City of Rolling Hills INCORPORATED JANUARY 24, 1957

NO. 2 PORTUGUESE BEND ROAD
ROLLING HILLS, CA 90274
(310) 377-1521
FAX (310) 377-7288

AGENDA | **CITY COUNCIL** | **CITY OF ROLLING HILLS**
Regular City Council Meeting | **Monday, January 24, 2022** | **7:00 PM**

All Councilmembers will participate in-person wearing masks per Los Angeles County Health Department's Health Officer Order effective Saturday, July 17, 2021. The meeting agenda is available on the City's website. The City Council meeting will be live-streamed on the City's website. Both the agenda and the live-streamed video can be found here:
https://www.rolling-hills.org/government/agenda/index.php

Members of the public may submit written comments in real-time by emailing the City Clerk's office at cityclerk@cityofrh.net. Your comments will become part of the official meeting record. You must provide your full name, but please do not provide any other personal information that you do not want to be published.

Recordings to City Council meetings can be found here:
https://cms5.revize.com/revize/rollinghillsca/government/agenda/index.php

Next Resolution No. 1288 *Next Ordinance No. 374*

1. CALL TO ORDER

2. ROLL CALL

3. PLEDGE OF ALLEGIANCE

4. BLUE FOLDER ITEMS (SUPPLEMENTAL)

Blue folder (supplemental) items are additional back up materials to administrative reports, changes to the posted agenda packet, and/or public comments received after the printing and distribution of the agenda packet for receive and file.

5. PUBLIC COMMENT ON NON-AGENDA ITEMS

*This is the appropriate time for members of the public to make comments regarding the items on the consent calendar or items **not** listed on this agenda. Pursuant to the Brown Act, no action will take place on any items not on the agenda.*

6. CONSENT CALENDAR

Matters which may be acted upon by the City Council in a single motion. Any Councilmember may request removal of any item from the Consent Calendar causing it to be considered under Council Actions.

6.A. APPROVE AFFIDAVIT OF POSTING FOR THE CITY COUNCIL REGULAR

MEETING OF JANUARY 24, 2022
RECOMMENDATION: Approve.
CL_AGN_22.01.24_AffidavitofPosting.pdf

6.B. APPROVE MOTION TO READ BY TITLE ONLY AND WAIVE FURTHER READING OF ALL ORDINANCES AND RESOLUTIONS LISTED ON THE AGENDA
RECOMMENDATION: Approve.

6.C. APPROVE THE FOLLOWING CITY COUNCIL MINUTES: JANUARY 10, 2022.
RECOMMENDATION: Approve as presented.
CL_MIN_220110_CC_F.pdf

6.D. PAYMENT OF BILLS
RECOMMENDATION: Approve as presented.
Council Report 01-24-2022_signed.pdf

6.E. REPUBLIC SERVICES RECYCLING TONNAGE REPORT FOR DECEMBER 2021.
RECOMMENDATION: Approve as presented.
CL_AGN_220124_Rolling Hills YTD Tonnage Report.pdf

6.F. CITY COUNCIL MEETING DATES FOR CALENDAR YEAR 2022 - REVISED
RECOMMENDATION: Approve as presented.
CL_AGN_2022_Council_MeetingDates_R.pdf

6.G. REPUBLIC SERVICES' 2022 CLEAN-UP SCHEDULE.
RECOMMENDATION: Approve as presented.
VC_REP_220124_RH_FallCleanup2022.pdf
VC_REP_220124_RH_SpringCleanup2022.pdf

6.H. A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ROLLING HILLS AUTHORIZING SUBMITTAL OF APPLICATIONS FOR THE CALIFORNIA DEPARTMENT OF RESOURCES RECYCLING AND RECOVERY (CALRECYCLE) PAYMENT PROGRAMS AND RELATED AUTHORIZATIONS
RECOMMENDATION: Approve as presented.
ResolutionNo1286_CalRecycleGrant_F.pdf

7. EXCLUDED CONSENT CALENDAR ITEMS

8. COMMISSION ITEMS

9. PUBLIC HEARINGS

10. OLD BUSINESS

10.A. REVIEW ADDENDUM TO THE PENINSULA ENHANCED WATERSHED MANAGEMENT PROGRAM (EWMP); DIRECT STAFF TO SUBMIT THE ADDENDUM TO THE LOS ANGELES REGIONAL WATER QUALITY CONTROL BOARD; AND DIRECT STAFF TO PREPARE SEPULVEDA CANYON MONITORING DATA TO BE SUBMITTED TO THE LOS ANGELES REGIONAL WATER QUALITY CONTROL BOARD SEPARATELY.

RECOMMENDATION: Staff recommends that the City Council approve the submittal of the 2021 Palos Verdes Peninsula EWMP Addendum to the LA Water Board. Additionally, staff recommends that a summary of the flow monitoring data and rainfall data collected through the FY 2020-2021 and FY 2021-2022 be prepared to be submitted separately to the Los Angeles Regional Water Quality Control Board as evidence of its retention of the 85th percentile, 24-hour rainfall runoff.

Addendum_PVP_EWMP_RH(2022-01-04).pdf
PVP_EWMP_Sec_3.5.2(2022-01-04).pdf
Palos Verdes Peninsula EWMP Letter 2021 Update.pdf
PVP EWMP 2021 Update Without Appendices.pdf

10.B. DISCUSS THE ROLLING HILLS COMMUNITY ASSOCIATION'S REQUEST RELATING TO THE CITY HALL CAMPUS EMERGENCY POWER PROJECT AND PROVIDE DIRECTION TO STAFF.
RECOMMENDATION: Provide direction to staff.
Rolling Hill Maintenance Buildings One Two- SFR V3_Review.pdf

10.C. CONSIDER HIRING A LANDSCAPE ARCHITECT TO INVENTORY THE CITY HALL CAMPUS IRRIGATION SYSTEM AND PROVIDE RECOMMENDATIONS FOR LANDSCAPING IMPROVEMENTS.
RECOMMENDATION: Discuss and Consider.
Landscape Architecture RFP- Final Draft-V10 Letterhead FINAL.pdf
Rolling Hills Contract 11.10.21 for irrigation.pdf

11. NEW BUSINESS

11.A. BID PROPOSAL AND CONTRACT FOR EMERGENCY STORM DRAIN REPAIR AT 1 MIDDLERIDGE LANE SOUTH
RECOMMENDATION: Direct City Attorney to draft a professional services contract and authorize the City manager to execute.
City of Rolling Hills SD Repair.pdf
CL_AGN_220124_CC_RH_StormDrain_EmergencyRepair_Resolution.pdf

11.B. CONSIDER APPLYING FOR THE SB 1383 LOCAL ASSISTANCE GRANT PROGRAM
RECOMMENDATION: Direct staff to file an application for the SB 1383 Local Assistance Grant Program and prepare a resolution in support of the application.
SB 1383 Grant Program Appl Guidelines and Instructions.pdf

12. MATTERS FROM THE CITY COUNCIL AND MEETING ATTENDANCE REPORTS

12.A. REPORT BY THE FIRE FUEL COMMITTEE ON THE JANUARY 20, 2022 COMMITTEE MEETING AND APPROVE COMMITTEE'S RECOMMENDATION TO HIRE WILDLAND RESOURCE MANAGEMENT.
RECOMMENDATION:
Receive report, consider Committee's recommendations and provide direction to staff.
CL_AGN_220120_FF_Agenda.pdf
Wildland Resource Management-Proposal to City of Rolling Hills UPDATED.pdf

13. MATTERS FROM STAFF

13.A. COMMUNITY RECOGNITION LUNCHEON FOR RETIRING SHERIFF DEPUTIES REECE SOUZA AND TAMI BOUSE FROM THE LOMITA STATION.
RECOMMENDATION: Discuss and consider approval for hosting a community luncheon on Wednesday, February 9, 2022.

13.B. FIRE FUEL ABATEMENT ENFORCEMENT CASES QUARTERLY REPORT FOR THE FOURTH QUARTER OF 2021. (OCTOBER 1 THROUGH DECEMBER 31)
RECOMMENDATION: Receive and file.
PVPLC Reducing Fuel Load Project Update -2021.pdf
4th_Quarter_Report_All_Closed_Cases_from_10.1.21-12.31.21.pdf
4th_Quarterly_Report_All_Open_Cases_from_10.1.21-12.31.21.v2.pdf
4t_Quarter-_All_Open_Cases_Comprehensive_Report_from_January_2018_-_December_2021.pdf

14. CLOSED SESSION

14.A. CONFERENCE WITH LABOR NEGOTIATOR GOVERNMENT CODE SECTION 54957.6 Â CITY'S DESIGNATED REPRESENTATIVE: MAYOR BEA DIERINGER UNREPRESENTED EMPLOYEE: CITY MANAGER ELAINE JENG
RECOMMENDATION: None.

15. ADJOURNMENT

Next regular meeting: Monday, February 14, 2022 at 7:00 p.m. in the City Council Chamber, Rolling Hills City Hall, 2 Portuguese Bend Road, Rolling Hills, California, 90274.

Notice:

Public Comment is welcome on any item prior to City Council action on the item.

Documents pertaining to an agenda item received after the posting of the agenda are available for review in the City Clerk's office or at the meeting at which the item will be considered.

In compliance with the Americans with Disabilities Act (ADA), if you need special assistance to participate in this meeting due to your disability, please contact the City Clerk at (310) 377-1521 at least 48 hours prior to the meeting to enable the City to make reasonable arrangements to ensure accessibility and accommodation for your review of this agenda and attendance at this meeting.

City of Rolling Hills INCORPORATED JANUARY 24, 1957

Agenda Item No.: 6.A
Mtg. Date: 01/24/2022

TO: **HONORABLE MAYOR AND MEMBERS OF THE CITY COUNCIL**

FROM: **CHRISTIAN HORVATH, CITY CLERK / EXECUTIVE ASSISTANT TO CITY MANAGER**

THRU: **ELAINE JENG P.E., CITY MANAGER**

SUBJECT: **APPROVE AFFIDAVIT OF POSTING FOR THE CITY COUNCIL REGULAR MEETING OF JANUARY 24, 2022**

DATE: **January 24, 2022**

BACKGROUND:
None

DISCUSSION:
None

FISCAL IMPACT:
None

RECOMMENDATION:
Approve

ATTACHMENTS:
CL_AGN_22.01.24_AffidavitofPosting.pdf

Administrative Report

6.A., **File #** 943 **Meeting Date**: 01/24/2022

To: MAYOR & CITY COUNCIL

From: Christian Horvath, City Clerk

TITLE

APPROVE AFFIDAVIT OF POSTING FOR THE CITY COUNCIL REGULAR MEETING OF JANUARY 24, 2022

EXECUTIVE SUMMARY

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES) SS
CITY OF ROLLING HILLS)

AFFIDAVIT OF POSTING

In compliance with the Brown Act, the following materials have been posted at the locations below.

Legislative Body	City Council	
Posting Type	Regular Meeting Agenda	
Posting Location	2 Portuguese Bend Road, Rolling Hills, CA 90274 City Hall Window	
Meeting Date & Time	JANUARY 24, 2022	7:00pm Open Session

As City Clerk of the City of Rolling Hills, I declare under penalty of perjury, the document noted above was posted at the date displayed below.

Christian Horvath, City Clerk

Date: January 21, 2022

City of Rolling Hills INCORPORATED JANUARY 24, 1957

Agenda Item No.: 6.B
Mtg. Date: 01/24/2022

TO: **HONORABLE MAYOR AND MEMBERS OF THE CITY COUNCIL**

FROM: **CHRISTIAN HORVATH, CITY CLERK / EXECUTIVE ASSISTANT TO CITY MANAGER**

THRU: **ELAINE JENG P.E., CITY MANAGER**

SUBJECT: **APPROVE MOTION TO READ BY TITLE ONLY AND WAIVE FURTHER READING OF ALL ORDINANCES AND RESOLUTIONS LISTED ON THE AGENDA**

DATE: **January 24, 2022**

BACKGROUND:
None

DISCUSSION:
None

FISCAL IMPACT:
None

RECOMMENDATION:
Approve

ATTACHMENTS:

Agenda Item No.: 6.C
Mtg. Date: 01/24/2022

TO: **HONORABLE MAYOR AND MEMBERS OF THE CITY COUNCIL**

FROM: **CHRISTIAN HORVATH, CITY CLERK / EXECUTIVE ASSISTANT TO CITY MANAGER**

THRU: **ELAINE JENG P.E., CITY MANAGER**

SUBJECT: **APPROVE THE FOLLOWING CITY COUNCIL MINUTES: JANUARY 10, 2022.**

DATE: **January 24, 2022**

BACKGROUND:
None

DISCUSSION:
None

FISCAL IMPACT:
None

RECOMMENDATION:
Approve as presented.

ATTACHMENTS:
CL_MIN_220110_CC_F.pdf

MINUTES OF AN
ADJOURNED REGULAR MEETING OF THE
CITY COUNCIL OF THE
CITY OF ROLLING HILLS, CALIFORNIA
MONDAY, JANUARY 10, 2022

1. CALL TO ORDER

The City Council of the City of Rolling Hills met in person on the above date at 7:00 p.m. Mayor Bea Dieringer presiding virtually via Zoom.

2. ROLL CALL

Councilmembers Present:	Mirsch, Wilson, Mayor Pro Tem Black, Mayor Dieringer
Councilmembers Absent:	Pieper
Staff Present:	Elaine Jeng, City Manager
	Jane Abzug, City Attorney
	Christian Horvath, City Clerk / Executive Assistant to the City Manager
	John Signo, Planning and Community Services Director
	Ashford Ball, Senior Management Analyst

3. PLEDGE OF ALLEGIANCE – Councilmember Wilson

4. PUBLIC COMMENT ON NON AGENDA ITEMS

James Aichele spoke on Sewer Connections
Bill Roger expressed desire to speak on Fire Fuel and was directed to wait until the item.

5. CONSENT CALENDAR

5.A. APPROVE AFFIDAVIT OF POSTING FOR THE CITY COUNCIL REGULAR MEETING OF JANUARY 10, 2022

5.B. APPROVE MOTION TO READ BY TITLE ONLY AND WAIVE FURTHER READING OF ALL ORDINANCES AND RESOLUTIONS LISTED ON THE AGENDA

5.C. APPROVE THE FOLLOWING CITY COUNCIL MINUTES: DECEMBER 14, 2021 ADJOURNED REGULAR MEETING

5.D. PAYMENT OF BILLS

5.E. REPUBLIC SERVICES RECYCLING TONNAGE REPORT FOR NOVEMBER 2021

5.F. PULLED BY COUNCILMEMBER MIRSCH

5.G. CITY COUNCIL BUDGET CALENDAR FOR FISCAL YEAR 2022-2023

5.H. ANNUAL VENDOR LIST FOR CALENDAR YEAR 2022

5.I. ADOPT BY TITLE ONLY ORDINANCE NO. 372 - AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF ROLLING HILLS ADDING CHAPTERS 16.50 (SB 9 URBAN LOT SPLITS) AND 17.45 (SB 9 TWO-UNIT PROJECTS) TO THE ROLLING HILLS MUNICIPAL CODE; AND ORDINANCE NUMBER 373 - AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF ROLLING HILLS AMENDING CHAPTER 15.04 (BUILDING CODE) TO ADOPT THE LOS ANGELES COUNTY FIRE CODE BY REFERENCE AND MAKE LOCAL AMENDMENTS THERETO. FOR SECOND READING AND ADOPTION.

5.J. RECEIVE AND FILE AN UPDATE TO THE DESIGN OF THE 8" SEWER MAIN ALONG ROLLING HILLS ROAD

5.K. RECEIVE AND FILE AN UPDATE ON THE CREST ROAD EAST UTILITY UNDERGROUNDING GRANT PROJECT

5.L. FILING OF CATEGORICAL EXEMPTION PER CEQA REQUIREMENTS FOR THE VEGETATION MANAGEMENT IN THE CANYONS GRANT PROJECT

Motion by Mayor Pro Tem Black, seconded by Councilmember Wilson to approve items 5A through 5L, excluding item 5F. Motion carried unanimously with the following roll call vote:

AYES: Mirsch, Wilson, Black, Mayor Dieringer
NOES: None
ABSENT: Pieper

6. EXCLUDED CONSENT CALENDAR ITEMS

5.F. CITY COUNCIL MEETING DATES FOR CALENDAR YEAR 2022

Motion by Councilmember Wilson, seconded by Councilmember Mirsch to accept the calendar with the addition of Tuesday, December 13th. Motion carried unanimously with the following roll call vote:

AYES: Mirsch, Wilson, Black, Mayor Dieringer
NOES: None
ABSENT: Pieper

7. COMMISSION ITEMS - NONE

8. PUBLIC HEARINGS

8.A. 6TH CYCLE DRAFT HOUSING ELEMENT UPDATE

Public Hearing was opened.
Testimony was taken.
Public Hearing was closed.

Motion by Councilmember Mirsch, seconded by Councilmember Wilson to approve the submission as is for comments from HCD. Motion carried unanimously with the following roll call vote:

AYES: Mirsch, Wilson, Black, Mayor Dieringer
NOES: None
ABSENT: Pieper

Mayor Dieringer requested to move Item 11.A. up to allow for residents in attendance to provide public comment. Without objection, so ordered.

11. MATTERS FROM THE CITY COUNCIL AND MEETING ATTENDANCE REPORTS

11.A. REPORT BY THE FIRE FUEL COMMITTEE ON THE DECEMBER 15, 2021 COMMITTEE MEETING; APPROVE COMMITTEE'S RECOMMENDATION TO HOLD A SECOND COMMUNAL BIN EVENT PROPOSED FOR JANUARY 24, 2022 THROUGH JANUARY 31, 2022; AND APPROVE COMMITTEE'S RECOMMENDATION TO HIRE WILDLAND RESOURCE MANAGEMENT.

Councilmember Mirsch left the dais at 7:57pm and returned at 8:01pm

Public Comment: Bill Rogers, Michael Schoettle, Roger Hawkins, Michael Monsalve, Abas Goodarzi

Motion by Mayor Pro Tem Black, seconded by Councilmember Mirsch to approve the next communal bin event and locations. Motion carried unanimously with the following roll call vote:

AYES: Mirsch, Wilson, Black, Mayor Dieringer
NOES: None
ABSENT: Pieper

Motion by Mayor Pro Tem Black, seconded by Councilmember Mirsch to continue any decision related to hiring Wildland Resource Management until the January 24th Council meeting. Motion carried unanimously with the following roll call vote:

AYES: Mirsch, Wilson, Black, Mayor Dieringer
NOES: None
ABSENT: Pieper

Mayor Dieringer resumed the regular agenda order.

9. OLD BUSINESS

9.A. RECEIVE AND FILE THE FINAL FEASIBILITY STUDY FOR SEWER CONNECTIONS ALONG PALOS VERDES DRIVE NORTH (WILLIAMSBURG AND MIDDLERIDGE LANE) AND PROVIDE DIRECTION TO STAFF.

Public Comment: Alfred Visco

Motion by Councilmember Mirsch, seconded by Councilmember Wilson to receive and file and direct staff to bring item to the Strategic Planning session for further discussion related to capital improvements. Motion carried unanimously with the following roll call vote:

AYES: Mirsch, Wilson, Black, Mayor Dieringer
NOES: None
ABSENT: Pieper

9.B. RECEIVE AND FILE FINAL FEASIBILITY REPORT FROM HQE SYSTEMS (SIREN STUDY) AND DIRECT STAFF CONDUCT A COMMUNITY SURVEY.

Public Comment: Alfred Visco, James Aichele, Michael Monsalve

Motion by Councilmember Wilson, seconded by Councilmember Mirsch to receive and file and postpone community survey. Motion carried unanimously with the following roll call vote:

AYES: Mirsch, Wilson, Black, Mayor Dieringer
NOES: None
ABSENT: Pieper

10. NEW BUSINESS

10.A. DISCUSS THE ROLLING HILLS COMMUNITY ASSOCIATION'S REQUEST RELATING TO THE CITY HALL CAMPUS EMERGENCY POWER PROJECT AND PROVIDE DIRECTION TO STAFF.

Mayor Dieringer requested to continue Item 10.A. to the January 24th Council meeting since Councilmember Pieper was absent and is the current liaison to the Rolling Hills Community Association. Without objection, so ordered.

10.B. CONSIDER CONTRACT FOR SERVICES TO TEMPORARILY STAFF THE PLANNING AND COMMUNITY SERVICES DEPARTMENT.

Motion by Councilmember Mirsch, seconded by Councilmember Wilson to direct staff to engage professional services and approve second amendment to the contract with Michael Baker International. Motion carried unanimously with the following roll call vote:

AYES: Mirsch, Wilson, Black, Mayor Dieringer
NOES: None
ABSENT: Pieper

10.C. CONSIDER HIRING A PENINSULA CITIES JOINT HOUSING/LOCAL CONTROL LOBBYIST.

Councilmember Mirsch left the dais at 9:17pm and returned at 9:20pm

Public Comment: Alfred Visco

Motion by Councilmember Mirsch, seconded by Councilmember Wilson to not hire a housing and local control lobbyist. Motion carried with the following roll call vote:

AYES: Mirsch, Wilson, Black
NOES: Mayor Dieringer
ABSENT: Pieper

11. MATTERS FROM THE CITY COUNCIL AND MEETING ATTENDANCE REPORTS

11.B. REVIEW THE ADOPTED COVID-19 PREVENTION PROGRAM AND CONSIDER ADJUSTMENTS PER LATEST CHANGES TO THE LOS ANGELES COUNTY HEALTH ORDERS (MAYOR PRO TEM BLACK).

Motion by Mayor Pro Tem Black, seconded by Councilmember Wilson that the city maintain a COVID policy in accordance with updated, and continually updated, LA County Department of Public Health orders, and accept amendment by the City Attorney to authorize the City Manager, in consultation with the City Attorney's office, to update the policy in compliance with LA County Health Orders in the event there is not a City Council meeting. Motion carried with the following roll call vote:

AYES: Mirsch, Wilson, Black, Mayor Dieringer
NOES: None
ABSENT: Pieper

11.C. DISCUSS PROPOSED CALIFORNIA PUBLIC UTILITIES COMMISSION (CPUC) DECISION REVISING NET ENERGY METERING TARIFF AND SUBTARIFFS (MAYOR DIERINGER).

Motion by Mayor Pro Tem Black, seconded by Mayor Dieringer to support the SBCCOG's efforts to defeat this proposed ruling and a separate motion directing the Mayor, with the City Manager and City Attorney's assistance to compose a letter in opposition of the proposed ruling from the City of Rolling Hills. Motions failed with the following roll call vote:

AYES: Black, Mayor Dieringer
NOES: Mirsch, Wilson
ABSENT: Pieper

12. MATTERS FROM STAFF

12.A. PARTICIPATION IN CALIFORNIA'S DEPARTMENT OF RESOURCES RECYCLING AND RECOVER (CAL-RECYCLE) BEVERAGE CONTAINER RECYCLING CITY PAYMENT PROGRAM.

Motion by Councilmember Wilson, seconded by Councilmember Mirsch to approve participation in the program and direct City Attorney to draft a multi-year resolution authorizing submittal of application for the January 24, 2022 City Council Meeting and apply for various areas of application within the funding agreement. Motion carried with the following roll call vote:

AYES:	Mirsch, Wilson, Black, Mayor Dieringer
NOES:	None
ABSENT:	Pieper

Councilmember Wilson requested that future agenda packets include color exhibits. The council concurred.

City Manager Jeng updated the council about sinkholes and collapsed stormwater drain along Middleridge Lane South as well as the County's inability to address the repairs as a part of the City's General Services contract. As a result, the city may need to execute an emergency contract of repair and return with data once a contractor has been engaged.

11. CLOSED SESSION - NONE

12. ADJOURNMENT

Hearing no further business before the City Council, the meeting was adjourned at 10:17 p.m. The next regular meeting of the City Council is scheduled to be held on Monday, January 24, 2022 beginning at 7:00 p.m. in the City Council Chamber at City Hall, 2 Portuguese Bend Road, Rolling Hills, California. It will also be available via City's website link at: https://www.rolling-hills.org/government/agenda/index.php

Respectfully submitted,

_____

Christian Horvath
City Clerk

Approved,

_____

Bea Dieringer
Mayor

City of Rolling Hills INCORPORATED JANUARY 24, 1957

Agenda Item No.: 6.D
Mtg. Date: 01/24/2022

TO: **HONORABLE MAYOR AND MEMBERS OF THE CITY COUNCIL**

FROM: **MAIDA ALCANTARA, FINANCE DIRECTOR**

THRU: **ELAINE JENG P.E., CITY MANAGER**

SUBJECT: **PAYMENT OF BILLS**

DATE: **January 24, 2022**

BACKGROUND:
None

DISCUSSION:
None

FISCAL IMPACT:
None

RECOMMENDATION:
Approve as presented.

ATTACHMENTS:
Council Report 01-24-2022_signed.pdf

CITY OF ROLLING HILLS
ACH22-056 & ACH22-057, AP22-055 & AP22-056
Check Run 01-12-2022 through 01-24-2022

Check No.	Check Date	Payee	Descritption		Amount
027345	1/12/2022	Barry J. Miller, FAICP	December 2021 Svcs - RH 6th Cycle Hsng Element		1,575.00
027346	1/12/2022	Bennett Landscape	January 2022 Landscape services		660.00
027347	1/12/2022	Best Best & Krieger LLP	December 2021 Code Enforce, General Svcs, Undgrd proj, & COV		6,708.00
027347	1/12/2022	Best Best & Krieger LLP	December 2021 Professional Services Land Use		2,673.30
027347	1/12/2022	Best Best & Krieger LLP	December 2021 Services View Presentation		152.00
CHECK TOTAL				9,533.30	
027348	1/12/2022	John L. Hunter & Assoc., Inc.	December 2021 Machado Lake & Santa Monica		615.00
027348	1/12/2022	John L. Hunter & Assoc., Inc.	November 2021 Machado Lake & Santa Monica		402.50
027348	1/12/2022	John L. Hunter & Assoc., Inc.	October 2021 Machado Lake & Santa Monica		2,256.25
CHECK TOTAL				3,273.75	
027349	1/12/2022	Jimenez Consulting Solutions, LLC	Professional Services - December 1-15, 2021		350.00
027349	1/12/2022	Jimenez Consulting Solutions, LLC	Professional Services - October 16-31, 2021		175.00
027349	1/12/2022	Jimenez Consulting Solutions, LLC	Professional Services - September 16-30, 2021		525.00
CHECK TOTAL				1,050.00	
027350	1/12/2022	Micahel Baker International	December 2021 Profess Svcs Proj# 176077		3,750.00
027351	1/12/2022	McGowan Consulting	November & December 2021 Consult Svcs-Municipal Stormwater		13,777.30
027352	1/12/2022	MV CHENG AND ASSOCIATES	December 2021 Monthly Accounting Services		10,880.00
027353	1/12/2022	City of Rolling Hills Estates	2022 Annual fee Encroachment fee for Public ROW		100.00
027354	1/12/2022	RINCON CONSULTANTS, INC	December 2021 Services RH Safety Element update		4,261.00
027355	1/12/2022	Vantagepoint Transfer Agents - 306580	Deferred Compensation PR Ending 01-11-2022		1,441.37
027356	1/12/2022	Willdan Inc.	September 2021 TE Services		1,636.00
027357	1/12/2022	Worldwise Productions	Rolling Hills Canyon Management Videos- Retainer		12,475.00
ACH22_006	1/13/2022	CalPERS	CALPERS RETIREMENT 01 11 2022		3,282.10
PR LINK	1/14/2022	PR LINK - Payroll & PR Taxes PR#1	Payroll Processing Fee 12/29/2021 to 01/11/2022		68.31
PR LINK	1/14/2022	PR LINK - Payroll & PR Taxes PR#1	Pay Period - PR#1 12/29/2021 to 01/11/2022		19,559.01
027358	1/19/2022	Abila	February 2022 Accounting Software		202.59
027359	1/19/2022	Chambers Group	Profess Svcs Housing & Safety Element		10,452.22
027360	1/19/2022	Daily Breeze	December Advertising Legal CLS		975.84
027361	1/19/2022	Konica Minolta Business Solutions USA Inc.	Monthly Maintenance 12-11-21 to 01-10-22		350.30
027362	1/19/2022	LA County Sheriff's Department	December 2021 Law Enforcement Services		30,597.68
027362	1/19/2022	LA County Sheriff's Department	Traffic Enforcement Special Event 12/10/2021 to 12/17/2021		764.21
CHECK TOTAL				31,361.89	
027363	1/19/2022	ELAN Cardmember Services	December Credit Card Expenses		4,757.77
027364	1/19/2022	PALOS VERDES PENINSULA LAND CONSERVANCY	Fuel Load Phase 1, 2, 3, Annual Mowing, Acacia Removal		119,800.00
ACH22_005	1/12/2022	Pitney Bowes	January 2022 Postage Prepaid		1,000.00
Report Total					**256,222.75**

I, Elaine Jeng, City Manager of Rolling Hills, California certify that the above demands are accurate and there is available in the General Fund a balance of
256,222.75 for the payment of above items.

1/20/2022

Elaine Jeng, P.E., City Manager

City of Rolling Hills INCORPORATED JANUARY 24, 1957

Agenda Item No.: 6.E
Mtg. Date: 01/24/2022

TO: **HONORABLE MAYOR AND MEMBERS OF THE CITY COUNCIL**

FROM: **CONNIE VIRAMONTES , ADMINISTRATIVE ASSISTANT**

THRU: **ELAINE JENG P.E., CITY MANAGER**

SUBJECT: **REPUBLIC SERVICES RECYCLING TONNAGE REPORT FOR DECEMBER 2021.**

DATE: **January 24, 2022**

BACKGROUND:
None.

DISCUSSION:
None.

FISCAL IMPACT:
None.

RECOMMENDATION:
Approve as presented.

ATTACHMENTS:
CL_AGN_220124_Rolling Hills YTD Tonnage Report.pdf

CITY OF ROLLING HILLS RESIDENTIAL FRANCHISE

2021

Franchise?	Y

Mth/Yr	Overall Commodity	Tons Collected	Tons Recovered	Tons Disposed	Diversion %
Jan-21	Trash	235.42	36.03	199.39	15.30%
	Greenwaste	49.43	49.43	-	100.00%
Jan-21 Total		284.85	85.46	199.39	30.00%
Feb-21	Trash	206.11	18.38	187.73	8.92%
	Greenwaste	62.07	62.07	-	100.00%
Feb-21 Total		268.18	80.45	187.73	30.00%
Mar-21	Trash	231.10	7.19	223.91	3.11%
	Recycle	3.64	0.91	2.73	24.95%
	Greenwaste	89.04	89.04	-	100.00%
Mar-21 Total		323.78	97.14	226.64	30.00%
Apr-21	Trash	239.29	34.90	204.39	14.58%
	Greenwaste	52.70	52.70	-	100.00%
Apr-21 Total		291.99	87.60	204.39	30.00%
May-21	Trash	147.58	-	147.58	0.00%
	Greenwaste	125.97	125.97	-	100.00%
May-21 Total		273.55	125.97	147.58	46.05%
Jun-21	Trash	193.00	-	193.00	0.00%
	Greenwaste	111.34	111.34	-	100.00%
Jun-21 Total		304.34	111.34	193.00	36.58%
Jul-21	Trash	207.99	-	207.99	0.00%
	Greenwaste	96.98	96.98	-	100.00%
Jul-21 Total		304.97	96.98	207.99	31.80%
Aug-21	Trash	203.81	-	203.81	0.00%
	Greenwaste	103.02	103.02	-	100.00%
Aug-21 Total		306.83	103.02	203.81	33.58%
Sep-21	Trash	171.31	-	171.31	0.00%
	Greenwaste	107.29	107.29	-	100.00%
Sep-21 Total		278.60	107.29	171.31	38.51%
Oct-21	Trash	180.87	-	180.87	0.00%
	Greenwaste	127.16	127.16	-	100.00%
Oct-21 Total		308.03	127.16	180.87	41.28%
Nov-21	Trash	181.99	-	181.99	0.00%
	Greenwaste	132.85	132.85	-	100.00%
Nov-21 Total		314.84	132.85	181.99	42.20%
Dec-21	Trash	162.22	-	162.22	0.00%
	Greenwaste	100.62	100.62	-	100.00%
Dec-21 Total		262.84	100.62	162.22	38.28%
Grand Total		3,522.80	1,255.88	2,266.92	35.65%

Contract Requires 30% Household - 1255.88

City of Rolling Hills INCORPORATED JANUARY 24, 1957

Agenda Item No.: 6.F
Mtg. Date: 01/24/2022

TO: **HONORABLE MAYOR AND MEMBERS OF THE CITY COUNCIL**

FROM: **CHRISTIAN HORVATH, CITY CLERK / EXECUTIVE ASSISTANT TO CITY MANAGER**

THRU: **ELAINE JENG P.E., CITY MANAGER**

SUBJECT: **CITY COUNCIL MEETING DATES FOR CALENDAR YEAR 2022 - REVISED**

DATE: **January 24, 2022**

BACKGROUND:
At the January 10, 2022 City Council Meeting, a motion was made to revise the 2022 Calendar to add Tuesday, December 13, 2022 as a tentative meeting placeholder in the event a December meeting was necessary. Attached is the revised calendar.

DISCUSSION:
None

FISCAL IMPACT:
None

RECOMMENDATION:
Approve as presented.

ATTACHMENTS:
CL_AGN_2022_Council_MeetingDates_R.pdf

2022 City Council Meeting Dates and City Holidays

Unless otherwise noted, meetings in conflict with a holiday will be cancelled.

Scheduled Date	Holiday Conflict	Holiday Date	Re-scheduled Date/Time
January 10, 2022			
January 24, 2022			
February 14, 2022			
February 28, 2022			
March 14, 2022			
March 28, 2022			
April 11, 2022			
April 25, 2022			
May 9, 2022			
May 23, 2022			
June 13, 2022			
June 27, 2022			
July 11, 2022			
July 25, 2022			
August 8, 2022			
August 22, 2022			
September 12, 2022			
September 26, 2022			
October 10, 2022			
October 24, 2022			
November 14, 2022			
November 28, 2022			
December 12, 2022	Holiday Open House	N/A	N/A
December 13, 2022	Tentative	N/A	N/A

2022 Holidays Observed (City Hall Closed)

January 1, 2022	New Year's Day (observed)
January 17, 2022	Martin Luther King Jr. Day
February 21, 2022	President's Day
May 30, 2022	Memorial Day
July 4, 2022	Independence Day
September 5, 2022	Labor Day
November 11, 2022	Veterans Day
November 24-25, 2022	Thanksgiving Holiday
December 24, 2022	Christmas Eve (Observed)
December 25, 2022	Christmas Day

Other Holidays:

March 28 - April 1, 2022	PVPUSD Spring Break
April 15 - April 23, 2022	Passover
September 25 - 27, 2022	Rosh Hashanah
October 4 - 5, 2022	Yom Kippur

Unless otherwise noted, meetings in conflict with a holiday will be cancelled.

City of Rolling Hills INCORPORATED JANUARY 24, 1957

Agenda Item No.: 6.G
Mtg. Date: 01/24/2022

TO: **HONORABLE MAYOR AND MEMBERS OF THE CITY COUNCIL**

FROM: **CHRISTIAN HORVATH, CITY CLERK / EXECUTIVE ASSISTANT TO CITY MANAGER**

THRU: **ELAINE JENG P.E., CITY MANAGER**

SUBJECT: **REPUBLIC SERVICES' 2022 CLEAN-UP SCHEDULE.**

DATE: **January 24, 2022**

BACKGROUND:
Republic Services' annual clean-up proposal.

DISCUSSION:
The proposed clean-up events were coordinated with the Rolling Hills Community Association. The 2022 events are scheduled as follows:

Spring
• Green Waste – Wednesday, March 16, 2022
• Bulk Items – Wednesday, March 23, 2022
• Document Shredding & Electronic Waste Recycling – Saturday, March 26, 2022

Fall
• Green Waste – Wednesday, October 19, 2022
• Bulk Items – Wednesday, October 26, 2022
• Document Shredding & Electronic Waste Recycling – Saturday, October 29, 2022

FISCAL IMPACT:
The twice a year clean up events are included in the franchise agreement between the City and Republic Services.

RECOMMENDATION:
Approve as presented.

ATTACHMENTS:
VC_REP_220124_RH_FallCleanup2022.pdf

VC_REP_220124_RH_SpringCleanup2022.pdf

Rolling Hills Fall Cleanup Events 2022

• Green Waste – Wednesday, October 19, 2022

Larger quantities of green waste will be collected from your designated collection location. Place the green waste in an area that is clearly visible to our drivers. Bundling makes for easier collection. Bundles should be no more than 4 feet long. No container, bag or bundle should weigh more than 60 pounds.

• Bulk Items – Wednesday, October 26, 2022

Bulk items, such as furniture, appliances and rolled rugs, will be picked up from your designated collection location. Please place items in an area that is easily visible to our drivers. Set items out the night before collection or by 6 a.m. on the collection day.

• Document Shredding & Electronic Waste Recycling – Saturday, October 29, 2022

Between 10 a.m. and 1 p.m., drop off confidential documents for secure shredding and electronic waste, such as computers, televisions, smartphones and similar items, for recycling at City Hall. This will be a contactless, drive-through drop off event.

Rolling Hills Spring Cleanup Events 2022

• Green Waste – Wednesday, March 16, 2022

Larger quantities of green waste will be collected from your designated collection location. Place the green waste in an area that is clearly visible to our drivers. Bundling makes for easier collection. Bundles should be no more than 4 feet long. No container, bag or bundle should weigh more than 60 pounds.

• Bulk Items – Wednesday, March 23, 2022

Bulk items, such as furniture, appliances and rolled rugs, will be picked up from your designated collection location. Please place items in an area that is easily visible to our drivers. Set items out the night before collection or by 6 a.m. on the collection day.

• Document Shredding & Electronic Waste Recycling – Saturday, March 26, 2022

Between 10 a.m. and 1 p.m., drop off confidential documents for secure shredding and electronic waste, such as computers, televisions, smartphones and similar items, for recycling at City Hall. This will be a contactless, drive-through drop off event.

City of Rolling Hills INCORPORATED JANUARY 24, 1957

Agenda Item No.: 6.H
Mtg. Date: 01/24/2022

TO: **HONORABLE MAYOR AND MEMBERS OF THE CITY COUNCIL**

FROM: **CHRISTIAN HORVATH, CITY CLERK / EXECUTIVE ASSISTANT TO CITY MANAGER**

THRU: **ELAINE JENG P.E., CITY MANAGER**

SUBJECT: **A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ROLLING HILLS AUTHORIZING SUBMITTAL OF APPLICATIONS FOR THE CALIFORNIA DEPARTMENT OF RESOURCES RECYCLING AND RECOVERY (CALRECYCLE) PAYMENT PROGRAMS AND RELATED AUTHORIZATIONS**

DATE: **January 24, 2022**

BACKGROUND:
At the January 10, 2022 City Council Meeting, Council approved participation in the annual Beverage Container Recycling City/County Payment Program, directed the City Attorney to draft multi-year resolution authorizing submittal of application for the January 24, 2022 City Council meeting, and requested that the Staff apply for a variety of applicable fund uses.

The City of Rolling Hills is eligible for a $5,000 grant award upon completion of the funding application which was submitted on January 18, 2022. CalRecycle granted the city an extension of 12 days to submit an executed resolution and acceped a draft resolution with the funding application submission. The attached resolution authorizes submittal of an application and is necessary for completion.

The Beverage Container Recycling City/County Payment Program has an Expenditure Period of two years after awarding and will not close until April 2024. The Program has a variety of eligible activities and options to allow jurisdictions to utilize the funds most appropriately.

DISCUSSION:
None.

FISCAL IMPACT:
The grant has no fiscal impact to the general fund.

RECOMMENDATION:
Approve as presented.

ATTACHMENTS:
ResolutionNo1286_CalRecycleGrant_F.pdf

RESOLUTION NO. 1286

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ROLLING HILLS AUTHORIZING SUBMITTAL OF APPLICATIONS FOR THE CALIFORNIA DEPARTMENT OF RESOURCES RECYCLING AND RECOVERY (CALRECYCLE) PAYMENT PROGRAMS AND RELATED AUTHORIZATIONS

THE CITY COUNCIL OF THE CITY OF ROLLING HILLS, CALIFORNIA DOES HEREBY RESOLVE, DECLARE, DETERMINE, AND ORDER AS FOLLOWS:

Section 1. Recitals.

A. Public Resources Code Sections 48000 et seq. authorize the Department of Resources Recycling and Recovery ("CalRecycle") to administer various payment programs to make payments to qualifying jurisdictions; and

B. In furtherance of this authority, CalRecycle is required to establish procedures governing the administration of the payment programs; and

C. CalRecycle's procedures for administering payment programs require, among other things, an applicant's governing body to declare by resolution certain authorizations related to the administration of the payment program; and

D. The City Council of the City of Rolling Hills ("City") desires to authorize the City Manager or her designee to submit applications to CalRecycle for any payment program for which it is eligible and execute all documents necessary to implement and secure payments thereunder.

Section 2. The City of Rolling Hills is authorized to submit applications to CalRecycle for payment programs for which it is eligible.

Section 3. The City Manager or her designee is authorized to execute in the name of the City of Rolling Hills all documents necessary to implement and secure payments under the payment programs for which it is eligible.

Section 4. This Resolution shall take effect immediately upon its adoption by the City Council, and the City Clerk shall certify to the passage and adoption of this Resolution and enter it into the book of original resolutions.

PASSED, APPROVED, AND ADOPTED this 24th day of January 2022.

_____
BEA DIERINGER
MAYOR

ATTEST:

_____
CHRISTIAN HORVATH
CITY CLERK

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES) §§
CITY OF ROLLING HILLS)

The foregoing Resolution No. entitled:

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ROLLING HILLS AUTHORIZING SUBMITTAL OF APPLICATIONS FOR THE CALIFORNIA DEPARTMENT OF RESOURCES RECYCLING AND RECOVERY (CALRECYCLE) PAYMENT PROGRAMS AND RELATED AUTHORIZATIONS

was approved and adopted at a regular meeting of the City Council on the 24th day of January 2022, by the following roll call vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

_____
CHRISTIAN HORVATH
CITY CLERK

Agenda Item No.: 10.A
Mtg. Date: 01/24/2022

TO: **HONORABLE MAYOR AND MEMBERS OF THE CITY COUNCIL**

FROM: **JOHN SIGNO, DIRECTOR OF PLANNING & COMMUNITY SERVICES**

THRU: **ELAINE JENG P.E., CITY MANAGER**

SUBJECT: **REVIEW ADDENDUM TO THE PENINSULA ENHANCED WATERSHED MANAGEMENT PROGRAM (EWMP); DIRECT STAFF TO SUBMIT THE ADDENDUM TO THE LOS ANGELES REGIONAL WATER QUALITY CONTROL BOARD; AND DIRECT STAFF TO PREPARE SEPULVEDA CANYON MONITORING DATA TO BE SUBMITTED TO THE LOS ANGELES REGIONAL WATER QUALITY CONTROL BOARD SEPARATELY.**

DATE: **January 24, 2022**

BACKGROUND:
On June 28, 2021, City Council directed staff to prepare the necessary documents to submit to the Los Angeles Regional Water Quality Control Board (LA Water Board) for the City to join the Palos Verdes Peninsula Enhanced Watershed Management Program (EWMP). Additionally, City Council directed staff to investigate whether the design of the Torrance Airport Project could allow the flexibility for a modular approach to provide the City more time to ascertain whether it needs to continue to participate in that regional project to demonstrate compliance with water quality objectives for Machado Lake (i.e., total maximum daily loads (TMDLs)). In the meantime, monitoring in Sepulveda Canyon is continuing during the current rainy season, providing additional data to inform the City's compliance strategy.

DISCUSSION:

An addendum to incorporate the City of Rolling Hills into the 2021 EWMP has been prepared for City Council's consideration and consists of two parts:

- A detailed matrix of itemized changes to the 2021 EWMP, organized by EWMP section and formatted in the strikeout/replacement format requested by Water Board staff; and
- A new narrative subsection 3.5.2 devoted to 85th percentile, 24-hour retention areas with a discussion of the Rolling Hills Nature-Based Runoff Retention Area.

These documents have been shared with the current EWMP participants and they have no objections to

the content or the City of Rolling Hills' submittal of the documents to the Regional Board. The EWMP participants have requested that when these documents are transmitted to the LA Water Board, a statement is included in the transmittal requesting that consideration of this addendum not delay the LA Water Board's review and approval of the 2021 EWMP which is currently posted for public comment.

Monitoring has continued at the City's Sepulveda Canyon monitoring site. Since monitoring began in October 2020, only one major storm event, which occurred December 29-30, 2021, has produced flow in Sepulveda Canyon, and that rain event generated much more rainfall than the 85th percentile, 24-hour statistical rain event of 1 inch. The LA County rain gauge at the Rolling Hills Fire Station recorded 2.36 inches in 24 hours from 10 a.m. on December 29, 2021 through 10 a.m. on December 30, 2021, and a total of more than 3 inches for that rain event which spanned approximately 31 hours. So far this season the Rolling Hills Fire Station rain gauge has recorded 7.21 inches of rainfall since October 1, 2021. Thus, the Sepulveda Canyon flow data collected so far this year continues to support the City's assertion that the net effect of Rolling Hills' planning and land development standards along with its extensive network of natural canyon drainage systems effectively retains runoff from the 85th percentile, 24-hour rain event within Rolling Hills as demonstrated through monitoring.

City staff has also followed the City Council's direction to request a modular design approach for the Torrance Airport Stormwater Basin Regional Project, however to date Torrance city staff has not been receptive to such an idea and has instead requested that the City provide a formal letter requesting a specific volume capture allocation prior to the initiation of designing the project. The City of Torrance intends to award a design contract at its January 25, 2022 meeting.

FISCAL IMPACT:
The preparation of the EWMP addendum and the review of the Sepulveda Canyon monitoring data are included in the contract with McGowan Consultant for FY 2021-2022. The Sepulveda Canyon monitoring, and the review and analysis of the data is funded by local returns from Measure W, Safe Clean Water program.

RECOMMENDATION:
Staff recommends that the City Council approve the submittal of the 2021 Palos Verdes Peninsula EWMP Addendum to the LA Water Board. Additionally, staff recommends that a summary of the flow monitoring data and rainfall data collected through the FY 2020-2021 and FY 2021-2022 be prepared to be submitted separately to the Los Angeles Regional Water Quality Control Board as evidence of its retention of the 85th percentile, 24-hour rainfall runoff.

ATTACHMENTS:
Addendum_PVP_EWMP_RH(2022-01-04).pdf
PVP_EWMP_Sec_3.5.2(2022-01-04).pdf
Palos Verdes Peninsula EWMP Letter 2021 Update.pdf
PVP EWMP 2021 Update Without Appendices.pdf

Addendum Summarizing Modifications to PVP EWMP to Incorporate City of Rolling Hills

Section 1 Introduction and Background

No.	Subsection, Table or Figure	Page	Paragraph	Modification
1	1.1	1-1	2nd ¶	Append 2nd paragraph with the following sentence: "The City of Rolling Hills has elected to join the Peninsula WMG and has been incorporated into this revised EWMP."
2	1.2	1-2	1st ¶	Modify 1st paragraph as follows: "The geographic scope of the Peninsula EWMP (as shown in Figure 1-1) is comprised of the incorporated Cities of Rancho Palos Verdes, Palos Verdes Estates, Rolling Hills and Rolling Hills Estates, and unincorporated areas of the County of Los Angeles and LACFCD facilities (See Appendix 1.0 for a description of the LACFCD and its responsibilities within the Peninsula WMG). ~~The City of Rolling Hills is not participating in the Peninsula EWMP; however, the city is participating in the Peninsula WMG CIMP."~~
3	1.2	1-2	2nd ¶	Modify sentences 4-6 as follows: (4) "The SMB Watershed accounts for ~~63~~ 58% (~~14.2~~ 14.8 square miles) of the total Peninsula WMG area, and includes portions of the cities of Palos Verdes Estates, Rancho Palos Verdes, Rolling Hills, and Rolling Hills Estates. (5) The Los Angeles Harbor Subwatershed accounts for ~~15~~ 18% (~~3.4~~ 4.5 square miles) of the total Peninsula WMG area and includes portions of the cities of Rancho Palos Verdes, Rolling Hills, and Rolling Hills Estates. (6) The Machado Lake Subwatershed accounts for ~~22~~ 24% (~~4.9~~ 6.2 square miles) of the total Peninsula WMG area, and includes portions of the cities of Palos Verdes Estates, Rancho Palos Verdes, Rolling Hills, and Rolling Hills Estates, and the unincorporated areas of the County of Los Angeles.

No.	Subsection, Table or Figure	Page	Paragraph	Modification
4	Table 1-1	1-2		Include a new column for Rolling Hills in Table 1-1 and modify the table to incorporate the following information: Total area of City of Rolling Hills is 2.99 square miles which increases Total EWMP Area to 25.6 square miles. Land area of Rolling Hills within the three watersheds is: 0.64 sq. mi. in Santa Monica Bay, 1.3 sq. mi. in Machado Lake, and 1.1 sq. mi. to Los Angeles Harbor.
5	Figure 1-1	1-3		(1) Add Rolling Hills to the Peninsula EWMP jurisdictional boundaries by applying horizontal hash marks and include Rolling Hills in legend. (2) Remove Rolling Hills label as "Not Part of Peninsula EWMP" and shade its watershed management areas consistent with the other jurisdictional boundaries on the map.
6	1.5	1-8	bulleted list	In the list of sub-bullets, following the primary bullet that reads "Identify and implement strategies, control measures, and BMPs that:", insert an additional sub-bullet as the 3rd sub-bullet to read: "Cumulatively retain the runoff volume from the 85th%, 24-hour storm event for the drainage area tributary to the applicable receiving water"
7	1.6	1-10	1st ¶	Append a clause to the end of the first sentence that reads: "for areas of the EWMP not addressed through retention of the 85th%, 24-hr storm event".

Section 2 Identification of Water Quality Priorities

No.	Subsection, Table or Figure	Page	Paragraph	Modification
1	2.2	2-6	2nd ¶	Revise the 1st sentence as follows: "The Peninsula WMG~~, along with the City of Rolling Hills,~~ implements the Palos Verdes Peninsula Coordinated Integrated Monitoring Program (CIMP)."

No.	Subsection, Table or Figure	Page	Paragraph	Modification
2	2.2.1	2-7	1st ¶	Revise 3rd sentence as follows: "The Portion of the Peninsula WMG with drainage tributary to Santa Monica Bay consists of approximately 14.8 square miles, which is about ~~3.4~~ 3.6% of the Santa Monica Bay Watershed (414 sq. mi.)."
3	2.2.2	2-15	5th ¶	Revise 2nd sentence as follows: "The portion of the Peninsula WMG which contributes runoff to Machado Lake consists of approximately ~~5~~6.2 square miles, which is about 27~~2~~% of the Machado Lake watershed drainage area (approximately 22.6 sq. mi. in total)."
4	2.2.3	2-22	2nd ¶	Revise sentence 3 as follows: The portion of the Peninsula EWMP area which contributes runoff to Greater Los Angeles Harbor consists of approximately ~~3.4~~ 4.5 square miles, which is about ~~3~~ 4.1% of the Dominguez Channel Watershed Management Area (approximately 109.4 sq. mi. total) that drains to the Los Angeles Harbor."

Section 3 Selection of Watershed Control Measures

No.	Subsection, Table or Figure	Page	Paragraph	Modification
1	Introduction	3-1	1st ¶	Insert additional item to bulleted list of objectives as follows: "Retain the runoff volume of the 85th%, 24-hour storm event, where feasible."
2	3.1.2	3-2	5th ¶	Modify the 2nd sentence in this paragraph as follows: This section applies to all participating agencies where applicable, excluding the LACFCD.
3	3.1.2.2	3-2	7th ¶	Modify the 2nd sentence as follows: "There are currently no sites subject to the Industrial General Permit within the jurisdictional authority of the ~~Palos Verdes~~ Peninsula ~~Watershed~~ WMG nor any commercial sites within the City of Rolling Hills.

