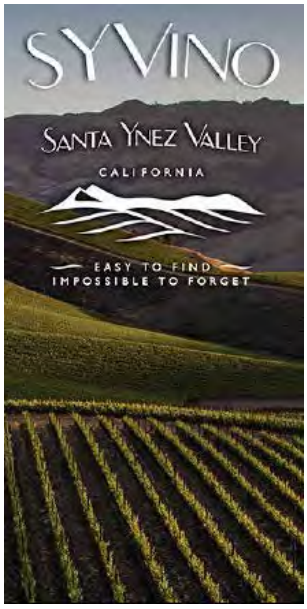
Digital

See stats for our 3rd quarter digital campaign below.

Google Display Ads
1,379,881 total impressions
3,192 clicks
0.23% CTR

Facebook
294,204 total impressions
12,433 clicks
4.23% CTR

Instagram
142,529 total impressions
644 clicks
0.45% CTR
3,266 reactions
29 comments



SYVTM Partner Portion of Digital Ad Campaign

As a co-operative partner, The Solvang CVB receives a dedicated set of Solvang-specific ads which ran during the 3rd quarter.

Google Display Ads
217,522 total impressions
450 clicks
0.21% CTR

VisitSYV Promotions
Santa Ynez Valley Scarecrow Fest: VisitSYV contributed to the coordination, print, social media, and PR promotion of the Santa Ynez Valley Scarecrow Fest, executed by Solvang 3rd Wednesday.

Grants and special projects (as of 7/1/2016)

The purpose of our grants program continues to be to assist with publicity and outreach for valley events which encourage overnight stays. Primary consideration goes to events which occur mid-week (Sunday to Thursday) and/or in off-season. For marketing of valley events, grants were given to:

Solvang CVB's Danish Days $5,000
Los Alamos Valley Men's Club's Los Alamos Old Days $3,000
Solvang Festival Theater's fundraising concert featuring Clint Black $3,000
Santa Barbara County Vintners' Harvest Festival Glass Sponsorship $5,000

Collaborations with Santa Barbara County DMOs and other organizations

VisitSYV collaborates actively with other county destination marketing organizations, Solvang CVB, Buellton Visitor Bureau, the Santa Barbara County Vintners Association, LOBO (Los Olivos Business Organization), the Buellton, Solvang, and Santa Ynez Chambers as well as the Santa Barbara Film Commission, The Chumash Foundation, and the Santa Barbra County Association of Governments.

Public comment

Members of the board and the Executive Director continue to be called upon to make written and/or verbal public comment on a number of hotel and tourism related issues. Each question is raised on a board agenda and voted upon by the board, or authorized by the president, before comment is made. Ongoing participation with our water challenges, wine ordinance and special events ordinance hearings is anticipated by Executive Director Shelby Sim, and, when available, Jessy Osehan, President.

Organization

VisitSYV began a 6 year contract with the City of Solvang, City of Buellton, and the Santa Barbara County on July 1st, 2015

The board continues to meet monthly, normally the 2nd Thursday of the month, 9:00 a.m. at The Landsby in Solvang. The board consists of nine individuals, seven of which are from the hotel industry and the other two are an at large representation of the membership base.

Staff & Board of Directors

Executive Director - Shelby Sim
Marketing & Communications Manager - Danielle Laudon
The board members are:
President – Jessy Osehan, Manager, Hamlet Inn, Owner, Atterdag Inn, Solvang
Vice President – Linda Johansen, Owner, Pea Soup Andersen Inn, Buellton and King Frederik Inn, Solvang
Secretary – Barry Prescott, General Manager, The Landsby, Solvang
Treasurer – Bion Rice, Owner/Winemaker, Sunstone Winery, Santa Ynez and Artiste Winery, Los Olivos
James Colvin, General Manager, Hotel Corque, Solvang
Cammy Pinoli, Director of Guest Services, Fess Parker Wine Country Inn & Spa, Los Olivos
Randolph Pace, General Manager, Sideways Inn, Buellton
Jim Rice, General Manager, Santa Ynez Inn
Bobs Oswaks, Owner, Bobs Well Bread, Los Alamos

Respectfully submitted by:
Shelby Sim, Executive Director
Santa Ynez Valley Hotel Association, dba Visit the Santa Ynez Valley
Shelby@VisitSYV.com
PO Box 633, Solvang, CA 93464
www.visitsyv.com, 805-325-3528

CITY COUNCIL
STAFF REPORT/CONSENT AGENDA

TO: SOLVANG CITY COUNCIL MEMBERS

FROM: Matt van der Linden, Public Works Director/City Engineer

MEETING DATE: November 28, 2016

DATE PREPARED: November 18, 2016

SUBJECT: **ORDINANCE REVISING SEWER CODE - IMPLEMENTING RESIDENTIAL WATER SOFTENER RESTRICTIONS**

I. RECOMMENDATIONS:

Adopt Ordinance No. 16-_____, on second reading by title only, an ordinance of the City of Solvang revising the Sewer Code, Title 9, Chapter 2 of the Municipal Code.

II. BACKGROUND:

The City of Solvang Wastewater Treatment Plant (WWTP) operates under a Waste Discharge Permit from the Regional Water Quality Control Board (RWQCB). Some of the constituents that most significantly contribute to the degradation of surface water and groundwater quality include nitrogen, sodium, chloride, and total dissolved solids (TDS or hardness). In recognition of this fact, within the City's Waste Discharge Permit, RWQCB has imposed discharge limits on the concentrations of sodium (150 mg/l), chloride (150 mg/l), and TDS (1,000 mg/l) within the effluent of the Solvang WWTP.

In 2002, following the passage of State legislation, the Solvang City Council revised its Municipal Code and implemented non-residential water softener restrictions effectively prohibiting brine discharge from all non-residential land uses within the City. This has helped the City in the past to comply with the State imposed discharge limits for the WWTP. On an annual basis, from 2002 through 2012, State water which is low in TDS, comprised a large percentage of the City's

water supply. This also helped the City comply with the State imposed discharge limits for the WWTP.

During the past four years of severe drought in California, the City has had to rely more heavily on local groundwater supplies, and the sodium, chloride, and TDS concentrations in the Solvang WWTP effluent have increased to undesirable levels. During this period the sodium and chloride levels have fluctuated from approximately 10% below the discharge limit to approximately 30% above the limit. The undesirable concentrations of sodium and chloride in the WWTP effluent have the potential to result in the gradual degradation of the alluvium and groundwater within the Santa Ynez River Basin.

In October 2011, the City of Solvang completed a Salt Management Study, an independent study of the sources of sodium, chloride, and TDS that reach the WWTP, and found that residential salt-using self regenerating water softeners (referred to as "automatic water softeners") are a significant contributor to the higher concentrations of sodium and chloride in the WWTP effluent. Based on national studies and the estimates within the Salt Management Plan, each salt-using self regenerating water softener is estimated to contribute between 20 and 40 pounds of salt per month to the Solvang WWTP. The use of sodium chloride, and/or potassium chloride both contribute to the undesirable concentrations of chloride and TDS in the WWTP effluent. Therefore, the use of potassium chloride pellets instead of sodium chloride rock salt in automatic water softeners does not solve the problem.

At its regular meeting of February 22, 2016 the Solvang City Council considered revising the Sewer Code and incorporating residential water softener restrictions. However, the City Council chose not to take action at that time, and directed staff to return to City Council with this item in the future in conjunction with a Water Softener Rebate Program.

III. DISCUSSION:

At its regular meeting of September 12, 2016 the Solvang City Council again considered revising the Sewer Code and incorporating residential water softener restrictions as well as implementing a Water Softener Rebate Program. Shortly before the meeting, staff became aware of additional information and recommended a revised version of the proposed Ordinance. Also, during discussion, questions were raised regarding the impact of salt water swimming pools. Upon research it has been determined that salt water swimming pools rarely discharge to the public sewer system. Therefore, restrictions relative to salt water swimming pools are not recommended at this time.

In addition to the factors discussed in the Background section above, with the projected reduced availability of State water, the City's recently completed Water

Supply Management Plan has recommended less usage of State water during periods of higher water availability, and banking this water for use during future droughts. Therefore, during typical years, larger quantities of local groundwater that is higher in TDS will be used resulting in more automatic water softener brine discharge to the sewer system. This will perpetuate the undesirable concentrations of sodium, chloride, and TDS in the WWTP effluent unless other mitigating actions are taken. In order to protect the alluvium and groundwater quality of the Santa Ynez River Basin for beneficial uses, staff recommends implementation of restrictions on residential water softeners as described below.

Title 9, Chapter 2 of the City of Solvang Municipal Code sets forth the Sewer Code for the City, and explains all of the laws, rules and regulations that pertain to the provision of sewer service within the City. Staff recommends that Title 9, Chapter 2, Sewer Code, Article C now be revised to mitigate degradation of the Santa Ynez River Basin and assist the Solvang WWTP in compliance with the RWQCB discharge limits on the concentrations of sodium and chloride within the Plant effluent. Included as attachments are: the existing Code Section 9-2C-9: Water Softening and Conditioning Equipment, and an alternative proposed revised Code Section 9-2C-9. More specifically, staff recommends an Alternative Ordinance that would prohibit low efficiency automatic water softeners, and require that by January 1, 2022 all such low efficiency automatic water softeners must be replaced with <u>high efficiency systems, with diagnostic functions, having an efficiency rating of not less than 4,000 grains of hardness removed per pound of salt used in regeneration</u> (or portable exchange tank systems). It is estimated that this Alternative Ordinance would result in a gradual 20% to 30% reduction in salt loading to the WWTP over a period of approximately 5 years.

During the regular meeting of September 12, 2016 the alternative of City-wide wellhead treatment/water softening was discussed. Also, complaints were heard from residents about the hardness of City water, and support for City-wide wellhead water softening was expressed. Council members expressed interest in studying this alternative, and directed staff to proceed with a conceptual study of City-wide wellhead water softening. At its November 14, 2016 Regular Meeting, the City Council approved a budget adjustment to complete a Wellhead Water Softening Concept Study.

It should be noted that the Solvang WWTP treats the wastewater generated from the Santa Ynez community. Our Agreement with the Santa Ynez Community Services District (SYCSD) requires that they implement water quality regulations at least equivalent to those of the City. Therefore, staff will coordinate with SYCSD as appropriate upon action by the City Council.

IV. <u>ALTERNATIVES</u>:

The City Council could direct staff to make additional changes to Title 9, Chapter 2, Article C, Section 9-2C-9: Water Softening and Conditioning Equipment prior to the second reading and adoption.

Staff has been able to identify only two viable alternative methods to reduce sodium, chloride, and TDS from the WWTP effluent. The first is to add costly high capacity water softening at each City well. (Installing additional treatment at the WWTP is cost prohibitive.) The cost of City-wide wellhead water softening is in the millions of dollars. At its November 14, 2016 Regular Meeting, the City Council approved a budget adjustment to complete a Wellhead Water Softening Concept Study. Upon completion of this Study staff will return with more detailed cost information. The second alternative is a prohibition on all automatic water softeners as previously suggested. This alternative is not recommended at this time.

V. FISCAL IMPACT:

In general there is not a significant fiscal impact to the proposed updates of Title 9, Chapter 2 Sewer Code. There is potential significant cost savings in maintaining compliance with our WWTP Waste Discharge Permit with the State.

VI. ATTACHMENTS:

1. Existing Title 9, Chapter 2, Article C – Water Softening and Conditioning Equipment (Nonresidential Brine Discharge Prohibition)
2. Title 9, Chapter 2 Sewer Code Revision Ordinance (alternative adoption pages)
    B. Alternative proposed revised Title 9, Chapter 2, Article C – Water Softening and Conditioning Equipment

CITY OF SOLVANG
MUNICIPAL CODE

EXISTING TITLE 9, CHAPTER 2, ARTICLE C

9-2C-9: WATER SOFTENING AND CONDITIONING EQUIPMENT:

A. Disposal Of Wastes From Nonresidential Uses: No person shall allow, permit or cause any water conditioning or softening equipment of any type to discharge its wastes into the city sewage system, nor shall any such person deposit or cause to be deposited into the city sewage system the waste product of any water softening or conditioning equipment of any type. The foregoing sentence shall not apply to the wastes or waste product of any water softening or conditioning equipment that is used exclusively for residential uses in accordance with the Health And Safety Code, article 1 of chapter 5 of part 12 of division 104, section 116775 et seq.

B. Inspection Of Equipment: Any person using, operating or maintaining water conditioning or softening equipment of any type within the boundaries of the city shall make such equipment accessible to the city inspector for inspection at such reasonable times as the city inspector may specify, and shall furnish such information concerning the operation and use of said equipment as the city inspector may reasonably request. (Ord. 16-318, 3-14-2016)

CITY OF SOLVANG
MUNICIPAL CODE

EXISTING TITLE 9, CHAPTER 2, ARTICLE C

9-2C-9: WATER SOFTENING AND CONDITIONING EQUIPMENT:

A. Disposal Of Wastes From Nonresidential Uses: No person shall allow, permit or cause any water conditioning or softening equipment of any type to discharge its wastes into the city sewage system, nor shall any such person deposit or cause to be deposited into the city sewage system the waste product of any water softening or conditioning equipment of any type.

B. Disposal Of Wastes From Residential Uses - Requirement For High Efficiency Automatic Water Softeners: Effective January 1, 2022, no person shall allow, permit or cause to be deposited into the city sewage system the waste product of any water softening or conditioning equipment, unless said water softening or conditioning equipment is a high efficiency system, with diagnostic functions, operating at an efficiency rating of not less than 4,000 grains of hardness removed per pound of salt used in regeneration. Effective January 1, 2022, no person shall replace or install, or in any manner assist in the replacement of or installation of, any water softening or conditioning equipment that discharges its waste into the city sewage system, unless said water softening or conditioning equipment is a high efficiency system, with diagnostic functions, operating at an efficiency rating of not less than 4,000 grains of hardness removed per pound of salt used in regeneration.

C. Residential and non-residential portable exchange tank water softening or conditioning systems that do not discharge waste are not prohibited.

D. Inspection Of Equipment: Any person using, operating or maintaining water conditioning or softening equipment of any type within the boundaries of the city shall make such equipment accessible to the city inspector for inspection at such reasonable times as the city inspector may specify, and shall furnish such information concerning the operation and use of said equipment as the city inspector may reasonably request. (Ord. 16-318, 3-14-2016)

E. Violation Penalty: All violations of this Code shall be infractions. It is unlawful for any person to violate any mandatory provisions of or fail to comply with provisions of this Code. Any persons violating such sections shall be prosecuted as an infraction. Any infraction may be prosecuted by the city authorities in the name of the people of the state or redressed by civil action. Every violation determined to be an infraction is punishable by a fine not exceeding five hundred dollars ($500) for each violation within one year.

ORDINANCE NO. 16-_____

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF SOLVANG, REVISING SOLVANG MUNICIPAL CODE TITLE 9, CHAPTER 2 SEWER CODE

WHEREAS, the City Council finds that as various conditions change, and State and Federal regulations change, it is necessary and beneficial from time to time to update and revise the Solvang Municipal Code; and

WHEREAS, the City Council finds that during the past four years of severe drought in California, the City of Solvang has had to rely more heavily on local groundwater supplies, and during that time the sodium, chloride, and total dissolved solids (TDS) concentrations in the Solvang Wastewater Treatment Plant (WWTP) effluent have gradually increased to undesirable levels; and

WHEREAS, the City Council finds that prohibiting low efficiency residential salt-using self regenerating water softeners (referred to as "automatic water softeners"), and requiring that all such automatic water softeners must be replaced with high efficiency systems, with diagnostic functions, operating at an efficiency rating of not less than 4,000 grains of hardness removed per pound of salt used in regeneration (or portable exchange tank systems) is a necessary means to achieving compliance with waste discharge requirements issued for the WWTP by the Regional Water Quality Control Board; and

WHEREAS, the City of Solvang has determined that alternatives to residential automatic water softener restrictions are cost prohibitive at this time; and

WHEREAS, in October 2011, the City of Solvang completed a Salt Management Study, an independent study of the sources of sodium, chloride, and TDS that reach the WWTP, and found that residential automatic water softeners are a significant contributor to the higher concentrations of sodium, chloride, and TDS in the WWTP effluent; and

WHEREAS, in 2002 the City of Solvang adopted, and since that time has enforced, regulatory requirements that limit the volumes and concentrations of brine discharges from **non-residential sources** to the City sewage system to the extent technologically and economically feasible; and

WHEREAS, the City Council desires to prevent pollution and protect the alluvium and groundwater quality of the Santa Ynez River Basin for beneficial uses; and

WHEREAS, the City Council finds that regulations contained within Title 9, Chapter 2, Article C of the Solvang Municipal Code are deficient; and

WHEREAS, the City Council has reviewed the matter and finds it to be beneficial to the health, safety and general welfare of the City and surrounding community;

NOW, THEREFORE, THE PEOPLE OF THE CHARTERED CITY OF SOLVANG DO ORDAIN AS FOLLOWS:

Section 1. Amendments

The City Council hereby approves and adopts the revised portions of Title 9, Chapter 2, Article C of the Solvang Municipal Code, including revised water softener restrictions (attached hereto as Exhibit B, and included as though fully set forth at this point).

Section 2. Exemptions From CEQA

The City Council finds, pursuant to Title 14 of the California Code of Regulations, section 15061 (b)(3), that this ordinance is exempt from the requirements of the California Environmental Quality Act (CEQA) in that it is not a project, which has the potential for causing a significant effect on the environment.

Section 3. Severability

If any section, subsection, subdivision, paragraph, sentence, clause or phrase of this Ordinance, or any part thereof, is for any reason held to be unconstitutional or invalid or ineffective by any court of competent jurisdiction, such decision shall not affect the validity or effectiveness of the remaining portions of this Ordinance. The City Council hereby declares that it would have passed each section, subsection, subdivision, paragraph, sentence, clause or phrase of this Ordinance irrespective of the fact that one or more sections, subsections, subdivisions, paragraphs, sentences, clauses or phrases be declared unconstitutional or invalid or ineffective. To this end the provisions of this Ordinance are declared to be severable.

Section 4. Effective Date

This Ordinance shall be in full force and shall take effect **January 1, 2022** or thirty (30) days after its passage, whichever date is later.

Section 5. Publication

Solvang is a Charter City and has adopted its own rules for summarizing and posting ordinances once they are adopted. The City Attorney will prepare a summary of this Ordinance. The summary will be posted in three locations after adoption as directed in the Solvang Municipal Code. The City Clerk shall keep a true and correct copy of the full Ordinance together with a record of the vote of each council member.

PASSED, APPROVED, AND ADOPTED by the City Council of the City of Solvang on this 28th day of November, 2016 by the following vote:

BY: _____
Jim Richardson, Mayor

ATTEST:

_____
Lisa S. Martin, City Clerk

STATE OF CALIFORNIA)
COUNTY OF SANTA BARBARA)
CITY OF SOLVANG)

I, Lisa S. Martin, City Clerk of the City of Solvang, do herby certify that the foregoing Ordinance had its first reading on November 14, 2016 and was adopted on second reading on November 28, 2016 by the following vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

BY: _____
Lisa S. Martin, City Clerk

Exhibit B: Revised Title 9, Chapter 2, Article C

CITY COUNCIL
STAFF REPORT/CONSENT AGENDA

TO: SOLVANG CITY COUNCIL MEMBERS

FROM: Fred Lageman, Parks and Recreation Director

MEETING DATE: November 28, 2016

DATE PREPARED: November 15, 2016

SUBJECT: HALLOWEEN HAUNTED HOUSE DONATION ACCEPTANCE

I. RECOMMENDATION:

Recognize and accept the generous monetary donations to the Solvang Parks and Recreation Department Halloween Haunted House from Santa Ynez Valley Youth Recreation, John and Teri Harmon and the Santa Barbara County Sheriff's Benevolent Posse.

II. DISCUSSION:

The 23rd Annual Haunted House received three monetary donations, which helped to make the haunt a success. With the monetary donations, materials are purchased in order to construct and decorate the haunted house. It is greatly appreciated by City staff when our efforts are noticed and appreciated by generous donations to the department.

The Parks and Recreation Department is always very thankful for any type of donation and hopes that the City Council acknowledges the generosity of those who contribute.

There were also several businesses and individuals who donated in-kind through material or labor donations and we wish to acknowledge them as well. Thank you to Kevin McConnell of SYV Computer Center, Ryan Metzger, Bob Trupe Specialty Painting and Waste Management for their in-kind and material donations. Thank you to those who helped with the successful Halloween Street Fest: Lisa Mesa and The Good Life, El Rancho Market, the Sheriff's League and Valley Tool Rental.

III. FISCAL IMPACT:

A donation in the amount of $1550.00 from the following: SYV Youth Recreation ($1000), John and Terry Harmon ($300) and the SB Co Sheriff's Benevolent Posse ($250) will result in $1550.00 in additional revenue for Parks and Recreation programs.

CITY COUNCIL
STAFF REPORT/CONSENT AGENDA

TO: SOLVANG CITY COUNCIL MEMBERS

FROM: Arleen T. Pelster, AICP, Planning & Economic Development Director

MEETING DATE: November 28, 2016

DATE PREPARED: November 16, 2016

SUBJECT: **SECOND READING, BY TITLE ONLY, OF AN ORDINANCE AMENDING TITLES 10 AND 11 OF THE SOLVANG MUNICIPAL CODE TO ADOPT AND AMEND THE LATEST EDITIONS OF THE CONSTITUENT CODES OF THE CALIFORNIA BUILDING STANDARDS CODE AND ESTABLISH SPECIAL PERMIT PROCESSING FOR RESIDENTIAL ROOFTOP SOLAR SYSTEMS AND ELECTRIC VEHICLE CHARGING STATIONS**

I. RECOMMENDATION:

1. Accept the Exemption to the California Environmental Quality Act pursuant to CEQA Section 15061;

2. Adopt Ordinance No. 16-_____, on second reading by title only, an ordinance of the City Council of the City of Solvang amending Titles 10 and 11; and

II. BACKGROUND:

The City is required to comply with the building and fire codes adopted by the State of California, which are updated every three years. The code editions recently adopted by the State will be effective January 1, 2017. These codes can be modified locally to reflect unique situations or special needs, and the City must adopt these local modifications as part of the Municipal Code in order to coordinate the City's building and fire codes with the State's codes. The recommended action will incorporate all special construction requirements that are unique to the City of Solvang into the most recent "building and fire

codes" established by the State of California. The evolution of the model codes, on which the California codes are based, recognize the latest advances in building safety, environmental concerns, resource management, and fire suppression safety. The improved regulations will enhance the City's rating by the Insurance Services Organization, which evaluates the City's construction regulation program.

III. DISCUSSION:

On November 14, 2016, the City Council introduced Ordinance 16-___ to adopt the new building and fire codes.

The changes are in the interest of the general community welfare and are consistent with good building administration practices. Full text of the proposed amendments is provided in the draft ordinance, which is attached.

IV. ENVIRONMENTAL REVIEW

The proposed amendments to the Zoning Ordinance were determined to be exempt from environmental review pursuant to §15061 of the Guidelines for the Implementation of CEQA.

This section states that CEQA only applies to *"projects, which have the potential for causing a significant effect on the environment. Where it can be seen with certainty that there is no possibility that the activity may have a significant effect on the environment, the activity is not subject to CEQA"*. The proposed ordinance amendments are in the interest of the general community welfare and are consistent with good zoning and planning practices. Any potential environmental impacts associated with the proposed impacts are considered insignificant. The amendments are consistent with the General Plan, the requirements of State Planning & Zoning Laws and the Solvang Municipal Code, Title 11.

V. ALTERNATIVES:

The City Council could provide alternate direction and refer back to staff.

VI. FISCAL IMPACT:

None.

VII. ATTACHMENTS:

1. City Council Ordinance 16-__
2. Draft CEQA NOE

ORDINANCE NO. 16-____

AN ORDINANCE OF THE CITY OF SOLVANG AMENDING TITLES 10 AND 11 OF THE SOLVANG MUNICIPAL CODE TO ADOPT AND AMEND THE LATEST EDITIONS OF THE CONSTITUENT CODES OF THE CALIFORNIA BUILDING STANDARDS CODE AND ADOPT FINDINGS OF FACT TO SUPPORT THE IMPOSITION OF REQUIREMENTS OTHER THAN THOSE OF THE CALIFORNIA BUILDING STANDARDS CODE, AND ESTABLISH SPECIAL PERMIT PROCESSING FOR SMALL RESIDENTIAL ROOFTOP SOLAR SYSTEMS AND ELECTRIC VEHICLE CHARGING STATIONS

WHEREAS, it is the desire and intent of the City Council of the City of Solvang to provide citizens with the greatest degree of fire, life and structural safety in buildings in the most cost effective manner by adopting that body of regulations referred to as the California Building Standards Code with amendments specific to the City of Solvang; and

WHEREAS, the California Health and Safety Code, Section 17958.7 and Section 18941.5, require the City Council, before making any modifications or changes to the California Building Standards Code pursuant to Health and Safety Code Sections 18941.5 and 17958.5, to make an express finding that each such modification or change is needed; and,

WHEREAS, the California Health and Safety Code Section 17958.7 requires that such changes must be determined to be reasonably necessary because of local climatic, geological, or topographical conditions; and,

WHEREAS, such findings must be made available as a public record and a copy thereof with each such modification or change shall be filed with the State of California Building Standards Commission; and

WHEREAS, the City Council hereby determines that Sections 903.2, 1505 and 1506 of the 2016 California Building Code, Sections R313 and R904 of the 2016 California Residential Code, Section 230.70(A)(1) of the 2016 California Electrical Code, and Section 403 of the 2016 California Plumbing Code are required to be modified due to the findings contained herein to other requirements than those set forth in the California State Building Standards Code; and

WHEREAS, the City Council finds that each of the changes or modifications to measures referred to therein are reasonably necessary because of local climatic, geological, or topographical conditions in the area encompassed by the boundaries of the City of Solvang, and the City Council further finds that the following findings support the local necessity for the changes or modifications:

FINDING 1
That the City of Solvang lies approximately midway between the major population centers of San Francisco and Los Angeles, making mutual aid resources from these centers delayed. Furthermore, within Santa Barbara County, organized fire departments are characteristically at such distance and of such limited resources that they may not present a reliable rapid response

mutual aid alternative, although agreements currently exist. The continued development in new residential areas within the City and potential annexation areas will increase response times for personnel, creating a substantial threat to human life and public safety. The afore-described conditions support the imposition of fire protection requirements greater than those set forth in the California State Building Standards Code and, in particular, support the imposition of other requirements than set forth in Sections 903.2, 1505 and 1506 of the 2016 California Building Code, Sections R313 and R904 of the 2016 California Residential Code, and Section 230.70(A)(1) of the 2016 California Electrical Code.

FINDING 2
That the City of Solvang is surrounded by areas susceptible to a wild-land fire event. A fire in these areas, in conjunction with coastal winds, Santa Ana winds, and similar dry, conditions could threaten the City with burning embers traveling thousands of feet that will ignite structures. City fire-suppression resources will be inadequate to resist this threat. The protection of human life and the preservation of property in the event of such an occurrence support the imposition of fire protection requirements greater than those set forth in the California State Building Standards Code and in particular support the imposition of other requirements than set forth in Sections 903.2, 1505 and 1506 of the 2016 California Building Code, Sections R313 and R904 of the 2016 California Residential Code, and Section 230.70(A)(1) of the 2016 California Electrical Code.

FINDING 3
That the City of Solvang is primarily accessed by only one major highway (Hwy 246) that may be subject to earthquakes that create impassable roads and collapsed bridges. Emergency personnel responding to a fire may be unduly impeded or delayed in accomplishing an emergency response as a result of this situation, with the potential result of undue and unnecessary risk to the protection of life and public safety, particularly in those buildings or structures without the protection of automatic fire sprinklers. The afore-described condition support the imposition of fire protection requirements greater than those set forth in the California State Building Standards Code, and in particular support the imposition of other requirements than set forth in Sections 903.2, 1505 and 1506 of the 2016 California Building Code, Sections R313 and R904 of the 2016 California Residential Code, and Section 230.70(A)(1) of the 2016 California Electrical Code.

NOW, THEREFORE, THE PEOPLE OF THE CHARTERED CITY OF SOLVANG DO ORDAIN AS FOLLOWS:

Section One. Action:

The provisions of State Building Standards Code are hereby modified, changed and amended, as provided for in this ordinance, based upon the foregoing recitals and findings. The City Council takes said action because of the public interest in protecting life and preserving public safety and property. Chapters 1 and 2 of Title 10 and Section 11-16-7 of Title 11 of the Solvang Municipal Code are hereby repealed and replaced by new Chapters 1, 2, and 4 of Title 10 as follows:

Chapter 1 BUILDING CODES

10-1-1: ADOPTION OF CONSTRUCTION CODES:

Ten documents, each of which is on file in City offices, marked and designated as (1) the 2016 edition of the California Building Code (Volumes 1 and 2) published by the International Code Council, (2) the 2016 edition of the California Residential Code published by the International Code Council, (3) the 2016 edition of the California Electrical Code published by the National Fire Protection Association, (4) the 2016 edition of the California Mechanical Code published by the International Association of Plumbing and Mechanical Officials, (5) the 2016 edition of the California Plumbing Code published by the International Association of Plumbing and Mechanical Officials, (6) the 2016 edition of California Energy Code, (7) the 2016 edition of the California Historical Building Code, (8) the 2016 edition of the California Existing Building Code, (9) the 2016 edition of the California Green Building Standards Code, and (10) the 2015 edition of the International Property Maintenance Code published by the International Code Council are hereby adopted, including chapters and sections not adopted by agencies of the State of California, and including appendices thereto, as the Building Construction Regulations of the City of Solvang. The provisions of such are hereby referred to, adopted, and made a part hereof as if fully set out in this Chapter except as modified in Section 10-1-4.

10-1-2: BUILDING OFFICIAL DESIGNATED

The Building Official is hereby designated as the building official and code official for the City of Solvang. Where the "authority having jurisdiction" is used in the adopted codes, it shall mean the building official. The Building Official shall be appointed by the Planning and Economic Development Director of the City of Solvang.

10-1-3: REFERENCED CODES AND STANDARDS

Where other codes and standards are referred to in the codes adopted in Section 10-1-1, the following shall apply:

A. International Building Code shall mean California Building Code or the California Residential Code, as applicable.

B. International Plumbing Code shall mean California Plumbing Code.

C. International Fuel Gas Code shall mean California Plumbing Code.

D. International Mechanical Code shall mean California Mechanical Code.

E. NFPA 70 and National Electrical Code shall mean California Electrical Code.

F. International Residential Code for One- and Two-family Dwellings shall mean the California Residential Code.

G. International Fire Code shall mean California Fire Code.

H. International Existing Building Code shall mean California Existing Building Code.

I. International Zoning Code shall mean applicable provisions of Title 11 of the Solvang Municipal Code.

10-1-4: AMENDMENTS; CALIFORNIA BUILDING CODE

The California Building Code adopted in Section 10-1-1 is modified, amended and/or supplemented as follows:

A. Delete Appendices A, B, D, F, and K.

B. Amend Section 101.1 to read as follows:

101.1 Title. These regulations shall be known as the California Building Code, hereinafter referred to as "this code."

C. Amend Section 101.4 to read as follows:

101.4 Referenced codes. The other codes listed in Sections 101.4.1 through 101.4.8 and referenced elsewhere in this code shall be considered part of the requirements of this code to the prescribed extent of each reference.

D. Add Section 101.4.8 to read as follows:

101.4.8 Electrical. The provisions of the California Electrical Code shall apply to the installation of electrical systems, including alterations, repairs, and replacement of electrical equipment, appliances, fixtures, fittings and appurtenances thereto.

E. Amend 103.1 to read as follows:

103.1 Creation of enforcement agency. The Building Division is hereby created within the Planning and Community Development Department and the official in charge thereof shall be known as the building official.

F. Add Section 104.3.1 to read as follows:

104.3.1 Citations. The building official, or duly authorized agent, is granted the authority as provided in Section 836.5(a) of the California Penal Code to issue citations for violations of this chapter.

G. Amend Section 105.2 and the Building exemptions only to read as follows:

105.2 Work exempt from permit. Exemptions from permit requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction. Permits shall not be required for the following:

Building:

1. One-story detached accessory structures used as tool and storage shed, playhouses and similar uses, provided the floor area is not greater than 120 square feet (11 m^2).
2. Fences not over 6 feet (1829 mm) high.
3. Oil derricks.
4. Retaining walls and non-retaining walls, including masonry and concrete free-standing walls, that are not over 4 feet (1219 mm) in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge or impounding Class I, II or IIIA liquids.
5. Water tanks supported directly on grade if the capacity is not greater than 5,000 gallons (18 925 L) and the ratio of height to diameter or width is not greater than 2:1.
6. Sidewalks and driveways not more than 30 inches (762 mm) above adjacent grade, and not over any basement or story below and are not part of an accessible route.
7. Painting, papering, tiling, carpeting, cabinets, countertops, and similar finish work.
8. Temporary motion picture, television and theater stage sets and scenery.
9. Prefabricated swimming pools accessory to a Group R-3 occupancy that are less than 24 inches (610 mm) deep, are not greater than 5,000 gallons (18 925 L) and are installed entirely above ground.
10. Shade cloth structures constructed for nursery or agriculture purposes, not including service systems.
11. Swings and other playground equipment accessory to detached one- and two-family dwellings.
12. Window awnings in Group R-3 and U occupancies, supported by an exterior wall that do not project more than 54 inches (1372 mm) from the exterior wall and do not require additional support.
13. Non-fixed and movable fixtures, cases, racks, counters and partitions not over 5 feet 9 inches in height.

H. Amend Section 105.3.2 to read as follows:

105.3.2 Time limitation of application. An application for a permit for any proposed work shall be deemed to have been abandoned 365 days after the date of filing, unless a permit has been issued. In order to renew action on an application after expiration, the applicant shall resubmit plans and pay a new plan review fee.

I. Add Section 109.2.1 to read as follows:

109.2.1 Plan review fees. When submittal documents are required by Section 107.1, a plan review fee shall be paid at the time of submitting the submittal documents for plan review. Said plan review fee shall be in accordance with the schedule as established by the applicable governing body.

Separate plan review fees shall apply to permits for retaining walls and major drainage structures in conjunction with grading. For excavation and fill on the same site, the plan review fee for grading shall be based on the volume of excavation or fill, whichever is greater.

The plan review fees specified in this section are separate fees from the permit fees specified in Section 109.2 and are in addition to the permit fees.

Where submittal documents are incomplete or changed so as to require additional plan review, or where the project involves deferred submittal items as defined in Section 107.3.4.1, an additional plan review fee may be charged at a rate established by the applicable governing authority.

J. Amend Section 109.4 to read as follows:

109.4 Work commencing before permit issuance.

109.4.1 Investigation. Whenever any work for which a permit is required by this code has been commenced without first obtaining said permit, a special investigation shall be made before a permit may be issued for such work.

109.4.2 Fee. An investigation fee, in addition to the permit fee, shall be collected whether or not a permit is then or subsequently issued. The investigation fee shall be equal to the amount of the permit fee required by this code. The payment of such investigation fee shall not exempt any person from compliance with all other provisions of this code nor from any penalty prescribed by law.

K. Delete the exception to Section 110.3.5.

L. Amend Sections 113.1 and 113.2 to read as follows, and delete Section 113.3:

113.1 General. In order to hear and decide appeals of orders, decisions or determinations made by the building official relative to the application and interpretations of the California Building Standards Code and the International Property Maintenance Code, there shall be and is hereby created a Board of Appeals. Said Board shall also serve as the Housing Appeals Board and the Local Appeals Board referenced in the California Building Standards Code. The building official shall be an ex officio member and shall act as secretary to said board but shall have no vote upon any matter before the board. The Solvang City Council is expressly declared to be the Board of Appeals and shall have all of the power and authority conferred upon a local appeals board under the Health and Safety

Code. The order of the City Council upon such appeal shall be final and immediate. The fee for appeals shall be consistent with fees established by the applicable governing authority.

113.2 Limitations on authority. An application for appeal shall be based on a claim that the true intent of the California Building Standards Code or the rules legally adopted hereunder have been incorrectly interpreted, the provisions of the California Building Standards Code do not fully apply or an equally good or better form or construction is proposed. The board shall have no authority to waive requirements of the adopted codes. For appeals relating to accommodations for the disabled, the authority of the board shall include the ability to authorize reasonable alternatives to disabled access requirements imposed by the California Building Standards Code. Decisions of the board of appeals shall be final and only subject to review by writ of mandate to the superior court.

M. Amend Section 114.1 to read as follows:

114.1 Unlawful acts. It shall be unlawful for any person, firm or corporation to erect, construct, alter, extend, repair, move, remove, demolish or occupy any building, structure or equipment regulated by this code, or cause same to be done, in conflict with or in violation of any of the provisions of this code. It shall be unlawful for any person, firm or corporation to use for habitation, storage or any structural purpose, any discarded, salvaged, abandoned or replaced travel trailer, trucking trailer, cargo container, streetcar, bus body, rail car or other vehicle body. It shall be unlawful for any person, firm or corporation to use a travel trailer or recreational vehicle for residential purposes, except in an approved campground or recreational vehicle park.

N. Amend Section 114.4 and add Sections 114.4.1 and 114.4.2 to read as follows:

114.4 Violation penalties. Any person who violates a provision of this code or fails to comply with any of the requirements thereof or who erects, constructs, alters, or repairs a building or structure in violation of the approved construction documents or directive of the building official, or of a permit or certificate issued under the provisions of this code and from which no appeal has been taken, or who shall fail to comply with such an order as affirmed or modified by the board of appeals within the time fixed herein, shall be subject to penalties as prescribed by law. The imposition of one penalty for any violation shall not excuse the violation or permit it to continue. All such persons shall be required to correct or remedy such violations or defects within a reasonable time and, when not otherwise specified, each day that prohibited conditions are maintained shall constitute a separate offense. The application of the above penalty shall not be held to prevent the enforced removal of prohibited conditions.

114.4.1 Costs of abatement; tax lien. Any person, whether as principal, agent, employee, or otherwise, who maintains any premises in violation of any provision of this code, the municipal code, other adopted California codes, or the state housing law shall be liable for and obligated to pay to the city all costs incurred by the city in obtaining abatement or compliance which is attributable to or associated with the enforcement or abatement action,

whether such action is administrative, injunctive, or legal, and for all damages suffered by the city, its agents, officers, and employees as a result of such violation or efforts to abate the violation.

If the owner of the property involved in such abatement or compliance action fails to pay for the costs of such abatement or compliance action upon demand by the city, the city council by resolution may order the cost of the abatement to be specially assessed against the parcel. Such assessment shall be collected at the same time and in the same manner as ordinary property taxes are collected and shall be subject to the same penalties and the same procedure and sale in case of the delinquency as are provided for ordinary property taxes.

114.4.2 Recording noncompliance with county recorder. Whenever the building official determines that work has been done without the required permits, or has not been completed in accordance with the requirements of this building code, or other provision of the municipal code, the state housing laws, or any other code adopted herein, the building official may cause a notice of noncompliance to be recorded with the county recorder and shall notify the owner of the property of such action. The notice of noncompliance shall describe the property, shall set forth the noncomplying conditions, and shall state that the owner of such property has been duly notified. The building official shall record a notice of release of the notice of noncompliance with the county recorder when it has been determined by the building official that the noncomplying conditions have been corrected.

O. Amend Section 115.3 to read as follows:

115.3 Failure to comply. Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be subject to the penalties and code enforcement procedures set forth in Title 1, Chapter 3, of the Solvang Municipal Code.