No.	Subsection, Table or Figure	Page	Paragraph	Modification
4	3.5	3-9	1st ¶	Modify the 1st sentence as follows: "Structural TCMs are Structural BMPs that, in combination with MCMs, are designed with the objective to achieve interim and final water quality-based effluent limitations and/or receiving water limitations and where feasible to achieve retention of runoff from the 85th percentile, 24-hour storm event."
5	3.5.1	3-9	4th ¶	Modify the 1st sentence as follows: "Except for areas where runoff from the 85th percentile, 24-hour is retained, ~~T~~the performance of existing and planned BMPs in the Peninsula EWMP area is evaluated through the RAA following provisions of the MS4 Permit, both in terms of volume capture (based on BMP design criteria) and predicted effluent quality."
6	Figure 3-1	3-10		(1) Remove Rolling Hills label, "City of Rolling Hills (Not Part of Peninsula EWMP)". (2) Shade Rolling Hills' watershed management areas consistent with the other jurisdictions' watershed areas on the map, including blueline streams.
7	3.5.1.1.4	3-29		Add missing numeral 3 to correct error in number of subsection entitled "Potential Regional BMPs"—this subsection should be numbered "3.5.1.1.4" not "5.1.1.4"
8	3.5.2	3-32		Insert new Section 3.5.2 entitled: "**85th Percentile, 24-hour Runoff Retention Areas"**
9	3.5.2	3-32		Insert the new narrative [see attached] into new section 3.5.2 with the subtitle: "**Rolling Hills' Nature-Based Stormwater Runoff Retention Area"**
10	Figure 3-12		After 1st ¶ of Section 3.5.2	Insert new Figure 3-12 identifying 85th%, 24-Hr Retention Areas Excluded from RAA
11	Figure 3-13		At end of Section 3.5.2	Insert new Figure 3-13 with Google Earth aerial view of Rolling Hills showing Nature-Based Stormwater Runoff Retention Area.

Section 4 Reasonable Assurance Analysis

No.	Subsection, Table or Figure	Page	Paragraph	Modification
1	4.1	4-1	1st ¶	To clarify that the RAA was performed only for areas where retention of the 85th% volume was not achieved, append to the end of the 1st sentence: "for areas not addressed through retention of the 85%, 24-hr storm event".

Section 5 Implementation Schedule

No Changes Necessary

Section 6 EWMP Implementation Costs and Financial Strategy

No.	Subsection, Table or Figure	Page	Paragraph	Modification
1	Table 6-4	6-10	Last row	Add Rolling Hills to list of city agencies in last row, first column by inserting: "RH".

Section 7 Legal Authority

No.	Subsection, Table or Figure	Page	Paragraph	Modification
1	Table 7-1	7-1	New row	Update Table 7-1 to include a new row with the following information in each column from left to right: (1) **"Rolling Hills"** (2) "Chapter 8.32 - Storm Water Management and Pollution Control" (3)"https://library.municode.com/ca/rolling_hills/codes/code_of_ordinances?nodeId=TIT8HESA_CH8.32STWAMAPOCO"

No.	Subsection, Table or Figure	Page	Paragraph	Modification
2	Table 7-1	7-1	New row	As per the other entries in Table 7-1, include a second new row with the following text from Rolling Hills municipal code: "8.32.030 - Purpose and intent. A. The purpose of this chapter is to comply with the Federal Clean Water Act, the California Porter-Cologne Water Quality Control Act, and the Municipal NPDES Permit by: 1. Reducing pollutants in storm water discharge to the maximum extent practicable; 2. Regulating illicit connections and illicit discharges and thereby reducing the level of contamination of storm water and dry weather runoff into receiving waters; and 3. Regulating non-storm water discharges to the storm sewer system."

Section 8 Coordinated Integrated Monitoring Program

No Changes Necessary

Section 9 Adaptive Management Program

No Changes Necessary

Section 10 Reporting Program and Assessment

No Changes Necessary

Appendices

No.	Appendix	Page	Modification
1	1.0	133 of PDF	Revise Figure 1.A-2 to remove the words "not part of EWMP" below the Rolling Hills label on map.

No.	Appendix	Page	Modification
2	Table 3.1-1 In Appendix 3.1	3.1-2	Add column to Table 3.1-2 under the "Agency" section to include Rolling Hills and include a "C" or "N/A" or "R" or leave blank for the following rows as indicated below: • LID and Green Streets Staff Training – "C" • Restaurant Certification Program – "N/A" • Downspout Disconnection Program – "C" • Irrigation Reduction Incentives Program – "C" • Targeted Outreach – "C" • Horse Manure Management – "C" • Enhanced Street Sweeping – " N/A" • Adopt Sewer System Management Plan – "N/A" • Increased Street Sweeping Frequency or Routes – "N/A" • Prepare guidance documents to aid in implementation of MS4 Permit MCMs – " " (leave blank) • Brake Pad Replacement Program – "R" • Lead Reduction Program – "R" • Zinc Reduction Program – "Watershed Group" as overall entry in this row • Apply for Grant Funding for Stormwater Projects – "N/A" • Water Efficient Landscaping – "C" • Enhanced Irrigation Runoff Reduction Program – "C" • Green Building Ordinance – "_" (leave blank) • Adoption of LA County Fire Code – "C"
3	Table 3.1-1 in Appendix 3.1	3.1-2	Relocate the row for Targeted Control Measure "Downspout Disconnect Program" to be under the subcategory of "Public Information and Participation" to be consistent with the narrative describing this control measure in the narrative on page Appendix 3.1-5 (correction to EWMP Update)
4	Table 3.1-1 in Appendix 3.1	3.1-2	Insert definition of "R" in bottom row which serves as legend as follows: "R – Regulatory"

No.	Appendix	Page	Modification
5	3.1	3.1-4	Modify last sentence on page under Enhanced Irrigation Runoff Reduction Program section as follows: "The County of LA and the cities of Palos Verdes Estates, Rancho Palos Verdes, Rolling Hills, and Rolling Hills Estates are currently implementing this program.
6	4.1	Various	Modify legends and labels in figures 1, 2, 3, 5, 8, 12, and 14 to describe Rolling Hills as 85%, 24-hr retention area rather than "not participating in EWMP".
7	4.1	11	Modify the second sentence in numbered list item 2 to append with additional clause as follows: "This list includes land owned and operated by Caltrans and the 85%, 24-hr storm runoff retention area in Rolling Hills".

3.5.2 85th Percentile, 24-hour Runoff Retention Areas

As provided in Order R4-2021-0105 Part IX.A.4.k. Watershed Management Programs may demonstrate that strategies, control measures, and BMPs cumulatively retain the runoff volume from the 85th percentile, 24-hour storm event for the drainage area tributary to the applicable receiving water and for such areas an RAA is not required. Furthermore, as provided in Order R4-2021-0105 Part X.B.2.b.iii., a Permittee is deemed in compliance with final WQBELs and receiving water limitations if it has retained all conditionally exempt, non-essential non-stormwater and all stormwater runoff up to and including the volume equivalent to the 85th percentile, 24-hour event for the drainage area tributary to the applicable receiving water provided the Permittee is implementing all actions and schedules in an approved Watershed Management Program. Watershed areas that fully retain the 85th percentile, 24-hour runoff volume and were excluded from the RAA analysis are shown in Figure 3.12 and described in the subsequent narrative.

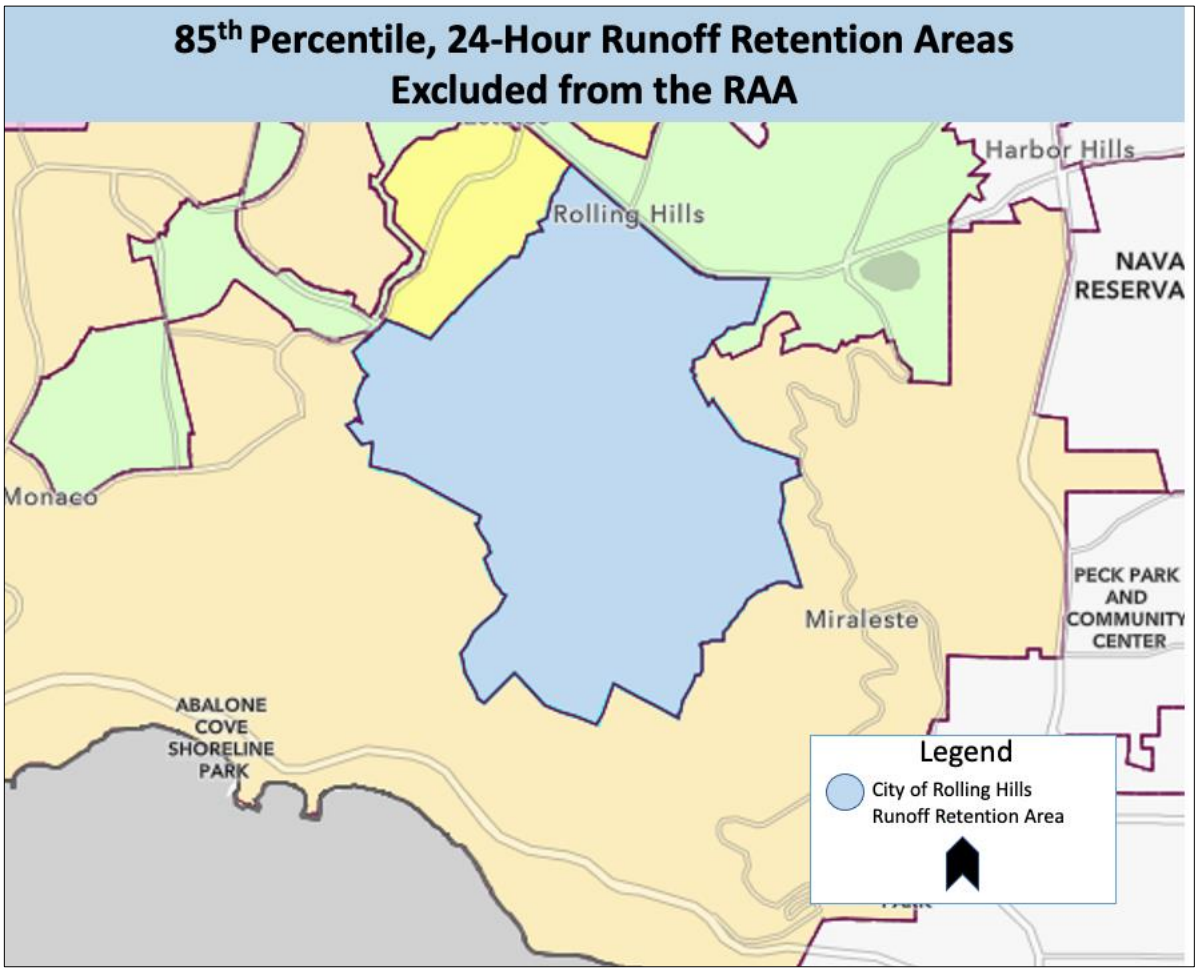


Figure 3-12 85th Percentile, 24-Hour Runoff Retention Areas Excluded from RAA

Rolling Hills Nature-Based Runoff Retention Area

The City of Rolling Hills (Rolling Hills) is a small, entirely residential semi-rural community of single-family homes with fewer than 2,000 residents in three square miles. By design, it is a model of low-impact development utilizing nature-based solutions for management of stormwater. Its zoning code includes strict standards for development ratios on each property and limits disturbed area during development. A substantial area of land in Rolling Hills is constrained from development due to steep hillsides and canyons; the use of these areas as wildlife habitats and native vegetation is emphasized. Rolling Hills' zoning code further promotes the preservation and appreciation of open space by requiring easements for equestrian/hiking trails on all lots. There are approximately 30 miles of unpaved equestrian/hiking trails throughout the city.[1]

Under Rolling Hills municipal code[2], only 40% of the net area of a residential lot may be disturbed during construction and the remaining area of the lot must remain in its natural, pre-development state. Only 35% of the net lot area may be developed with impervious surfaces, including structures, patios, and other paved areas. Given that the minimum lot size in Rolling Hills is 1 acre, with many substantially larger lots, the limitation on lot coverage preserves significant permeable areas throughout the city. Additionally, driveways may not cover more than 20% of the area of the yard in which they are located, and uncovered motor courts/parking pads may not cover more than 10% of the yard in which they are located.

Roads within the City have many green street features. They are designed as narrow, two-lane undivided winding roads 20 to 25 feet wide with rolling to steep grades lined with significant naturalized landscaping. There are no sidewalks or curb-and-gutter systems, and roads are not designed to be stormwater conveyance systems.[3]

Stormwater run-off that is not contained on properties is conveyed through Rolling Hills via natural, soft bottom, vegetated drainage courses/canyons (see Figure 3-13), providing disconnection of impervious developed areas and ample opportunity for natural bioretention and infiltration as described in Section 2.3.1: Pollutant Fate and Transport Mechanisms within the Watershed. There is limited public infrastructure and no city-owned or maintained storm drains, roads, sidewalks, or curb-and-gutter, though there are some limited, discontinuous drainage improvements owned/operated by the Los Angeles County Flood Control District (LACFCD).

[1] City of Rolling Hills 1990. General Plan – Land Use Element. June 25, 1990.
[2] Rolling Hills Municipal Code, Title 17
https://library.municode.com/ca/rolling_hills/codes/code_of_ordinances?nodeId=TIT17ZO
[3] City of Rolling Hills 1990. General Plan – Circulation Element. June 25, 1990.

The net effect of Rolling Hills' planning and land development standards along with its extensive network of natural canyon drainage systems is to promote retention and infiltration, creating a system of nature-based solutions for stormwater management. Along with the Minimum Control Measures, Non-Stormwater Discharge Measures, and Targeted Non-Structural Control Measures described in Sections 3.1, 3.2 and 3.3, this system of nature-based runoff retention measures effectively retains runoff from the 85%, 24-hr rain event within Rolling Hills as demonstrated through monitoring.

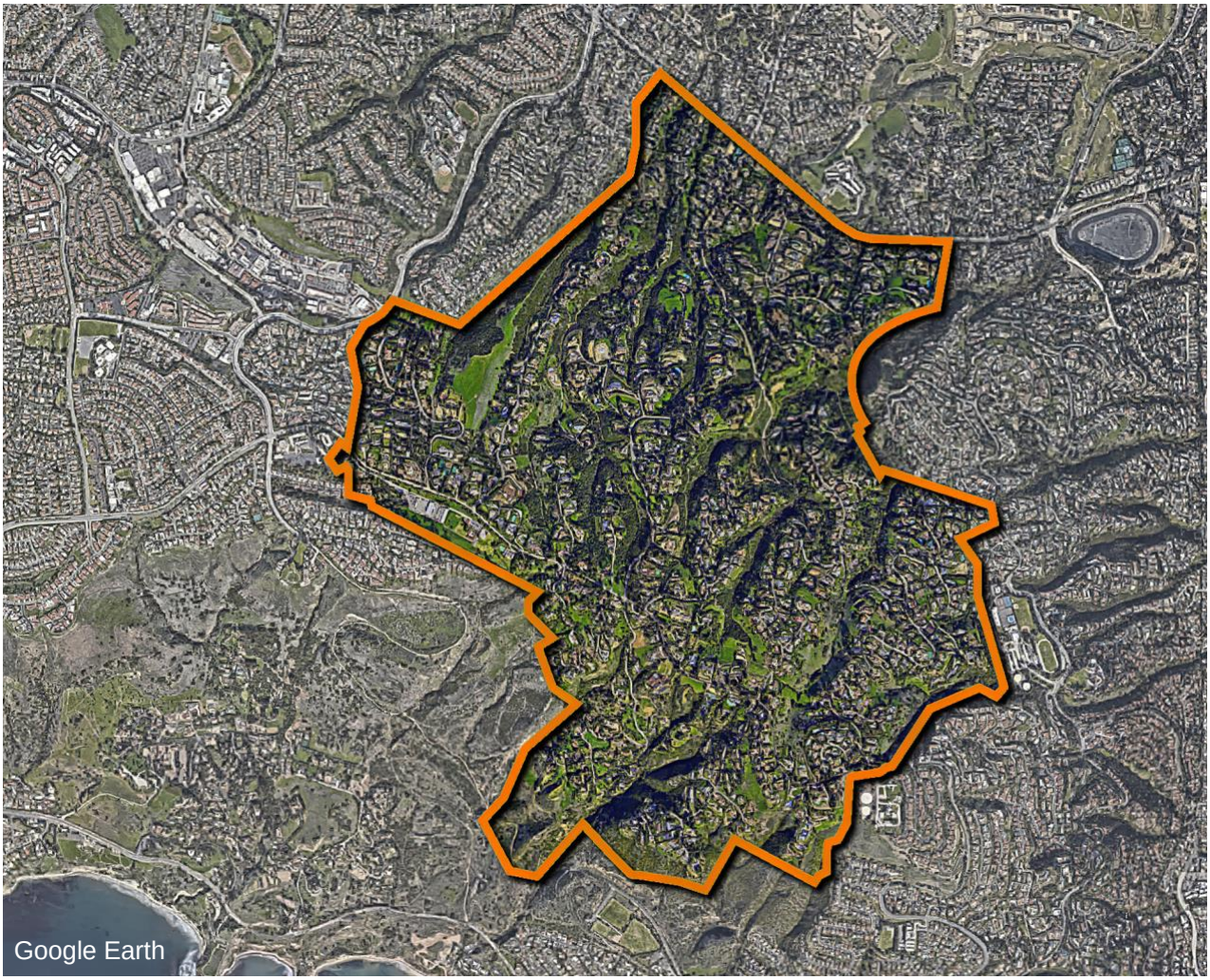


Figure 3-13 Rolling Hills Nature-Based Stormwater Runoff Retention Area

Palos Verdes Peninsula
Enhanced Watershed Management Group

June 30, 2021

Transmitted electronically via
FTP site link: https://ftp.watersboards.ca.gov

Renee Purdy, Executive Officer
Regional Water Quality Control Board, Los Angeles Region

Attention: Ivar Ridgeway

Subject: Submittal of the Updated Palos Verdes Peninsula Enhanced Watershed Management Program

Dear Ms. Purdy,

The Cities of Rancho Palos Verdes, Palos Verdes Estates, Rolling Hills Estates, and the County of Los Angeles (Unincorporated County), along with the Los Angeles County Flood Control District (LACFCD), collectively referred to as the Peninsula WMG, are pleased to submit the updated Palos Verdes Peninsula Enhanced Watershed Management Program (Peninsula EWMP) including an updated Reasonable Assurance Analysis (RAA). The updated Peninsula EWMP and RAA have been prepared in accordance with the requirements of the 2012 LA MS4 Permit[1], the Los Angeles Regional Water Quality Control Board Guidelines for Conducting RAA (March 2014), and consistent with State Water Board Order WQ 2020-0038 (2020 State Board Order).

The updated RAA was conducted using the newly released, LACFCD-developed Watershed Management Modeling System 2.0 (WMMS 2.0), for general consistency with other RAA modeling efforts across Los Angeles County. The default WMMS 2.0 LSPC model has been calibrated by LACFCD on a regional basis using data through September 2018. The updated RAA also incorporated Peninsula Coordinated Integrated Monitoring Program (Peninsula CIMP) water quality and flow data collected through June 2020 (the latest complete Peninsula CIMP reporting year data set subjected to QA/QC validation), and as appropriate, utilized this data to calibrate and validate the revised RAA model to best reflect the baseline hydrology and water quality conditions within the Palos Verdes Peninsula EWMP area. Detailed information on the model calibration can be found in Section 5 of the Appendix 4.1 RAA Report.

Consistent with the 2020 State Board Order, the updated Peninsula EWMP and RAA:

- Explains how information considered in the source assessment was used (EWMP Section 2 and Appendix 4.1 RAA Report).

[1] Order No. R4-2012-0175, as amended by R4-2012-0175-A01, NPDES No. CAS004001

- Identifies unavailable, needed information and the assumptions made to substitute for that information along with commitment to acquire the information through the Peninsula CIMP for incorporation in the next adaptive management milestone (EWMP Appendix 4.1 RAA Report 7.1.3 Mercury and Arsenic).
- Utilizes all relevant, available data[2] to update the EWMP and RAA, including updates to the water body pollutant combination (WBPC) prioritization and source assessment, TMDL milestone achievement, and RAA calibration and validation. Data not used in the RAA has been identified, with explanation as to why this data was disregarded.
- Models each WBPC and therefore does not utilize or necessitate justification of a limiting pollutant approach. Table 4-2 in Section 4 of the Updated EWMP provides the results of this analysis for each WBPC supported by the detailed RAA Report in Appendix 4.1.
- Includes 24-hour management volumes as a clear metric for demonstrating progress in attaining load reduction targets – Table 5-1 in Section 5 of the Updated EWMP provides the implementation schedule for demonstrating progress in attaining these volumetric reductions by subwatershed and analysis region. Water body/pollutant milestones are also included in this table.
- Considers ongoing CIMP monitoring data which is sufficient to evaluate attainment of milestones.

Modifications to Peninsula EWMP including Special Study for Mass-Based Compliance for Machado Lake Nutrient TMDL

The 2020 State Water Board Order (p. 29) recognizes that "Additional fine-tuning to develop more tailored pollutant levels and control plans…will often require updates to regional water quality control plans" and that "water body-specific special studies can provide adequate protections for beneficial uses at reduced compliance costs to local jurisdictions". Furthermore, Part C.3.b of Attachment N to the 2012 LA MS4 Permit pertaining to the Machado Lake Nutrient TMDL states, "Permittees may be deemed in compliance with water quality-based effluent limitations by demonstrating reduction of total nitrogen and total phosphorous on an annual mass basis measured at the storm drain outfall of the Permittee's drainage area where approved by the Regional Water Board Executive Officer based on the results of a special study by the Permittee."

The County of Los Angeles previously completed a special study to establish annual mass-based WQBELs for total nitrogen and total phosphorus under the Machado Lake Nutrient TMDL for its unincorporated areas, including those within the Peninsula EWMP area, which was developed following approval of the Special Study Workplan by the Los Angeles Water Quality Control

[2] "Available data" includes all data collected through June 30, 2020 by the Peninsula WMG. This date marks the end of the 2019-2020 reporting year of CIMP monitoring results, which includes data that has been analyzed and verified according to the Peninsula CIMP QAPP standard for quality assurance and quality control (QA/QC). Monitoring data collected after this time has not yet been verified for QA/QC in accordance with this protocol, and so has not been used in the updated RAA and EWMP, but will be used in the next update.

Regional Board[3]. The updated Peninsula EWMP RAA establishes mass-based loading estimates and WLAs for the entire Peninsula EWMP area, consistent with and following the same approach established in the approved Los Angeles County Machado Lake Nutrient TMDL Special Study[4].

The updated RAA utilizes a mass-based approach to assess the annual average loading estimates and the waste load allocations (WLAs) for constituents of concern associated with the Machado Lake Nutrient TMDL.[5] The implemented approach utilizes both monitoring data and modeling results to estimate the dry and wet weather total nitrogen and total phosphorus loads to Machado Lake during the average annual year. Consistent with the Los Angeles County Special Study, water year 2010 was used as the critical year. The dry weather mass-based load estimate was based on dry weather flow and water quality monitoring data collected through the Peninsula CIMP from June 2016 to June 2020. The wet weather mass-based load estimate was obtained using the calibrated WMMS 2.0 model, including the Peninsula CIMP data through June 2020. The mass-based WLAs for the pollutants of concern have been calculated as the interim and final Machado Lake Nutrient TMDL WQBEL concentrations[6] multiplied by the annual average inflow volume to Machado Lake[7] apportioned to the Peninsula EWMP area[8], the same method as utilized in the approved Los Angeles County Machado Lake Nutrient TMDL Special Study.

Utilizing this approach, the RAA demonstrates that annual mass-based loading for total nitrogen from the Peninsula EWMP Area is less than the WLA for the critical condition, while annual mass-based loading for total phosphorus from the area is slightly higher than the WLA. Appendix 4.1 of the EWMP provides the details of these RAA results and Chapter 3 of the EWMP describes the projects that have been identified to reduce pollutant loads to achieve the WLAs.

Prior and Current Milestones and Associated Work

The updated EWMP demonstrates achievement of past and current milestones, consistent with the requirements of the 2020 State Board Order. For the Santa Monica Bay subwatershed areas of the Peninsula EWMP, attainment of the final receiving water limitations (RWLs) was established in the previously approved EWMP and no additional milestones were due on or before June 30, 2021. Monitoring data evaluated in this revision of the EWMP/RAA continues to

[3] LARWQCB (Los Angeles Regional Water Quality Control Board). 2010. *Machado Lake Nutrient TMDL – Conditional Approval of the Special Study Work Plan for the Unincorporated Areas of Los Angeles County within the Machado Lake Watershed.* May.

[4] LACDPW (Los Angeles County Department of Public Works). 2011. *Machado Lake Nutrient TMDL Special Study: Characterization of Water Quality Conditions in the Unincorporated Areas of Los Angeles County within the Machado Lake Watershed Final Report*. September.

[5] The Machado Lake Nutrient TMDL allows permittees to assess compliance with TMDL WLAs on a mass basis for total nitrogen and total phosphorous by submitting a special study to the LARWQCB.

[6] Final: 1 mg/L for total nitrogen, 0.1 mg/L for total phosphorous. Interim: 2.45 mg/L for total nitrogen, 1.25 for total phosphorus.

[7] 8.45 HM^3/year (Lai, 2007).

[8] 22.0% of the total drainage area.

show that TMDL RWLs and/or water quality based effluent limitations (WQBELs) are being met for pollutants of concern in the Santa Monica Bay subwatershed of the Peninsula WMG.

For the Inner Harbor and Cabrillo Marina water bodies of the Los Angeles Harbor to which the Peninsula EWMP areas are tributary, monitoring data demonstrates compliance with relevant Greater Los Angeles Harbor Toxics TMDL interim WQBELs in the bed sediment over a three-year averaging period consistent with TMDL provisions translated into Order No. R4-2012-0175 Attachment N, E.4.a.ii. This is addressed in Table 4-1 in Section 4 of the updated Peninsula EWMP as well as Section 7.6 of the Appendix 4.1 RAA Report. Thus, applicable prior and current milestones are being met within the Los Angeles Harbor subwatershed areas of the Peninsula EWMP and no other work associated with prior or current milestones was due in the previously approved Peninsula EWMP on or before June 30, 2021.

For the Machado Lake subwatershed areas of the Peninsula EWMP, the updated RAA demonstrates that interim WQBELs for Total Nitrogen and Total Phosphorus are being met in all the analysis regions of the Machado Lake subwatershed as discussed in Section 4 of the EWMP and in Section 7.6 of the Appendix 4.1 RAA Report. Final WQBELs are also being met in all analysis regions within the Machado Lake subwatershed of the Peninsula EWMP for Total Nitrogen, Total PCBs, Dieldrin and DDT (all congeners) as demonstrated in the RAA and shown by zero final target load reductions in Table 11 of the Appendix 4.1 RAA Report. The final WQBELs for Total Chlordane, DDE congeners and DDD congeners have not yet been attained within all analysis regions of the Machado Lake subwatershed and additional load reductions are also necessary for indicator bacteria in the Wilmington Drain analysis regions of the Machado Lake Subwatershed to address the 303(d)listing. The updated RAA quantifies the additional capture volume (expressed as 24-hour management volume) needed in each analysis region to satisfy the unmet final target load reductions.

Some of the prior and current action-based milestones have been completed in the Machado Lake subwatershed, including completion of two regional projects identified in the previously approved EWMP. The two remaining regional projects identified in the previously approved Peninsula EWMP have not been completed as planned since feasibility studies were conducted and these projects were determined to be technically or environmentally infeasible. Alternative projects in various stages of implementation (feasibility study, planning or design) have been identified in the updated EWMP and incorporated into the RAA to address the remaining target load reductions. Completion of the additional projects identified in Table 5-1 in Section 5 of the Peninsula EWMP within five years of approval of the updated Peninsula EWMP will provide the needed capture volumes and attain the final WQBELs for the remaining unmet final WQBELs for Machado Lake as well as the RWLs for bacteria in Wilmington Drain. Timely requests for Time Schedule Orders have been submitted by the Peninsula WMG for the Machado Lake Nutrients and Pesticides & PCBs TMDLs to allow time for completion of these additional projects.

Thank you for consideration of our updated Peninsula EWMP and RAA. Please don't hesitate to contact me should Regional Board staff have any questions or require additional information.

Sincerely,



Charles Eder, PE
Senior Engineer, City of Rancho Palos Verdes
Chair of Palos Verdes Peninsula Watershed Management Group

cc: Renee Purdy, Executive Officer, LARWQCB, Renee.Purdy@waterboards.ca.gov
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PALOS VERDES PENINSULA ENHANCED WATERSHED MANAGEMENT PROGRAM

Submitted By:

Palos Verdes Peninsula Watershed Management Group

Revised: June 30, 2021

APPENDICES NOT INCLUDED IN THIS DOCUMENT

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IN THIS DOCUMENT

1. INTRODUCTION AND BACKGROUND

1.1. INTRODUCTION

The Los Angeles Regional Water Quality Control Board (Regional Board) regulates discharges from municipal separate storm sewer systems (MS4s) through the Municipal Separate Storm Sewer System Permit (MS4 Permit). The purpose of the MS4 Permit is to protect the beneficial uses of the receiving waters in the Los Angeles County region by regulating municipal stormwater and non-stormwater discharges from the permittees' MS4s. The overarching goal of these requirements is to reduce the discharge of pollutants from MS4s to the maximum extent practicable.[1] The Permit allows permittees the flexibility of developing an Enhanced Watershed Management Program (EWMP) to implement the requirements of the Permit. Implementation is to be achieved on a watershed basis through customized strategies, control measures, and BMPs to ensure that discharges from the permittees' MS4s:

i. Achieve applicable WQBELs,
ii. Do not cause or contribute to exceedances of receiving water limitations, and
iii. Do not include non-storm water discharges that are effectively prohibited.

Following the adoption of the 2012 MS4 Permit, the Cities of Palos Verdes Estates, Rancho Palos Verdes, Rolling Hills Estates, along with the County of Los Angeles (Unincorporated County), and Los Angeles County Flood Control District (LACFCD), collectively referred to as the Peninsula WMG, began to collaborate on the initial development of an Enhanced Watershed Management Program (EWMP) to implement the requirements of the MS4 Permit on a watershed scale and address the water quality priorities for the Palos Verdes Peninsula watersheds. The Peninsula WMG coordinated with other agencies and watershed management groups in the initial development of the 2016 EWMP, including the City of Los Angeles, the Dominguez Channel EWMP Group, and the Beach Cities EWMP Group. The initial Peninsula EWMP was approved by the Regional Board in April 2016.

This revised EWMP reevaluates the Peninsula WMG's water quality priorities identified during the initial development of the 2016 EWMP in Section 2, presents an updated program of BMPs intended to achieve these water quality priorities in Section 3The results of the revised EWMP are significantly different than the initial EWMP due to availability of Coordinated Integrated Monitoring Program (CIMP) monitoring data and continuous flow monitoring data within the Peninsula WMG area used to calibrate the updated Reasonable Assurance Analysis (RAA) model. The updated Reasonable Assurance Analysis (RAA) results are summarized in Section 4 and the BMP implementation schedule is summarized in Section 5. The financial strategy incorporating new sources of funding for implementation is detailed in Section 6, Section 7 provides the Legal Authority language, Section 8 refers to the Coordinated Integrated Monitoring Program, Section 9 summarizes the Adaptive Management process, and Section 10 summarizes the Reporting Program.

[1] Reference: http://www.swrcb.ca.gov/water_issues/programs/stormwater/municipal.shtml

1.2. PENINSULA WATERSHED

The geographic scope of the Peninsula EWMP (as shown in **Figure 1-1**) is comprised of the incorporated Cities of Rancho Palos Verdes, Palos Verdes Estates, and Rolling Hills Estates, and unincorporated areas of the County of Los Angeles and LACFCD facilities (See Appendix 1.0 for a description of the LACFCD and its responsibilities within the Peninsula WMG). The City of Rolling Hills is not participating in the Peninsula EWMP; however, the city is participating in the Peninsula WMG CIMP.

The Palos Verdes Peninsula is situated in the southwestern portion of Los Angeles County atop the Palos Verdes Hills, which are bounded to the north by the cities of Torrance and Lomita, to the east by the San Pedro area of the City of Los Angeles, and to the south and west by the Pacific Ocean. The Peninsula WMG area is divided into two HUC-12 equivalent watersheds: 1) Santa Monica Bay (SMB) Watershed and 2) the Greater Dominguez Channel Watershed Management Area, which is subdivided into two subwatersheds, the Los Angeles Harbor Subwatershed and the Machado Lake Subwatershed. A change in drainage divides the Peninsula WMG from the northeast to the southwest with the westerly and southwesterly portion draining into Santa Monica Bay and the northeasterly portion draining to Machado Lake and the Los Angeles Harbor. The SMB Watershed accounts for 63% (14.2 square miles) of the total Peninsula WMG area, and includes portions of the cities of Palos Verdes Estates, Rancho Palos Verdes, and Rolling Hills Estates. The Los Angeles Harbor Subwatershed accounts for 15% (3.4 square miles) of the total Peninsula WMG area and includes portions of the cities of Rancho Palos Verdes and Rolling Hills Estates. The Machado Lake Subwatershed accounts for 22% (4.9 square miles) of the total Peninsula WMG area, and includes portions of the cities of Palos Verdes Estates, Rancho Palos Verdes, Rolling Hills Estates, and the unincorporated areas of the County of Los Angeles. Drainage from the Peninsula WMG agencies is conveyed via natural soft bottom canyons in conjunction with structured storm drain systems. Table 1-1 provides the Peninsula EWMP area identified by watershed and agency, and **Figure 1-1** provides a map of the Peninsula EWMP watershed and jurisdictional boundaries, including existing water quality monitoring sites in the Peninsula EWMP area.

Table 1-1: Jurisdictional Areas within Each Peninsula EWMP Watershed

Permittee	Rancho Palos Verdes	Palos Verdes Estates	Rolling Hills Estates	County of Los Angeles	Total
Land Area within Santa Monica Bay Watershed (Square Miles)	9.35	4.35	0.46	0	**14.2**
Land Area within Machado Lake Subwatershed (Square Miles)	1.07	0.39	2.78	0.7	**4.9**
Land Area within Los Angeles Los Angeles Harbor Subwatershed (Square Miles)	3.02	0	0.34	0	**3.4**
Total EWMP Area	**13.5**	**4.8**	**3.6**	**0.7**	**22.6**

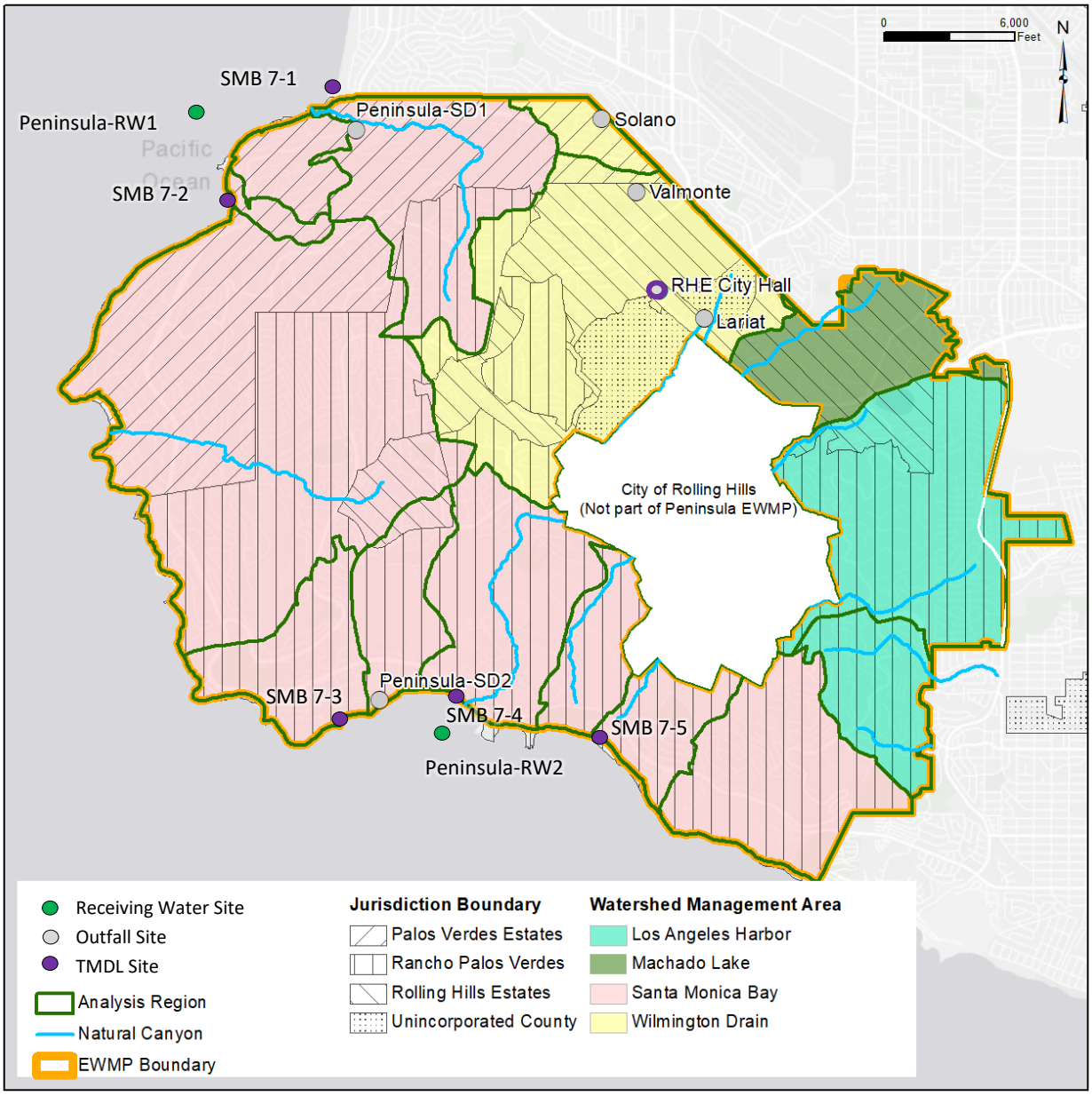


Figure 1-1: Peninsula EWMP Area and Existing Monitoring Locations

1.3. WATER QUALITY ISSUES AND THE HISTORY OF WATER QUALITY REGULATIONS

1.3.1. FEDERAL LAW, STATE LAW, AND REGULATORY FRAMEWORK

The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for all inland surface waters, estuaries, and coastal waters. The federal Environmental Protection Agency (EPA) is ultimately responsible for implementation of the CWA and its associated regulations. In 1972 the National Pollution Discharge Elimination System (NPDES) was created through Section 402 of the Federal Clean Water Act. The NPDES prohibits discharges of pollutants from any point source, including the MS4 system, into the nation's waters except as allowed under an NPDES permit. The MS4 system includes curbs and gutters, man-made channels, catch basins and storm drains.

The CWA allowed the federal EPA to authorize the NPDES Permit Program to state governments, enabling states to perform many of the permitting, administrative, and enforcement aspects of the NPDES Program. California, like other states, implements the CWA by promulgating its own water quality protection laws and regulations. As long as this authority provides equivalent protections as the federal CWA, EPA can delegate CWA responsibilities to the state while retaining oversight responsibilities. In some cases, California has established requirements that are more stringent than federal requirements.

The 1970, the Porter-Cologne Water Quality Control Act granted the California State Water Resources Control Board (SWRCB) broad powers to protect water quality. The SWRCB chartered nine Regional Water Quality Control Boards (Regional Boards) with regulatory responsibility for developing and enforcing water quality objectives and implementation plans to best protect the beneficial uses of local waterbodies. To protect clean water at the local level, municipalities in Los Angeles County and the County of Los Angeles unincorporated areas are required to obtain a discharge permit from the Regional Board to discharge stormwater through the MS4 into Waters of the United States, hence the MS4 Permit. The Los Angeles Regional Water Quality Control Board (Regional Board) is the governing regulatory agency for water quality within the Peninsula WMG area.

Section 303(d) of the CWA requires states to regularly identify waterbodies not meeting water quality objectives. These waters are often referred to as "303(d) listed" or "impaired" waters. Development and approval of the 303(d) list is a lengthy state and federal process. A list is not effective until the USEPA approves the list. The current 303(d) list for California was approved by USEPA on April 6th, 2018. Changes from the previous 303(d) list include removal of sediment toxicity for the Santa Monica Bay Offshore/Nearshore, and revising the list of Category 2 Water Body Pollutant Combinations by adding arsenic and mercury impairments for the Santa Monica Bay Offshore/Nearshore.

Waterbodies that are listed on the 303(d) list typically require development of a Total Maximum Daily Load (TMDL) for the pollutant(s) impairing the use of water. A TMDL establishes the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards. Depending on the nature of the pollutant, TMDL implementation requires limits on the contributions of pollutants from point sources (waste load allocation), nonpoint sources (load allocation), or both.

Adoption of a TMDL requires an amendment to the Water Quality Control Plan (known as the Basin Plan) for the Los Angeles Region. The Regional Board's Basin Plan is designed to preserve and enhance water quality and protect the beneficial uses of regional waters. Specifically, the Basin Plan (i) designates beneficial uses for surface and ground waters, (ii) sets narrative and numerical objectives that must be

attained or maintained to protect the designated beneficial uses and conform to the state's antidegradation policy, and (iii) describes implementation programs to protect all waters in the Region. The Basin Plan is reviewed and updated as necessary (Regional Board 1994, as amended). Following adoption by the Regional Board, the Basin Plan and subsequent amendments are subject to approval by the State Board, the State Office of Administrative Law (OAL), and the Environmental Protection Agency (EPA). The MS4 Permit includes effluent limitations, receiving water limitations, minimum control measures (MCMs), and TMDL provisions, and outlines the process for developing watershed management programs, including the EWMP. Development of an EWMP is one of the options outlined in the MS4 Permit to address effluent limitations, receiving water limitations, and TMDLs. The EWMP must also incorporate MCMs, which are programs required to be implemented to address water quality issues.

1.3.2. CALIFORNIA ENVIRONMENTAL QUALITY ACT

The stormwater structural controls that will be implemented as a result the EWMP may require discretionary approval subject to review under the California Environmental Quality Act (CEQA). The LACFCD has prepared a Programmatic Environmental Impact report (PEIR) for all EWMP groups in which they are a part. This PEIR covers CEQA requirements for the EWMPs as a whole. The Peninsula WMG intends to comply with CEQA when implementing structural BMPs contained in this updated EWMP. Public agencies responsible for carrying out or approving stormwater structural controls are identified as the lead agency. The environmental review required imposes both procedural and substantive requirements. At a minimum, the lead agency will adhere to the consultation and public notice requirements set forth in the CEQA Guidelines, make determinations whether the proposed stormwater structural control is a “project”, and if so, conduct an initial review of the project and its environmental effects. The lead agency will identify and document the potential environmental impacts of the proposed project in accordance with CEQA, (Public Resources Code Section 21000 et seq.), and the CEQA Guidelines (Title 14 of the California Code of Regulations, Section 15000, et seq.).

Certain classes of projects have been determined not to have significant effect on the environment and are exempt from the provisions of CEQA by statute or category. When a public agency decides that a project is exempt from CEQA, and the public agency approves or determines to carry out the project, the agency may file a Notice of Exemption. For projects deemed not exempt, the lead agency will prepare an Initial Study and decide whether a Negative Declaration is applicable for the project, or depending on the potential effects, a further, and more substantial review may be conducted in the form of an Environmental Impact Report (EIR). A project may not be approved as submitted if feasible alternatives or Mitigation Measures are not able to substantially lessen the significant environmental effects of the project. Moreover, environmental review must include provisions for wide public involvement, formal and informal, in order to receive and evaluate public reactions to environmental issues, and when deciding the matter, the lead agency must consider all comments it receives (Cal. Pub. Res. Code § 21091(d)(1); 14 CCR § 15074(b)). The lead agency will use the EIR in determining the environmental effects of the proposed storm water project, and whether or not to approve the proposed project. If the proposed project is approved, all conditions and mitigations made in the adopted EIR will become part of any subsequent actions taken by the lead agency. The CEQA process will also be used by permitting agencies, funding agencies and the public to support proposed project decisions.

The National Environmental Policy Act (NEPA) comes into play less often than CEQA, but may be included for storm water projects involving federal funding. A joint NEPA and CEQA review process is encouraged to improve coordination and avoid redundancies. Like CEQA, the NEPA process provides opportunities to address issues related to proposed projects early in the planning stages. NEPA was codified under Title 42 of the United States Code sections 4331 et seq. (42 U.S.C. 4331 et seq.).

1.4. WATER QUALITY REQUIREMENTS

The Regional Board designates "beneficial uses" for waterbodies in the watersheds that it governs and adopts water quality objectives to protect these uses through the Basin Planning process[2]. In some cases, EPA may also promulgate objectives where it makes a finding that the state's objectives are not protective enough to protect the beneficial use. The nature of the objectives is directly related to the type of beneficial use. For example, the freshwater warm habitat beneficial use protects aquatic organisms resident in warm-water streams. The associated water quality objectives are for those constituents known to affect both the growth and reproduction of aquatic life. These objectives range from physical characteristics such as temperature, dissolved oxygen, and pH to potential toxic constituents including metals and organics. In California, the objectives for metals and a number of organic compounds have been established by the federal EPA rather than the state (California Toxics Rule, 2000). The EPA promulgated numeric water quality criteria for priority toxic pollutants and other water quality standards provisions based on the determination that the numeric criteria were necessary (since the state had been without numeric water quality criteria for many priority toxic pollutants as required by the CWA) to protect human health and the environment. These Federal criteria are legally applicable in the state for inland surface waters, enclosed bays and estuaries for all purposes and programs under the CWA. The State Water Resources Control Board (State Water Board) adopted the Water Quality Control Plan for Ocean Waters in Calfiornia, California Ocean Plan in 1972 and adopted the most recent amended Ocean Plan on February 4, 2019. The Ocean Plan also establishes water quality objectives and a program of implementation to protect beneficial uses at all MS4 discharge points within Los Angeles County coastal watersheds. See Chapter 2 for more details.

[2] See Regional Board's Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties, accessed May 07, 2021.

1.5. THE ENHANCED WATERSHED MANAGEMENT PROGRAM

1.5.1. WATERSHED MANAGEMENT GOALS AND PRIORITIES

Addressing MS4 discharges on a watershed scale allows permittees to meet the requirements of the Permit and address water quality priorities in an integrated and collaborative way. The conditions of the receiving waters drive management actions, which in turn focus on the measures to address pollutant contributions to and from the MS4.

The ultimate goals of the EWMP is to ensure that discharges from the MS4:

1. Achieve applicable Water Quality Based Effluent Limitations (WQBELs) that implement TMDLs,
2. Do not cause or contribute to exceedances of receiving water limitations,
3. Non-stormwater discharges from the MS4 are not a source of pollutants to receiving waters.

1.5.2. WATER QUALITY MANAGEMENT APPROACH

Development of an EWMP is one of the options outlined in the MS4 Permit held by Permittees to address effluent limitations, receiving water limitations, and TMDLs. The EWMP includes an evaluation of existing water quality conditions, including characterization of storm water and non-storm water discharges from the MS4 and receiving water quality to support identification and prioritization/sequencing of management actions. At a minimum, water quality priorities within each Watershed Management Area must include achieving applicable water quality-based effluent limitations and/or established receiving water limitations.

The MS4 permit requires that this EWMP identify strategies, control measures, and BMPs to implement on a watershed scale, with the goal of creating an efficient program to focus collective resources on meeting watershed priorities and effectively controlling the source of pollutants to and from the MS4.

See Chapter 2 of this EWMP for an evaluation of existing water quality conditions and classification of waterbody pollutant combinations as Category 1 (Highest Priority), Category 2 (High Priority), and Category 3 (Medium Priority).

This EWMP has incorporated State agency input from various sources on priority setting and implementation issues. Specific priorities incorporated include, but are not limited to, the following:

- The EWMP is consistent with priorities listed in SB 985 and is in accordance with the Storm Water Resource Plan Guidelines[3] for all categories with the exception of those which are more applicable to the Peninsula Coordinated Integrated Monitoring Plan and the California Water Service Urban Water Management Plan.
- The Peninsula WMG lies within the South Bay subregion of the LA IRWMP and will include its regional projects in the LA IRWMP database.
- The Stormwater Strategic Initiative[4] identifies prioritization of projects to address issues facing the storm water program. Efforts described within this EWMP have used the same priorities in mind,

[3] Storm Water Resource Plan Guidelines. State Water Resources Control Board. December 15, 2015.
[4] Stormwater Strategic Initiative. State Water Resources Control Board. June 25, 2015.

including, but not limited to optimizing the use of stormwater as a resource and providing consistent and widespread messaging to broaden the understanding of the value of stormwater.

- The Strategy to Optimize Resource Management of Storm Water[5] identifies four main goals, all of which the EWMP has incorporated: 1) Change the Perspective that Storm Water is a Waste or Hazard, and Treat it as a Valuable Water Resource; 2) Manage Storm Water to Preserve Watershed Processes and Achieve Desired Water Quality and Environmental Outcomes; 3) Implement Efficient and Effective Regulatory Programs; and 4) Collaborate in order to Solve Water Quality and Pollutant Problems with an Array of Regulatory and Non-Regulatory Approaches
- The California Water Action Plan[6] describes several actions to address the drought in California. The actions which this EWMP has incorporated include: making conservation a California way of life; increasing regional self-reliance and integrated water management across all levels of government; protecting and restoring important ecosystems; managing and preparing for dry periods; expanding water storage capacity and improving groundwater management; and providing safe water for all communities.
- The EWMP has incorporated goals in line with the California Stormwater Quality Association's 2019Strategic Plan[7] and 2020 Vision for Sustainable Stormwater Management[8], including:
  - **Collaboration** – Advance collaboration to address water quality problems in California;
  - **Education/Outreach** – Advance the knowledge of stormwater quality professionals and increase the awareness and knowledge of policy-makers and regulators in California regarding stormwater issues;
  - **Implementation Guidance** – Advance the quality of implementation guidance for environmentally beneficial and cost-effective adaptive management approaches to improving stormwater quality in California that emphasize true source control and operational source control over treatment;
  - **Regulatory Review** – Advance the development of consistent, proactive, and flexible stormwater policy and regulations consistent with the maximum extent practicable (MEP) standard of pollutant reduction through the incorporation of the latest scientific and economic information to promote the protection of water quality of beneficial uses; and
  - **Scientific Assessment** – Advance the understanding of pollutants of concern and their sources, fate, and transport, and the effectiveness of best management practices (BMPs) to control them.

In order to achieve the goals of the MS4 Permit, the approach of the EWMP is to:

- Prioritize water quality issues resulting from stormwater and non-stormwater discharges from the MS4 to receiving waters,
- Identify and implement strategies, control measures, and BMPs that:
  - Achieve applicable water quality-based effluent limitations[9]
  - Prevent exceedances of receiving water limitation[10]

[5] Strategy to Optimize Resource Management of Storm Water. State Water Resources Control Board. December 11, 2015.
[6] California Water Action Plan. California Natural Resources Agency, California Department of Food and Agriculture, and the California Environmental Protection Agency (Cal/EPA). January 14, 2016.
[7] CASQA Strategic Plan and Organizational Goals (April 2019) accessed May 26, 2021..
[8] Vision for Sustainable Stormwater Management – October 2020. California Stormwater Quality Association (CASQA). October 2020.
[9] Pursuant to Part VI.E and Attachments L through R of the Permit pursuant to corresponding compliance schedules
[10] Pursuant to Parts V.A and VI.E and Attachments L through R of the Permit

- Prevent non-stormwater discharges that are effectively prohibited[11]
- Reduce the discharge of pollutants to the maximum extent practicable[12]

- Execute an integrated monitoring program and assessment program[13] to determine progress towards achieving applicable limitations and/or action levels.
- Modify strategies, control measures, and BMPs as necessary based on analysis of monitoring data collected pursuant to the Monitoring and Reporting Program (MRP) to ensure that applicable water quality-based effluent limitations and receiving water limitations and other milestones set forth in the EWMP are achieved in the targeted timeframes.

The overall approach is adaptive, whereby BMPs will be implemented, their effectiveness monitored and modifications to this EWMP will be made as needed. These modifications will maintain consistency with the assumptions and requirements of applicable TMDL Waste Load Allocations.

[11] Pursuant to Part III.A of the Permit
[12] Pursuant to Part IV.A.1 of the Permit
[13] Pursuant to Attachment E – MRP, Part IV of the Permit

1.6. REASONABLE ASSURANCE ANALYSIS AND WATERSHED CONTROL MEASURES

As part of the initial EWMP development, a Reasonable Assurance Analysis (RAA) was conducted on a watershed level, to determine through quantitative analysis or modeling, the target load reductions (TLRs) necessary for each of the Peninsula EWMP priority pollutants in order to achieve water quality objectives. As a part of the Peninsula EWMP's adaptive management process, the Peninsula WMG is required to submita a revised EWMP to the Regional Board, including an updated RAA, by June 30, 2021.

Building upon the original EWMP, the Revised RAA has been updated to include recent CIMP monitoring data, project planning and implementation, and modeling advances over the past five years. The updated wet weather RAA was conducted using the Watershed Management Modeling System 2.0 (WMMS 2.0), the latest modeling tool developed by LACFCD, to determine a cost-effective implementation strategy to meet applicable water quality priorities. For dry weather, a revised semi-quantitative approach was implemented to update the dry weather portion of the revised RAA.