P. Amend Section 116.1 to read as follows:

116.1 Conditions. Structures or existing equipment that are or hereafter become unsafe, unsanitary or deficient because of inadequate means of egress facilities, inadequate light and ventilation, or which constitute a fire hazard, or are otherwise dangerous to human life or public welfare, or that involve illegal or improper occupancy or inadequate maintenance, shall be deemed an unsafe condition. Unsafe structures shall be taken down and removed or made safe, as the building official deems necessary and as provided for in this section and the 2015 edition of the International Property Maintenance Code, as adopted. A vacant structure that is not secured against entry shall be deemed unsafe.

Q. Amend Section 903.2 to read as follows:

903.2 Where required. An approved automatic fire sprinkler system shall be provided in a new building, and in an existing building where floor area is increased, as provided in

Sections 903.2.1 through 903.2.12 of this code and Section 903.7.1 of California Fire Code as adopted by the County of Santa Barbara.

Exception: A building containing a Group R, Division 3 occupancy not more than three stories above grade plane in height shall comply with the automatic fire sprinkler system requirements of Section R313 of the California Residential Code.

R. Add Section 1505.1.5 and Table 1505.1.5 to read as follows:

1505.1.5 Roofs in commercial areas. All roofs on all commercial buildings located in any area zoned commercial in the city shall be constructed of roofing materials rated as a Class A roof assembly. This section shall apply to any new commercial buildings built in an area zoned commercial in the city and to the replacement of any existing roofing materials on any commercial building in an area zoned commercial in the city. No owner of any building, however, shall be required solely by virtue of this section to replace any roofing material.

Exception: The exclusive list of commercial buildings listed in Table 1505.1.5 having wooden roofs with rolled eaves and shingles with clipped ends, provided that all of the following provisions are satisfied:

1. The roofing material to be used is determined by the board of architectural review to be compatible with the roofing materials being replaced and with the Danish theme of the commercial areas of the city;
2. An underlayment of one-half inch ($^1/_2$") type X gypsum board or comparable material approved by the building official be placed under the solid or spaced sheathing;
3. Attic and occupancy fire area separations are provided as required by this code;
4. Automatic fire sprinklers and/or other types of automatic fire extinguishing systems are installed, if in the opinion of the building official such systems are necessary to minimize any additional fire hazards;
5. The wood roofing materials used are fire-retardant treated and listed by the State Fire Marshal to comply with Section 1505.6; and
6. The owner agrees to execute an agreement acceptable to the city attorney obligating the owner to maintain the effectiveness of any treatment of any roofing material installed pursuant to this section as required by the service conditions encountered in actual use. Such agreement shall also provide that the method of retreatment and the frequency of retreatment are satisfactory to the building official.

Table 1505.1.5
Buildings Exempt from Class A Roof Assembly

Address	Assessor's Parcel No.
440 Alisal Road	139-240-70
442 Alisal Road	139-240-71

460 Alisal Road	139-240-57
473 Alisal Road	139-182-22, 24
1659 Copenhagen	139-181-12
1679 Copenhagen	139-182-13
1688 Copenhagen	139-193-23
1692 Copenhagen	139-193-22
1697 Copenhagen	139-182-21
1440 Mission Drive	137-260-33
1523-25 Mission	139-132-13
1529 Mission Drive	139-132-17
1531 Mission Drive	139-132-21
1555 Mission Drive	139-132-9
1588 Mission Drive	139-173-8
1595 Mission Drive	139-133-16
1711 Mission Drive	139-150-19

S. Add Section 1506.5 to read as follows:

1506.5 Wood shake and shingle roof covering limitations. Wood shake or shingle roof coverings shall not be installed on any building. A roof covering shall not be applied over existing wood shakes or shingles.

Exceptions:
1. A wood shake or wood shingle system listed as a Class A-rated roof covering.
2. Roof covering for an addition to, or the reroofing of, an existing building where the new roof covering area is less than 750 square feet of the existing roof area may be an approved Class B pressure treated wood shingle system.

T. Amend Section 3201.1 to read as follows:

3201.1 Scope. The provisions of this chapter and Section 8-3-3 of the Solvang Municipal Code shall govern encroachment of structures into the public right-of-way.

U. Amend Appendix Section G104.1 to read as follows:

G104.1 Permit application and processing. Any person, owner, or owner's authorized agent who intends to conduct any development in a flood hazard area shall first make application to the building official and shall obtain the required permit. The processing and administration of a permit application shall be as prescribed in Sections 105 and 107.

V. Amend Appendix Section H101.2 to read as follows:

H101.2 Signs exempt from permits. The following signs are exempt from the requirement to obtain a permit from the building official before erection or alteration of a sign:

1. Signs where a Planning Permit is not required.
2. Temporary signs announcing the sale or rent of property in accordance with the City Sign Ordinance.
3. Signs erected by transportation authorities.

W. Add Section J101.3 to read as follows:

J101.3 Administration. This appendix chapter shall be administered by the city engineer. References to building official shall mean city engineer.

X. Amend Appendix Section J103.2 and add Appendix Sections J103.3 and J103.4 to read as follows:

J103.2 Exempted Work. A grading permit shall not be required for the following:

1. Grading in an isolated, self-contained area, provided there is no danger to the public, and that such grading will not adversely affect adjoining properties.
2. Excavation for construction of a structure permitted under this code.
3. Cemetery graves.
4. Refuse disposal sites controlled by other regulations.
5. Excavations for wells, or trenches for utilities.
6. Mining, quarrying, excavating, processing, or stockpiling of rock, sand, gravel, aggregate, or clay controlled by other regulations, provided such operations do not affect the lateral support of, or significantly increase stresses in, soil on adjoining properties.
7. Exploratory excavations performed under the direction of a registered design professional.
8. An excavation which does not exceed fifty cubic yards and (1) is less than 2 feet (610 mm) in depth or (2) does not create a cut slope greater than 5 feet (1524 mm) in height and steeper than 1 unit vertical to 2 units horizontal.
9. A fill less than 1 foot (305 mm) in depth and placed on natural terrain with a slope flatter than 1 unit vertical to 5 units horizontal, not intended to support structures, on any one lot and does not obstruct a drainage course.
10. A fill less than 3 foot (38.3 mm) in depth and placed on natural terrain with a slope flatter than 1 unit vertical to 5 units horizontal, not intended to support structures, that does not exceed 50 cubic yards (38.3 m^3) on any one lot and does not obstruct a drainage course.

Exemption from the permit requirements of this appendix shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction.

J103.3 Early grading. A grading permit shall not be issued prior to issuance of a building permit for the project unless:

1. A tentative subdivision or tract map, use permit, architectural review commission project approval or similar authorization has been granted; and
2. Related street and utility grades have been established and approved; and
3. A surety bond in accordance with Section J103.4 is deposited to guarantee restoration of the site to a natural or other condition acceptable to the building official should the project not proceed to completion.

J103.4 Bonds. The building official may require bonds in such form and amounts as may be deemed necessary to ensure that the work, if not completed in accordance with the approved plans and specifications, will be corrected to eliminate hazardous conditions or restore a graded site to the original condition. In lieu of a surety bond, the applicant may file a cash bond or instrument of credit with the building official in an amount equal to that which would be required in the surety bond.

The city engineer may require that bonds be posted to recover the full costs of any damage to public right-of-way which may occur because of the peculiar nature or large scope of the project, such as transportation of fill or heavy equipment on local streets not designed to accommodate the traffic.

Y. Amend Appendix Section J104.2 to read as follows:

J104.2 Site plan requirements. In addition to the provisions of Section 107, a grading plan shall show the existing grade and finished grade in contour intervals of sufficient clarity to indicate the nature and extent of the work and show in detail that it complies with the requirements of this code. The plans shall show the existing grade on adjoining properties in sufficient detail to identify how grade changes will conform to the requirements of this code. The plans shall show existing drainage conditions and drainage devices and all proposed changes thereto. The plans shall include the location and dimension of all trees on the site to remain and to be removed which are 3 inches (76.2 mm) in diameter or larger at the trunk, measured at 4.5 feet (1.37 m) above ground level. A preservation plan shall be submitted for all trees to remain. The plans shall indicate where excess material, rocks, or rubble will be disposed of.

Z. Add Appendix Section J110.3 to read as follows:

J110.3 Other standards. Erosion control measures shall conform to the following standards and approval processes:

1. The City's Stormwater Management Plan.
2. The most current "Erosion and Sediment Control Field Manual" published by the California Regional Water Quality Control Board, San Francisco Bay Region.
3. NPDES permit requirements.
4. The 2016 California Green Building Standards Code.

10-1-5: AMENDMENTS; CALIFORNIA RESIDENTIAL CODE

The California Residential Code adopted in Section 10-1-1 is modified, amended and/or supplemented as follows:

A. Delete Appendices A, B, C, D, E, F, G, I, J, K, L, M, N, O, P, Q, R, T, U, and W.

B. Amend Section R101.1 to read as follows:

R101.1 Title. These provisions shall be known as the California Residential Code and shall be cited as such and shall be referred to herein as "this code".

C. Amend Section R103.1 to read as follows:

R103.1 Creation of enforcement agency. The Building Division is hereby created within the Planning and Community Development Department and the official in charge thereof shall be known as the building official.

D. Add Section R104.3.1 to read as follows:

R104.3.1 Citations. The building official, or duly authorized agent, is granted the authority as provided in Section 836.5(a) of the California Penal Code to issue citations for violations of this chapter.

E. Amend Section R105.2 to read as follows:

R105.2 Work exempt from permit. Permits shall not be required for the following. Exemption from permit requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction.

1. One-story detached accessory structures used as tool and storage sheds, playhouses and similar uses, provided the floor area does not exceed 120 square feet (11.15 m^2).
2. Fences not over 6 feet (1829 mm) high.
3. Retaining walls and non-retaining walls, including masonry and concrete free-standing walls, that are not over 4 feet (1219 mm) in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge.
4. Water tanks supported directly on grade if the capacity does not exceed 5,000 gallons (18 927 L) and the ratio of height to diameter or width does not exceed 2 to 1.
5. Sidewalks and driveways.
6. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work.
7. Prefabricated swimming pools that are less than 24 inches (610 mm) deep.
8. Swings and playground equipment.
9. Window awnings supported by an exterior wall which do not project more than 54 inches (1372 mm) from the exterior wall and do not require additional support.

10. Decks not attached to a dwelling and not more than 30 inches (762 mm) above grade at any point.

F. Amend Section R105.3.2 to read as follows:

R105.3.2 Time limitation of application. An application for a permit for any proposed work shall be deemed to have been abandoned 365 days after the date of filing, unless a permit has been issued. In order to renew action on an application after expiration, the applicant shall resubmit plans and pay a new plan review fee.

G. Add Section R108.2.1 to read as follows:

R108.2.1 Plan review fees. When submittal documents are required by Section R106.1, a plan review fee shall be paid at the time of submitting the submittal documents for plan review. Said plan review fee shall be in accordance with the schedule as established by the applicable governing body.

Separate plan review fees shall apply to permits for retaining walls and major drainage structures in conjunction with grading. For excavation and fill on the same site, the plan review fee for grading shall be based on the volume of excavation or fill, whichever is greater.

The plan review fees specified in this section are separate fees from the permit fees specified in Section R108.2 and are in addition to the permit fees.

Where submittal documents are incomplete or changed so as to require additional plan review an additional plan review fee may be charged at a rate established by the applicable governing authority.

H. Amend Section R108.6 to read as follows:

R108.6 Work commencing before permit issuance.

R108.6.1 Investigation. Whenever any work for which a permit is required by this code has been commenced without first obtaining said permit, a special investigation shall be made before a permit may be issued for such work.

R108.6.2 Fee. An investigation fee, in addition to the permit fee, shall be collected whether or not a permit is then or subsequently issued. The investigation fee shall be equal to the amount of the permit fee required by this code. The payment of such investigation fee shall not exempt any person from compliance with all other provisions of this code nor from any penalty prescribed by law.

I. Amend Section R112.1 to read as follows and delete Sections R112.2 through R112.4:

R112.1 General. In order to hear and decide appeals of orders, decisions or determinations made by the building official relative to the application and interpretation of this code, the provisions of Section 113 of the California Building Code, as amended, shall apply.

J. Amend Section R113.1 to read as follows:

R113.1 Unlawful acts. It shall be unlawful for any person, firm or corporation to erect, construct, alter, extend, repair, move, remove, demolish or occupy any building, structure or equipment regulated by this code, or cause same to be done, in conflict with or in violation of any of the provisions of this code. It shall be unlawful for any person, firm or corporation to use for habitation, storage or any structural purpose, any discarded, salvaged, abandoned or replaced travel trailer, trucking trailer, cargo container, streetcar, bus body, rail car or other vehicle body. It shall be unlawful for any person, firm or corporation to use a travel trailer or recreational vehicle for residential purposes, except in an approved campground or recreational vehicle park.

K. Amend Section R113.4 and add Sections R113.4.1 and R113.4.2 to read as follows:

R113.4 Violation penalties. Any person who violates a provision of this code or fails to comply with any of the requirements thereof or who erects, constructs, alters, or repairs a building or structure in violation of the approved construction documents or directive of the building official, or of a permit or certificate issued under the provisions of this code and from which no appeal has been taken, or who shall fail to comply with such an order as affirmed or modified by the board of appeals within the time fixed herein, shall be subject to penalties as prescribed by law. The imposition of one penalty for any violation shall not excuse the violation or permit it to continue. All such persons shall be required to correct or remedy such violations or defects within a reasonable time and, when not otherwise specified, each day that prohibited conditions are maintained shall constitute a separate offense. The application of the above penalty shall not be held to prevent the enforced removal of prohibited conditions.

R113.4.1 Costs of abatement; tax lien. Any person, whether as principal, agent, employee, or otherwise, who maintains any premises in violation of any provision of this code, the municipal code, other adopted California codes, or the state housing law shall be liable for and obligated to pay to the city all costs incurred by the city in obtaining abatement or compliance which is attributable to or associated with the enforcement or abatement action, whether such action is administrative, injunctive, or legal, and for all damages suffered by the city, its agents, officers, and employees as a result of such violation or efforts to abate the violation.

If the owner of the property involved in such abatement or compliance action fails to pay for the costs of such abatement or compliance action upon demand by the city, the city council by resolution may order the cost of the abatement to be specially assessed against the parcel. Such assessment shall be collected at the same time and in the same manner as ordinary property taxes are collected and shall be subject to the same penalties and the

same procedure and sale in case of the delinquency as are provided for ordinary property taxes.

R113.4.2 Recording noncompliance with county recorder. Whenever the building official determines that work has been done without the required permits, or has not been completed in accordance with the requirements of this building code, or other provision of the municipal code, the state housing laws, or any other code adopted herein, the building official may cause a notice of noncompliance to be recorded with the county recorder and shall notify the owner of the property of such action. The notice of noncompliance shall describe the property, shall set forth the noncomplying conditions, and shall state that the owner of such property has been duly notified. The building official shall record a notice of release of the notice of noncompliance with the county recorder when it has been determined by the building official that the noncomplying conditions have been corrected.

L. Amend Section R114.2 to read as follows:

R114.2 Failure to comply. Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be subject to the penalties and code enforcement procedures set forth in Title 1, Chapter 3, of the Solvang Municipal Code.

M. Add Section R312.1.5 to read as follows:

R312.1.5 Glazing. Where glass is used to provide a guard or as a portion of the guard system, the guard shall also comply with Section 2407 of the California Building Code. Where the glazing provided does not meet the strength and attachment requirements of Section 1607.8 of the California Building Code, complying guards shall also be located along glazed sides of open-sided walking surfaces.

N. Amend Section R313.2 to read as follows

R313.2 One- and two-family dwellings automatic fire systems. An automatic residential fire sprinkler system shall be installed in one- and two- family dwellings.

> **Exception:** Where additions or alterations to an existing dwelling increase the existing floor area, an automatic fire sprinkler system shall be provided as required by Section 903.7 of the California Fire Code as adopted by the County of Santa Barbara.

O. Amend Section R326.1 to read as follows:

R326.1 General. The design and construction of pools and spas shall comply with the California Building Code.

P. Add Section R904.5 to read as follows:

R904.5 Wood shake and shingle roof covering limitations. Wood shake or shingle roof coverings shall not be installed on any building. A roof covering shall not be applied over existing wood shakes or shingles.

Exceptions:

1. A wood shake or wood shingle system listed as a Class A-rated roof covering.
2. Roof covering for an addition to, or the reroofing of, an existing building where the new roof covering area is less than 750 square feet of the existing roof area may be an approved Class B pressure treated wood shingle system.

10-1-6: AMENDMENTS; CALIFORNIA EXISTING BUILDING CODE

The California Existing Building Code adopted in Section 10-1-1 is modified, amended and/or supplemented as follows:

A. Delete Appendix Chapters A3 and A4.

B. Amend Section 101.1 to read as follows:

101.1 Title. These regulations shall be known as the California Existing Building Code, hereinafter referred to as "this code."

C. Amend 103.1 to read as follows:

103.1 Creation of enforcement agency. The Building Division is hereby created within the Planning and Community Development Department and the official in charge thereof shall be known as the building official.

D. Add Section 104.3.1 to read as follows:

104.3.1 Citations. The building official, or duly authorized agent, is granted the authority as provided in Section 836.5(a) of the California Penal Code to issue citations for violations of this chapter.

E. Amend Section 105.3.2 to read as follows:

105.3.2 Time limitation of application. An application for a permit for any proposed work shall be deemed to have been abandoned 365 days after the date of filing, unless a permit has been issued. In order to renew action on an application after expiration, the applicant shall resubmit plans and pay a new plan review fee.

F. Add Section 108.2.1 to read as follows:

108.2.1 Plan review fees. When submittal documents are required by Section 106.1, a plan review fee shall be paid at the time of submitting the submittal documents for plan

review. Said plan review fee shall be in accordance with the schedule as established by the applicable governing body.

Separate plan review fees shall apply to permits for retaining walls and major drainage structures in conjunction with grading. For excavation and fill on the same site, the plan review fee for grading shall be based on the volume of excavation or fill, whichever is greater.

The plan review fees specified in this section are separate fees from the permit fees specified in Section 108.2 and are in addition to the permit fees.

Where submittal documents are incomplete or changed so as to require additional plan review, or where the project involves deferred submittal items as defined in Section 106.3.4, an additional plan review fee may be charged at a rate established by the applicable governing authority.

G. Amend Section 108.4 to read as follows:

108.4 Work commencing before permit issuance.

108.4.1 Investigation. Whenever any work for which a permit is required by this code has been commenced without first obtaining said permit, a special investigation shall be made before a permit may be issued for such work.

108.4.2 Fee. An investigation fee, in addition to the permit fee, shall be collected whether or not a permit is then or subsequently issued. The investigation fee shall be equal to the amount of the permit fee required by this code. The payment of such investigation fee shall not exempt any person from compliance with all other provisions of this code nor from any penalty prescribed by law.

H. Delete the exception to Section 109.3.5.

I. Amend Section 112.1 to read as follows and delete Sections 112.2 and 112.3:

112.1 General. In order to hear and decide appeals of orders, decisions or determinations made by the code official relative to the application and interpretation of this code, the provisions of Section 113 of the California Building Code, as amended, shall apply.

J. Amend Section 113.1 to read as follows:

113.1 Unlawful acts. It shall be unlawful for any person, firm or corporation to erect, construct, alter, extend, repair, move, remove, demolish or occupy any building, structure or equipment regulated by this code, or cause same to be done, in conflict with or in violation of any of the provisions of this code. It shall be unlawful for any person, firm or corporation to use for habitation, storage or any structural purpose, any discarded, salvaged, abandoned or replaced travel trailer, trucking trailer, cargo container, streetcar,

bus body, rail car or other vehicle body. It shall be unlawful for any person, firm or corporation to use a travel trailer or recreational vehicle for residential purposes, except in an approved campground or recreational vehicle park.

K. Amend Section 113.4 to read as follows:

113.4 Violation penalties. Any person who violates a provision of this code or fails to comply with any of the requirements thereof or who erects, constructs, alters, or repairs a building or structure in violation of the approved construction documents or directive of the building official, or of a permit or certificate issued under the provisions of this code and from which no appeal has been taken, or who shall fail to comply with such an order as affirmed or modified by the board of appeals within the time fixed herein, shall be guilty of a misdemeanor, and is subject to the penalty as provided for in Title 1, Chapter 3 of the City of Solvang Municipal Code. The imposition of one penalty for any violation shall not excuse the violation or permit it to continue. All such persons shall be required to correct or remedy such violations or defects within a reasonable time and, when not otherwise specified, each day that prohibited conditions are maintained shall constitute a separate offense. The application of the above penalty shall not be held to prevent the enforced removal of prohibited conditions.

L. Amend Section 114.3 to read as follows:

114.3 Failure to comply. Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be subject to the penalties and code enforcement procedures set forth in Title 1, Chapter 3, of the Solvang Municipal Code.

M. Amend Section 115.1 to read as follows:

115.1 Conditions. Structures or existing equipment that are or hereafter become unsafe, unsanitary or deficient because of inadequate means of egress facilities, inadequate light and ventilation, or which constitute a fire hazard, or are otherwise dangerous to human life or public welfare, or that involve illegal or improper occupancy or inadequate maintenance, shall be deemed an unsafe condition. Unsafe structures shall be taken down and removed or made safe, as the building official deems necessary and as provided for in this section and the 2015 edition of the International Property Maintenance Code, as adopted. A vacant structure that is not secured against entry shall be deemed unsafe.

10-1-7: AMENDMENTS; CALIFORNIA ELECTRICAL CODE

The California Electrical Code adopted in Section 10-1-1 is modified, amended and/or supplemented as follows:

A. Annexes are informative only and not adopted.

B. Administration of the electrical code shall be as set forth in Division II of Chapter 1 of the California Building Code.

C. Amend Section 230.70(A) (1) to read as follows:

(1) Readily Accessible Location. The service disconnecting means shall be installed at a readily accessible location either outside the building or other structure, or inside nearest the point of entrance of the service conductors. The disconnecting means shall be accessible to emergency personnel, either directly or by a remote actuating device, without requiring transit of the building interior. Dedicated electrical equipment rooms located at the building perimeter and providing direct access to the outside shall satisfy accessibility for emergency personnel.

10-1-8: AMENDMENTS; CALIFORNIA MECHANICAL CODE

The California Mechanical Code adopted in Section 10-1-1 is modified, amended and/or supplemented as follows:

A. Delete Division II of Chapter 1, Table 104.5, and Appendices A, B, C, D, E, F, and G.

B. Administration of the mechanical code shall be as set forth in Division II of Chapter 1 of the California Building Code.

10-1-9: AMENDMENTS; CALIFORNIA PLUMBING CODE

The California Plumbing Code adopted in Section 10-1-1 is modified, amended and/or supplemented as follows:

A. Delete Division II of Chapter 1 and Appendices C, E, F, G, K and L.

B. Administration of the plumbing code shall be as set forth in Division II of Chapter 1 of the California Building Code.

C. Add Section 406.5 to read as follows:

406.5 Commercial Car Washes. Commercial car wash facilities shall have water-recycling systems approved by the Authority Having Jurisdiction.

10-1-10: AMENDMENTS; INTERNATIONAL PROPERTY MAINTENANCE CODE

The International Property Maintenance Code adopted in Section 10-1-1 is modified, amended and/or supplemented as follows:

A. Amend Section 101.1 to read as follows:

101.1 Title. These regulations shall be known as the Property Maintenance Code of Solvang, hereinafter referred to as "this code".

B. Amend Section 102.3 to read as follows:

102.3 Application of other codes. Repairs, additions or alterations to a structure, or changes of occupancy, shall be done in accordance with the procedures and provisions of the California Building Standards Code and other applicable laws and ordinances.

C. Amend Section 103.1 to read as follows:

103.1 General. The office of property maintenance inspection within the Building Division is hereby created and the executive official in charge thereof shall be known as the building official. For the purposes of this code, building official shall mean code official.

D. Amend Section 103.5 to read as follows:

103.5 Fees. The fees for activities and services performed by the code official under this code shall be in accordance with the schedule as established by the applicable governing authority.

E. Add Section 104.5.1 to read as follows:

104.5.1 Citations. The code official, or duly authorized agent, is granted the authority as provided in Section 836.5(a) of the California Penal Code to issue citations for violations of this chapter.

F. Add Sections 106.4.1 and 106.4.2 to read as follows:

106.4.1 Costs of abatement; tax lien. Any person, whether as principal, agent, employee, or otherwise, who maintains any premises in violation of any provision of this code, the municipal code, other adopted California codes, or the state housing law shall be liable for and obligated to pay to the city all costs incurred by the city in obtaining abatement or compliance which is attributable to or associated with the enforcement or abatement action, whether such action is administrative, injunctive, or legal, and for all damages suffered by the city, its agents, officers, and employees as a result of such violation or efforts to abate the violation.

If the owner of the property involved in such abatement or compliance action fails to pay for the costs of such abatement or compliance action upon demand by the city, the city council by resolution may order the cost of the abatement to be specially assessed against the parcel. Such assessment shall be collected at the same time and in the same manner as ordinary property taxes are collected and shall be subject to the same penalties and the same procedure and sale in case of the delinquency as are provided for ordinary property taxes.

106.4.2 Recording noncompliance with county recorder. Whenever the code official determines that work has been done without the required permits, or has not been completed in accordance with the requirements of this building code, or other provision of the municipal code, the state housing laws, or any other code adopted herein, the code official may cause a notice of noncompliance to be recorded with the county recorder and shall notify the owner of the property of such action. The notice of noncompliance shall describe the property, shall set forth the noncomplying conditions, and shall state that the owner of such property has been duly notified. The code official shall record a notice of release of the notice of noncompliance with the county recorder when it has been determined by the code official that the noncomplying conditions have been corrected.

G. Amend Section 111.2 to read as follows, and delete Sections 111.2.1 through 111.2.5.

111.2 Membership of board. The board of appeals shall be the board of appeals established in Section 113 of the California Building Code as amended in Section 10-1-3 of the Solvang Municipal Code.

H. Amend Section 112.4 to read as follows:

112.4 Failure to comply. Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be subject to the penalties and code enforcement procedures set forth in Title 1, Chapter 3, of the Solvang Municipal Code.

Chapter 2 FIRE PREVENTION AND PROTECTION

10-2-1: ADOPTION OF FIRE CODE:

The current California Fire Code as adopted and amended by the Santa Barbara County Board of Supervisors in Chapter 15 of the Santa Barbara County Code is hereby ratified and adopted by reference as the fire code of the City.

10-2-2: FIRE CODE OFFICIAL DESIGNATED:

The fire code official for the Santa Barbara County Fire Protection District is hereby designated as the fire code official for the City of Solvang.

10-2-3: REFERENCED CODES AND STANDARDS:

Where other codes and standards are referred to in the code adopted in Section 10-2-1, the following shall apply:

A. International Building Code shall mean California Building Code or the California Residential Code, as applicable.

B. International Plumbing Code shall mean California Plumbing Code.

C. International Fuel Gas Code shall mean California Plumbing Code.

D. International Mechanical Code shall mean California Mechanical Code.

E. NFPA 70 and National Electrical Code shall mean California Electrical Code.

F. International Residential Code for One- and Two-family Dwellings shall mean the California Residential Code.

G. International Fire Code shall mean California Fire Code.

H. International Existing Building Code shall mean California Existing Building Code.

Chapter 4 SPECIAL PERMIT PROCESSING

10-4-1 RESIDENTIAL SMALL ROOFTOP SOLAR SYSTEMS

A. **Definitions.** As used in Section 10-4-1, the following terms shall have the following meanings:

Electronic submittal. The utilization of one or more of the following:

1. Email;
2. Internet;
3. Facsimile.

Small residential roof top solar energy system. A solar energy system which meets all of the following:

1. A solar energy system that is no larger than 10 kilowatts alternating current nameplate rating or 30 kilowatts thermal.
2. A solar energy system that conforms to all applicable fire, structural, electrical, and other building codes as adopted or amended by the City and all applicable safety and performance standards established by the Institute of Electrical and Electronics Engineers and accredited testing laboratories.
3. A solar energy system that is installed on a one- or two-family dwelling.
4. A solar panel or module array that does not exceed the maximum legal building height as defined by the City.

Solar energy system. Any solar collector, other solar energy device or any structural design feature of a building the primary purpose of which is to provide for the collection, storage and distribution of solar energy for electric generation, space heating, space cooling, or water heating.

Specific adverse impact. A significant, quantifiable, direct, and unavoidable impact, based on objective, identified, and written public health or safety standards, policies, or conditions as they existed on the date the application was deemed complete.

B. **Checklists and Standard Plans**

1. The building official shall establish an administrative, nondiscretionary expedited permit application review process for small residential rooftop solar energy systems, including standard plans and checklists. The checklists shall set forth all requirements with which the small residential rooftop solar energy system must comply in order to be eligible for expedited review.

2. The small residential rooftop solar system permit process, standard plans, and checklists shall substantially conform to the recommendations for expedited permitting, including the checklists and standard plans, contained in the most current version of the California Solar Permitting Guidebook adopted by the Governor's Office of Planning and Research. The building official may modify the checklists and standard plans found in the California Solar Permitting Guidebook due to unique climactic, geological, seismological, or topographical conditions.

3. The checklists and standard plans for small residential rooftop solar energy systems, as well as all other required permitting documentation, shall be available on the City of Solvang website. Unique climactic, geological, seismological or topographical conditions requiring modifications of the checklists and standard plans found in the California Solar Permitting Guidebook shall be included on the website.

C. **Permit Application Review**

1. An applicant may submit the permit application and related documentation for a small residential rooftop solar energy system by electronic submittal, including all required permit processing and inspection fees, as specified on the City of Solvang website. Electronic signatures shall be accepted on all electronic submittals in lieu of a wet signature.

2. A permit application for a small residential roof top solar energy system shall be deemed complete when the building official determines that the application satisfies all the information requirements in the checklists and standard plans.

3. If a permit application for a small roof top solar energy system is deemed incomplete, a written correction notice detailing all deficiencies in the application and any additional information or documentation required to be eligible for expedited permit issuance shall be sent to the applicant for resubmission.

4. A permit application for a small residential rooftop solar energy system shall be administratively reviewed and approved by the building official as a nondiscretionary permit within in a reasonable time following receipt of a complete application that

satisfies the requirements of the approved checklists and standard plans, and includes payment of all required permit processing and inspection fees.

5. The building official may require the applicant to apply for use permit pursuant to other City Municipal Code provisions if the building official, based on substantial evidence, determines that the proposed small residential rooftop solar energy system could have a specific, adverse impact upon the public health and safety.

6. Approval of a permit application for a small residential rooftop solar energy system shall not be based or conditioned on the approval of an association, as defined in section 4080 of the Civil Code.

7. Approval does not authorize an applicant to connect the small residential rooftop energy system to the local utility's electricity grid. The applicant is responsible for obtaining such approval or permission from the local utility.

D. **Inspection**

1. Only one inspection shall be required and performed by the building official for small residential rooftop solar energy systems eligible for expedited review. A separate fire inspection may be performed if an agreement with the local fire code official does not exist to perform safety inspections on behalf of the fire code official.

2. The inspection shall be done in a timely manner.

3. If a small residential rooftop solar energy system fails inspection, a subsequent inspection is authorized but need not conform to the requirements of this section.

10-4-2 ELECTRIC VEHICLE CHARGING STATIONS

A. **Definitions.** As used in Section 10-4-2, the following terms shall have the following meanings:

Electric vehicle charging station or charging station. Any level of electric vehicle supply equipment station that is designed and built in compliance with Article 625 of the California Electrical Code and delivers electricity from a source outside an electric vehicle into a plug-in electric vehicle.

Electronic submittal. The utilization of one or more of the following:

1. Email;
2. Internet;
3. Facsimile.

Specific, adverse impact. A significant, quantifiable, direct, and unavoidable impact, based on objective, identified, and written public health or safety standards, policies, or conditions as they existed on the date the application was deemed complete.

B. **Electric Vehicle Charging Station Requirements**

1. All electric vehicle charging stations shall meet applicable health and safety standards and requirements imposed by the state and the city.

2. Electric vehicle charging stations shall meet all applicable safety and performance standards established by the California Electrical Code, the Society of Automotive Engineers, the National Electrical Manufacturers Association, accredited testing laboratories, and, where applicable, the Public Utilities Commission regarding safety and reliability.

C. **Checklists and Standard Plans**

1. The building official shall establish an administrative, nondiscretionary expedited permit application review process for electric vehicle charging stations, including standard plans and checklists. The checklists shall set forth all requirements with which the electric vehicle charging station must comply in order to be eligible for expedited review.

2. The electric vehicle charging station permit process, standard plans, and checklists shall substantially conform to the recommendations for expedited permitting, including the checklists and standard plans, contained in the most current version of "Plug-In Electric Vehicle Infrastructure Permitting Checklist" of the "Zero-Emission Vehicles in California: Community Readiness Guidebook" published by the Governor's Office of Planning and Research. The building official may modify the checklists and standard plans found in the Guidebook due to unique climactic, geological, seismological, or topographical conditions.

3. The checklists and standard plans for electric vehicle charging stations, as well as all other required permitting documentation, shall be available on the City of Solvang website. Unique climactic, geological, seismological or topographical conditions requiring modifications of the checklists and standard plans found in the "Plug-In Electric Vehicle Infrastructure Permitting Checklist" of the "Zero-Emission Vehicles in California: Community Readiness Guidebook" shall be included on the website.

D. **Permit Application Review**

1. An applicant may submit the permit application and related documentation for an electric vehicle charging station by electronic submittal, including all required permit processing and inspection fees, as specified on the City of Solvang website. Electronic signatures shall be accepted on all electronic submittals in lieu of a wet signature.

2. A permit application for an electric vehicle charging station shall be deemed complete when the building official determines that the application satisfies all the information requirements in the checklists and standard plans.

3. If a permit application for an electric vehicle charging station is deemed incomplete, a written correction notice detailing all deficiencies in the application and any additional information or documentation required to be eligible for expedited permit issuance shall be sent to the applicant for resubmission.

4. An application for an electric vehicle charging station shall be administratively reviewed and approved by the building official as a nondiscretionary permit within in a reasonable time following receipt of a complete application that satisfies the requirements of the approved checklists and standard plans, and includes payment of all required permit processing and inspection fees.

5. The building official may require the applicant to apply for a use permit pursuant to other City Municipal Code provisions if the building official, based on substantial evidence, determines that the proposed electric vehicle charging station could have a specific, adverse impact upon the public health and safety.

6. Approval of a permit application for an electric vehicle charging station shall not be based or conditioned on the approval of an association, as defined in Section 4080 of the Civil Code.

Section 4. Validity:

If any provision of this Ordinance is for any reason held to be invalid by a court of competent jurisdiction, the City Council hereby declares that it would have passed each and every remaining provision irrespective of such holding in order to accomplish the intent of this ordinance.

Section Three. Effective Date:

This ordinance shall be in full force and shall take effect thirty (30) days after its passage, but not before January 1, 2017.

Section 4. Publication:

Solvang is a Charter City and has adopted its own rules for summarizing and posting ordinances once they are adopted. A summary of this ordinance will be prepared by the City Attorney. The summary will be posted in three locations after adoption as directed in the Solvang Municipal Code. A true and correct copy of the full ordinance together with a record of the vote of each council member shall be kept by the City Clerk.

Section 5. Exemptions From CEQA:

The City Council finds, pursuant to Title 14 of the California Code of Regulations, section 15061 (b)(3), that this ordinance is exempt from the requirements of the California Environmental Quality Act (CEQA) in that it is not a project, which has the potential for causing a significant effect on the environment.

PASSED, APPROVED, AND ADOPTED by the City Council of the City of Solvang on this 28th day of November, 2016:

BY: _____
Jim Richardson, Mayor

ATTEST:

_____
Lisa S. Martin, City Clerk

STATE OF CALIFORNIA)
COUNTY OF SANTA BARBARA)
CITY OF SOLVANG)

I, Lisa S. Martin, City Clerk of the City of Solvang, do herby certify that the foregoing Ordinance had its first reading on November 14, 2016 and was adopted on second reading on November 28, 2016 by the following vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

BY: _____
Lisa S. Martin, City Clerk

Planning/Community Development Department

411 Second Street, Solvang, CA 93463
(805) 688-4414, Fax (805) 693-1070

NOTICE OF EXEMPTION

To: County Clerk
County of Santa Barbara
105 East Anapamu Street
Santa Barbara, CA 93101

Project Title: Amendments to Titles 10 and 11 of the Solvang Municipal Code.

Project Description: Review of proposed Ordinance Amendment to adopt the latest editions of the constituent codes of the California Building Standards Code.

Specific Location: Citywide

Name of Public Agency Approving Project: City of Solvang

Name of Person or Agency Carrying Out Project: Arleen T. Pelster, Planning & Economic Development Dir.

Exempt Status: (*check one*)
☐ Ministerial [Sec. 21080(b)(1); 15268];
☐ Declared Emergency [Sec. 21080(b)(3); 15269(a)];
☐ Emergency Project [Sec. 21080(b)(4); 15269(b)(c)];
☐ Categorical Exemption. State type and section number:
☐ Statutory Exemptions. State code number:
☐ No Possibility of Significant Effect [Sec. 15061(b)(3)]

Cite specific CEQA Guideline Section: §15061. This section states that CEQA only applies to "projects, which have the potential for causing a significant effect on the environment. Where it can be seen with certainty that there is no possibility that the activity may have a significant effect on the environment, the activity is not subject to CEQA".

Reasons why project is exempt:
The environmental impacts of the proposed amendments to Titles 10 and 11 are insignificant. The proposed amendments are in the interest of the general community welfare and are consistent with the General Plan, the requirements of State Planning & Zoning Laws and the Solvang Zoning Regulations. The proposed amendments to Titles 10 and 11 are consistent with good zoning and planning practices.

Lead Agency Contact/Phone: Arleen T. Pelster / 805.688.4414

Signature: _____ Date: _____ Title: Planning Director

CITY COUNCIL
STAFF REPORT

TO: **SOLVANG CITY COUNCIL MEMBERS**

FROM: Bridget Elliott, Associate Engineer, and
Matt van der Linden, Public Works Director/City Engineer

MEETING DATE: November 28, 2016

DATE PREPARED: November 18, 2016

SUBJECT: **STORMWATER MANAGEMENT PROGRAM ANNUAL REPORT, FISCAL YEAR 2015-16 (YEAR 3)**

I. RECOMMENDATION:

Receive and file report.

II. BACKGROUND:

The Federal Clean Water Act requires the City to operate under a National Pollutant Discharge Elimination System (NPDES) municipal stormwater permit for the discharge of stormwater to surface waters (i.e., creeks, rivers, the ocean) via the City's storm drain collection system. On February 5, 2013, the Phase II Small MS4 General Permit (Order No. 2013-001 DWQ) was adopted by the Water Board. The 5-year Stormwater Permit became effective July 1, 2013, and remains in effect until the next Stormwater Permit becomes effective, which is currently projected to occur in July 1, 2018.

The Municipal Stormwater NPDES Permit (Stormwater Permit) specifies actions necessary to reduce the discharge of pollutants in stormwater to the maximum extent practicable and effectively prohibit non-stormwater discharges into the municipal storm drain system to protect local creeks and the Santa Ynez River. Given that the storm drain system leads directly to local waterways and the river without any treatment, it is critical to prevent pollutants from entering the system in the first place.

The Stormwater Permit is organized into 11 sections that include requirements to reduce the discharge of pollutants to storm drains from routine municipal operations; ensure appropriate site design and treatment measures to manage stormwater runoff quality and quantity from new and redevelopment project sites; inspect construction sites, and industrial and commercial facilities that could potentially contribute to stormwater pollution; prohibit and ensure that illicit discharges are detected, controlled and eliminated; implement control methods for pollutants of concern such as total suspended solids (TSS), nutrients, hardness and pesticides; and conduct monitoring to track water quality status and trends.

III. DISCUSSION:

The City of Solvang is required each year to use the State Water Boards Storm Water Multiple Application and Report Tracking System (SMARTS) to submit a summary of the past year activities for each program element and certify compliance with all requirements of the Permit. This constitutes the City's Stormwater Management Program Annual Report. To help keep Program cost down the Cities of Solvang and Buellton 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. Both Cities share equally in the net consultant cost associated with the preparation and submittal of the joint Annual Report. However, The City of Buellton is the lead agency on the Memorandum of Understanding (MOU) and is ultimately responsible for preparing and submitting the joint Annual Report on behalf of both parties.

The compliance schedule for the Permit is five years with interim deadlines each year to give the jurisdictions time to reach the expected level of effort. The Permit is structured this way to allow time to ramp-up the program so we can eventually meet the full set of Permit requirements. The Stormwater Permit has over 71 permit requirements. Year three of the Permit required the maintenance of 55 requirements established in year 1 and 2 and the creation of an additional 15 requirements. We now have over 98% of the permit requirements created and implemented.

Going forward the City will be responsible for the ongoing processes, procedures and activities established over the last three years. Those activities include the enforcement of the stormwater ordinance, drainage design standards, upkeep of maps and the storm drain facility inventory, as well as the implementation and annual assessment of various Best Management Practices (BMPs) used to prevent or remove pollutants (i.e. sediment, bacteria, trash and nutrients) from entering the local creeks and Santa Ynez River.

The most significant management requirement added to the existing responsibilities of the City's Program in year three was the Program Effectiveness Assessment and Improvement Plan (PEAIP). The intent of the PEAIP is to document compliance with permit conditions and to allow staff to adaptively manage the Stormwater Program. The PEAIP requires significant documentation and tracking annually and long term of all the City's Program elements. The collection of measureable data on all Program activities in

addition to local water quality monitoring activities will be used by the City to self-assess the Program's effectiveness.

IV. ALTERNATIVES:

This Annual Report documents the City of Solvang's compliance with the State Water Resources Control Board Order No. 2013-0001. Alternatives are not applicable.

V. FISCAL IMPACT:

All costs associated with preparation and submittal of the Annual Report, NPDES Permit compliance, and payment of annual Permit fee are included in the approved Fiscal Year 2016-17 Budget. The current year's Stormwater Management Program budget/costs are summarized in the table below.

SWMP Component	FY 2016-17 Budget
Professional Services - SWMP	$132,000
Street Sweeping (BMP)	$39,000
Stormwater Permit	$6,200
Stormwater Resources Plan & 303(d) Monitoring/Lab. Analysis (with SB County)	$20,000
Storm Drain Improvements	$30,000
Annual Stormwater Report	$10,000
Staff Time, Education & Miscellaneous Items	$97,342
Total:	**$334,542**

VI. ATTACHMENTS:

- Table 1: Stormwater Permit Requirements for Year 1 through 3
- Phase II Small MS4 Annual – Report 2015-2016 Certification
- Urban Storm Water Monitoring Plan 2015-2018
- Memorandum of Understanding Between the Cities of Solvang and Buellton
- Program Effectiveness Assessment and Improvement Plan (PEAIP)
- Solvang Storm Drain Outfall Map
- Quality Assurance Project Plan for Urban Storm Water Monitoring Plan 2015-2018
- Transmittal of 303(d) Monitoring Program Results, 2015-2016
- City of Buellton and City of Solvang PEAIP Annual Summary 2015-2016
- Stormwater Pollutant Load Model – Results for the City of Solvang MS4 Permit Area
- Central Coast Post-Construction Stormwater Management Requirements (PCRs) Annual Report Form & Certification

TABLE 1: STORMWATER PERMIT REQUIREMENTS FOR YEAR 1 - 3			
PERMIT SECTION AND ELEMENT		Permit Development & Implementation Year	Permit Year
E.6	**PROGRAM MANAGEMENT ELEMENT**		
E.6.a	Legal Authority (update or create ordinance)	2015	2
E.6.b	Certification	2015	2
E.6.c	Enforcement Response Plan	2016	3
E.7	**EDUCATION AND OUTREACH PROGRAM**		
E.7.a	**Public Outreach and Education**		
	Select outreach option. If regional program, develop agreements	2014	1
	(a) Develop and implement comprehensive education and outreach program	2015	2
	(b)Conduct surveys 2x during permit term	2014-18	
	(d)Disseminate education materials to target audiences and translate as appropriate	2015	2
	(e)Utilize public input in developing outreach program	2015	2
	(g)Provide water efficient/ stormwater friendly landscaping information	2015	2
	(h)Promote reporting of illicit discharges	2015	2
	(i)Provide pesticide/fertilizer application information		2
	(j)Provide materials to school children	2015	2
	(k,l,m)Develop messaging to reduce discharges from organized car washes, mobile cleaning and pressure washing	2015	2
E.7.b.	**Staff and Site Operator Training and Education**		
E.7.b.1	**Illicit Discharge Detection and Elimination Training**	2016	3
E.7.b.2	**Construction Outreach and Education**		
	(a) Annual Permittee Staff Training	2015	2
	(b) Construction Site Operator Education	2016	3
E.7.b.3	**Pollution Prevention and Good Housekeeping Staff Training**		
	Biennial employee training	2015	2
E.8	**PUBLIC INVOLVEMENT AND PARTICIPATION PROGRAM**		
	Develop program with input of the public and implement	2015	2
	(a) Develop Public Involvement strategy	2015	2
	(b) Consider Citizen Advisory Group	2015	2
	(c) Create Involvement Opportunities	2015	2
	(d) Ensure public can access info about program	2015	2
	(f) Engage in IRWMP or equivalent	2015	2
E.9	**ILLICIT DISCHARGE DETECTION AND ELIMINATION**		
E.9.a	**Outfall Mapping**		

	Create and maintain accurate outfall map including a site visit to each outfall	2015 (Summer 2014)	2
E.9.b	**Illicit Discharge Source/Facility Inventory**		
	Create inventory of all industrial/commercial facilities and update annually	2015	2
E.9.c	**Field Sampling to Detect Illicit Discharges**		
	Sample any flowing outfalls while conducting E.9.a	2015 (Summer 2014)	2
	Annually sample priority area outfalls determined in E.9.a.	Summer 2015	2
	Conduct follow up investigation within 72 hours if action levels exceeded	2015 (Summer 2014)	2
E.9.d	**Illicit Discharge Detection and Elimination Source Investigations and Corrective Actions**		
	Develop written procedures for investigations and corrective actions	2015 (Summer 2014)	2
	Once source of discharge is identified, require responsible party to correct within 72 hours of notification and verify with follow-up investigation	2015 (Summer 2014)	2
	Conduct follow up investigation within 72 hours if action levels exceeded	2015 (Summer 2014)	2
E.9.e	**Spill Response Plan**		
	Develop plan	2014	1
E.10	**CONSTRUCTION SITE STORM WATER RUNOFF CONTROL PROGRAM**		
E.10.a	**Construction Site Inventory**		
	Create inventory of all projects subject to local stormwater ordinance	2014	1
E.10.b	**Construction Plan Review and Approval Procedures**		
	Develop procedures to review and approve construction plan documents (i.e., erosion and sediment control plans)	2014	1
E.10.c	**Construction Site Inspection and Enforcement**		
	Inspect construction sites	2015	2
E.11	**POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR PERMITTEE OPERATIONS PROGRAM**		
E.11.a	**Inventory of Permittee-Owned and Operated Facilities**		
	Develop and maintain inventory of all permittee owned or operated facilities that are a potential threat to water quality	2015	2
E.11.b	**Map of Permitte-owned or Operated Facilities**		
	Develop a map of inventoried facilities	2015	2
E.11.c	**Facility Assessment**		
	Conduct comprehensive annual assessment and identify subset of facilities that could be considered hotspots	2016	3
	Document comprehensive assessment procedures and results	2016	3
E.11.d	**Stormwater Pollution Prevention Plans**		
E.11.f	**Storm Drain System Assessment and Prioritization**		

	Implement procedures to assess and prioritize maintenance of storm drain system infrastructure. Assign a priority to each facility based on accumulation of sediment, trash and/or debris	2015	2
E.11.g	**Maintenance of Storm Drain System**		
	Inspect storm drain systems based on assigned priorities. Inspect high priority catch basins annually	2016	3
	Clean high priority storm drains	2016	3
	Label catch basins	2016	3
	Maintain surface drainage structures	2016	3
	Develop procedure to dispose of waste materials removed from catch basins	2016	3
E.11.h	**Permittee Operations and Maintenance Activities (O&M)**		
	Develop program to assess O&M activities for potential to discharge pollutants and inspect all O&M BMPs quarterly	2016	3
E.11.i	**Incorporation of Water Quality and Habitat Enhancement Features in Flood Management Facilities**		
	Develop and implement process for incorporating water quality and habitat enhancement into new and rehabilitated flood management projects	2016	3
E.11.j	**Landscape Design and Maintenance**		
	Implement a landscape design and maintenance program to reduce the amount of water, pesticides and fertilizers used by Permittees	2015	2
	Evaluate use of pesticides, herbicides and fertilizers	2015	2
	Implement best practices to reduce pesticides and fertilizers	2015	2
	Proper disposal of unused chemicals	2015	2
	Evapo-based irrigation and rain sensors	2015	2
	Record amount of chemical usage	2015	2
E.12	**POST CONSTRUCTION STORMWATER MANAGEMENT PROGRAM**		
E.12.a	**Post-Construction Treatment Measures**		
	Regulate development to comply with the following sections, E.12.b through E.12.l	2015	2
E.12.b	**Site Design Measures**		
	Require implementation of site design measures on projects that create or replace 2,500-5,000 SF impervious area (including single family homes)	2015	2
E.12.c	**Regulated Projects**		
	Implement standards on projects that create or replace >5,000 SF impervious area, aka Regulated Projects	2015	2
	Road and Utility Projects creating 5,000 sf or more that are public or fall under planning authority of a city shall comply with LID except 85th % can follow EPA Guidance on green infrastructure	2015	2

E.12.d.	**Source Control Measures -** Regulated Projects shall implement source control measures	2015	2
E.12.e	**LID Standards -** all Regulated Projects shall implement LID standards to treat storm water and provide baseline Hydromodification mgmt to meet numeric sizing criteria under E.12.e(ii)c	2015	2
E.12.f	**Hydromodification Management**	2016	3
E.12.g	**Enforceable Mechanisms**		
	Develop or modify enforceable mechanisms to implement E.12.b - E.12.f	2016	3
E.12.h	**Operation and Maintenance of Post-Construction Stormwater Management Measures**		
	Implement an O&M verification program for stormwater treatment and baseline Hydromodification (defined in E.12.e.ii.f) on all regulated projects	2015	2
E.12.i	**Post-Construction BMP Condition Assessment**		
	Inventory and assess the maintenance condition of structural post-construction BMPs within permittees jurisdiction	2016	3
E.12.j	**Planning and Development Review Process**		
	Conduct review using an existing guide such as Municipal Regulatory Update Assistance Program	2016	1-3
	Conduct an analysis of the landscape code to correct gaps hindering post construction requirements	2014	1
	Complete any changes to landscape code to administer post-construction requirements	2015	2
E.12.k	**Post Construction Storm Water Management Requirements Based on Assessment and Maintenance of Watershed Processes**	TBD	
E.12.l	**Alternative Post-Construction Storm Water Management Program**		
	For multiple benefit projects a permittee may propose alternative Post Const. Requirements (address water quality, supply, flood control, habitat enhancement, open space preserve, recreation, climate change)	No date provided - permittee may propose if desired	
E.13	**WATER QUALITY MONITORING**		
E.13.a.	**ASBS Monitoring -** MS4s that discharge to ASBS and are covered by an Ocean Plan exception comply with Attachment C	2014	1
E.13.b.	**TMDL Monitoring -** MS4s w TMDLs must comply with Attachment G and consult with Regional Board within 1 year of effective date to determine monitoring requirements and schedule. And shall implement TMDL monitoring as specified by RB Executive Officer	2014	1

E.13.c.	**303(d) Monitoring -** MS4s discharging to 303(d) listed water bodies shall consult with Regional Board within 1 year of effective date to determine whether monitoring is necessary.	2014	1
E.13.d.	**Receiving Water Monitoring and Special Studies (Select either Receiving Water Monitoring or Special Studies, if not already conducting E.13.a, b or c monitoring)**		1
E.13.d.1	**Receiving Water Monitoring**	2014	1
	Select one urban/rural site and one urban area site to monitor	2014	1
	Monitor urban/rural and urban area sites	2015	2
	Complete and have available a report that includes a summary of baseline data collections and discussion of monitoring program results	2015	2
E.13.d.2	**Special Studies**		
	Develop and implement special study monitoring program and submit to Regional Board for review and approval	2014	1
	Implement approved special study plan	2015	2
	Complete and have available a report that includes a summary of baseline data collections and discussion of monitoring program results	2015	2
E.14	**PROGRAM EFFECTIVENESS ASSESSMENT**		
E.14.a	**Program Effectiveness Assessment and Improvement Plan (PEAIP)**		
	Submit PEAIP	2015	2
E.15	**TOTAL MAXIMUM DAILY LOADS COMPLIANCE REQUIREMENTS**		
E.15.a	Comply with all approved TMDLs (Attachment G)	2014	1
E.15.b	Waste load allocations are incorporated herein by reference as enforceable parts of this Order	2014	1
E.15.c	Regional Board reviews TMDLs within one year of effective date and may propose modifications to requirements	2014	1
E.15.d	Report status of implementation via SMARTS	2014	1
E.15.e	Comply with Clean Water Act Sections 303d,306b and 314	2014	1
E.16	**ANNUAL REPORTING PROGRAM**		
E.16.a	**Use SMARTS to report and certify**	2014-2018	all years
E.16.b	**Complete and retain annual reports and make available to RWQCB during working hours**	2014-2018	all years
E.16.c	**Submit detailed written or oral report to RWQCB if directed.**	2014-2018	all years
E.16.d	**May coordinate reporting if regional programs**	2014-2018	all years

The stormwater program's yearly cycle coincides with the City's fiscal year and begins July 1 of each year.

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		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. 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.		
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		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. 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.		
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		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. 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.		
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 thelocal 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 Landcape 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.l., 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 PEAIP 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 qualilfied 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 threre 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**

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	cae76ff2bfbffbf110cdd81fa0ee7a91c604e9c3212251c2ced856991c9ac4	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	3a91c3c6f6f304aea366f2d533b40ef83a5c6ee365eb27c36dd89dcaae1	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-Buellon	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 (Hyallella 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, imidiaclorprid, 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 18sampling 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-Permitees 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

FEBRUARY 2016

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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1. Introduction

The Phase II Small Municipal Separate Storm Sewer System (MS4) General Permit[1] (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 PEAIP Provisions and Corresponding PEAIP Sections (Traditional MS4s)

Phase II Permit Provision(s)	PEAIP 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 PEAIP is as follows:

- Year 2 Annual Report (October 15, 2015): Submit the PEAIP
- Year 3 and Year 4 Annual Reports (October 15, 2016 and October 15, 2017): Describe the implementation of the PEAIP, 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 PEAIP, 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 PEAIP 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 PEAIP 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 PEAIP 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 PEAIP 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 PEAIP 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 PEAIP 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 management[7] can be described by a cycle divided into three phases of activity (**Figure 1**):

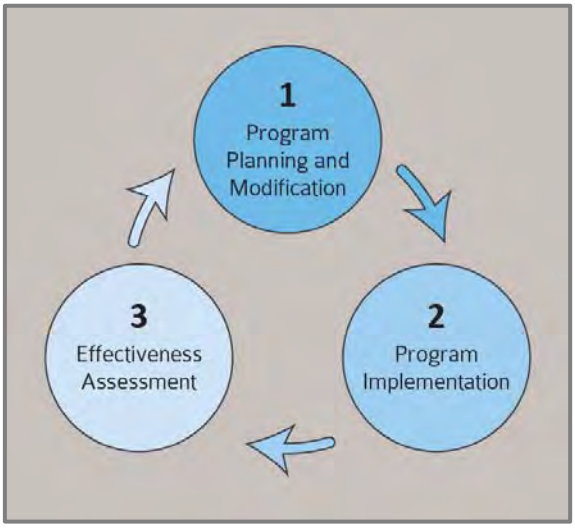

Figure 1. The Program Management Cycle (CASQA, 2015)

- 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**).

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 approach[8] 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 PEAIP 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.

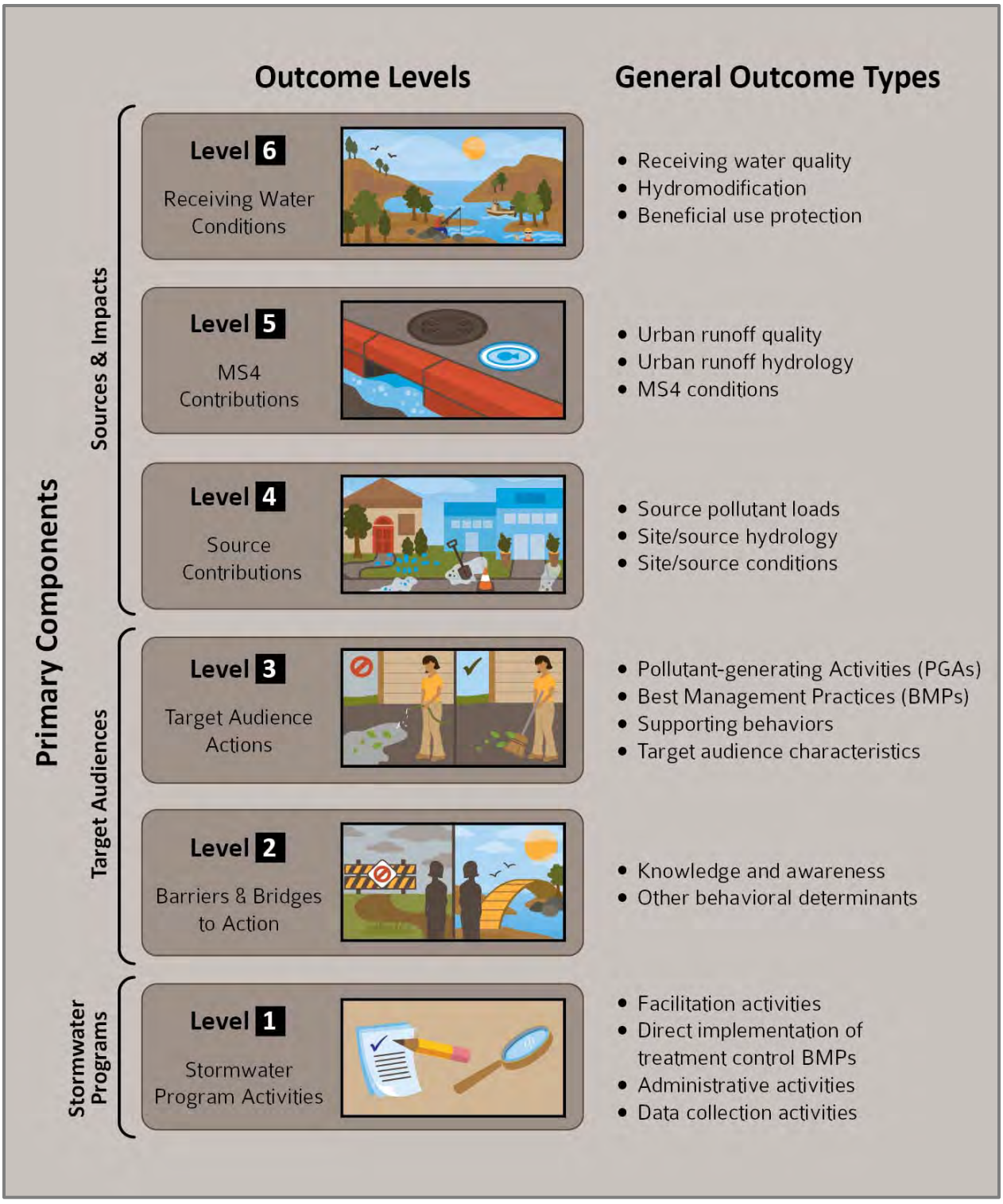

Figure 2. General Stormwater Management Model (CASQA, 2015)

2.1. IDENTIFICATION OF SOURCES AND IMPACTS[9]

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**.

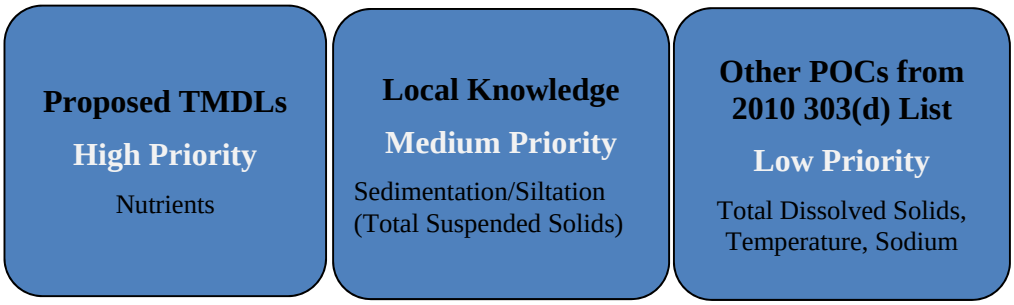

Figure 3. Prioritized POCs for the PEAIP

[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 POCs[1]

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.

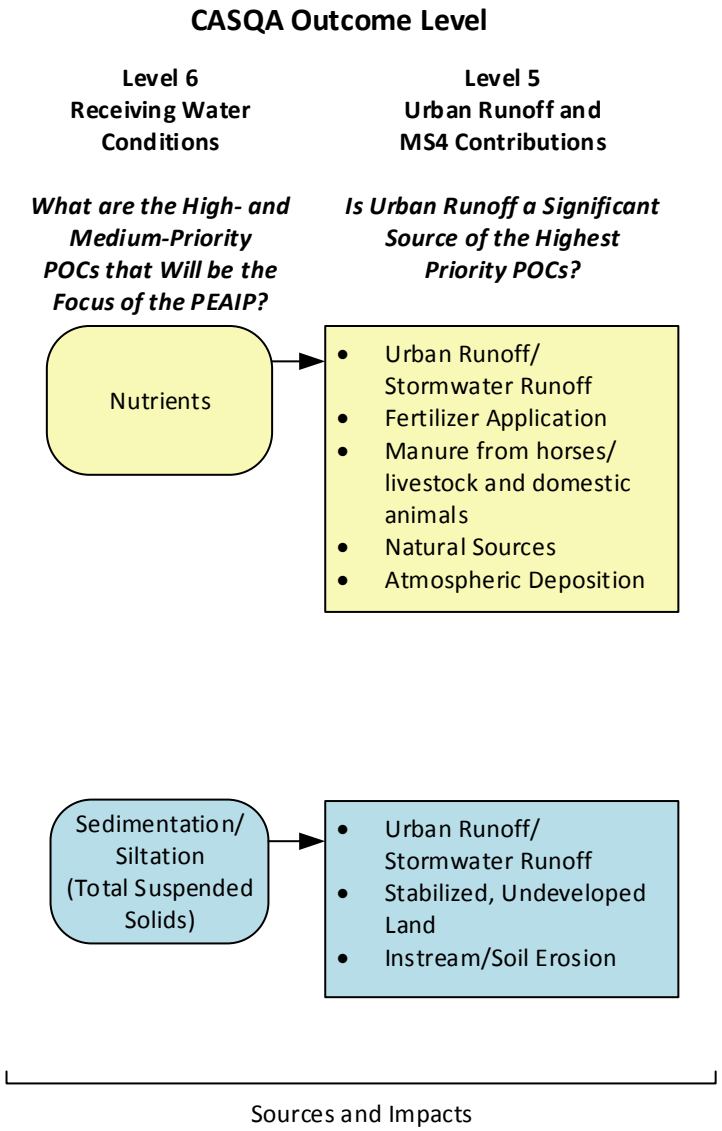

Figure 4. Sources of the High- and Medium-Priority POCs

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

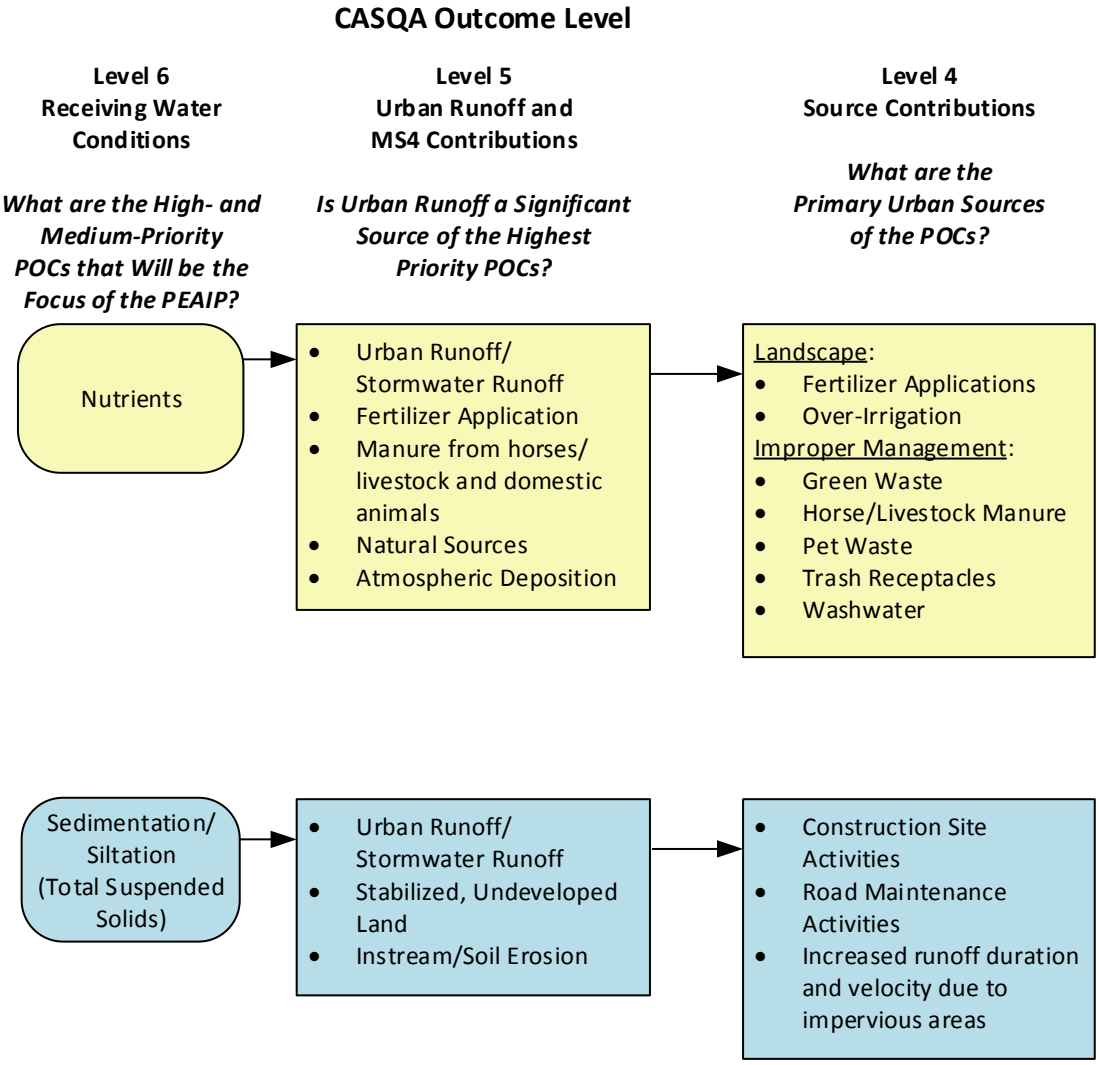

Figure 5. Primary Urban Sources of the High- and Medium-Priority POCs

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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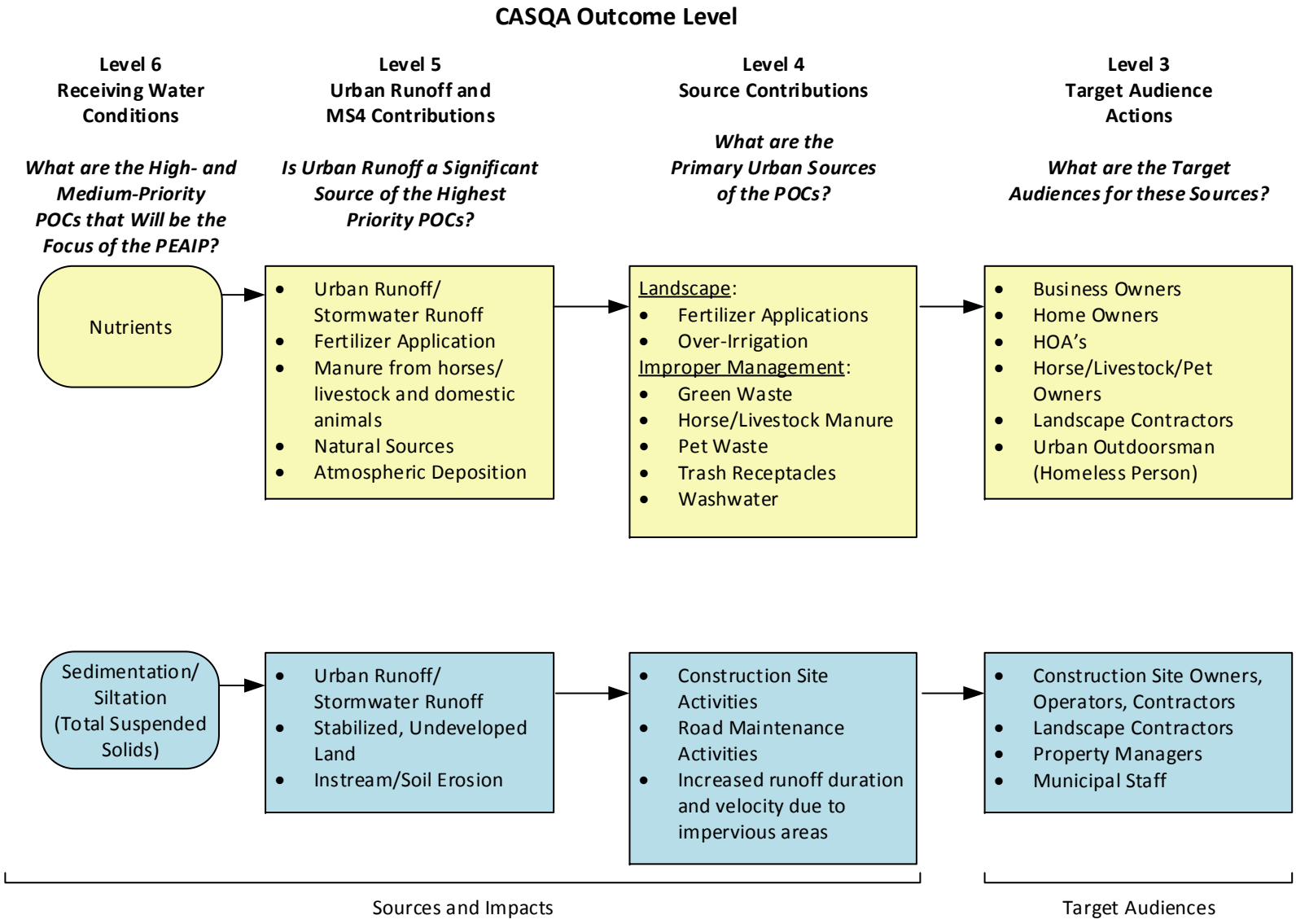

Figure 6. Target Audiences Identified for Urban Runoff Source Contributions of POCs

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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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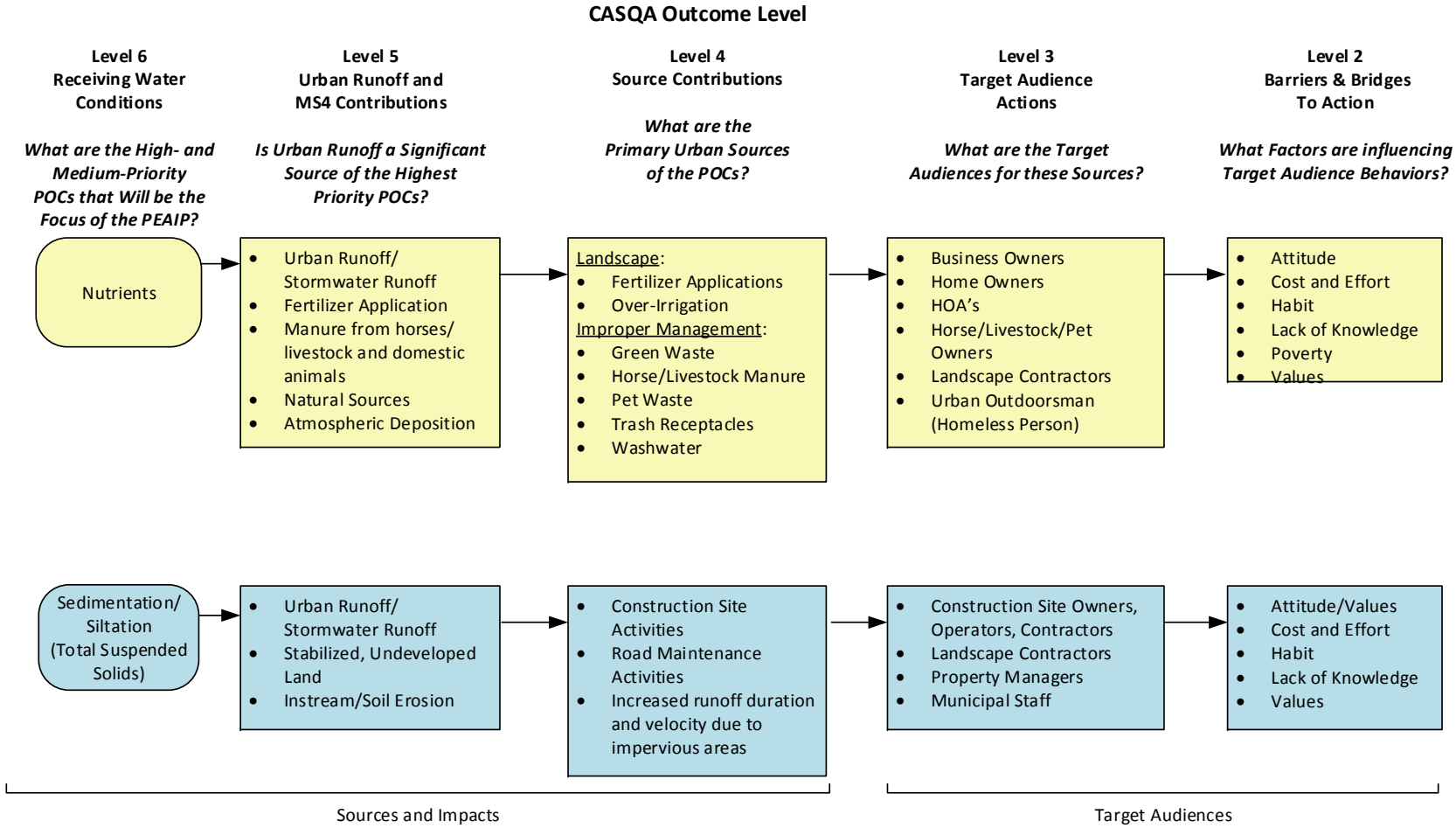

Figure 7. Assessment of Barriers and Bridges to Action

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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**).

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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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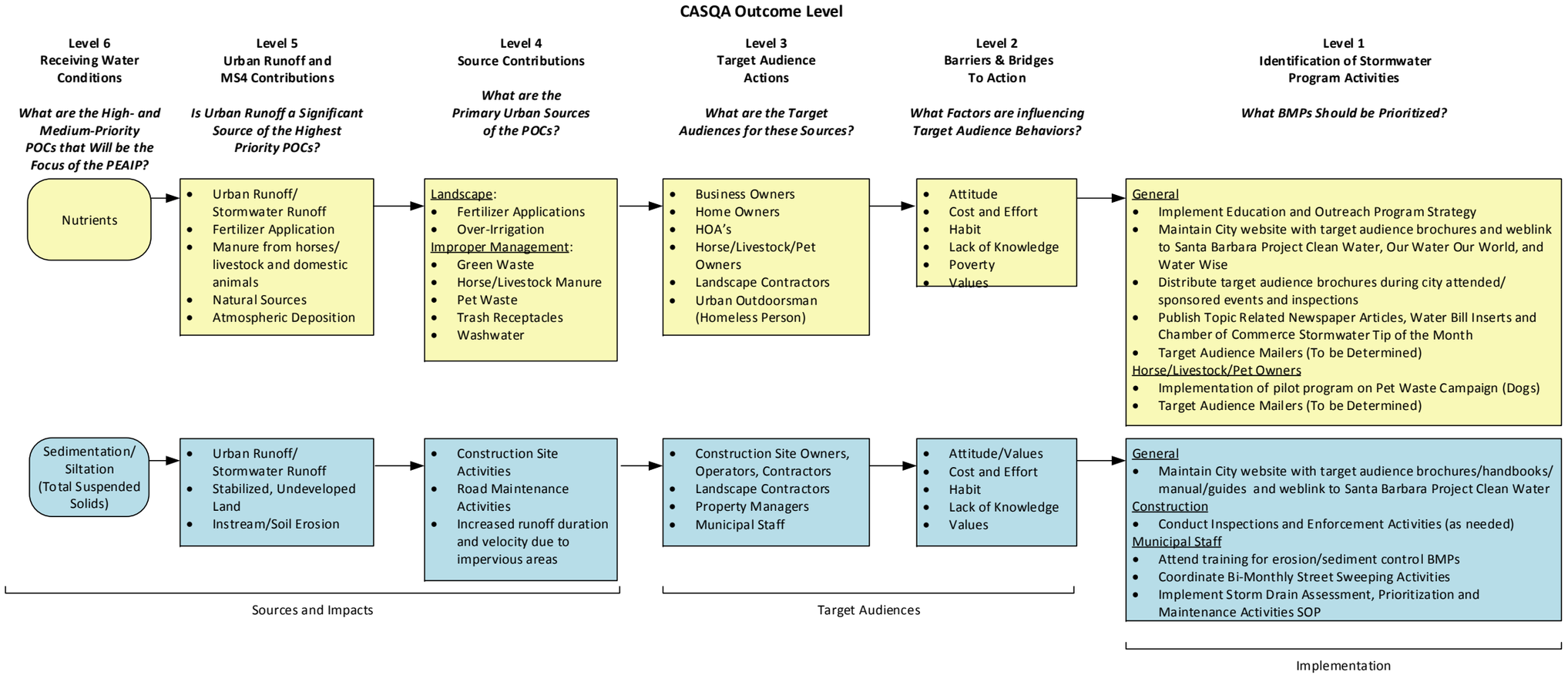

Figure 8. Prioritized BMPs Identified for Target Audiences

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3. Management Questions[17]

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 PEAIP 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 PEAIP 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 PEAIP.