A suite of Watershed Control Measures (i.e. BMPs) to be implemented to achieve the necessary TLRs is described in Chapter 3 of this revised EWMP.. Watershed Control Measures are subdivided into 1) Minimum Control Measures, 2) Non-Stormwater Discharge Measures 3) TMDL Control Measures and 4) other control measures. A schedule has also been developed in Chapter 5 for the strategies, control measures and BMPs to be implemented by each individual Permittee within its jurisdiction and for those that will be implemented by multiple Permittees on a watershed scale. The schedules will measure progress on a semi-regular basis during permit term(s) and incorporate:

1) Deadlines occurring within the permit term for all applicable interim and/or final water quality-based effluent limitations and/or receiving water limitations to implement TMDLs,

2) Interim deadlines and numeric milestones within the permit term for any applicable final water quality-based effluent limitation and/or receiving water limitation to implement TMDLs, where deadlines within the permit term were not otherwise specified, and

3) Watershed priorities related to addressing exceedances of receiving water limitations.

1.7. ADAPTIVE MANAGEMENT

An adaptive management process will continue to be implemented to further refine and adapt the EWMP to become more effective, based on, but not limited to the following:

1. Progress toward achieving the outcome of improved water quality in MS4 discharges and receiving waters through implementation of the watershed control measures,
2. Progress toward achieving interim and/or final water quality-based effluent limitations and/or receiving water limitations, or other numeric milestones where specified, according to established compliance schedules,
3. Achievement of interim milestones;
4. Reopening of TMDLs and new 303(d) listings;
5. Re-evaluation of the highest water quality priorities identified for the Watershed Management Area based on more recent water quality data for discharges from the MS4 and the receiving water(s) and a reassessment of sources of pollutants in MS4 discharges,
6. Availability of new information and data from sources other than the Permittees' monitoring program(s) within the Watershed Management Area that informs the effectiveness of the actions implemented by the Permittees,
7. Regional Water Board recommendations; and
8. Recommendations for modifications to the EWMP solicited through a public participation process.

Based on the results of the adaptive management process, modifications necessary to improve the effectiveness of the EWMP will be reported in the Annual Report, and as part of the Report of Waste Discharge (ROWD). Any necessary modifications to the EWMP will be implemented upon acceptance by the Regional Water Board Executive Officer within 60 days of submittal if the Regional Water Board Executive Officer expresses no objections.

2. IDENTIFICATION OF WATER QUALITY PRIORITIES

This updated Enhanced Watershed Management Program (EWMP) re-evaluates water quality priorities identified for the Palos Verdes Peninsula Watershed Management Group (Peninsula WMG) during the initial development of the EWMP. Water quality priorities have been revised based on updated information and recent water quality data collected in the receiving water and re-assessment of sources of pollutants in the watershed based on discharge water quality data collected from Peninsula WMG outfalls since the initial development of the EWMP.

During the initial development of the EWMP, an evaluation of existing water quality conditions per section VI.C.5.a of the MS4 Permit was conducted in order to evaluate and prioritize water quality issues. Available data from applicable Total Maximum Daily Loads (TMDLs), the State's 303(d) list of impaired water bodies, and available monitoring data collected between 2003-2015 were analyzed. For this update, recent information as well as four years of receiving water and outfall water quality monitoring data collected between 2016 and 2020 under the Palos Verdes Peninsula Coordinated Integrated Monitoring Program (Peninsula CIMP) have been assessed as summarized below in Section 2.2 Receiving Water Characterization and Section 2.3 Source Assessment.

2.1. WATER QUALITY CHARACTERIZATION AND PRIORITIZATION

The updated receiving water characterization in Section 2.2 has been used to identify pollutants of concern for the Peninsula WMG and to classify them into the following three waterbody-pollutant combination categories:

CATEGORY 1: Waterbody-pollutant combinations for which water quality-based effluent limitations and/or receiving water limitations are established pursuant to a Total Maximum Daily Load (TMDL) as identified in Part VI.E TMDL Provisions and Attachments L through R of the MS4 Permit.

CATEGORY 2: Pollutants for which data indicate water quality impairment in the receiving water according to the State Board's Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List (State Listing Policy) and for which MS4 discharges may be causing or contributing to the impairment but for which a TMDL has not been established.

CATEGORY 3: Pollutants for which there are insufficient data to indicate water quality impairment in the receiving water according to the State's Listing Policy but for which data indicating exceedances of applicable receiving water limitations may be occurring and for which MS4 discharges may be causing or contributing to the exceedance.

This categorization forms the basis for prioritizing pollutants to be addressed by the EWMP. All of the identified Peninsula WMG's pollutants of concern fall into either Category 1 or 2 classification. There are no Category 3 pollutants identified based on the receiving water characterization. **Table 2-1** summarizes the priority pollutant categorization for the Peninsula EWMP. As shown, Category 1 and Category 2 pollutants are considered with Highest and High Priority, respectively, in identifying control measures to be implemented in each watershed. Highest priority pollutants include those with water quality-based effluent limitations and/or receiving water limitations established pursuant to a TMDL. High priority pollutants include those for which data indicate impairment of receiving water limitations and for which the source assessment detailed in Section 2.3 has identified MS4 discharges as a potential source.

Table 2-1: Peninsula EWMP Priority Pollutants

Category	Priority	Pollutant	Waterbody					
			Santa Monica Bay	Santa Monica Bay Beaches	Machado Lake	Wilmington Drain	Inner Los Angeles Harbor	Cabrillo Marina
1	Highest	Chlordane (water, sediment, fish tissue)			x			
		Copper (water and sediment)					x	x
		DDT (water, sediment, fish tissue)	x	x	x		x	x
		Dieldrin (water, sediment, fish tissue)			x			
		Indicator Bacteria		x				
		Lead (water and sediment)					x	x
		Total Nitrogen			x			
		Total PAHs					x	x
		PCBs (water, sediment, fish tissue)	x	x	x		x	x
		Total Phosphorus			x			
		Trash	x		x			
		Zinc (water and sediment)					x	x
2	High	Arsenic	x					
		Indicator Bacteria				x		
		Mercury	x					

2.2. RECEIVING WATER CHARACTERIZATION

The Peninsula WMG area encompasses portions of the drainage area tributary to three receiving waterbodies: the Santa Monica Bay, Machado Lake (which includes Wilmington Drain), and the Greater Los Angeles Harbor. Existing water quality is characterized for each of these receiving waters using the following information:

- Water Quality Control Plans
  - Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties (Basin Plan)[14]
  - California Ocean Plan[15]
- Applicable TMDLs
  - Santa Monica Bay Bacteria Dry and Wet Weather TMDLs
  - Santa Monica Bay Marine Debris TMDL
  - Santa Monica Bay DDT and PCBs TMDL
  - Machado Lake Trash TMDL
  - Machado Lake Pesticides and PCBs TMDL
  - Machado Lake Nutrient TMDL
  - Long Beach and Greater Los Angeles Harbor Toxics TMDL[16]
- California Water Quality Control Board Surface Water Quality Assessment Integrated Reports
  - 2014/2016 303(d) List of Impaired Waterbodies
  - 2018 draft 303(d) List of Impaired Waterbodies
- Monitoring Data and Reports
  - PVP CIMP Water Quality Data
  - Machado Lake Water Quality Monitoring Data collected by City of Los Angeles
  - Greater Los Angeles Harbor Waters Coordinated Compliance Monitoring and Reporting Water Quality Monitoring Data collected by the Greater Harbor Waters Regional Monitoring Coalition

The sections below provide more details on the updated information utilized to evaluate existing water quality for the Peninsula WMG's three receiving waters: Santa Monica Bay, Machado Lake and Greater Los Angeles Harbor waters.

WATER QUALITY CONTROL PLANS

The Peninsula WMG watersheds are subject to both the Basin Plan and California Ocean Plan, which set water quality objectives and implementation provisions to protect the quality of surface and marine

[14] Los Angeles Regional Water Quality Control Board. Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties. Last accessed online on March 26, 2021. https://www.waterboards.ca.gov/losangeles/water_issues/programs/basin_plan/basin_plan_documentation.html

[15] State Water Resources Control Board, 2019. Water Quality Control Plan for Ocean Waters in California, California Ocean Plan effective February 4, 2019.

[16] As recognized by the footnote in Attachment K-4 of the MS4 Permit, the Peninsula WMG members have entered into an Amended Consent Decree with the United States and the State of California, including the Regional Board, pursuant to which the Regional Board has released the Peninsula WMG members from responsibility for Toxic pollutants in the Dominguez Channel and the Greater Los Angeles and Long Beach Harbors. Accordingly, no inference should be drawn from the submission of this EWMP Work Plan or from any action or implementation taken pursuant to it that the Peninsula WMG has waived any rights under the Amended Consent Decree.

waters, respectively, and to ensure that the beneficial uses of these waters are maintained. For this EWMP update, the most recent versions of the Basin Plan and Ocean Plan available as of the preparation of this document were consulted to determine beneficial uses and water quality objectives applicable to the Peninsula WMG. The beneficial uses of the Peninsula WMG's receiving waters as designated in the Basin Plan are summarized in **Table 2-2**, and the beneficial use acronyms used in the table are defined as follows:

MUN – Municipal and Domestic Supply
IND – Industrial Service Supply
GWR – Groundwater Recharge
NAV – Navigation
COMM – Commercial and Sport Fishing
REC1 – Water Contact Recreation
REC2 – Non-Contact Water Recreation
WARM – Warm Freshwater Habitat
MAR – Marine Habitat
WILD – Wildlife Habitat
BIOL – Preservation of Biological Habitats
RARE – Rare, Threatened, or Endangered Species aquatic habitat
MIGR – Migration of Aquatic Organisms
SPWN – Spawning, Reproduction, and/or Early Development
SHELL – Shellfish Harvesting
WET – Wetland Habitat

Table 2-2: Peninsula EWMP Area Water Bodies and Beneficial Uses Designated in the Basin Plan

Water Body	MUN	IND	GWR	NAV	COMM	REC1	REC2	WARM	MAR	WILD	BIOL	RARE	MIGR	SPWN	SHELL	WET[b]
Los Angeles County Coastal Nearshore Zone^		E		E	E	E	E		E	E	E	E[e]	E[f]	E[f]	E[ar]	
Los Angeles County Coastal Offshore Zone		E		E	E	E	E		E	E		E[e]	E[f]	E[f]	E	
Machado Lake	P*					E	E	E		E		E				E
Coastal Streams of Palos Verdes	P*		I			I	I	I		E		E				
Canyon Streams of Palos Verdes	P*		I			I	I	I		E		E				
Point Vicente Beach				E	E	E	E		E	E				P	E	
Los Angeles Harbor – Other Inner Areas		E		E	E	P	E		E			E[e]			P	
Los Angeles Harbor – Marinas (Cabrillo)		E		E	E	E	E		E			E			P	

E: Existing beneficial use; P: Potential beneficial use; I: Intermittent beneficial use

* Asterisked MUN designations are designated under SB 88-63 and RB 89-03. Some designations may be considered for exemption at a later date.

[b] Water bodies designated as WET may have wetlands habitat associated with only a portion of the water body. Any regulatory action would require a detailed analysis of the area.

^ Nearshore is defined as the zone bounded by the shoreline and a line 1000 feet from the shoreline or the 30-foot depth contours, whichever is further from the shoreline. Longshore extent is from Rincon Creek to the San Gabriel River Estuary.

[e] One or more rare species utilizes all ocean, bays, estuaries, and coastal wetlands for foraging and/or nesting.

[f] Aquatic organisms utilize all bays, estuaries, lagoons, and coastal wetlands, to a certain extent, for spawning and early development. This may include migration into areas which are heavily influenced by freshwater inputs.

[ar] Areas exhibiting large shellfish populations include Malibu, Point Dume, Point Fermin, White Point and Zuma Beach.

TOTAL MAXIMUM DAILY LOADS (TMDLS) AND 303(D) LISTINGS

Waterbodies or waterbody segments that do not meet water quality standards consistent with beneficial uses are considered impaired and placed on the State Water Resources Control Board's 303(d) list of impaired waters which includes identification of the specific pollutant(s) causing the impairment, i.e., waterbody/pollutant combinations. TMDLs are required to be developed for pollutants that are causing impairment for each listed waterbody or waterbody segment. Where appropriate, TMDLs assign waste load allocations (WLAs) to MS4 dischargers to ensure that the total amount of a particular pollutant entering a receiving waterbody from the MS4 will not cause the water quality objectives in that water body to be exceeded and thereby impair its beneficial uses. **Table 2-3** shows existing TMDLs applicable to the Peninsula WMG that were evaluated to identify Category 1 water body pollutant combinations.

Table 2-3: TMDLs Applicable to the Peninsula

TMDL	Water Body Segments Addressed by TMDL	Pollutants Addressed by TMDL	Regional Board Resolution Number	Effective Date
Santa Monica Bay Beaches Bacteria Wet and Dry Weather TMDLs	Santa Monica Bay Beaches	Indicator Bacteria (Total Coliform Fecal Coliform Enterococcus)	2002-022 (Wet TMDL) & 2002-004 (Dry TMDL); Amended by R12-007	July 15, 2003; R12-007 effective July 2, 2014
Santa Monica Bay Nearshore and Offshore Debris TMDL	Santa Monica Bay	Trash	R10-010 Amended by R19-004	March 20, 2012 R19-004 effective date pending
Santa Monica Bay DDT and PCBs TMDL	Santa Monica Bay Santa Monica Bay Beaches	DDT PCBs	Established by USEPA	March 26, 2012
Machado Lake Trash	Machado Lake	Trash	2007-006 Amended by R19-14	March 6, 2008 R19-14 effective date pending
Machado Lake Pesticides and PCBs (Toxics) TMDL	Machado Lake	Chlordane Dieldrin PCBs DDT	R10-008	March 20, 2012
Machado Lake Nutrient TMDL	Machado Lake	Algae Total Nitrogen Total Phosphorus Ammonia Chlorophyll a Dissolved Oxygen Odor	2008-006	March 11, 2009
Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL	Inner Harbor Cabrillo Marina	DDT PCBs Copper Lead Zinc PAHs	R11-008	March 23, 2012

The State's 2014/2016 and draft 2018 303(d) lists have been reviewed to identify waterbody impairments applicable to the Peninsula WMG that are not yet being addressed by a TMDL. **Table 2-4** below summarizes the waterbody pollutant combinations identified on these 303(d) lists that are the basis for Peninsula EWMP Category 2 water body pollutant combinations.

Table 2-4: 303(d) Listed Pollutants in Peninsula EWMP Watersheds

Impaired Waterbody Segment	Pollutant Causing Impairment
Santa Monica Bay	Arsenic
Santa Monica Bay	Mercury
Wilmington Drain	Coliform Bacteria

WATER QUALITY MONITORING DATA

The Peninsula WMG, along with the City of Rolling Hills, implements the Palos Verdes Peninsula Coordinated Integrated Monitoring Program (CIMP). The data collected by the CIMP are used to assess water quality priorities and effectiveness of EWMP projects and programs. The CIMP established two (2) new near-shore monitoring locations in the Santa Monica Bay (approximately 1000 feet offshore) for collection of receiving water monitoring data during three (3) wet weather events and two (2) dry weather events per year. The CIMP also includes weekly indicator bacteria monitoring conducted in accordance with the Santa Monica Bay Beaches Bacteria TMDL at five (5) historical Santa Monica Bay shoreline locations.

In addition, some CIMP receiving water data evaluated in this water quality prioritization has been collected by other agencies or groups including:

- Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL data collected under the Coordinated Compliance Monitoring and Reporting Plan (CCMRP) implemented by the Regional Monitoring Coalition (RMC) for the Greater Harbor Waters, and
- Machado Lake in-lake water quality, sediment and fish tissue data collected by the City of Los Angeles under the Machado Nutrient and Pesticides and PCBs TMDLs.

The following sections are organized by watershed and include a characterization of each receiving water body based on applicable TMDLs, 303(d) listings and recently collected water quality data.

2.2.1. SANTA MONICA BAY

The Palos Verdes Peninsula is known for its steep cliffs and rocky intertidal coastal habitat and tidepools. Sandy beaches on the Peninsula are few and small, most with difficult access. The portion of the Peninsula WMG with drainage tributary to Santa Monica Bay consists of approximately 14 square miles, which is about 3.4% of the Santa Monica Bay Watershed (414 sq. mi.).

INDICATOR BACTERIA

The Santa Monica Bay Beaches (SMB Beaches) were first designated as impaired due to fecal indicator bacteria on the State's 1998 303(d) list of impaired waters. The Regional Board subsequently issued the SMB Beaches Bacteria TMDLs (SMBBB TMDLs) for wet and dry weather conditions, which became effective on July 15, 2003 and were subsequently amended on July 2, 2014. All of the Peninsula shoreline monitoring sites have been delisted from the 2014/16 and draft 2018 303(d) lists in accordance with the State Water Resources Control Board's delisting criteria, however the SMBBB TMDLs continue to remain in effect.

The SMBBB TMDLs include single-sample and six-week rolling geometric mean numeric objectives for total coliform, fecal coliform and enterococcus densities measured in most probable number per 100 milliliters (MPN/100mL). The TMDLs set waste load allocations (WLAs) based on the single sample objectives as an allowable number of days on which the single sample bacteria objectives could be exceeded at shoreline monitoring sites along the Santa Monica Bay (allowable exceedance days). The TMDLs divide the calendar year into three separate periods, each with specified numbers of allowable single-sample exceedance days:

- Summer dry-weather (April 1 – October 31),
- Winter dry weather (November 1 – March 31), and
- Wet weather (Year-round)

The six-week rolling geometric mean applies year-round during all weather conditions.

Table 2-5 shows the single sample and geometric mean bacteria objectives for the three types of indicator bacteria and **Table 2-6** presents the allowable number of exceedance days at each monitoring location along the Peninsula WMG's shoreline.

Table 2-5: SMBBB TMDL Bacteria Objectives

Constituent	Six-Week Rolling Geometric Mean	Single Sample
Total Coliform*	1,000 MPN/100 mL	10,000 MPN/100 mL
Fecal Coliform	200 MPN/100 mL	400 MPN/100 mL
Enterococcus	35 MPN/100 mL	104 MPN/100 mL
*Total Coliform density shall not exceed a daily maximum of 1,000/100 mL if the ratio of total to fecal coliform exceeds 0.1		

Table 2-6: Allowable Exceedance Day(s) by Period and Monitoring

Shoreline Monitoring Location	Period		
	Winter Dry Weather [b]	Summer Dry Weather [c]	Wet Weather [d] [e]
SMB 7-1 (Malaga Cove)	1	0	2
SMB 7-2 (Bluff Cove)	1	0	0
SMB 7-3 (Long Point)	1	0	1
SMB 7-4 (Abalone Cove)	0	0	1
SMB 7-5 (Portuguese Bend Cove)	1	0	1

(a) Allowable Exceedance days based on weekly sampling;
(b) Final period beginning July 15, 2009;
(c) Final period beginning July 15, 2006;
(d) Wet weather days include days with rain events of ≥ 0.1 inches of precipitation and the three days following the end of the rain event;
(e) Final period beginning July 15, 2021

To meet the monitoring requirements of these TMDLs, a SMB Beaches Bacteria TMDLs Coordinated Shoreline Monitoring Plan was developed by a committee of responsible agencies including representatives from the Peninsula WMG. The five shoreline monitoring sites established for the Peninsula WMG area (SMB 7-1 through 7-5) are shown on **Figure 1-1**. These five shoreline monitoring sites historically demonstrated fewer exceedance days than the reference beach (Leo Carrillo) used in the TMDL and were therefore considered anti-degradation sites which were required to maintain their existing high quality. The five Peninsula shoreline monitoring sites have historically and continue to be sampled for indicator bacteria along the Palos Verdes Peninsula shoreline on a weekly basis. The data summarized in **Table 2-7** and **Table 2-8** indicate that exceedances of the single sample and rolling six-week geometric mean receiving water limitations are infrequent at these shoreline monitoring sites and even during the 2016-17 rainy season, which exceeded the number of wet days for the critical 90th percentile wet year, there were very few exceedances.

Table 2-7: Number of Exceedance Days Above Allowable Receiving Water Limitations

Station ID	SMB 7-1			SMB 7-2			SMB 7-3			SMB 7-4			SMB 7-5		
Season*	Dry Summer	Dry Winter	Wet Weather	Dry Summer	Dry Winter	Wet Weather	Dry Summer	Dry Winter	Wet Weather	Dry Summer	Dry Winter	Wet Weather	Dry Summer	Dry Winter	Wet Weather
Reporting Year	Number of Exceedances of Annual Allowable Exceedance Days														
2019-20	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0
2018-19+	0	0	0	0	0	1	0	0	1	0	1	0	1	0	0
2017-18	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
2016-17*	0	0	2	0	0	0	0	0	2	0	0	2	0	0	0

+ From 11/19/18 through 1/14/19 enterococcus samples were run with 0:0 dilution rather than standard 1:10 dilution in an attempt to lower the detection limits for enterococcus following changeover in laboratories and method of analysis from EPA 1600 membrane filtration to IDEXX Enterolert® which may have resulted in increase in false positive exceedances.

* The number of wet days during the 2016-17 rainy season exceeded the number of wet days during the critical 90th percentile rain year

Table 2-8: Number of Year-Round Rolling Six-Week Geomean Exceedances of Receiving Water Limitations

Station ID	SMB 7-1	SMB 7-2	SMB 7-3	SMB 7-4	SMB 7-5
Reporting Year	Number of Rolling Six-Week Geomean Exceedances				
2019-20	1	0	0	0	0
2018-19 +	2	0	0	0	1
2017-18	0	0	0	0	0
2016-17*	2	0	0	1	0

+ From 11/19/18 through 1/14/19 enterococcus samples were run with 0:0 dilution rather than standard 1:10 dilution in an attempt to lower the detection limits for enterococcus using IDEXX Enterolert® analytical method which may have resulted in an increase in false positive results and geomean exceedances

* The number of wet days during the 2016-17 rainy season exceeded the number of wet days during the critical 90th percentile rain year

In addition, two nearshore receiving water monitoring stations located approximately 1,000 feet offshore in the Santa Monica Bay are being used to assess the effects of stormwater discharges on Santa Monica Bay receiving water quality. Each of these stations is situated directly in line with one of the two (2) CIMP outfall monitoring locations and wet weather nearshore receiving water sampling occurs in the Santa Monica Bay as soon as safety allows following outfall sampling. Four complete years of wet and dry-weather data from these receiving water sites have been collected beginning with reporting year 2016-17. Out of the forty (40) samples collected offshore in the Santa Monica Bay during this four-year period, only three (3) samples, or 7.5% of samples, exhibited elevated indicator bacteria results above Ocean Plan objectives. **Figure 2-1**, **Figure 2-2**, **Figure 2-3** show fecal indicator bacteria concentrations observed in receiving water samples collected under the PVP CIMP between 2016 and 2020. The horizontal line in each graph represents the Ocean Plan target for each respective species. As can be seen in these graphs, indicator bacteria concentrations in the Santa Monica Bay receiving water are consistently well below the 2012 Ocean Plan targets[17].

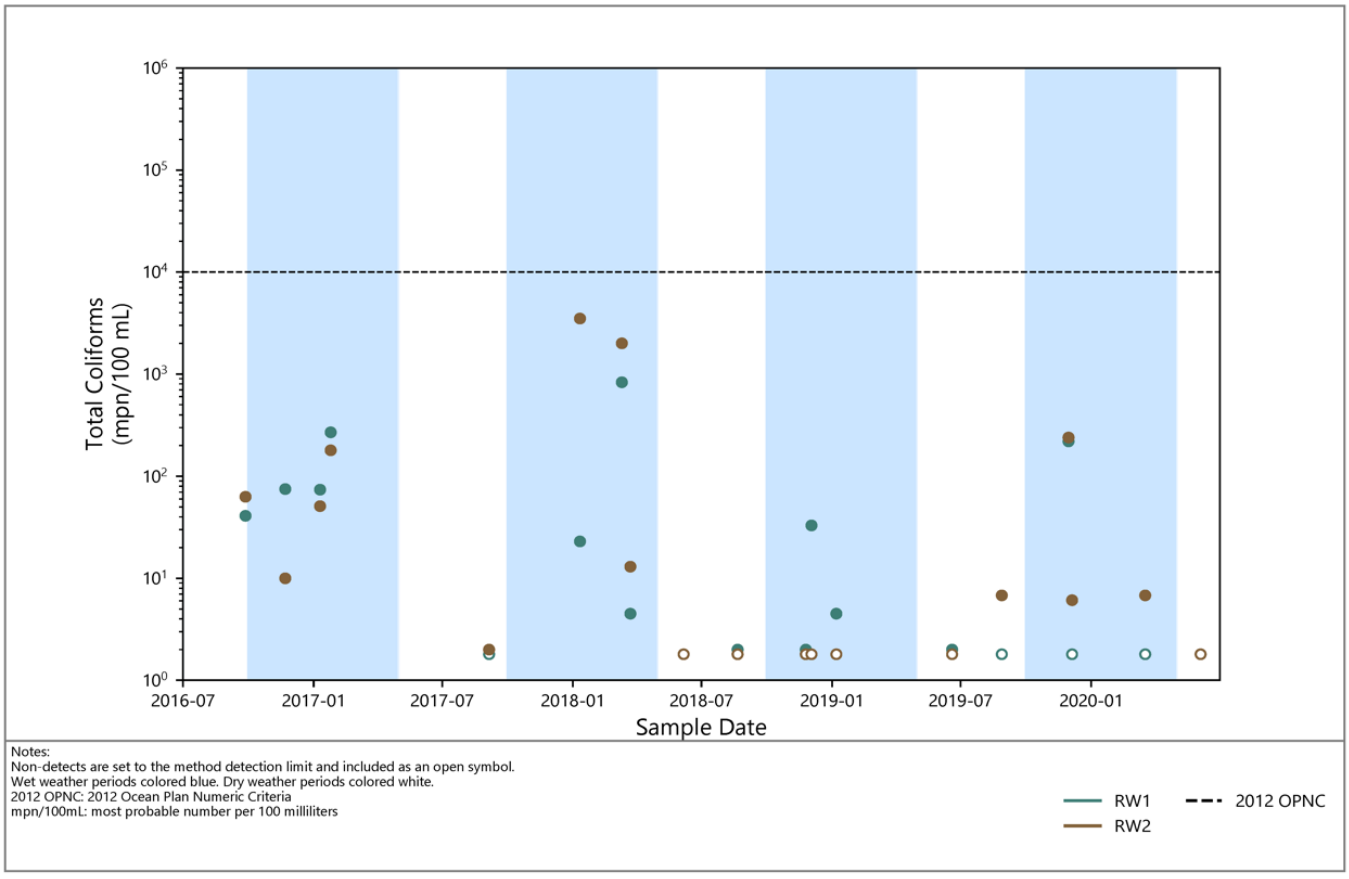


Figure 2-1: Santa Monica Bay Total Coliform Concentrations 2016-2020

[17] While these graphs compare data to the 2012 Ocean Plan, bacteria targets in the most recent (2019) Ocean Plan are consistent with the 2012 Ocean Plan.

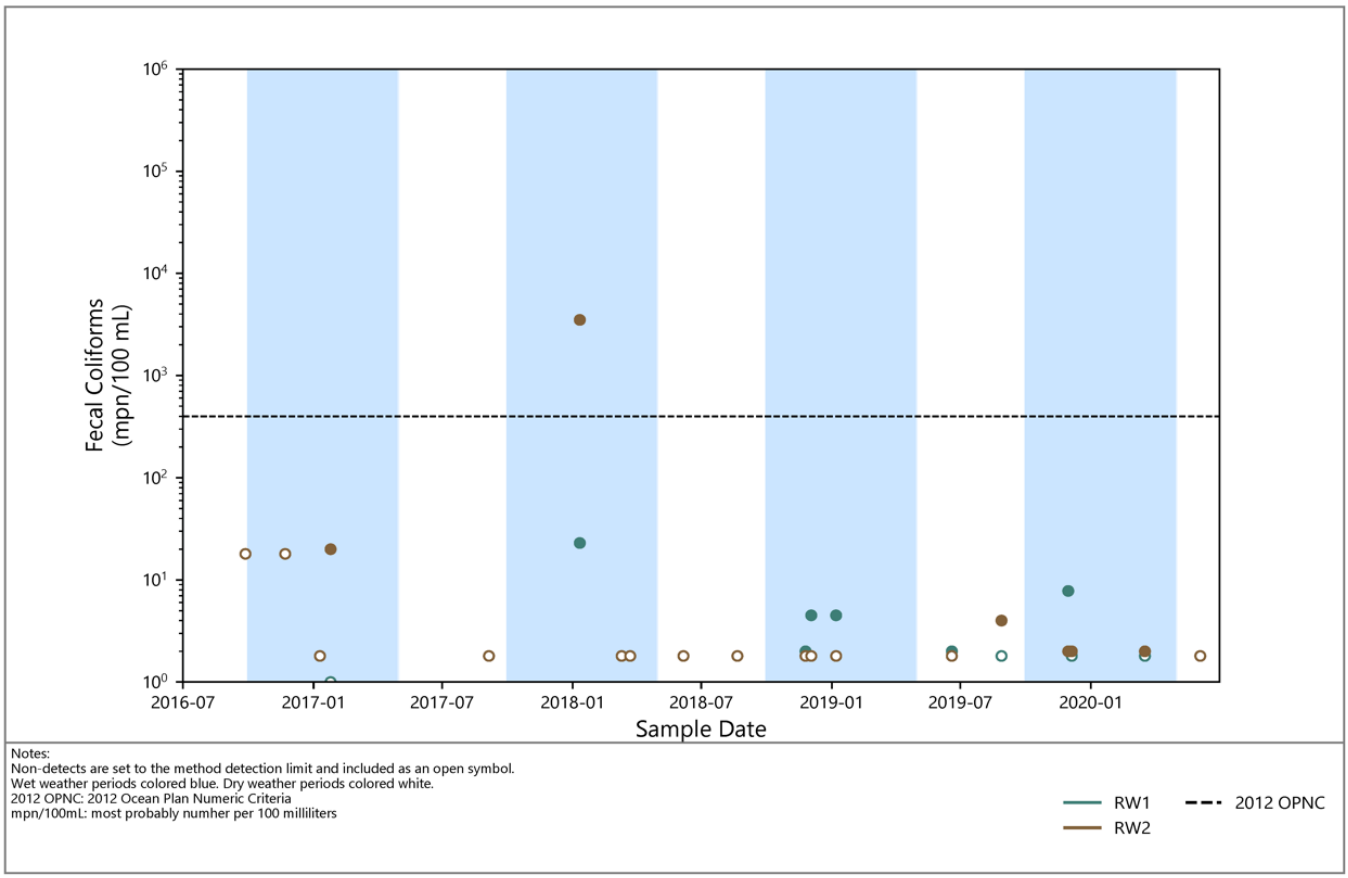


Figure 2-2: Santa Monica Bay Fecal Coliform Concentrations 2016-2020



Figure 2-3: Santa Monica Bay Enterococci Concentrations 2016-2020

PCBs AND DDTs

The Palos Verdes Shelf portion of Santa Monica Bay is an active EPA Superfund site that is subject to Superfund Remedial Action Objectives which include institutional controls, natural recovery, capping, and monitored attenuation, and are expected to result in improved water quality. [18] From 1947 to 1971 large quantities of DDT were discharged from the Montrose Chemical plant in Los Angeles to the Los Angeles County Joint Water Pollution Control Plant (JWPCP) which discharges to the Palos Verdes Shelf. PCBs also entered the JWPCP from several industrial sources in the Los Angeles area. These DDT and PCBs discharges passed through the JWPCP and were deposited on the Palos Verdes Shelf. There have also been reports of recently discovered illegal offshore dumping of waste barrels containing DDT acid sludge between Catalina Island and the Palos Verdes coast[19]. There is also concern that the rate of erosion on the southwest portion of the Palos Verdes Shelf could bring previously buried deposits to the surface.

[18] USEPA: Santa Monica Bay DDT and PCBs TMDL
[19] https://www.latimes.com/projects/la-coast-ddt-dumping-ground/#nt=1col-7030col1-mainnt=00000173-4a29-dafc-a977-dabb7b330001-liA9promoSmall-1col-7030col1-main

Concentrations of DDT and PCBs deposited in the surface sediments of the Santa Monica Bay have decreased substantially since the early 1970s and during this time period the benthic communities in the Palos Verdes shelf and Santa Monica Bay have improved substantially to the point where impairments to benthic communities are not seen; however, DDT and PCBs are still present at levels of concern for bioaccumulation and human health[20]. This contamination of DDT and PCBs in the sediments of Santa Monica Bay, largely centered on the Palos Verdes shelf, has led to a large number of fish advisories for much of Santa Monica Bay and a commercial fishing ban in the area around the Palos Verdes Shelf. As a result, the US EPA issued the Santa Monica Bay DDT and PCBs TMDL in 2012 and the TMDL objectives were established to meet fish concentrations for human consumption.

Four complete years of nearshore receiving water quality data have been collected under the PVP CIMP in the Santa Monica Bay and analyzed for total DDT and PCBs. Of these dry and wet-weather samples collected over the past four years, only one (1) out of forty (40) samples or 2.5% resulted in detection of 4,4'- DDT at a concentration between the method detection limit and the reporting limit. This sample was collected during a summer dry weather sampling event in the fourth year of CIMP monitoring. None of the forty (40) receiving water samples collected over the past four years have resulted in detections of Total PCBs above the Ocean Plan objective for total PCBs.

TRASH

The Santa Monica Bay nearshore beneficial uses are impaired by the accumulation of suspended and settleable debris. In 2008 and 2009, Regional Board staff conducted site visits along beaches in the southern and northern parts of the Santa Monica Bay to document the trash problem, though no beaches along the Peninsula WMG area were included in these site visits. Common items found on every beach evaluated included: plastic bags, candy wrappers, cigarette butts, styrofoam, beverage containers, straws, and paper. To address this impairment, the Regional Board issued the Santa Monica Bay Nearshore and Offshore Marine Debris TMDL (SMB Marine Debris TMDL), which went into effect on Mar 20, 2012. The SMB Marine Debris TMDL established a numeric target of zero trash and zero plastic pellets in the Santa Monica Bay based on the narrative water quality objectives in both the Basin Plan and the Ocean Plan.

ARSENIC & MERCURY

The Santa Monica Bay is listed on the State's 2014/16 and draft 2018 303(d) Lists as being impaired by arsenic and mercury based on sediment and fish tissue data collected under the Hyperion Treatment Plant NPDES Permit no. CA0109991 between January 2006 and June 2010. Nineteen (19) of 19 fish tissue samples collected in the Santa Monica Bay exceeded the USEPA Guidance for Assessing Chemical Contaminant Data for Use in Fish Advisories Volume 1: Fish Sampling and Analysis[21] for arsenic in fish tissue of 0.0034 ppm. Two (2) of thirty-two (32) sediment samples exceeded the Basin Plan narrative objective for mercury based on the effects range median for saline waters (predictive of sediment toxicity)

[20] USEPA: Santa Monica Bay DDT and PCBs TMDL

[21] USEPA. Office of Science and Technology Office of Water**.** Guidance for Assessing Chemical Contaminant Data for Use In Fish Advisories Volume 1: Fish Sampling and Analysis. EPA 823-B-00-007 (November 2000).

for mercury of 0.71 mg/Kg dry weight[22]. In addition, two (2) of nineteen (19) fish tissue samples exceeded the OEHHA fish contaminant goal of 0.22ppm[23].

TOXICITY

The Santa Monica Bay Offshore/Nearshore water body was removed from the 2014/16 and draft 2018 303(d) lists for sediment toxicity at the recommendation of USEPA, indicating that Peninsula shoreline waters are no longer considered to be impaired for sediment toxicity.

Some intermittent water column toxicity has been observed in the nearshore receiving water quality monitoring data collected under the PVP CIMP. One (1) out of twenty-four (24) wet weather nearshore receiving water samples collected under the PVP CIMP over the past four years has indicated toxicity, however the toxic effect was not sufficiently elevated to require the performance of a toxicity identification evaluation (TIE) and subsequent follow up wet-weather sampling showed no further toxic effects during wet weather.

During the third and fourth years of PVP CIMP dry weather monitoring, three (3) of four (4) dry weather receiving water samples collected in the Santa Monica Bay at receiving water site RW-1 off Malaga Cove in Palos Verdes Estates indicated low-level persistent toxicity. A TIE was performed on the initial receiving water sample showing toxicity collected at RW-1. The result of this TIE was inconclusive, though divalent cationic metals were suggested as the potential constituents causing the observed effects during that dry weather receiving water monitoring event. Follow up sampling at an 'upstream' shoreline monitoring found no toxicity present closer to the shoreline nor were metals observed above Ocean Plan limits in either the nearshore or shoreline receiving water sites. Based on monitoring data collected to date, there is no evidence that MS4 discharges have caused or contributed to these intermittent nearshore toxicity results nor has a cause of the toxicity been identified.

2.2.2. MACHADO LAKE

Machado Lake is located in the Ken Malloy Harbor Regional Park, which is a 231-acre Los Angeles City Park serving the Wilmington and Harbor City communities. Machado Lake was created by damming one of the last wetland systems in Los Angeles in 1971. The lake was intended for boating and fishing but over the years water quality generally declined, boating was stopped, and signs were posted warning of the risk of eating fish from the lake.

The Peninsula WMG areas do not drain directly into Machado Lake. The portion of the Peninsula WMG which contributes runoff to Machado Lake consists of approximately 5 square miles, which is about 22% of the Machado Lake watershed drainage area (approximately 22.6 sq. mi. in total). Drainage from the Peninsula WMG areas exits the Palos Verdes Peninsula in an easterly or northeasterly direction where it

[22] Long, E.R., D.D. MacDonald, S.L. Smith, and F.D. Calder. Incidence of adverse biological effects within ranges of chemical concentrations in marine and estuary sediments. Environmental Management. 19, (1): 81-97 (1995).

[23] Klasing, S. and Brodberg, R. Development of Fish Contaminant Goals and Advisory Tissue Levels for Common Contaminants in California Sport Fish: Chlordane, DDTs, Dieldrin, Methylmercury, PCBs, Selenium, and Toxaphene. Pesticide and Environmental Toxicology Branch Office of Environmental Health Hazard Assessment California Environmental Protection Agency. (June 2008).

is comingled with drainage from the cities of Torrance and Lomita prior to flowing into three of the four major drainage systems entering Machado Lake: Wilmington Drain, Project 77 and Project 510 (**Figure 2-4**). As shown in **Table 2-3,** Machado Lake is impaired for organochlorine pesticides, PCBs, nutrients, and trash. Over 80% of the Peninsula WMG's Machado Lake watershed drains to Machado Lake through Wilmington Drain. Wilmington Drain is listed on the State's 303(d) List for indicator bacteria.

Machado Lake underwent renovations as part of the City of Los Angeles's Machado Lake Ecosystem Rehabilitation Project funded by Prop O which was completed in 2017. The primary goal of the Rehabilitation Project was to improve water quality in Machado Lake while also enhancing natural habitat and recreational features of the park. The project consisted of in-lake improvements that included dredging approximately 239,000 cubic yards of lake sediment and capping the lake bottom with an AquaBlok bio-layer cap, constructing an oxygenation system, and rehabilitating the dam structure at the south end of the lake. Storm drain facility improvements included installing five (5) Continuous Deflection Separation (CDS) systems at the major storm drain inlets to treat storm water before it enters the lake. The vegetation, habitat, and park improvements included invasive plant removal, replanting of native species, and installation of fencing and walkways. The project has been undergoing an optimization period since the project was completed, and the City of Los Angeles began conducting receiving water monitoring in Machado Lake on September 11, 2017. The Machado Lake Ecosystem and Rehabilitation Project optimization period is expected to last between three to five years to allow for control measures such as vegetation for water quality treatment to be fully established. As part of the City of Los Angeles' Machado Lake Ecosystem and Rehabilitation Project, planning efforts are underway to pump treated water from Terminal Island's Advanced Water Purification Plant to Machado Lake to offset impacts of evapotranspiration. This is expected to lower pollutant concentrations to below the required levels for Machado Lake TMDLs.

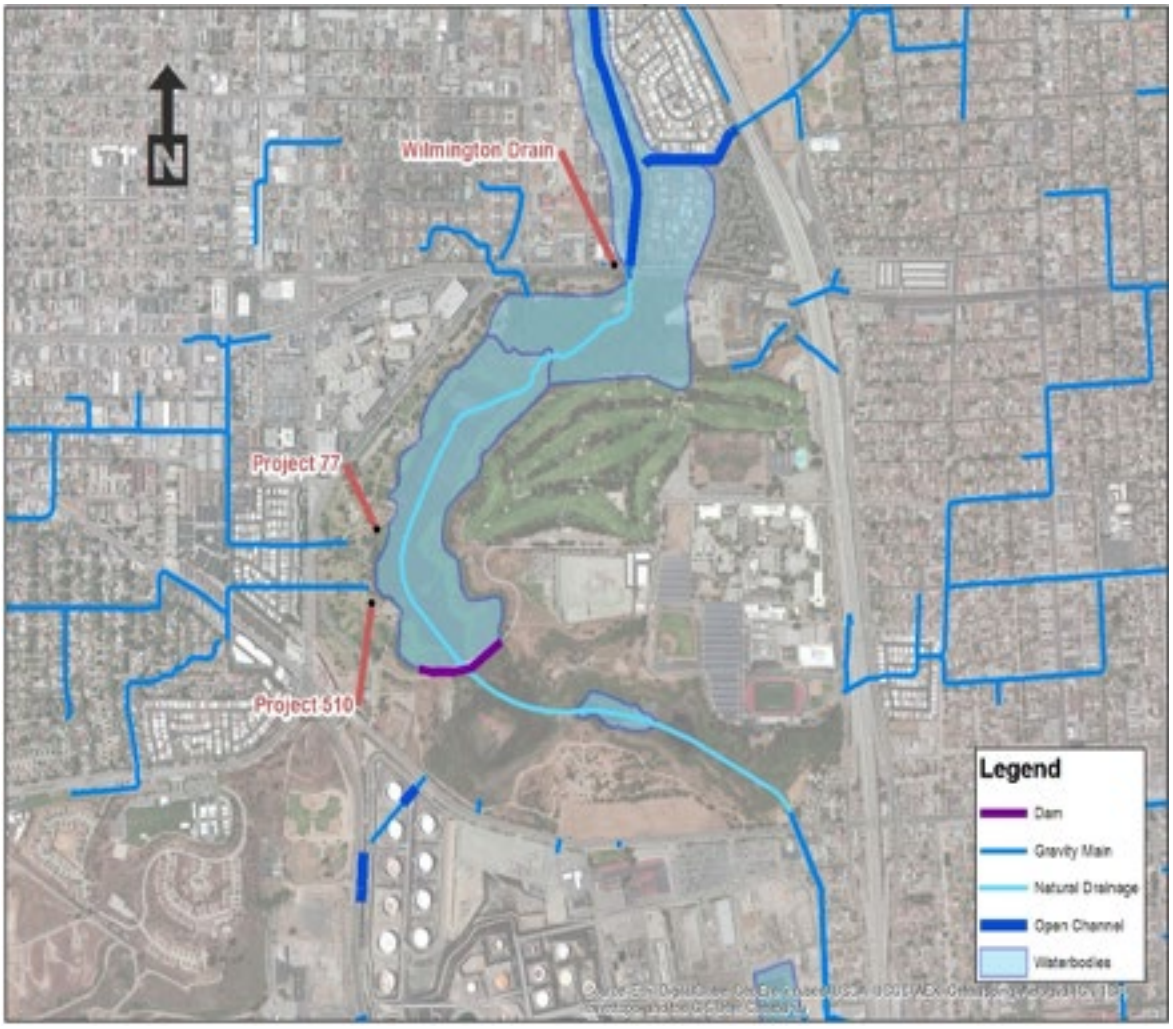


Figure 2-4: Storm Drains Entering Machado Lake

NUTRIENTS

Machado Lake is identified on the State's 303(d) list of impaired water bodies due to eutrophic conditions, algae, ammonia, and odors. Eutrophication is defined by increased nutrient loading to a waterbody and the resulting increased growth of biota, phytoplankton and other aquatic plants. To address these impairments, the Regional Board issued the Machado Lake Eutrophic, Algae, Ammonia, and Odors (Nutrient) TMDL, which became effective March 11, 2009. The chemical pollutants that most stimulate excessive aquatic vegetative growth and stimulate eutrophication are nitrogen and phosphorus, thus numeric receiving water limitations were set for these constituents in the Machado Lake Nutrient TMDL. **Table 2-9** presents numeric targets and interim and final load and waste load allocations for Machado Lake.

Table 2-9: Nutrient TMDL Numeric Targets and Load Allocations for Machado Lake

Date	Numeric Target	WLAs and LAs (Monthly Average Concentration)
March 11, 2009 (1st Interim)	-	**Total Phosphorus 1.25 mg/L Total Nitrogen 3.5 mg/L**
March 11, 2014 (2nd Interim)	-	**Total Phosphorus 1.25 mg/L Total Nitrogen 2.45 mg/L**
September 11, 2018 (Final)	**Total Phosphorus 0.1 mg/L (monthly average) Total Nitrogen 1.0 mg/L (monthly average) Ammonia 5.95 mg/L (hourly average) 2.15 mg/L (30-day average) Dissolved Oxygen* 5 mg/L (single sample minimum) *Measured at 0.3-m above the sediment) Chlorophyll-*a* 20 µg/L (monthly average)**	**Total Phosphorus 0.1 mg/L Total Nitrogen 1.0 mg/L**

Just over two years of in-lake water quality data have been collected by City of Los Angeles following completion of the Machado Lake Ecosystem Rehabilitation Project[24]. Nutrient data is collected via grab sampling from two in-lake monitoring stations: ML-1 and ML-2 (**Figure 2-5),** and a thirty-day rolling average in-lake concentration is calculated on a monthly basis for Total Nitrogen and Total Phosphorus. **Table 2-10** below shows monthly average Total Nitrogen and Total Phosphorus concentrations calculated for Machado Lake. With the exception of Total Nitrogen monthly average concentration in January and April 2020, all in-lake monthly average concentrations of Total Nitrogen and Total Phosphorous have been higher than applicable receiving water limitations established in the TMDL.

[24] Water quality monitoring data collection began September 2017, following completion of the Machado Lake Ecosystem Rehabilitation Project, and was available through June 2020 at the time of this update.

Table 2-10: Monthly Average TN and TP Concentration in Machado

Month/Year	Total Nitrogen Monthly Average (mg/L, calculated)	Total Phosphorus Monthly Average (mg/L, calculated)
September 2017	-	0.2
October 2017	-	0.18
November 2017	1.70	0.17
December 2017	1.35	0.14
January 2018	1.24	0.27
February 2018	-	0.28
March 2018	1.14	0.42
April 2018	1.98	0.29
May 2018	3.65	0.38
June 2018	2.70	0.27
July 2018	2.88	0.38
August 2018	4.43	0.54
September 2018	2.30	0.27
October 2018	2.78	0.32
November 2018	3.10	0.33
December 2018	1.58	0.32
January 2019	1.56	0.38
February 2019	1.14	0.28
March 2019	-	0.28
April 2019	-	0.30
May 2019	1.45	0.31
June 2019	1.38	0.33
July 2019	1.8	0.3
August 2019	2.2	0.3
September 2019	2.2	0.3
October 2019	2.3	0.3
November 2019	2	0.2
December 2019	1.4	0.4
January 2020	0.8	0.28
February 2020	1.3	0.28
March 2020	1.2	0.21
April 2020	1	0.19
May 2020	1.5	0.21
June 2020	1.6	0.26



Figure 2-5: Machado Lake Monitoring Stations

ORGANOCHLORINE PESTICIDES AND PCBS

Machado Lake is identified on the State's 303(d) List of impaired water bodies as impaired due to Chlordane, Dieldrin, Chem A, DDT and PCBs in fish tissue[25]. The Machado Lake Pesticides and PCBs TMDL (Machado Lake Toxics TMDL) was issued by the Regional Board to address these impairments and became effective March 20, 2012. Polychlorinated Biphenyls (PCBs) and organochlorine pesticides belong to a broad group of synthetic chlorinated hydrocarbons. PCBs include up to 209 different chlorinated chemical compounds which are called congeners. Chlordane, Dieldrin and DDT are organochlorine pesticides that were widely used until the late 1970s and 1980s. Organochlorine pesticides and PCBs are highly lipophilic and will accumulate in the fatty tissues of exposed wildlife and bioaccumulate as they move through the food chain. Chem A (abbreviation for chemical group A) is a suite of bio-accumulative pesticides that includes chlordane and dieldrin. The 1998 303(d) listing (and subsequent listings) for Chem A was predominately based on fish tissue concentrations of chlordane and dieldrin while the other Chem A pollutants have not been detected in tissue in over 25 years. Therefore, the Machado Lake Toxics TMDL addresses the Chem A listing by establishing water quality, sediment and fish tissue targets for chlordane and dieldrin.

The Machado Lake Pesticide and PCBs TMDLs established numeric targets for pesticides and PCBs in water, sediment, and fish tissue to protect aquatic life, fishing, and other recreational uses in the lake. The California Toxics Rule (CTR) criteria for human health (including protection for consumption of organisms) are the numeric targets for the water column, while the sediment numeric targets are based on the freshwater Threshold Effect Concentration guidelines compiled by NOAA, and the fish tissue targets are based on OEHHA Fish Contaminant Goals. **Table 2-11** presents these water column, sediment, and fish tissue numeric targets for the Machado Lake organochlorine pesticides and PCBs.

Table 2-11: Machado Lake Toxics TMDL In-Lake Numeric Targets

Pollutant	Water Column Target (ng/L)	Sediment Target (ng/kg dry weight)	Fish Tissue Target (ng/g wet weight)
Total PCBs	0.17	59.8	3.6
DDT (all congeners)	0.59*	4.16	No target
DDE (all congeners)	0.59*	3.16	No target
DDD (all congeners)	0.84	4.88	No target
Total DDT	--	5.28	21.0
Chlordane	0.59	3.24	5.6
Dieldrin	0.14	1.9	0.46

*Water column targets for 4,4' DDT, 4,4' DDE and 4,4' DDD only

Since September 2017, following completion of the Machado Lake Ecosystem Rehabilitation Project, water quality, sediment and fish tissue samples have been collected by City of Los Angeles in Machado Lake. Sediment grab samples collected in October 2017 showed non-detects for all constituents listed in **Table 2-11**. Results of in-lake water column monitoring conducted via grab sampling in March 2018 showed one exceedance of the CTR criteria for protection of human health for Total Chlordane (the calculated for Total Chlordane of 2ng/L was the result of the gamma-Chlordane analysis). Fish tissue grab and composite samples collected in May 2019 showed multiple exceedances of the OEHHA fish tissue targets for Total Chlordane and Total PCBs.

[25] Machado Lake Pesticides and PCBs TMDL

TRASH

Machado Lake is identified on the State's 303(d) List of impaired water bodies due to trash[26]. Consequently, the Regional Board issued the Machado Lake Trash TMDL, which became effective March 6, 2008. Existing beneficial uses impaired by trash in Machado Lake are Water Contact Recreation (REC-1), Non-contact Water Recreation (REC-2), Warm Freshwater Habitat (WARM), Wildlife Habitat (WILD), Rare, Threatened, or Endangered Species (RARE), and Wetland Habitat (WET). Common items that have been observed in Machado Lake include styrofoam cups, styrofoam food containers, glass and plastic bottles, paper cartons, packaging materials, plastic bags, and cans. Heavier debris can be transported during storms as well. The numeric target for this TMDL is zero trash in Machado Lake and on the shoreline. The TMDL assigns limits on point sources of trash, such as discharges from the MS4, and nonpoint sources of trash, such as direct discharges from areas of Ken Malloy Harbor Regional Park adjacent to the lake such as parking lots, recreational, and picnic areas. Dischargers can comply with WLAs through structural trash capture devices installed in the storm drain system or through nonstructural source control BMPs.

2.2.3. GREATER LOS ANGELES HARBOR

The Peninsula WMG areas do not drain directly into the Greater Los Angeles Harbor. Drainage from the Peninsula EWMP area exits the cities of Rancho Palos Verdes and Rolling Hills Estates in an easterly or southeasterly direction via storm drains and becomes comingled with MS4 discharges from the City of LA. The portion of the Peninsula EWMP area which contributes runoff to Greater Los Angeles Harbor consists of approximately 3.4 square miles, which is about 3.1% of the Dominguez Channel Watershed Management Area (approximately 109.4 sq. mi. total) that drains to the Los Angeles Harbor[27]. Specific Los Angeles Harbor water segments to which the Peninsula WMG contributes runoff include the Inner Harbor and Cabrillo Marina (**Figure 2-6**). These segments are listed on the State's 303(d) list as impaired by copper, lead, zinc, Polycyclic Aromatic Hydrocarbons (PAH) compounds, DDT and PCBs. These impairments exist in the water, sediments and fish tissue within the Los Angeles Harbor waters. Fish consumption advisories also currently exist for DDT and PCBs in certain fish species in all of the Los Angeles Harbor waters.

The Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL (Harbor Toxics TMDL) was issued by the Regional Board to address the constituents causing water quality impairment and became effective on March 23, 2012. The applicable water quality objectives for this TMDL are narrative objectives for Chemical Constituents, Bioaccumulation, Pesticides, and Toxicity in the Basin Plan and the numeric water quality criteria promulgated in 40 CFR section 131.38 (the California Toxics Rule (CTR)). In addition, marine sediment targets were determined for the Dominguez Channel and Greater Los Angeles and Long Beach Harbor waters using the narrative standards of the Basin Plan, State Water Quality Control Plan for Enclosed Bays and Estuaries – Part 1 Sediment Quality (SQO Part 1) and the sediment quality guidelines recommended by the State Listing Policy[28].

The following **Table 2-12** provides the marine sediment targets for the Dominguez Channel and Greater Los Angeles and Long Beach Harbor waters applicable to the Peninsula WMG priority pollutants.

[26] Machado Lake Trash TMDL

[27] Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL

[28] Long, ER, LJ Field and DD MacDonald. 1998. *Predicting Toxicity in Marine Sediments with Numerical Sediment Quality Guidelines*, *Environ. Toxicol. Chem*. **17**:4, 714-727. MacDonald, DD, CG Ingersoll and TA Berger. 2000. *Development and evaluation of consensus-based sediment quality guidelines for freshwater ecosystems*. Arch. Environ. Contam. Toxicol. **39**:20-31.

Table 2-12: Greater Harbor Toxics TMDL Marine Sediment

Pollutant	Marine Sediment Target
Copper	34 mg/kg
Lead	46.7 mg/kg
Zinc	150 mg/kg
Total PCBs	22.7 ug/kg
Total PAHs	4,022 ug/kg
Total DDT	1.58 ug/kg

The Harbor Toxics TMDL requires monitoring by the responsible parties under the Coordinated Compliance Monitoring and Reporting Plan[29]. The Coordinated Compliance Monitoring and Reporting program includes sampling for both water quality and sediment quality within 12 distinct water quality groups, each water quality group representing a water body within the greater harbor waters, as well as fish tissue sampling at four different locations (**Figure 2-6**).

In 2019, an assessment of bed sediment quality over a three-year averaging period in comparison with interim TMDL objectives provided in Attachment N Part E.2.a. of the LA MS4 Permit was performed under the Coordinated Compliance Monitoring Program. Most water bodies within the Greater Los Angeles Harbor were found to have met the interim three-year average concentration-based sediment objectives including the two water bodies to which stormwater from the Peninsula WMG is tributary: Inner Los Angeles Harbor and Cabrillo Marina. Thus, there appears to have been no degradation in sediment quality in these three water bodies since adoption of the TMDL. In evaluating progress toward attainment of the final objectives, sediment quality in the Los Angeles Harbor was assessed using California's Sediment Quality Objectives (SQO) for aquatic life benthic community based on multiple lines of evidence: sediment chemistry, sediment toxicity, and benthic community condition. Per this methodology, the qualitative sediment conditions of Unimpacted or Likely Unimpacted are protective of the benthic community. Based on the analysis incorporating monitoring events in 2013, 2016, and 2018, the Inner Los Angeles Harbor, including Cabrillo Marina, was determined to be Not Protective.

As shown in **Table 2-13** receiving water data collected over the past four years in the two Greater Los Angeles Harbor water bodies to which the Peninsula WMG is tributary indicates that the CTR criteria for the protection of aquatic life is consistently exceeded for dissolved copper in the Cabrillo Marina while there have been some exceedances of the CTR criteria for dissolved copper as well total DDx in the Los Angeles Outer Harbor.

[29] Anchor QEA. Coordinated Compliance Monitoring and Reporting Plan for the Greater Harbor Waters Regional Monitoring Coalition. August 2019.

Table 2-13: Water Quality Exceedances in Greater Los Angeles Harbor Waters to which Peninsula WMG is Tributary

Total Water Quality Exceedances of CTR Aquatic Life Criteria/Total Samples Collected Between 2016 and 2020		
Constituent	**Los Angeles Inner Harbor**	**Cabrillo Marina**
Copper (Dissolved)	**8/51**	**8/10**
Lead (Dissolved)	**0/51**	**0**
Zinc (Dissolved)	**0/51**	**0**
4.4' - DDT	**0/51**	**0**
Total DDx	**7/51**	**1/10**
Total PCBs	**3/51**	**0**

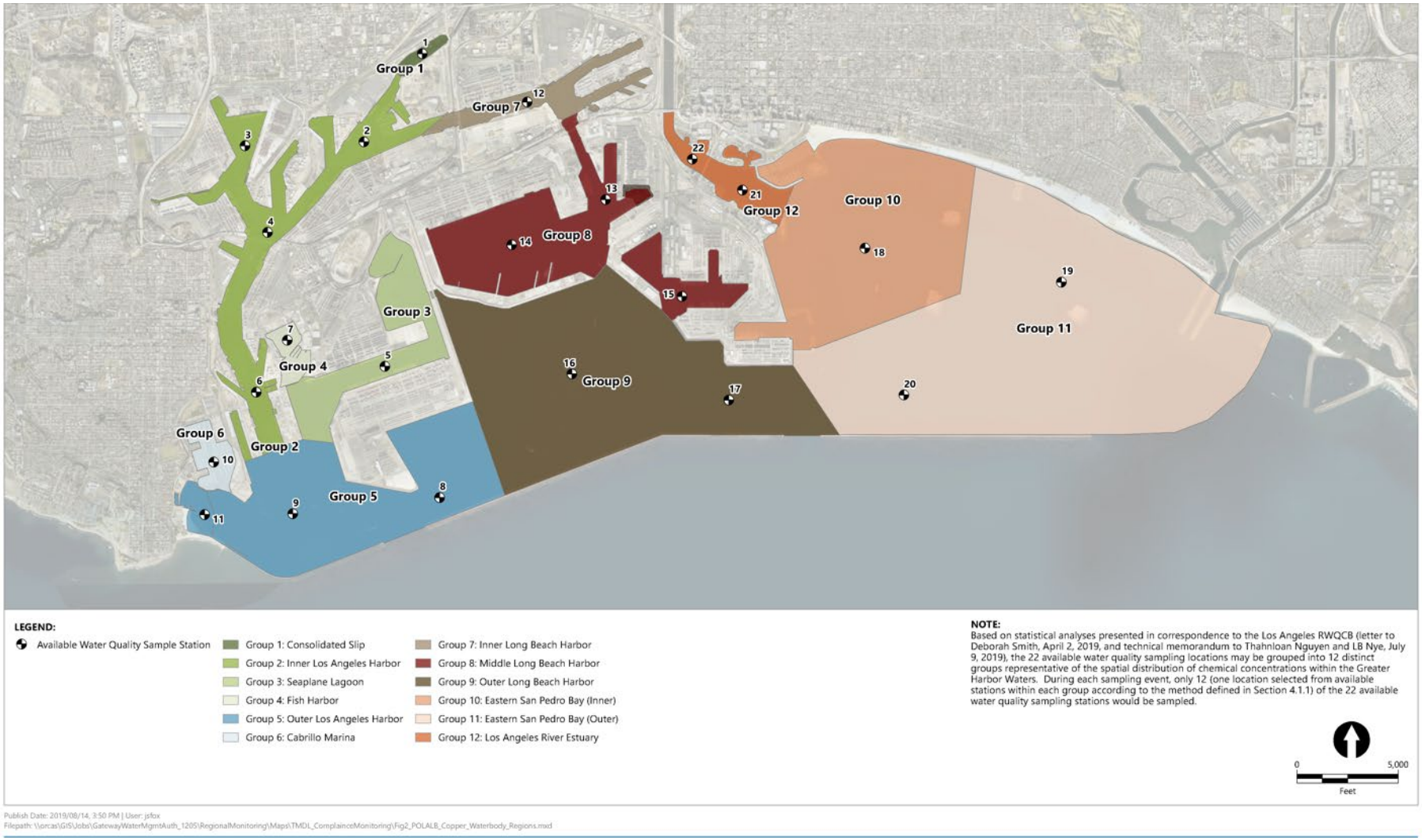


Figure 2-6: Greater LA Harbor Waters and Monitoring Stations

2.3. SOURCE ASSESSMENT

The focus of this Source Assessment is on watershed sources contributing to the presence of pollutants in stormwater discharges conveyed through the MS4.

A source assessment was conducted with the initial development of the EWMP to identify potential sources in discharges to the MS4 and from the MS4 to receiving waters and other potential stressors related to MS4 discharges causing or contributing to the WBPCs classified as Category 1, 2, or 3 as outlined in MS4 Permit section VI.C.5.a.iii. Per the MS4 Permit, the following available data and documents were considered in the identification of known and suspected sources of the Peninsula WMG's priority pollutants:

- Findings from the Peninsula WMG's Illicit Connections and Illicit Discharges Elimination Programs
- Findings from the Peninsula WMG's Industrial/Commercial Facilities Control Programs
- Findings from the Peninsula WMG's Development Construction Programs
- Findings from the Peninsula WMG's Public Agency Activities Programs
- TMDL Implementation Plans
- TMDL Source Investigations
- Findings from MS4 Permittees' monitoring programs
- Watershed model results
- Other pertinent data, information, or studies related to pollutant sources and conditions that contribute to the highest water quality priorities
- Locations of the Peninsula Agencies' MS4s as shown in **Figure 1-1**, including, at a minimum, all major outfalls and major structural controls for stormwater and non-stormwater that discharge to receiving waters
- Other known and suspected sources of pollutants in non-stormwater or stormwater discharges from the MS4 to receiving waters within the EWMP area

This source assessment has been updated based on outfall monitoring data collected via the Coordinated Integrated Monitoring Program (CIMP) as well as updated information on potential watershed sources of priority pollutants.

2.3.1. WATERSHED SOURCES OF PRIORITY POLLUTANTS

There are two general categories of stormwater pollutant sources, point sources and non-point sources. Non-point sources, by definition, include pollutants that reach receiving waters via routes other than a defined conveyance/point source and are not regulated by the MS4 Permit nor included in the reasonable assurance analysis. An example of such a non-point source could be trash deposited on the beach by recreational use which is then transported into the receiving water by wind or tide action. Point source discharges are regulated through NPDES permits and include stormwater and urban runoff (also referred to as non-stormwater discharges) through the MS4. Stormwater runoff in the watershed is regulated through one of several types of National Pollutant Discharge Elimination System (NPDES) permits, including MS4 permits, a statewide MS4 permit for Caltrans; a statewide Construction General Permit

(CGP) for construction sites disturbing 1 acre or more of land; and a statewide Industrial General Permit (IGP).

This section will first consider historical and current land uses in the Peninsula WMG watersheds, identify key pollutant fate and transport mechanisms characteristic of the watersheds, and then consider relevant point and non-point sources of priority pollutants that may be present in the watersheds based on land uses. This source assessment will help to shape appropriate pollutant control measures in subsequent chapters of this EWMP.

Potential sources of the priority pollutants in the watershed along with important fate and transport mechanisms are summarized in **Table 2-14.**

Table 2-14: Potential Watershed Sources of Palos Verdes Peninsula Priority

Potential Source	Pollutants						
	OC Pesticides	PAHs	Bacteria	Nutrients	Metals	TSS/Turbidity	Trash
WATERSHED SOURCES							
Residential land areas	●		●	●		●	●
Agricultural activities (e.g., animal husbandry)			●	●		●	
Construction activities					●	●	●
Landscaping, gardening				●			
Pet waste			●	●			
Wildlife			●				
Native geology					●		
Land surface erosion					●	●	
Commercial activity				●			●
Car washing						●	
Transportation sources (e.g., brake and tire wear)					●		●
Pavement erosion					●	●	
Sanitary sewer, septic systems, RV waste						●	
FATE AND TRANSPORT MECHANISMS							
Atmospheric Deposition					●		
Wildfires					●		
Resuspension in soil particles					●		
Land surface erosion				●			

Watershed Land Uses

Understanding historical and current land uses in the watershed helps to identify potential sources of priority pollutants in stormwater runoff. Following the arrival of Europeans to the Los Angeles Basin, the lands of the Palos Verdes Peninsula were first used for cattle ranching and then later for dry farming of barley, hay, grain and garbanzo beans.[30] Residential development on the Palos Verdes Peninsula began in 1913 when J.P. Morgan purchased 16,000 acres of ranch land, however major development was delayed until after World War I and thereafter growth of residential development proceeded at a modest pace until the 1950s when growth accelerated and then grew explosively during the 1960s. [31]

Today the Palos Verdes Peninsula is effectively built-out and is dominated by single-family residential (55.6%) and open space (32.8%) land uses, limited multi-family residential (2.8%) and commercial areas (2.2%), and does not include any industrial land uses. There are also locations where horse uses exist in designated semi-rural residential areas of the Peninsula. There are no IGP facilities within the PVP EWMP area. Construction sites are by nature transitory pollutant sources and are subject to oversight by MS4 agencies through their issuance of building permits – the impact of construction sources of pollutants are indirectly incorporated into the CIMP monitoring data and therefore captured in the reasonable assurance modeling. Caltrans' MS4 permit incorporates TMDL WLAs and as such it is assumed that Caltrans land uses will meet their WLAs individually and such areas have been excluded from the reasonable assurance modeling exercise.

A breakdown of land uses by watershed is shown in **Table 2-15.** Drainage within the Peninsula WMG area is conveyed via natural, soft-bottom canyons and engineered storm drain networks.

Table 2-15: Land Use Distribution within the Palos Verdes Peninsula Watersheds

Watershed	COM	EDU	OS	OTHER	OTHER (R)	PUB	MFR	SFR
Dominguez Channel: Machado Lake & Harbor Watersheds	3.10%	5.00%	18.40%	3.90%	1.40%	0.40%	2.90%	64.80%
Santa Monica Bay	1.60%	3.30%	41.20%	0.30%	0.00%	0.50%	2.70%	50.20%
Total	2.20%	3.90%	32.80%	1.60%	0.50%	0.40%	2.80%	55.60%

COM: Commercial

EDU: Educational facility

OS: Open space (i.e., park, recreational facility (i.e., stable, golf course), preserved land, and vacant)

Other: Churches, cemetery

Other (R): Covered Reservoir

PUB: Public facility (i.e., fire, police, city hall)

MFR: Multi-family residential

SFR: Single-family residential

Note: A total of 0.2% are zoned as roads and are not included in this table.

[30] Gales, Donald M. 1988. Handbook of Wildflowers, Weeds, Wildlife, and Weather of the South Bay and Palos Verdes Peninsula. Third Edition.
[31] Gales 1988.

POLLUTANT FATE AND TRANSPORT MECHANISMS WITHIN THE WATERSHED

Pollutant fate and transport mechanisms should also be considered in source characterization to the extent they contribute or reduce pollutant loading to receiving waters.

ROAD INFRASTRUCTURE

Roadways with curb and gutter are considered part of the MS4 system and as such serve to transport pollutants from the watershed to receiving waters. However, transportation activities on the roadways also generate pollutant. Pollutants originate from cars, roadway degradation, and landscaping along the roadways. Typical contaminants associated with these include sediment, heavy metals, oils and grease, debris, fertilizers, and pesticides, among others[32]. The use and wear of cars is one of the most prevalent sources of roadway pollutants. Vehicle brake pads constitute the single largest source of copper[33]. Tires and engine parts are also a source of metals pollutants—tire wear accounts for over 50 percent of the total cadmium and zinc loads in urban runoff[34]. Roadways can also be a source of nutrients from atmospheric deposition of nitrogen and from fertilizers and pesticides used during parkway landscaping activities.

ATMOSPHERIC DEPOSITION

Atmospheric (or air) deposition is the transfer of pollutants from air to land. Pollutants in the atmosphere deposit onto solid surfaces and are then washed off by rain, becoming entrained in the stormwater runoff that reaches receiving waters. Atmospheric deposition of pollutants to developed and undeveloped surfaces in the watershed can be a major source of pollutants, especially in major metropolitan areas. Typical pollutants associated with atmospheric deposition are metals, PAHs, PCBs, and nitrogen. These pollutants enter the atmosphere from point sources (i.e., an industrial facility emitting metals and PAHs into the air) and mobile sources such as trucks and automobiles.

WILDFIRES

The Palos Verdes Peninsula is in a very high fire hazard severity zone and, when they occur, wildfires can mobilize pollutants and thereby increase stormwater pollutant loading due to several factors including: increased runoff associated with soil hydrophobicity which results from fire, increased mobility of contaminants from soil, release of previously bound contaminants in vegetation, and higher erosion rates. Total suspended solids (TSS) concentrations in stormwater runoff often increase by orders of magnitude in post-fire systems thereby increasing the transport of particulate bound pollutants. Combustion of plants and natural materials has also been reported to release metals which are then mobilized by storms.[35]

Southern California Coastal Water Research Project (SCCWRP) conducted a study comparing post-fire stormwater runoff data from five wildfires in natural open space between 2003 and 2009 in comparison

[32] Caltrans (California Department of Transportation). 2003. *Discharge characterization study report*. California Department of Transportation, Sacramento, CA.
[33] TDC Environmental 2004, Copper Sources in Urban and Shoreline Activities. San Francisco, CA.
[34] Davis A.P., M. Shokouhian, and S. Ni. 2001. Loading estimates of lead, copper, cadmium, and zinc in urban runoff from specific sources. Chemosphere.

[35] Burke, M.P., T.S. Hogue, A. Kinoshita, J. Barco, C. Wessel, E.D. Stein 2013. Environmental Monitoring and Assessment 185:10131–10145. Pre- and post-fire pollutant loads in an urban fringe watershed in Southern California.

with stormwater runoff data from sixteen unburned natural areas and six developed areas. The study found average copper, lead and zinc fluxes were hundreds of times higher from burned areas than unburned areas.[36] Even more striking, the flux of PAHs from natural burned areas was four times greater than from adjacent unburned urban areas. Ash fallout on unburned watersheds produced three times greater flux of PAHs and metals. Prior to the wildfires, most of the burned areas were dominated by sage scrub [similar to natural plant communities on the Palos Verdes Peninsula], or chaparral plant communities. It is also notable that the study did not address potential toxic effects from flame retardants commonly used in combatting wildfires.[37]

SCCWRP conducted a more recent study of the 2009 Station Fire which consumed 660 square kilometers of the Angeles National Forest. Much of the area had not burned in over 60 years which meant there was a potentially large store of anthropogenic lead contamination resident in vegetation and soil due to air deposition during the time that lead additives were still used in gasoline. Stormwater quality sampling was conducted from four storm events post-fire at two-hour intervals for a total of 54 grab samples. These results were compared with 131 grab samples from four storm events during the storm year preceding the Station Fire. Post-fire peak stormwater flows during two of the storm events post-fire were 15 and 17 times the largest storm during the preceding pre-fire year and yet these post-fire peak flows were produced with only 80% and 65% of the pre-fire storm precipitation depth. The sediment volume delivered during the post-fire storm year was ten times the total volume deposited in the preceding fifteen years at Devil's Gate Reservoir. Mean seasonal total suspended solids concentration in stormwater increased 100-fold following the fire. Median concentrations of lead increased by more than 100 times the magnitude post-fire, while median concentrations of zinc increased by 10 times, and copper by 9 times. Although the burned watershed monitored in this study was largely undeveloped, the concentrations of metals measured were in the range of concentrations typically measured from highway drainage, industrial areas and mining operations.[38]

Natural Canyon Drainage Systems

On the Palos Verdes Peninsula the improved MS4 is interconnected with natural canyon drainage courses that naturally detain and retain runoff, effectively serving as nature-based stormwater retention systems. Intense rain events can cause erosion in the natural canyons and increase transport of sediments and mobilize storm-borne sediment pollutants; for this reason, it is important to protect these canyons from hydromodification. Overall, these natural canyon drainage courses serve to attenuate pollutants and reduce stormwater pollutant loading to receiving waters. The reasonable assurance model has been calibrated against storm flow data from the CIMP monitoring to more accurately reflect the storm runoff reduction provided by these natural canyon systems.

Organochlorine Pesticides

Organochlorine pesticides (OC pesticides) are a large group of legacy pesticides, including chlordane, dieldrin, and DDT, that were previously used widely throughout the United States. Even though they have been banned from use for many years, they are slow to degrade and continue to persist in the

[36] SCCWRP 2012. ED Stein, JS Brown, TS Hogue, MP Burke, A Kinoshita. pp. 11-28 in: Stephen Weisberg and Karlene Miller (eds.), Southern California Coastal Water Research Project 2012 Annual Report. Southern California Coastal Water Research Project. Costa Mesa, CA.

[37] SCCWRP 2012.

[38] Burke et al. 2013.

environment. Because of their chemical and physical properties these pollutants tend to partition and bind preferentially to the surfaces of soil particles. When transported in stormwater-borne sediment to local receiving waters, OC pesticides have been shown to accumulate in the fatty tissue of fish and wildlife and bio-magnify in the food-web. Soils historically treated with DDT and chlordane continue to be a source of pollutants in the storm-borne sediment discharges from the MS4 on the Palos Verdes Peninsula as evidenced by the recent CIMP monitoring results discussed in the next section.

DDT

The history of DDT use was summarized in the staff report to the Machado Lake Toxics TMDL as follows:

> *"DDT first became widely used as a pesticide in 1939; the use was focused on controlling insects that transmit diseases such as malaria and typhus during World War II. DDT for agricultural and commercial uses became widespread in the United States after 1945. 1959 was the peak of DDT use in the United States when approximately 80 million pounds were applied. In California, DDT was used for the control of both agricultural and urban pests like mosquitoes and cockroaches. In 1963, the California Department of Food and Agriculture declared DDT a restricted material. The last year that substantial amounts of DDT were applied in California was 1970 when 1.2 million pounds of DDT were applied primarily to agricultural areas."*[39]

Considering the ubiquitous use of DDT from 1939 through 1970 and understanding the history of land use and development on the Palos Verdes Peninsula, it is reasonable to expect that DDT was used in residential applications and that DDT and its breakdown products, DDE and DDD may remain in soils within the Palos Verdes Peninsula.

CHLORDANE

The history of chlordane use was summarized in the staff report to the Machado Lake Toxics TMDL as follows:

> *"Chlordane was first registered and approved for both agricultural and non-agricultural uses in the United States in 1948. Non-agricultural uses of chlordane included treating pests in residential lawns and gardens as well as structural pests such as termites. Chlordane was used on a variety of agricultural crops including corn, citrus, deciduous fruits and nuts, and vegetables. In 1978, the U.S. EPA cancelled the use of chlordane on all food crops and for applications to lawns and gardens, although it was still registered for use in termite control. In 1988, the U.S. EPA cancelled all uses for chlordane."*[40]

Due to the widespread use of chlordane on residential lawns and gardens, it is reasonable to expect that chlordane may remain in soils within the watershed.

DIELDRIN

The history of dieldrin use was summarized in the staff report to the Machado Lake Toxics TMDL as follows:

[39] Machado Lake Pesticides and PCBs TMDL. Staff Report - September 2, 2010, page 13.
[40] Machado Lake Pesticides and PCBs TMDL. Staff Report - September 2, 2010, page 15

> *Dieldrin was widely used from 1950 – 1970 as a structural pesticide for the control of termites and as an agricultural pesticide for cotton, corn, and citrus crops. The agricultural use of dieldrin was banned by the US Department of Agriculture in 1970 and in 1987 all uses of dieldrin were cancelled.*[41]

Historical agricultural land uses on the Palos Verdes Peninsula are not known to include cotton, corn or citrus crops. Since the use of dieldrin in residential areas was mainly as a structural termiticide and was not widely applied in lawns and gardens, it is less likely that dieldrin will be present in soils. If present, dieldrin would exhibit similar fate and transport properties as chlordane and DDT, i.e., it would partition on storm-borne sediment. As discussed in the next section, to-date dieldrin has not been detected in storm borne sediment of the CIMP outfall monitoring.

POLYCHLORINATED BIPHENYLS (PCBS)

Polychlorinated biphenyls (PCBs) are mixtures of synthetic organic chemicals that were commonly used for various applications from approximately 1929 until 1979 when the U.S. banned PCB manufacturing, processing, distribution, and use. PCBs may be present in products that were made before 1977 but are still in use today, such as transformers, fluorescent lighting fixtures, household caulking, paints and waxes[42].

U.S. EPA identifies the following list of products and materials that if produced and installed prior to the 1979 ban may still contain PCBs:[43]

- Transformers and capacitors
- Electrical equipment including voltage regulators, switches, re-closers, bushings, and electromagnets
- Oil used in motors and hydraulic systems
- Old electrical devices or appliances containing PCB capacitors
- Fluorescent light ballasts
- Cable insulation
- Thermal insulation material including fiberglass, felt, foam and cork
- Adhesives and tapes
- Oil-based paint
- Caulking
- Plastics
- Carbonless copy paper
- Floor finish

Considering the predominantly residential nature of development on the Palos Verdes Peninsula and the limited industrial sources, either current or in the past, presence of PCBs in exposure to stormwater is most likely limited to external building materials such as caulk or paint or in utility transformers or residuals in soils associated with spills from ruptured utility transformers.

POLYCYCLIC AROMATIC HYDROCARBONS (PAHS)

[41] Machado Lake Pesticides and PCBs TMDL. Staff Report - September 2, 2010, page 15

[42] USEPA: Santa Monica Bay DDT and PCBs TMDL

[43] https://www.epa.gov/pcbs/learn-about-polychlorinated-biphenyls-pcbs#commercial

Polycyclic aromatic hydrocarbons (PAHs) are a group of organic contaminants that are associated with the release of petroleum products (petrogenic sources) or form from the incomplete combustion of hydrocarbons (pyrogenic sources). PAHs are an environmental concern because they are toxic to aquatic life and because several of the individual PAH compounds are suspected human carcinogens. Research has shown that the dominant source of origin is pyrogenic (combustion of organic matter) in the Los Angeles Region, and PAHs are often deposited through atmospheric deposition and delivered to waterbodies in stormwater runoff[44]. Other non-point sources may include leaking motor oil, tire wear and vehicular exhaust.

METALS

General wear and tear of automotive parts can be a source of metals. For example, brake wear and tire wear can release copper, lead, and zinc into the environment and contribute concentrations of metals to roads and in turn stormwater runoff. Motor oil and automotive coolant spills are another potential source of metals. One study found that cars are the leading source of metal loads in stormwater, producing over 50 percent of copper, cadmium, and zinc loads[45].

Table 2-16: Automotive Sources of Metals in Stormwater[46]

Source	Cadmium	Chromium	Copper	Iron	Nickel	Lead	Zinc
Gasoline	●		●			●	●
Exhaust					●	●	
Motor oil and grease				●	●	●	●
Antifreeze	●	●	●	●		●	●
Undercoating						●	●
Brake Linings			●	●	●	●	●
Tires	●		●			●	●
Asphalt	●		●		●		●
Concrete			●		●		●
Diesel Oil	●	●				●	●
Engine wear				●	●	●	●

Fertilizers, herbicides, and pesticides used for lawn and landscape maintenance can contain metals such as cadmium, copper, mercury, zinc, lead, iron, and manganese[47]. Algaecides, wood preservatives, galvanized metals, and paints when used in exposure to stormwater can also be a source of these metals.

ARSENIC

Arsenic is a natural component of the Earth's crust and low levels of the element are found in all environmental media. Anthropogenic sources of arsenic include nonferrous metal mining and smelting, pesticide application, coal and oil combustion, wood combustion, and waste incineration. Most anthropogenic arsenic is emitted to the atmosphere through high temperature processes (e.g., coal and

[44] Sabin, L.D., K.A. Maruya, W. Lao, D. Diehl, D. Tsukada, K.D. Stolzenbach, and K.C. Schiff 2009. Exchange of Polycyclic Aromatic Hydrocarbons among the Atmosphere, Water, and Sediment in Coastal Embayments of Southern California, U.S.A. Environmental Toxicology and Chemistry, Vol. 29, No. 2, pp. 265-274.
[45] Schueler, T., and H.K. Holland. 2000. The Practice of Watershed Protection. Center for Watershed Protection, Ellicott City.
[46] Nixon, H., and J.D. Saphores. 2007. Impacts of motor vehicle operation on water quality: Clean-up costs and policies. Transportation Research Part D. *Transport and Environment.*
[47] County of Los Angeles. 2010. *Multi-pollutant TMDL Implementation Plan for the Unincorporated County Area of Los Angeles River Watershed*. County of Los Angeles, Los Angeles, CA

oil combustion, smelting operations, and waste incineration) and occurs as fine particles which are transported by wind and air currents until they are returned to earth by wet or dry deposition.[48]

Arsenic found in soil, either naturally occurring or from anthropogenic releases, forms insoluble complexes with iron, aluminum, and magnesium oxides found in soil surfaces, and is relatively immobile. However, under reducing conditions, arsenic can be released from the solid phase, resulting in soluble mobile forms of arsenic, which may potentially leach into groundwater or result in runoff of arsenic into surface waters. Arsenic is largely immobile in agricultural soils; therefore, it tends to concentrate and remain in upper soil layers indefinitely. Terrestrial plants may accumulate arsenic by root uptake from the soil or by absorption of airborne arsenic deposited on the leaves.[49] Arsenic can also leach from wood treated with chromated copper arsenate (CCA). Ammoniacal copper zinc arsenate (ACZA) is another arsenic-containing waterborne preservative, though not as widely used as CCA.

Based on current and historical land use, potential sources of arsenic within the Palos Verdes Peninsula watersheds may include air deposition and residuals in soils from pesticide application, with very minor contributions from leaching of wood used in landscaping or exterior building materials exposed to stormwater that have been treated with arsenate-type wood preservatives. Arsenic present in stormwater discharges would be expected to be associated primarily with storm-borne sediments.

COPPER

Research beginning in the 1990s to address copper impairment of lower South San Francisco Bay has provided a wealth of information on sources of copper releases to stormwater from urban and suburban areas. A study prepared by TDC Environmental in 2004 of copper sources in urban and stormwater runoff to San Francisco Bay identified vehicle brake pads, followed by atmospheric deposition, architectural copper, industrial use, potable water discharged to storm drains, soil erosion and copper algaecides, in order of significance.[50] Other studies from other parts of the U.S. and internationally have also contributed to the body of evidence for the importance of these sources in stormwater runoff from developed areas. The relative importance of copper sources depends on land use within a watershed as well as proximity to nearby air pollution sources.

Sources of copper in deposits from air pollution can be a result of combustion of vehicle or stationary source fuels, including wood burning. TDC Environmental estimated comparable emission rates of copper from industrial air emissions and emissions from fires (both residential wood burning and forest fires). Air pollution may convey copper from local sources or air emission sources outside the immediate area that are then deposited in a watershed, either via dry air deposition or wet air deposition during rainfall. In 2006 a study of atmospheric dry deposition of metals was conducted at six urban sites and one nonurban site within the coastal region of the Los Angeles air basin. Mean flux of copper at the urban sites ranged from 11 to 34 micrograms per square meter per day whereas the flux of copper at the non-urban Malibu Creek Watershed site was 3.7 micrograms per square meter per day—the Malibu Creek watershed is generally upwind of the Los Angeles metropolitan area which further removes it from urban influence. [51]

[48] https://www.atsdr.cdc.gov/toxprofiles/tp2-c6.pdf
[49] https://www.atsdr.cdc.gov/toxprofiles/tp2-c6.pdf
[50] TDC Environmental, 2004. Copper Sources in Urban Runoff and Shoreline Activities – Information Update. Prepared for the Clean Estuary Partnership. November 2004.
[51] Sabin, L.D., J.H. Lim, K.D. Stolzenbach and K.C. Schiff, 2006. Atmospheric Dry Deposition of Trace Metals in the Coastal Region of Los Angeles, California, U.S.A. Environ Toxicol Chem. 2006 Sep;25(9)2334-41.

Architectural copper if left uncoated will develop a patina of copper oxides which are water soluble. The amount of copper washed off architectural features is proportional to the surface area, so copper roofs provide the greatest surface area, with gutters and flashing providing a lesser surface area.[52]

Trace levels of copper may occur naturally in soils or be present because of application of copper-containing pesticides. The TDC Environmental study estimated an average value of 38.57 mg Cu/kg soil based on data from the State Water Resources Control Board's construction stormwater database for the San Francisco Bay area. Copper-containing pesticides are widely used to control fungi, mildew, algae and roots. Common applications include control of roots in sewers, controlling algae in swimming pools and ponds, and preventing rot and mildew on wood, roofing and other outdoor surfaces. Copper is also used in lawn and garden fungicides.[53]

Copper in the potable water supply may arise from the raw water supply, from algaecides used to control algae in reservoirs, or by dissolution from copper pipes.[54] Potable water may flow into the storm drain system due to runoff from outdoor irrigation, hydrant flushing, and other sources of outdoor water use such as car washing or patio cleaning.

Antifouling hull paints or coatings are applied to marine vessels to prevent the attachment and growth of "fouling organisms" such as barnacles, oysters, mussels, shipworms, or algae that attach to boat hulls. Copper has been a standard biocide in anti-fouling hull paints for many decades, and copper- based antifouling hull paints are currently the most commonly used antifouling coating. Copper in hull paint can slowly leach into the water column and be released from the hull as particles that fall to the bed sediments, causing impairment[55]. There are no marinas or boat maintenance facilities within the Peninsula WMG watersheds, however it is noteworthy that Cabrillo Marina in Los Angeles Harbor exhibits ongoing elevated dissolved copper concentrations as discussed in Section **2.2.3**.

Based on the preceding discussion of major sources of copper and understanding of current and past land uses on the Palos Verdes Peninsula, potential sources of copper in stormwater discharges from the watershed may include releases from vehicle brake pads, use of algaecides in pools or fountains, pesticide application in landscapes, and air deposition.

LEAD SOURCES

Potential sources of lead to the watershed may include historical and current air deposition of lead from leaded gasoline used historically in automobiles and currently in general aviation fuel, lead wheel weights on vehicles, and lead in paint on buildings constructed prior to 1977. Beginning in November 1973 U.S. EPA began requiring the phase out of lead in all grades of gasoline—at the time the average lead content in gasoline was 2-3 grams per gallon amounting to 200,000 tons of lead emissions per year in the U.S. By 1995 leaded fuel accounted for only 0.6 percent of total gasoline sales and less than 2,000 tons of lead emissions per year. Effective January 1, 1996, the Clean Air Act banned the sale of leaded fuel in on-road vehicles.[56] The nearby Torrance Airport located just north of the Palos Verdes Peninsula is a general

[52] TDC Environmental 2004.
[53] TDC Environmental 2004.
[54] TDC Environmental 2004.
[55] Metz, V. and Gregg, J. Boat Hull Coating Selection and Hull Cleaning for Water Pollution Prevention: Water Quality Factsheet for Marina Operators and Boaters. Water Quality Program, California Coastal Commission. (2017).

[56] https://archive.epa.gov/epa/aboutepa/epa-takes-final-step-phaseout-leaded-gasoline.html

aviation airfield and a potential source of air deposition of lead within the Palos Verdes Peninsula watershed due to the use of leaded avgas fuel in piston engine aircraft.

A 2009 study by Sabin found that the mean flux of lead due to air deposition at urban sites in the Los Angeles basin ranged from 8.3 to 29 micrograms per square meter per day, whereas the flux at the non-urban site in Malibu Creek Watershed was 1.4 micrograms per square meter per day. A significant drop in concentration of lead was observed in the study by Sabin when compared with the study done 15 years earlier in 1987—this was attributed to the elimination of lead from gasoline in the late 1980s.[57] Aviation gasoline for piston airplanes, known as avgas, still includes lead additives and is widely used for general aviation aircraft thus continuing to be a source of lead in air deposition. Jet aircraft and turbine-powered propeller aircraft do not use avgas. Efforts to develop an operationally safe and suitable replacement for the leaded additive in avgas have been underway for over a decade. [58]

According to the California Department of Toxic Substances Control (DTSC), prior to 2010 approximately 1.6 million pounds of lead wheel weights fell from vehicles each year onto roadways. Roadway traffic pulverizes lead wheel weights into dust which then contaminates the air and washes into storm drains. As of January 1, 2010, California law prohibits the manufacture, sale or installation of wheel weights containing more than 0.1% lead.[59]

In 1977 the U.S. Consumer Product Safety Commission effectively banned lead in paint in residential properties and buildings by limiting the allowable concentration to 0.06 percent.[60] Deteriorating or improperly abated lead paint in older buildings can endanger human health, especially that of children, and may cause release of lead to the environment, including stormwater.

MERCURY

According to USEPA, on a global level, gold mining is the largest source of anthropogenic mercury emissions, followed by stationary combustion of coal, non-ferrous metals production and cement production.[61] No gold mining or non-ferrous metals industrial sources are known to have existed on the Palos Verdes Peninsula with the exception of a former cement mixing facility located on the site of the former Chandler sand and gravel quarry. Thus, the predominant sources of mercury that might be encountered on the Palos Verdes Peninsula are mercury deposited as a result of air deposition or improper disposal of mercury-containing consumer products. USEPA maintains a website with information on products that contain mercury.[62]

ZINC

A study was commissioned by the California Stormwater Quality Association (CASQA) to identify major and minor sources of zinc as a water pollutant and to assist MS4 Permittees in focusing source control measures in a cost-effective manner. The two major sources of zinc in urban runoff identified by the study were outdoor surfaces treated with zinc (especially galvanized steel surfaces) and tire wear debris. Other local sources depending on land use may include zinc-containing paint, recycled tire shred and crumb products, industrial air emissions, zinc-rich soils, and mining. Minor sources of zinc in urban runoff include

[57] Sabin et al. 2006.
[58] Federal Aviation Administration 2013. Fact Sheet – Leaded Aviation Fuel and the Environment. June 19, 2013.
[59] http://www.dtsc.ca.gov/PollutionPrevention/ToxicsInProducts/leadwheelweights.cfm
[60] https://www.cpsc.gov/Recalls/1977/cpsc-announces-final-ban-on-lead-containing-paint
[61] https://www.epa.gov/international-cooperation/mercury-emissions-global-context#types
[62] https://www.epa.gov/mercury/resources-mercury-science-and-research

vehicle brake pads, wheel weights, vehicle exhaust, zinc-preserved wood, and certain types of roofing and siding materials. [63]

Galvanized steel has long been used as a cost-effective material for outdoor applications such as: roofing, gutters, flashing, drainage pipe, and chain-link fencing. Zinc sheet has drawn recent interest in the design community for its appearance and longevity as a building roofing material and use as siding for commercial and institutional buildings. A body of literature since the late 1980s has documented relatively high concentrations of zinc in runoff from outdoor zinc surfaces, and consistent with this occurrence, zinc concentrations are typically highest in urban runoff from industrial land uses. The amount of zinc washed off outdoor surfaces is directly proportional to the exposed surface area. Other factors include the quality of zinc material and the presence of temporary or permanent coatings over the zinc surface. Galvanized wire fencing has surprisingly large surface area, for example a 6-foot-high industrial gauge (6-gauge) chain link fence has a surface area of 2.2 square meters per meter of length.[64] The presence of coatings over the zinc surface reduces or substantially eliminates exposure to weather depending on the permanence of the coating—temporary passivation coatings reduce zinc losses for several years but eventually wash away, whereas painted zinc surfaces nearly eliminate zinc in runoff. Location is also important because when large zinc surfaces like galvanized chain-link fencing are sited over permeable surfaces in the landscaped buffers between properties, infiltration of runoff into a soil drip zone substantially reduces zinc levels in runoff.[65]

Nearly all rubber products, including tires, contain zinc oxide which is used to accelerate the vulcanization process. “According to the International Zinc Association, zinc oxide improves tire wear abrasion performance, protects against ultraviolet radiation, reduces thermal effects caused by internal friction, helps bond rubber to metal (such as the steel cord of tires), reduces rubber shrinkage during curing, and helps keep product molds clean.”[66] In the U.S., the main outdoor use for rubber is in vehicle tires.

Tires also comprise the majority of California’s rubber waste and through strong efforts by CalRecycle, about half of waste tire material is reused within the state. Reuse applications for waste tires that have the potential to disperse zinc into the environment include combustion as tire-derived fuel, tire retreads, and tire shred and crumb products such as those used in artificial turf infill and rubberized asphalt.[67] There are no facilities permitted to use tire-derived fuel for combustion within the Los Angeles area.[68]

Tire wear from on-road vehicles is expected to be the predominant source of zinc within the watershed. To the extent that rubberized asphalt paving is used for road resurfacing within the watershed, there may be contributions of zinc from this use as well. There is limited information currently available on the significance of rubberized asphalt as a source of zinc in stormwater runoff.

Air deposition of zinc can also be important. The 2006 study by Sabin found that the mean flux of zinc due to air deposition at urban sites in the Los Angeles basin ranged from 69 to 228 micrograms per square

[63] TDC Environmental, 2015. Zinc Sources in California Urban Runoff prepared for California Stormwater Quality Association. April 2015.
[64] Golding 2006. *A Survey of Zinc Concentrations in Industrial Stormwater Runoff*. Washington State Department of Ecology, Environmental Assessment Program. Publication No. 06-03-009.
[65] Blok 2005. Blok, J. (2005). "Environmental Exposure of Road Borders to Zinc." The Science of the Total Environment 348(1-3): 173-190.
[66] TDC Environmental, 2015.
[67] TDC Environmental, 2015.
[68] California Air Resources Board, 2015. 2015 Report on Air Emissions from Facilities Burning Waste Tires in California. June 2015.

meter per day whereas zinc flux at the non-urban Malibu Creek Watershed site was 15 micrograms per square meter per day.[69]

Typical California soils have a mean zinc concentration of 149 mg/kg, with few soil types exceeding 200 mg/kg. However, a few soil formations (e.g., the Bedford Canyon formation and fresh carbon-rich portions of the Monterey formation) have much higher zinc levels in excess of 300 mg/kg. High-zinc soils may increase zinc levels in urban runoff and creeks where these soils are exposed.[70] Since the marine sediment target for zinc in the Harbor Toxics TMDL is set at 150 mg/kg in sediment, discharge of suspended sediment associated with soils exhibiting zinc concentrations only slightly above the mean soil concentration in California could cause exceedance of the target even without loading from additional sources.

BACTERIA

Sources of indicator bacteria potentially present in the Peninsula WMG's watersheds based on land uses include both anthropogenic and non-anthropogenic sources such as:

- Animal wastes – horses, dogs, cats, etc.
- Gardening activities - application of animal manure that has not been fully composted to gardens and landscapes are a source of bacteria
- Organic food waste from commercial activities when dumpsters are left uncovered in exposure to stormwater, or subject to scattering by vectors such as seagulls, pigeons, rats, and racoons
- Illegal dumping from recreational vehicle/vessel holding tanks among others, can be a source of elevated levels of total coliform bacteria
- Sanitary sewer overflows, leaks and/or illicit connections of sanitary lines to the storm drain system
- Illegal connections and discharges are also possible sources of bacteria in stormwater discharge
- Open defecation associated with recreational activities or people without housing
- Non-anthropogenic sources of indicator bacteria include – soils, decaying vegetation, wildlife such as birds, opossums, raccoons, etc.

Sanitary sewer systems and septic systems are potential sources of contaminants. Cracks in aging sewer laterals and mainlines, root intrusion and fats/oils/grease clogs can contribute to sanitary sewer leaks and overflows. When sanitary sewers overflow or leak, they can release raw sewage into the environment. Raw sewage contains high concentrations of indicator bacteria and nutrients and may also contain other pollutants such as suspended solids, pathogenic organisms, toxic pollutants, oil and grease.

NUTRIENTS

Possible sources of nutrients include runoff from residential and commercial areas associated with landscaping activities and use of fertilizer for lawns and gardens, including organic fertilizer such as compost or manure. Maintenance activities such as washing cars, parking lots and driveways can

[69] Sabin et al. 2006.
[70] TDC Environmental, 2015.

contribute nutrients to the watershed since some detergents contain phosphorus. Other sources of nutrients include food wastes and domestic animal wastes in exposure to stormwater, or occasional sewer overflows. Key sources of nutrients identified in the Palos Verdes Peninsula Nutrient Implementation Plan[71] were fertilizer applied to turf and landscapes, horse manure, and dry air deposition of nitrogen:

- Manure - Within the portion of the Palos Verdes Peninsula that drains to Machado Lake equestrian activities and horse keeping are common. Horse manure can be a source of nutrients in runoff. The average 1,000-pound animal produces over 102 pounds of total nitrogen and 18.8 pounds of total phosphorous per year[72]. Information from the Model Equestrian Center Project provides support for the understanding that equestrian centers are a source of nutrients in stormwater runoff.
- Numerous reports document the linkages between excess nutrients in local water bodies and the augmentation of naturally occurring soil nutrients with nitrogen and phosphorus applied in commercial fertilizers, whether organic or synthetic. The desire for green turf and the use of tropical or exotic plants may lead to the overuse or the misapplication of nitrogen and phosphorus fertilizers. Because single-family residences are the predominant land use within the Palos Verdes Peninsula, the application of fertilizer to residential landscapes and to a lesser extent commercial landscapes, ball fields and parks are potential sources of nutrients. The excess nutrients accumulated in the soils can be transported to waterways through excessive irrigation or stormwater runoff.
- Air deposition of nitrogen due to air pollution, particularly onto impervious surfaces where it can be readily washed into storm drains is a known source of nitrogen, the predominate species being NHO_3 (nitric acid), NO_2 (nitrogen dioxide) and NH_3 (ammonia)[73].

TRASH

Statewide and local studies have documented the presence of trash in state waters and the accumulation of land-based trash in the ocean. Trash discarded on land may be transported through storm drains to waterways, shorelines, and the ocean. Street and storm drain trash studies conducted in regions across California have provided insight into the composition and quantity of trash that flows from urban streets into the storm drain system and out to adjacent waters.[74] The major source of trash results from litter that is intentionally or accidentally released/deposited onto roadways or other land uses in the watershed by human activity or animal vectors. Transport mechanisms which cause the litter to reach the storm drain system include wind action, dispersion by vectors and movement with surface runoff during storm events. The Statewide Trash Amendments identify certain priority land uses that have been shown in multiple studies to have high trash generation rates, specifically these include high-density residential land uses with at least ten developed dwelling units per acre, industrial land uses, commercial land uses, mixed urban land uses, and public transportation stations.[75]

[71] Palos Verdes Peninsula Subwatershed Coordinated Implementation Plan in Compliance with the Machado Lake Eutrophic, Algae, Ammonia and Odors (Nutrient) TMDL, March 11, 2011.
[72] Wheeler and Zajaczkowski. *Horse Stable Manure Management, Publication G-97*. Penn State College of Agricultural Sciences Cooperative Extension, Agricultural and Biological Engineering
[73] Palos Verdes Peninsula Subwatershed Coordinated Implementation Plan. 2011.
[74] SWRCB Resolution 2015-0019. Amendment to the Water quality Control Plan for Ocean Waters of California to Control Trash and Part 1 Trash Provisions of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays and Estuaries of California.
[75] SWRCB Final Staff Report for Amendment to the Water Quality Control Plan for Ocean Waters of California to Control Trash and Part 1 Trash Provisions for Inland Surface Waters, Enclosed Bays, and Estuaries of California.

2.3.2. CHARACTERIZATION OF STORMWATER AND NON-STORMWATER DISCHARGE QUALITY

The Peninsula WMG began conducting outfall monitoring consistent with the CIMP beginning in 2016. The outfall monitoring program includes:

> Outfall Monitoring: Stormwater outfall water quality and flow monitoring is conducted at six (6) locations during three (3) wet weather events per year. Two (2) of these outfall monitoring locations (SD-1 and SD-2) are used to evaluate stormwater discharges from the Palos Verdes Peninsula to the Santa Monica Bay. Four (4) outfall monitoring locations (Rolling Hills Estates (RHE) City Hall, Lariat, Solano, and Valmonte) are used to evaluate stormwater discharges from the Palos Verdes Peninsula to the Dominguez Channel Watershed, including the Wilmington Drain, Machado Lake and the Greater Los Angeles Harbor surface waterbodies. The CIMP outfall data also includes continuous flow monitoring and monthly grab samples for Total Nitrogen and Total Phosphorus in two (2) of the afore mentioned outfall locations with baseline flows to quantify discharges of nutrients from the Palos Verdes Peninsula to Machado Lake and assess attainment of the Machado Lake Nutrient TMDL targets.
>
> Non-stormwater Outfall Monitoring: Periodic storm drain screening and monitoring is also conducted to assess whether there are significant dry weather discharges from the storm drains on the Palos Verdes Peninsula that need to be added to the monitoring program.

Since the initial development of the EWMP, four complete years of outfall monitoring data have been collected and validated and are available for use in this characterization and, importantly, for calibration of the model supporting the reasonable assurance analysis.

Trends in this data are summarized in the following subsection for purposes of updating the source assessment for the following Peninsula WMG Category 1 and 2 priority pollutants: organochlorine pesticides (chlordane, DDT and its breakdown products DDE and DDD, dieldrin), PCBs, polycyclic aromatic hydrocarbons (PAHs), metals (arsenic, copper, lead, mercury, zinc), nutrients (nitrogen, phosphorus), fecal indicator bacteria, and trash.

The following summarizes findings and trends in this stormwater discharge quality from the four completed monitoring years between July 2016 and June 2020.

ORGANOCHLORINE PESTICIDES AND POLYCHLORINATED BIPHENYLS (PCBS)

Stormwater outfall monitoring for bioaccumulative organochlorine pesticides and PCBs is conducted by filtering the sediment fraction from stormwater samples at each of the outfall monitoring sites (two outfalls tributary to Santa Monica Bay and four outfalls tributary to Machado Lake). Sediment samples filtered from each storm event are archived and composited by site for the entire storm year (at least three sample events) to accumulate sufficient sample to analyze all the required organochlorine pesticides as well as PCBs.

For the Santa Monica Bay DDT and PCBs TMDL, waste load allocations (WLAs) set by the USEPA to attain fish tissue concentration limits for human consumption are based on the calculated three-year average mass of DDT and PCBs discharged from the Santa Monica Bay watershed area of the Peninsula assigned as a percentage of the total mass based WLA for the entire Santa Monica Bay Watershed. In order to estimate stormwater loading of DDT and PCBs to the Santa Monica Bay during TMDL development, a study

by Curren et al. (2011) was used along with data collected by the City of Los Angeles between 2007 and 2010. Estimated stormwater loads from Santa Monica Bay watersheds were found to be lower than TMDL calculated allowable waste loads necessary to achieve sediment targets; therefore, the WLAs in the TMDL for DDT and PCBs are based on existing MS4 loading estimates, and MS4 dischargers are essentially in an anti-degradation condition[76]. **Table 2-17** demonstrates that the rolling three-year average Santa Monica Bay outfall monitoring results meet the assigned WLAs for both DDT and PCBs, consequently RAA modeling is not necessary for this water body pollutant combination.

Table 2-17: Santa Monica Bay DDT & PCBs 3-Year Rolling Average Outfall Data

3-Year Period	Monitoring Station	DDT (g/year)	PCBs (g/year)
Santa Monica Bay TMDL Annual Mass-Based WLA*		**1.03**	**5.33**
3-Year Averages			
2016-17 thru 2018-19	**Peninsula-SD1**	0.0582	0.0677
	Peninsula-SD2	0.0795	0.0634
2017-18 thru 2019-20	**Peninsula-SD1**	0.0570	0.0014
	Peninsula-SD2	0.8836	0.2267

*The WLAs indicated in the TMDL are assigned to the entire Santa Monica Bay Watershed. The WLAs shown here are calculated as a percentage of the TMDL WLAs based on the Peninsula EWMP area.
Note: Flow data for stormwater outfall event 1/19/17 is not available for SD-2 due to personnel error in deploying equipment during the monitoring event and is therefore not included in this calculation

The Machado Lake Pesticides and PCBs WLAs are set differently than for the Santa Monica Bay in that for Machado Lake the WLAs are expressed as three-year average concentrations in the sediment fraction of the discharge, rather than as total pollutant mass discharged. The organochlorine pesticide 4,4'-dichlorodiphenyltrichloroethane (DDT) and its breakdown products 4,4'-dichlorodiphenyldichloroethylene (DDE) and 4,4'dichlorodiphenyldichloroethane (DDD) are assigned WLAs individually and grouped as Total DDT in the Machado Lake Toxics TMDL. Outfall monitoring data from the Palos Verdes Peninsula generally supports the underlying assumption in the Machado Lake Toxics TMDL that a three-year averaging period would provide a means to meet concentration-based sediment targets for Dieldrin and PCBs since Dieldrin has not been observed to occur in sediment samples above detection limits, and PCBs have only exceeded the 3-year average concentration in sediment at one site for one 3-year period. By contrast, as shown in **Table 2-18**, the data for the DDT breakdown product DDE and for Chlordane show that sediment discharges from all four monitored outfalls tributary to Machado Lake exceed the rolling three-year WLA consistently for those constituents and yet for DDT itself, the WLAs are met. This is evidence that DDT is degrading in the environment. This data also demonstrates that residuals present in sediments on the Palos Verdes Peninsula from legacy use of DDT and Chlordane are ubiquitous. The results vary widely from storm year to storm year, and it is unclear whether the

[76] USEPA: Santa Monica Bay DDT and PCBs TMDL

variability is related to timing of sample collection during the storm hydrograph, the intensity of particular storm events, or a combination of these and other variables. Despite the variability in the data, DDE and Total Chlordane concentrations in sediment discharges are consistently above the WLAs across all four sites. This data has been combined with data collected for total suspended solids (TSS) in these samples and incorporated into the reasonable assurance modeling for Machado Lake.