[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 METHODS[22]

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 METHODS[23]

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]		
• 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?	Descriptive Statistics • 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.	Internal Tracking by Stormwater Program • 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 Review of External Data Sources • Brochure Distribution during FOG and/or IWD Program Inspection
Public Involvement and Participation [Outcome Level 2-3]		
• 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?	Qualitative Assessment • Confirmation of Stormwater Pollution Prevention Interested Parties Sign-Up List at City's sponsored event's Stormwater Display Booth Descriptive Statistics • 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	Interviews/Surveys Internal Tracking by Stormwater Program • 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 Review of External Data Sources • 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]		
• 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?	Qualitative Assessment • 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 Descriptive Statistics • 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	Internal Tracking by Stormwater Program • 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 Review of External Data Sources • FOG and/or IWD Inspection Reports and/or Violations • Local Hauler Green Waste Website/Mailers
Pollution Prevention and Good Housekeeping [Outcome Level 2-4]		
• 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?	Qualitative Assessment • Confirmation of on-going City Staff Training Descriptive Statistics • Number of FOG and/or IWD Inspection Reports	Interviews/Surveying Review of External Data Sources • FOG and/or IWD Inspection Reports • FOG and/or IWD Inspection Report Stormwater Questionnaires

Water Quality Monitoring [Outcome Level 5]		
• Is the urban discharge a significant source of nutrients to receiving water?	• Comparing modeled data to established targets • Use local data acquired through regional 303(d) monitoring program	• 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]		
• 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 • 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 • 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]		
• Does City implement field investigation program for complaints and discoveries of illicit discharges? • Does City have legal authority to address non-storm water discharges?	Qualitative Assessment • 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 Descriptive Statistics • Number of IDDE Investigations and/or Inspections and follow-up at facilities with deficiencies	Internal tracking by stormwater program • 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]		
• 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?	Descriptive Statistics • 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)	Internal tracking by stormwater program • 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]		
• 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 • Number of projects reviewed in compliance with PCRs and LID measures	Internal tracking by stormwater program • PCR and LID Projects
Pollution Prevention and Good Housekeeping [Outcome Level 2-3]		
• Are City facilities managed to reduce erosion and promote sediment retention?	Descriptive Statistics • Number of Pollution Prevention BMPs implemented at City owned and/or operated facilities	Internal tracking by stormwater program • Pollution Prevention and Good Housekeeping BMPs implemented at City owned and/or operated facilities
Water Quality Monitoring [Outcome Level 5]		
• Is the urban discharge a significant source of sediments to receiving water?	• Compare modeled data to established targets • Use local data acquired through regional 303(d) monitoring program	• Monitoring and sampling results • Pollutant load model results

5. Program Reporting and Modifications[25]

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**.

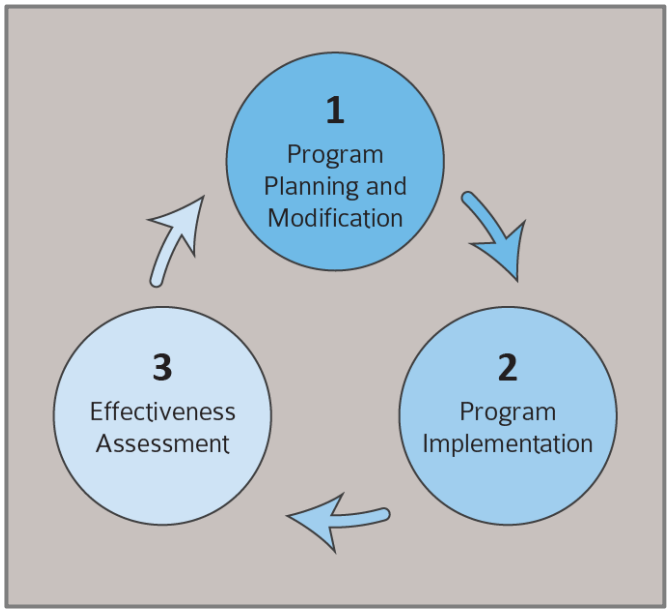

Figure 9. The Program Management Cycle (CASQA, 2015)

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 PEAIP 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

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Appendix A: Glossary of Terms[26]

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

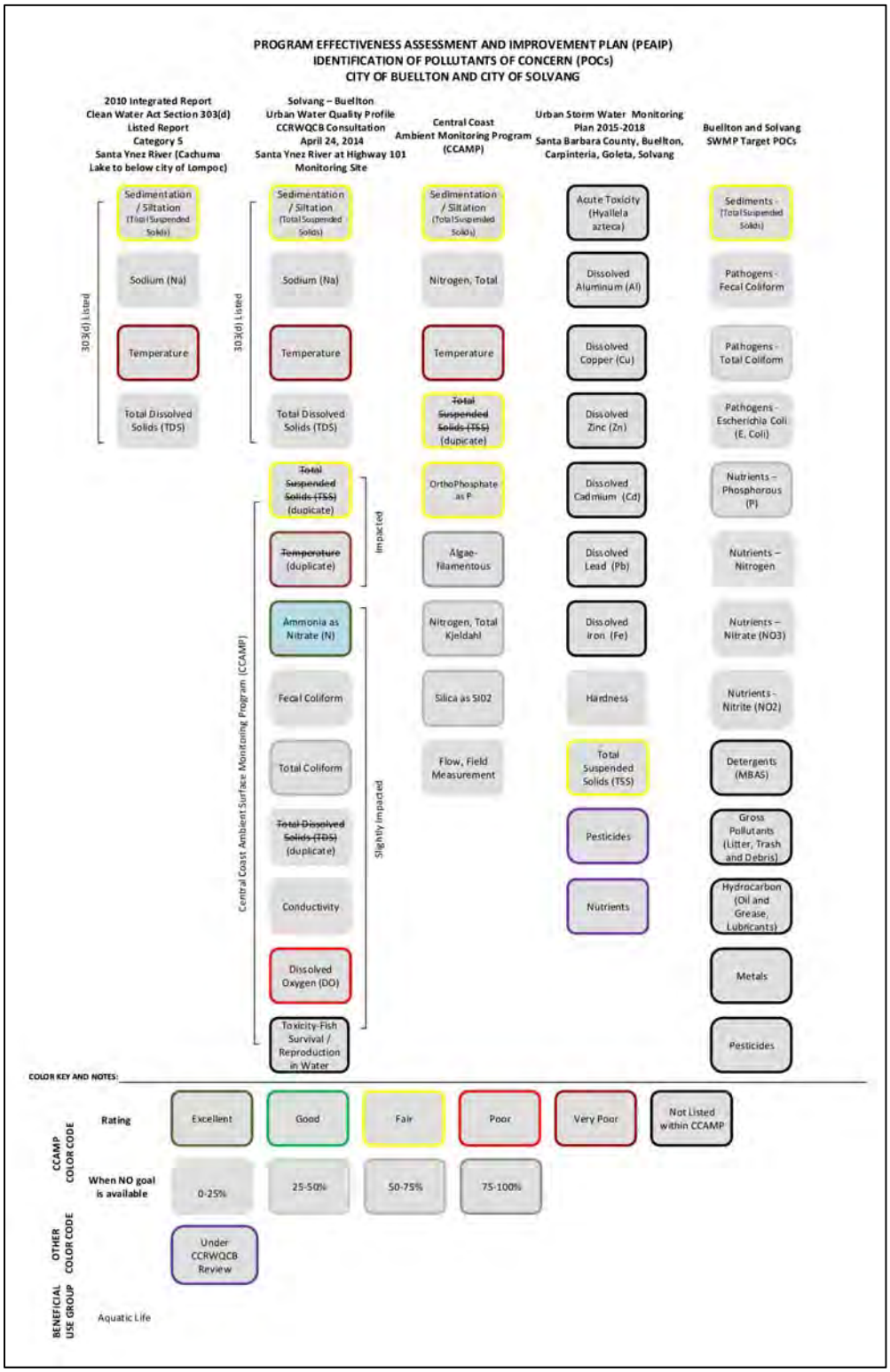
Receiving Water Conditions: Receiving Water Conditions can include any chemical, biological, or physical parameter that can be measured or assessed in receiving waters (i.e., chemical concentrations, dissolved oxygen levels, biological integrity, species diversity, eutrophication, microbiological or 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: PEAIP 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
303(d) Listed
Sedimentation / Siltation (Total Suspended Solids)
Sodium (Na)
Temperature
Total Dissolved Solids (TDS)
~~Total Suspended Solids (TSS)~~ (duplicate)
~~Temperature~~ (duplicate)
Impacted
Ammonia as Nitrate (N)
Fecal Coliform
Total Coliform
~~Total Dissolved Solids (TDS)~~ (duplicate)
Conductivity
Dissolved Oxygen (DO)
Toxicity-Fish Survival / Reproduction in Water
Slightly Impacted
Nitrogen, Total
OrthoPhosphate as P
Algae-filamentous
Nitrogen, Total Kjeldahl
Silica as SI02
Flow, Field Measurement
Acute Toxicity (Hyallela azteca)
Dissolved Aluminum (Al)
Dissolved Copper (Cu)
Dissolved Zinc (Zn)
Dissolved Cadmium (Cd)
Dissolved Lead (Pb)
Dissolved iron (Fe)
Hardness
Total Suspended Solids (TSS)
Pesticides
Nutrients
Sediments - (Total Suspended Solids)
Pathogens - Fecal Coliform
Pathogens - Total Coliform
Pathogens - Escherichia Coli (E. Coli)
Nutrients – Phosphorous (P)
Nutrients – Nitrogen
Nutrients – Nitrate (NO3)
Nutrients - Nitrite (NO2)
Detergents (MBAS)
Gross Pollutants (Litter, Trash and Debris)
Hydrocarbon (Oil and Grease, Lubricants)
Metals
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

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
  - I
  - M-I
  - MHP
  - P-1
  - P-O
  - REC
  - RES
  - TRC
- Outfall
- Structures
  - CATCH BASIN AND MANHOL
  - CATCH BASIN, INLET, DRAIN
  - HEADWALL, ENDWALL
  - JUNCTION STRUCTURE
  - RIP RAP
  - STORM DRAIN MANHOLE
  - STORM DRAIN CLEANOUT
- Storm Drain Pipe
- Channels & Waterways
  - DITCH; WATERWAY; V DITC
  - CULVERT
  - SWALE
- Basin Structures
  - RETENTION BASIN
  - DETENTION BASIN
- Drainage Sub-Basin
- Drainage Basin
  - AC
  - AD
  - ALC

N

Feet

0 1,167

State Plane California Zone V NAD 83
Santa Barbara County, California

Outfall Map

Compiled on 08/12/2016

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	***Signed John Karamitsos***	
Project QA Officer	Cathleen Garnand	Civil Engineering Associate	***Signed Cathleen Garnand***	
Field Technician	Bree Belyea	Engineering Technician Specialist	***Signed Bree Belyea***	

Permittee Organization – Other MS4s

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

Contract Laboratories

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

Central Coast Regional Water Quality Control Board

Project Title	Name	Position	Signature	Date
Permit Manager	Dominic Roques	Municipal Coordinator	***Signed Dominic Roques***	

QA Officer	Karen Worcester	Senior Environmental Scientist	***Signed Karen Worcester***	

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.

A2.Table of Contents

List of Figures

List of Tables

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

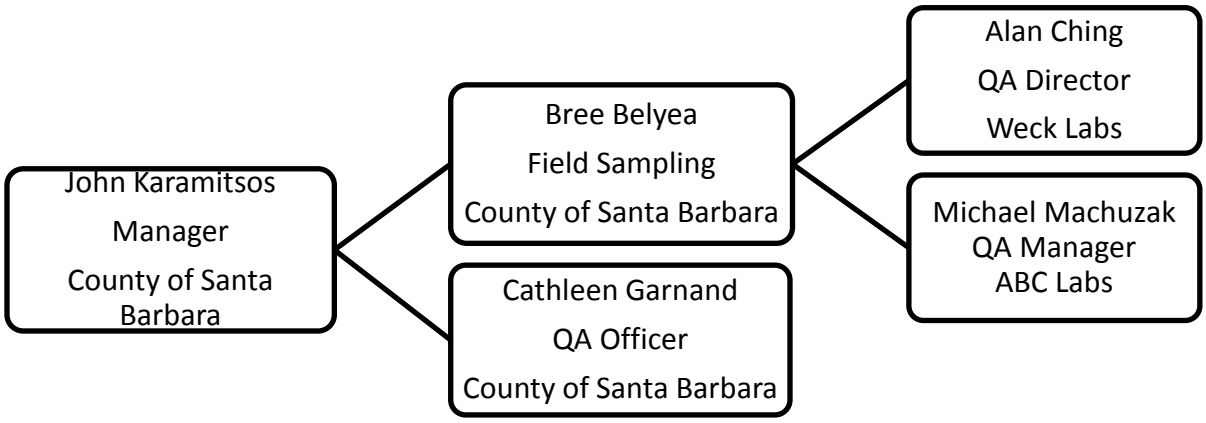
Name	Title	Organization	Project Role	Contact Information
John Karamitsos	Manager	County of Santa Barbara, Project Clean Water	Project Manager	805.568.3373 johnk@cosbpw.net
Cathleen Garnand	Civil Engineering Associate	County of Santa Barbara, Project Clean Water	QA Officer for Project, General Permit Coordinator	805.568.3561 cgarnan@cosbpw.net
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

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

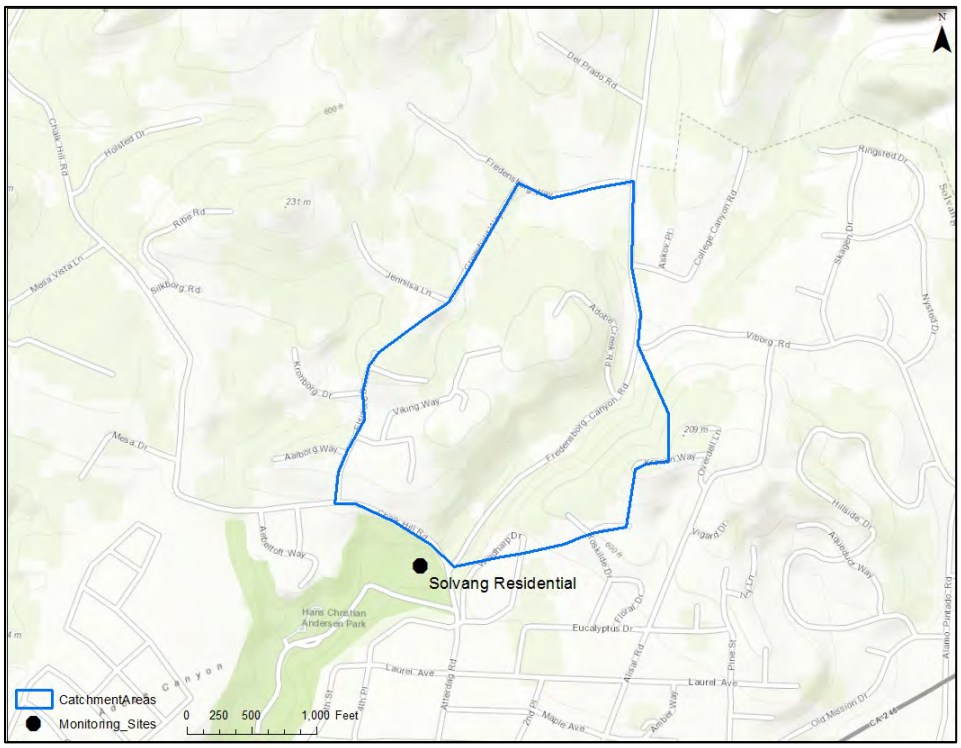


Figure 5. Carpinteria Monitoring Sites

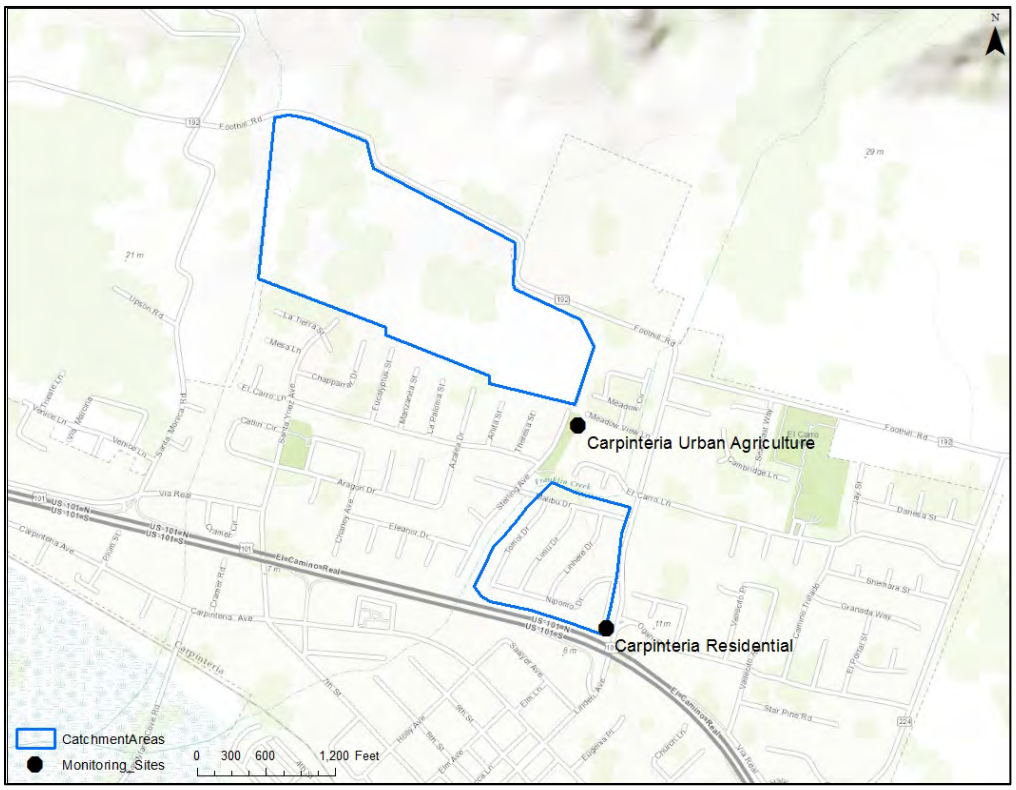


Figure 6. Goleta Monitoring Sites

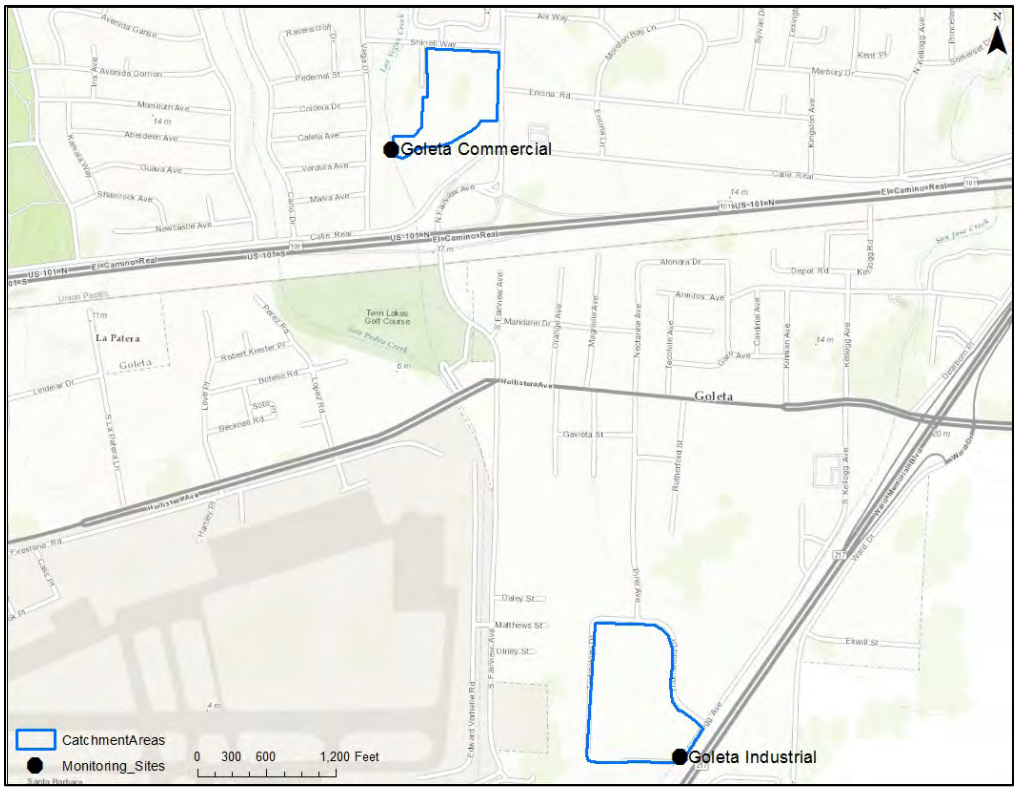


Table 4. Location and Land Use of Sampling Sites

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 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 **Total Suspended Solids**	G, P	Cool to ≤6 °C	7 days
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_2SO_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_2SO_4 per L	48 hours; 28 days if acidified
Kjeldahl Nitrogen (Total)	P	Cool to ≤6 °C; H_2SO_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_2SO_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_2SO_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_2SO_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_2SO_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% $Na_2S_2O_3$ if residual chlorine is present; freeze to ≤-20 °C	18 months (14 days if unfrozen)
Phenols[5]	G	Cool to ≤6 °C; 0.008% $Na_2S_2O_3$ 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% $Na_2S_2O_3$ 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

[1]Unless 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
Tuning[4]	Per analytical method	Per analytical method
Calibration	Initial method setup or when the calibration verification fails	• 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 criteria[4] • Minimum of 5 points per curve (one of them at or below the RL)
Calibration Verification	Per 12 hours	• Expected response or expected concentration ±20% • RF for SPCCs=initial calibration[4]
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±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±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 ≥0.995 (or r^2 ≥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≤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 ≤ 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 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 trouble-shooting, 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
123 E. Anapamu Street, Suite 27, Santa Barbara, CA 93101
(805) 568-3440 FAX (805) 568-3434
www.sbprojectcleanwater.org

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

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/

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 if Rebild 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.

Samplers shall arrive prepared:	PCW will provide:
1. Dressed appropriately for the weather 2. With own rain gear and safety boots	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

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

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	568-3440
Bree Belyea	cell 698-0621, office 568-3321
Cathleen Garnand	cell 403-0742 office 568-3561
John Karamitsos	cell 598-7735 office 568-3373 (Fridays 739-8761)
Erin Maker	cell 637-2763 office
Mary Zepeda	cell 722-7140
Everett King	cell 509-2468

Analyte	Water Quality Standard	WQS Units	Source WQS	Detection Limit	Units	5 Jan 2016 Goleta Commercial	5 Jan 2016 Carpinteria Residential	5 Jan 2016 Buellton Industrial	31 Jan 2016 Carpinteria Urban Agriculture	17 Feb 2016 Goleta Industrial	5 Mar 2016 Solvang 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 (Fenchlorphos)				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 PEAIP, 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 PEAIP, 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 PEAIP. 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 PEAIP.

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 then 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 or 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 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 or 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

City of Solvang
Department of Public Works
1644 Oak Street
Solvang, California 93463

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

Solvang, CA

Prepared by

Geosyntec consultants

engineers | scientists | innovators

924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101

Geosyntec Project Number: LA0320

April 15, 2016

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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 pollutants[1]. 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 PEAIP 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.

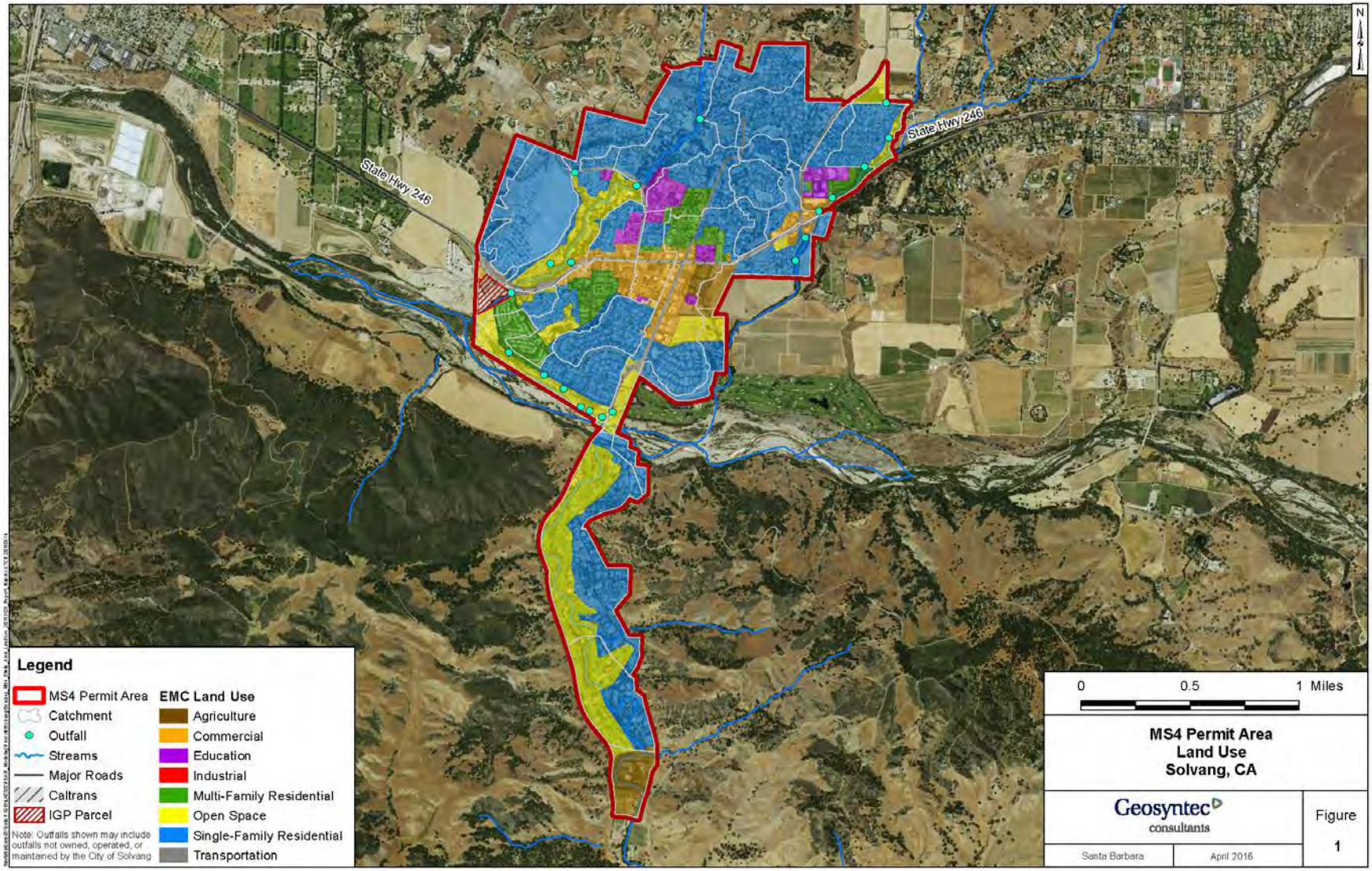

Figure 1. MS4 Permit Area

2. Model Inputs

The PEAIP 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.

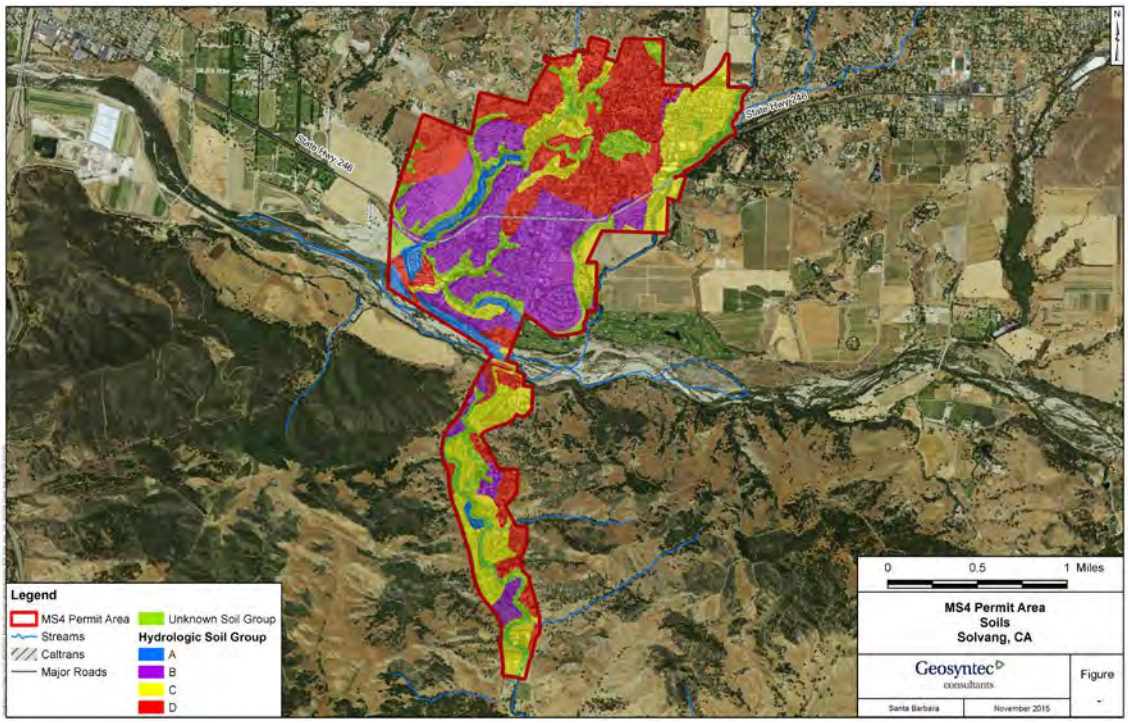

Figure 2. MS4 Permit Area Soils

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 Department[2] 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. PEAIP 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 require[3] 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 5,000[4] 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 volume[5] 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.

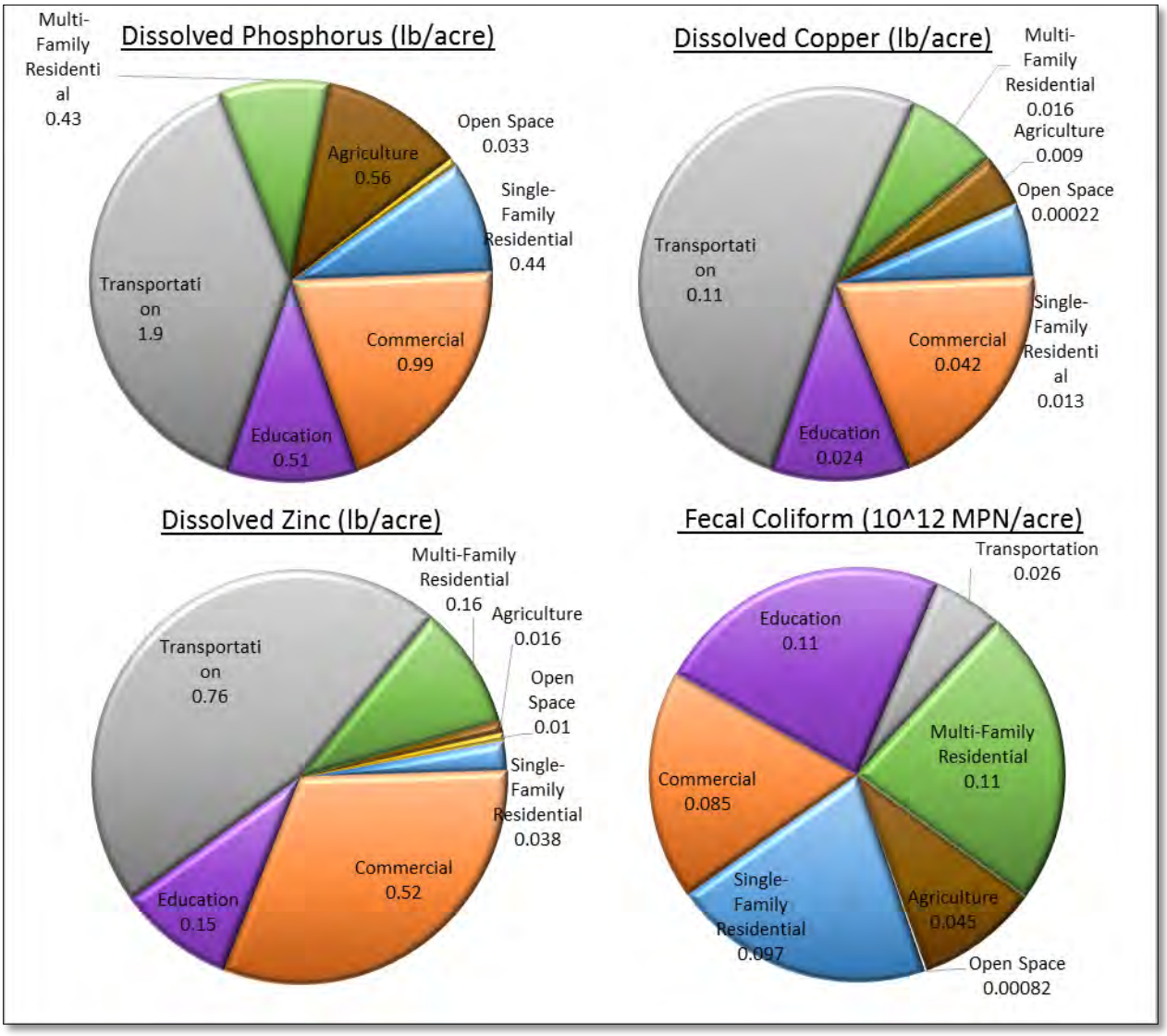

Figure 4. Average Annual Pollutant Loads per Acre for MS4 Permit Area by Land Use

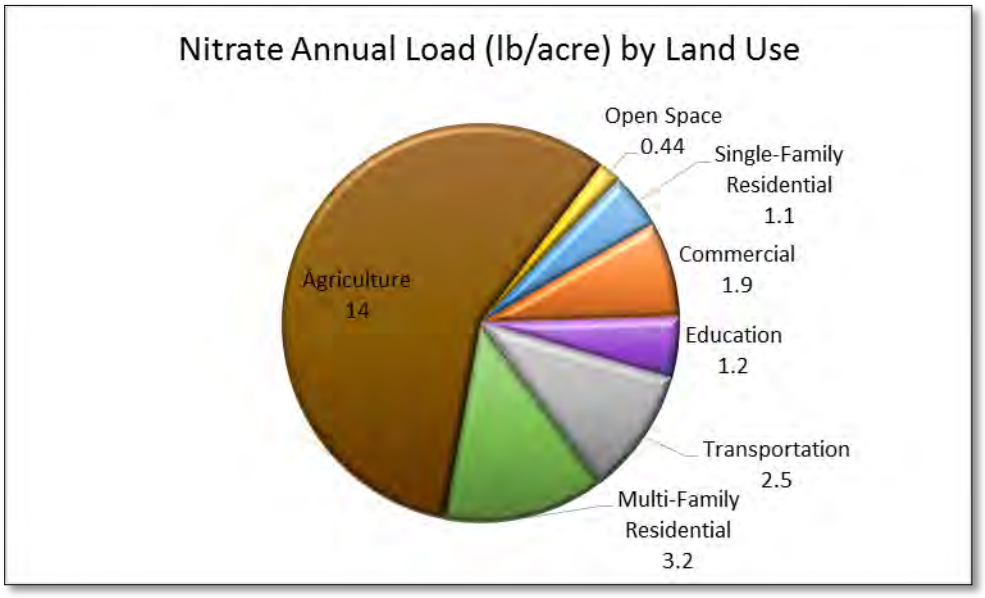

Figure 5. Average Annual Pollutant Load per Acre for MS4 Permit Area by Land Uses (Nitrate)

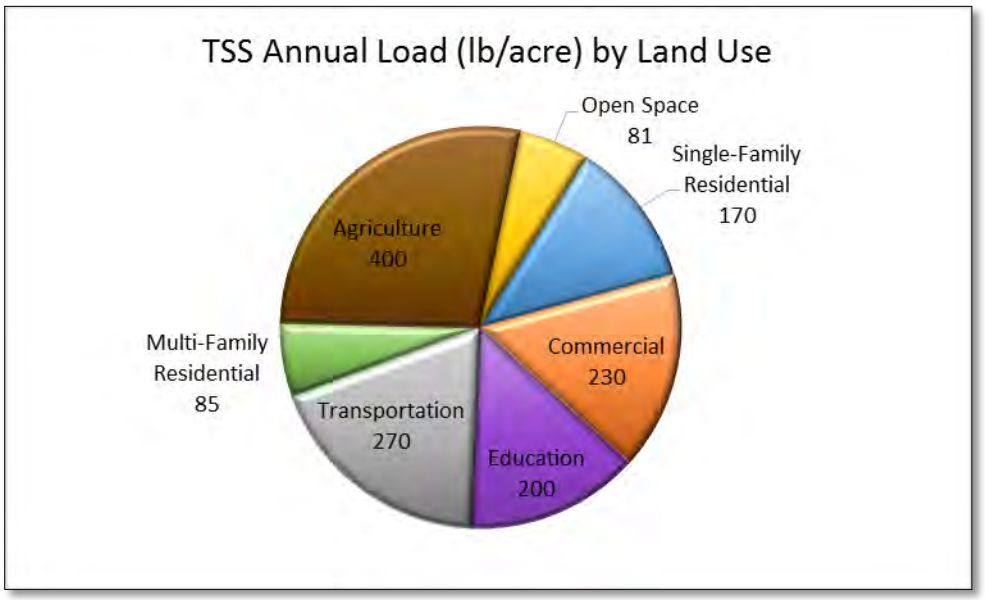

Figure 6. Average Annual Pollutant Load per Acre for MS4 Permit Area by Land Uses (TSS)

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.