Table 2-18: Machado Lake Pesticides & PCBs 3-Year Rolling Average Concentrations in Storm-Borne Sediment

Constituent	Final Machado Lake Pesticides and PCBs TMDL WLA (µg/kg) *	3-Year Period	Average Rolling 3-year Monitoring Results by Outfall Location (µg/kg)				
			RHE City Hall	RHE City Hall Duplicate	Valmonte	Solano	Lariat
Sum DDD	**4.88**	2016-17 thru 2018-19	**21.77**	**8.5**	1.99	3.26	1.73
		2017-18 thru 2019-20	**22.2**	**8.87**	2.73	**279.8**	3.37
Sum DDE	**3.16**	2016-17 thru 2018-19	**14.9**	**13.93**	**6.6**	**27.43**	**30.33**
		2017-18 thru 2019-20	**17.23**	**16.93**	**10.00**	**100.4**	**36.3**
Sum DDT	**4.16**	2016-17 thru 2018-19	0.98	1	0.58	1.33	0.2
		2017-18 thru 2019-20	1.42	1.74	1.02	2.03	1.33
Total Chlordane	**3.24**	2016-17 thru 2018-19	**15.47**	**8.27**	**28.96**	**48.07**	**9.7**
		2017-18 thru 2019-20	**16.81**	**9.47**	**30.46**	**110.41**	**14.93**
Total PCB Congeners	**59.8**	2016-17 thru 2018-19	7	12.53	0.97	**81.68**	1.29
		2017-18 thru 2019-20	1.37	7.2	0.83	1.35	1.13

METALS

Total and dissolved metals have been monitored in stormwater discharges from the RHE City Hall outfall site, which is representative of discharges to the Los Angeles Harbor since all of the typical land uses found on the Palos Verdes Peninsula are included in the catchment tributary to the RHE City Hall MS4 Outfall site. This data has been utilized in the reasonable assurance modeling for the Los Angeles Harbor to assess the necessary load reductions for copper and zinc to meet the waste load allocations for the Los Angeles Harbor water segments to which the Peninsula WMG is tributary.

Arsenic and mercury have been added to the outfall monitoring sites for the Santa Monica Bay in response to recent 303(d) listings, however sufficient data are not yet available to support the reasonable assurance modeling.

POLYCYCLIC AROMATIC HYDROCARBONS (PAHS)

Total PAHs in discharges from the RHE City Hall outfall site representative of discharges to the Los Angeles Harbor have been analyzed as the sum of acenaphthylene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, fluorene, indeno(1,2,3-c,d)pyrene, phenanthrene, and pyrene. Results for Total PAHs measured in stormwater samples from this site have been used in the RAA modeling to assess load reductions needed to meet the waste load allocations for the Los Angeles Harbor.

NUTRIENTS – DRY WEATHER

Monthly dry weather monitoring for Total Nitrogen and Total Phosphorus has been conducted in storm drain outfalls tributary to Machado Lake with presence of significant year-round baseline flows associated with rising groundwater. In **Figure 2-7** Total Nitrogen concentrations in these monthly year-round baseline dry weather flows are compared with the water quality objective for Machado Lake of 1.0 mg/L over the course of four complete reporting years. These results show periods when the Total Nitrogen results remain near or below the water quality objective interspersed by periods when the Total Nitrogen results are consistently above the water quality objective.

In **Figure 2-8** Total Phosphorus concentrations in these monthly year-round baseline dry weather flows are compared with the water quality objective for Machado Lake of 0.1 mg/L over the course of four complete reporting years. These results show periods when the Total Phosphorus results at the RHE City Hall site remain near or below the water quality objective interspersed with short-term excursions above the water quality objective. By contrast, at the Valmonte monitoring site the Total Phosphorus results are consistently above the water quality objective.

Total Nitrogen and Total Phosphorus monitoring also have been conducted at four storm drain outfalls tributary to Machado Lake during wet weather along with wet weather flow monitoring. This stormwater monitoring data along with the monthly dry weather data has been incorporated into the reasonable assurance modeling to assess necessary load reductions needed to meet the overall nutrient WLAs for Machado Lake.

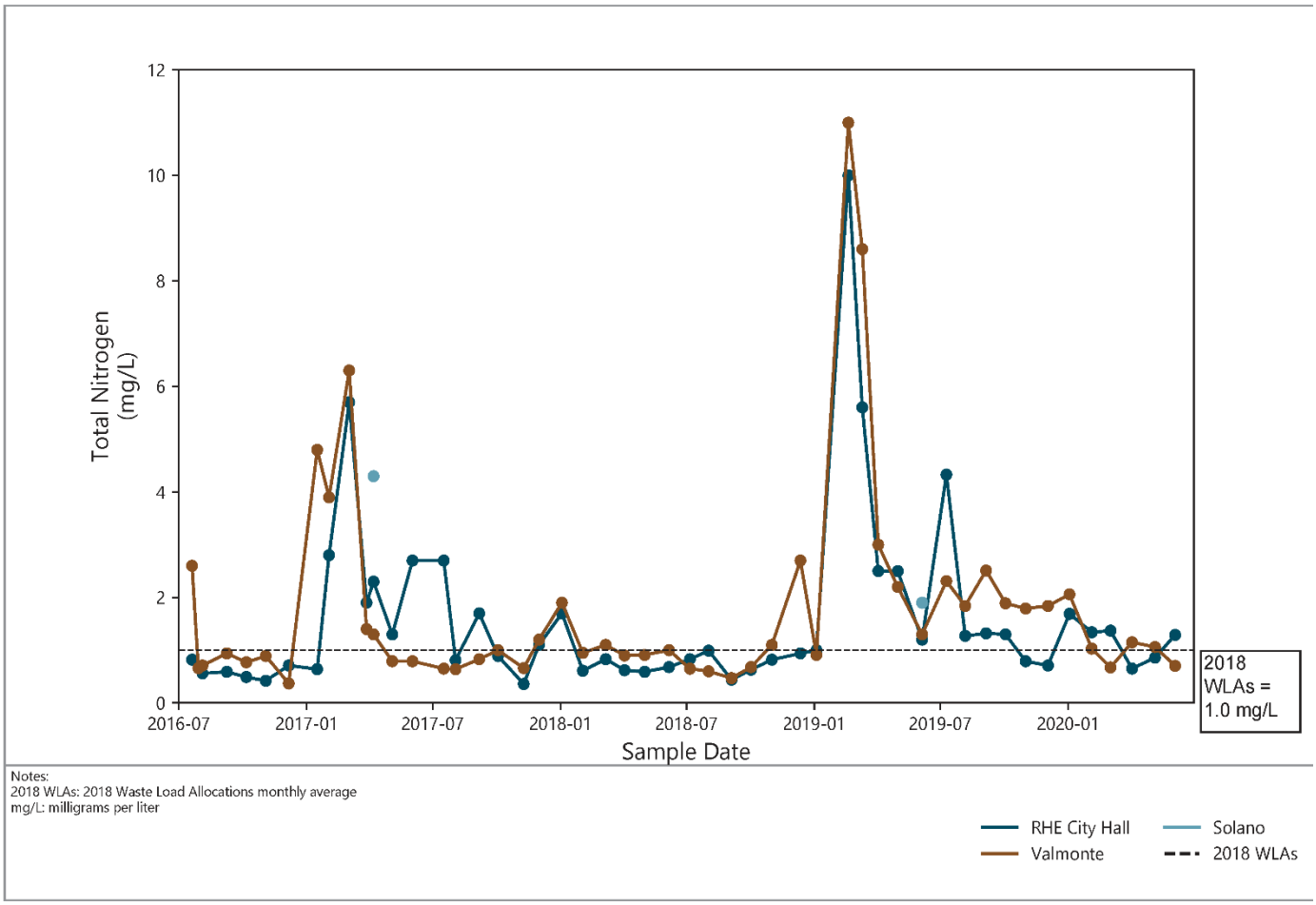


Figure 2-7: Total Nitrogen Concentrations in Peninsula Machado Lake Outfall flows from 2016-2020

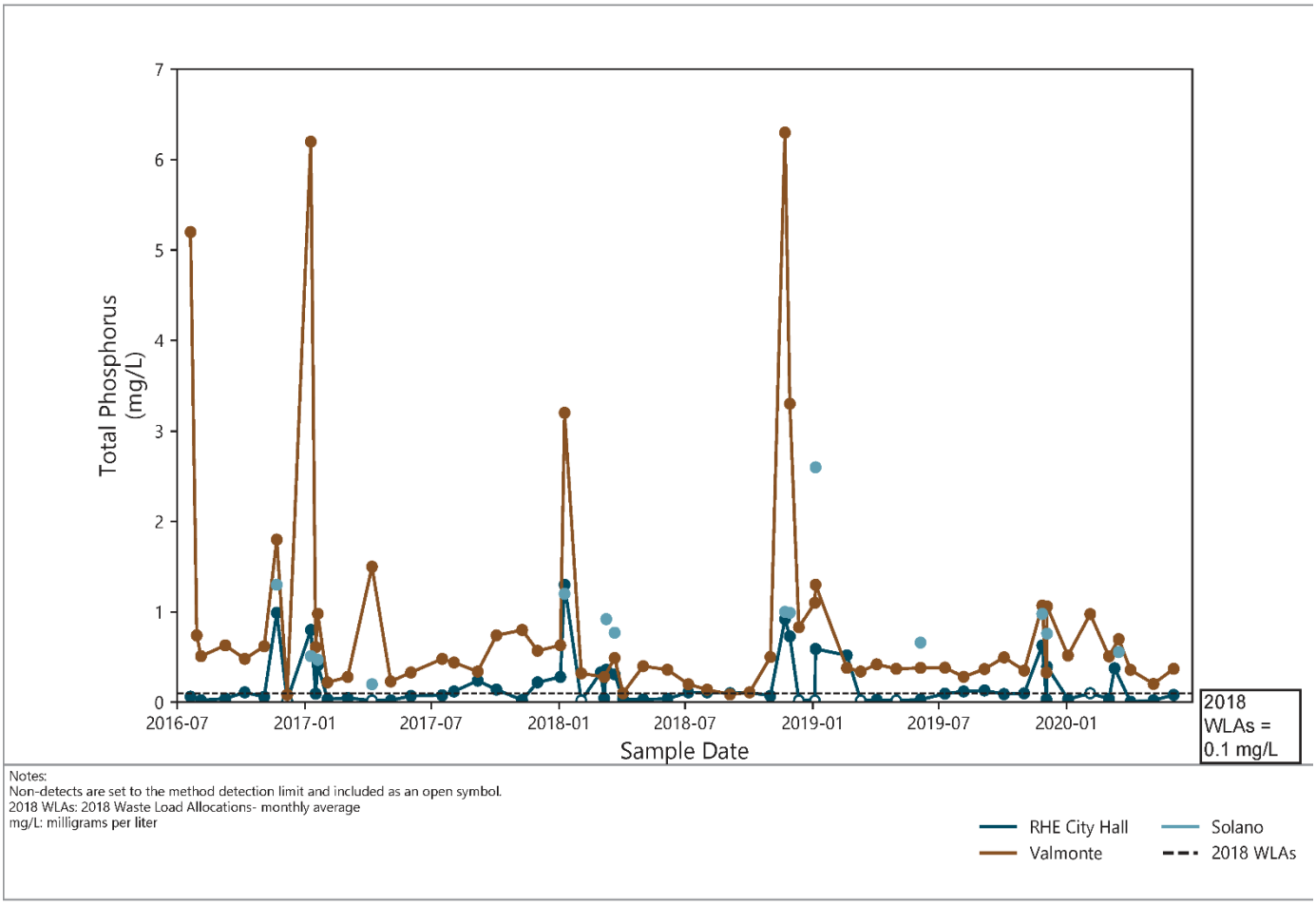


Figure 2-8: Total Phosphorus Outfall Concentrations in Peninsula Machado Lake Outfall flows 2016-2020

TRASH

Trash is not a pollutant amenable to reasonable assurance modeling. The Peninsula WMG agencies are individually responsible for meeting WLAs for trash TMDLs and/or complying with the Statewide Trash Provisions as appropriate, and for monitoring and reporting consistent with their approved plans.

FECAL INDICATOR BACTERIA

As shown in **Figure 2-9, Figure 2-10,** and **Figure 2-11** fecal indicator bacteria densities of Total Coliforms, Fecal Coliforms and Enterococci in stormwater discharged from the Peninsula MS4 outfalls to Santa Monica Bay (SD-1 and SD-2) do exceed the single-sample water quality based effluent limitations (WQBELs) during wet weather and these results are typical of MS4 discharges. There does not appear to be an increasing or decreasing trend in these wet weather indicator bacteria densities over the four years of CIMP monitoring nor has there been degradation of recreational water quality of the Santa Monica Bay shoreline or nearshore waters off the Palos Verdes Peninsula, as discussed in Section **2.2.1**. Given that the

Palos Verdes Peninsula beaches for which monitoring data exists have been removed from the 303(d) list for indicator bacteria impairments and the fact that there is no apparent degradation of recreational water quality, reasonable assurance modeling is not necessary for indicator bacteria in the Santa Monica Bay.

As shown in **Figure 2-12**, E. Coli indicator bacteria densities in stormwater discharged from the RHE City Hall MS4 outfall to Wilmington Drain consistently exceed the single sample receiving water limit of 576 mpn/100 mL for fresh waters designated for limited water contact recreation. These indicator bacteria densities have remained relatively constant during the four years of CIMP monitoring. This stormwater outfall monitoring data has been incorporated into the reasonable assurance modeling to assess necessary load reductions to address the 303(d) listing for Wilmington Drain.

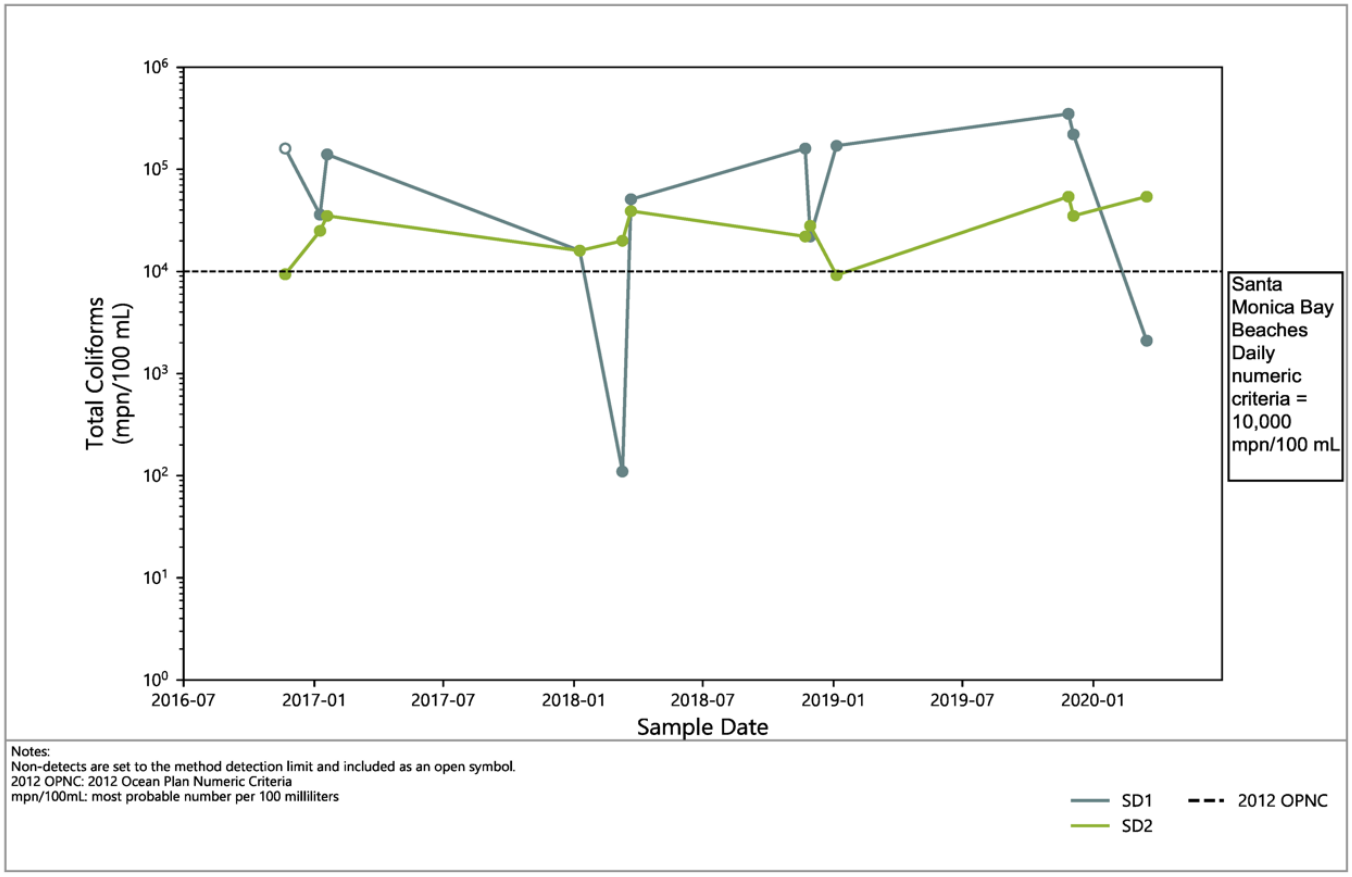


Figure 2-9: Total Coliform Concentrations in Peninsula Stormwater Discharges from SD1 and SD2 (2016-2020)

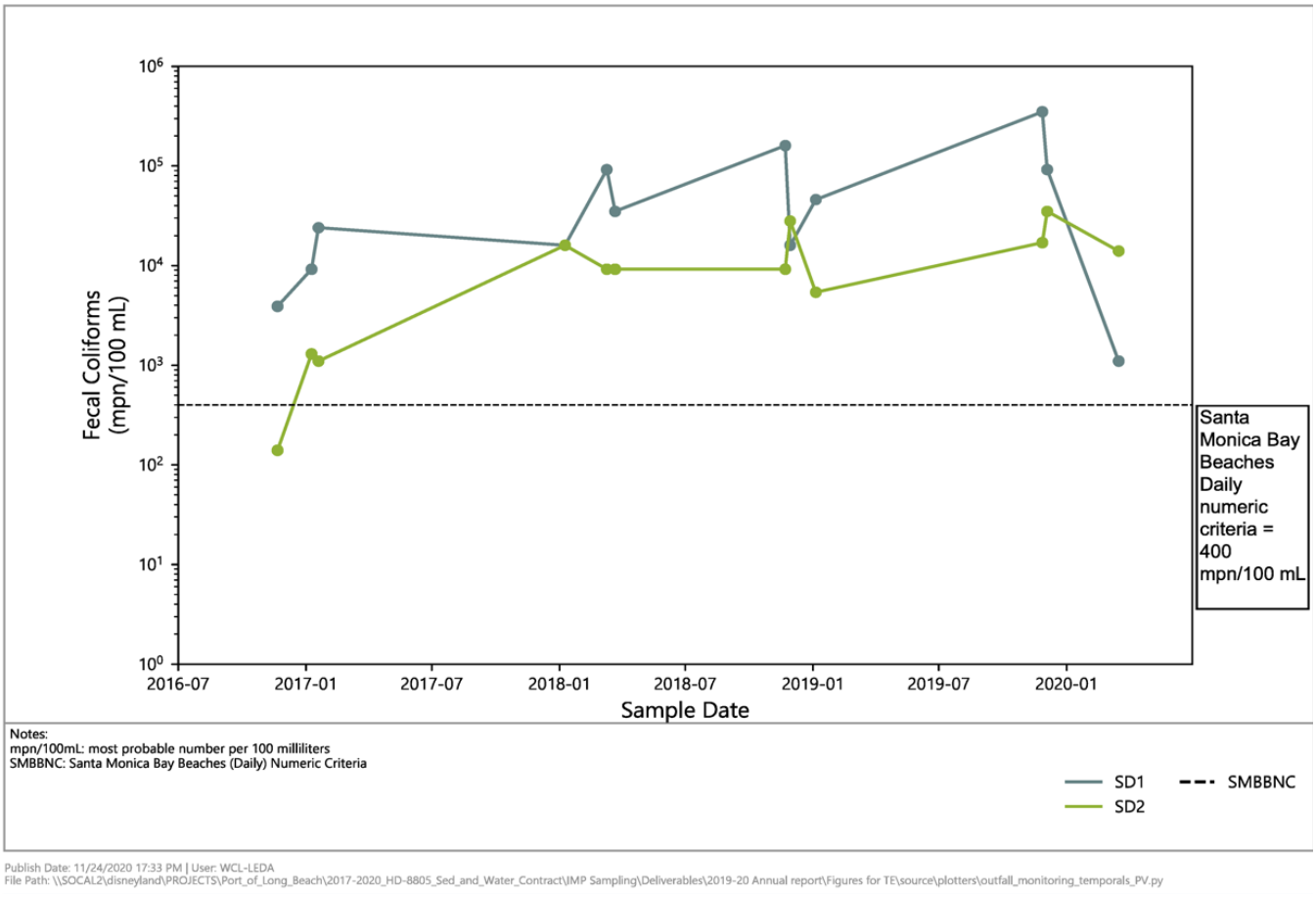


Figure 2-10: Fecal Coliform Concentrations in Peninsula Stormwater Discharges from SD1 and SD2 (2016-2020)

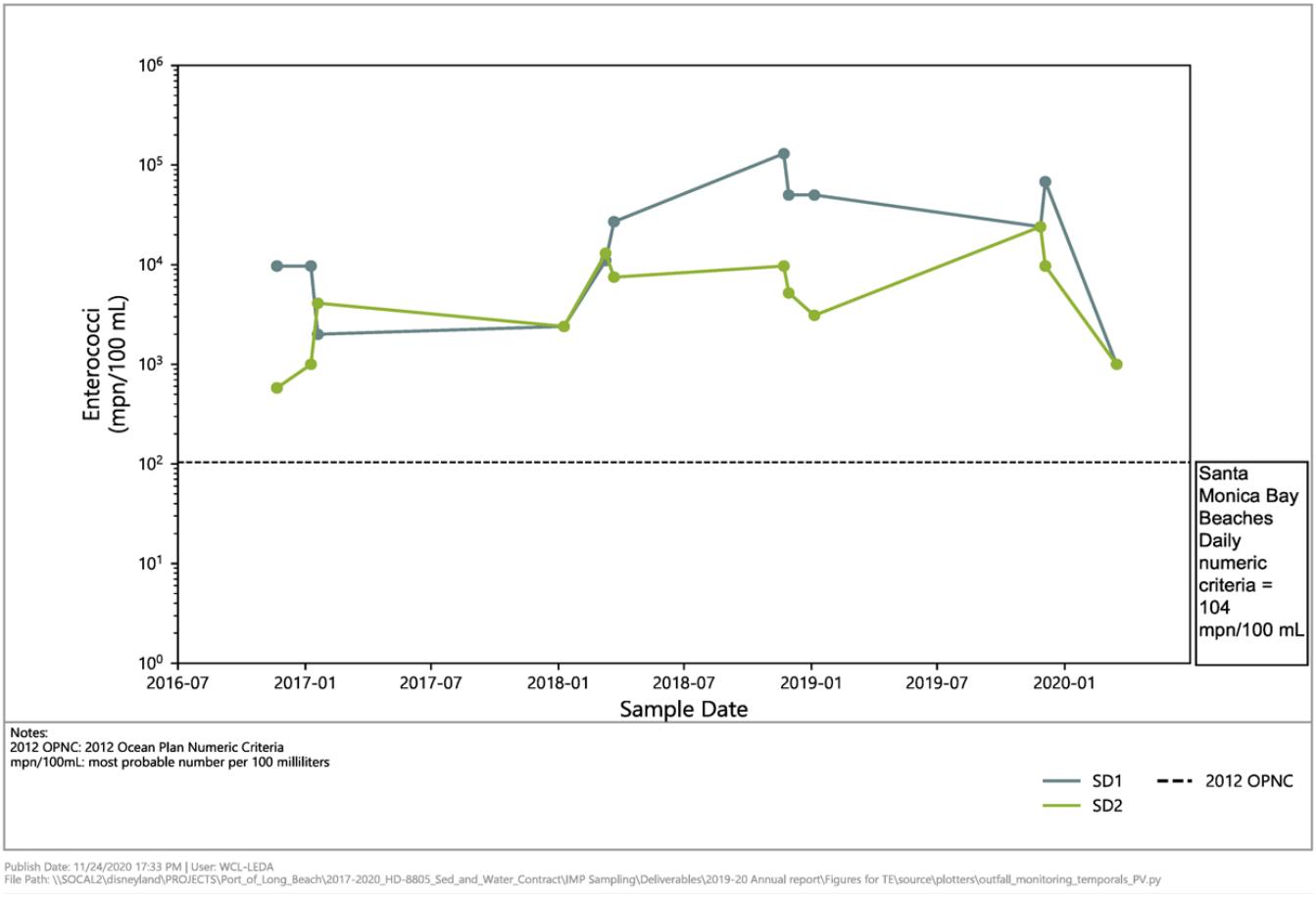


Figure 2-11: Enterococci Concentrations in Peninsula Stormwater Discharges from SD1 and SD2 (2016-2020)

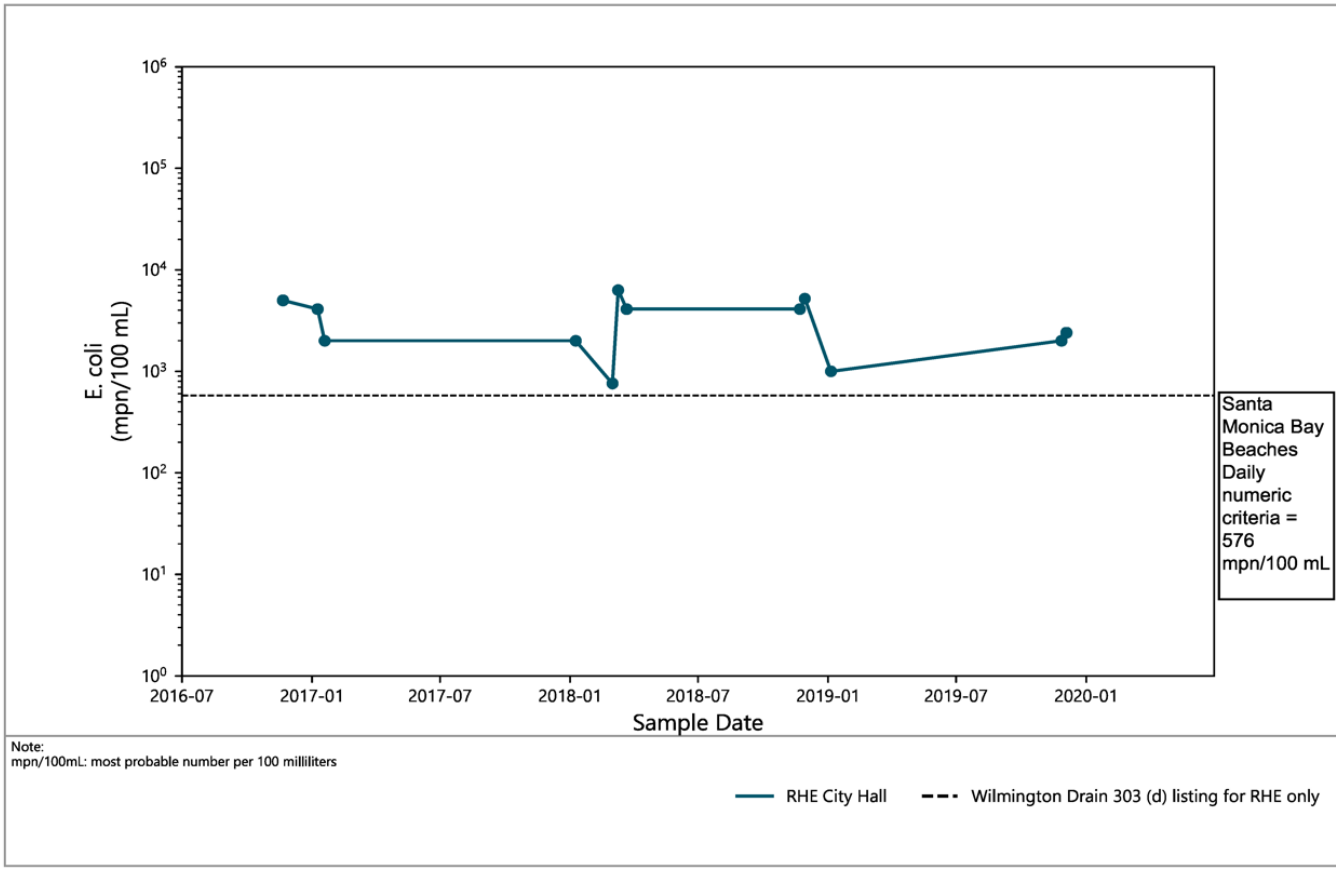


Figure 2-12: E-Coli Concentrations in Peninsula Stormwater Discharges from RHE City Hall (2016-2020)

3. SELECTION OF WATERSHED CONTROL MEASURES

This chapter identifies Watershed Control Measures (WCMs) to be implemented through the Participating Agencies' jurisdictional stormwater management programs, and collectively on a watershed scale. The WCMs are structural and/or nonstructural controls designed with the following objectives:

- Prevent or eliminate non-stormwater discharges to the MS4 that are a source of pollutants from the MS4 to receiving waters.
- Implement pollutant controls necessary to achieve all applicable interim and final water quality-based effluent limitations and/or receiving water limitations pursuant to corresponding compliance schedules.
- Ensure that discharges from the MS4 do not cause or contribute to exceedances of receiving water limitations.

The goal is to create an efficient program that focuses individual and collective agency resources on water quality priorities (WQPs). The WCMs are categorized as:

- Minimum Control Measures (MCMs),
- Non-stormwater Discharge (NSWD) Measures, and
- Targeted Control Measures (TCMs), which are designed to achieve applicable water quality-based effluent limitations and receiving water limitations.

Each WCM category may be further categorized through type: structural or nonstructural, and structural WCM may be categorized by status as well: existing, planned, proposed, or potential. Combined with Chapter 4 (RAA) and Chapter 5 (Compliance Schedules), the EWMP addresses the nature, scope, and timing of implementation for each WCM and provides interim milestones for the WCMs to achieve TMDL compliance. Also discussed are the responsibilities of each Permittee.

Since the Machado Lake TMDLs and the Los Angeles Harbor Toxics TMDL WLAs were calculated based on the average annual water year, the revised RAA used the average water year (Water Year 2010) as the critical condition to establish wet weather nutrient and organic pollutant target load reductions (TLRs) in the Peninsula Machado Lake watershed management area (WMA)[77], including the Wilmington Drain WMA[1] tributary to Machado Lake, and the Los Angeles Harbor WMA. Consistent with all existing Los Angeles region freshwater bacteria TMDLs, the RAA used the 90th percentile water year (Water Year 2011) as the critical condition to establish wet weather bacteria TLRs in the Wilmington Drain WMA to address the 303(d) listing. Based on these critical conditions, the RAA estimated the following 24-hour stormwater runoff management volumes needed to meet all the non-zero TLRs: 1.3 acre-ft for the Machado Lake WMA, 0.5 for the Wilmington Drain – Solano WMA, 7.4 acre-ft for the Wilmington Drain WMA, 5.4 acre-ft for Los Angeles Harbor – Inner Harbor WMA, and 1.5 acre-ft for the Los Angeles Harbor – Cabrillo Marina WMA. These 24-hour management volumes are intended to be addressed through LID implementation, existing/planned BMPs, and proposed green streets and regional BMPs as described in this chapter.

Please note that this estimate does not reflect an estimate of recharged groundwater but is simply an estimate of the reduced amount of stormwater runoff leaving the Peninsula EWMP Area as a result of BMP implementation as discussed herein.

[77] Both Machado Lake and Wilmington Drain WMAs are subwatersheds to the HUC-12 Dominguez Channel Watershed.

3.1. MINIMUM CONTROL MEASURES

The Minimum Control Measures (MCMs) are baseline WCMs required for all Permittees. The MCMs are defined in the MS4 Permit (excluding modifications set forth in an approved EWMP) and are implemented individually by each Permittee. The objectives of the MCMs are to 1) result in a significant reduction in pollutants discharged into receiving waters and 2) satisfy the requirements of 40 CFR §122.26(d)(2)(iv). The MCMs are separate from Targeted Control Measures, which are included in the EWMP to specifically address WQPs.

The MS4 Permit allows the modification of certain MCMs programs, so long as the modified actions are set forth in the approved EWMP and are consistent with 40 CFR §122.26(d)(2)(iv). The modifications are based on an assessment to identify opportunities for focusing resources on WQPs. The term "modifications" refers only to instances where language from the MS4 Permit MCM provisions is removed and/or replaced. Any control measures that are enhancements of the existing programs (i.e. do not conflict with the MS4 Permit MCM provisions) are included in the separate category of Targeted WCMs.

A summary of the assessment of each MCM program as well as a determination as to whether each Participating Agency will implement the MCM provisions either 1) as stated in the corresponding section of the MS4 Permit or 2) with modifications to focus resources on WQPs can be found in Section 3.1.2.

3.1.1. L.A. COUNTY FLOOD CONTROL DISTRICT MINIMUM CONTROL MEASURES

The LACFCD will implement the MCMs as defined in the MS4 Permit. See Appendix 1 for additional information.

3.1.2. ASSESSMENT AND MODIFICATION OF MINIMUM CONTROL MEASURES (PARTICIPATING AGENCIES, EXCLUDING LACFCD)

The following section is an assessment of the MS4 Permit MCMs, intended to identify opportunities for modifying MCMs to focus resources on WQPs. This section applies to all participating agencies, excluding the LACFCD.

3.1.2.1 DEVELOPMENT CONSTRUCTION PROGRAM

The purpose of the MS4 Permit Development Construction Program is to track, inspect and enforce implementation of BMPs on construction sites and to ensure that construction projects of one acre or more have coverage under the Construction General Permit. The Permittees are not modifying this Program and will implement it as defined in the MS4 Permit.

3.1.2.2 INDUSTRIAL/COMMERCIAL FACILITIES PROGRAM

The purpose of the MS4 Permit Industrial/Commercial Facility Program is to track, inspect, and enforce implementation of BMPs at industrial and commercial facilities and to ensure coverage under the Industrial General Permit where appropriate. There are currently no sites subject to the Palos Verdes Peninsula Watershed. The Permittees are not modifying this Program and will implement it as defined in the MS4 Permit.

3.1.2.3 ILLICIT CONNECTION AND ILLICIT DISCHARGES ELIMINATION PROGRAM

The purpose of the MS4 Permit Illicit Connection and Illicit Discharge (IC/ID) Elimination Program is to detect, investigate and eliminate IC/IDs to the MS4. The Permittees are not modifying this Program and will implement it as defined in the MS4 Permit.

3.1.2.4 Planning and Land Development Program

Following MS4 Permit provisions, Permittees cannot modify the Planning and Land Development Program to be less strict than requirements in the MS4 Permit. The Permittees will implement the Program as defined in the MS4 Permit.

3.1.2.5 Public Agency Activities Program

The Public Agency Activities Program consists of several sub-programs. Many of the MS4 Permit provisions within the sub-programs consist of baseline operation and maintenance (O&M) control measures that do not appear to offer clear benefits from modification. The sub-programs that do suggest a prioritized approach – such as street sweeping and catch basin cleaning frequencies – already provide this opportunity (frequencies are based on an agency's assessment of trash and debris generation). As such the Cities are not modifying this Program and will implement it as defined in the MS4 Permit.

3.1.2.6 Public Information and Participation Program

The MS4 Permit allows an agency to implement the requirements of the Public Information and Participation Program (PIPP) 1) by participating in a County-wide effort, 2) by participating in a Watershed Group effort, 3) individually within its jurisdiction or 4) through a combination of these approaches. The Agencies will implement the PIPP following a combination of approaches.

In terms of Program modifications, the MS4 Permit provisions provide flexibility to focus efforts on WQPs through the development of the Program. As such, the Cities will implement it as defined in the MS4 Permit. Modifications to elements of the PIPP MCM Program were made to address the Peninsula WMG watershed priorities through activity-specific outreach programs targeted at the following residential activities:

a) DIY auto activities

b) DIY home improvement activities

c) DIY landscaping and gardening activities

d) Pet owner activities

e) Rainwater Harvesting and Downspout Disconnection

Each Permittee will implement the Residential Outreach Program through a combination of individual, watershed, and Countywide program efforts to implement Residential Outreach Program elements.

The Peninsula WMG implement a customized PIPP strategy, developed collaboratively with the Beach Cities WMG, to better address watershed priorities, including; hosting Sustainable Gardening and Landscaping and Integrated Pest Management (IPM) webpages with the South Bay Environmental Services Center (SBESC) providing information regarding alternative pest controls and best management practices for fertilizer use, developing a BMP tip card targeting mobile businesses that generate waste water to mitigate non-stormwater discharges, developing a Small Site Construction brochure focused on illicit discharge mitigation measures, developing a comprehensive Homeowner's Guide to Rainwater Harvesting to encourage the interception and collection of stormwater on residential properties,

maintaining pet waste collection and clean-up stations in municipal parks, developing horse keeping and manure outreach material, facilitation the management of landscape for brush and fire control by providing unlimited green waste collection to residents which minimizes potential leaching of phosphorus from accumulated vegetation and helps to prevent brush fires which mitigates the release of toxic pollutants, and promoting water conservation and stormwater pollution and prevention messages via email blasts and the SBESC website.

3.1.2.7 Progressive Enforcement and Interagency Coordination

Following MS4 Permit provisions, Permittees cannot modify the Progressive Enforcement and Interagency Coordination Program. The Permittees will implement the Program as defined in the MS4 Permit.

3.1.3. Enhanced Fourth Term MS4 Permit Minimum Control Measures (Participating Agencies, Excluding LACFCD)

The MS4 Permit describes baseline MCM provisions and program elements to be implemented within each participating agency's jurisdictional stormwater program. Previous iterations of the EWMP included a review of the substantive enhancements and additions to the MCMs that occurred from the third term MS4 Permit to the fourth term permit. The purpose of the review was to highlight new provisions that would address WQPs. As these provisions are no longer new and have been in place for several years and are reflected in the monitoring data supporting the RAA update, this review has been removed from the EWMP.

3.1.4. Fifth Term MS4 Permit Minimum Control Measures

Previous iterations of the WMP included a review of the substantive enhancements and additions to the MCMs that occurred from the Third Term MS4 Permit to the Fourth Term MS4 Permit. The purpose of the review was to highlight new provisions that would address WQPs. The MCM Provisions of the 2020 Tentative Draft (Fifth Term) MS4 Permit do not include significant changes from the Fourth Term MS4 Permit MCMs. As such, a review of expected Fifth Term MS4 Permit MCM provisions is not included in the WMP. Once the Fifth Term Permit is effective, the Permittees will implement its MCMs.

3.2. NON-STORMWATER DISCHARGE MEASURES

The Participating Agencies will require dischargers that drain to their respective MS4s to implement the Non-stormwater Discharge (NSWD) Measures. If the Participating Agencies identify non-stormwater discharges from the MS4 as a source of pollutants that cause or contribute to exceedances of receiving water limitations, the WCMs will be modified and implemented – subject to the adaptive management process – to effectively eliminate the source of pollutants consistent with the MS4 Permit. In these instances, potential WCMs may include prohibiting the non-stormwater discharge to the MS4, requiring the responsible party to 1) incorporate additional BMPs to reduce pollutants in the non-stormwater discharge or conveyed by the non-stormwater discharge or 2) divert to a sanitary sewer for treatment, or strategies to require the non-stormwater discharge to be separately regulated under a general NPDES permit.

3.3. TARGETED CONTROL MEASURES

Targeted Control Measures (TCMs) are additional control measures beyond the baseline MCMs and NSWD measures of the MS4 Permit that are intended to target the Peninsula WMG's WQPs based on potential pollutant sources identified in the updated source assessment in Section 2.3. TCMs may be divided into two categories: nonstructural and structural. The selection of structural and nonstructural control measures to address WQPs within the Peninsula WMG is a vital component of the EWMP planning process.

The Participating Agencies continue to implement structural and nonstructural control measures in the watershed. There are many different types of structural and nonstructural control measures that provide varying benefits from their implementation. The following sections and corresponding appendices describe TCMs that may be implemented (where implementation is conditional upon factors such as site constraints, governing body approval, etc.), as well types of structural BMPs available to the Peninsula WMG.

3.3.1. CONTROL MEASURES IDENTIFIED IN TMDLS/IMPLEMENTATION PLANS

This section describes the nonstructural control measures that have been previously identified in TMDLs and corresponding implementation plans and the status of their implementation. For those TMDLs that do not sufficiently identify control measures, control measures are identified in the planned Targeted Control Measures as described in the following sections in this chapter. For more information on the TMDLs refer to Section 2: Water Quality Priorities.

3.3.1.1 SANTA MONICA BAY BEACHES BACTERIA TMDL

To meet the requirements of Santa Monica Bay Beaches Bacteria (SMBBB) TMDL, a Coordinated Shoreline Monitoring Plan (CSMP) was developed by a committee of responsible agencies, including representatives from the Peninsula WMG. The Peninsula WMG monitoring sites historically experience fewer exceedance days than the reference beach used in the TMDL and are therefore in an anti-degradation condition[78]. Furthermore, as discussed in Section 2.2.1, all of the Peninsula shorelines monitoring sites have been delisted from the 303(d) list in accordance with the State Water Resources Control Board's delisting criteria. As a result, control measures in the approved Implementation Plan include continued implementation of MCMs to protect or enhance existing water quality, and as-needed investigation if an excessive number of exceedances occurs at a monitoring site. As discussed in Section 2.2.1, monitoring results consistently demonstrate attainment of the dry and wet weather SMBBB TMDL receiving water limitations, therefore a RAA modeling effort is not required for this water body pollutant combination. Summer-dry and winter-dry weather data at the SMBBB TMDL compliance monitoring locations (CMLs) collected up to TMDL Year 2015 were evaluated in the initial RAA to conclude that the dry weather water quality was better than that of the referenced beach based on long-term average exceedance rates. For the revised RAA, the summer-dry and winter dry- weather monitoring data collected between Year 2015 and 2019 have been evaluated to verify that the dry weather exceedance rates have not degraded from historical levels and continue to meet their receiving water limitations.

3.3.1.2 SANTA MONICA BAY NEARSHORE AND OFFSHORE DEBRIS TMDL

[78] The antidegradation policy applies to waters that are determined to have high water quality and requires that existing high quality be maintained.

Compliance with the Santa Monica Bay Debris TMDL is based on installation of structural best management practices such as full capture or partial capture systems, institutional controls, or any best management practices, to attain a reduction in the amount of trash in the Santa Monica Bay. Through a joint project among the PVP Agencies 1,112 catch basins have been retrofit with certified full capture Connector Pipe Screens within the Santa Monica Bay watershed areas of the Peninsula WMG, funded in part through a $600,000 Prop 84 Santa Monica Bay Restoration Commission Grant. See Permittee's individual Annual Reports for status and information on compliance with the Santa Monica Bay Nearshore and Offshore Debris TMDL.

3.3.1.3 SANTA MONICA BAY DDT &PCBS TMDL

Data summarized in Section 2.3.1 demonstrates that the rolling three-year average Santa Monica Bay outfall monitoring results meet the assigned WLAs for both DDT and PCBs, consequently RAA modeling is not necessary for this water body pollutant combination.

3.3.1.4 MACHADO LAKE TRASH TMDL

Compliance with the Machado Lake TMDL is based on installation of structural best management practices such as full capture or partial capture systems, institutional controls, implementation of a Minimum Frequency of Assessment and Collection (MFAC) program, or any best management practices, to attain a reduction in the amount of trash in the Machado Lake Watershed. To date, over 2,000 full capture trash devices have been installed in Peninsula WMG catch basins tributary to Machado Lake, partially funded by Proposition 84 Stormwater Grant funding. These devices were installed in accordance with the compliance schedule outlined in the TMDL. See Permittee's individual Annual Report for status and information on compliance with the Machado Lake Trash TMDL.

3.3.1.5 MACHADO LAKE NUTRIENTS TMDL AND MACHADO LAKE PESTICIDES & PCBS TMDL

To meet the requirements of the Machado Lake Nutrients TMDL, the Peninsula WMG monitors the Machado Lake outfalls on a monthly basis. To meet the requirements of the Machado Lake Pesticides & PCBs TMDL, the Peninsula WMG collects sediment samples from the Machado Lake outfalls during every wet weather event and compiles the samples for analysis. See data summarized in Chapter 2. The Peninsula WMG developed a plan for achievement of compliance with the Machado Lake Nutrients TMDL in the Palos Verdes Peninsula Subwatershed Coordinated Implementation Plan (2011), which served as guidelines for an adaptive implementation of source control programs and development of structural best management practices.

Infiltration projects reducing nutrients, pesticides, and PCBs flow to Machado Lake, such as the Chandler Ranch Project, have been constructed and the Peninsula WMG continues to pursue structural projects to within the Peninsula Watershed and support project opportunities outside of the Peninsula Watershed such as the Torrance Airport Stormwater Project.

For nutrients, pesticides, and PCBs source control programs, the Peninsula WMG in a collaborative effort with the Beach Cities, developed Sustainable Gardening and Landscaping and Integrated Pest Management (IPM) webpages, provided information regarding alternative pest controls and best management practices for fertilizer use, a BMP tip card targeting mobile businesses that generate waste water to mitigate non-stormwater discharges, developed a Small Site Construction brochure focused on illicit discharge mitigation measures, developed a comprehensive Homeowner's Guide to Rainwater Harvesting to encourage the interception and collection of stormwater on residential properties, maintain

pet waste collection and clean-up stations in municipal parks, and developed horse keeping and manure outreach material.

3.4. NONSTRUCTURAL TARGETED CONTROL MEASURES

Following MS4 Permit provisions, the Peninsula WMG has developed customized strategies, control measures and O&M control measures to implement the EWMP. Addressing WQPs will be based on a multi-faceted strategy initially focused on source control. If pollutants are not generated or released, they will not be available for transport to the receiving waters. In addition, if soils can be stabilized, sediment controlled, and dry-weather runoff and initial flushes of stormwater runoff eliminated or greatly reduced, the major transportation mechanisms will be eliminated or greatly reduced, and fewer pollutants will reach the receiving waters. Since there is a substantial body of research demonstrating that wildfires can be a significant source of toxic pollutants in stormwater, prevention of wildfires is also an important source control measure for preventing pollutant mobilization and transport of the Peninsula WMG, which is identified as a very high fire hazard severity zone. See detailed discussion in Section 2.3.1.

Many of the highest WQPs, such as copper, lead, and zinc, are released into the atmosphere, resulting in widespread aerial deposition onto impervious surfaces in the Watershed. In addition, these pollutants are discharged directly onto streets, highways, parking lots, and driveways from motor vehicle components such as brakes, wheel weights, and tires. The Participating Agencies have concluded that the most cost-effective and long-lasting way to address WQPs is to develop and support state-wide or regional measures that will encourage or require, if necessary, product or material substitution at the manufacturing stage. This can be a complex and time-consuming process, but the payoff in water quality improvement can be tremendous.

The nonstructural TCMs supplement the MCM efforts with targeted source control measures such as incentives for irrigation control and upgraded street sweeping equipment, designed with the objective of achieving interim and final water quality-based effluent limitations and/or receiving water limitations.

Planned and potential nonstructural TCMs for each participating agency can be found in the Appendix 3.1.

3.5. STRUCTURAL TARGETED CONTROL MEASURES

Structural TCMs are Structural BMPs that, in combination with MCMs, are designed with the objective to achieve interim and final water quality-based effluent limitations and/or receiving water limitations. Structural TCMs are an important component of the Peninsula WMG's load reduction strategy. These BMPs are constructed to capture runoff and filter, infiltrate, or treat stormwater. If properly maintained, these BMPs can have high pollutant removal efficiencies); however, they tend to be more expensive than nonstructural BMPs. The two prevailing approaches for implementing Structural BMPs are regional and distributed approaches. Both serve important purposes and should be considered in combination to determine the best possible implementation strategy to meet the Peninsula WMG's water quality goals. Appendix 3.2 provides a description of each of the major structural BMP subcategories.

DISTRIBUTED BMPS

Distributed Structural BMPs are generally built at the site-scale. They are intended to treat stormwater runoff at the source and usually capture runoff from a single parcel or a small area consisting of multiple parcels and public rights of way. They may also include nature-based solutions such as natural habitat restoration, and in particular on the Palos Verdes Peninsula natural canyon habitat and riparian canyon restoration.

REGIONAL BMPS

Regional BMPs refer to large structural BMPs that receive flows from neighborhoods or large areas and may provide multiple benefits such as: improved water quality, increased water supply, improved flood management, enhanced park space, restored habitat, improved public access to waterways, creation of new recreational opportunities, enhanced green spaces at school, reduced heat local island effect, increased number of trees or other vegetation, or implementation of nature-based solutions[79].

3.5.1. PERFORMANCE EVALUATION OF STRUCTURAL CONTROL MEASURES

The performance of existing and planned BMPs in the Peninsula EWMP area is evaluated through the RAA following provisions of the MS4 Permit, both in terms of volume capture (based on BMP design criteria) and predicted effluent quality. An analysis of BMP Performance data has been summarized in Appendix 4.1 and a summary of modeled BMPs is included in **Figure 3-1** and **Table 3-1** below. Refer to Section 4 (Reasonable Assurance Analysis) for more detail on the RAA.

3.5.1.1 REGIONAL BMPS

This chapter contains a summary of existing, planned, proposed, and potential Regional BMPs within the Peninsula EWMP area

. These project categories are defined as follows:

- Existing – constructed and on-line Regional BMPs.
- Planned – some planning for the Regional BMP has been conducted (i.e. preliminary design report, feasibility study).

[79] Los Angeles County, California – Code of Ordinances. Flood Control District Code. Chapter 16 - The Los Angeles Region Safe, Clean Water Program. Accessed May 2021.

- Proposed – initial planning for the Regional BMP has begun, but feasibility studies and preliminary design reports have not yet been completed.
- Potential – alternative locations where conditions may be suitable for a Regional BMP

It is important to note that the EWMP is subject to adaptive management during the implementation phase (see Section 9 of this EWMP). The Participating Agencies may notify the Regional Board that alternative, equivalent actions are proposed in place of the actions described herein. It is important for the Participating Agencies to have flexibility during the implementation phase if proposed Regional BMPs are found to be infeasible or less desirable than alternatives. Regional BMPs will be subject to feasibility studies and/or alternatives analyses. In some cases, the actions proposed herein may be determined to be less preferred compared to other alternatives. If a preferred alternative action is identified and selected, the responsible agency will notify the Regional Board of the newly selected alternative(s) and demonstrate its equivalency.