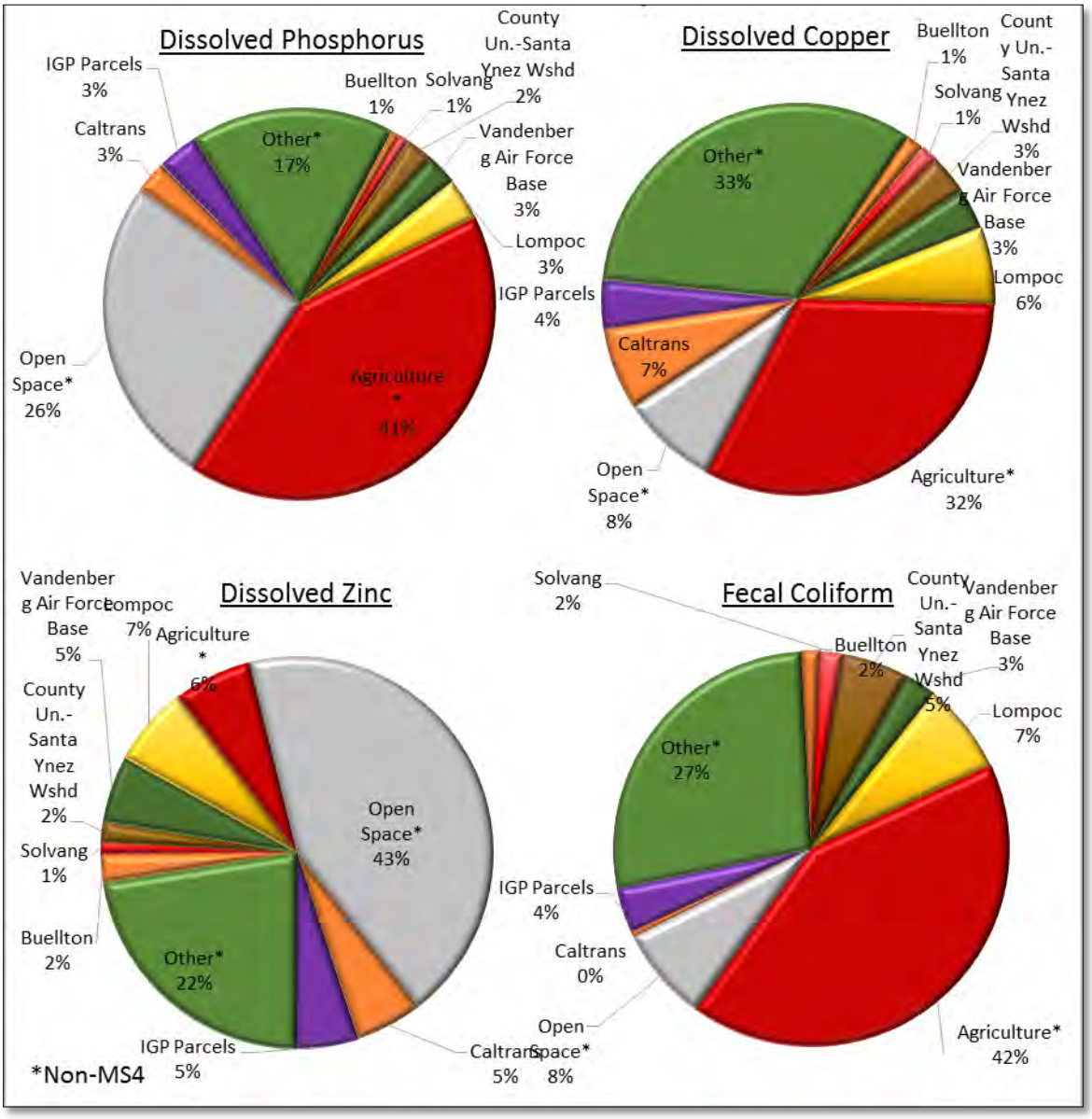

Figure 7. Percent of Average Annual Pollutant Load by MS4 Jurisdictions and non-MS4 Land Use (Santa Ynez Watershed)

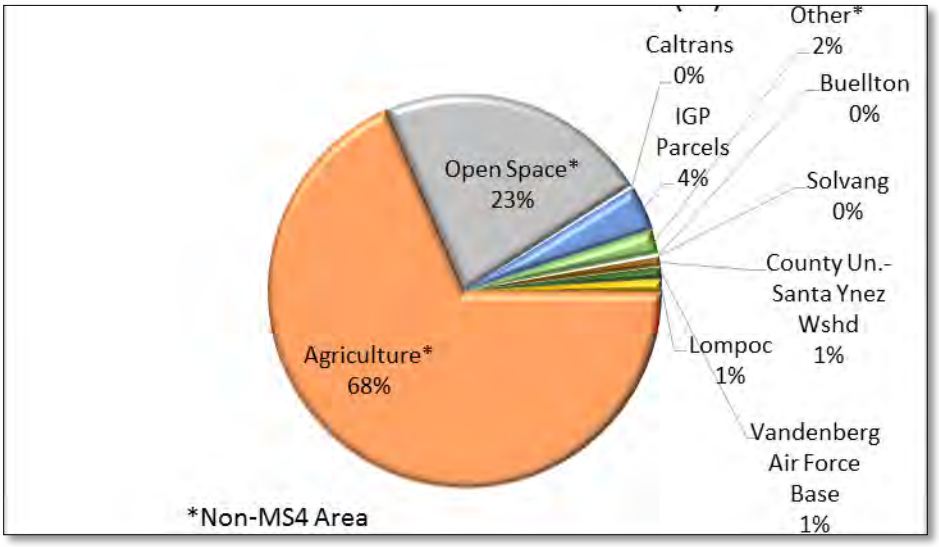

Figure 8. Percent of Average Annual Pollutant Load by MS4 Jurisdictions and non-MS4 Land Use (Santa Ynez watershed) (for nitrate)

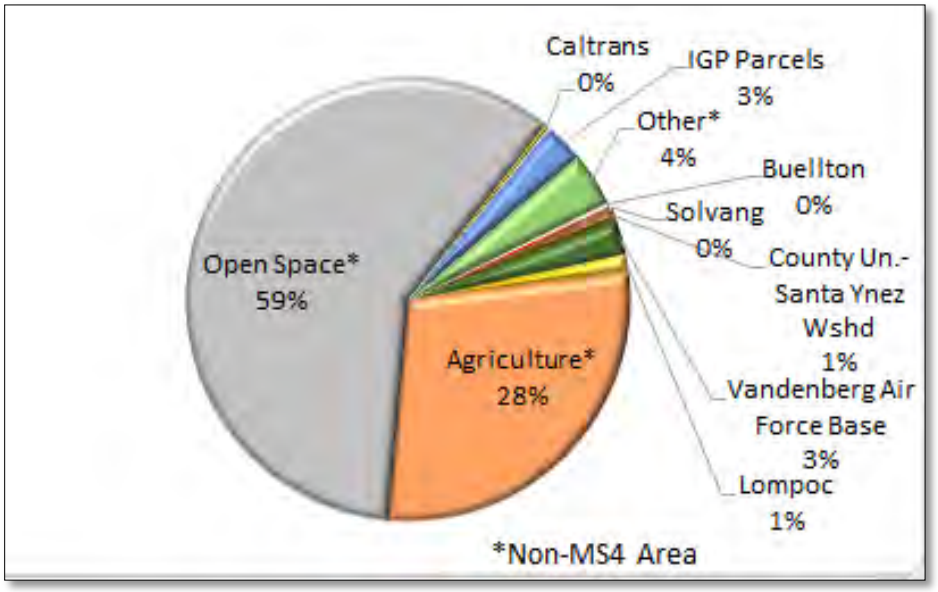

Figure 9. Percent of Average Annual Pollutant Load by MS4 Jurisdictions and non-MS4 Land Use (Santa Ynez watershed) (for TSS)

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.

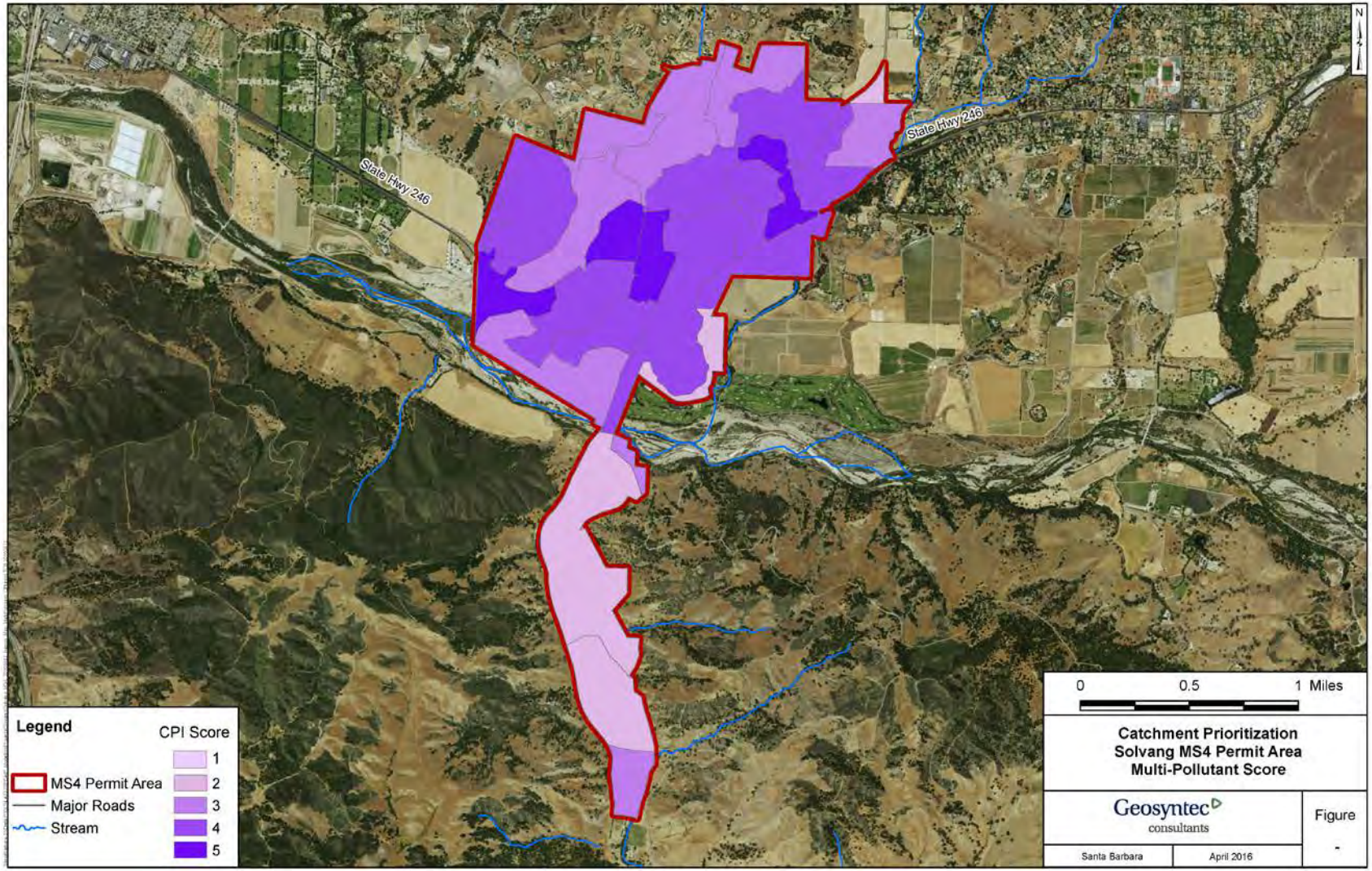

Figure 10. Multi-Pollutant CPI Map

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.

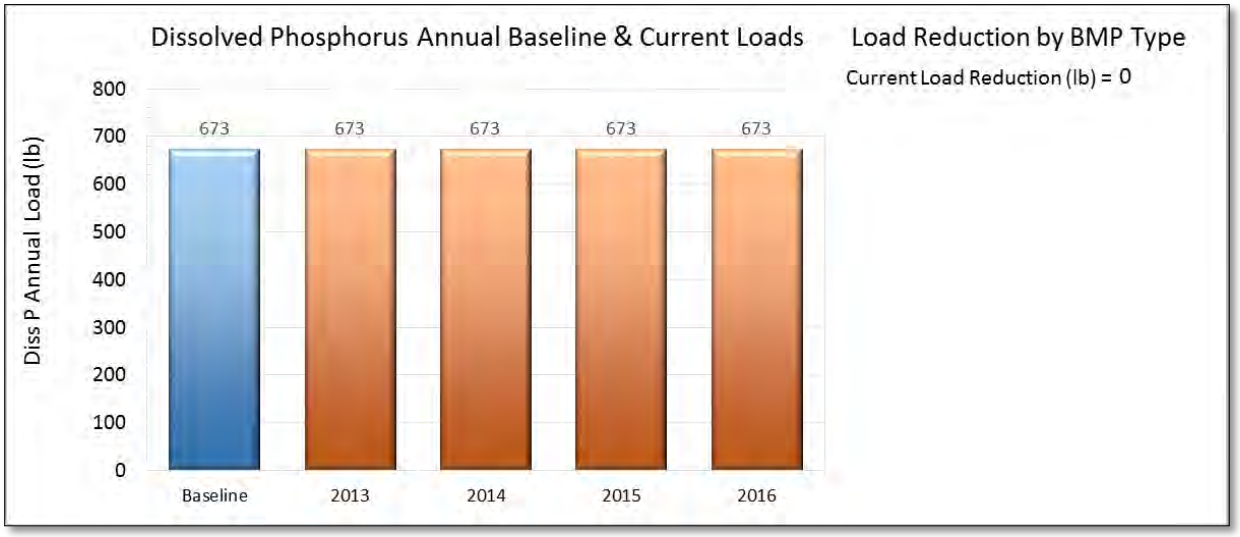

Figure 11. Dissolved Phosphorus Annual Loads and Reductions

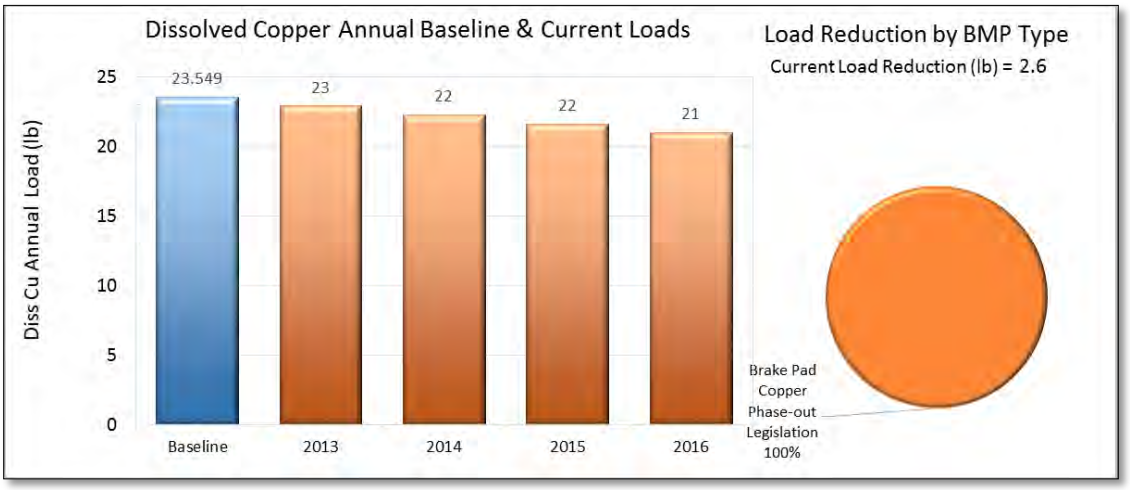

Figure 12. Dissolved Copper Annual Loads and Reductions

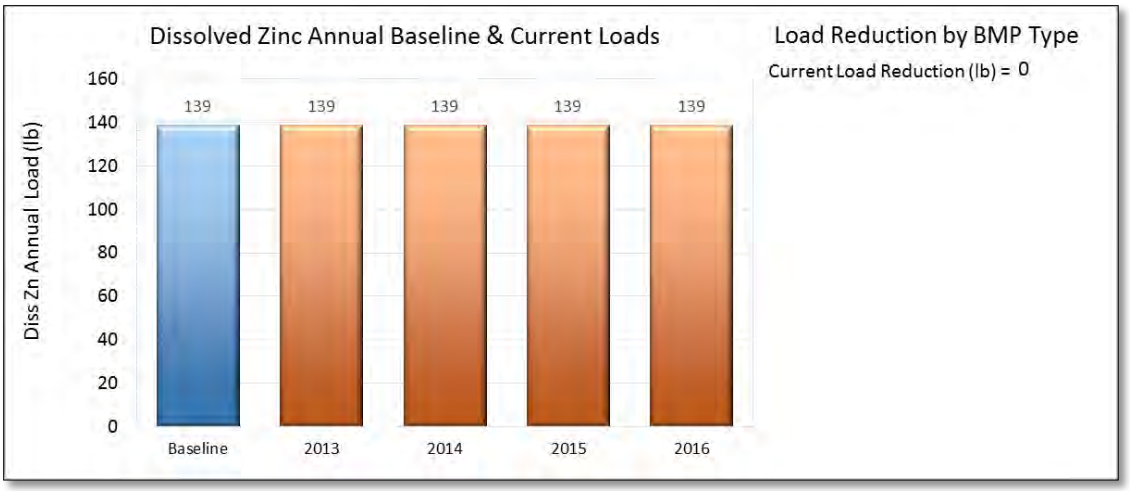

Figure 13. Dissolved Zinc Annual Loads and Reductions

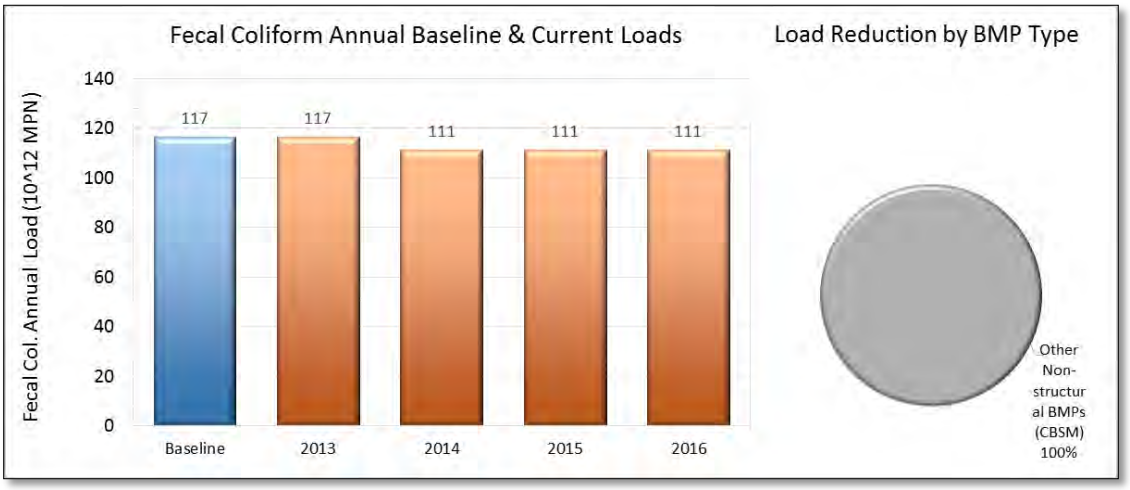

Figure 14. Fecal Coliform Annual Loads and Reductions

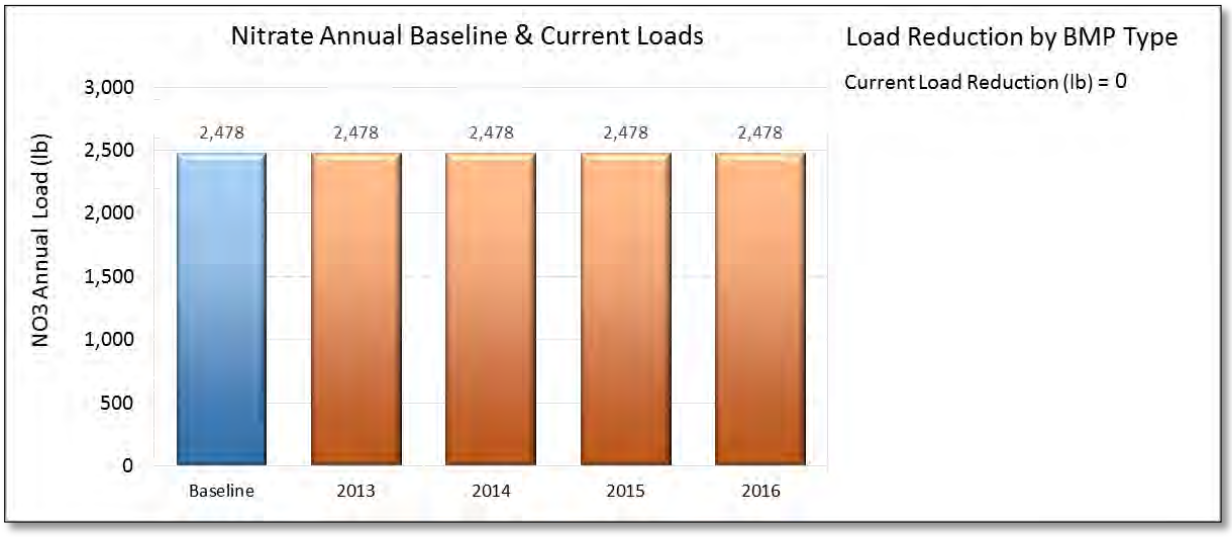

Figure 15. Nitrate Annual Loads and Reductions

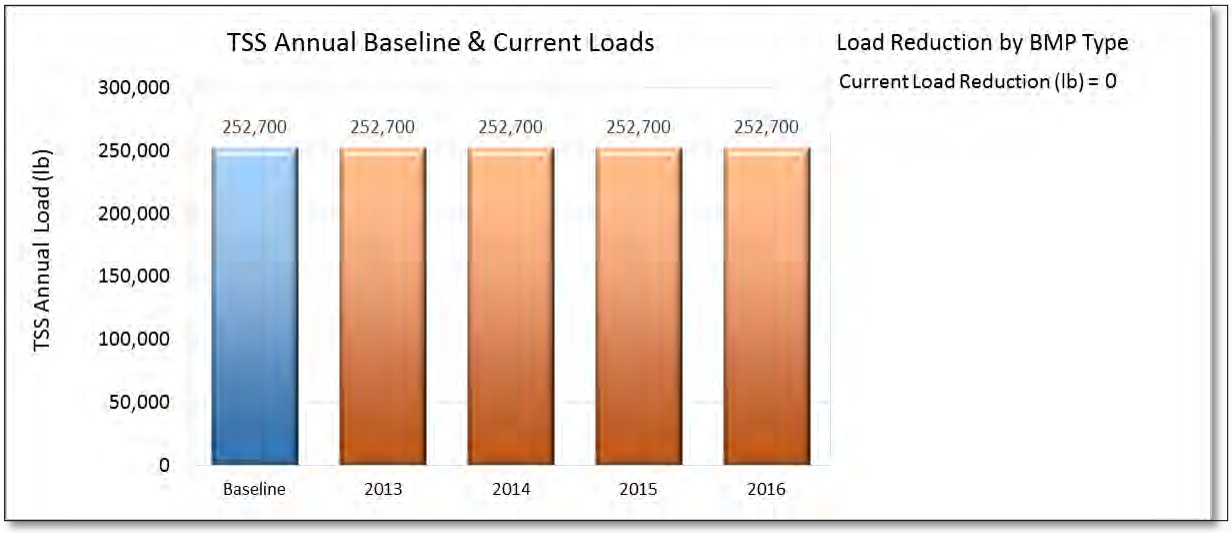

Figure 16. TSS Annual Loads and Reductions

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.

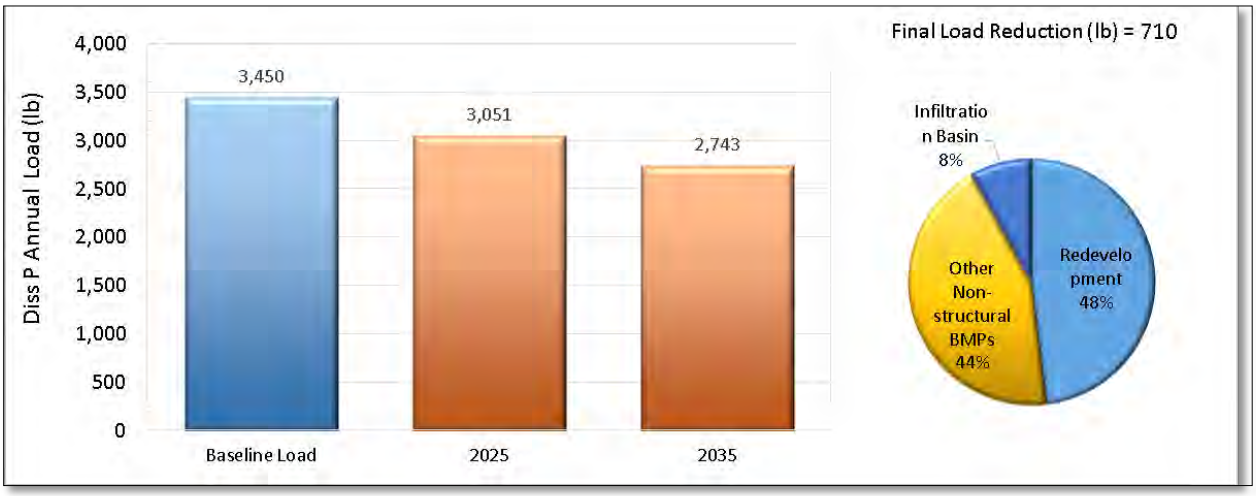

Figure 17. Dissolved Phosphorus Annual Loads and Reductions

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.

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Geosyntec Consultants, 2012. *A User's Guide for the Structural BMP Prioritization and Analysis Tool.* November 2012

Geosyntec Consultants, 2015a. Memorandum: Program Effectiveness Assessment and Improvement Plan Approach to Quantify Pollutant Loads and Pollutant Load Reductions. October 2015.

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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 Usefor 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	lb/ acre	lb/ acre	lb/ acre	lb/ acre	lb/ acre	lb/ acre	lb/ acre	lb/ acre	lb/ 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

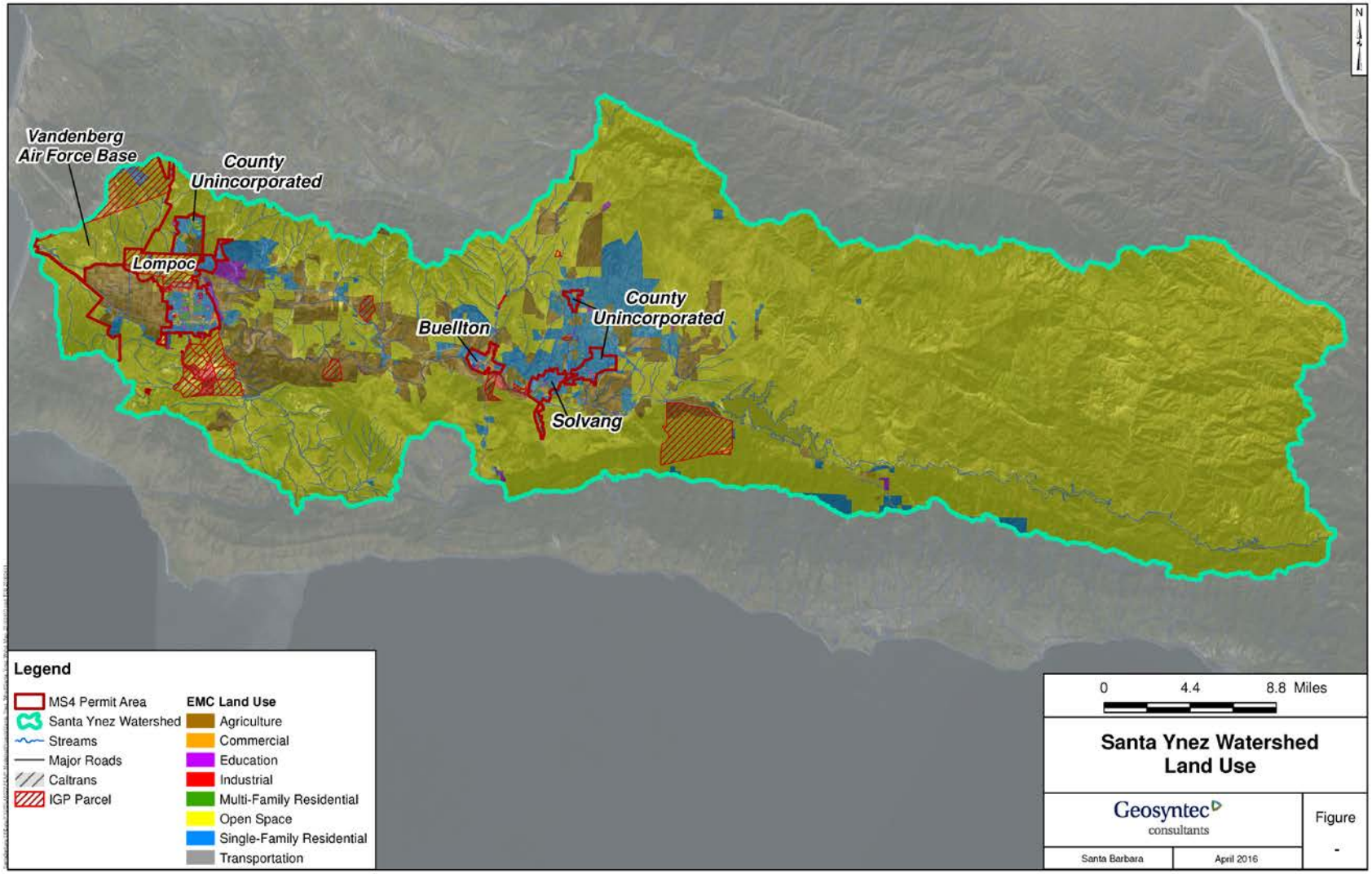

Figure A-18. Santa Ynez Watershed

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.

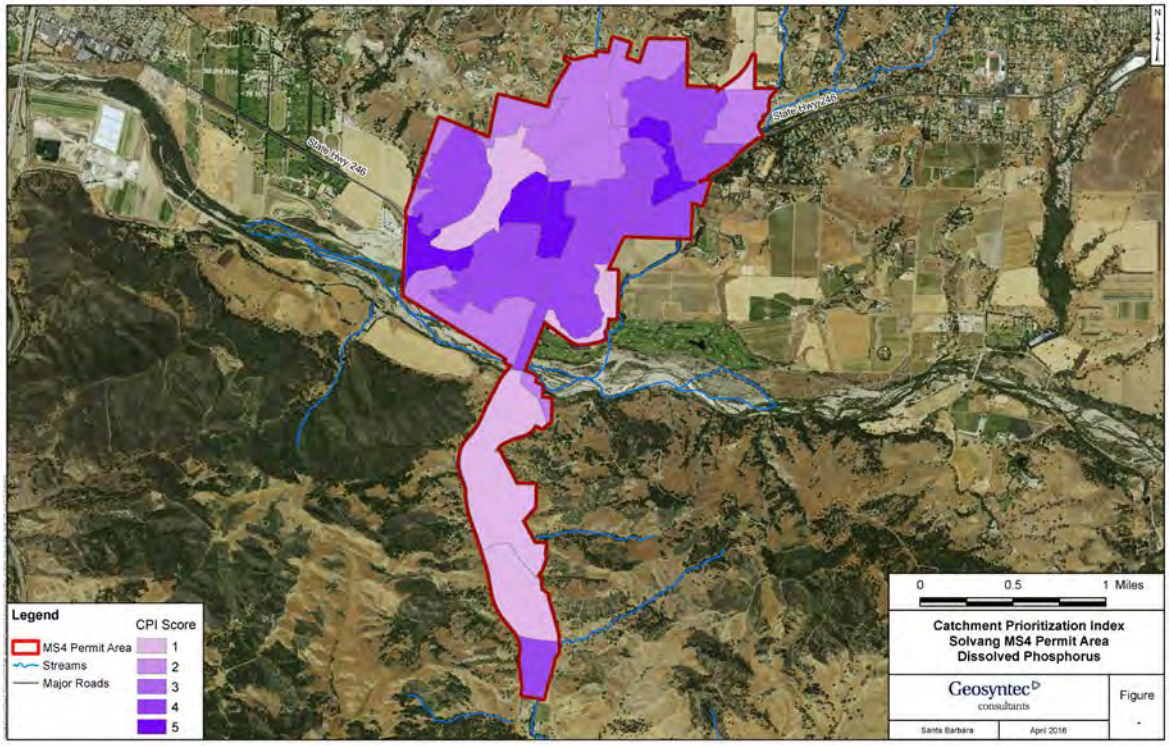

Figure A-19. CPI Scores for Dissolved Phosphorus

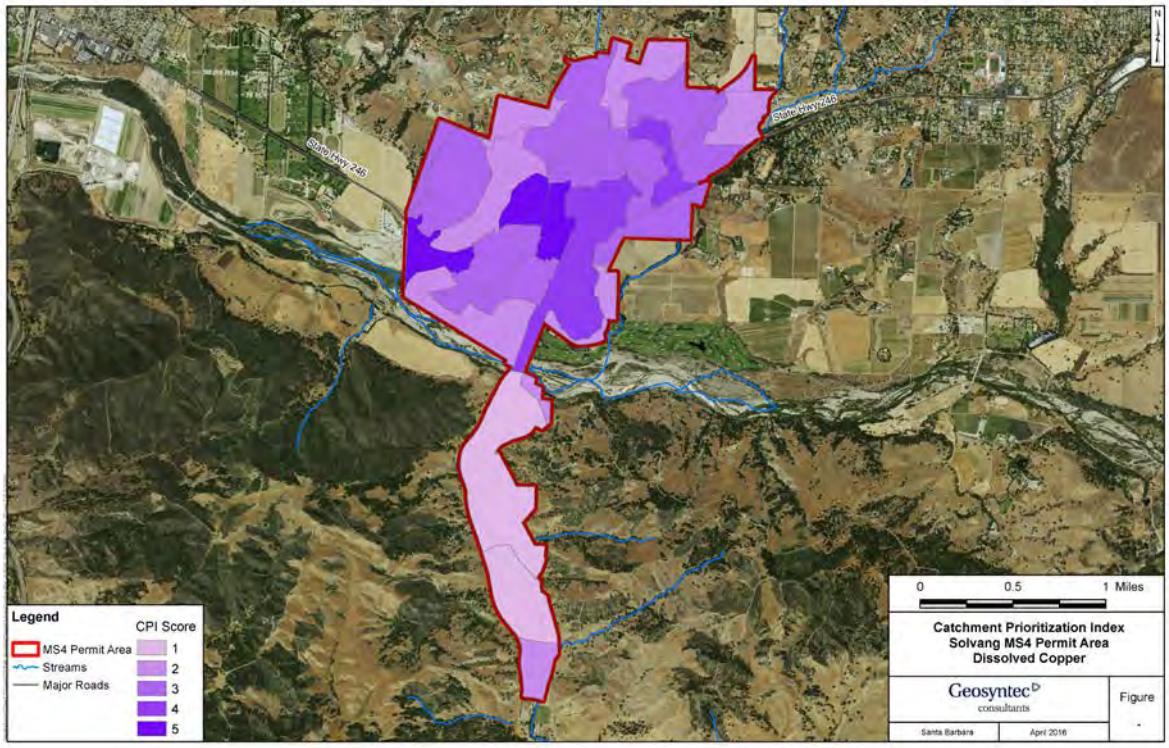

Figure A-20. CPI Scores for Dissolved Copper

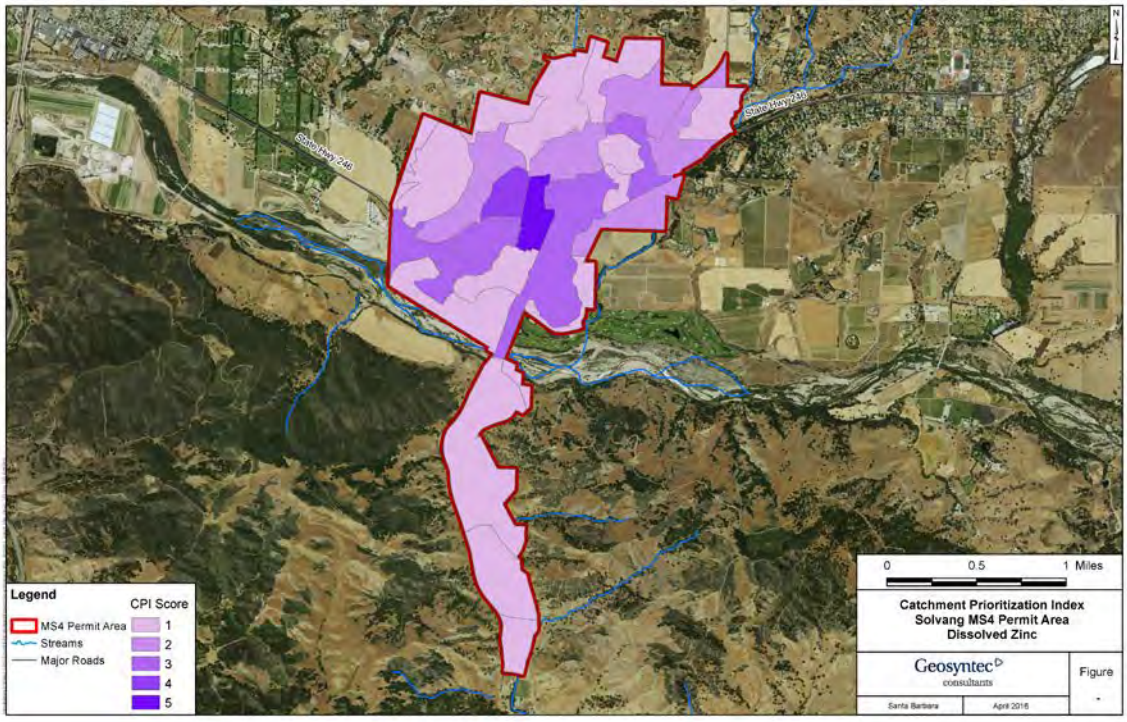

Figure A-21. CPI Scores for Dissolved Zinc

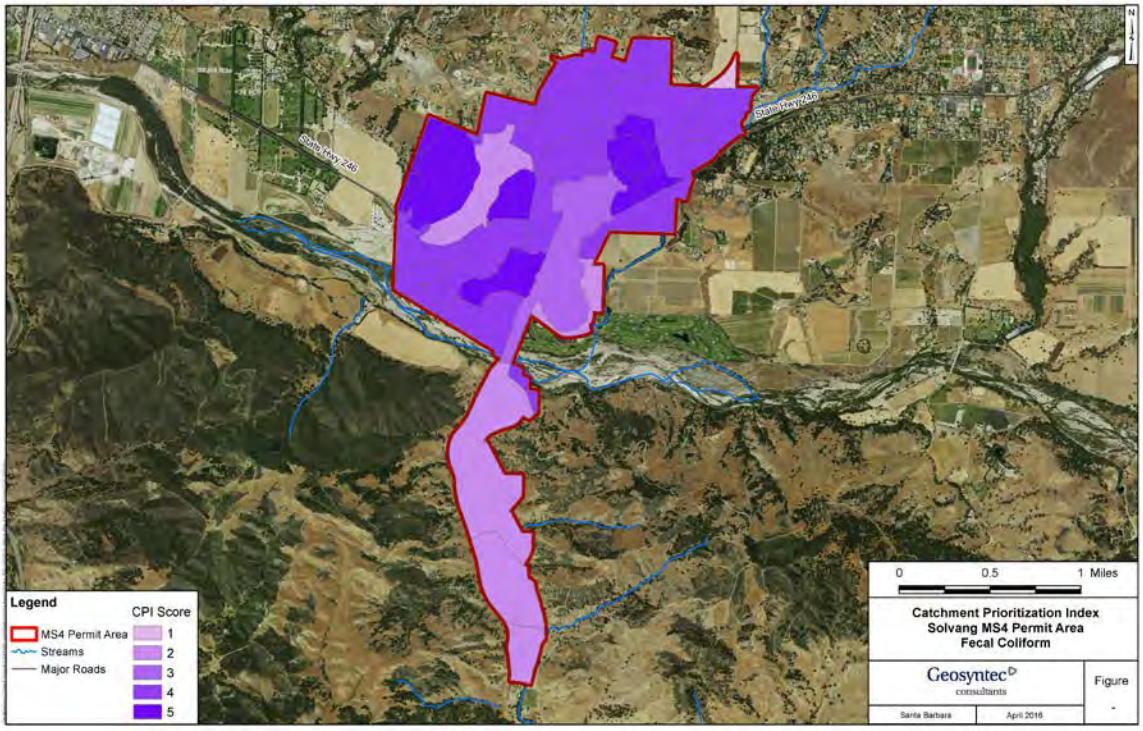

Figure A-22. CPI Scores for Fecal Coliform

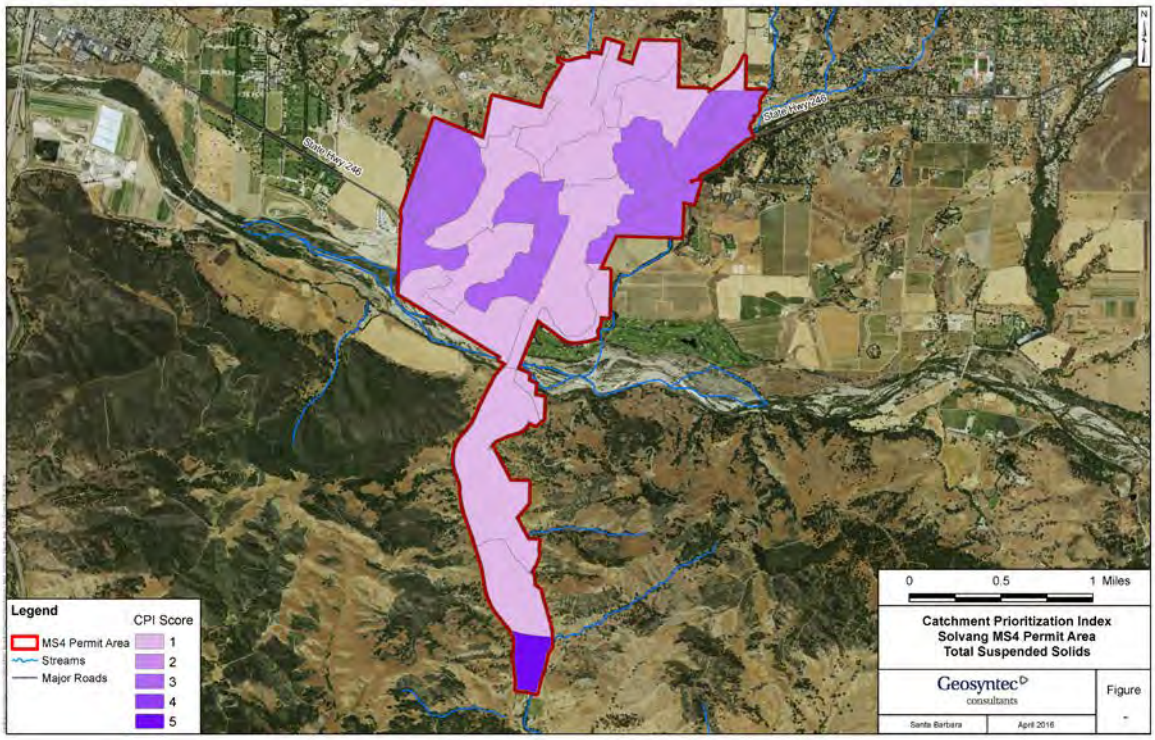

Figure A-23. CPI Scores for TSS

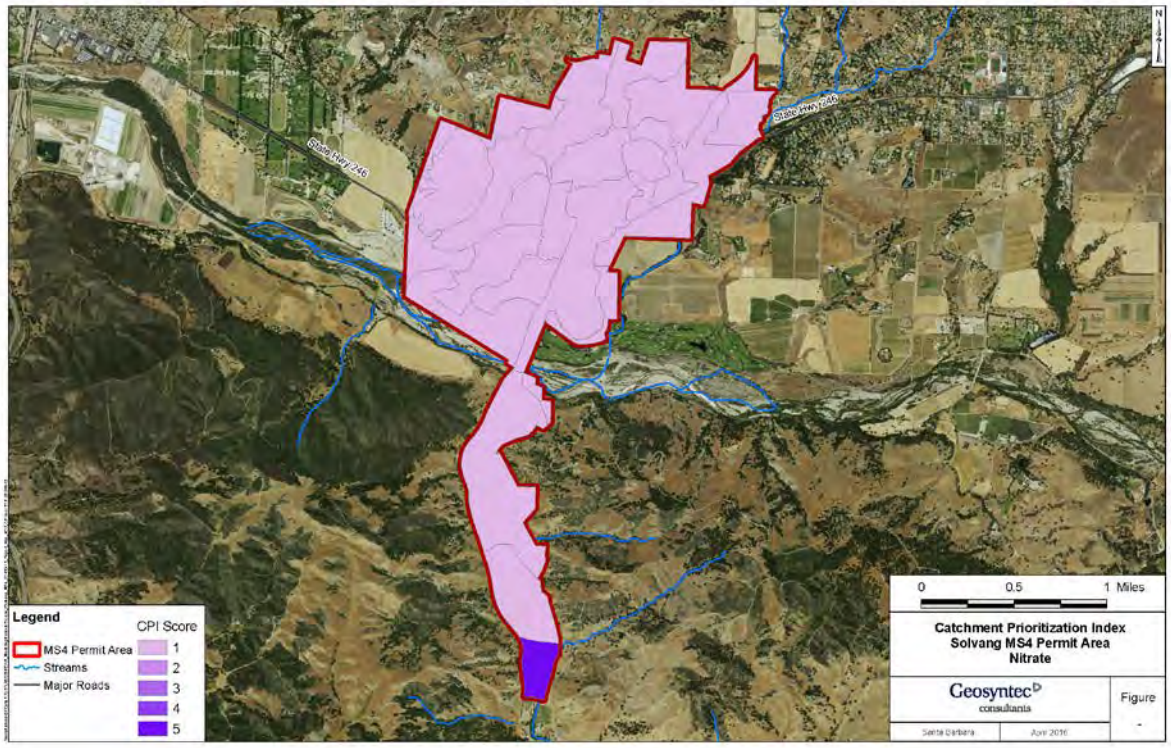

Figure A-24. CPI Scores for Nitrate

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 Use[1]

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 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:
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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 qualilfied 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 threre 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**

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: 3 42M2000036 - City of Solvang

County: Santa Barbara

SECTION II: REPORTING PERIOD

Reporting Period: 7/1/2015 - 6/30/2016

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 ≥ 2,500 square feet of impervious surface? 0

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 ALL 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

	Alternative Compliance type (Select all that apply)								
Names of Projects that received completion documentation during the Reporting Period and the Permittee granted Special Circumstances and/or Alternative Compliance	Watershed or Regional Plan	Urban Sustainability Area	Highly Altered Channel Special Circumstance	Intermediate Flow Control Facility Special Circumstance	Historic Lake or Wetland Special Circumstance	Technical Infeasibility Performance Requirement No. 2	Technical Infeasibility Performance Requirement No. 3	Technical Infeasibility Performance Requirement No. 4	**If technical infeasibility is rationale for Alternative Compliance, does Project's Stormwater Control Plan adequately demonstrate basis for infeasibility?**
	☐	☐	☐	☐	☐	☐	☐	☐	N/A

SECTION V: CONTINUED ...

To add another Project, click 'Add Row'

Add Row | Delete Row

	Alternative Compliance type (Select all that apply)								
Names of Projects that received completion documentation during the Reporting Period and the Permittee granted Special Circumstances and/or Alternative Compliance	Watershed or Regional Plan	Urban Sustainability Area	Highly Altered Channel Special Circumstance	Intermediate Flow Control Facility Special Circumstance	Historic Lake or Wetland Special Circumstance	Technical Infeasibility Performance Requirement No. 2	Technical Infeasibility Performance Requirement No. 3	Technical Infeasibility Performance Requirement No. 4	**If technical infeasibility is rationale for Alternative Compliance, does Project's Stormwater Control Plan adequately demonstrate basis for infeasibility?**
	☐	☐	☐	☐	☐	☐	☐	☐	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.
- For public offsite mitigation projects, a summation of total offsite mitigation funds raised to date and a description (including location, general design concept, volume of water expected to be retained, and total estimated budget) of all pending public offsite mitigation projects

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"*

CITY COUNCIL
STAFF REPORT

TO: SOLVANG CITY COUNCIL MEMBERS

FROM: Brad Vidro, City Manager

MEETING DATE: November 28, 2016

DATE PREPARED: November 21, 2016

SUBJECT: **TAJIGUAS RESOURCE RECOVERY PROJECT**

I. RECOMMENDATION:

Approval of the Resource Recovery Project Material Delivery Commitment and Processing Services Agreement between the County of Santa Barbara and the City of Solvang

II. BACKGROUND:

The City of Solvang has the opportunity to participate in a multi-jurisdictional solution to the environmental impact of continuing to landfill municipal solid wastes. The County of Santa Barbara owns and operates the Tajiguas Landfill, located on the Gaviota Coast in Santa Barbara County. The Tajiguas Landfill currently provides solid waste disposal services for the cities of Buellton, Solvang, Goleta and Santa Barbara and the South Coast, Santa Ynez and New Cuyama unincorporated areas. Despite the region's aggressive and successful recycling efforts, which currently result in a diversion rate of approximately 75%, more than 181,956 tons of municipal solid waste (MSW) were disposed at the Tajiguas Landfill in FY 2014-15.

Following the last approved expansion of the Tajiguas Landfill, the County Board of Supervisors directed County staff to explore alternatives to managing the community's waste stream in order to reduce and eventually eliminate the need for continued landfill operations. As a result, a multi-jurisdictional Solid Waste Task Group was formed, consisting of elected

officials and staff from the County and all its incorporated jurisdictions, to fully analyze the solid waste management systems then in place, and to make recommendations for the future management of solid waste. Those jurisdictions within the Tajiguas Landfill's waste shed determined that a facility utilizing conversion technology was the preferred option that would increase diversion of MSW and thereby significantly reduce the need for continued landfill operations. Without the proposed Tajiguas Resource Recovery Project (TRRP), at current fill rates, Tajiguas is expected to utilize the remaining permitted airspace by approximately 2026. The siting and development of a new landfill is a long and expensive process, but, more importantly, it is a significant, avoidable environmental impact.

The proposed TRRP would include a Material Recovery Facility (MRF) designed to recover recyclable materials and remove organic materials from the current municipal solid waste stream, and an Anaerobic Digestion Facility (ADF) that would process pre- sorted organic waste, and organic wastes recovered from the MRF to produce biogas and a solid material called digestate. The biogas would be used to generate electricity, and the digestate would be composted and undergo additional processing and refining, resulting in a soil amendment that could be suitable for agricultural application.

The TRRP is a cooperative effort of the County of Santa Barbara and the cities of Santa Barbara, Buellton, Goleta and Solvang, collectively referred to as the Public Participants. The goals of the project include:

- Increasing diversion of post-recycled MSW;
- Reducing environmental impacts of landfilling;
- Producing green energy and other marketable products; and
- Providing financial feasibility, sustainability, and result in a long-term integrated solid waste management system

The County is coordinating and managing this procurement effort on behalf of the Public Participants. A working committee (Committee) of staff from these participating jurisdictions was formed to evaluate the technical and financial aspects of the proposed TRRP, and conduct negotiations with the selected vendor.

After a thorough Request for Proposals (RFP) process, in January 2012, based upon the recommendation of the Committee, the Santa Barbara County Board of Supervisors selected Mustang Santa Barbara Investors, LLC (MSB, formerly Mustang Renewable Power Ventures) as the preferred vendor and directed County Staff to proceed with the environmental review of MSB's proposal.

In October 2012, the Public Participants entered into a non-binding Term Sheet with MSB that laid out general parameters for continued negotiations, and gave MSB the exclusive right to negotiate the proposed facility for a limited term.

During November and December 2014, negotiations between the Public Participants and MSB failed to yield an acceptable agreement. While the Project was technically sound, these sessions failed to produce business terms which met many of the original objectives of the RFP and Term Sheet. One of those objectives was a facility tipping fee of $100/ton or less. The cost of private financing, driven by the requirements of MSB's equity partners, resulted in a tip fee as high as $146/ton.

Following these negotiations, the Public Participants temporarily paused negotiations with MSB and reassessed the proposed project. It was determined that the cost of private funding for the MSB proposal was unacceptable. The County prepared a public financing model for the project using revenue bonds guaranteed by waste delivery agreements, and found the potential for a considerable cost savings to the rate payer with a tip fee approximately 25-30% less than what was proposed under private financing.

With the change from a private financial model to one of public financing, the County commissioned full financial and technical audits of both the proposed MRF and ADF by third party experts in the summer of 2015. These studies showed that the construction and operational costs related to the proposed MRF and ADF are consistent with other facilities or justified given the requirements of the location.

The County has also re-assessed various technology, performance, marketing and financial risks associated with the project.

The technological risk associated with the proposed TRRP is deemed to be relatively low. MRFs have been in operation throughout the world for decades, and equipment from the MRF vendor for the Project, Van Dyke, is used in over 500 facilities world-wide. Similarly, anaerobic digestion is a process that is well understood, and has been in use by waste water treatment plants for many decades. Bekon, the selected vendor for the proposed ADF, currently has 19 facilities in operation, with another eight in development.

Performance risk is mitigated by construction and performance bonds that will be provided by the selected construction firm, A.J. Diani, vendor warranties provided by Van Dyke and Bekon, and liquidated damages specified in the Waste Service Contract with MSB.

To mitigate financial risk, the project proposes 20-year Material Delivery Agreements (MDAs) with the participating jurisdictions. Under the current proposed arrangement, the Public Participants would assume the risk associated with changes in recyclables commodity values. However, this is a risk that the Public Participants currently bear, and have for the past 20 years. A rate stabilization fund will also be created to minimize the impacts of any unanticipated costs to rate payers that result from commodity market volatility. Until the project financing is closed, the final interest rate is unknown, constituting an additional financial risk.

In evaluating the potential for full public financing, the County contracted with HF&H Consulting to prepare a project model using public financing. In addition, the impact of a publicly financed project on the overall operations of the County's Resource Recovery and Waste Management Division, and the cost of its regulatory obligations was also analyzed. The result showed that public financing of the project would save ratepayers at least 30%, and provides a starting point for a tip fee that participating jurisdictions would be willing to pay for design, construction and operating services.

MSB has developed detailed project designs, and has selected well-known vendors with proven technologies. In addition to Van Dyke and Bekon, A.J. Diani has been identified as the construction contractor. MarBorg Industries has been selected as the MRF operator. The ADF will be operated by staff provided by the vendor, Bekon, under contract with MSB.MSB has also made significant progress with various permitting agencies such as the Air Resources and Water Quality Control Boards. If MSB and the Public Participants can come to agreement on the basic business terms and price, a Waste Service Contract will be negotiated for design, construction and operational services.

An initial total tip fee for the project is currently projected to be approximately $120/ton. As of July 1, 2016, the tipping fee at the Tajiguas Landfill was raised to $87/ton. The gap between the current tipping fee and the projected TRRP tipping fee is expected to diminish over the course of the next several years, with annual incremental increases to the Tajiguas tip fee. The components of the proposed TRRP tip fee include operations, disposal of remaining waste (consisting of by-pass waste unsuitable for the TRRP, and residual), debt service, and divisional costs (regulatory requirements, closure and post- closure costs).

Since initiating procurement for the TRRP, several new state mandates have been passed, that can be partially or fully met by the proposed project. These include:

- AB 32: Requires the reduction of greenhouse gas emissions from all sources throughout the state.
- AB 341: Requires diversion of commercial recyclables and establishes a 75% diversion goal.
- AB 1826: Requires the diversion of commercial organics.
- AB 876: Requires plan for 15 years of organic processing infrastructure.

On July 12, 2016, the BOS certified the Final Subsequent EIR, received initial results from the County's Financial Advisor, and approved the negotiated Waste Service Contract between the County and MSB.

The County and the Public Participants have negotiated the proposed MDA. While minor revisions are contemplated as the document goes through the approval process, the draft which is presented here for Council consideration and approval contains all of the substantive terms and conditions.

III. DISCUSSION:

The MDA would commit the City's flow of franchised municipal solid waste (residential and commercial refuse), to the Project, which is necessary in order to secure project financing. The City's flow of source separated recyclables is not included in the commitment and would continue to be processed by our franchise waste hauler.

The attached MDA is not the final version but a draft which staff believes memorializes all the essential elements of the Agreement. Some minor revisions to the attached draft may be necessary, pending final discussions with the Public Participants and the County's Finance Committee. Due to the timing of the County's financial closing schedule, staff determined that it was necessary to bring the Agreement to Council at this time and request that Council authorize the City Manager to execute the final Agreement when all final details are included. In the event that any substantive changes are proposed to the Agreement, staff can bring the agreement to Council for further consideration.

The MDA consists of Recitals, and nine Articles and attached Exhibits. This report summarizes the more important aspects of Articles 2: Term of Agreement, 3: County's Obligations, and 4: City's Obligations

Article 2: Term of Agreement

The commitment of waste provides assurance to bond issuers that the facility will receive adequate material for processing, and thus generate sufficient revenues to ensure bond repayment. The Agreement Term is for 22 years from the Effective Date, and includes approximately two years for construction, performance and acceptance testing, as well as 20 years of operations, or so long as the facility

financing bonds are outstanding. The Agreement shall be dated as of, and become effective on, the date of its execution by the last of the Parties.

Article 3: County Obligations

The County's Obligations under the MDA are outlined in Article 3, and include receiving and processing, treating and/or disposing of Acceptable Materials from the Public Participants. The County shall also perform all planning, development, administration, implementation, construction, operation, maintenance, management, financing and contract work related to the project.

In order to mitigate fluctuations in the commodities market, and provide stability to the rate payer, a Jurisdictional Rate Stabilization Fund will be established with a goal of reaching a total fund balance of $3 million. Beginning July 1, 2017, the Public Participants agree to pay a tipping fee increase for disposal of waste at the Tajiguas Landfill from the current rate of $87.00 per ton to a rate of $99.00 per ton. The revenue generated by this increase will be deposited into the jurisdictional rate stabilization fund. Annually, after satisfying the requirements of the bond documents, County will deposit into the Jurisdictional Rate Stabilization Fund any TRRP revenues which the County receives from the service, net all system costs and all other payment obligations required under the bond documents as well as any reasonable amount that it deposits in its bond holders rate stabilization fund, and operating reserve. If the Fund exceeds a cap value of $3.5 million, the Public Participants will receive a dividend to return the fund to $3 million. The County shall separately account for expenses made from and contributions to the jurisdictional rate stabilization fund and shall present these to the Public Participants during an annual settlement process. Any funds remaining in the jurisdictional rate stabilization fund at the end of the Agreement term shall be accounted for during the final annual settlement process. Attached to this staff report is a "Flow of Funds" flow chart showing the way the Revenue Certificates of Participation will be funded.

The County shall hold an annual meeting with the City and other Public Participants to review the service contractor's processing efforts, and overall performance under this Agreement. The purpose of this annual meeting is to provide for a discussion and review of technological, economic, and regulatory changes in collection, source reduction, processing and disposal, and to ensure services are being provided by County and the service contractor with adequate quality, effectiveness and economy.

In the event of an uncontrollable circumstance, the County shall make reasonable business efforts to receive materials delivered by the City's collection contractor, and to promptly and cost effectively provide materials processing and disposal services either through the County's solid waste system or using alternative waste management facilities.

Article 4: City Obligations

Under the MDA, the City agrees to direct its collection contractor to deliver to the facility all acceptable materials that the collection contractor collects under its contract with the City. The City also agrees to maintain a collection franchise, other contractual arrangement or utilize municipal collection to manage collection of all acceptable materials generated within its jurisdiction while the bonds are outstanding.

Under the Agreement, the City is committing to the provision of a minimum annual tonnage of Municipal Solid Waste (MSW) of 3,632 tons per year. The City's maximum allowable annual delivery allowance is approximately 4,431 tons per year. Even if the City exceeds its maximum allowable annual delivery allowance, the excess will still be at the same rate as long as the facility is not at its maximum capacity.

An annual settlement process will be used to reconcile the monthly service payments made by the City's collection contractor over a full agreement year, with the amount due based on the actual tonnage delivered multiplied by the acceptable materials charge. Within forty-five (45) days of the conclusion of each agreement year, the County shall provide the City and collection contractor an "Annual Settlement Process Statement" setting forth the determination of outstanding payments, amounts due, or financial obligations of the City through its franchised collection contractor, with respect to the given agreement year. The Annual Settlement Process Statement shall include a reconciliation of the amount owed with the amounts actually paid by the collection contractor with respect to the given agreement year, including tonnage of material delivered by type, TRRP revenues from the Contractor and allocated to the City, and the statement of any necessary contributions to the jurisdictional rate stabilization fund. The Annual Settlement Process Statement shall also identify any excess reserves which the City may use to defer future rate increases to its ratepayers, or working jointly with the County, choose to replace or renew equipment, and/or defease a portion of the outstanding facility certificates.

IV. ALTERNATIVES:

Currently, MSW generated within the City of Solvang is disposed at the Tajiguas Landfill. Under this arrangement, the City is not obliged to utilize Tajiguas. Under the proposed Material Delivery Agreement, the City gives up its flexibility to allow its municipal solid waste to anywhere other than the Tajiguas Resource Recovery Project for a 22 year term.

Council may elect not to enter into the proposed MDA. However, the current project has been designed with the inclusion of Solvang's MSW and the numbers would need to be modified without the commitment of Solvang's MSW. If

Solvang does not participate, the project will most likely still go forward as is but will have to be reevaluated to determine whether it can be scaled back to accomplish the purposes of the project and remain financially feasible.

If the project does go forward without a commitment of Solvang's MSW, the project could accept Solvang's MSW as long as there is capacity. However, the rate would be higher than if Solvang were a project participant. Alternatively, Solvang could continue to direct its MSW to Tajiguas to be disposed in the landfill as opposed to the project. However, the tipping fee rates for MSW to be landfilled will be substantially the same as the fees charges for processing MSW at the project. Accordingly, there is no financial savings to be achieved by not participating.

By not participating in the project, the City would face increasing challenges to meet its State mandated diversion requirements. Additionally, transferring the City's MSW to another landfill for disposal would increase the City's greenhouse gas footprint due to the long transportation distances involved. The City would also have to find a facility to process the City's organic waste stream, at even greater potential cost.

V. FISCAL IMPACT:

Under a public financing model, the TRRP, if approved and built, will be funded through County issued revenue bonds, and no City contribution will be required for the facility's construction or operation. The debt service on the public revenue bonds will be included in the TRRP tip fee (estimated to be no more than $120/ton), which will in turn be reflected in residential and commercial solid waste collection rates. It is estimated that the monthly increase to the customers will be approximately $5.

The monthly service payment shall be paid to the County by the collection contractor, on behalf of and overseen by the City, for delivery of acceptable materials for processing. Any shortfall charge incurred for failure to meet the City's minimum annual delivery requirement will be made through adjustments in the approved collection rates paid to the collection contractor by the rate payers.

The financial model for the TRRP includes accumulation of a Rate Payer Rate Stabilization Fund. The fund could be established through implementation of the increased rates upon ratepayers prior to the TRRP coming on-line. Revenues received above the proposed $5 million rate stabilization fund will be shared between the participating jurisdictions on a proportional basis.

VI. ATTACHMENTS:

- Power Point
- Certificates of Participation Funding Flow Chart
- Agreement

SANTA BARBARA COUNTY

Resource Recovery & Waste Management Division

Innovative Environmental Solutions

Tajiguas Resource Recovery Project

Santa Barbara County's Waste Management Future

Waste Management is Changing

Landfills have been identified as one of the largest sources of manmade GHGs and is impacted by legislation.

- AB 32: Greenhouse Gas Reduction
  - Focus on waste management in CARB's Scoping Plan
  - Reducing landfill gases is major component of locally adopted Climate Action Plans

Waste Management is Changing

AB 32 has led to:

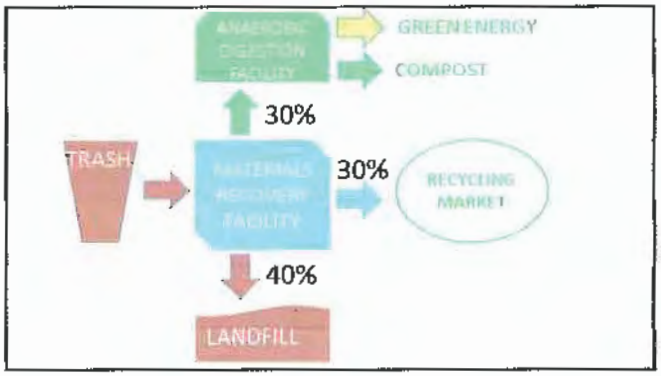
- AB 341: mandatory recovery of business recyclables and 75% diversion goal
- AB 1826: mandatory recovery of business organics
- AB 876: requires plan for 15 years of organic processing infrastructure

Planning for the Future

- Lack of local infrastructure & growing need due to new legislation led to the communities using Tajiguas Landfill formed a coalition to come up with a long term plan

Resource Recovery Project

- Coalition developed RFP in 2009 based on established goals and criteria
- Selected Project:
  Tajiguas Resource Recovery Project
  - MRF & AD Facility
  - 20 Year Term
  - ~$110 Million



Anaerobic Digestion is Increasingly Common

- CalRecycle AD Strategic Initiative
- 15 ADFs currently processing waste
- 7 going through permitting/construction*

*This does not include our own proposed project

How Much Will This Cost?

- Final Tip Fee is expected to be less than $120 per ton
- This could mean up to $5.00 more per month for each customer

What You Are Paying For

- Compliance with new GHG reduction laws
- Compliance with new Organics Diversion laws
- Compliance with Diversion Requirements (85%+ Diversion)
- Increased Green Energy for region
- Local Control
- Long-term Solution

Project Status

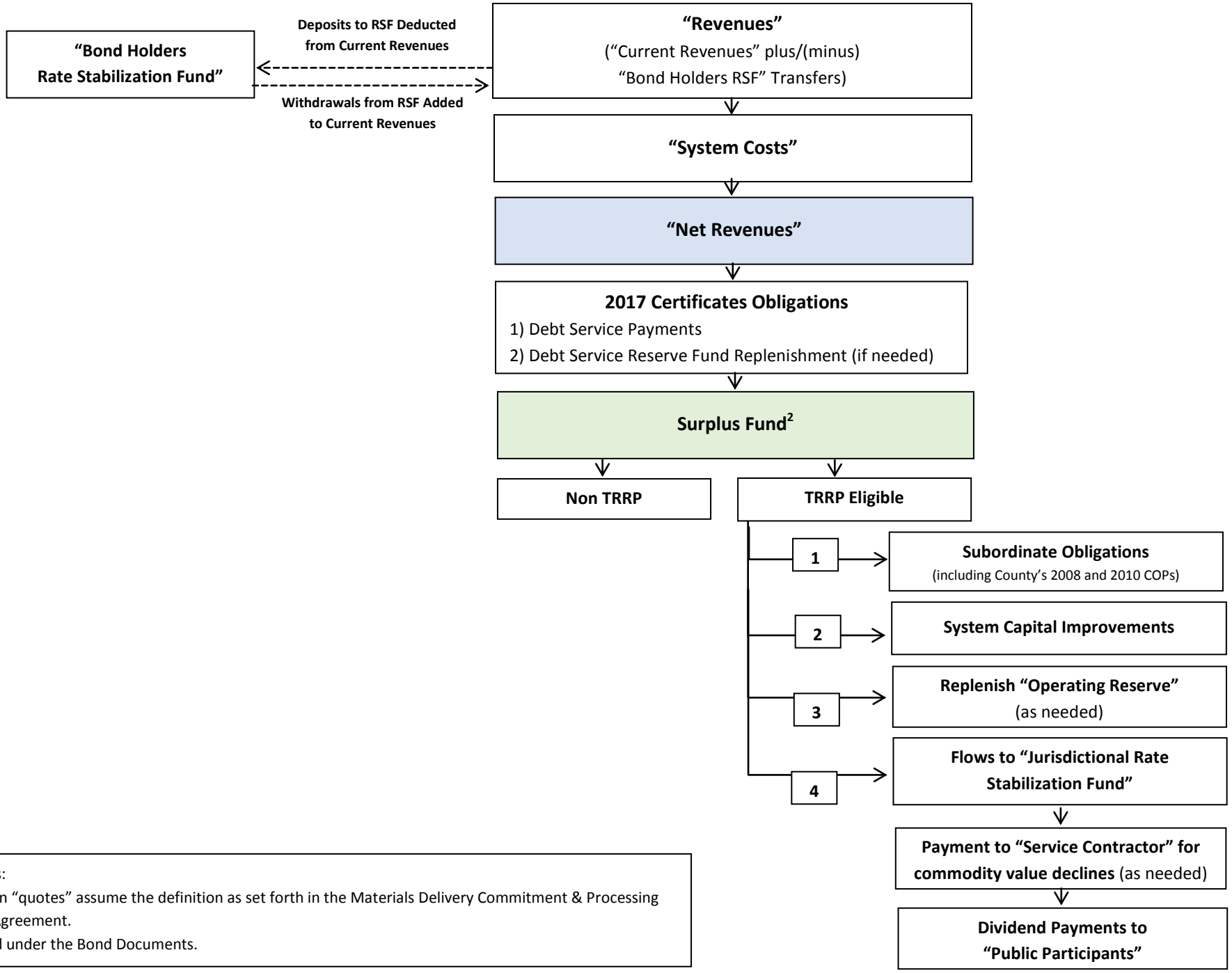
- County Board of Supervisors agreed to a contract with MSB Investments, LLC to:
  - Design, Build, and Operate the facility
- Actual execution is contingent on next steps

Next Steps

- Approve agreements between cities & the County
- Release of public finance package
- Permitting & construction
- Operation January 2019


Thank you!
SANTA BARBARA COUNTY
www.ResourceRecoveryProject.com

County of Santa Barbara
Solid Waste Revenue Certificates of Participation
Bond Holder and System Flow of Funds[1]



Footnotes:
1. Terms in "quotes" assume the definition as set forth in the Materials Delivery Commitment & Processing Services Agreement.
2. Defined under the Bond Documents.

Tajiguas Resource Recovery Project
Materials Delivery Commitment & Processing Services Agreement
BETWEEN
County of Santa Barbara
AND
City of Solvang

Agreement Date:
November 17, 2016 – Final

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EXHIBITS

RECITALS

This Material Processing Services and Delivery Commitment Agreement is made and dated as of the date on the cover page between the County of Santa Barbara, a political subdivision of the State of California (the "County"), and the City of Solvang, a charter city and political subdivision of the State of California (the "City").

(A) WHEREAS, the Parties are responsible for the health and safety of the citizens within their geographic boundaries; and,

(B) WHEREAS, the Parties regulate Municipal Solid Waste, Recyclable Materials, and Organic Materials collection in areas under their jurisdiction and award franchises for collection to private organization(s), herein called "Collection Contractor(s)"; and,

(C) WHEREAS, the Parties find it in their mutual economic interest to address solid waste and recycling issues on a regional level; and,

(D) WHEREAS, the California Integrated Waste Management Act (CIWMA) (California Public Resources Code, §40000 et seq.) required that the Parties reduce by fifty percent (50%) the amount of Solid Waste they landfill by the end of the Year 2000 and continue to maintain that reduction going forward; and,

(E) WHEREAS, subsequent legislation including Assembly Bills (AB) 32, 341 and 1826 require reduced air emissions and increased diversion of commercial and multi-family Recyclable Materials and Organic Materials to achieve a 75% diversion goal by 2020; and,

(F) WHEREAS, each Party has the authority to regulate its solid waste, Recyclable Materials, and Organic Materials stream, including the collection, transfer, transportation, and Processing thereof, and has the authority to establish rates for the conduct of such functions; and,

(G) WHEREAS, solid waste from each Party is disposed at the Tajiguas Sanitary Landfill located off State Highway 101, approximately twenty six (26) miles West of Santa Barbara; and,

(H) WHEREAS, the Parties developed the Tajiguas Resource Recovery Project ("TRRP") in order to achieve their goals of: extending the operating life of Tajiguas Landfill; and complying with State law and local policy that mandate diverting materials from Disposal, and reducing greenhouse gas emissions; and,

(I) WHEREAS, the Parties have found that these goals are in the public interest, and,

(J) WHEREAS, County has determined that the execution of this Agreement will serve the public health, safety and welfare by providing a more stable, predictable and reliable supply of Municipal Solid Waste and the resulting service payment revenue, thereby enabling County to plan, manage, operate and finance the Tajiguas Resource Recovery Project and extend the life of the Tajiguas Landfill; and,

(k) WHEREAS, this is a necessary financing agreement needed to secure the Certificates used to finance the TRRP;

IT IS THEREFORE AGREED AS FOLLOWS:

ARTICLE 1: DEFINITIONS

"Acceptable Materials", means all of the materials delivered to the Facilities by the Collection Contractor(s), Public Participants, (or on behalf of Public Participants), and Other Users as permitted under Applicable Law and the Facilities' Permits, including Mixed Waste, Source-Separated Organic Materials and Source-Separated Recyclable Materials. Acceptable Materials may include some Unacceptable Materials that must be removed by the Service Contractor before Processing or Disposal.

"Acceptable Materials Charge; AMC", means the charge established pursuant to Section 4.3.A of this Agreement.

"Agreement", means this Agreement, including all exhibits and attachments, as may be amended.

"Agreement Services", means all of County's performance obligations under this Agreement to City under Article 3; and all of City's performance obligations to County under Article 4.

"Agreement Term", means the period of time between the Effective Date and the termination date, as set forth in Sections 2.1 and 2.2, during which this Agreement shall be effective.

"Agreement Year", means the fiscal year, July 1 through June 30.

"Anaerobic Digestion Facility"; "AD Facility", means the facility as described in Service Contractor's Proposal and in subsequent documentation, which shall be operated by Service Contractor for Organic Materials Processing to produce digestate, biogas for electricity generation and Compost.

"Annual Budget"; means a budget that will contain an estimate of the Current Revenues and System Costs payable from Current Revenues for the ensuing Agreement Year (beginning on the upcoming July 1). The Annual Budget will also contain an estimate of the amount of Acceptable Materials expected to be delivered to the System in such Agreement Year and the resulting Acceptable Materials Charge required to be imposed in order for the County to meet the Rate Covenant.

"Applicable Law", means any law, rule, code, standard, regulation, requirement, consent decree, consent order, consent agreement, Permit, guideline, action, determination or order of, or legal entitlement issued or deemed to be issued by, any governmental body having jurisdiction, applicable from time to time to any activities associated with the siting, design, construction, equipping, financing, ownership, start-up testing, acceptance, operation, maintenance, repair and replacement of any part of the Project, the transfer, handling, transportation, Marketing, Disposal or Processing of products and residuals, and any other obligations of the Parties under this Agreement. Governmental bodies include local, County, State and federal agencies and all successors thereto.

"Assignment", means but is not limited to:

(A) A transfer to a third party of at least twenty-five percent (25%) of either Party's assets dedicated to service under this Agreement; and,

(B) A sale, exchange or other transfer to a third party, which may result in a change of control of City or County; and,

(C) Any dissolution, reorganization, consolidation, merger, recapitalization, stock issuance or re-issuance, voting trust, pooling agreement, escrow arrangement, liquidation or other transaction in which either Party are a party and which results in a change of control of either Party; and,

(D) Any assignment by operation of law, including insolvency or bankruptcy, assignment for the benefit of creditors, writ of attachment for an execution being levied against this Agreement, appointment of a receiver taking possession of either Party's property; and,

(E) Any combination of the foregoing (whether or not in related or contemporaneous transactions), which has the effect of any such transfer or change of control of either Party.

"Bond Documents", means the Trust Agreement, 2017 Installment Purchase Agreement, Assignment Agreement, and all other legal documents necessary to effectuate the issuance of Certificates.

"Bond Holders Rate Stabilization Fund", means the account established pursuant to the Bond Documents. On the date of issuance of the Certificates, the County shall make a cash contribution in the amount of five million dollars ($5,000,000), and deposit such sum in the Bond Holders Rate Stabilization Fund. If funds are used due to financial shortfalls (either higher than projected costs or lower than projected revenues) related to the Facility, the Fund will be replenished with Current Revenues from all of the participating jurisdictions based on the tons of material delivered to the Facility. If funds are used due to costs not related to the TRRP but rather related to non-TRRP costs, the Fund will be replenished with Current Revenues from the County.

"Business Day", means any day that County Administrative Offices are open to the public to conduct business. In relation to the Certificates and the County's obligations under the Bond Documents, this definition is extended to mean any day on which the Trustee is open for corporate trust business at its Corporate Trust Office and on which the Federal Reserve System is open for business.

"Bypassed Waste", means any material that is weighed in at the County scale house for acceptance to the Project Site which could not be Processed at the Facilities prior to Disposal. Examples of Bypassed Waste could be Unacceptable Waste, waste not Processable due to size, high negative value for Processing, or unmarketable material. Bypassed Waste includes materials diverted from the Project before or after unloading but not Processed at the Project Site.

"Cap Value", means the threshold value of $3,500,000 in the Jurisdictional Rate Stabilization Fund.

"Certificates", means all Solid Waste System Revenue Certificates of Participation (including Additional Certificates) payable from the Net Revenues of the County's Solid Waste Enterprise System. The County shall issue Solid Waste System Revenue Certificates of Participation, Series 2017 to fund the TRRP.

"Certificates Issuance Date" means the date on which the Solid Waste System Revenue Certificates of Participation, Series 2017 are executed and delivered.

"Change in Law", means any of the following acts, events, or circumstances, with which the Parties must comply notwithstanding the cost of such compliance, to the extent that compliance therewith materially increases or decreases the cost of performing a Party's obligations under this Agreement when such changes exceed fifty thousand dollars ($50,000) in the aggregate in any one Agreement Year subject to adjustment using the applicable Adjustment Factor.

(A) The adoption, amendment, promulgation, issuance, modification, repeal or written change in administrative or judicial interpretation of any Applicable Law on or after the Effective Date (including a new or amended prevailing wage, minimum wage, living wage or similar laws or regulations), unless such Applicable Law was on or prior to the Effective Date duly adopted, promulgated, issued or otherwise officially modified or changed in interpretation, in each case in final form to become effective without any further action by any governmental body;

(B) The order or judgment of any governmental body issued on or after the Effective Date (unless such order or judgment is issued to enforce compliance with Applicable Law which was effective as of the Effective Date) to the extent such order or judgment is not the result of willful or negligent action, error or omission or lack of reasonable diligence of the Collection Contractor or Service Contractor, the County or the City, whichever is asserting the occurrence of a Change in Law; provided, however, that the contesting in good faith or failure in good faith to contest any such order or judgment shall not constitute or be construed as such a willful or negligent action, error or omission or lack of reasonable diligence; or

(C) Except with respect to any governmental approval required for the Project as provided in item (2) below pertaining to exclusions from "Change in Law", the denial of an application for, a delay in the review, issuance or renewal of, or the suspension, termination, or interruption of any governmental approval, or the imposition of a term, condition or requirement which is more stringent or burdensome than the Agreement standards in connection with the issuance, renewal or failure of issuance or renewal of any governmental approval, to the extent that such occurrence is not the result of willful or negligent action, error or omission or a lack of reasonable diligence of the Collection or Service Contractor, the County or the City, whichever is asserting the occurrence of a Change in Law; provided, however, that the contesting in good faith or the failure in good faith to contest any such occurrence shall not be construed as such a willful or negligent action or lack of reasonable diligence.

It is specifically understood, however, that none of the following shall constitute a "Change in Law":

(1) A change in the nature or severity of the actions typically taken by a governmental body to enforce compliance with Applicable Law which was effective as of the Effective Date;

(2) All matters relating to the Service Contractor's assuming the Permitting risk for the Project in connection with obtaining and maintaining federal, State or local governmental approvals of the design, construction and operation of the Project; and

(3) Any event that affects generally applicable working conditions or standards that is not specific to the solid waste management industry.

“City”, means the City of Solvang, California, a political subdivision of the State of California.

“City Agreement Representative”, means the individual named by City under Exhibit B: Communications.

“City’s Maximum Annual Delivery Allowance,” means the maximum total annual Tonnages of Acceptable Materials, described in Section 4.2.A, that the City may deliver or the City’s Collection Contractor may be directed to deliver on behalf of the City for each Agreement Year.

“City’s Minimum Annual Delivery Requirement”, means the minimum total annual Tonnage of

Acceptable Materials, described in Section 4.2.A, that the City will deliver or the City's Collection Contractor is directed to deliver on behalf of the City for each Agreement Year.

"City's Revenue Share", means the amount of TRRP Revenue that City receives from County under this Agreement.

"Collection Contractor", means anyone that collects Acceptable Materials for City by any or all of the following: 1) contract (including franchise contracts); 2) license; 3) permit; and, 4) any other obligation.

"Compost" means soil amendment material that is the result of the controlled aerobic decomposition process of Organic Materials (e.g., composting).

"Construction and Demolition Debris" means used or discarded construction materials removed from a premises during the construction or renovation of a structure resulting from construction, remodeling, repair, or demolition operations on any pavement, house, commercial building, or other structure including, but not limited to, concrete, brick, wood, dirt, rock, cardboard, packaging materials, etc.

"County", means the County of Santa Barbara, California, a political subdivision of the State of California.