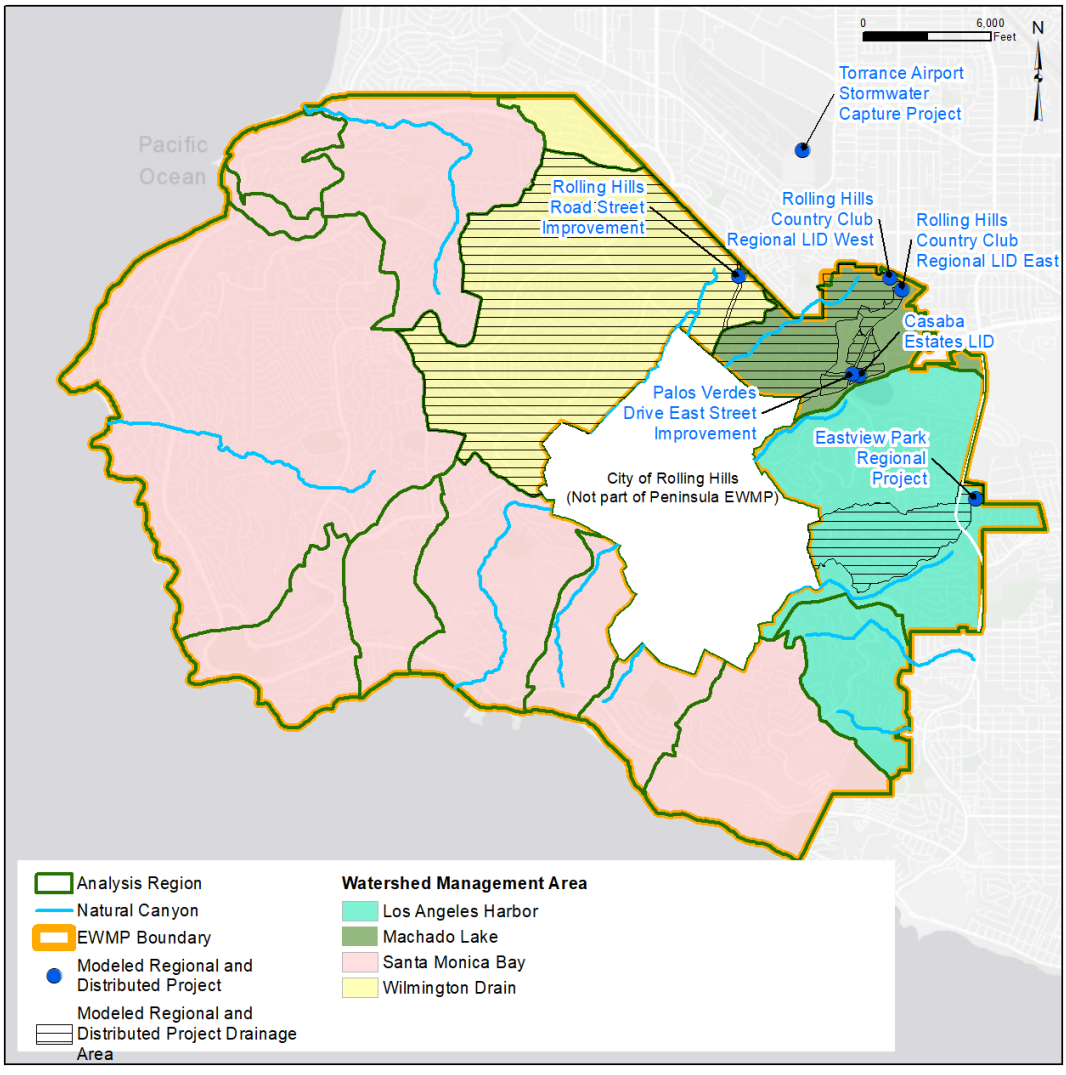


Figure 3-1: Modeled Regional Projects

Table 3-1: Summary of Modeled Regional BMPs

Watershed Management Area	Project Name	Lead WMG Member	Completed, Planned, or Proposed	BMP Type	Drainage Area (ac)	Impervious Drainage Area (ac)	BMP Volume (ac-ft)	Infiltration /Treatment Capacity
Wilmington Drain (WD-1)	Torrance Airport Stormwater Basin Project Phase II	Rancho Palos Verdes and Torrance[a]	Planned	Subsurface Detention & Diversion to Sewer	74 (PVE)	15 (PVE)	21[b]	2.2 cfs
					678 (RPV)	263 (RPV)		
					1,113 (RHE)	539 (RHE)		
					441 (LAC)	112 (LAC)		
	Rolling Hills Road Street Improvement	Rolling Hills Estate	Proposed	Pervious Pavement	0.4 (RHE)	0.4 (RHE)	0.04	1 in/hr
Machado Lake (ML-1)	Casaba Estates LID	Rolling Hills Estate	Completed	Surface Retention Basin	28 (RHE)	7 (RHE)	0.4	0.9 in/hr
	Rolling Hills Country Club Regional LID Project – West	Rolling Hills Estate	Completed	Surface Retention & Infiltration Basin	358 (RHE) [c]	60 (RHE)	3.8	482 in/hr
	Rolling Hills Country Club Regional LID Project – East	Rolling Hills Estate	Completed	Surface Retention & Infiltration Basin	51 (RHE)	2.0 (RHE)	0.7	1.3 in/hr
	Palos Verdes Drive East Street Improvement	Rolling Hills Estate	Proposed	Pervious Pavement	2.6 (RHE)	0.5 (RHE)	0.3	1 in/hr
Los Angeles Harbor – Inner Harbor (LAH-IH)	Eastview Park Regional Project	Rancho Palos Verdes	Proposed	Subsurface Retention, Treatment and Diversion	345 (RPV)	123 (RPV)	1.2	0.6 cfs

Notes:
RPV-Rancho Palos Verdes; PVE-Palos Verdes Estates; RHE-Rolling Hills Estates; RH-Rolling Hills; LAC – Los Angeles County Unincorporated; TOR-Torrance

(a) The Peninsula WMG has agreed to collaborate with City of Torrance to utilize this project to receive and manage stormwater runoff from the Peninsula EWMP area.

(b) The Torrance Airport Stormwater Basin Project total estimated BMP volume is 21 ac-ft. The Peninsula WMG RAA model that did not include non-Peninsula EWMP drainage areas demonstrates that for the Wilmington Drain (WD-1) Watershed Management Area (WMA), 7.4 ac-ft of 24-hour management volume is needed to meet the final target load reductions. See Section 4 and Section 5 of the EWMP and Appendix 4.1 RAA Report.

(c) Does not include non-Peninsula EWMP drainage area.

3.5.1.1.1 COMPLETED REGIONAL BMPS

CASABA ESTATES (FORMERLY BUTCHER RANCH)[80]

The Casabas Estates regional BMP project was completed in 2013. The project is approximately 8.55 acres located in Rolling Hills Estates. It is bounded on the south by Palos Verdes Drive North, easterly by Monticello Drive, and westerly by Palos Verdes Drive East. The project consists of residential lots, one new Commercial Recreational lot, parking lots, private roads, and allows for keeping of horses on the residential lots.

The project involved re-grading a portion of the pre-existing ravine to remove standing water conditions. This ravine area was rehabilitated into a vegetated bioretention system to retain and infiltrate runoff from the site. The project receives runoff from offsite (through an existing 24" diameter culvert under Palos Verdes Drive East) from onsite and offsite areas (a total of 28.62 acres). The new bioretention system was designed to retain and infiltrate onsite and offsite runoff in a volume greater than the 85th percentile, 24-hr storm event; therefore, the project was modeled in the RAA as a Regional EWMP Project. See **Figure 3-2** for post-development design conditions.

The Casaba Estates project includes multiple benefits in addition to the stormwater quality benefits that will be observed. These additional benefits may include, but are not limited to, the following:

- **Beneficial Use Protection**. This project will result in higher water quality which will help to protect recreational beneficial uses and support public health (and wellness) in Machado Lake and the Greater LA Harbor.
- **Neighborhood Greening and Public Recreation**. This project includes green space within this development which can positively impact the aesthetics, as well as property values, of urbanized areas. Property value tends to increase when an urban neighborhood has green space or trees in sight (CNT, 2010). Green infrastructure and green space can also alleviate urban heat-island effects by reducing temperatures by about 5^{o}F through shade and evaporation (CNT, 2010).
- **Water Conservation/Supply**. The stormwater retained onsite recharges groundwater which is being used for potable or non-potable purposes by the adjacent golf course, thus offsetting reliance on imported water supply.

[80] Bolton Engineering Corp. *Hydrology and Hydraulic Calculations*. September 13, 2010.

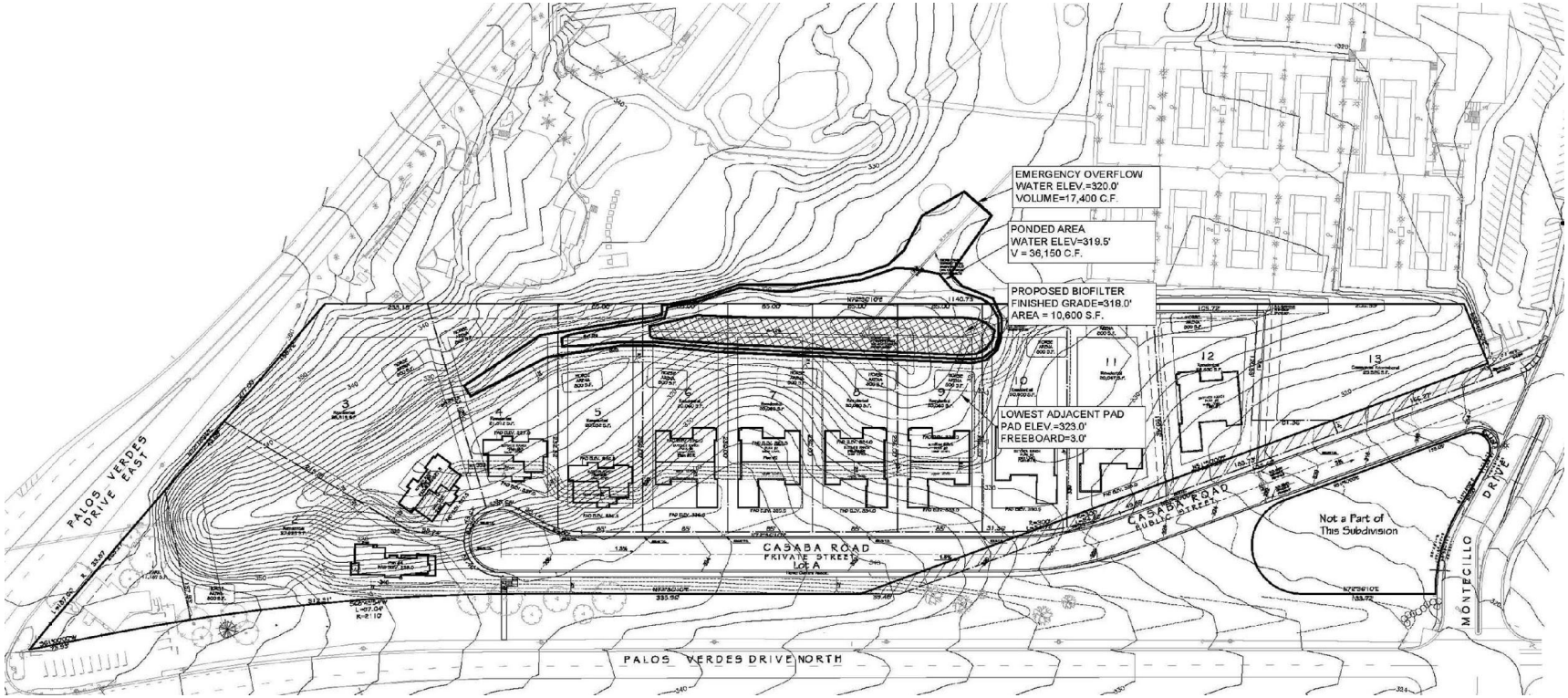


Figure 3-2: Casaba Estates (formerly Butcher Ranch) Post-Development Design Conditions (Bolton Engineering Corp. Hydrology and Hydraulic Calculations. September 13, 2010).

SAN RAMON CANYON

The San Ramon Canyon project is located in the City of Rancho Palos Verdes. The project was completed in October 2014. The project consists of a mid-canyon inlet structure connected to a 3,900-foot long and a 54-inch pipe that outlets below the oceanfront bluff, bypassing a highly erodible section of the canyon (see **Figure 3-3**). The project inlet is located slightly upstream of the upper switchback along Palos Verdes Drive East and substantially reduces the amount of flow being delivered to an existing, and overwhelmed, storm drain at Palos Verdes Drive South/25th Street. This project improves water quality by substantially reducing erosion and minimizing debris and sediment transport to this drain by diverting all stormwater runoff from a greater than ¼ inch rain event to the underground pipe, diverting it from the erosive canyon. Due to the nature of this project its benefits could not be quantified in the RAA model. However, as mentioned above, this project significantly improves the quality of the downstream receiving water and addresses PCBs, DDT, and Sediment Toxicity.

The San Ramon Canyon project includes multiple benefits in addition to the stormwater quality benefits that have been accrued. These additional benefits include, but are not limited to, the following:

- **Beneficial Use Protection**. This project protects recreational beneficial uses and supports public health (and wellness) in Santa Monica Bay
- **Habitat**. This project restores and protects the existing streambed and the surrounding ecosystem to encourage infiltration and biologic uptake.
- **Flood Management**. This project decreases flood risk by reducing runoff rate and volume.
- **Water Conservation/Supply**. The stormwater retained onsite recharges the groundwater which is being used for potable or non-potable purposes by the golf course, thus offsetting reliance on imported water supply.



Figure 3-3: San Ramon Canyon Project

CHANDLER RANCH/ROLLING HILLS COUNTRY CLUB PROJECT[81]

Redevelopment of the former Chandler Quarry in the City of Rolling Hills Estates was completed in 2018 through private funding to construct a 114-home subdivision (Chandler Ranch) and reconfigure the Rolling Hills Country Club golf course and clubhouse. The golf course portion of the project was constructed on the site of the former quarry, with the golf course and subsurface infiltration gallery designed to provide the same hydraulic retention and infiltration capacity as the former quarry, an exception to the Peninsula's typical geological constraints. The new homes that are part of this redevelopment are still under construction, however the stormwater infiltration systems have been fully operational since January 2018 and the golf course is also completed. The project site lies within the Machado Lake sub-watershed of the Dominguez Watershed Management Area (DWMA). The 226-acre project site is now comprised of the Chandler Ranch homes under development the Rolling Hills Country Club, and golf course.

The regional project consists of three (3) infiltration galleries along with a pretreatment system for each gallery that consists of a suite of catch basin inserts, drainage swales, barrancas and, for the largest gallery, a biofiltration basin. The largest subsurface infiltration gallery has been designed as a regional BMP system to capture the 50-year storm runoff event from its 705.2-acre tributary area. This regional project well exceeds the standard for retention of the 85th percentile, 24-hour storm.

See **Figure 3-4, Figure 3-5,** and **Figure 3-6**.

The Chandler Ranch/Rolling Hills Country Club project has multiple benefits in addition to the stormwater quality benefits. These additional benefits include, but are not limited to, the following:

- **Beneficial Use Protection**. This project protects the multiple beneficial uses of Machado Lake and supports public health (and wellness) through protection of this public recreational asset.
- **Neighborhood Greening and Public Recreation**. This project increases green space within this neighborhood which positively impacts the aesthetics, as well as property values, of adjacent areas. Property value tends to increase when an urban neighborhood has green space or trees in sight (CNT, 2010). Green infrastructure and green space can also alleviate urban heat-island effects by reducing temperatures by about 5^{o}F through shade and evaporation (CNT, 2010). Replacement of the landfilling and concrete plant uses of the former quarry site with green space has decreased the associated air pollutants including dust from the concrete and inert landfill activity, as well as diesel truck trips along local roadways.
- **Water Conservation/Supply**. The stormwater retained onsite recharges groundwater and is used by the golf course for non-potable purposes, thus offsetting reliance on imported water supply.
- **Public Education/Awareness**. This project incorporates stormwater infrastructure within a recreational facility, creating an awareness of stormwater quality and its importance.

[81] Hunsaker and Associates. *Water Quality Mitigation Plan*. June 16, 2010.

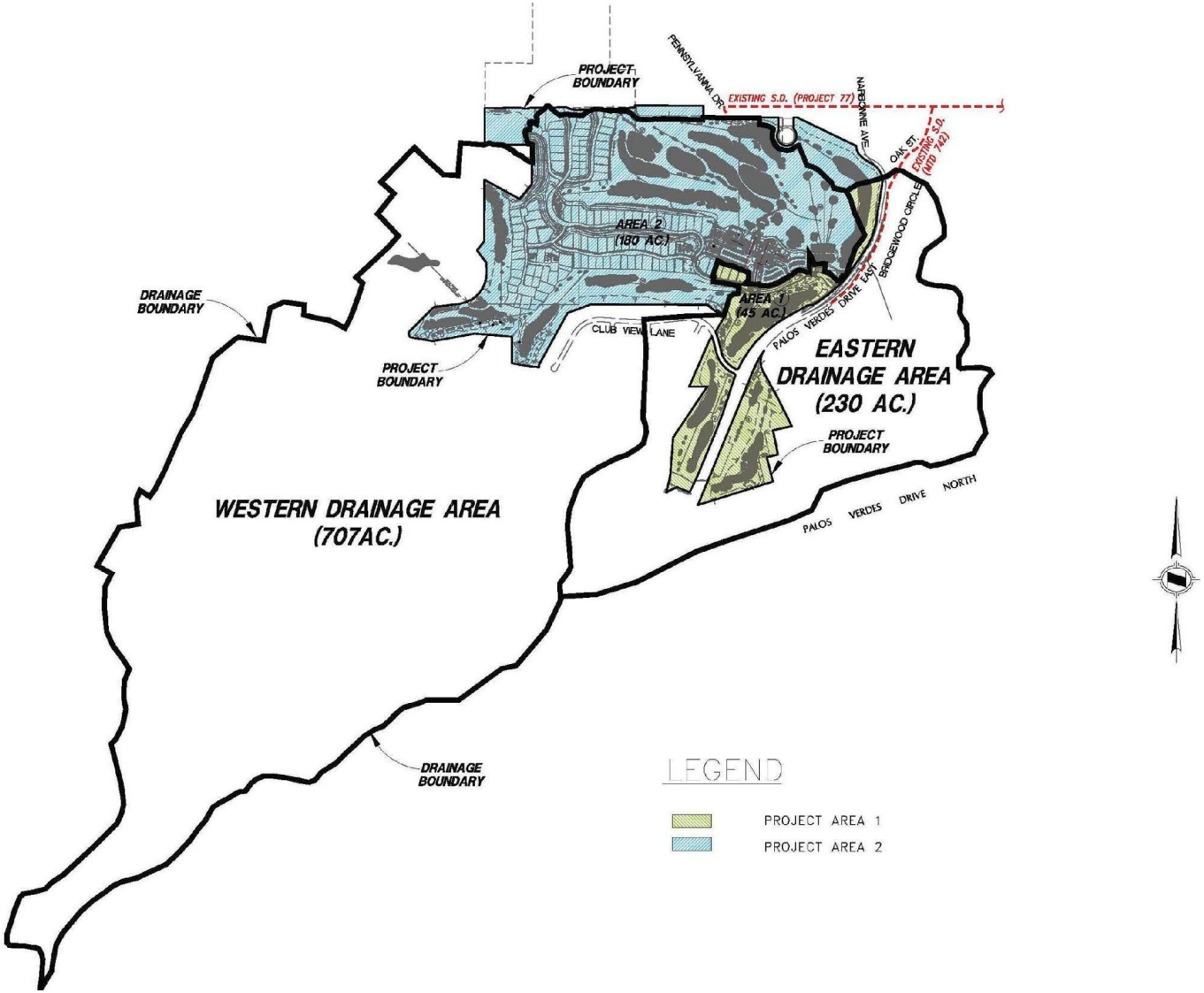


Figure 3-4: Chandler Quarry Project Drainage Area Map
Source:Hunsaker and Associates. Water Quality Mitigation Plan. June 16, 2010.

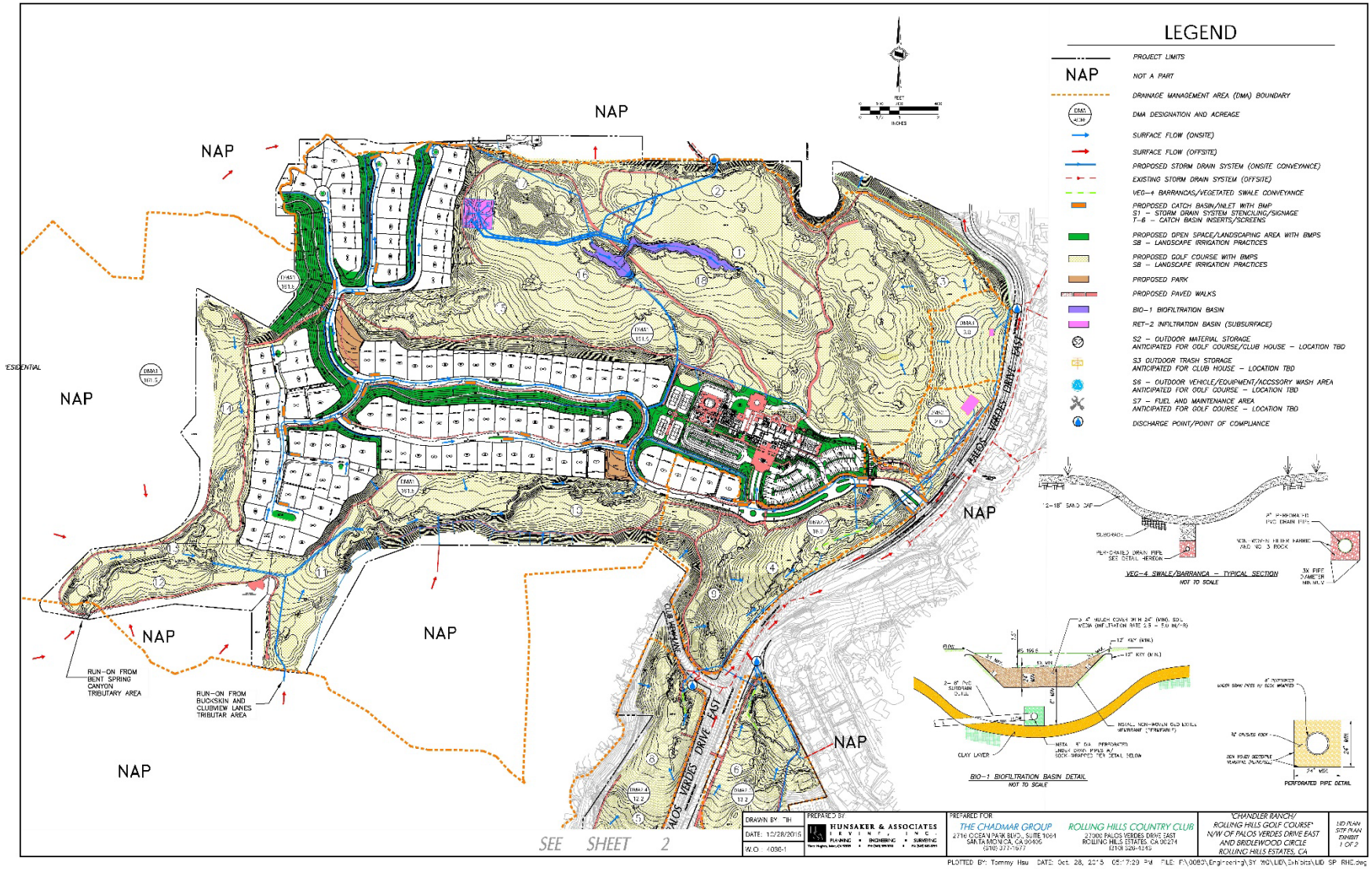


Figure 3-5: Chandler Quarry Project Drainage and Water Quality Concept Plan
Source: Hunsaker and Associates. Water Quality Mitigation Plan. January 29, 2016

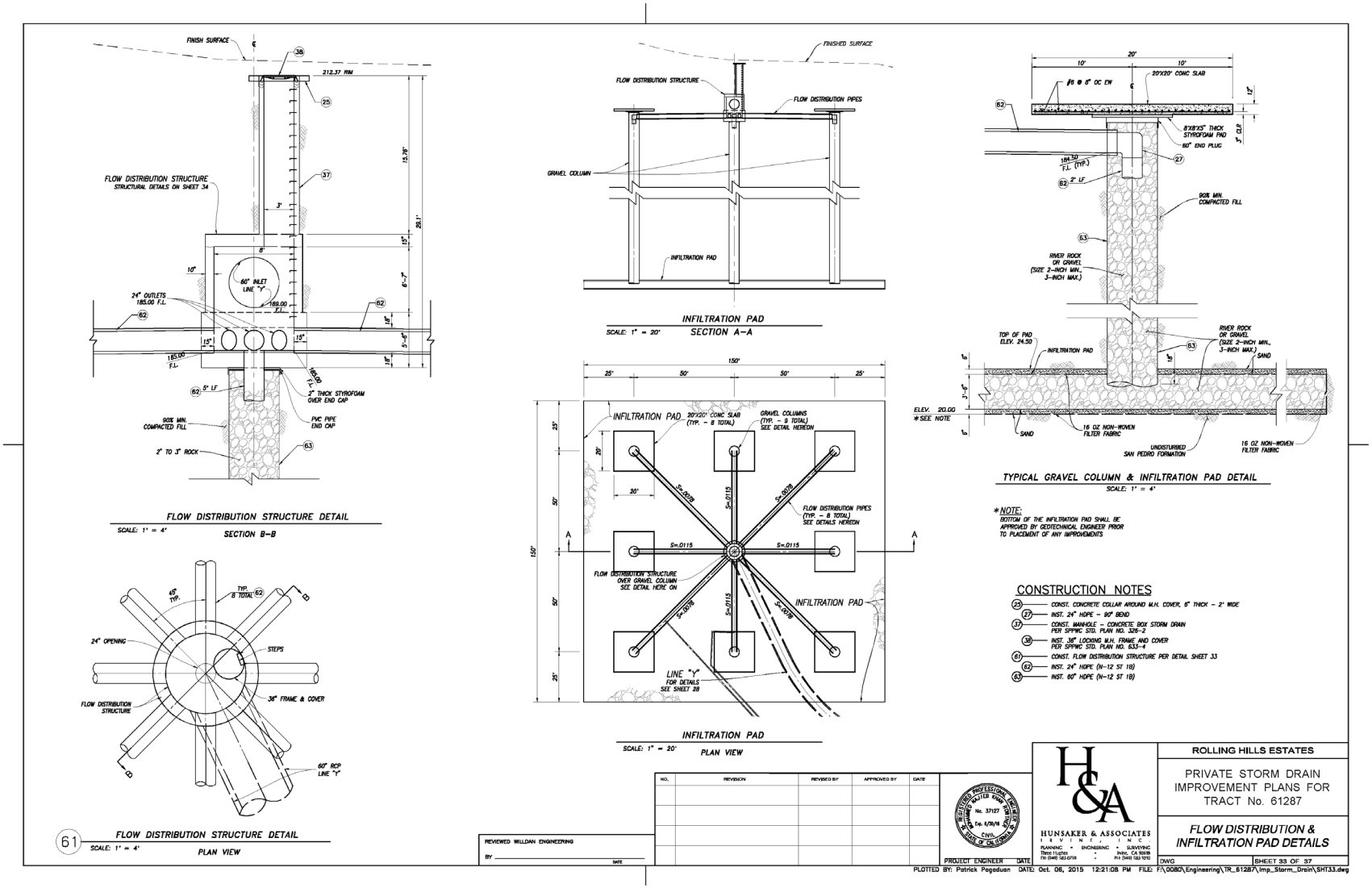


Figure 3-6: Chandler Quarry Project Infiltration System Concept Design
Source: Hunsaker and Associates. Water Quality Mitigation Plan. January 29, 2016

3.5.1.1.2 PLANNED REGIONAL BMPS

The Peninsula WMG has planned regional BMPs which are at levels varying from a concept plan to a final design. The anticipated pollutant removals associated with these BMPs were modeled in the RAA prior to determining additional BMPs necessary for each drainage area. A summary of Planned Regional BMPs within the Peninsula EWMP area is included below.

TORRANCE AIRPORT BASIN

A planned regional BMP located within the City of Torrance adjacent to the Torrance Airport will capture and divert urban stormwater flows into the sanitary sewer. This project is located within the Machado Lake Watershed, outside the Peninsula WMG watershed (see **Figure 3-7**). The agencies with tributary area to this planned regional BMP include the cities of, Torrance, Rolling Hills, Rolling Hills Estates, Rancho Palos Verdes,, Palos Verdes Estates, and unincorporated Los Angeles County.

The purpose of the project is to divert stormwater flows from the storm drain to be pre-treated and then stored in subsurface reservoirs for controlled release to the sanitary sewer system and ultimately to the Joint Water Pollution Control Plant (JWPCP) in the City of Carson where the Metropolitan Water District (MWD) has constructed the Regional Recycled Water Advanced Purification Center demonstration plant to treat storm water for regional groundwater infiltration. See **Figure 3-8**. The project was modeled in the RAA and is predicted to achieve the TLRs for the entire Wilmington Drain WMA, while also capturing stormwater from the 24-hour, 85th percentile event .

The Torrance Airport project will have multiple benefits in addition to the stormwater quality benefits which may include, but are not limited to, the following:

- **Beneficial Use Protection**. This project will prevent stormwater runoff from reaching the Machado Lake, and instead divert these flows to the sanitary sewer and ultimately to the JWPCP, thus resulting in improved water quality, protection of beneficial uses, and support of public health and wellness in Machado Lake.
- **Flood Management**. This project will decrease flood risk by reducing runoff rate and volume.
- **Water Conservation/Supply**. The stormwater diverted to sanitary sewer system and ultimately to the JWPCP will provide a source of urban stormwater flow for recycled water and potential regional groundwater infiltration.

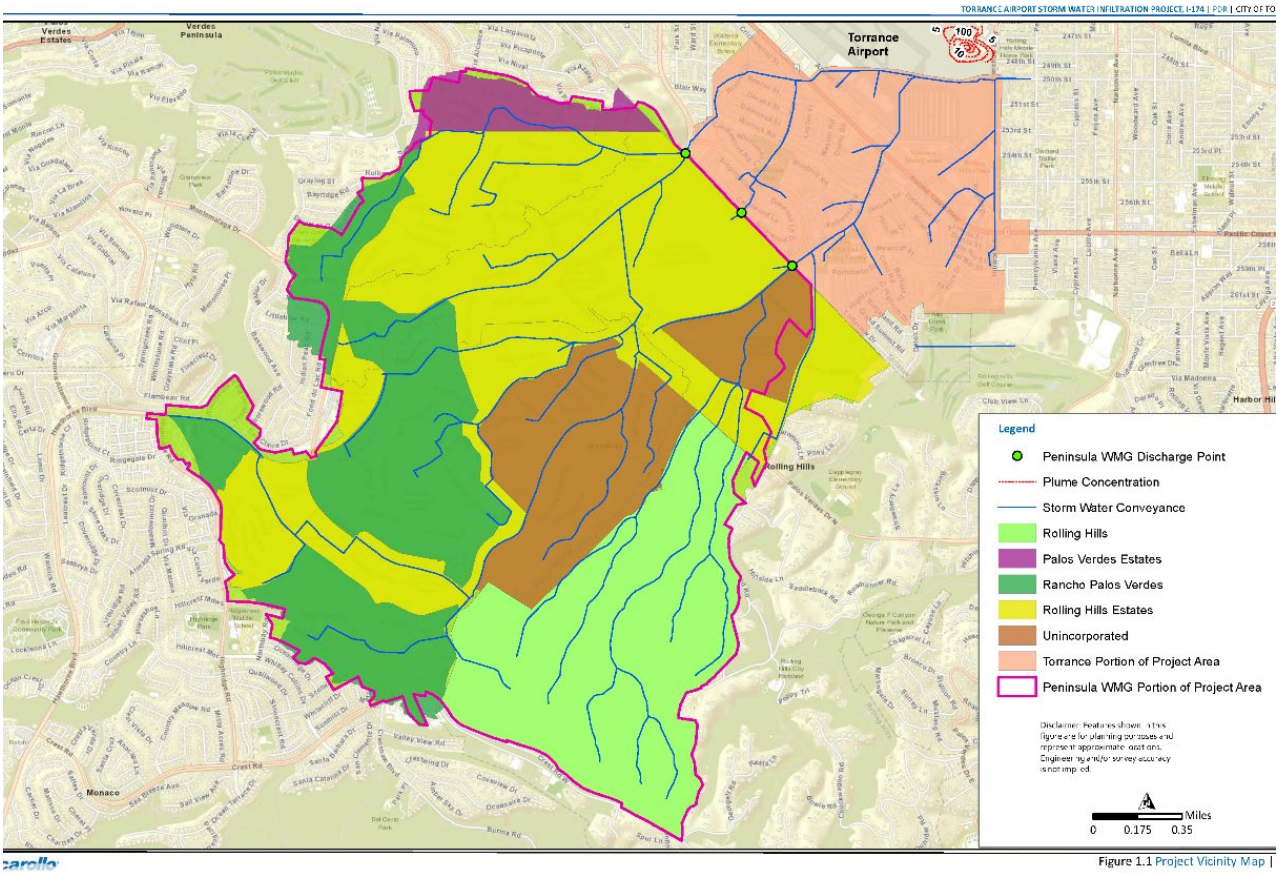


Figure 3-7: Torrance Airport Drainage Area

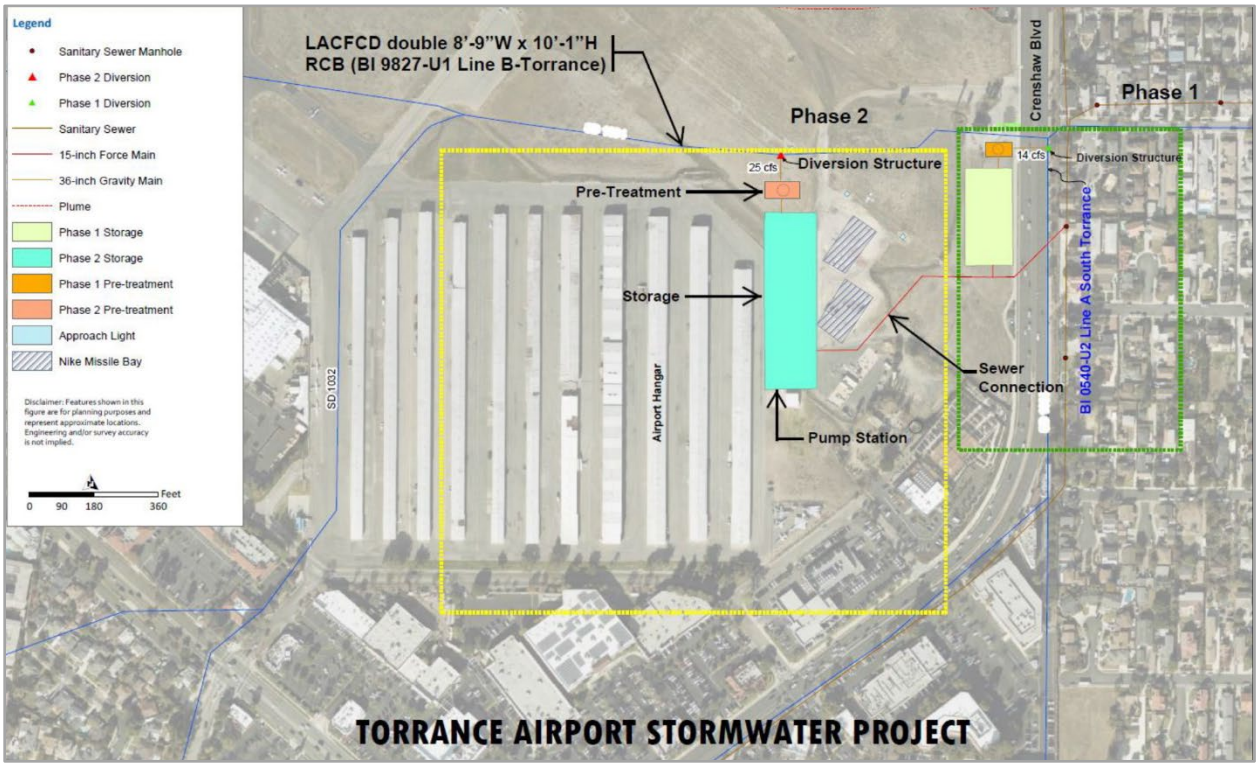


Figure 3-8: Conceptual Layout of Torrance Airport Basin

3.5.1.1.3 PROPOSED REGIONAL BMPS

The Peninsula WMG has proposed regional BMPs, in addition to those already existing and planned, in order to achieve the TLRs. Appendix 4.1 provides greater detail on the current land use designation, location, and potential design capture volume of each site. The proposed BMP sites were scored and ultimately ranked by the sum score from these characteristics:

- Drainage area
- Site area
- Completion status
- Land use
- Estimated infiltration rate
- Estimated depth to groundwater
- Geotechnical hazards
- Sensitive environmental area
- Liquefaction potential.

The sites with the largest drainage area were scored the highest. The land use with the highest accessibility is listed first. Within each land use designation, the sites have been scored from largest to smallest. Ultimately, these locations can serve as a starting point for the continued implementation of the EWMP. Note that with Regional BMPs there are opportunities for multiple agencies to benefit from the same site. The land uses are ranked as follows:

OPEN SPACE AND RECREATION: Sites designated for open space, parks, and recreational activities were ranked with the highest potential for future regional BMPs. This ranking is based on the fact that these types of areas have a high likelihood of being publicly owned eliminating or reducing any high land acquisition costs, they generally have a high percentage of landscaped area available, and they have a greater opportunity for multiple benefits.

MUNICIPAL INSTITUTION: Sites owned by a municipality and designated for government use were ranked with the second highest potential for future Regional BMPs. This ranking is based on the institution being municipally-owned and presenting a higher likelihood of collaboration than a privately-owned facility. Although this may be the case, many Municipal Institutions may not be willing to take on maintenance responsibilities which could result in the necessity of land acquisition or maintenance agreements.

GOLF COURSES/COUNTRY CLUBS: Sites designated as golf courses or country clubs were ranked with the third highest potential for future Regional BMPs. This ranking is based on the fact that these types of areas generally have a high percentage of landscaped area available and have a greater opportunity for multiple benefits. Although this may be the case, land acquisition for these sites is expected to be a difficult and costly process.

EDUCATIONAL USE: Sites designated for educational use were ranked with the fourth highest potential for future Regional BMPs. These sites generally have a high percentage of landscaped area available and have a greater opportunity for multiple benefits; however, gaining cooperation is expected to be difficult.

COMMERCIAL USE: Sites designated as commercial areas were ranked with the fifth highest potential for future regional BMPs. This ranking is based on the fact that these types of areas generally have a

high percentage of parking available which could potentially be retrofitted for infiltration opportunities. Although this may be the case, land acquisition for these sites is expected to be a difficult and costly process.

The available sites were then further assessed by the Peninsula WMG to determine locations for Regional BMPs. Note that the sites presented do not represent the only sites available for the Peninsula WMG. The site selection process took into account the following characteristics:

LOCATION IN RELATION TO RAA RESULTS: The RAA provides an estimation of runoff reduction to be provided in each area in order to meet the water quality objectives. The sites should be selected to take this into consideration.

GIS DATA: GIS data was further analyzed to screen projects based on criteria such as land use, topography, hydrologic features, streets and roads, existing storm drain infrastructure, and storm drain invert depth.

PROJECT BENEFITS: Projects with potential multiple benefits were prioritized due to the increase in the overall benefit and support for these projects. Benefits to take into consideration included, but were not limited to, the following:

- Water quality benefits
- Water supply benefits
- Recreational use
- Multi-agency benefits
- Publicly owned
- Storage availability
- Funding available
- Project readiness
- Flood control benefits
- Proximity to pollutant sources or impaired waters
- Adjacent to existing storm drain

PROJECT CONSTRAINTS: Potential project constraints were a key component in site selection and elimination. It is important to take into consideration any constraints that may result in project infeasibility prior to the design phase. Constraints that were taken into consideration include:

- High groundwater
- Potential for deleterious geotechnical impacts (land movement)
- Low infiltration rates
- Existing soil contamination/proximity to existing soil contamination
- Brownfields[82]
- Existing groundwater contamination/proximity to existing groundwater contamination
- Potential for soil instability (liquefaction zones, hillside areas)
- Existing private ownership (requires land acquisition)
- Cost Effectiveness (determined through RAA)

[82] With certain legal exclusions and additions, the term "brownfield site" means real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant (*Environmental Protection Agency*).

- Historical landmarks

The participating agencies of the Peninsula Watershed Management Group has encountered geotechnical and geological constraints in the process of developing projects. Due to the unique geological nature of the Palos Verdes Peninsula, infiltration is often infeasible. Frequent geologic movement is prevalent throughout the Palos Verdes Peninsula and extensive research has documented areas where geotechnical hazards exist and are a concern. See **Figure 3-9**. These geologic conditions coupled with additional areas where rising groundwater is a known concern have limited the feasibility of infiltration projects in many areas within the Palos Verdes Peninsula.

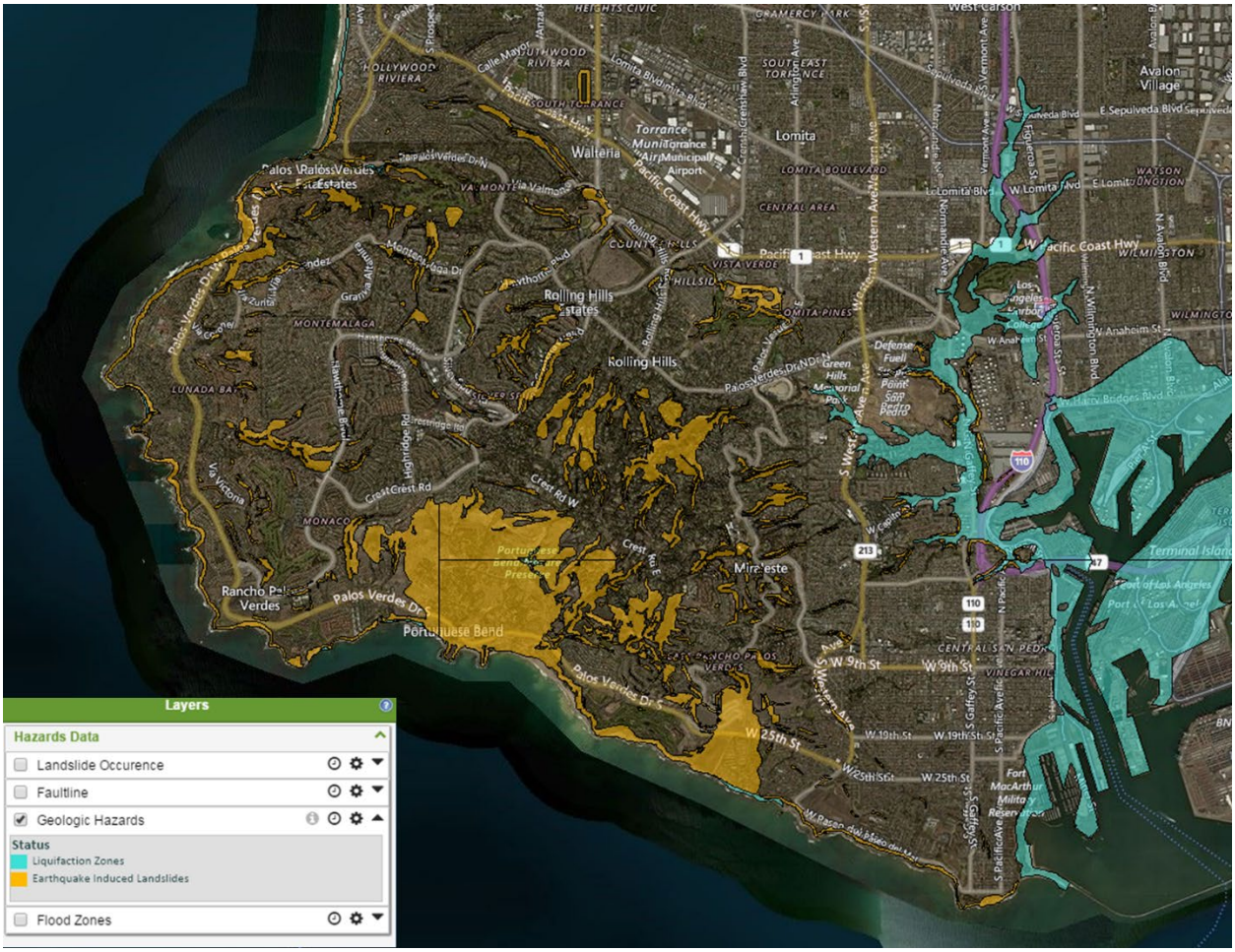


Figure 3-9: Geologic Hazards in the Palos Verdes Peninsula Watershed

These locations served as a starting point for the RAA, which was the final step to determine where BMPs were needed and the pollutant removal that could be observed through implementation of a BMP.

BMPs were identified in a prioritized manner. Prioritization was based on cost (low cost BMPs were prioritized); BMP effectiveness for the pollutants of concern (BMPs that had greater treatment efficiency for the pollutant of concern in a particular analysis region were prioritized over other BMPs); and implementation feasibility as determined by desktop screening. In general, structural BMPs were identified that would result in the greatest load reduction per dollar. This was accomplished by targeting land uses with the greatest drainage area with imperviousness, and BMPs with the greatest performance, particularly for the controlling pollutant. The Proposed BMPs resulting from the selection process are described below.

MACHADO LAKE WATERSHED BMPS

The Machado Lake Watershed has limited areas capable of implementing infiltration projects due to limited areas with storm drains, available right-of-way, geotechnical hazards, specifically land subsidence, and lack of available space. Despite these limitations, construction of a large infiltration system was completed at the former Chandler Quarry (Chandler Ranch/Rolling Hills Country Club Project) in 2018. Alternatives to regional infiltration-type projects have also been proposed: the Palos Verdes Peninsula Multi-Benefit Flow Diversion Project, Rolling Hills Road Street Improvement, and Palos Verdes Drive East Street Improvement. The Peninsula WMG will continue efforts to identify projects within and outside of the geotechnically challenged Machado Lake Watershed.

PALOS VERDES PENINSULA MULTI-BENEFIT FLOW DIVERSION PROJECT (ADJACENT TO PALOS VERDES LANDFILL)

The EWMP initially conceived the closed Palos Verdes Landfill (PVLF) as a potential location for diversion of a major storm drain into a flow-through regional stormwater treatment facility. Due to impaired groundwater and subsurface contamination at this inactive landfill, which is under the oversight of DTSC, infiltration BMPs could not be considered, instead costly large-scale flow-through treatment BMPs were evaluated. The scale of the original proposed project, which was sized to manage large storm flows, was subsequently determined to be infeasible due to constraints associated with the proposed project site on the PVLF Main Site. A smaller scale project is currently proposed adjacent the PVLF Main Site to divert baseline flows for beneficial use for irrigation. The proposed project would address significant year-round baseline flow from rising groundwater in a major storm drain system tributary to Machado Lake. Collectively, these storm drains collect runoff from approximately 1,500 acres within the WD-1 Analysis Region, i.e., the Machado Lake Wilmington Drain subwatershed. See **Figure 3-10**.

The Palos Verdes Peninsula Multi-Benefit Flow Diversion project would have multiple benefits in addition to the stormwater quality benefits that will be accrued. These additional benefits may include, but are not limited to, the following:

- **Beneficial Use Protection**. This project will result in higher water quality which will help to protect recreational beneficial uses and support public health (and wellness) in Machado Lake. Furthermore, beneficially using the baseline flows emerging from the Palos Verdes Hills within the Palos Verdes Peninsula for enhancing parks and open space is a sustainable use for capture flows that reduces the demand of imported water.

- **Neighborhood Greening and Public Recreation**. This project contemplates enhancing green space on the PVLF Main Site which would positively impact the aesthetics, as well as property values, of adjacent areas (CNT, 2010). The primary uses proposed for the captured flows will be to replace potable water used for irrigation of nearby parks and/or to enhance existing open space at the PVLF Main Site by establishing native and drought tolerant landscaping along with a new irrigation system. The use of native and climate-appropriate plants in landscaping of the PVLF Main Site would maximizes the use of nature-based solutions by limiting use of turf grass only for playing fields. Green infrastructure and green space can also alleviate urban heat-island effects by reducing temperatures by about 5^{o}F through shade and evaporation (CNT, 2010). This project would also increase recreational opportunities on the PVLF Main Site.

- **Water Conservation/Supply**. The primary water supply benefits to accrue from the captured flows are to offset current potable water use for irrigation, thus offsetting reliance on imported water supply.
- **Public Education/Awareness**. This project will beneficially use captured runoff to enhance recreational benefits, creating an awareness of stormwater and its value as a resource. This project will provide public education opportunities in the form of on-site educational materials, such as placards and interpretive signage.

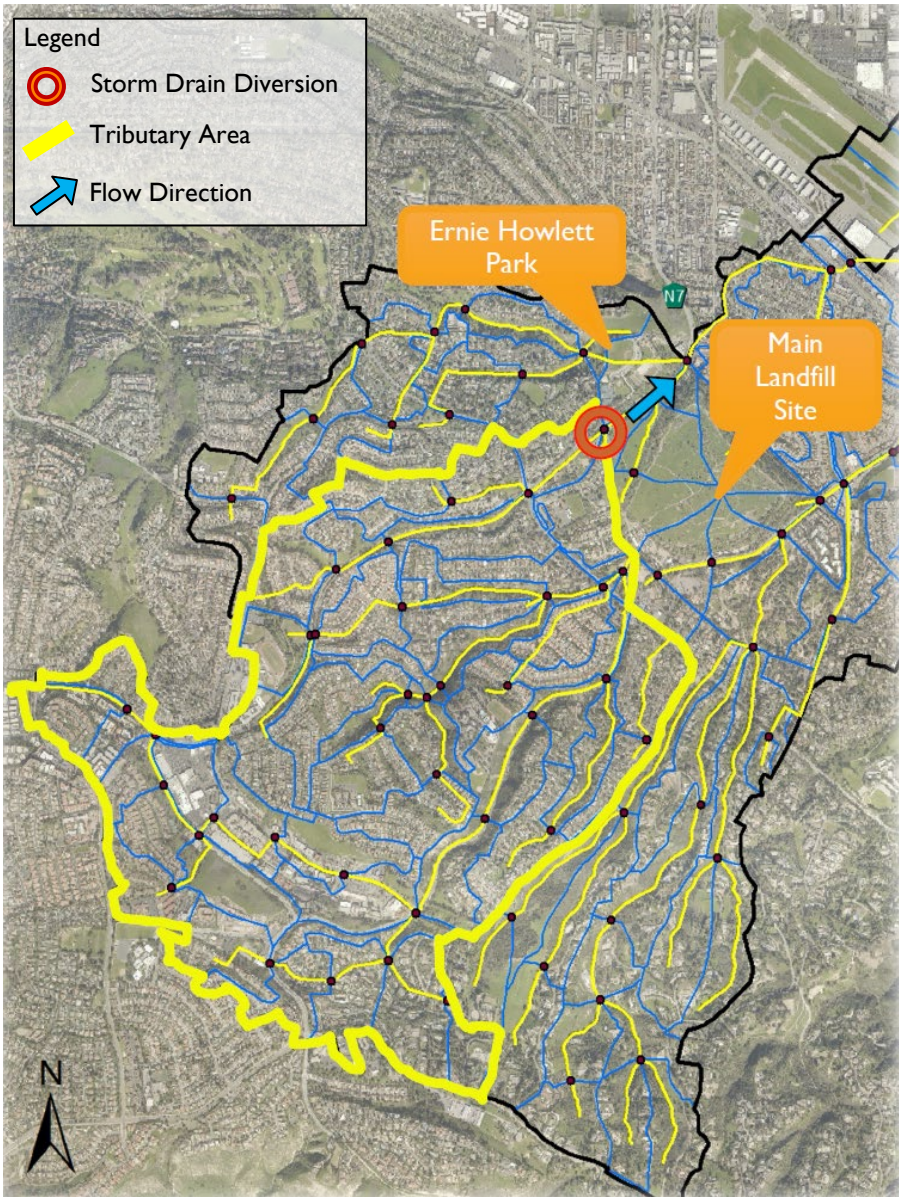


Figure 3-10: Proposed Palos Verdes Landfill Regional BMP Drainage Area

ROLLING HILLS ROAD GREEN STREET

Redevelopment of Rolling Hills Road from Palos Verdes Drive North to the northern boundary of Rolling Hills Estates with Torrance has been proposed to the conceptual design level. The project concept has received significant community engagement through the City of Rolling Hills Estates' Traffic and Safety Committee. The preferred project conceptual design received City Council approval on December 8, 2020. This section of roadway will be significantly improved to include bike lanes and pedestrian/equestrian multi-use pathways on both sides of Rolling Hills Road and will incorporate green infrastructure features consistent with the City of Rolling Hills Estates' Green Street Policy. Due to grade/elevation change along the length of the roadway and current unimproved soft shoulders, during storm conditions the current drainage conditions along the roadway result in erosion and transport of sediment into downstream MS4s. Roadway realignment is likely to be associated with this project and will include the installation of rolled curbs and gutters and related drainage improvements. Project construction will be scheduled after the neighboring City of Rolling Hills completes installation of a new sanitary sewer line along this same stretch of roadway. Benefits of the project include but are not limited to improved pedestrian, equestrian and bicycle safety; connectivity to local bicycle routes in the adjacent City of Torrance; stormwater quality improvements through reduced sediment and associated pollutant transport; and enhanced multi-modal transportation and recreational opportunities.

LOS ANGELES HARBOR WATERSHED BMPS

EASTVIEW PARK INFILTRATION PROJECT

Eastview Park is a large park space near the southeast corner of the intersection of Western Avenue and Westmont Drive in Rancho Palos Verdes (see **Figure 3-11**). A large storm drain main runs adjacent to the park, draining approximately 350 acres. There are two sanitary sewer outfall tunnels running through Eastview Park at depths ranging from 145-208 ft. If feasible, treatment at this location could consist of a subsurface infiltration BMP capable of capturing the 1-inch design storm[83] is proposed. Assuming a depth of 6 feet, the project footprint would be approximately 3.5 acres. Multiple benefits include pollutant load reduction and groundwater recharge. Significantly more work is needed to investigate the feasibility, cost-effectiveness, and design details of such a BMP. In the case that infiltration is not a feasible option or unforeseen constraints affect the project, alternative BMPs could be proposed in the Los Angeles Harbor Watershed.