"County Agreement Representative", means the individual named by County under Exhibit B.

"Current Revenues", means all gross income and revenue received or receivable by the County from the ownership, operation or use of the Solid Waste System, determined in accordance with Generally Accepted Accounting Principles, including all rates, fees, charges and revenue (including tipping fees, recovered materials revenue, power revenues and salvage income) received by the County for the use of Solid Waste System and all other income and revenue howsoever derived by the County from the ownership, operation or use of the Solid Waste System, but excluding in all cases any proceeds of taxes and any refundable deposits made to establish credit and advances or contributions in aid of construction. Current revenues also include direct federal subsidy payments received by the County relating to the Certificates issued as New Clean Renewable Energy Bonds.

"County Service Cost", means a component of the overall facility Acceptable Material Charge that is comprised of the following four (4) programs: Program 1200 (Tajiguas Landfill), Program 1101 (South Coast Recycling and Transfer Station), Program 1301 (Santa Ynez Recycling and Transfer Station) and Program 1850 (TRRP Contract Management, Environmental Monitoring and Regulatory Compliance). In addition, County Service Cost will include overhead costs allocated to these programs.

"Day", means calendar day of twenty-four (24) hours measured from midnight to the next midnight.

"Delivery Covenant", means the obligation of the Public Participants to deliver Acceptable Materials to the TRRP, pursuant to and as described in Section 4.1.

"Direct Costs", means the sum of the following: 1) payroll costs (including compensation, vacation, sick leave, holidays, retirement, workers compensation insurance, federal and State unemployment taxes and medical and health insurance benefits), *plus;* 2) the costs of materials, services, direct rental costs and supplies, *plus;* 3) travel and subsistence costs, *plus; 4)* the reasonable costs of consultants, (sub)contractors, and counsel (necessary in connection with enforcement of the other Party's performance under this Agreement), *plus*; 5) any other cost or expense which is directly or normally associated with that enforcement or exercise, which direct costs are substantiated to the satisfaction of

the other Party.

"Dispose"; "Disposal" means the final disposition of Residue and Bypassed Waste from the Project Site as restricted by Permit conditions for Unacceptable Waste.

"Effective Date" means the date of this Agreement's execution by the last of the Parties.

"Excess Tonnage", means Tonnage of Acceptable Material delivered (or caused to be delivered) by the City to the Facilities in excess of the City's Maximum Annual Delivery Allowance, and/or in excess of the Maximum Facility Capacity.

"Facility" or "Facilities", means the building, equipment and all activities related to the MRF and/or the AD Facility.

"Food Scraps", means all Organic Materials generated during or resulting from the storage, sale, preparation, cooking, or handling of food stuffs, including: (i) all kitchen and table food waste; (ii) animal or vegetable waste; (iii) discarded paper and cardboard that is contaminated with food; and, (iv) fruit waste, grain waste, dairy waste, meat and fish waste. Food Scraps are a subset of Organic Materials and contain less than 2% contamination by weight.

"Hazardous Waste", means any waste which is defined or regulated as a hazardous waste, toxic waste, hazardous chemical substance or mixture, or asbestos under Applicable Law, including:

(1) "Hazardous Waste" pursuant to Section 40141 of the California Public Resources Code; all substances defined as acutely hazardous waste, extremely hazardous waste or hazardous waste by Sections 25110.02, 25115, and 25117 of the California Health and Safety Code (the California Hazardous Waste Control Act), and future amendments to or recodification of such statutes or regulations promulgated thereunder;

(2) "Hazardous Substances" as defined under Chapter 6.8 of the California Health and Safety Code, Division 20, Sections 25316 and 25317;

(3) Materials regulated under the Toxic Substance Control Act, 15 U.S.C. Section 2601 et seq., as amended, and related Federal, State of California, and local laws and regulations, including the California Toxic Substances Account Act, California Health and Safety Code Section 25300 et seq.;

(4) Materials regulated under the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. 9601, et seq., as amended, and regulations promulgated thereunder;

(5) Materials regulated under The Resource Conservation and Recovery Act and the regulations contained in 40 CFR Parts 260-281; and,

(6) Materials regulated under any future additional or substitute Federal, State or local laws and regulations pertaining to the identification, transportation, treatment, storage or Disposal of toxic substances or hazardous waste.

If two or more governmental agencies having concurrent or overlapping jurisdiction over hazardous waste adopt conflicting definitions of "hazardous waste", for purposes of collection, transportation,

Processing and/or Disposal, the broader, more restrictive definition shall be employed for purposes of this Agreement.

"Jurisdictional Rate Stabilization Fund", means the fund held by the County for the purpose of enhancing System liquidity and providing stability to the Public Participants in setting rates including making payments to the Service Contractor resulting from lower than expected Recovered Materials revenues.

"Landfill", means the Tajiguas Landfill, a Subtitle D Disposal facility.

"Market" (or "Marketed" or "Marketing" or other variations thereof), means providing for the sale or placement of Recyclable Materials, electricity and Compost for the purpose of beneficial use.

"Material Recovery Facility" or "MRF", means the Project Facility as described in Service Contractor's Proposal and in subsequent documentation to be developed and operated by Service Contractor in which Processing equipment and systems are used to Process Acceptable Materials.

"Maximum Facility Capacity", means the maximum number of Tons the Facility is designed, and the Contractor's operating expenses are assumed, to Process.

"Mixed Waste", means Municipal Solid Waste that is available for delivery for Processing and may be Processed at the Project, and is not Unprocessable Waste or Unacceptable Waste. Mixed Waste also includes commercial and industrial waste that meets the criteria defined herein, Construction and Demolition Debris, agricultural plastic, and tires. Mixed Waste does not include materials that are collected or delivered in a source-separated form.

"Monthly Service Payment", means the monthly amount paid to the County by the Collection Contractors (on behalf of and overseen by the City) for delivery of Acceptable Materials for Processing at the Project Site, as described in Section 4.2.B.

"Municipal Solid Waste"; "MSW", means generally the components of Mixed Waste, and specifically all substances or materials that are discarded or rejected as being spent, useless, worthless or in excess of the owner's needs at the time of discard or rejection including, without limitation, all putrescible and non-putrescible solid and semi-solid waste including garbage, rubbish, maintenance waste, Yard Trimmings, bulky wastes, industrial wastes, Construction and Demolition Debris, and grit and sweepings from a water pollution control plant, which are generated by residential, commercial, industrial, institutional, municipal, agricultural and other activities and which are not otherwise restricted in a Class III landfill by State or federal regulations and which are delivered to the Project Site as Mixed Waste. Municipal Solid Waste does not include: (i) Hazardous Waste; (ii) medical waste; (iii) ash; (iv) Source-Separated Recyclable Materials; (v) Source-Separated Yard Trimmings; (vi) Source-Separated Food Scraps; or (vii) other materials collected separately from Municipal Solid Waste for Processing at the Project Site.

"Net Current Revenues" means for any Agreement Year, the Current Revenues during such Agreement Year less the System Costs during such Agreement Year.

"Net Revenues", means for any Agreement Year, the Revenues during such Agreement Year less System Costs during such Agreement Year.

"Notice"; "Notify", means notice given in accordance with Section 9.6 and Exhibit A.

"Operating Committee"; means a committee comprised of each Public Participant (including the County). Each Public Participant (including the County) will be allocated one representative on the Operating Committee. The Operating Committee can be called to order as necessary. The representative will be the City Manager or his/her designee who is authorized to vote on behalf of the represented Public Participant. Each representative will have a weighted vote proportionate to the amount of Acceptable Materials such Participant delivered during the Agreement Year as compared to the total amount of Acceptable Materials delivered by all Public Participants during the prior Agreement Year. A two-thirds vote is necessary to support a decision by the Operating Committee.

"Operating Reserve", means the minimum balance of ten million dollars ($10,000,000) to be maintained within the County Solid Waste Enterprise Fund or other fund established by the County necessary to operate the Solid Waste System, which includes the TRRP. Such minimum balance shall be consistent with the County's Enterprise Fund Reserve Policy adopted by the County prior to the issuance of the Certificates.

"Organic Materials", means: (i) materials intended for Processing by the AD Facility, which may include organics sorted out of Mixed Waste, Yard Trimmings, and Food Scraps; and, (ii) sludge and residuals from water and wastewater treatment, as further defined in the Service Contractor's subcontract with the AD Facility Operator.

"Other County Costs" means other System Costs that are not in programs 1200, 1101, 1301, 1850 and the overhead allocated to these programs.

"Other Users", means any Person delivering Spot Market Materials to the Facility as authorized by the Service Contractor, and approved by the County, as applicable.

"Party; Parties", means County and City, individually and together.

"Permit(s)" means all Federal, State, City, other local and any other governmental unit permits, orders, licenses, approvals, authorizations, consents and entitlements of whatever kind and however described which are required under Applicable Law to be obtained or maintained by any Person with respect to the Facilities or the performance of any obligation under this Agreement, as renewed or amended from time to time.

"Person", means any individual, firm, association, organization, partnership, corporation, trust, joint venture, the United States, the State, a county, a municipality or special purpose district, or other entity whatsoever.

"Process"; "Processing" (or any other variation thereof), means the picking, pulling, sorting, separating, classifying and recovery of Recovered Materials from Acceptable Materials by the Service Contractor at the Project Site. Processing also means the baling, crushing, shredding, chipping, grinding or any other method of preparing Acceptable Materials for further Processing (for example, at the AD Facility) or Marketing.

"Project"; "TRRP", means all aspects of the Tajiguas Resource Recovery Project as conducted at the Project Site.

"Project Site"; "Site", means the area at the Tajiguas Landfill property to be used by the County and Service Contractor for development of the Facility, including one or more discrete sites including, but

not limited to the "Operations Deck" and a composting area ("Top Deck").

"Promptly", means as soon as possible, and no longer than three (3) Business Days unless the Parties otherwise agree in writing.

"Public Participants", means any jurisdiction which enters into an individual Material Delivery Commitment and Processing Service Agreement with the County, excluding Other Users. The City is a Public Participant.

"Reasonable Business Efforts", means those efforts that a reasonably prudent business Person would expend under the same or similar circumstances in the exercise of such Person's business judgment, intending in good faith to take steps calculated to satisfy the obligation which such Person has undertaken to satisfy; provided that such Person and/or any enterprise by which such Person is employed would not incur a financial loss (other than time expended or otherwise compensated for such efforts herein) by reason of having expended or expending such efforts.

"Recovered Materials", means Recyclable Materials and Organic Materials recovered through Processing of Acceptable Materials.

"Recyclable Materials", means materials having economic value or a beneficial reuse which are commonly recovered in comparable materials recovery facilities and organics Processing facilities in California.

"Reimbursement Costs", means the Direct Costs that the Party incurs to enforce its rights or exercise its remedies under this Agreement *plus* an amount equal to the average interest rate payable on the California Local Agency Investment Fund in effect when the Direct Costs were incurred.

"Revenue Fund" means the funds and accounts in the County Solid Waste Enterprise Fund (Fund No. 1930) in which Current Revenues are deposited.

"Revenues" means Current Revenues plus deposits to the Revenue Fund from amounts on deposit in the Bond Holders Rate Stabilization Fund, but only as and to the extent specified in the Bond Documents.

"Service Agreement", means the contract between the County of Santa Barbara and MSB Investors, LLC for development and operation of the TRRP.

"Service Contractor", means the Contractor defined in the Service Agreement between the County of Santa Barbara and MSB Investors, LLC.

"Service Contractor's Proposal", means the Service Contractor's document(s) included in Exhibit J to the Service Agreement, and all related materials submitted subsequently prior to the Effective Date.

"Shortfall Charge", means the charge incurred by the City for failure to meet the City's Minimum Annual Delivery Requirement (i.e., if the actual tonnage delivered and paid for is less than the committed tons). The charge will equal the number of tons short of the City's Minimum Annual Delivery Requirement multiplied by the effective Acceptable Material Charge.

"Solid Waste System"; "System", means all solid waste collection, processing, diversion, composting, recycling, disposal and power generation facilities (including related equipment) for solid waste and any

other facilities related thereto now owned by the County, and all other facilities (including related equipment) for solid waste collection, processing, diversion, composting, recycling, disposal and power generation hereafter acquired and constructed by the County and such other facilities, which may or may not be owned by the County, determined by the County to be a part of the Solid Waste System. Solid Waste System shall not include any Special Facilities.

"Source-Separated Food Scraps", means Food Scraps, containing less than two percent (2%) contamination by weight, segregated from other Municipal Solid Waste prior to collection. Source-Separated Food Scraps may be collected separately or commingled with Yard Trimmings. Source-Separated Food Scraps are Organic Materials.

"Source-Separated Organic Materials", means Source-Separated Food Scraps, or combined Food Scraps and Yard Trimmings, containing less than two percent (2%) contamination by weight, that are collected separately from Municipal Solid Waste.

"Source-Separated Recyclable Materials", means Recyclable Materials, containing less than 15% contamination by weight, that are separated by the generator from Municipal Solid Waste, provided for collection by individual material type or as combined materials in a single-stream program, and are delivered to the Project for Processing and transport to Market.

"Source-Separated Yard Trimmings", means Yard Trimmings, containing less than two percent (2%) contamination by weight, segregated from other Municipal Solid Waste prior to collection. Source-separated yard trimmings are not included in the City's Minimum Annual Delivery Requirement.

"Spot Market Material", means Acceptable Material generated within Santa Barbara County and delivered to the Facility by or on behalf of Other Users.

"State", means the State of California.

"System Costs", means all reasonable and necessary costs paid or incurred by the County for maintaining and operating the Solid Waste System, determined in accordance with Generally Accepted Accounting Principles, including all reasonable expenses of management and repair and other expenses necessary to maintain and preserve the Solid Waste System in good repair and working order, state mandated surcharges, and the annual costs of any permits or licenses, but excluding debt service costs, and including all administrative costs of the County that are charged directly or apportioned to the operation of the Solid Waste System, such as salaries, wages, and pension and other post-employment benefits of employees, overhead, taxes (if any) and insurance premiums, and including all other reasonable and necessary costs of the County or charges required to be paid by the County to comply with the terms hereof or of any resolution authorizing the issuance of any Certificates (as defined in the Bond Documents) or of such Certificates, or of any resolution authorizing the execution of any contract (as defined in the Bond Documents) or of such contract, such as compensation, reimbursement and indemnification of the trustee for any such Certificates or contracts and fees and expenses of independent certified public accountants and independent engineers, insurance consultants, but excluding in all cases depreciation, replacement and obsolescence charges or reserves therefor, amortization of intangibles and intergovernmental transfers by the County which are not reimbursements or payments for overhead or other administrative expenses incurred by the County. System Costs do not include payments by the County from funds in the Jurisdictional Rate Stabilization Fund (i) to the Public Participants pursuant to the terms and provisions of this Agreement, and (ii) to the

Service Contractor.

"Target Value", means the targeted amount of funds to be kept in the Jurisdictional Rate Stabilization Fund of $3,000,000.

"Ton"; "Tonnage", means a short Ton of 2,000 pounds.

"TRRP Revenue(s)", means revenue from the sale of any or all of the following, without regard to source:

(A) Sale of Recyclable Materials

(B) Sale of Compost

(C) Sale of electricity

(D) Share of Spot-Market tipping fees

"TRRP Service", means any or all of Service Contractor's obligations that are described in the Service Agreement, including development, operations (throughput, recovery, residue, electric output, net electricity generated, and environmental performance), maintenance, Marketing, etc.

"Unacceptable Waste" means wastes that the TRRP may not receive under its Permits, including but not limited to:

(A) Asbestos, including friable materials that can be crumbled with pressure and are therefore likely to emit fibers, being a naturally occurring family of carcinogenic fibrous mineral substances, which may be a Hazardous Waste if it contains more than one percent (1%) asbestos;

(B) Ash residue from the incineration of Municipal Solid Wastes, including infectious waste described in item (G) below, wood waste, sludge, and agricultural wastes.;

(C) Auto shredder "fluff" consisting of upholstery, paint, plastics, and other non-metallic substances which remains after the shredding of automobiles;

(D) Large dead animals;

(E) Hazardous Wastes, explosives, ordnance, highly flammable substances and noxious materials;

(F) Industrial solid or semi-solid wastes resulting from industrial processes and manufacturing operations, including cement kiln dust, ore process residues and grit or screenings removed from waste water treatment facility;

(G) Infectious wastes which have disease transmission potential and are classified as Hazardous Wastes by the State Department of Health Services, including pathological and surgical wastes, medical clinic wastes, wastes from biological laboratories, syringes, needles, blades, tubings, bottles, drugs, patient care items such as linen or personal or food service items from contaminated areas, chemicals, personal hygiene wastes, and carcasses used for medical purposes or with known infectious diseases;

(H) Liquid wastes which are not spadeable, usually containing less than fifty percent (50%) solids, including cannery and food processing wastes, landfill leachate and gas condensate, boiler blowdown water, grease trap pumpings, oil and geothermal field wastes, septic tank pumpings, rendering plant byproducts, sewage sludge, and those liquid wastes which may be Hazardous Wastes;

(I) Radioactive wastes as defined in Section 114710 of the California Health and Safety Code and any waste that contains a radioactive material, the storage or Disposal of which is subject to any other State or federal regulation;

(J) Special wastes designated from time to time by the Department of Resources Recycling and Recovery (CalRecycle), including contaminated soil;

(K) Bulky items that cannot fit within standard roll-off containers or Mixed Waste/Municipal Solid Waste collection vehicles unless otherwise approved by Service Contractor.

The Parties shall Promptly conform this definition of "Unacceptable Waste" to the extent necessary to comply with Applicable Law, should a Change in Law or in Permits and Permit requirements necessitate.

"Uncontrollable Circumstances", means any act, event or condition that is beyond the reasonable control of the Party relying thereon as justification for not performing a County Obligation or a City Obligation as defined in Article 3 and 4 respectively, or complying with any condition required of such Party under this Agreement, and that materially interferes with or materially increases the cost of performing its obligations hereunder (other than payment obligations), to the extent that such act, event or condition is not the result of the willful or negligent act, error or omission, failure to exercise reasonable diligence, or breach of the this Agreement on the part of such Party. The only effect of such Uncontrollable Circumstance is that it allows for a temporary cessation of delivery of materials and/or provision of service by the County to the extent that the delivery of materials by the City or the provision of service by the County is prevented by the Uncontrollable Circumstance. The occurrence of an Uncontrollable Circumstance expressly does not allow for a cessation of payment of the Monthly Service Payment. Such acts or events may include, but shall not be limited to, the following:

(A) Naturally occurring events (except weather conditions normal for the Santa Barbara area) such as landslides, underground movement, earthquakes, fires, tornadoes, tidal waves, floods, epidemics, storms, and other acts of God, ionizing radiation, nuclear, radioactive, chemical or biological contamination;

(B) Explosion, sabotage or similar occurrence, acts of a declared public enemy, extortion, war, civil war, armed conflict, terrorism, blockade, embargo, or insurrection, riot or civil disturbance;

(C) Labor disputes, except labor disputes involving employees of the Service Contractor, its affiliates, or subcontractors that affect the performance of the TRRP Services;

(D) The failure of any subcontractor or supplier (other than the Collection Contractor, Service Contractor, Service Contractor's guarantor, or any affiliate of either) to furnish services, materials, chemicals or equipment on the dates agreed to, but only if such failure is the result of an event which would constitute an Uncontrollable Circumstance if it affected the Collection Contractor, or Service Contractor directly, and the Collection Contractor or the Service

Contractor are not able after exercising all Reasonable Business Efforts to timely obtain substitutes;

(E) The failure of any private utility to provide and maintain utilities to the TRRP which are required for the performance of this Agreement;

(F) Any failure of title to the Project Site or any enforcement of any encumbrance on the Project Site not consented to in writing by, or arising out of any action or agreement entered into by, the Party adversely affected thereby;

(G) The preemption of materials or services by a governmental body in connection with a public emergency or any condemnation or other taking by eminent domain of any material portion of the Facility;

(H) The temporary suspension of operations due to supervening authority of law, such as the designation of all or a portion of the TRRP as a crime scene or as the site of an investigation by law enforcement;

(I) A Change in Law.

It is specifically understood that, without limitation, none of the following acts, events or circumstances shall constitute Uncontrollable Circumstances:

(1) Any act, event or circumstance with respect to which the Service Contractor has assumed the "as-is" risk under the Service Agreement;

(2) Any act, event or circumstance that would not have occurred if the affected Party had complied with its obligations under the this Agreement;

(3) Changes in interest rates, inflation rates (other than those provided for in this Agreement), labor costs, insurance costs, commodity prices, currency values, exchange rates or other general economic conditions, with the exception of changes resulting from a Change in Law;

(4) Changes in the financial condition of the County, the Contractor, the Guarantor, or the City affecting the ability to perform their respective obligations;

(5) The consequences of error, neglect or omissions by the Service Contractor in the performance of the TRRP Services;

(6) Union or labor work rules, requirements or demands, which have the effect of increasing the number of employees employed, or overtime hours required, at the Project or otherwise increasing the cost to the Service Contractor for meeting Service Contractor obligations under the Service Agreement, provided that such are not the result of a Change-in-Law;

(7) Mechanical failure of equipment not itself due to an Uncontrollable Circumstance;

(8) Power outages not caused by third party utilities;

(9) Reasonably anticipated weather conditions for the geographic region of Santa Barbara County;

(10) Any act, event, circumstance or Change-in-Law occurring outside the United States of America, unless it has a clear, direct and measurable impact on the ability of a Party to perform its contractual obligations;

(11) Failure of the Service Contractor to secure applicable patents, provided that such failure is due to the acts, omissions or negligence of the Service Contractor;

(12) A Change-in-Law pertaining to taxes, which does not discriminate against Service Contractor; or

(13) Any Change-in-Law (including the issuance of any governmental approval, the enactment of any statute, or the promulgation of any regulation) the terms and conditions of which do not impose more stringent or burdensome requirements on the Service Contractor than are imposed by the Service Agreement.

"Unprocessable Waste", means materials that Service Contractor cannot Process due to size or other characteristics (e.g., oversized, bulky items) and that may be delivered to the Landfill for Disposal.

"Yard Trimmings", means those discarded materials that will decompose and/or putrefy, including, but not limited to, green trimmings, grass, weeds, leaves, prunings, branches, dead plants, brush, tree trimmings, dead trees, small pieces of unpainted and untreated wood, and other types of organic waste. Yard Trimmings are Organic Materials.

"Year", means a calendar year of January 1 through December 31, *unless* an Agreement Year is explicitly specified.

ARTICLE 2: TERM OF AGREEMENT

2.1 Effective Date

This Agreement shall be dated as of, and become effective on, the date of its execution by the last of the Parties.

2.2 Agreement Term

This Agreement shall terminate December 31, 2038 (approximately 22 Years from the Effective Date) and shall include the construction periods (allowing for Facility construction and acceptance testing) as well as twenty (20) Years of operation; provided, however in no event shall this Agreement terminate while any Certificates are outstanding.

2.3 Survival of Certain Provisions

The following provisions survive this Agreement's term:

(A) Parties' representations, certifications, warranties and acknowledgements;

(B) Amounts that the City owes County, and County owes City;

(C) Any other rights and obligations of the Parties accrued prior to expiration or termination of this Agreement; and,

(D) Any other rights and obligations of the Parties expressly stated to survive this Agreement's term.

ARTICLE 3: COUNTY'S OBLIGATIONS

3.1 Solid Waste Management Services

Commencing in July 1, 2017 (based on the June 2016 schedule attached as Exhibit C of the Service Agreement), the County shall provide or cause the provision of the service of receiving and processing, treating, and/or disposing of Acceptable Materials from the Public Participants at the System (including such other facilities, including transfer stations, as the County may determine to use in the event that the Project or other existing components of the System are unavailable for any reason, as described in Section 3.5). The County, to the maximum extent permitted under Applicable Law, shall use its Reasonable Best Efforts to keep the Project and the existing landfill open for the receipt of waste for processing, transfer or disposal of Acceptable Materials pursuant to this Agreement. The County shall do and perform all acts and things which may be necessary or desirable in connection with its covenants in this subsection, including without limitation all planning, development, administration, implementation, construction, operation, maintenance, management, financing and contract work related thereto or undertaken in connection therewith. The County shall exercise all reasonable efforts to minimize the costs incurred in complying with its obligations and responsibilities under this Agreement, Applicable Law, the Bond Documents, and prudent solid waste management practice and environmental considerations. The County shall enforce the provisions of all agreements with third parties relating to the Project.

3.2 Facility Revenues

A. Jurisdictional Rate Stabilization Fund

Annually, the County will deposit into the Jurisdictional Rate Stabilization Fund amounts held in the Surplus Fund (as established under the Bond Documents) net of (i) payment of System subordinate obligations; (ii) capital improvements of the System; (iii) any replenishment of the Operating Reserve; and (iv) the payment by or reimbursement of revenue to the County of any non County Service Costs or revenues that are excluded from this Agreement.

County shall continue to contribute, solely from the amounts held in the Surplus Fund established under the Bond Documents, to the Jurisdictional Rate Stabilization Fund with the goal of maintaining a minimum fund balance of three million dollars ($3,000,000) (Target Value). If at the end of any Agreement Year, the Jurisdictional Rate Stabilization Fund exceeds three million five hundred thousand dollars ($3,500,000) (Cap Value), the Public Participants will receive a dividend to return the fund to three (3) million dollars ($3,000,000) based upon the actual amount and type of Tons delivered to the Facilities in the given year as identified in the Service Agreement. The County shall separately account for expenses made from and contributions to the Jurisdictional Rate Stabilization Fund and shall present these to the City during the Annual Settlement Process (as described in Section 4.3.B). Any funds remaining in the Jurisdictional Rate Stabilization Fund at the end of the Agreement Term shall be accounted for during the final Annual Settlement Process.

B. Materials Revenue Shares

1. Calculation

Subject to satisfying the requirements of the Bond Documents, in the event that the Jurisdictional Rate Stabilization Fund balance exceeds the Cap Value, the County shall, during the Annual Settlement

Process (described in Section 4.3.B), distribute an allocable amount of any additional TRRP Revenues to the Public Participants (in proportion to the amount of annual Tons delivered by waste stream responsible for the material revenues), in an amount calculated as follows, and as further described in Exhibit D:

a. City's Tons of Acceptable Materials by material type (e.g., Mixed Waste, Source-Separated Recyclable Materials, Source-Separated Organic Materials) actually delivered to the TRRP;

b. Multiplied by an equivalent tonnage factor based on actual market values of the materials from the previous Agreement Year (e.g. if Source-Separated Recyclable Materials commodity values are twice as high as Mixed Waste commodity values, the Source-Separated Recyclable Materials equivalent tonnage factor would be "2", and Mixed Waste equivalent tonnage factor would be "1");

c. Summed for all material types, to arrive at a single equivalent tonnage value per City;

d. Divided by the aggregate Tons of Acceptable Materials actually delivered to the TRRP, and adjusted by the equivalent tonnage factors, to arrive at a percentage;

e. Multiplied by the total available disbursement amount;

f. Minus any money that the City owes the County.

2. Example

For example, as applied to Source-Separated Recyclable Materials and as defined in B. 1 a – f above:

Assumptions:

a. **10 Tons:** City's Collection Contractor delivers 10 Tons of Source-Separated Recyclable Material.

b. **2**: Source-Separated Recyclable Materials equivalent Tonnage factor, assuming Source-Separated Recyclable Materials commodity values were agreed to be twice as high as Mixed Waste commodity values.

c. **1000 Tons:** Aggregate of 1000 Tons of adjusted equivalent Tonnage from all sources and material types delivered by Public Participants to the Project.

d. **$3,500,000**: Jurisdictional Rate Stabilization Fund Balance has reached the Cap Value of $3,500,000.

e. **$500,000:** County's available disbursement amount to return the Jurisdictional Rate Stabilization Fund to the Target Value is $500,000 (assuming the funds identified in Section 3.2.A are fully funded).

f. **$500:** City owes County outstanding balance of Shortfall Charge of $500.

Equation:

((10 Tons * 2) / 1,000 equivalent Tons) = 2%

(2% * $500,000) - $500 = $9,500 = City's dividend amount

C. Payment Dates

County will distribute any TRRP Revenues that are due to the Public Participants in accordance with the

Materials Revenue Share as described in Section 3.2 B and the Annual Settlement Process (described in Section 4.3.B) within thirty (30) Days of receipt of revenues from Service Contractor, subject to confirmation that the City has satisfied the requirements of the Bond Documents and Operating Reserve, and has met preconditions related to any Shortfall Charges, prior to distribution.

D. Limited Obligation

County's obligation with respect to materials revenue sharing is limited to TRRP Revenues that County receives and which are not subsequently recovered from County by a trustee in bankruptcy, creditor of the Service Contractor or other Person. City acknowledges that County may not receive any TRRP Revenues from Service Contractor for multiple reasons, including:

1. Service Contractor's failure to generate revenues from identified sources, or
2. Attachment of those revenues by creditors of Service Contractor who have a secured interest prior to the County's interest.

3.3 Exercise of Contractual Rights

A. Notification

County will notify City, no later than thirty (30) Days prior, of any upcoming County Board meeting prior to exercising County's rights and obligations under the Service Agreement that the County does not delegate to the County Agreement Representative. The obligation to notify the City does not prevent the County from unilaterally exercising such rights and obligations. Examples include:

1. Giving Notices to proceed, and full or partial Facility acceptance; and,
2. Exercising certain enforcement actions and remedies.

B. City's Individual Rights

County authorizes City to exercise the following rights of the County under the Service Agreement, at City's option:

1. Entering Facility during normal hours of Facility operation, and/or,
2. Accessing Service Contractor's books and records during normal business hours as well as access to electronic records available on-line from the Contractor and County.

C. No Modification Without City Consent

Except for routing change orders necessary for the construction and operation of the Facility as described in the Service Agreement, County will not modify the Service Agreement in any way that changes City's obligations, or City's rights under this Section 3.3, without City consent.

3.4 Annual Facility Review Meeting

County shall hold an annual meeting with City and other Public Participants to review the Service Contractor's Processing efforts, and overall performance under this Agreement. The purpose of such meeting is to provide for a discussion and review of technological, economic, and regulatory changes in collection, source reduction, Processing and Disposal to achieve a continuing, advanced materials Processing and Disposal system; and to ensure services are being provided by County and the Service

Contractor with adequate quality, effectiveness and economy, and in full compliance with the terms of this Agreement.

County shall notify City of its intent to hold an annual review meeting at least sixty (60) days in advance thereof.

In addition, City may request a meeting with County to discuss the issues described herein at any time during the Agreement Term, and County shall arrange such meeting within thirty (30) Days of City request.

3.5 Services During Uncontrollable Events

In the event of an Uncontrollable Circumstance, County shall make Reasonable Business Efforts to receive materials delivered by City's Collection Contractor, and to promptly and cost effectively provide materials processing and disposal services either through facilities within the County's Solid Waste System or using alternative waste management facilities. The County commits to seeking all reimbursable funds from any and all insurance policies providing coverage for loss or damage resulting from such events to return the TRRP and Landfill to operations. If the cost to repair the TRRP and landfill exceed the available insurance proceeds, the County will prepare a plan and budget to return the facilities to operational status and submit this information to the Operating Committee for consideration under Section 4.3.D.3. Moreover, since the type, scope and limits of the required insurance coverage secured by the Contractor and the County for the TRRP was determined after review and consultation by the City of Santa Barbara, any significant changes in the type, scope or limits of insurance coverage for the TRRP will be subject to review by the Operating Committee.

A. Disposal Facility Available

In the event an Uncontrollable Circumstance occurs which prevents Processing of materials by the TRRP but does not preclude Disposal in the Landfill, County shall Dispose of the materials and shall make Reasonable Business Efforts to provide alternative material Processing capacity.

B. Disposal Facility Not Available

In the event an Uncontrollable Circumstance occurs which prevents Processing of materials by the TRRP and Disposal in the Landfill, the County, shall not abandon the Solid Waste System and shall continue to provide disposal capacity sufficient to enable it to comply with the terms hereof; provided, that, the County may provide such capacity by making available transfer and/or disposal facilities owned and operated by the County or by making contractual or other arrangements for the use of transfer and/or disposal facilities (either inside or outside the geographic boundaries of the County) owned or operated by persons other than the County. In the event of loss or damage to any material portion of the Solid Waste System or the occurrence of any other event which prevents the County from accepting solid waste at the facilities or the Solid Waste System, the County will use Reasonable Business Efforts to take whatever actions are within its powers to provide other facilities or services necessary to provide the solid waste management services necessary to maintain Net Current Revenues and Net Revenues as required under the Bond Documents. If the efforts necessary to replicate the performance of the TRRP are not economically feasible based on the Current Revenues and any available insurance proceeds, the County shall convene a meeting of the Operating Committee to discuss the options available to provide disposal and processing services that most closely replicate the performances of the TRRP within the limits of the Current Revenues and any available insurance proceeds.

ARTICLE 4: CITY'S OBLIGATIONS

4.1 Acceptable Materials Delivery Requirement and Monthly Payments

Commencing on July 1, 2017, the Public Participants will deliver or direct their respective Collection Contractor to deliver to the System all Acceptable Materials that the Collection Contractor collects under its contract with City. Public Participants shall also pay or cause their respective Collection Contractor(s) to pay the then-applicable Monthly Service Payment based on the Acceptable Materials Charge established pursuant to this Agreement. The obligations of the Public Participants pursuant to this section shall be referred to here as the "Delivery Covenant."

In order to meet the Delivery Covenant, each Public Participant agrees to maintain collection franchises or other contractual arrangements (or utilize municipal collection) to manage collection of all Acceptable Materials generated within its jurisdiction while the Certificates are outstanding.

Each such franchise or contract shall require, as a condition of the franchise or contract, that the hauler deliver Acceptable Materials which it collects to the County System, or to alternate facilities designated by the County in the event the County System is unavailable for any reason as discussed in Section 3.5.

4.2 City's Annual Deliveries

A. Tonnage

City will deliver (or cause to be delivered) its City's Minimum Annual Delivery Requirement up to its City's Maximum Annual Delivery Allowance (as described in Figure I, below) to the MRF, AD Facility or composting operations area on the Project Site (or other site designated by the County), as Service Contractor directs, by either or both of the following means:

- Municipal collection: collecting Acceptable Materials itself, using municipal employees; or
- Contract collection: directing Collection Contractors to deliver Acceptable Materials using Collection Contractors' employees, subcontractors or other third Persons.

1. Contamination

The TRRP Revenues are based on the receipt of Mixed Waste, Source-Separated Recyclable Materials, and Source-Separated Organic Materials. Each of the Source Separated materials have limits of the contamination they may contain as described in the Definitions. Should higher levels of contamination occur, more material will be classified as Mixed Waste and less TRRP Revenue will be received.

If County demonstrates a material increase in contamination of Source Separated Recyclable Materials and Source Separated Organic Materials delivered to the TRRP, the County and the Service Contractor shall attempt to determine the source and cause of the increased contamination. If the source of the contamination cannot be identified, the County will prepare proposed actions (e.g., targeted public outreach programs, tagging of containers and collection of materials in the tagged containers as solid waste, etc.) to be implemented uniformly by all users of the Facility. The Operating Committee shall consider the Service Contractor's and County's findings and recommendations and either adopt those recommended actions or modify them and adopt the modified actions and all users of the Facility shall uniformly implement such actions within six (6)

months.

If the County demonstrates by substantial evidence that the increased contamination is attributable to the City, then the County will notify the affected City. If the City does not agree with the County's findings as to the cause of the contamination, a third party that is mutually agreeable to the City and the County will be hired to review the County's evidence and make a determination of the cause of the increased contamination. If the City does not dispute the County's original finding as to the cause of the increased contamination or if the third party attributes the cause of the increased contamination to the City, then the City will have ninety (90) days to prepare a course of action (e.g., targeted public outreach programs, tagging of containers and collection of materials in the tagged containers as solid waste, etc.) to address the identified contamination including a description of the change(s), the timeline for the change(s), and the anticipated impact(s) of the change(s). Within sixty (60) days of receipt of the City's proposed actions (Proposal) to correct the contamination, County shall prepare and deliver to City a written response to the proposed change (Response). If the City does not agree with the original findings of the County or Service Contractor or the County does not agree to the Proposal prepared by the City to address the contamination issue, a third party that is mutually agreeable to the City and County will be hired to review the County or Service Contractor's findings and the City's Proposal, and make a recommendation to address the issue. The cost for the third party will be split between the County and the City and the third party's decision shall be binding upon the City and the County. The City will implement actions associated with the third party's decision within six (6) months.

2. Quantities

In the event that in any Agreement Year City delivers (or causes to be delivered) Tons in excess of the City's Minimum Annual Delivery Requirement but less than the City's Maximum Annual Delivery Allowance, City shall be charged for each additional Ton at the then current Acceptable Materials Charge, during the Annual Settlement Process, as described in Section 4.3.B.

In the event that in any Agreement Year City delivers (or causes to be delivered) Tons in excess of the City's Maximum Annual Delivery Allowance but the facility has received fewer Tons than the Facility Maximum Annual Delivery Allowance, City shall be charged for each additional Ton at the then current Acceptable Materials Charge, during the Annual Settlement Process, as described in Section 4.3.B.

In the event that in any Agreement Year City anticipates or is projected by the County or the Service Contractor to deliver (or cause to be delivered) Tons in excess of the Facility Maximum Annual Delivery Allowance, City may be allowed to deliver (or cause to be delivered) the additional Tons at the Acceptable Materials Charge based on the terms determined in accordance with Section 4.3.C.2.

Figure I - City's Minimum Annual Delivery Requirement

"**City's Minimum Annual Delivery Requirement**" means at least the following Total Tons of Acceptable Materials relating to the City. (Specific Tons of Mixed Waste, Source-Separated Recyclable Materials and Source-Separated Organic Materials are listed separately only for the purpose of calculating revenue shares under Section 3.2.B.)*

	Mixed Waste (Tons)	Source-Separated Recyclable Materials (Tons)	Source-Separated Organic Materials (Tons)**: • Source-Separated Food Scraps, or • Source-separated Food Scraps and Yard Trimmings (combined)	Total
City's Minimum Annual Delivery Requirement Total Tons	3,632	0	0	**3,632**
City's Maximum Annual Delivery Allowance Total Tons	4,431	0	0	**4,431**

* *The Minimum Annual Delivery Requirement(s) shall be increased to reflect City annexation of any property subsequent to the execution of this Agreement.*

** *While Source-Separated yard trimmings may be delivered to the Anaerobic Digestion Facility, such material is not included in the tonnage commitment of each jurisdiction.*

B. Collection Contract Obligations

City *must* include obligations under this Section 4.2 as performance specifications and contractual obligations in an agreement with its Collection Contractor as well as any Permits, licenses or other regulatory instruments allowed under law.

1. Delivery of All Acceptable Materials

The City or its Collection Contractor must deliver to the Project Site (or other site designated by the County) all Acceptable Materials that it collects under its collection contract with the City.

2. Tajiguas Landfill Tip Fee Increase Beginning July 1, 2017

Beginning, July 1, 2017, the City agrees to pay a tipping fee increase for disposal of waste at the Tajiguas Landfill at a rate of ninety nine (99) dollars per ton. The revenue generated by this increase will fund the Jurisdictional Rate Stabilization Fund.

3. Monthly Service Payment Requirement Upon Commencement of Operations

The City or its Collection Contractor shall pay County a Monthly Service Payment as provided in this Section 4.2.B.2.

The Monthly Service Payment is calculated and paid monthly based on the City's Minimum Annual

Delivery Requirement shown in Section 4.2.A multiplied by the applicable Acceptable Materials Charge shown in Section 4.3.A divided by twelve (12). The Monthly Service Payment shall be the monthly amount represented in the following formula.