The Eastview Park Infiltration project would have multiple benefits in addition to the stormwater quality benefits that will be observed. These additional benefits may include, but are not limited to, the following:

- **Beneficial Use Protection**. This project will result in higher water quality which will help to protect recreational beneficial uses and support public health (and wellness) at the Greater LA Harbor.
- **Neighborhood Greening and Public Recreation**. This project will increase the green space within this development which can positively impact the aesthetics, as well as property values, of urbanized areas. Property value tends to increase when an urban neighborhood has green space or trees in sight (CNT, 2010). Green infrastructure and green space can also alleviate urban heat-island effects by reducing temperatures by about 5°F through shade and evaporation (CNT, 2010). Recreation

[83] The 1.00 -inch storm was selected for load reduction purposes and is larger than the 85th percentile storm (approximately 0.85-inch).

opportunities also can be increased by increased green space which may decrease the amount of cars on the road, subsequently decreasing the associated pollutants.

- **Water Conservation/Supply**. The stormwater retained onsite will recharge the groundwater which could potentially be used for potable or non-potable purposes in the future, thus offsetting reliance on imported water supply.
- **Public Education/Awareness**. This project will incorporate stormwater infrastructure within an area which is highly used by the public creating an awareness of stormwater quality and its importance. The onsite BMP may serve as public education opportunities in the form of on-site educational materials, such as placards and interpretive signage.

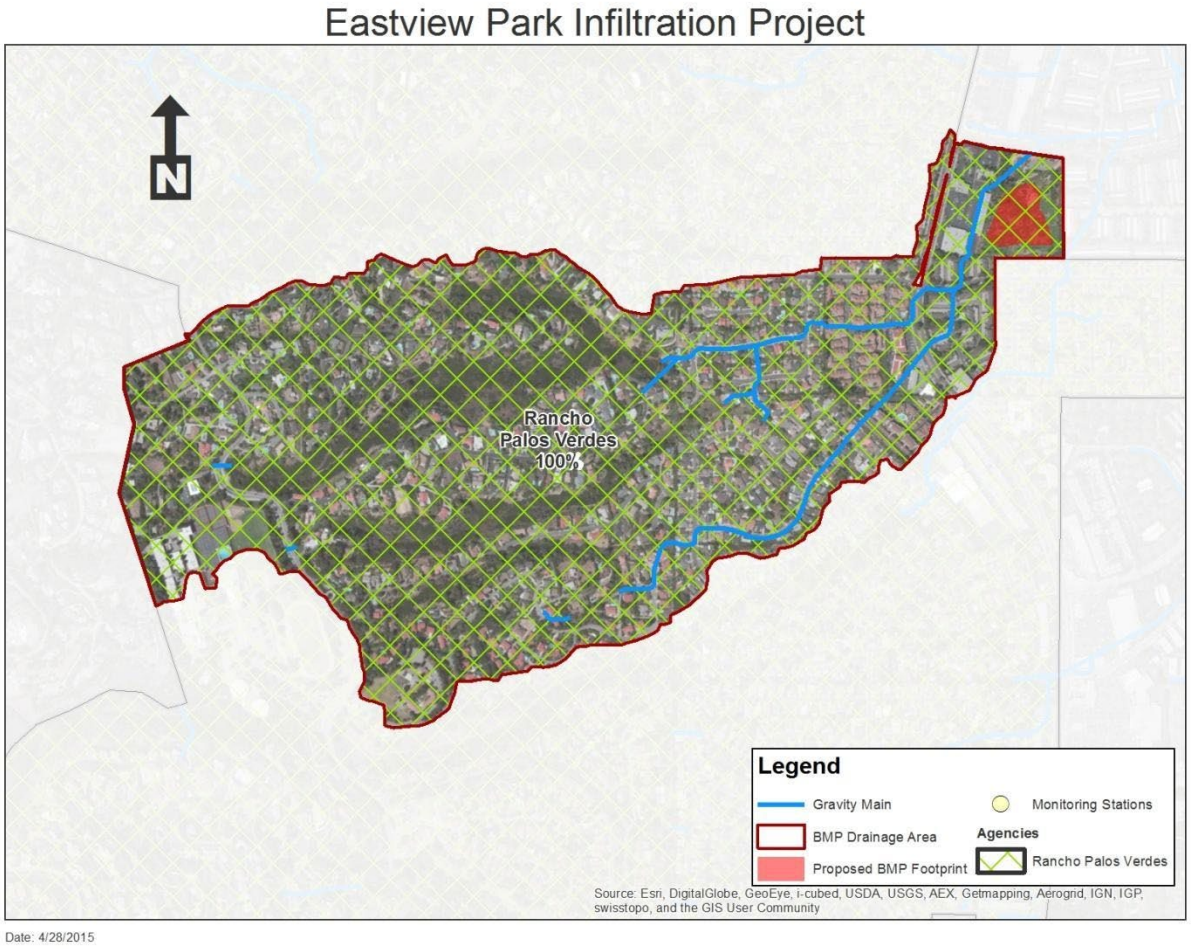


Figure 3-11: Proposed Eastview Park Infiltration Project Drainage Area

5.1.1.4 POTENTIAL REGIONAL BMPS

In addition to the existing, planned, and proposed BMPs, several opportunities will be considered for implementation. In many cases, significantly more work is needed to investigate the feasibility, cost-effectiveness, and design details of these BMPs; however, they will be considered during the implementation phase of the EWMP. As further information is gathered, the Participating Agencies may be inclined to select the below opportunities as alternative or supplemental to the proposed BMPs listed above. The revised RAA model projected that to meet the TLRs, there Peninsula Watershed Management Group needs to develop additional projects to manage stormwater besides projects that are existing, planned, or proposed. This includes projects that would manage additional stormwater for Rancho Palos Verdes and Rolling Hills Estates in the ML-1 WMA, for Rancho Palos Verdes and Rolling Hills Estates in the LAH-IH WMA, and for Rancho Palos Verdes in the LAH-CM WMA. See Section 4 and Section 5.

The EWMP is subject to adaptive management during the implementation phase (see Section 9 of this EWMP) and it is important for the Participating Agencies to have flexibility during the implementation phase if proposed Regional BMPs are found to be infeasible or less desirable than alternatives.

POTENTIAL MACHADO LAKE WATERSHED BMPS

HARBOR CITY PARK

A stormwater capture project at Harbor City Park would provide water quality improvements to Machado Lake. An earlier project concept, included in the EWMP developed by the Dominguez Channel Watershed Management Group, assumed an infiltration project with 2,230 acres diverted to the project from Cities of Los Angeles, Lomita, and unincorporated Los Angeles County. On behalf of the Peninsula WMG, the County of Los Angeles initiated discussion with City of Los Angeles and Los Angeles County Sanitation Districts to evaluate feasibility of expanding the project to include tributary area from the Palos Verdes Peninsula, diverting stormwater and dry weather runoff from a total capture area of 4,783 acres to be infiltrated or diverted to the Joint Water Pollution Control Plant in Carson for treatment.

WALTERIA DETENTION BASIN

The Walteria Detention Basin was constructed for flood protection in 1962 by the LACFCD. The basin has a perimeter of approximately one mile and extends to an approximate depth of 100 feet and has a total capacity of approximately 1,005 acre-feet. The primary function of the Walteria Detention Basin is to provide flood protection and as such it is operated to detain flows that enter the basin during storm events. During storm conditions the basin receives runoff from a tributary area of approximately 2,287 acres with 7.6% of that area (174 acres) contributed by the Peninsula WMG, with the balance of the area contributed by the City of Torrance. The facility is operated as a detention basin and when a major storm is forecast or following a significant storm event, the level in the basin is pumped down to maintain sufficient flood protection capacity for adjacent communities and to sustain capacity of downstream flood conveyance infrastructure. When such discharge is necessary, the discharge is pumped into a 54-inch diameter storm drain, i.e., through the Project No. 584 storm drain, and comingles with flows from other MS4 agencies before eventually discharging to Wilmington Drain and on to Machado Lake. The Peninsula WMG also understands that it is also necessary to periodically pump the level in the basin down for maintenance purposes.

The Walteria Detention Basin was identified as a potential location for a regional BMP in the Peninsula EWMP, pending the results of a Special Study Monitoring Program. The City of Torrance and the LACFCD collaborated and completed the two-year Special Study Monitoring program to characterize water quality of the stormwater flowing into and out of the basin. Results of the monitoring effort can be found in the 2017-18 Watershed Annual Report.

Although it is not feasible to use Walteria Basin as an in-situ water quality treatment system (such as through application of aluminum sulfate or other flocculants) since such approaches could diminish the flood protection capacity of the basin, the Peninsula WMG is interested in further analysis to assess how the basin could be utilized as part of a regional system of stormwater capture projects in conjunction with the Torrance Airport Regional Project, the Harbor City Park Regional Project, and the Palos Verdes Multi-Benefit Flow Diversion Project to meet Machado Lake TMDL WLAs on a mass basis for the tributary area to the basin.

Fern Creek & Valmonte Canyon Crossing Restoration Project (Fern Creek Multi-Benefit Wetland Restoration Project)

Fern Creek Canyon and Valmonte Canyons are natural drainage courses that converge at the western corner of Ernie Howlett Park in Rolling Hills Estates where stormwater flows from the two canyons are directed into an improved culvert and cross under Ernie Howlett Park via a subsurface storm drain that connects into the MS4 leading to Wilmington Drain and Machado Lake. As observed through years of dry weather monitoring, Valmonte Canyon does not exhibit flow during dry weather, however Fern Creek Canyon receives groundwater discharges and exhibits low or intermittent flows throughout the year along its lower reach. The mouth of Fern Creek Canyon as it enters the culvert has been adversely impacted by periodic storm debris flows from upper reaches of the canyon which accumulate at the mouth below the culvert entrance. Restoring the creek bed at the mouth of the canyon and management of debris flows could reduce nutrient loading to Machado Lake associated with these year-round low flows. The land at this location is currently privately held and is used for horse keeping, but is not suitable for residential development, thereby making land acquisition for public open space and recreation potentially feasible in the future by the City of Rolling Hills Estates. This project would have multiple benefits in addition to year-round water quality benefits for Machado Lake including, but not limited to, improvement of riparian habitat, permanent trail access and connectivity of the multi-use trail system at the crossing of Fern Creek and Valmonte Canyon Trails (currently trail access is conditional by permission of the property owner), restoration and protection of stream habitat, and enhanced passive and active recreational opportunities.

Academy Canyon and Trail Restoration Project

This project would restore and preserve a one-mile section of natural canyon drainage course and hiking trail that has been adversely impacted by hydromodification. Erosion of the canyon invert has eroded portions of the trail and exposed sections of a 2,000 linear foot section of subterranean sewer line. Restoration work would involve canyon, trail and sewer line stabilization, trail enhancement, stormwater management to protect from future hydromodification and improvement of stormwater quality through erosion remediation and control, enhancement of wildlife habitat, and enhancement of recreational and educational opportunities. The trail crest is located adjacent to an independent K-12 day school—the school has listed the canyon as a certified wildlife habitat with the National Wildlife Federation and includes the canyon in its environmental education programs. At its terminus near Palos Verdes Drive North, Academy Canyon drainage is directed into a box culvert and flows via the subsurface MS4 to Wilmington Drain and Machado Lake. Reversing the impacts of hydromodification will enhance the nature-based retentive function of this natural canyon thereby reducing storm flow and associated pollutant loading to Machado Lake.

Palos Verdes Drive East Green Street

The City of Rolling Hills Estates is considering redevelopment of Palos Verdes Drive East roadway from Palos Verdes Drive North to the northern boundary of Rolling Hills Estates with the City of Lomita. Due to grade/elevation change along the length of the roadway, roadway curvature and unimproved soft

shoulders, during storm conditions the current drainage conditions along the roadway result in erosion and transport of sediment into downstream MS4s and cause stormwater to flow across the roadway at several locations. Conceptual planning for the project has not yet begun but would incorporate the City's Green Street Policy and include/consider the following improvements and benefits: pedestrian, equestrian and vehicular safety; drainage improvements; stormwater quality improvements through reduced sediment and associated pollutant transport; and enhanced multi-modal transportation and recreational opportunities.

REOPENER FOR THE MACHADO LAKE NUTRIENT AND PESTICIDES AND PCBS TMDL

A reconsideration of the Machado Lake Nutrient TMDL was scheduled for September 11. 2016, and the Peninsula WMG submitted a request for reconsideration on September 7, 2016. At the time Regional Board TMDL staff indicated that a sufficient body of in-lake monitoring data collected by the City of Los Angeles following completion of the lake rehabilitation project would be needed prior to a reconsideration. The Peninsula WMG subsequently requested the Machado Lake Nutrient and Pesticides & PCBs TMDL implementation schedules be extended as part of the Regional Board's Consideration of Extension of Final TMDL Implementation deadlines for Certain TMDLs in the Los Angeles Region in November 2020; however, the Machado Lake TMDLs were ultimately not considered for extension in that action. A TMDL reopener to allow reevaluation of the TMDL schedules for final compliance is an avenue which the Peninsula WMG continues to support.

POTENTIAL SANTA MONICA BAY WATERSHED BMPS

MALAGA COVE WATER REUSE[84]

The City of Palos Verdes Estates has implemented dewatering measures to prevent nuisance rising groundwater from damaging homes and businesses in Malaga Cove. The nuisance groundwater removed from these dewatering sites is currently discharged into the local storm drain system and/or to the nearby Pacific Ocean. This potential project could divert this water to a nearby school site or a nearby parkway in Palos Verdes Estates for irrigation use. This project would serve as a dry weather/low flow diversion rather than as stormwater capture or treatment project.

In 2019, the City of Palos Verdes Estates completed a source tracking study of dry weather storm drain flows in this area for presence of HF183 human markers and found no persistent human sources in the City's MS4 system upstream of Malaga Cove Beach. Although this potential project has not been included in the load reductions modeled in the RAA, if needed in the future, it has the potential to contribute to additional pollutant removal by reducing or eliminating non-stormwater discharges and low flow wet weather flows from the drainage area.

More work would be required to investigate the feasibility, cost-effectiveness, and design details of such a BMP. The Malaga Cove Water Reuse project could have additional benefits besides water quality benefits including offsetting current use of potable water in landscaping of nearby areas.

PORTUGUESE BEND LANDSLIDE COMPLEX MITIGATION PROJECT[85] (ABALONE COVE WATER REUSE)

The City of Ranchos Palos Verdes has implemented dewatering measures to prevent nuisance groundwater and runoff from damaging homes and businesses. In the City of Rancho Palos Verdes, continuous-withdrawal dewatering wells have been installed to slow the progression of the Abalone Cove Landslide and the Portuguese Bend Landslide. The nuisance groundwater removed from these dewatering sites is currently discharged into the local storm drain system and/or to the nearby Pacific Ocean. The

[84] RMC. "Abalone Cove Project and Malaga Cove Plaza Project Conceptual Evaluation." August 06, 2009.

[85] Information gathered from a feasibility study which is currently being conducted for this project.

City of Rancho Palos Verdes conducted and completed a feasibility study of the Portuguese Bend Landslide Complex (PBLC) to investigate additional mitigation measures to reduce landslide movement and protect Santa Monica Bay coastal water quality. Although this potential project has not been included in the load reductions modeled in the RAA, it has the potential to contribute to additional pollutant removal by reducing or eliminating non-stormwater discharges and low flow wet weather flows from the drainage area. Additionally, the PBLC Mitigation project will serve to protect the restored rocky reef from excessive sediment deposition from stormwater discharges through drainage improvements, flow detention basins, bioswales, and coastal sage scrub habitat restoration.

More work is needed to investigate the cost-effectiveness and design details of such a BMP.

3.5.1.1.5 STAKEHOLDER INCORPORATION

STAKEHOLDER MEETINGS

The Peninsula WMG initially solicited stakeholder input on the Peninsula EWMP development. These stakeholders included: City Staff, City Council Members and Water Quality and Flood Protection Oversight Committee, Governmental Organizations Staff, Non-Governmental Environmental Organizations Staff, Non-Governmental Organizations Staff, and residents. Several public workshops were held and ultimately stakeholder feedback was incorporated. The Participating Agencies have and will continue to conduct project-specific stakeholder and community engagement through public workshops, meetings, and project presentations at the Safe, Clean Water Program South Santa Monica Bay Watershed Area Steering Committee meetings.

4. REASONABLE ASSURANCE ANALYSIS

4.1. RAA SUMMARY

The MS4 Permit requires that a Reasonable Assurance Analysis (RAA) be conducted for the waterbody-pollutant combinations addressed by this EWMP. The RAA involves the identification and evaluation of potential BMP implementation scenarios with respect to the MS4 Permit-specified effluent and receiving water limits (RWLs) for the priority pollutants of concern for the Peninsula WMG. The RAA demonstrates achievement of these effluent and receiving water limits for each waterbody-pollutant combination addressed in this EWMP. As part of the Adaptive Management process as prescribed by the MS4 Permit, the RAA must be updated by June 30, 2021, and submitted for review and approval by the Regional Water Board Executive Officer.

Further refining the original RAA (2015), the revised RAA continues to conform to Permit requirements and the (2014) guidelines developed by the Regional Board. Per MS4 Permit provisions, the revised RAA incorporates recent monitoring data, project planning and implementation, and modeling advances. Additionally, the revised RAA addresses issues and comments raised by the State Water Resources Control Board (SWRCB, 2020), such as inclusion of relevant data for model calibration, non-structural Best Management Practices (BMP) credit, and application of the limiting pollutant approach.

The updated wet weather RAA was conducted using the Watershed Management Modeling System 2.0 (WMMS 2.0), the latest modeling tool developed by Los Angeles County Flood Control (LACFCD), to determine a cost-effective implementation strategy to meet applicable water quality standards (i.e. TMDL waste load allocations [WLA] and Basin Plan Objectives) and targets. For dry weather, a revised semi-quantitative approach was implemented to update the dry weather portion of the revised RAA.

The RAA process:

1. Applied an acceptable model tailored to the Peninsula WMG based on available outfall and receiving water data collected through June 2020.
2. Calculated target load reductions (TLRs) necessary to achieve applicable water quality targets.
3. Demonstrated that the existing and proposed suite of projects will attain the TLRs. Where this was not demonstrated, volumetric management needs have been documented to show what needs to be achieved in order to demonstrate compliance.

The final MS4 WLAs for total nitrogen and total phosphorus are expressed in the following two ways in the Machado Lake Nutrients TMDL:

- Monthly average WQBEL concentration.
- Annual average pollutant load calculated as the WQBEL concentration multiplied by the annual average inflow to the Machado Lake (8.45 HM3/year) apportioned to each WMA tributary to Machado Lake (directly or via Wilmington Drain). This method was initially established in the Los Angeles County Machado Lake Nutrient TMDL Special Study (LACDPW, 2011) following conditional approval of the work plan by LARWQCB (LARWQCB, 2010).

Of the two acceptable pathways to meet targets, the annual average pollutant load method was selected to determine the allowable load in subsequent TLR calculations.

The revised and updated Peninsula RAA therefore meets the objectives and requirements of the LA MS4 Permit and RAA Guidance Document, demonstrating that a reasonable assurance of compliance will be achieved in each analysis region if the TLRs are fully and appropriately managed.

Refer to the Reasonable Assurance Analyses provided in Appendix 4.1 for the rationale of the *Model Selection and Overview* and the *RAA Approach*. Refer to Appendix 4.2 for requirements for achieving RWLs for each pollutant category.

4.2. REASONABLE ASSURANCE ANALYSIS

The Reasonable Assurance Analysis for the Peninsula WMG is included in Appendix 4.1.

Table 4-1 summarizes the interim target load reductions (TLRs) established by the RAA, which yielded interim TLRs of zero for all analysis regions in the Machado Lake and Wilmington Drain WMAs. For the Santa Monica Bay and Los Angeles Harbor WMAs, no RAA is required to demonstrate compliance with the interim MS4 WLAs because receiving water monitoring demonstrates the pollutants are below the interim RWLs.

See **Table 4-2** for the final TLR summary. For the Santa Monica Bay WMA, no RAA is required to demonstrate compliance with the final MS4 WLA because receiving water monitoring shows the pollutants are meeting the RWLs.

For the non-zero TLRs in Machado Lake and Wilmington Drain WMAs, all the TLR-equivalent 24-hour management volumes are less than the 85th percentile 24-hour design storm runoff volume. Hence, the recommended approach is to meet the final TLRs rather than trying to meet the full 85th percentile 24-hour design storm runoff capture alternative. A 24-hour management volume needed to meet TLRs for each pollutant was determined for each analysis region, and the largest 24-hour management volume was selected as the target compliance metric, since management of the largest volume will result in management of all others.

For analysis regions in the Los Angeles Harbor WMA, the 85th percentile 24-hour design storm runoff volume of each analysis region is less than the maximum TLR-equivalent 24-hour runoff management volumes in that analysis region. Therefore, the recommended approach is to meet the full 85th percentile 24-hour runoff capture alternative.

Table 4-3 summarizes the results of the Peninsula EWMP RAA for all analysis regions and shows that the TLRs will be met through a combination of LID, Regional and Distributed BMPs. More details on the completed, planned, proposed and potential BMPs to be implemented to meet these TLRs is provided in Section 3.

Table 4-1: Interim Wet Weather Target Load Reduction Summary

WMA	Analysis Region	Pollutant	Critical Condition	Baseline Load		Allowable Interim Load		Interim Target Load Reduction			TLR Equivalent 24-Hour Management Volume (ac-ft)
								Absolute		% of Baseline Load	
Machado Lake	ML-1	Total Nitrogen	Average Runoff Year	Final TLR = 0%, hence RAA achieved							
		Total Phosphorus	Average Runoff Year	38.4	lb/yr	475	lb/yr	0	lb/yr	0%	0.0
Machado Lake - Wilmington Drain	WD-1	Total Nitrogen	Average Runoff Year	Final TLR = 0%, hence RAA achieved							
		Total Phosphorus	Average Runoff Year	346	lb/yr	3,731	lb/yr	0	lb/yr	0%	0.0
	WD - Solano	Total Nitrogen	Average Runoff Year	Final TLR = 0%, hence RAA achieved							
		Total Phosphorus	Average Runoff Year	Final TLR = 0%, hence RAA achieved							
Los Angeles Harbor	LAH - IH	Total Copper Total Lead Total Zinc DDx (Total) Total PCBs Total PAHs	Receiving water monitoring shows all interim RWLs have been met. Hence no RAA needed.								
	LAH-CM	Total Copper Total Lead Total Zinc DDx (Total) Total PCBs Total PAHs	Receiving water monitoring shows all interim RWLs have been met. Hence no RAA needed.								
Santa Monica Bay	SMB	DDx (Total) Total PCBs	Receiving water monitoring shows all RWLs have been met. Hence no RAA needed.								
	SMBBB	Total Coliform Fecal Coliform Enterococci	Receiving water monitoring shows all RWLs have been met. Hence no RAA needed.								

Table 4-2: Final Wet Weather Target Load Reduction Summary

Subwatershed	Analysis Region	Pollutant	Critical Condition	Baseline Load		Final Target Load Reduction			
						Absolute		% of Baseline Load	TLR Equivalent 24-Hour Management Volume (ac-ft)
Machado Lake	ML-1	Total PCBs	Average Water Year	7.5E-04	lb/yr	0	lb/yr	0%	0.0
		DDx (Total)	Average Water Year	1.0E-03	lb/yr	9.0E-04	lb/yr	88%	1.3
		DDT (All congeners)	Average Water Year	1.2E-05	lb/yr	0	lb/yr	0%	0.0
		DDE (All congeners)	Average Water Year	6.4E-04	lb/yr	5.7E-04	lb/yr	89%	**1.3**[1]
		DDD (All congeners)	Average Water Year	6.3E-04	lb/yr	5.2E-04	lb/yr	82%	1.1
		Total Chlordane	Average Water Year	2.1E-04	lb/yr	1.3E-04	lb/yr	64%	0.7
		Dieldrin	Average Water Year	1.2E-05	lb/yr	0	lb/yr	0%	0.0
		Total Nitrogen	Average Water Year	119	lb/yr	0	lb/yr	0%	0.0
		Total Phosphorus	Average Water Year	38.4	lb/yr	0.4	lb/yr	1%	0.1
		n/a	85th Percentile 24-Hour Storm	1.6	ac-ft	1.6	ac-ft	100%	1.6
Machado Lake - Wilmington Drain	WD-1	Total PCBs	Average Water Year	3.6E-03	lb/yr	0	lb/yr	0%	0.0
		DDx (Total)	Average Water Year	4.9E-03	lb/yr	4.3E-03	lb/yr	88%	7.4
		DDT (All congeners)	Average Water Year	6.0E-05	lb/yr	0.0E+00	lb/yr	0%	0.0
		DDE (All congeners)	Average Water Year	3.1E-03	lb/yr	2.7E-03	lb/yr	89%	**7.4**[1]
		DDD (All congeners)	Average Water Year	3.1E-03	lb/yr	2.5E-03	lb/yr	82%	6.2
		Total Chlordane	Average Water Year	9.9E-04	lb/yr	6.3E-04	lb/yr	64%	4.2
		Dieldrin	Average Water Year	5.6E-05	lb/yr	0	lb/yr	0%	0.0
		Total Nitrogen	Average Water Year	1510	lb/yr	0	lb/yr	0%	0.0
		Total Phosphorus	Average Water Year	346	lb/yr	47.2	lb/yr	14%	0.6
		Bacteria (*E. coli*)	90th Percentile Wet Year	8.3	10^{12} MPN/yr	4.2	10^{12} MPN/yr	51%	6.0
		n/a	85th Percentile 24-Hour Storm	8.01	ac-ft	8.01	ac-ft	100%	8.0
	WD-Solano	Total PCBs	Average Water Year	2.07E-04	lb/yr	0	lb/yr	0%	0.0
		DDx (Total)	Average Water Year	2.84E-04	lb/yr	2.5E-04	lb/yr	88%	**0.5**[1]
		DDT (All congeners)	Average Water Year	3.47E-06	lb/yr	0	lb/yr	0%	0.0
		DDE (all congeners)	Average Water Year	1.77E-04	lb/yr	1.6E-04	lb/yr	89%	0.5
		DDD (All congeners)	Average Water Year	1.76E-04	lb/yr	1.4E-04	lb/yr	82%	0.4

Subwatershed	Analysis Region	Pollutant	Critical Condition	Baseline Load		Final Target Load Reduction			
						Absolute		% of Baseline Load	TLR Equivalent 24-Hour Management Volume (ac-ft)
		Total Chlordane	Average Water Year	5.72E-05	lb/yr	3.6E-05	lb/yr	64%	0.3
		Dieldrin	Average Water Year	3.21E-06	lb/yr	0	lb/yr	0%	0.0
		Total Nitrogen	Average Water Year	42	lb/yr	0	lb/yr	0%	0.0
		Total Phosphorus	Average Water Year	9	lb/yr	0	lb/yr	0%	0.0
		Bacteria (*E. coli*)	90th Percentile Water Year	0.46	10^{12} MPN/yr	0.23	10^{12} MPN/yr	50%	0.5
		n/a	85^{th} Percentile 24-Hour Storm	0.57	ac-ft	0.57	ac-ft	100%	0.6
Los Angeles Harbor	LAH - IH	Total Copper	Average Water Year	8.1	lb/yr	4.5	lb/yr	55%	2.2
		Total Lead	Average Water Year	1.7	lb/yr	0	lb/yr	0%	0.0
		Total Zinc	Average Water Year	33.5	lb/yr	17.4	lb/yr	52%	2.0
		4,4'-DDT	Average Water Year	1.3E-05	lb/yr	0	lb/yr	0%	0.0
		DDx (Total)	Average Water Year	4.7E-03	lb/yr	4.6E-03	lb/yr	96%	10.4
		Total PCBs	Average Water Year	3.5E-03	lb/yr	1.0E-03	lb/yr	30%	0.9
		Total PAHs	Average Water Year	4.4E-01	lb/yr	9.8E-03	lb/yr	2%	0.1
		n/a	85^{th} Percentile 24-Hour Storm	5.4	ac-ft	5.4	ac-ft	100%	**5.4**[1]
	LAH-CM	Total Copper	Average Water Year	1.8	lb/yr	0.87	lb/yr	49%	0.5
		Total Lead	Average Water Year	0.4	lb/yr	0	lb/yr	0%	0.0
		Total Zinc	Average Water Year	8.2	lb/yr	4.1	lb/yr	50%	0.5
		4,4'-DDT	Average Water Year	3.3E-06	lb/yr	0	lb/yr	0%	0.0
		DDx (Total)	Average Water Year	1.2E-03	lb/yr	1.2E-03	lb/yr	96%	2.8
		Total PCBs	Average Water Year	8.8E-04	lb/yr	2.6E-04	lb/yr	30%	0.3
		Total PAHs	Average Water Year	1.1E-01	lb/yr	2.5E-03	lb/yr	2%	0.1
		n/a	85^{th} Percentile 24-Hour Storm	1.5	ac-ft	1.5	ac-ft	100%	**1.5**[1]

[1] Bold value is the representative 24-hour management runoff volume for each analysis region.

Table 4-3: Peninsula EWMP RAA Summary

Analysis Region	Management Volume	Final Target Load Reduction			BMP Load Reduction Summary												
					LID Redevelopment			Regional Projects[2]			Distributed Projects			Total Load Reduction			Assurance Achieved?
		Absolute		%	Absolute		%	Absolute		%	Absolute		%	Absolute		%	
ML-1	24-Hour[1]	1.3[3]	ac-ft	100	0.003	ac-ft	0.2	1.25	ac-ft	96	0.04	ac-ft	0.4	1.3	ac-ft	100	Yes
WD-1	24-Hour[1]	7.4[3]	ac-ft	100	0.02	ac-ft	0.2	7.4	ac-ft	100	0.1	ac-ft	0.8	7.5	ac-ft	100	Yes
WD-Solano	24-Hour[1]	0.6[3]	ac-ft	100	0.001	ac-ft	0.2	0.57	ac-ft	100	0	ac-ft	0	0.57	ac-ft	100	Yes
LAH-IH	85%, 24-Hour	5.4	ac-ft	100	0.03	ac-ft	0.6	5.4	ac-ft	100	0	ac-ft	0	5.4	ac-ft	100	Yes
LAH-CM	85%, 24-Hour	1.5[1]	ac-ft	100	<0.01	ac-ft	0.5	1.5	ac-ft	100	0	ac-ft	0	1.5	ac-ft	100	Yes

[1] The 24-hour management volume is the equivalent runoff management volume that will achieve all TLRs. It does not necessarily equate to BMP capacity. A project located at analysis region outlet may have more 24-hour management capacity than a project with same BMP capacity but is located further upstream in the analysis region. The 24-hour management volume of a project needs to be computed via a continuous modeling simulation using the calibrated Peninsula EWMP WMMS 2 model

[2] Regional projects include existing and proposed projects discussed in Section 3 of the EWMP and modeled in the RAA.

[3] Please see the Appendix 4.1 RAA Section 7.6 and table 11 on how the representative 24-hour management volume was selected for each analysis region.

5. IMPLEMENTATION SCHEDULE

This Chapter provides the implementation schedule for the Peninsula EWMP. The implementation schedule will be used to measure progress toward addressing the highest water quality priorities (WQPs) and achieving final water quality-based effluent limitations (WQBELs) and receiving water limitations (RWLs). As noted in Chapter 4 and Appendix 4.1 Reasonable Assurance Analysis (RAA), interim WQBELs have been met for all water body pollutant combinations (WBPCs).

5.1. INTRODUCTION

Provisions of the MS4 Permit describe how receiving water limits (RWLs) goals are to be attained for various WBPCs identified through adaptive management of the EWMP. Specifically, the following categories of WBPCs are to be addressed by the EWMP:

- WBPCs addressed through a TMDL (Category 1 pollutants)
- 303(d)-listed WBPCs (Category 2 Pollutants)
  - Pollutants in the same class as those identified in a TMDL and for which the waterbody is 303(d)-listed
  - Pollutants not in the same class as those identified in a TMDL, but for which the waterbody is 303(d)-listed
- Non 303(d)-listed WBPCs (Category 3 pollutants)
  - Pollutants for which there are exceedances of RWLs, but for which the waterbody is not 303(d)-listed

Refer to Section 2 for the priority pollutant categorization for the Peninsula EWMP.

5.2. SCHEDULES

Per Permit provisions, TMDL schedules must be incorporated into the EWMP to demonstrate that watershed control measures (WCMs) selected during EWMP development will adequately address these WBPCs in a timely manner so that MS4 discharges of the pollutants will not cause or contribute to exceedances of RWLs.

This updated EWMP incorporates TMDL schedules outlined in the Permit and, where necessary, interim milestones and dates for their achievement during the next five year Permit term. These schedules will be used to measure progress towards addressing the highest water quality priorities and achieving applicable WQBELS and/or RWLs.

These schedules will meet the following criteria:

- Schedules must be adequate for measuring progress on a watershed or subwatershed scale.
- Schedules must be developed for all WCMs that will be implemented individually and on a watershed scale.

Schedules must also incorporate the following:

- Applicable interim and/or final TMDL deadlines occurring within the Permit term identified in Permit.
- Interim milestones and dates for their achievement within the Permit term must be developed for any applicable TMDL(s) where deadlines within the next 5-year Permit term are not otherwise specified.
- Interim milestones and dates for their achievement within the Permit term must be developed for Water Quality Priorities not addressed through a TMDL (Category 2 and 3 WBPCs) based on the following criteria:
  - Milestones must be based on measurable criteria or indicators, to be achieved in the receiving waters and/or MS4 discharges,
  - A schedule with dates for achieving the milestones must be developed, and
  - A final date for achieving the receiving water limitations as soon as possible must be determined.

The Peninsula WMG has identified Category 1 and 2 WBPCs as summarized in Table 2-1.

Table 5-1 below outlines the dates and corresponding water quality objectives to be achieved by the Peninsula EWMP.

5.2.1. NONSTRUCTURAL BEST MANAGEMENT PRACTICES SCHEDULE

The RAA does not assume or separately quantify a load reduction for the implementation of nonstructural BMPs. Rather, because recent monitoring data was used during calibration, it was assumed that the calibrated baseline model effectively accounted for the load reduction accomplished by existing non-structural BMPs already being implemented in the Peninsula EWMP area. These nonstructural BMPs consist of Minimum Control Measures (MCMs), Nonstormwater Discharge (NSWD) Measures and Nonstructural Targeted Control Measures (TCMs) as described in Chapter 3 and Appendix 3.1.

In accordance with the State Board Order (SWRCB, 2020), all non-structural BMP credits are required to be adequately justified. As such, the RAA has calculated load reductions associated with quantifiable non-structural BMPs (for copper reductions resulting from phase out of copper in brake pads).

In 2010, California Senate Bill 346 (SB 346) was enacted to eliminate nearly all use of copper in brake pad manufacturing. In 2013, TDC Environmental prepared a draft detailed study for the California Stormwater Quality Association (CASQA) describing the expected percent reduction for copper as a result of the passage of SB 346 (TDC Environmental, 2013). The TDC study identified three possible implementation scenarios, the least aggressive of which estimated that a 52% load reduction in copper will be achieved by 2032 due to the brake pad phase-out.

Since the referenced study assumed a 21.2% reduction in urban runoff copper by 2020, and the RAA model was calibrated with local water quality data through June 2020, the load reduction accounted for in the revised RAA was estimated as a weighted fraction (by time) of 52%. Therefore, a 39.1% load reduction was calculated for copper in the Peninsular Los Angeles Harbor WMA.

5.2.2. STRUCTURAL BEST MANAGEMENT PRACTICE SCHEDULE

STRUCTURAL MINIMUM CONTROL MEASURE SCHEDULE

Pollutant load reductions are anticipated through each Participating Agency's effective implementation of the structural LID BMP requirements of the Planning and Land Development Program.

STRUCTURAL TARGETED CONTROL MEASURE SCHEDULE

The RAA (Chapter 4) and Appendix 4 RAA Report demonstrates the cumulative effectiveness of BMPs to be implemented, supports BMP selection, and provides target load reduction (TLR) goals optimized across the entire watershed.

The plan depicted in the RAA is considered a potential scenario. Through the adaptive management process, the Participating Agencies may select different types and/or locations of BMPs as described in Chapter 3. The proposed implementation schedule for the projects modelled in the RAA can be found in **Table 5-1.** In addition to the projects listed in **Table 5-1** and shown in **Figure 5-1, Figure 5-2,** and **Figure 5-3**, the Peninsula WMG is also collaboratively identifying and seeking funding for other regional projects. These projects were not modeled in the RAA due to uncertainty of their feasibility, future design, and performance:

Walteria Basin Special Study: Walteria Basin is a flood control basin that receives runoff from 174 acres of drainage area (which includes 55 acres of impervious area) from Palos Verdes Estates in analysis region WD-Solano. The Peninsula WMG will continue working with LACFCD and the City of Torrance to assess how the Walteria Basin can be utilized as part of a regional system of

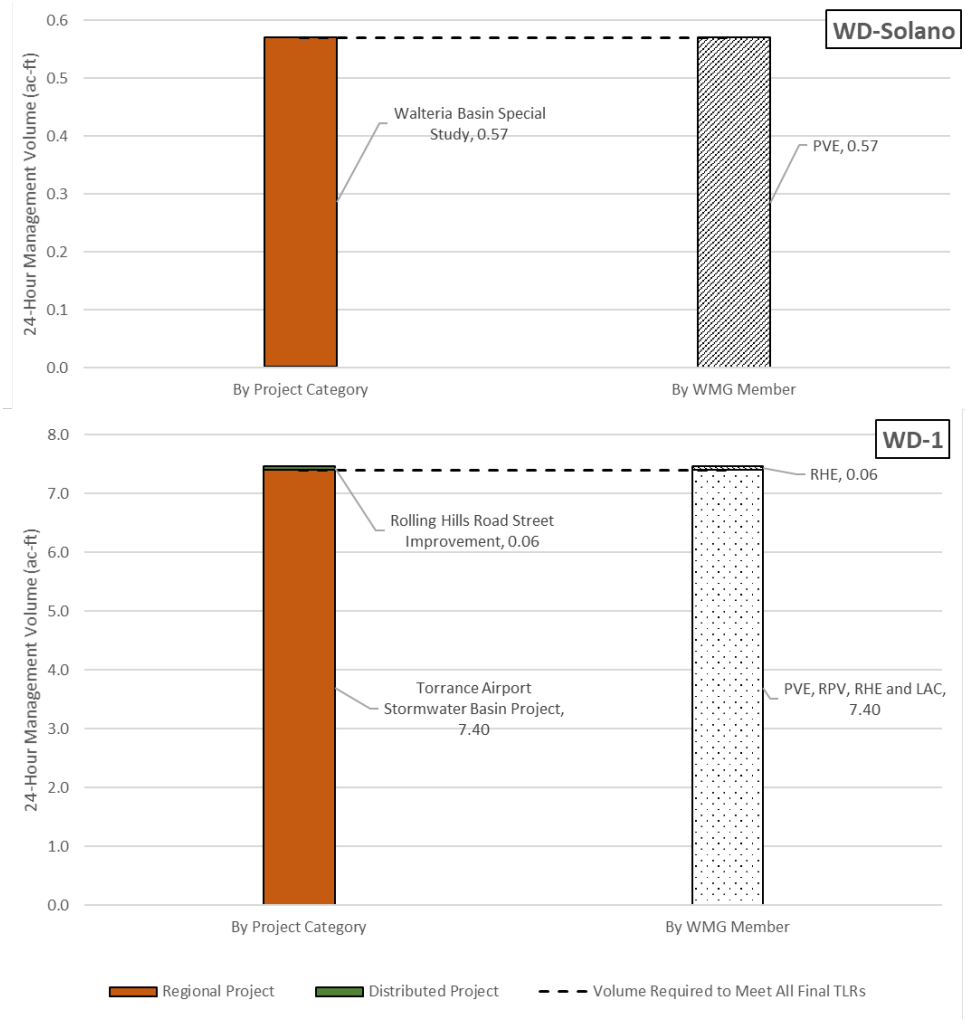
stormwater capture project in the Machado Lake watershed to meet TLRs in the WD-Solano analysis region.

Palos Verdes Multi-Benefit Flow Diversion Project. This project is currently proposed as a dry weather flow management project within analysis region WD-1. The Peninsula WMG submitted this project for FY 21-22 SCW Technical Resources Program funding and it has been approved by the South Santa Monica Bay Watershed Area for inclusion in its FY 21-22 Stormwater Investment Plan being forwarded to the Regional Oversight Committee and Los Angeles County Board of Supervisors for final technical resources funding approval. A wet weather flow management component will be further evaluated if additional wet weather projects are required to meet the final TLR through the Peninsula EWMP adaptive management process.

Harbor City Park Stormwater Capture Project. This project is a signature regional project proposed by the Dominguez Channel WMG. It is hydrologically connected to the Torrance Airport Stormwater Capture Project and can potentially capture and treat excess stormwater runoff from analysis region WD-1. The project was approved for SCW Technical Resources Program FY 20-21 funding. The Peninsula WMG is interested in collaborating with the Dominguez Channel WMG to share in the benefits of reduced load if additional wet weather projects are required to meet the final TLR through the Peninsula EWMP adaptive management process.

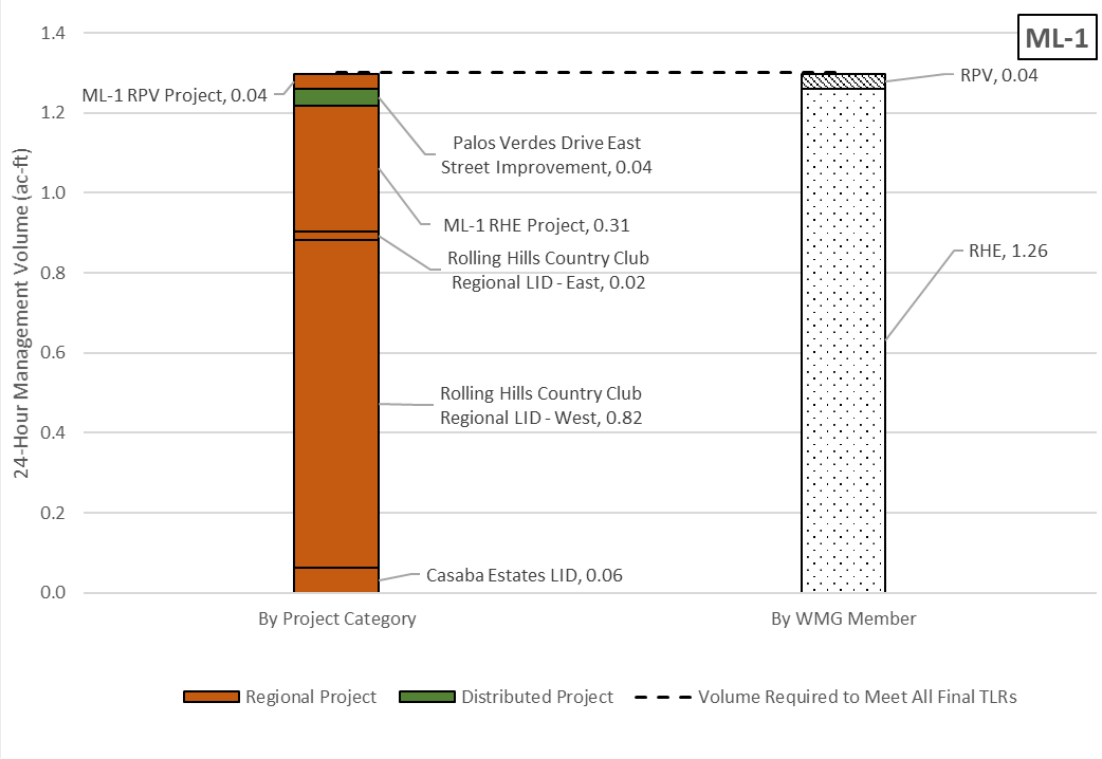
Table 5-1: Structural TCM Implementation Schedule

Subwatershed	Analysis Region	Project Name	Lead WMG Member	Estimated Schedule			Modeled 24-Hour Management Volume (ac-ft)	Final TLR Equivalent 24-Hour Management Volume (ac-ft)	Targeted Milestone
				Site Investigation and Feasibility Study	Design and Permitting	Construction/ Implementation			
Machado Lake - Wilmington	WD-1	Torrance Airport Stormwater Basin Project Phase II	RPV and TOR[a]	• Completed in 2019	• Funding Secured: 2020 • Completion Date: 2024	• Funding: 2024 • Completion Date: 2027	7.4	7.4	• Machado Lake Nutrient TMDL Final Deadline Date: (September 11, 2018) • Machado Lake Pesticides and PCBs TMDL Final Deadline Date: (September 30, 2019)
	WD-Solano	WD-Solano PVE Project/Study	PVE	• Funding: 2022 • Completion Date: 2024	TBD	• Completion Date: 2027	0.57	0.5	
Machado Lake	ML-1	Casaba Estates LID	RHE	Project completed in 2013			0.06	1.3	
		Rolling Hills Country Club Regional LID Project – West	RHE	Project completed in 2018			0.82		
		Rolling Hills Country Club Regional LID Project – East	RHE	Project completed in 2018			0.02		
		ML-1 RHE Project	RHE	• Funding: 2023 • Completion Date: 2024	• Funding: 2024 • Completion Date: 2025	• Funding: 2026 • Completion Date: 2027	0.35		
		ML-1 RPV Project	RPV	• Funding: 2023 • Completion Date: 2024	• Funding: 2024 • Completion Date: 2025	• Funding: 2026 • Completion Date: 2027	0.04		
LA Harbor	LAH -IH	Eastview Park Regional Project	RPV	• Funding Secured: 2020 • Completion Date: 2022	• Funding: 2023 • Completion Date: 2025	• Funding: 2026 • Completion Date: 2030	1.16	5.38	• Long Beach and Greater LA Harbor Toxics TMDL Final Deadline Date: (March 23, 2032)
		LAH-IH RPV Project	RPV	• Funding Secured: 2023 Completion Date: 2024	• Funding: 2025 Completion Date: 2027	• Funding: 2028 • Completion Date: 2032	3.42		
		LAH-IH RHE Project	RHE	• Funding: 2024 • Completion Date: 2025	• Funding: 2026 • Completion Date: 2028	• Funding: 2028 • Completion Date: 2030	0.80		
	LAH-CM	LAH-CM RPV Project	RPV	• Funding: 2023 • Completion Date: 2024	• Funding: 2025 • Completion Date: 2026	• Funding: 2027 • Completion Date: 2032	1.51	1.51	



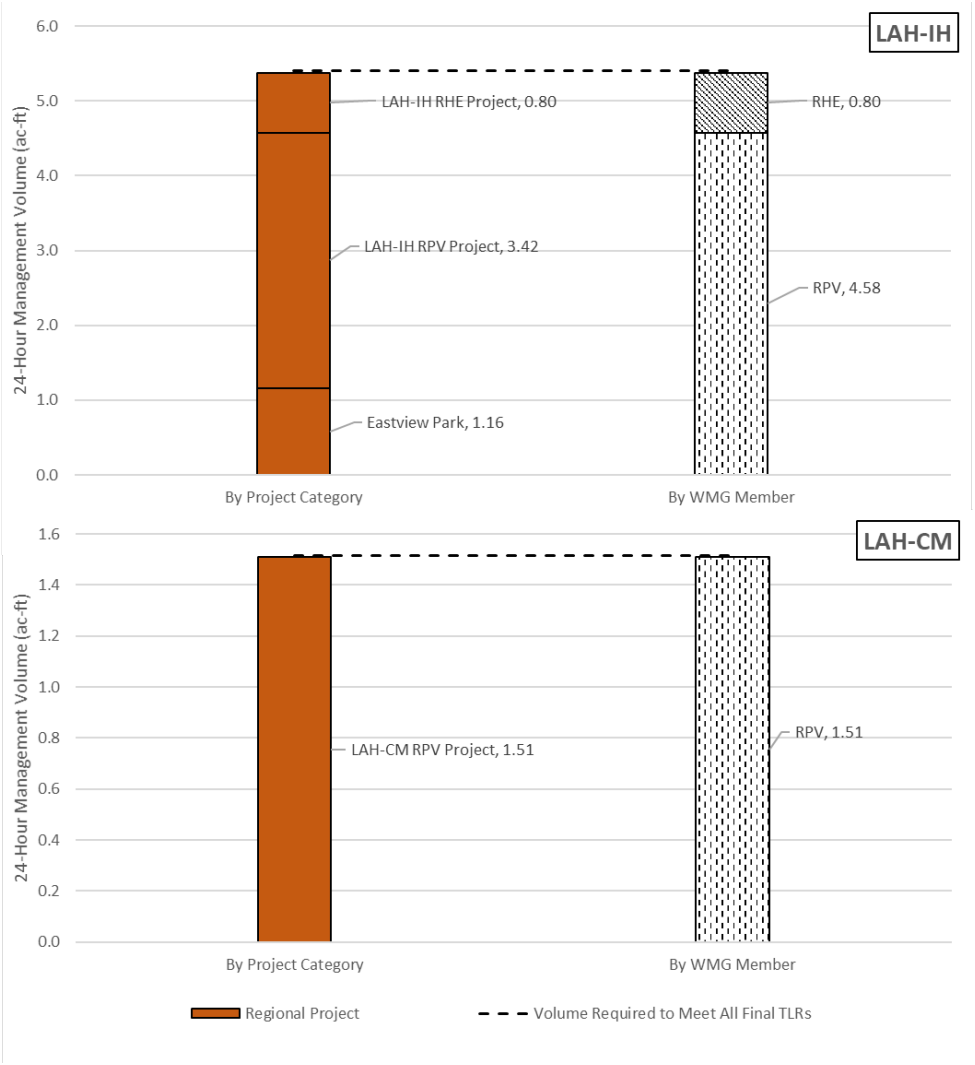
Note:
PVE = Palos Verdes Estates; RPV =Rancho Palos Verdes; RHE = Rolling Hills Estates. LAC = Unincorporated Los Angeles County
Due to comparatively low volumes, LID redevelopment is not shown in the figure

Figure 5-1: 24-Hour Management Volume Breakdown in Wilmington Drain WMA (WD-1 and WD-Solano)



Note:
RPV = Rancho Palos Verdes; RHE = Rolling Hill Estates
Due to comparatively low volumes, LID redevelopment is not shown in the figure

Figure 5-2: 24-Hour Management Volume Breakdown in Machado Lake WMA (ML-1)



Note: RPV = Rancho Palos Verdes; RHE = Rolling Hill Estates
Due to comparatively low volumes, LID redevelopment is not shown in the figure

Figure 5-3: 24-Hour Management Volume Breakdown in Los Angeles Harbor WMA

6. EWMP Implementation Costs and Financial Strategy

The purpose of this section is to present the financial strategy and to represent the strategic options available to the permittees for financing the program costs associated with this updated EWMP. This section provides an order-of-magnitude estimate of the financial resources and an outline for the financial strategy associated with those costs that may be required to attain the goals of the EWMP. The financial strategy is defined as the options available to the Peninsula WMG to finance the EWMP implementation, including a prioritization of these options.

6.1. EWMP Implementation Costs

Planning-level estimates of costs associated with implementation of the proposed structural BMPs within the Peninsula WMG area are provided herein based on results from the RAA (Section 4). This section includes an evaluation of the overall economic impacts the proposed projects and programs may have on the community. The cost estimates are preliminary and are based on the best available information to date. The estimated costs will be refined as EWMP implementation progresses with the use of actual BMP implementation costs. Costs associated with implementation of non-structural programs are not provided herein.

Cost opinions are presented as an aid for decision makers, and contain considerable uncertainties. Given the iterative and adaptive nature of the EWMP and the many variables associated with the projects, the budget forecasts are order-of magnitude estimates, and are subject to change based on BMP effectiveness assessments, results of outfall and receiving water monitoring, and additional studies such as site specific objectives which could modify water quality objectives for a specific water body-pollutant combination.

6.1.1. Methodology

Costs estimated for structural BMPs include capital as well as “soft” costs, which include considerations such as contingency and permitting.

The capital, operation and maintenance (O&M) and 20-year life-cycle costs of the proposed projects were estimated using the following information and cost functions:

- For the Torrance Airport Stormwater Capture Project, the presented costs were extracted from the Safe Clean Water Program Feasibility Study submitted in October 2020 (City of Torrance, 2020).
- The cost of the remaining projects was estimated based on key modeling parameters using the cost functions presented in the WMMS 2.0 Phase II Report (LACFCD, 2020c). The cost functions are summarized in **Table 6-1**.