\+ Acceptable Material Charge

x City's Minimum Annual Delivery Requirement (Total Tons)

/ 12 months

= Monthly Service Payment

The Annual Settlement Process, defined in Section 4.3.B, identifies any necessary adjustments to the twelve (12) Monthly Service Payments made for the previous Agreement Year to reflect actual Tonnages delivered and other payments owed to, or by Collection Contractor. Should City's actual Tonnages delivered during the Agreement Year significantly exceed what would be expected based on the City's Minimum Annual Delivery Requirement and should this materially affect the County's cash flow payments to the Service Contractor, or the County's ability to comply with the Bond Documents, then the Parties shall meet and confer to compensate the County for such an impact and/or adjust the future Minimum Annual Delivery Requirement to minimize the cash flow impact on the County in the future.

C. City Agreement to Exercise Collection Contract Remedies

If the Collection Contractor does not meet any or all contractual requirements in Section 4.2.B and Section 4.3, City shall exercise any or all remedies available at law or equity under its contract with the Collection Contractor to fulfill such requirements.

The failure of the City's Collection Contractor to pay County any sums due it in accordance with this Agreement and or Uncontrollable Circumstances do not excuse City from its obligation to pay the Monthly Service Payment and/or Acceptable Material Charges for materials that Collection Contractor delivered above the tonnage assumed in the Monthly Service Payment and Service Contractor accepted at Facilities.

D. Consent to Changes

The City and County acknowledge that changes to the City's collection contracts or programs may negatively impact the costs and revenues of the County and other Public Participants involved with the TRRP. The City may therefore amend its collection contract(s) or collection programs only if the City mitigates all impacts to the County and other Public Participants (including impacts such as reduced revenues to the County, or reduced Current Revenues available for debt service obligations) which may result from such amendments. General examples of "change" include expiration/termination, extension, re-procurement/replacement and amendments to collection agreements. Specific examples of "change" are stopping collection of Source-Separated Recyclable Materials; or delivering Acceptable Materials in a different configuration such as a "Wet/Dry" collection system.

1. Refuse, Recyclable and Organic Materials Other Than Yard Trimmings

If City wishes to propose a change to its collection contract or collection program, City and County shall abide by the following procedures:

- City shall send County and other Public Participants a written proposal detailing the proposed change(s) to the collection contract. The proposal shall: describe the change(s), identify the timeline for the change(s), identify the anticipated impact(s) of the change(s), and include the methods by which it proposes to use to cause no new current and future negative financial impacts to the County and other Public Participants. The proposal shall be sent to the County and other Public Participants at least twelve (12) months before the intended effective date of the proposed changes, which shall coincide with an Agreement Year.

- Within ninety (90) days of receipt of City's proposal, County (which may consult with the Service Contractor) shall (and other Public Participants may) prepare and deliver to City a written response to the proposed change as it relates to the TRRP (Response) including any additional impacts and possible mitigation measures not considered by City but required of the City or the County, to fully mitigate the impact on the County and the other Public Participants and to generate sufficient revenue for the County to meet the requirements of its Bond Documents.

- Thereafter, the City and County (and as appropriate the other Public Participants and Service Contractor) shall meet, for a period not to exceed six (6) months, to negotiate the terms related to the implementation of City's requested change (based upon analysis performed by the City, the County, other Public Participants and the Service Contractor). Should the City and County reach agreement, then the City shall implement the change according to their original schedule but not sooner than thirty (30) days following agreement.

- Should the City and County (and as appropriate the other Public Participants and Service Contractor) not reach agreement, within the six-month negotiating period or upon either party declaring an impasse then within thirty (30) days of reaching impasse, the County (and as appropriate, the Operating Committee) shall submit to the City, the terms related to the City's requested change to which the County is unable to agree. Once the City receives the list of terms to which the County is unable to agree, the City may submit the points of disagreement to a third party that is mutually agreed upon by the City and County. The third party shall evaluate the points of disagreement and shall develop a set of proposals that would enable the adoption of the City's requested change while mitigating revenue losses or cost increases related to the proposed change in order to enable the County to continue to meet the requirements of the Bond Documents. The Party submitting the proposal to affect a change shall pay the direct costs for the third party and the City and County will each be responsible for other costs associated with analyzing the proposal.

Following receipt of the third party's proposals, the City shall have thirty (30) days to elect to proceed with its proposed change in a manner consistent with one of the third party's proposals or to elect to not implement the change. If the City elects to proceed with the change, the consultant's proposal shall be binding upon the City and the County2.

Yard Trimmings: Source-Separated Yard Trimmings are not included in the City's Minimum Annual Delivery Requirement. Therefore, the City is entitled to direct its Source-Separated yard Trimmings wherever it chooses. Notwithstanding the foregoing, the City acknowledges that if it redirects Source Separated yard Trimmings out of the Solid Waste System, there may be financial impacts that may affect revenues and thus the County's commitments under the Bond Documents. Notwithstanding any provisions of this Subsection D to the contrary, the City shall not be required to mitigate these impacts

for a period longer than five (5) years from the date of implementing the change.

Should City wish to direct its Source-Separated Yard Trimmings (which are not included in the City's Minimum Annual Delivery Requirement) to a facility other than the Tajiguas Landfill, then City and County shall abide by the following procedures:

- City shall send County a written proposal to direct its Source Separated Yard Trimmings to a facility other than the Tajiguas Landfill. The proposal shall: describe the change, identify the timeline for the change, identify the impact(s) of the change, and include the methods by which it proposes to cause no negative financial impacts to the County or other users of the System for a period not to exceed five (5) years. The proposal shall be sent to the County at least twelve (12) months before the intended effective date of the proposed change, which shall coincide with an Agreement Year.

- Within ninety (90) days of receipt of City's proposal, County (which may consult with other Public Participants) shall prepare and deliver to City a written response to the proposed change to the Solid Waste System (Response) that includes a fiscal analysis and any additional impacts (meet and confer with labor organizations regarding layoff's, modification to service contracts, early retirement and sale of equipment, etc.) and possible mitigation measures (e.g., contracting for grinding services) not considered by City but required of the City or the County, to fully mitigate the impact on the County (and other Public Participants) and allow the County to generate sufficient revenue to meet the requirements of the Bond Documents.

- Thereafter, the City and County shall meet, for a period not to exceed sixty (60) days, to negotiate the terms related to the implementation of City's requested change (based upon the City's proposal and the County's Response). Should the City and County reach agreement on proposed mitigations to be implemented by the County, and, if necessary, a schedule of payments by the City to the County to address fiscal impacts, then the City shall provide written notice to County of its intention to implement the proposed change according to its original schedule but not sooner than the following Agreement Year or to withdraw its proposed change. .

- Should the City and County not reach agreement after sixty (60) days, City and County shall identify and hire a third party that is mutually agreed upon by the City and County to consider the City's Proposal and the County's Response and (1) develop a plan that identifies steps by which the County could decrease costs related to the provision of yard trimming processing and marketing services as well as determining the amount of remaining financial impacts to the County that are not addressed by the plan, and (2) shall provide a schedule of payments that City shall make to County as a condition of the proposed change for up to five (5) years from the date of implementing the change. The Party submitting the proposal to affect a change shall pay the direct costs for the third party.

- Within sixty (60) days following the completion of the third party's plan, the City shall provide written notice to County of its intention to implement the proposed change which shall coincide with an Agreement Year or to withdraw its proposed change.

- If the third party's recommendation requires a change in operations for the County and/or a schedule of payments owed by the City, within three (3) months of receiving City's notice, the

County will be required to begin to implement the operational change.

- The City will not redirect its yard Trimmings until twelve (12) months have elapsed from the date of Facility Full Operations.

4.3 Compensation

A. Acceptable Materials Charge

Notwithstanding anything to the contrary contained in this Agreement, the County shall establish, and each System Participant shall pay, a per-ton charge (the Acceptable Materials Charge) which, in the aggregate, shall be sufficient to generate Revenues (after taking into account revenues from the sale of Recyclable Materials, the proceeds of insurance and Current Revenues and other receipts) in an amount at least equal to all amounts required to be paid or incurred by the County to provide the services set forth in Section 3.1, to meet the requirements of the Bond Documents, and to replenish any reserves established hereunder.

At the time of the execution of this Agreement, the Acceptable Materials Charge is estimated to be no more than one hundred twenty dollars ($120) per ton, however in no event shall the actual Acceptable Materials Charge be less than the reasonably estimated amount necessary to generate Net Revenues and Net Current Revenues as described in the preceding sentence. The County may make adjustments from time to time to such charges, fees and rates and may make such classification thereof as it deems necessary, but shall not reduce the charges, fees and rates then in effect unless the Net Revenues and Net Current Revenues from such reduced charges, fees and rates will at all times be sufficient to meet the requirements set forth above. The parties acknowledge that the obligation of the County to require each System Participant to deliver waste to the System and to pay the Acceptable Materials Charge is absolute and unconditional as long as the County performs its obligations under Section 3.1 to receive and process, treat or dispose of Acceptable Materials, regardless of whether all or any portion of the Facility (i) is completed by the scheduled completion date, (ii) operates in accordance with the specifications set forth in the Service Agreement, (iii) generates the products that are identified in the Service Agreement, (iv) generates products that in fact have an actual market or market value, or (v) achieves diversion levels consistent with the projections contained in the proforma of the Service Agreement.

B Annual Settlement Process

The Annual Settlement Process is used to reconcile the Monthly Service Payments paid over a full Agreement Year, with the amount due based on the actual Tonnage delivered multiplied by the Acceptable Materials Charge.

Within forty-five (45) Days of the conclusion of each Agreement Year, County shall provide City and Collection Contractor an "Annual Settlement Process Statement" setting forth the determination of outstanding payments, amounts due, or financial obligations of the City directly or through its designated Collection Contractor, with respect to the given Agreement Year. The Annual Settlement Process Statement shall include a reconciliation of the amount owed with the amounts actually paid by City or Collection Contractor with respect to the given Agreement Year including tonnage of material delivered by type, TRRP revenues from the Contractor and allocated to the City, and the statement of any necessary contributions to the Jurisdictional Rate Stabilization Fund. The Annual Settlement Process Statement shall also identify any excess reserves which the City may use to defer future rate increases

to its ratepayers, or working jointly with the County, choose to replace or renew equipment, and/or defease a portion of the outstanding Facility Certificates. In the event that City desires to review or contest the contents of the Annual Settlement Process Statement, within thirty (30) days of receipt of the Statement, City may request to meet with County, and County shall arrange to meet with City within thirty (30) Days of City request. If there continues to be a difference between the County's and City's calculation of the amounts due, the Parties will meet and confer to resolve their differences for a period of not more than thirty (30) days. The obligation to have such a meeting does not confer on the City a right to revise or stop the settlement payment. If there is not a dispute, the amount due from either Party will be paid within forty five (45) days of receiving or sending the Statement. If there is a dispute and if the Certificates issued for the Facility financing are outstanding the Parties shall use the process described in Section 5.2 below; if the Certificates issued for the Facility financing are not outstanding then the Parties shall use the process described in Section 5.3 below.

C. Exceedance of Maximum Annual Delivery Allowance

1. Should the Tonnage attributable to the City that can be delivered to the Facility exceed the City's Maximum Annual Delivery Allowance but not cause the Facility to exceed its Maximum Facility Capacity, the County, City, and other Public Participants shall meet to determine, under what terms the City may deliver the Excess Tonnage.

2. Should the Tonnage attributable to the Public Participants that can be delivered to the Facility exceed the Maximum Facility Capacity, the County, Public Participants, and Service Contractor shall meet to determine if the Service Contactor can accommodate the Excess Tonnage, and if so at what adjustment to the Acceptable Materials Charge. County and City shall meet to determine what other adjustments might be made to the Acceptable Material Charge (e.g., a reduction to the annual debt service component of the Acceptable Material Charge). If the County and City agree, then the City may deliver the Excess Tonnage to the Facility.

D. Adjustments

Each January, the County will distribute a draft Annual Budget for the System.. The Annual Budget will contain an estimate of the Current Revenues and System Costs payable from Current Revenues for the ensuing Agreement Year, (beginning on the upcoming July 1). The Annual Budget will disaggregate the cost and revenue components into four categories including 1) Contractor cost, 2) debt service cost, 3) County Service Cost, and 4) Other County Costs (that will not be a component of the Acceptable Material Charge for the Facility). The Annual Budget will also contain an estimate of the amount of Acceptable Materials expected to be delivered to the System in such Agreement Year, and the resulting Acceptable Materials Charge required to be imposed in order for the County to meet the requirements of the Bond Documents.

In the case of any financial shortfalls (either higher than projected costs or lower than projected revenues) related to the Facility, the replenishment of funds by the jurisdictions shall only be included as part of the annual budget process pursuant to the limitations discussed below.

1. If the proposed change in the Acceptable Materials Charge is equal to or less than seven and one-half percent (7.5%), the City shall adjust collection rates a commensurate amount and direct its Collection Contractor to pay the corresponding Monthly Service Payment effective the following Agreement Year. In no case shall the Acceptable Materials Charge be adjusted

by a negative value. If the calculated adjustment is a negative value, the adjustment shall be set to "one" (1). For example, if the Acceptable Material Charge is $116 per ton and the calculated adjustment was - 0.3 percent, then the $116 per ton would be multiplied by 1 and result in $116 per ton.

2. If the change in the Acceptable Materials Charge is greater than seven and one-half percent (7.5%), or the cumulative adjustments total fifteen percent (15%) or more in the past three (3) consecutive years, and if two-thirds of the Public Participants representing at least two-thirds of the annual amount of Acceptable Materials delivered during the previous year object to the rates proposed by the County, the Operating Committee shall be convened (within 30 days of receipt of Annual Budget) and shall be charged with establishing rates sufficient to generate (after taking into account revenues from the sale of Recyclable Materials, the proceeds of insurance and other receipts), Net Current Revenues during each Agreement Year equal to 100% of Debt Service for such Agreement Year, Net Revenues during each Agreement Year equal to one hundred fifty percent (150%) of the Debt Service for such Agreement Year plus, in each case, all other amounts required to be paid by the County to provide the services set forth in Section 3.1 and to meet the requirements of the Bond Documents.

3. If two-thirds of the total votes of the Operating Committee vote to adopt the rates proposed by the Operating Committee, such rates shall be utilized. If at least two-thirds of the votes of the Operating Committee do not approve such alternate rates, or should the alternate rates not be approved by two-thirds of the Operating Committee within forty five (45) Days of convening the Operating Committee, then the initial rates proposed by the County shall be approved. The resolution of the Acceptable Materials Charge must be complete by April 1 of the preceding Agreement Year before its effective date.

E. Only Form of Compensation

The Monthly Service Payment, as adjusted through the Annual Settlement Process (including but not limited to additional charges described herein such as Shortfall or Excess Tonnage Charges) shall be the only compensation owed to County by City through the designated Collection Contractor. Following such procedures, the County shall establish the Acceptable Materials Charge by the start of each Agreement Year commencing on July 1.

ARTICLE 5: SUSPENSION AND TERMINATION

5.1 Notice of Default

Should either Party default in the performance of Articles 3 or 4 of this Agreement or materially breach any of its provisions, except as the result of an uncontrollable circumstance, the Party claiming such default shall provide the Party a notice of default to the Party claimed to have defaulted. In such Notice, the Party claiming such default, shall provide a description of the specific incidents giving rise to such default or breach and identify the requested cure. Upon receipt of notice, the Party claimed to be in default shall notify the Party claiming such default as to the status of its performance. Thereafter, the Parties shall meet and confer in an attempt to remedy such incidents.

5.2 Resolution When Facility Financing Certificate(s) Outstanding

While the Certificates for the Facility financing are outstanding, the only remedy for default shall be specific performance and there shall be no suspension or termination of the Agreement. If the Parties cannot agree on such remedies and the claimed default or breach occurs while any Certificates issued for the financing of the Facility are outstanding, the matter shall be submitted to binding arbitration using an independent arbitrator. If either Party wishes to select an arbitrator, each Party shall prepare a separate list of five (5) independent arbitrators having experience, as applicable in the Development of, or operation of similar solid waste-related facilities, in numerical order with the first preference at the top, and exchange and compare lists. The independent arbitrator ranking highest on the two (2) lists by having the lowest total rank order position on the two (2) lists shall be the Independent Arbitrator. In case of a tie in scores, the Independent Arbitrator having the smallest difference between the rankings of the two (2) Parties shall be selected; other ties shall be determined by a coin toss. If no independent arbitrator appears on both lists, this procedure shall be repeated. If selection is not completed after the exchange of three (3) lists or sixty (60) Days, whichever comes first, then each Party shall select one independent arbitrator having experience described above and the two (2) arbitrators so selected shall together select an Independent Arbitrator. The Independent Arbitrator shall make its determination based on the submissions of the Parties, the provisions hereof, and other factual determinations it may make regarding the matter in dispute, but in any case such determination must not adversely impact the County's ability to comply with the terms of the Bond Documents. The determination of the Independent Arbitrator shall be binding. The Parties shall share the costs of the Independent Arbitrator equally for the first three dispute resolutions brought in any twelve (12) month period commencing on July 1, and thereafter shall be borne by the loser, as determined by the Independent Arbitrator.

5.3 Resolution When Facility Financing Certificate (s) Not Outstanding

If the Parties cannot agree on such remedies and the claimed default or breach does not occur during the period when any Certificates issued for the financing of the Facility are outstanding, the Parties may exercise any legal rights they have under the Agreement and under Applicable Law, including to secure specific performance.

ARTICLE 6: RECORDS AND REPORTS

6.1 Records

A. Contents

County will keep records of its administration and enforcement of the Service Agreement. An example is Tonnage of each type of Acceptable Material that the City delivers to the TRRP, as well as aggregate Tonnage of materials delivered on a Spot-Market Materials basis to the TRRP.

B. Access

Upon City request, County shall make operational and business records (including scale house data) available to City during Landfill hours, and shall provide on-line access or printed copies of records as described in 3.3.B.

6.2 Reports

County will report to City on administration and enforcement of the Service Agreement. An example is a report on results of the Annual Settlement Process.

ARTICLE 7: ENFORCEMENT

7.1 Enforcement

A. Law and Equity

If either County or City does not meet its obligations under this Agreement, the other Party may exercise any and all available remedies under law and equity, including specific performance. Specific performance is an appropriate remedy to enforce City's obligation to deliver Acceptable Materials to the TRRP, for the same reasons described under Section 4.2.C above with respect to the Collection Contractor.

B. Shortfall Charges

If City does not meet its City's Minimum Annual Delivery Requirement it will pay any consequent City's Shortfall Charge within thirty (30) Days of County request, including payment by its Collection Contractor. County may do either or both of the following:

1. Deduct the Shortfall Charge or any other money that City owes the County from any TRRP Revenue shares that the County owes City, or
2. Exercise any other remedy under Section 7.1.A, above.

7.2 Uncontrollable Circumstances

A. General

Either Party's failure to meet its contract obligations, other than the payment of money such as the Shortfall Charge, will *not* be deemed an event of default if all of the following conditions are met:

1. The event of default is caused by Uncontrollable Circumstances;
2. The event of default is explicitly subject *to* Uncontrollable Circumstances under this Agreement; and,
3. The party relying on the Uncontrollable Circumstance exerted Reasonable Business Efforts to prevent the occurrence and mitigate the effects of the Uncontrollable Circumstance.

Despite a Party claiming that an Uncontrollable Circumstance prevents it from fulfilling its obligations, such Party shall remedy the problem and perform its obligations as soon as possible.

B. Notice

The Party experiencing an Uncontrollable Circumstance will give immediate Notice to the other Party, including all of the following:

1. Describing performance under this Agreement for which it seeks to be excused;
2. The expected duration of the Uncontrollable Circumstance;
3. The extent to which Agreement Services may be curtailed; and,
4. Any requests or suggestions to mitigate the adverse effects of the Uncontrollable Circumstance.

7.3 Jurisdiction, Venue, Service of Process

A. Exclusive State Court Jurisdiction

County and City will bring any lawsuits arising out of this Agreement in State courts, which will have exclusive jurisdiction over the lawsuits.

B. Venue

Venue is made and will be performed in courts sitting in the County of Santa Barbara.

C. Location

County and City will conduct any other hearing or action (such as mediation or arbitration), of whatever nature or kind regarding this Agreement, in the City of Santa Barbara.

D. Service of Process

County and City will accept service of process at the address where they receive Notices.

7.4 Governing Law

This Agreement is governed by, and construed and enforced under, the laws of the State of California, without giving effect to the State's principles of conflicts of laws.

7.5 Costs

Subsequent to a judicial decision upholding the complaining Party's complaint, the other Party will pay the complaining Party's Reimbursement Costs reasonably incurred to enforce its rights or exercise its remedies for the other Party's failure to meet its obligations under this Agreement. This obligation is a general, not limited or special, obligation of each Party.

ARTICLE 8: ASSIGNMENT

8.1 Assignment

Neither Party shall Assign its rights nor delegate or otherwise transfer its obligations under this Agreement to any other Person without the prior written consent of the other Party to the Assignment. Any such Assignment made without the consent of the other Party shall be void and the attempted Assignment shall constitute a material breach of this Agreement.

ARTICLE 9: MISCELLANEOUS PROVISIONS

9.1 Entire Agreement

This Agreement contains the entire agreement between the Parties with respect to their rights and obligations under this Agreement, including the enforcement and administration of this Agreement. This Agreement supersedes all prior understandings and agreements between the Parties with respect to their rights and obligations, including those contained in drafts, memorandums, correspondence, telephone calls, meetings and their respective County Board and City Council sessions.

However, if words defined in this Agreement conflict with definitions in the Service Agreement, the definition under the Service Agreement governs.

9.2 Amendments

The Parties may make changes in this Agreement after the Effective Date, effective only upon signing a written amendment to this Agreement.

9.3 Severability

A. Court Rulings Generally

If any one or more of the provisions contained herein shall for any reason be held to be invalid, illegal or unenforceable in any respect, then such provision or provisions shall be deemed severable from the remaining provisions hereof, and such invalidity, illegality or unenforceability shall not affect any other provision hereof, and this Agreement shall be construed as if such invalid, illegal or unenforceable provision had never been contained herein.

B. Court Rulings: Delivering Materials to TRRP

However, in the ruling of invalidity, illegality, non-binding nature or unenforceability of any Agreement Provision, under Section 9.3.A, with respect to the City's Minimum Annual Delivery Requirements, obligations of County, or obligations of City's Collection Contractor to deliver materials to the TRRP; then the County Board of Supervisors may, in its sole discretion, do any of the following:

1. Accept the ruling without deleting or enforcing that Agreement Provision;
2. Delete that Agreement Provision and construe and enforce this Agreement under this Section; or,
3. Terminate this Agreement if Service Contractor accedes.

9.4 Interpretation

City acknowledges the following:

1. It commented on the form of this Agreement with advice of its attorneys.
2. It entered into this Agreement upon its own choice and initiative, in order to meet its goals described in the Recitals above.
3. It agrees that no one can construe any provision in this Agreement against County solely because County prepared this Agreement in its executed form.

4. It understands that this Agreement is an essential aspect of the Certificate financing process, and agrees to cooperate in providing information required for the financing process, including information for the official statement and rating process.

County represents and warrants as follows:

a. It has reviewed and commented upon this Agreement with advice of its attorneys.

b. It entered into this Agreement upon its own choice and initiative, in order to meet its goals described in the Recitals above.

Therefore, this Agreement must be interpreted and construed reasonably and neither for nor against either Party, regardless of the degree to which had either Party participated in its drafting.

9.5 Timely Performance

A. Specified Days on Weekdays

1. Performance

If a Party must perform an obligation under this Agreement within a specified number of Days, and the last Day falls on a weekend or holiday, the obligated Party may perform that obligation on the next weekday following the weekend or holiday. For example, if City must provide documentation to County within thirty (30) Days of County request and the 30th Day falls on a Sunday, City must give County the documentation by the next Day, Monday.

2. Counting

Each calendar Day is counted when determining the last Day of the specified number of Days. For example, if County must provide documentation to City within one (1) week of City's request on a Friday, City must give County the documentation by the next Friday.

B. Specified Hours on Any Day

If a Party must perform an obligation under this Agreement at a specified time, in any of the following events the obligated Party must perform that obligation within the specified time, *even if* the time for performance falls on a weekend or holiday:

1. The specified time is measured in hours;
2. The County specifies the time (for example, on a Saturday even though performance would otherwise occur on Monday); or,
3. County determines that there is a threat to public health or safety.

9.6 Notices, Etcetera

A. Location

Parties must give Notices at the addresses that they identify in Exhibit A.

B. Notice

Parties may give Notices such as Notice of default, only by any of the following ways:

1. Email or facsimile followed as soon as possible (but no more than two (2) Days) by personal or mailed delivery;
2. Personal delivery to County Agreement Representative or City Agreement Representative;
3. Deposit in the United States mail first class postage prepaid (certified mail, return receipt requested); or,
4. Commercial delivery service providing delivery verification.

C. "Notice"

Parties may give "notice" (not capitalized) by either Party of a routine administrative issue (such as results of the Annual Settlement Process or date of a County Board meeting) orally (for example, by telephone or computerized communication); and electronically (for example, by email).

D. Change of Address

Parties may change their address for Notice upon giving a Notice to that effect to the other Party.

9.7 Writing

Parties must make all of the following in writing unless oral communication is explicitly allowed:

- requests, demands, orders, directions,
- acceptances, consents, approvals, agreements,
- waivers,
- exercise of options or rights, selections,
- proposals,
- reports, and
- acknowledgments, certifications, representations and warranties.

Explicit reference to "written" or "writing" with respect to any one communication does not imply that other communications without explicit reference to writing may be oral. "Writing" includes any means of printed language, including hard copy and emails.

9.8 Exercise of Options

Parties exercise of any approval, disapproval, option, discretion, satisfaction, determination, election, consent or choice under this Agreement is deemed reasonable, unless this Agreement specifically provides otherwise, such as in a Party's "independent", "sole", "exclusive" or "absolute" "control", "judgment", or "discretion".

9.9 Parties' Agreement Representatives

A. County Agreement Representative

1. Named

On the Effective Date, the County Agreement Representative is the Deputy Director of the County Public

Works Department (Resource Recovery and Waste Management Division). The Deputy Director's address is listed in Exhibit B.

2. Authority

County authorizes the County Agreement Representative to act on behalf of County in the administration of this Agreement, unless it specifically names another individual. By signing this Agreement, County delegates to County Agreement Representative the authority to exercise County rights, remedies and options under this Agreement and administer this Agreement, except with respect to:

a. Extending the term;

b. Suspending or terminating this Agreement;

c. Approving or disapproving Assignment or transfer of this Agreement; and,

d. Exercising any delegation of authority contrary to law.

B. City Agreement Representative

1. Named

City will name its City Agreement Representative by Notice to the County.

2. Authority

City authorizes City Agreement Representative to act on behalf of the City under this Agreement. County may assume that City has delegated its City Agreement Representative to exercise rights, remedies and options under this Agreement and administer this Agreement.

9.10 Signing Multiple Copies

The Parties may sign any number of copies of this Agreement. All signed copies are deemed to be one Agreement.

9.11 Authority to Sign

A. County

The County warrants that it duly authorized the officers listed below to sign this Agreement on behalf of County.

B. City

The City warrants that it duly authorized the individuals listed below to sign this Agreement on behalf of City.

IN WITNESS WHEREOF, the Parties have executed this Contract to be effective on the date executed by COUNTY.

ATTEST:
Mona Miyasato
County Executive Officer
Clerk of the Board

By:_____
Deputy Clerk

COUNTY OF SANTA BARBARA:

By:_____
Chair, Board of Supervisors

Date:_____

RECOMMENDED FOR APPROVAL:
Santa Barbara County Public Works Department

By:_____
Scott D. McGolpin
Public Works Director

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

APPROVED AS TO FORM:

Risk Management

By:_____
Risk Management

ATTEST:
CITY CLERK

By: _____
[INSERT NAME]

CITY OF BUELLTON

By: _____
Mayor
[INSERT NAME]

Date: _____

APPROVED AS TO FORM:
CITY ATTORNEY

By: _____
[INSERT NAME]

ATTEST:
CITY CLERK

By: _____
[INSERT NAME]

CITY OF GOLETA

By: _____
Mayor
[INSERT NAME]

Date: _____

APPROVED AS TO FORM:
CITY ATTORNEY

By: _____
[INSERT NAME]

ATTEST:
CITY CLERK

By: _____
[INSERT NAME]

CITY OF SANTA BARBARA

By: _____
Mayor
[INSERT NAME]

Date: _____

APPROVED AS TO FORM:
CITY ATTORNEY

By: _____
[INSERT NAME]

ATTEST:
CITY CLERK

By: _____
[INSERT NAME]

CITY OF SOLVANG

By: _____
Mayor
[INSERT NAME]

Date: _____

APPROVED AS TO FORM:
CITY ATTORNEY

By: _____
[INSERT NAME]

EXHIBIT A:
ADDRESSES FOR NOTICES

[to come]

Parties may change their representative following Notice to the other Party.

Acknowledgment: City has submitted, and County has received, the attached address for giving Notice under this Agreement on the later of the following dates:

- the Effective Date, as evidenced by each of their signatures on this Agreement, or
- with respect to subsequent changes, the following date, as evidenced by their following signatures :

Date: _____

County: _____

EXHIBIT B:
COMMUNICATIONS

A. County Agreement Representative

Name	Mark Schleich **Deputy Director of Public Works** **(Resource Recovery and Waste Management Division)**
telephone number	805 882-3600
e-mail address	Schleich@cosbpw.net
mailing address	County of Santa Barbara Resource Recovery and Waste Management Division 130 East Victoria St., Suite 100 Santa Barbara, CA 93101
County office address	Same as mailing address

County may change its representative following Notice to City.

Acknowledgment: County has submitted, and City has received, the attached identification of County Agreement Representative on the later of the following dates:

- the Effective Date, as evidenced by each of their signatures on the Agreement, or
- with respect to subsequent changes, the following date, as evidenced by their following signatures :

Date: _____

County: _____

City: _____

B. City Agreement Representative

Name	Brad Vidro City Manager
Telephone number	805-688-5575
e-mail address	bradv@cityofsolvang.com
Mailing address	City of Solvang 1644 Oak Street Solvang, CA 93463
County office address	same

The City may change any of this information following Notice to County.

Acknowledgment: The City named above has submitted, and the County has received, the attached documentation on the later of the following dates:

- the Effective Date, as evidenced each of their signatures on the Agreement, or
- with respect to subsequent changes, the following date, as evidenced by their following signatures :

Date: _____

City: _____

County: _____

EXHIBIT C:
COLLECTION FRANCHISE OR OTHER PROOF OF DELIVERY OBLIGATION

[to be attached to signed copy of this Agreement]

CITY COUNCIL
STAFF REPORT

TO: **SOLVANG CITY COUNCIL MEMBERS**

FROM: Brad Vidro, City Manager

MEETING DATE: November 28, 2016

DATE PREPARED: November 18, 2016

SUBJECT: **METHOD FOR RESOLVING A TIE VOTE IN THE CITY COUNCIL ELECTION**

I. RECOMMENDATION:

Discuss and establish a method for resolving a tie vote

II. DISCUSSION:

On May 23, 2016 the City Council adopted the attached Resolution No. 16-989 requesting the Board of Supervisors of the County of Santa Barbara consolidate a general municipal election with the Statewide General Election. Included in that Resolution was a statement that the City would determine the method to resolve a tie vote. As of the date of this report being prepared the unofficial results are as follows:

Ryan Toussaint	1,269
Hans Duus	1,229
Karen M. Waite	1,228
Brian B. Baca	440
Write-in	12
Total Votes	4,178

The County Elections Division has indicated they are still going through provisional ballots and will not provide a "final" count until the numbers are certified by the Board of Supervisors at the December 6 Board Meeting. Since there is such a close margin between the candidates there is a possibility that there could be a tie vote. The determination of a tie cannot be made until the election is

certified by the County. Once that determination is made whatever process the City has approved will be utilized to resolve the tie.

The State Election Code states that tie shall be determined by lot. One definition of this is the casting or drawing of such objects as a method of deciding something. So drawing of straws, flipping of a coin, choosing a number, or some other non-skilled operation can be utilized to make the determination.

III. ALTERNATIVES:

Council could choose a variety of methods to resolve a tie.

IV. FICAL IMPACT:

None

V. ATTACHMENTS:

Resolution 16-989

RESOLUTION NO. 16-989

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SOLVANG, CALIFORNIA, REQUESTING THE BOARD OF SUPERVISORS OF THE COUNTY OF SANTA BARBARA TO CONSOLIDATE A GENERAL MUNICIPAL ELECTION TO BE HELD ON TUESDAY, NOVEMBER 8, 2016 WITH THE STATEWIDE GENERAL ELECTION TO BE HELD ON THE DATE PURSUANT TO § 10403 OF THE ELECTIONS CODE

WHEREAS, California, a General Municipal Election shall be held on November 8, 2016 for the purpose of electing a Mayor with a two (2) year term and two (2) Members of the Solvang City Council with four (4) year terms; and

WHEREAS, it is desirable that the General Municipal election be consolidated with the Statewide General election to be held on the same date and that within the city the precincts, polling places and election officers of the two elections be the same, and that the County Elections Division of the County of Santa Barbara canvass the returns of the General Municipal Election and that the election be held in all respects as if there were only one election;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF SOLVANG DOES RESOLVE, DECLARE, DETERMINE AND ORDER AS FOLLOWS:

SECTION 1. That pursuant to the requirements of § 10403 of the Elections Code, the Board of Supervisors of the County of Santa Barbara is hereby requested to consent and agree to the consolidation of a General Municipal Election with the Statewide General Election on Tuesday, November 8, 2016, for the purpose of electing a Mayor with a two (2) year term and two (2) Members of the Solvang City Council with terms of four (4) years.

SECTION 2. That the County Elections Division is authorized to canvass the returns of the General Municipal Election. The election shall be held in all respects as if there were only one election, and only one form of ballot shall be used. The election will be held and conducted in accordance with the provisions of law regulating the statewide or special election.

SECTION 3. That the Board of Supervisors is requested to issue instructions to the County Elections Division to take any and all steps necessary for the holding of the consolidated election.

SECTION 4. That the City of Solvang recognizes that additional costs will be incurred by the County by reason of this consolidation and agrees to reimburse the County for any costs.

SECTION 5. That the City Clerk is hereby directed to file a certified copy of this resolution with the Board of Supervisors and the County Elections Division of the County of Santa Barbara.

SECTION 6. That the City Clerk shall certify to the passage and adoption of this resolution and enter it into the book of original Resolutions.

SECTION 7. That the City will be providing the following services:

1. Be responsible for the procedures relative to their measures including publishing the "Notice of Election" and the "Notice to Submit Arguments"; accepting and selecting direct arguments; processing rebuttal arguments; preparing the impartial analysis; the 10-Day public exam period and all other related legal requirements.
2. Submit electronic copies of direct arguments, rebuttal arguments, impartial analysis and the full text of measures by the printing deadline established by the County elections official.
3. Prepare and process nomination documents for city candidates, resolve ballot designation issues and ensure all other related legal requirements are met.
4. Provide the County Elections Official with a certified list of candidates, including ballot designations and if a candidate filed a statement to appear in the sample ballot.
5. Review the sample ballot page proofs for candidate statements and give the County elections official the final approval for printing (English and Spanish).
6. Review the official ballot proofs and give the County elections official the final approval for printing (English and Spanish).
7. In the case of a tie vote, the City will determine the method to resolve the tie vote.
8. Prepare and furnish Oaths of Office for candidates.

SECTION 8. The City Council recognizes that the County Elections Official will be providing the following services:

1. Prepare a calendar of events and due dates for the election.
2. Publish the precinct officers and polling places information and provide the City Clerk with a copy of the publication.
3. Establish Polling Places, and recruit and train election officers.
4. Verify nomination petitions for city candidates.
5. Print candidate statements exactly as submitted by the city. The County elections official is not responsible for any errors in punctuation, spelling, and grammar.
6. Arrange for the Spanish translation of all materials provided to the voters.
7. Prepare and arrange for the printing of sample ballot booklets and official ballots.
8. Provide the City Clerk with the sample ballot page proofs for candidate statements, direct arguments, rebuttal arguments, impartial analysis and full text information for measures (English & Spanish) for their review and final approval.
9. Provide the City Clerk with the official ballot proofs (English & Spanish) for their review and final approval.
10. Manage vote-by-mail process.

11. Tally votes at polling locations and/or vote-by-mail ballots at the County Elections Office.
12. Conduct election canvass procedures.
13. Provide a copy of the election certification and final results.
14. Prepare and mail invoice to the city for costs of the election.

PASSED, APPROVED AND ADOPTED this 23rd day of May, 2016.

Jim Richardson, Mayor

ATTEST:

Lisa S. Martin, City Clerk

I, Lisa S. Martin, City Clerk of the City of Solvang, do hereby certify that the foregoing Resolution was duly adopted by the City Council of the City of Solvang at a regular meeting held on the 23rd day of May, 2016, by the following vote of the Council:

AYES: Mayor Richardson, Council Members Duus, Jamieson, Skytt, Zimmerman

NOES:

ABSTAIN:

ABSENT:

Lisa S. Martin, City Clerk

November 22, 2016

ADVANCE CALENDAR

Below is an Advance Calendar of anticipated agenda items. The dates are tentative but reflect an overview of items to come. Items on this advance calendar are subject to change. Final agendas will be available on-line and at City Hall at least 72 hours prior to the meeting date.

MEETING DATE	AGENDA ITEM	ACTION
DECEMBER 12, 2016	Results of Election and Installation of New Mayor/Councilmembers	Accept
(BBQ for Council, Bds,	Appointment to Boards and Commissions	Approve
And Commissions)	Cancellation of 2nd Meeting in December	Approve
	Sign Ordinance Discussion re: Flags	Discuss
	Award Professional Services Agrmt for Compensation Study	Approve
	Water Operator III Job Description	Approve
	Award Construction Contract for Reservoir 2 Repairs- Consent	Approve
DECEMBER 27, 2016		
(Cancelled?)		
JANUARY 9, 2017	Investment Report	Receive
JANUARY 23, 2017		
FEBRUARY 13, 2017	2015-16 Comprehensive Annual Financial Report (CAFR)	Receive
FEBRUARY 27, 2017		
MARCH 13, 2017	Solvang Mesa LLMD Resolution of Intent	Adopt
MARCH 27, 2017		
**Public Notice Required*	Measure A 5-Year Local Program of Projects (2nd Mtg in March 2017)	Approve
APRIL 2017		
**Public Notice Required*	Solvang Mesa LLMD Resolution of Assessment (1st Mtg in Apr 2017)	Adopt
MAY 2017		
**Public Notice Required*	Amend Appropriation Limit for FY 2016-17 (2nd Mtg in May)	Approve
JUNE 2017	Preliminary Budget Hearing	

Unscheduled		
	Resolution of Intent re: Installment Sale Water Revenue Bonds	
	Ordinance Amendment- Snowbird Meter Fees	
	Storm Water Resource Plan	
	Sphere of Influence/Annexation Study	
**Public Notice Required*	Building Fee revisions, California Code Check Agreement	
	Wireless Telecommunication Facilities Regulations	
	Findings of SYCSD Recycled Water Planning Study	
	Resolution of Support for SBCAG Regional Bike & Ped Plan	
	NPDES Permit Trash Amendment Summary	
	Conflict of Interest Code Review (June 2018)	Discuss
	Hazard Mitigation Plan Update	Approve
	Warrant Register (1st meeting of each month)	*Approve*
	Sheriff's Department Report (2nd meeting of each month)	*Receive*
	SCVB Report (2nd meeting of each month & biennial report)	*Receive*
	Fire Department Report (Quarterly)	*Receive*
	VisitSYV Report (Quarterly)	*Receive*