Table 6-1: WMMS 2.0 Cost Function

BMP Type	BMP Component	Capital Cost[1]	Annual O&M Cost[1]	Life Cycle Cost[1]
Pervious Pavement		$253(A)	$5.1 (A)	$253(A) + $5.1(A) (Yr)
Subsurface Retention + Infiltration	Diversion	$7,000(In)	$320(In)	[$7000 + $12,000](A) + $12.6(Vf) + $6,000(Yr) + $320 (In)(Yr)
	Pretreatment	$12,000(In)		
	Storage	$12.6(V)	$6,000	
Subsurface Retention + Filtration	Diversion	$7,000(In)	$320(In)	[$7000 + $12,000](A) + $12.6(Vf) + $6,000(Yr) + $320 (In)(Yr) + [$177,000 +$70,000](Eff) + [$1,000 + $3,000](Eff)*(Yr)
	Pretreatment	$12,000(In)		
	Storage	$12.6(V)	$6,000	
	Pump	$177,000(Eff)	$3,000(Eff)	
	Filtration	$70,000(Eff)	$1.000(Eff)	
Subsurface Retention + Diversion to Sewer	Diversion	$7,000(In)	$320(In)	[$7000 + $12,000](In) + $12.6(Vf) + $6,000(Yr) + $320 (In)(Yr) + $177,000(Ps) + $3,000(Ps)(Yr)
	Pretreatment	$12,000(In)		
	Storage	$12.6(V)	$6,000	
	Pump	$177,000(Ps)	$3,000(Ps)	
	Sewer Diversion		$67,000	

[1] A – BMP footprint in ft^2; Eff – Treatment rate in cfs ; In – Inflow rate in cfs; Ps – Sewer diversion rate in cfs; Vf – BMP storage capacity in ft^3;

Soft costs are project costs that cannot be calculated on a unit cost basis. For conceptual cost estimating, these costs are generally calculated as a percentage of total capital costs.

The soft costs considered for each BMP were:

- ***Contingency*** – Costs intended to compensate for any estimating inaccuracy based on assumptions or measured values, unanticipated market conditions, scheduling delays and acceleration issues, lack of bidding competition, and subcontractor defaults.
- ***Construction Management*** – The costs associated with management and oversight of the construction of the BMP, from project initiation until completion of the contract.
- ***Mobilization and Demobilization*** – The costs associated with activation/deactivation of equipment and manpower resources for transfer to/from a construction site until completion of the contract.
- ***Permitting*** – Cost, including permit fees and personnel hours, of obtaining required permits for BMP installation. Examples of permits needed may include erosion and sediment control, stormwater, construction, and public space permits.
- ***Engineering and Planning*** – Costs associated with BMP and site design, as well as access for maintenance, environmental mitigation, buried objects, safety/security, traffic control, limited space, and site restoration.

The expected costs for each of these soft costs as percent of total project capital costs are presented in **Table 6-2**. These percentages were based on literature, best professional judgment, and data from past projects.

Table 6-2: Range of Soft Costs for Regional Projects

Cost Item	Low Cost Assumption (% of Capital Cost)	High Cost Assumption (% of Capital Cost)
Contingency	10%	20%
Construction Management	8%	15%
Mobilization and Demobilization	3%	5%
Permitting	3%	5%
Engineering and Planning	10%	20%
Total	38%	50%

6.2. SUMMARY OF COSTS

The Reasonable Assurance Analysis (RAA) for the Peninsula EWMP indicates that the 24-hour management volume of runoff and stormwater required to be captured within the Watershed to comply with RWLs and WQBELs is: 1.3 acre-ft for the Machado Lake WMA, 0.5 for the Wilmington Drain – Solano WMA, 7.4 acre-ft for the Wilmington Drain WMA, 5.4 acre-ft for Los Angeles Harbor – Inner Harbor WMA, and 1.5 acre-ft for the Los Angeles Harbor – Cabrillo Marina WMA.

Table 6-3 presents the estimated capital cost to construct or implement each modeled structural BMP and the associated annual O&M costs. The cost summary does not include already-completed regional projects (Casaba Estates LID and Rolling Hills Country Club LID) or projects that are not included in the RAA (Harbor City Park Stormwater Capture Project). The cost of the Palos Verdes Peninsula Multi-benefit Flow Diversion Project will be determined as part of the Project's Safe, Clean Water Program Feasibility Study.

Table 6-3: Estimated Capital and O&M Costs for Regional BMPs

Analysis Region	Lead Agency	Project	Capital	Annual O&M Cost	20-Year Life Cycle Cost
ML-1	Rolling Hills Estates	Palos Verdes Drive East Street Improvement	$2,859,000	$58,000	$4,012,000
ML-1	Rolling Hills Estates	ML-1 RHE Regional Project	$254,000	$40,000	$1,060,000
ML-1	Rancho Palos Verdes	ML-1 RPV Regional Project	$30,000	$40,000	$821,000
WD-1	Rancho Palos Verdes and Torrance	Torrance Airport Stormwater Basin Project Phase 2	$12,000,000	$118,000	$13,700,000
WD-1	Rolling Hills Estates	Rolling Hills Road Street Improvement	$481,000	$10,000	$675,000
LAH-IH	Rancho Palos Verdes	Eastview Park	$781,000	$42,000	$1,619,000
LAH-IH	Rolling Hills Estates	LAH-IH RHE Regional Project	$2,308,000	$47,000	$3,241,000
LAH-IH	Rancho Palos Verdes	LAH-IH RPV Regional Project	$540,000	$41,000	$1,363,000
LAH-CM	Rancho Palos Verdes	LAH-CM RPV Regional Project	$913,000	$9,000	$968,000

6.3. FINANCIAL STRATEGY

6.3.1. SUMMARY

Financing the implementation of the Peninsula EWMP has historically been the greatest challenge confronting the Peninsula WMG. In the absence of stormwater utility fees (aside from those specified for maintenance), the Peninsula WMG had no dedicated revenue stream to pay for implementation of the EWMP. The absence of a stable stormwater funding mechanism not tied to municipal General Funds became ever more critical with the approval of the fourth term MS4 Permit, which greatly magnified the cost challenges associated with managing stormwater. This prompted the City Manager Committees of the California Contract Cities Association and the League of California Cities, Los Angeles Division, to form a City Managers' Working Group (Working Group) to review stormwater funding options after the Clean Water, Clean Beaches funding initiative that was proposed by LA County failed to move forward. The result was a Stormwater Funding Report that noted, "the Los Angeles region faces critical, very costly, and seriously underfunded stormwater and urban runoff water quality challenges." The Report found that funding stormwater programs is so complex and dynamic, and that the water quality improvement measures are so costly, that Permittees could not depend on a single funding option at the time. The Report also included a variety of recommendations, including organizational recommendations; education and outreach program recommendations; recommendations for legislation; Clean Water, Clean Beaches recommendations; local funding options; and recommendations for the Regional Water Board[86]. The Watershed Group carefully considered the recommendations of the Report during the development of the original financial strategy for the EWMP, and placed focus on the local funding options presented in the Report to secure the needed funding for initial implementation of the EWMP.

The significant challenges associated with financing the implementation of the EWMP have since been partially addressed and ameliorated with the passage of Measure W, which was approved by voters in Los Angeles County with 69.45% of the vote in the general election held on November 6, 2018. Measure W successfully proposed the implementation of a special parcel tax of 2.5 cents per square foot of impermeable area to be included on property tax bills in Los Angeles County beginning in October 2019. As presented on the ballot, funds generated through Measure W are to be utilized for "improving/protecting water quality; capturing rain/stormwater to increase safe drinking water supplies and prepare for future drought; protecting public health and marine life by reducing pollution, trash, toxins/plastics entering Los Angeles County waterways/bays/beaches." The special parcel tax is initially anticipated to amount to an annual, county-wide commitment of up to $285 million, though this could decrease slightly over time as exemptions and credits are processed.

The passage of Measure W also created the Safe Clean Water Program (SCWP), which is administered by the County of Los Angeles and is designed to provide local, dedicated funding for stormwater and urban runoff management programs and projects. Total revenue will be distributed per the following breakdown: 10% will be allocated to the District Program (for the Los Angeles County Flood Control District to distribute funds, provide staff support, and oversee capacity building programs), 40% to the Municipal Program, and 50% to the Regional Program.

The Municipal Program will provide cities with direct funding proportional to the revenues generated within their boundaries. The Peninsula WMG may utilize these funds to finance the implementation of the EWMP, including public LID projects and many of the other WCMs outlined in Section 3.

[86] League of California Cities. (2014). Providing Sustainable Water Quality Funding in Los Angeles County. Prepared By City Managers Working Group. Los Angeles County Division May 21, 2014.

The Regional Program will allocate funds through nine Watershed Area Steering Committees (WASCs) into the competitive Infrastructure, Technical Resources, and Scientific Studies Programs. Respectively, the Infrastructure Program will provide funding for multi-benefit regional projects including design, permits, CEQA compliance, grant-writing, right-of-way and land acquisition, construction, and long-term operations and maintenance of projects; the Technical Resources Program will provide funding for the development of project feasibility studies; and the Scientific Studies Program will provide funding for scientific studies, technical studies, monitoring, modeling, and other similar activities. The Peninsula WMG falls under the jurisdiction of the South Santa Monica Bay WASC.

With the implementation of the SCWP underway, the Peninsula WMG now have a reasonably dependable revenue stream to offset, albeit only partially, the high costs of the multi-faceted strategy for the selection and implementation of WCMs outlined in Section 3. The Peninsula WMG has coordinated the proposed implementation schedule (outlined in Section 5) with the financial strategy outlined in this chapter. However, uncertainties associated with future risks persist. For instance, there are multiple TMDLs in multiple watersheds that must be addressed despite limited resources.

The Peninsula Agencies will set priorities to construct these facilities strategically, and in accordance with the administrative and financial limitations and requirements of the SCWP framework, and seek alternative outside funding in order to close funding gaps.

To address the Water Quality Priorities (WQPs), the Peninsula WMG is going to pursue a multi-faceted financial strategy. In addition, the Peninsula WMG has coordinated the proposed implementation schedule (see Section 5) with the financial strategy. The participating agencies are committed to developing projects through the design phase so that they are shelf ready to take advantage of grants and federal infrastructure funding that may become available. In collaboration with City of Torrance, the Participating Agencies secured Prop 1 Stormwater Planning grant funding for the preliminary design and feasibility study for the Torrance Airport Project and supported the subsequent application for SCW Regional Program Infrastructure funding for design, which was approved and included in the South Santa Monica Bay (SSMB) Watershed Area Steering Committee (WASC) FY 20-21 Stormwater Investment Plan (SIP). The Torrance Airport Project has the potential to address the highest water quality priorities of the Machado Lake Nutrient and Pesticides and PCBs TMDLs within the WD-1 WMA. The Peninsula WMG is planning to submit the Torrance Airport Project to the SSMB WASC for construction funding by the FY2122 Call for Projects deadline. The participating agencies also received SCW Regional Program Technical Resources funding to complete feasibility studies during FY2122 for the Palos Verdes Peninsula Multi-Benefit Flow Diversion and during FY2021 for the Harbor City Park Regional projects for the WD-1 WMA. The participating agencies also succeeded in securing SCW Technical Resources Program funding for the Eastview Park Infiltration Project feasibility study as part of the SSMB WASC FY 20-21 SIP. The Eastview Park Project will address priority pollutants under the Long Beach and Greater LA Harbor Toxics TMDLs in the LAH-IH WMA.

The continued exploration and leveraging of additional sources of funding will be necessary to finance the implementation of the WCMs. Notably, these may include Municipal Safe Clean Water Program funds and other existing funding measures (such as Measures H, A, and M), various grant programs administered by local, state and federal agencies, local fees such as inspection fees, and Clean Water State Revolving Fund program financing agreements to the extent feasible.

Additionally, the Peninsula WMG will also support programs to increase water conservation, reduce dry weather discharges to the storm drain system, and reduce TSS during wet weather. Successfully

accomplishing these efforts could reduce the money needed in the long term to capture and/or treat stormwater discharges to comply with TMDLs and address other WQPs.

In the long term, the challenge of financing the WCMs for the Peninsula WMG has partially been alleviated with the passage of Measure W and the ongoing implementation of the SCWP, which have established a reasonably dependable revenue stream for local water quality programs. Nonetheless, implementation of the WMP presents a formidable task that will require the cooperation of many entities, including business, environmental organizations, and the Regional Board.

6.3.2. OTHER POTENTIAL FUNDING OPTIONS

The financial strategy to fund the EWMP requires the utilization of multiple funding options. The Peninsula WMG will work together to maximize cost-effectiveness and each individual agency will be responsible for seeking funding for its share in EWMP implementation. The sections below outline multiple approaches to funding and allow each jurisdiction to consider and select the funding options that best fit the specific preferences of their agency. For each funding option, a brief description is included that includes benefits and challenges associated.

EDUCATION AND OUTREACH

The Peninsula WMG implements public outreach and engagement on a watershed-based level and at the individual participating agency level. Projects proposed for SCW funding are reviewed by various stakeholders: government, non-profit, and business and available for public review and comment at the Watershed Advisory Steering Committee (WASC) level.

LEGISLATION

Legislative action has dramatically changed the face of contemporary stormwater management. This includes passage of laws, adoption of regulations, and interpretation of laws and enforcement of regulations by the courts at local, state and federal levels. These legislative activities impact all aspects of stormwater management by local governments, as well as the private sector, such as developers who provide basic infrastructure as a part of their developments, industrial facilities that discharge stormwater from their properties, and those conducting ground disturbing construction activities. The Peninsula WMG will continue participation in stormwater legislation advocacy efforts led by the League of California Cities and California Contract Cities and California Stormwater Quality Association (CASQA). The challenges associated with legislation include time and resources. Incorporating new legislation requires a significant amount of time and political influence. Although these options have great potential, they will likely not be available in the short term.

FEDERAL AND STATE GRANTS

Federal and State Grant programs are made available for agencies to receive funding for projects which fall under the guidelines of the grant.

Challenges associated with grants include, but are not limited to, the following:

- ***Matching Funds.*** Almost all grants include matching requirements, which can be up to 50% of the total project costs. Additionally, grant development and administration can take up significant resources, particularly from the small agencies associated with the Peninsula WMG.
- ***Shovel ready projects are typically preferred.*** Grant programs are generally structured to favor projects that are not "shovel ready" while projects without substantially complete design plans are much less likely to be selected.
- ***Grants are competitive.*** Each grant program has a set allocation of funds that are available within a defined region (i.e. statewide). As regulatory pressures are increased throughout California and the United States, the competition for securing this type of funding will significantly increase.
- ***Not all projects apply.*** Project eligibility is dependent on the grant program which may not support the project type as needed.

- ***Grants do not provide long-term O&M funding.*** In general, grants are structured to help fund project construction costs. Separate funding streams for the operations and maintenance costs would be needed.

Although grants alone will not provide the revenue necessary for EWMP implementation and long-term O&M, the Peninsula agencies are committed to pursuing and leveraging these opportunities with their SCW Regional and Municipal funding as well as other local funding sources as they become available.

LOCAL FUNDING OPTIONS

The agencies may consider local funding options to address stormwater funding. Local funding options would typically be pursued within individual agencies. Local funding options include:

- Safe Clean Water Municipal Program funds allocated as local return proportional to the revenues generated within the municipality for activities such as project development, design, construction, monitoring, and O&M;
- Revising street sweeping contracts to provide NPDES trash control programs;
- Adoption of water conservation fees to provide funding for reducing irrigated runoff to conserve water and reduce dry weather discharges;
- Local, statewide, or regional fees on car rentals to contribute to copper and zinc clean-up costs and incorporate stormwater quality features into street and highway projects funded by bonds and other street funds;
- Increase in commercial facility inspection fees.

Local funding options may be useful for short-term funding; however, it is unlikely that they will result in amounts significant enough to cover any substantial portion of EWMP implementation costs.

CLEAN WATER STATE REVOLVING FUND

The Clean Water State Revolving Fund (CWSRF) program is a federal-state partnership that provides low-cost financing (at half of the most recent General Obligation Bond Rate at the time of funding approval – 1.6% in March 2015) with terms up to 30 years for a wide range of water quality infrastructure projects. This fund is likely to be the vehicle for delivery of federal infrastructure funding to local projects once it becomes available to states. The Peninsula WMG could use CWSRF for individual projects or groups of projects as there is no maximum funding limit. The CWSRF can be used for a variety of projects including stormwater measures to manage, reduce, treat, or recapture stormwater or subsurface drainage water; water conservation, efficiency, and reuse; and watershed pilot projects meeting criteria in CWA §122.

TRANSPORTATION BONDS

Another consideration is future transportation bonds. This can be pursued by encouraging the Metropolitan Transportation Authority (MTA) to include funding stormwater quality features, such as Green Streets, in future bonds and encourage Council of Governments to develop strategic transportation plans that include mitigations designed to address water quality issues from transportation projects.

RECOMMENDATIONS FOR THE REGIONAL WATER QUALITY CONTROL BOARD

The Regional Board should request funding for a staff position that would be responsible to identify and distribute information on the available federal, state, non-profit, corporate and other sources of funds; and establish an on-line resource center to assist the cities in complying with the stormwater permit requirements.

6.3.3. PRIORITIZATION

The Group continues to support programs to increase water conservation, reduce dry-weather discharges to the storm drain system, and reduce TSS during wet weather. Successfully accomplishing these efforts could reduce the funds needed in the long term to capture and/or treat stormwater discharges to comply with TMDLs and address other WQPs.

The Peninsula WMG and/or the Participating Agencies will also pursue state grants (i.e. IRWMP, Proposition 1, Proposition 84, etc.) and potential federal infrastructure funding to implement stormwater BMPs.

In the long term, financing the WCMs for the Peninsula Watershed will require establishing dependable revenue streams for local water quality programs with the cooperation of many entities, including business and environmental organizations. Participating Agencies will begin utilizing existing funds to implement the EWMP as well as pursue additional funding in accordance with Table 6-4 below.

Table 6-4: Funding Option Priorities

Agency	Funding Priorities	Integration with Existing Infrastructure Improvement Plans
County	1. Federal and State Grants 2. Local Funding Options & Stormwater Fees (Measure W Safe Clean Water Program) 3. Seek allocation in the General Fund; investigate bond and loan opportunities (i.e. CWSRF) 4. Continued participation in stormwater funding advocacy efforts led by the League of California Cities and California Contract Cities and CASQA	• Incorporation of stormwater improvements in capital improvement plan for public facilities • Design guidelines updated and included green street standard plans which include elements such as bio-retention planters, porous pavement, tree wells, etc.
LACFCD	1. Federal and State Grants 2. Local Funding Options & Stormwater Fees (Measure W Safe Clean Water Program) 3. Seek allocation in the Flood Fund	• Incorporation of stormwater improvements in capital improvement plan for public facilities •
RPV PVE RHE	1. Federal and State Grants 2. Local Funding Options & Stormwater Fees (Measure W Safe Clean Water Program) 3. Continued participation in stormwater funding advocacy efforts led by the League of California Cities and California Contract Cities and CASQA	• Incorporation of stormwater improvements in capital improvement plan for public facilities

7. LEGAL AUTHORITY

This section covers information such as documentation and references/links to water quality ordinances for each participating agency. These documents demonstrate adequate legal authority to implement and enforce Watershed Control Measures (WCMs) identified in this plan and as required in the MS4 Permit. The goal of these WCMs is to create an efficient program that focuses on the watershed priorities by meeting the following objectives:

- Prevent or mitigate non-storm water discharges to the MS4 that are a source of pollutants from the MS4 to receiving waters.
- Implement pollutant controls necessary to achieve all applicable interim and final water quality-based effluent limitations and/or receiving water limitations pursuant to corresponding compliance schedules.
- Ensure that discharges from the MS4 do not cause or contribute to exceedances of receiving water limitations.

The WCMs include the minimum control measures, nonstormwater discharge measures and targeted control measures (i.e. controls to address TMDL and 303(d) listings). As the requirement to incorporate these WCMs is an element of the MS4 Permit, the legal authority to implement them results from each agency's legal authority to implement the NPDES MS4 Permit.

Table 7-1 includes the water quality ordinance for each agency with a reference link. Additionally, the participating agencies have developed and adopted LID ordinances and Green Street Policies which provides legal authority to enforce the Planning and Land Development Program.

Table 7-1: Water Quality Ordinance Language

City	Water Quality Ordinance	Reference
Rancho Palos Verdes	Chapter 13.10 - STORM WATER AND URBAN RUNOFF POLLUTION CONTROL	https://www.municode.com/library/ca/rancho_palos_verdes/codes/code_of_ordinances?nodeId=TIT13PUSE_CH13.10STWAURRUPOCO
13.10.020 Purpose – *This chapter is also intended to provide the city with the legal authority necessary to control discharges to and from those portions of the municipal storm water system over which it has jurisdiction as required by the municipal NPDES permit.*		
Palos Verdes Estates	Chapter 13.08 – STORM DRAINS AND STORM WATER MANAGEMENT AND POLLUTION CONTROL	http://www.codepublishing.com/ca/palosverdesestates/
13.08.Purpose and Intent– *The purpose of this chapter is to protect and enhance the quality of surface waters and surface water bodies, including the Santa Monica Bay and Machado Lake, in a manner consistent with the Federal Clean Water Act (33 U.S.C. Sections 1251 et seq.), the California Porter-Cologne Water Quality Control Act (Cal. Water Code Sections 13000 et seq.), and the municipal National Pollutant Discharge Elimination System (NPDES) permit.*		
Rolling Hills Estates	Chapter 8.38 - STORMWATER AND URBAN RUNOFF POLLUTION CONTROL	https://library.municode.com/ca/rolling_hills_estates/codes/code_of_ordinances?nodeId=TIT8HESA_CH8.38STURRUPOCO
8.38.030 Construction and Application – *This chapter will be construed to assure consistency with the requirements of the Clean Water Act and the Porter-Cologne Water Quality Control Act, and their implementing regulations, and the municipal NPDES permit.*		
LACFCD	Flood Control District Code, Chapter 21 - Stormwater and Runoff Pollution Control	https://library.municode.com/HTML/16274/level2/FLCODICO_CH21STRUPOCO.html#FLCODICO_CH21STRUPOCO_21.01PUIN
21.01 - Purpose and Intent - *The purpose and intent of this chapter is to regulate the stormwater and non-stormwater discharges to the facilities of the Los Angeles County Flood Control District for the protection of those facilities, the water quality of the waters in and downstream of those facilities, and the quality of the water that is being stored in water-bearing zones underground.*		

8. COORDINATED INTEGRATED MONITORING PROGRAM

The Participating Agencies implement a customized Coordinated Integrated Monitoring Program (CIMP) based on the provisions set forth in Attachment E of the MS4 Permit. The data collected by the CIMP are used to assess the effectiveness of the EWMP projects and programs in addressing water quality priorities, specifically in achieving water quality-based effluent limitations (WQBELs) and receiving water limitations (RWLs) per compliance schedules. The customized CIMP includes the following program elements:

- Receiving Water Monitoring
- Storm Water Outfall Monitoring
- Non-Storm Water Outfall Monitoring
- Regional Studies

9. ADAPTIVE MANAGEMENT PROCESS

Adaptive management is the process by which new information about the state of the watershed is incorporated into the EWMP.

Following the previous 2018 and 2020 Adaptive Management processes, the Peninsula WMG is required to submit an updated EWMP and Reasonable Assurance Analysis (RAA) by June 30, 2021 for review and approval by the Regional Board. The updated RAA detailed in Appendix 4.1, utilizes all relevant, available data, including updates to the water body pollutant combination prioritization, source assessment, TMDL milestone achievements, and control measure performance data. As further elaborated in the updated EWMP (Section 2, Section 3, RAA Report in Appendix 4.1, etc.), the EWMP is adaptively managed following the process described in the MS4 Permit.

The process is implemented by the participating agencies and submitted to the Regional Water Board for review and approval as required by the MS4 Permit and as deemed appropriate. The purpose of the adaptive management process is to improve the effectiveness of the EWMP based on – but not limited to – consideration of the following:

1. Progress toward achieving interim and/or final water quality-based effluent limitations and/or receiving water limitations in §VI.E and Attachments L through R of the MS4 Permit, according to established schedules;
2. Progress toward achieving improved water quality in MS4 discharges and achieving receiving water limitations through implementation of the watershed control measures based on an evaluation of outfall-based monitoring data and receiving water monitoring data;
3. Achievement of interim milestones;
4. Reopening of TMDLs;
5. Re-evaluation of the water quality priorities identified for the Watershed Management Area (WMA) based on more recent water quality data for discharges from the MS4 and the receiving water(s) and a reassessment of sources of pollutants in MS4 discharges;
6. Availability of new information and data from sources other than the MS4 Permittees' monitoring program(s) within the WMA that informs the effectiveness of the actions implemented by the Permittees;
7. Regional Water Board recommendations; and
8. Recommendations for modifications to the Enhanced Watershed Management Program solicited through a public participation process.

9.1. MODIFICATIONS

Based on the results of the adaptive management process, the participating agencies may find that modifications of the EWMP are necessary to improve effectiveness. Modifications may include new deadlines and interim milestones, with the exception of those deadlines established in a TMDL.

9.1.1. REPORTING

Modifications are reported in the Annual Report and as part of the Report of Waste Discharge (ROWD) required pursuant to the MS4 Permit. The background and rational for these modifications are included by addressing the following points:

- Identify the most effective control measures and describe why the measures were effective and how other control measures will be optimized based on past experiences.
- Identify the least effective control measures and describe why the measures were deemed ineffective and how the control measures will be modified or terminated.
- Identify significant changes to control measures during the prior year and the rationale for the changes.
- Describe all significant changes to control measures anticipated to be made in the next year and the rationale for the changes. Those changes requiring approval of the Regional Water Board or its Executive Officer shall be clearly identified at the beginning of the Annual Report.
- Include a detailed description of control measures to be applied to New Development or Re-development projects disturbing more than 50 acres.
- Provide the status of all multi-year efforts that were not completed in the current year and will continue into the subsequent year(s).
- Provide the status of multi-year/future regional BMPs, both planned and proposed.
- Provide the status of efforts to secure funding for structural TCMs both for capital investments and O&M.

9.1.2. IMPLEMENTATION

Modifications are implemented upon approval by the Regional Water Board Executive Officer or within 60 days of submittal if the Regional Water Board Executive Officer expresses no objections.

10. REPORTING PROGRAM & ASSESSMENT

The reporting information provided below is based on the requirements of the MS4 Permit. These implementation reports and monitoring reports allow the Regional Board to assess implementation progress and program effectiveness.

10.1. ANNUAL REPORT

Each year as directed by the MS4 Permit, all Permittees are required to submit an Individual Annual Report. Each year the participating agencies in the Peninsula EWMP will also submit a joint Watershed Annual Report to the Regional Water Board Executive Officer. The Watershed Annual Report will present a summary of information that will allow the Regional Board to assess implementation progress and effectiveness of the watershed management program[87].

The reporting process is intended to meet the following objectives to assess:

- Each agency's participation in the Enhanced Watershed Management Program and Coordinated Integrated Monitoring Program.
- The impact of each agency's storm water and non-storm water discharges on the receiving water.
- Monitoring results in comparison to receiving water limitations, numeric water quality-based effluent limitations, and non-storm water action levels.
- The effectiveness of control measures in reducing discharges of pollutants from the MS4 to receiving waters.
- Whether the quality of MS4 discharges and the health of receiving waters is improving, staying the same, or declining as a result watershed management program efforts, and/or TMDL implementation measures, or other Minimum Control Measures.
- Whether changes in water quality can be attributed to pollutant controls imposed on new development, re-development, or retrofit projects.

The Annual Report will identify data collected and strategies, control measures and assessments implemented for each watershed within the participating agency's jurisdiction. The participating agencies will submit annual reports as required by the MS4 Permit.

[87] Annual reports will cover summary from previous fiscal year beginning June 1st through July 30th.

10.2. MONITORING REPORT

10.2.1. DATA REPORTING

Analytical data reports will be submitted on a semi-annual basis, or as directed by the MS4 Permit. CEDEN-formatted data will be sent electronically to the Regional Water Board's Storm Water site at MS4stormwaterRB4@waterboards.ca.gov. These data reports will summarize:

- Exceedances of applicable WQBELs, receiving water limitations, or any available interim action levels or other aquatic toxicity thresholds.
- Basic information regarding sampling dates, locations, or other pertinent documentation.
- The annual watershed monitoring report will summarize efforts to address water quality exceedances.

10.2.2. CHRONIC TOXICITY REPORTING

Aquatic toxicity monitoring results will be submitted to the Regional Board on an annual basis as part of the watershed and monitoring report as well as in the semi-annual basis data report submittal.

10.2.3. TMDL REPORTING

The participating agencies will also report on progress of TMDL implementation on an annual basis as part of the watershed and monitoring report and submit to the Regional Water Board Executive Officer.

APPENDICES NOT INCLUDED
IN THIS DOCUMENT

City of Rolling Hills INCORPORATED JANUARY 24, 1957

Agenda Item No.: 10.B
Mtg. Date: 01/24/2022

TO: **HONORABLE MAYOR AND MEMBERS OF THE CITY COUNCIL**

FROM: **ALAN PALERMO, PROJECT MANAGER**

THRU: **ELAINE JENG P.E., CITY MANAGER**

SUBJECT: **DISCUSS THE ROLLING HILLS COMMUNITY ASSOCIATION'S REQUEST RELATING TO THE CITY HALL CAMPUS EMERGENCY POWER PROJECT AND PROVIDE DIRECTION TO STAFF.**

DATE: **January 24, 2022**

BACKGROUND:
To replace the non-functioning standby generator that provides emergency power to City Hall and the Rolling Hills Community Association, the City Council authorized an assessment report and considered three options for replacement at the May 10, 2021 City Council meeting. On May 24, 2021, after City Council discussed the three options, staff was directed to: 1) design the solar option; 2) consider leasing portable generator to provide emergency if necessary; and 3) remove the existing non-functioning emergency standby generator, and repair the water intrusion problem at the existing generator structure.

At the June 14, 2021 City Council meeting, City Council approved a second amendment with Pacific Architecture and Engineering, Inc. for preparing plans to remove the existing standby generator including repairing of the water intrusion at the generator housing and prepare design plans to implement the solar option..

The second amendment with Pacific Architecture and Engineering, Inc. (PAE) was executed in July 2021 and PAE proceeded with preliminary design. City Staff and PAE held several meetings to discuss the proposed solar option and layout. After a period of research and information gathering, PAE provided preliminary design plans for layout of the solar panels in November 2021. The preliminary design plan was reviewed by staff. The available roof surface area, the orientation of the surface area to the sun, and other design/cost factors were considered. The most efficient and cost effective design was to position all the solar panels on the Rolling Hills Community Association (RHCA) building.

The preliminary design was provided to RHCA and the plans were reviewed by the Architectural Review Committee on December 7, 2021. The Architectural Committee requested to have solar panels over the entry of the RHCA building be removed and placed on the City Hall Building. The preliminary design plans submitted to the Architectural Review meeting and the meeting minutes are attached to this report.

DISCUSSION:
Removing solar panels from the RHCA Building and placing them on the City Hall building will have several impacts/issues to consider:

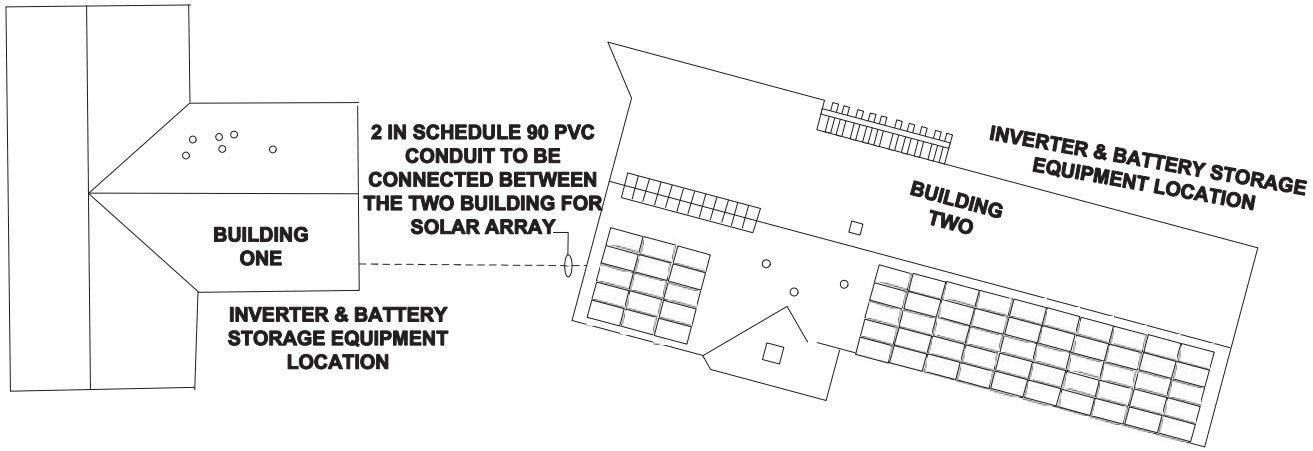
- There is a tree at City Hall making the panels less efficient. The city could consider cutting this tree down so that the panels would have more exposure to the sun.
- There is space for 29 panels on the City Hall roof versus 66 panels on the RHCA building. Panels on both buildings will drive up the cost of the project. Cost of re-roofing one roof vs two roofs (roughly savings of $20,000 just for roof and waterproofing, and additional $30,000-$50,000 if structural reinforcement is needed).

This item was presented to the City Council at the January 10, 2022 meeting. The City Council decided to delay taking action so that Councilmember Jeff Pieper can participate in the discussion. Councilmember Pieper was absent from the January 10, 2022 City Council meeting.

FISCAL IMPACT:
The overall project cost will be impacted if the solar panels are divided between roofs of City Hall and the RHCA building. High level estimation shows the cost differential between placing all solar panels on the RHCA building and dividing the panels is approximately $20,000 to $60,000.

RECOMMENDATION:
Provide direction to staff.

ATTACHMENTS:
Rolling Hill Maintenance Buildings One Two- SFR V3_Review.pdf



28.05 STC Photovoltaic System

Project Name: City of Rolling Hills

Project Address: 2 Portuguese Bend Road
Rolling Hills CA 90274

Project contact: Jun Fujita Hall
310 405 3878



Drawn by: wwebb

Revision#3

Date: 11/13/2021



SILVER FOX RENEWABLES, LLC.
888.786.9322

324 E. Foothill Blvd.
Suite 201
Arcadia, CA 91006
Lic # 996766

General Notes:
Main Service Panel 120/208V 3 Ø 600 amps

Total Photovoltaic System consists of
66 -Hanwha Q CELLS:Q.PEAK DUO L-G6 425
2- Generac Power Systems:X11402 [208V] Inverters

28.05 kW DC STC
25.335 kW AC PTC
Estimated kWh produced annually
43,475 kWh

C10 SIGNATURE:

SOLAR BATTERY STORAGE FOR BOTH BUILDINGS ONE & TWO

File Path: PHOTOVOLTAIC SYSTEM DOCUMENTS

Sheet Number: **PVS1**



14.2 kW DC STC Photovoltaic Roof System

Project Name: City of Rolling Hills Administration Building

Project Address: 2 Portuguese Bend Road
Rolling Hills CA 90274

Project contact: Jun Fujita Hall
310 405 3878



Drawn by: wwebb

Revision#3

Date: 11/13/2021



SILVER FOX RENEWABLES, LLC.
888.786.9322

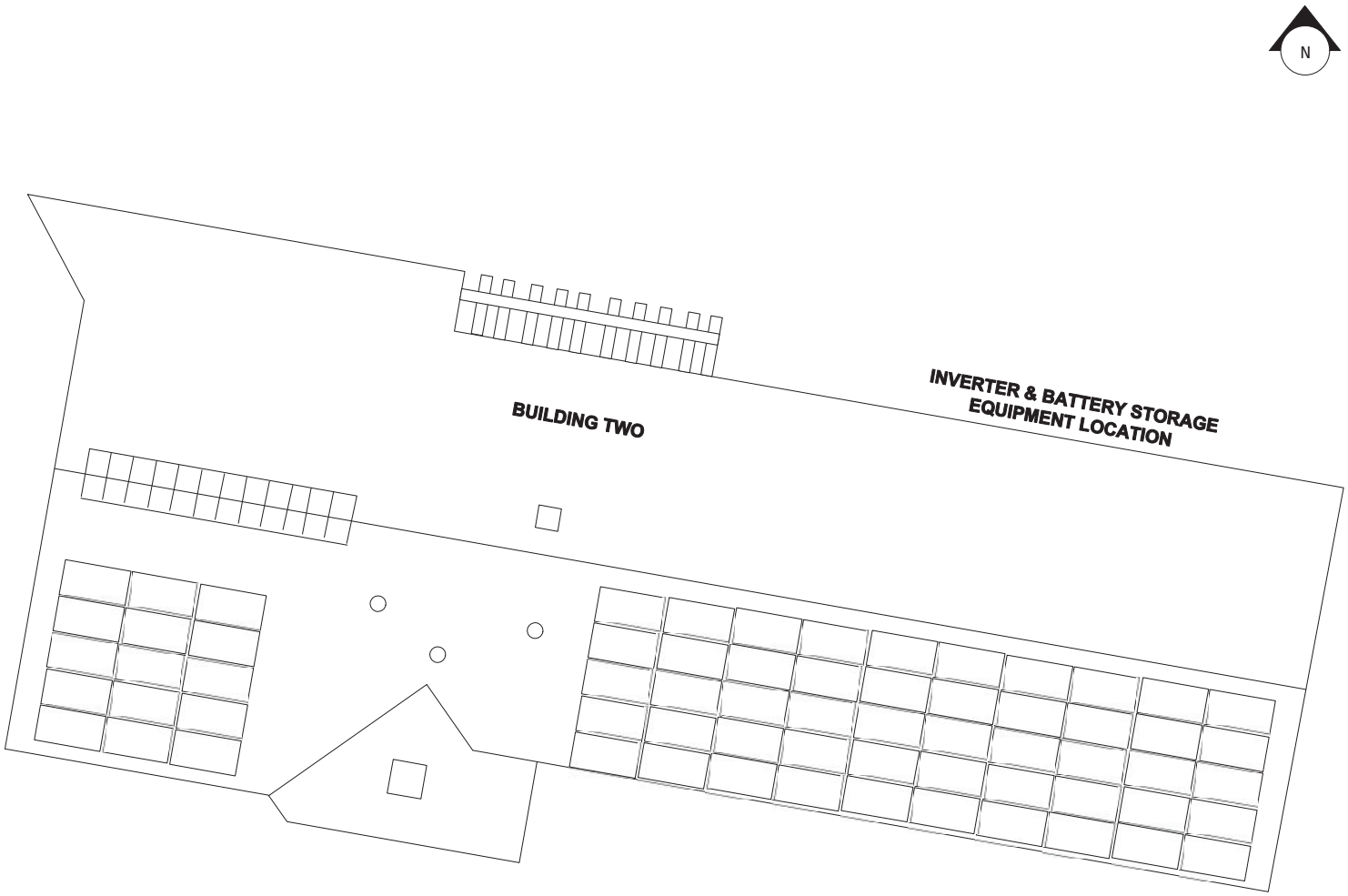
324 E. Foothill Blvd.
Suite 201
Arcadia, CA 91006
Lic # 996766

C10 SIGNATURE:

SOLAR ROOF BUILDING ONE

File Path: PHOTOVOLTAIC SYSTEM DOCUMENTS

Sheet Number: **PVS4**



14.2 STC Photovoltaic System

Project Name: City Maintenance Building

Project Address: 2 Portuguese Bend Road
Rolling Hills CA 90274

Project contact: Jun Fujita Hall
310 405 3878



Drawn by: wwebb

Revision#3

Date: 11/13/2021



SILVER FOX RENEWABLES, LLC.
888.786.9322

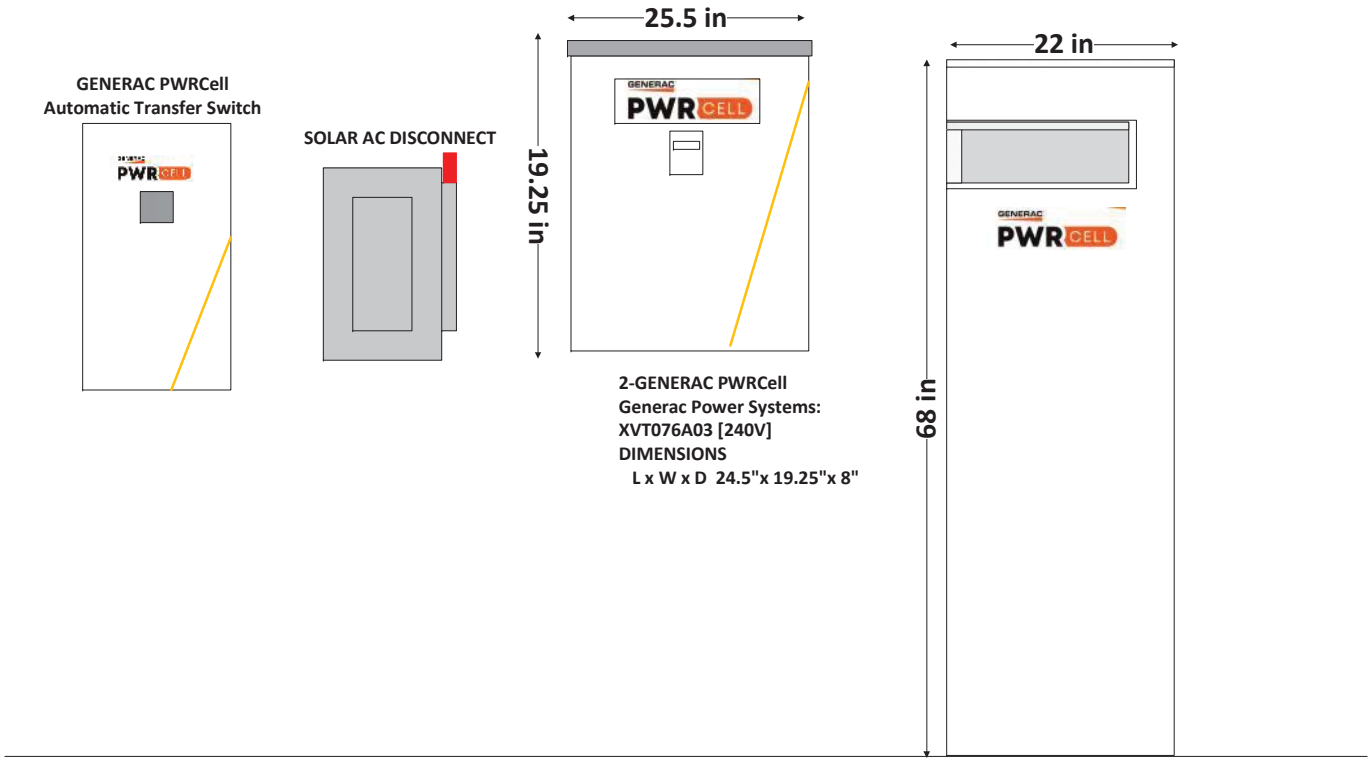
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Suite 201
Arcadia, CA 91006
Lic # 996766

C10 SIGNATURE:

SOLAR ROOF BUILDING TWO

File Path: PHOTOVOLTAIC SYSTEM DOCUMENTS

Sheet Number: PVS5



1- GENERAC PWRCELL smart battery
17.1 kwh City Hall
8 kwh Community Association Building
When batteries are used in a black out event:
42 cells dedicated to City Hall
24 cells dedicated to Community Association Buildings

38.55 STC Photovoltaic System

Project Name: City Maintenance Building
Project Address: 2 Portuguese Bend Road
Rolling Hills CA 90274

Project contact: Jun Fujita Hall
310 405 3878



Drawn by: wwebb

Revision#2

Date: 10/20/2021

SILVER FOX RENEWABLES, LLC.
888.786.9322
324 E. Foothill Blvd.
Suite 201
Arcadia, CA 91006
Lic # 996766

C10 SIGNATURE:

BATTERY STORAGE EQUIPMENT BUILDING ONE

File Path: PHOTOVOLTAIC SYSTEM DOCUMENTS

Sheet Number: PVE1

City of Rolling Hills INCORPORATED JANUARY 24, 1957

Agenda Item No.: 10.C
Mtg. Date: 01/24/2022

TO: **HONORABLE MAYOR AND MEMBERS OF THE CITY COUNCIL**

FROM: **ASHFORD BALL, SENIOR MANAGEMENT ANALYST**

THRU: **ELAINE JENG P.E., CITY MANAGER**

SUBJECT: **CONSIDER HIRING A LANDSCAPE ARCHITECT TO INVENTORY THE CITY HALL CAMPUS IRRIGATION SYSTEM AND PROVIDE RECOMMENDATIONS FOR LANDSCAPING IMPROVEMENTS.**

DATE: **January 24, 2022**

BACKGROUND:
In September 2021 the City of Rolling Hills solicited services to accept proposals from qualified licensed landscape architects or firms to provide professional services to audit existing conditions (landscape, lighting and irrigation), submit WELO compliant landscape and lighting design package, install or assist in hiring a qualified licensed landscape contractor to install these items for City Hall Campus.

Between 2016 and 2019 the landscaping on the campus was poorly maintained due to broken sprinkler pipes, nonworking valves and inadequate care. In early 2020, the City conducted necessary repairs, including insect, and gopher treatments to restore a fully functioning irrigation system at the campus. In 2021, even after repairs, the City continues to have ongoing issues with gophers, broken sprinkler pipes and maintenance of the overall campus.

The city aims to have a well-designed green space that comprises of both California native plants and waterwise plants that are adapted to our climate. These should be planted and maintained to meet WELO requirements, the new high hazard plants regulation, and fire fuel abatement standards and guidelines.

DISCUSSION:
With the many capital improvement projects the Council has decided to take on staff has made an adjustment to downsize the scale of campus replacement and break the project up into small parts as opposed to larger assignments. The following needs more immediate attention:

1. Irrigation Inventory/Assessment (find out what we have, where it is, working/not working, and how frequently it used)

2. Planting (use water-wise planting)
3. Improve Patchy Areas (consider new planting/installation of areas that are blank/empty/ badly managed)

The main focus would be the irrigation/inventory assessment so the city can understand our system and make informed decisions on what can be retained and what needs to be replaced. This will require our candidate to:

1. Assist the client in obtaining bids, negotiating contracts, reviewing project billing,
2. Attend meetings at the job site for the purpose of construction review with the agent, agent's representatives and/or contractors.
3. Provide field visits to review layout of landscape elements and check for general conformance to the contract documents and design intent.
4. Visit nurseries to tag and select plant material.

Irrigation assessments can be challenging due to the limitation of only assessing the above ground components. During the assessment dependent upon the findings, some underground work may be necessary. Age and implementation is also an unknown factor in irrigation (Age of the system? Original installation?).

The challenges of an unknown irrigation schematic design make it difficult to provide detailed estimates on specific costs so staff has requested services on an as needed basis and the candidate has requested a retainer. When the retainer is nearing zero the Council can decide if they would like to continue with other aspects of the project and discuss further retainers at that time.

FISCAL IMPACT:
$150/ hour on an as needed basis for a non-refundable retainer of $6,000 which is equivalent to 40 hours of work.

There is $21,260.00 available remaining balance in the account and sufficient funds if the City Council decided to engage Evan Smith for services.

RECOMMENDATION:
Staff recommends that Council consider and discuss the hiring of a Landscape Architect to perform an irrigation inventory assessment and provide further recommendations for City Hall Campus landscaping.

ATTACHMENTS:
Landscape Architecture RFP- Final Draft-V10 Letterhead FINAL.pdf
Rolling Hills Contract 11.10.21 for irrigation.pdf

City of Rolling Hills

INCORPORATED JANUARY 24, 1957

NO. 2 PORTUGUESE
BEND ROAD ROLLING
HILLS, CA 90274
(310) 377-1521
FAX (310) 377-7288

REQUEST FOR PROPOSALS

LANDSCAPE ARCHITECTURAL SERVICES

PROPOSALS DUE 5:00PM, SEPTEMBER 17, 2021

BACKGROUND

The City of Rolling Hills is seeking proposals from qualified licensed landscape architect or firms to provide professional services to audit existing conditions (landscape, lighting and irrigation), submit WELO compliant landscape and lighting design package, install or assist in hiring a qualified licensed landscape contractor to install the proposed project at the City Hall Campus located at 2 Portuguese Bend Road, Rolling Hills, CA and Tennis Courts Facility located across the City Hall Campus. The City Hall Campus is approximately 1.3 acres and the Tennis Courts Facility is approximately 1.2 acres estimating 2.5 acres in total (Attachment 1). The City Hall Campus has three existing structures: City Hall, Rolling Hills Community Association (RHCA) office and a shed housing a generator. The RHCA is a tenant of the City. The City is responsible for the maintenance of the City Hall campus and the Tennis Courts Facility.

Between 2016 and 2019 the landscaping on the campus was poorly maintained due to broken sprinkler pipes, nonworking valves and inadequate care. In early 2020, the City conducted necessary repairs, including insect, and gopher treatments to restore a fully functioning irrigation system at the campus. Current Day, 2021, even after repairs, the City seems to have continuous issues with gophers, broken sprinkler pipes and maintenance of the overall campus.

With this project, the City aims to have a well-designed green space that comprises of both California native plants and waterwise plants that are adapted to our climate. These should be planted and maintained to meet WELO requirements and more importantly, meet fire fuel abatement standards and guidelines. The City is located in a very high fire severity zone and designers must avoid high-hazard plants. In addition, designers must also take into consideration CPTED principles when designing landscaped areas while also providing adequate visual screening from the adjacent main road north of the subject site. Lastly, the City will be using the City Hall Campus and Tennis Courts Facility to showcase water efficient plants and design principles, so residents will know the proper landscape materials suitable for the zone and low maintenance techniques.

SECTION 1
SCOPE OF SERVICES

The City is requesting proposals from qualified landscape architect or companies to provide the following services:

- Inventory and audit existing conditions and document
- Submit complete landscape package that includes:
    - Irrigation plan, planting plan, lighting design plan, all applicable details/specifications, and MWELO compliance
- Conduct site visits and attend working meetings with key stakeholders and staff to solicit their input on the conceptual plans before a final plan is approved by the City.
- Design Fire Code compliant access around the generator shed
- Design a pad that is ADA compliant for an existing freestanding USPS Mailbox
- Receive approval from applicable agencies, i.e. Fire Department's Fuel Modification Division, Building and Safety and the City's landscape architect
- Develop final approved design for implementation
- Provide copies of all reports, technical memoranda, and presentation materials to city staff.
- Attend up to two City Council Meetings
- Develop cost estimates for the conceptual and final approved plans and specifications.
- Install proposed project or oversee hiring of contractor to install project
- Respond to Request for Information
- Inspect the completed project and verify compliance with approved plan
- Secure a Certificate of Compliance
- Provide manuals and maintenance instructions for plant materials, lighting and irrigation system
- Review and approve close-out documents
- Provide Record Drawings in hard copy and digital format
- Conduct training for maintenance crew
- Provide Project Schedule

SECTION 2
PROPOSAL REQUIREMENTS

1. Understanding of the Scope of Work:
   Firms shall provide a narrative to the approach to complete the Scope of Work efficiently and economically.

2. Organization, Credentials and Experience:
   Provide a summary of the Firm's qualifications, credentials, and related experience. Describe the firm, including the personnel who will be assigned to the contract. Provide a list of three of the firm's projects within the last five years of similar scope and content.

3. Fees:
   Under separate cover, provide a rate proposal for the scope of work. The cost proposal shall be identified for each task. The proposed cost budget shall present the labor rates and proposed labor hours of proposed staff for each work task described in the consultant's proposal, as well as other direct costs.

4. Additional Information:
   Firms are to review the sample Professional Services Agreement (Attachment 5) and provide comments and or questions as a part of the firm's proposal.

SECTION 3
PROPOSAL PROCEDURE

All proposals are due no later than 5:00pm on September 17, 2021. The City reserves the right to extend the deadline. The City will respond to request for clarification in written RFP addendum(s) as needed. All inquiries for clarification shall submitted in writing via email to the Senior Management Analyst by 12:00pm on September 01, 2021. The City will post any addendums to the RFP to the City's website. Consultants planning to submit a proposal are required to refer to the website to verify that they have received all addendums issued for this RFP.

Proposals shall be emailed to the Senior Management Analyst.

Ashford Ball
Senior Management Analyst
aball@cityofrh.net
(310) 377-1521

Submission of a proposal indicates acceptance by the firm of the conditions contained in this request for proposal unless clearly and specifically noted in the proposal submitted and confirmed in the agreement between the City of Rolling Hills and the firm selected. The City of Rolling Hills reserves the right without prejudice to reject any or all proposals. No reimbursement will be made by the City for costs incurred in the preparation of the response to this Request for Proposal. Submitted materials will not be returned and become the property of the City of Rolling Hills.

SECTION 4
SELECTION CRITERIA

Proposals will be selected based on sound approach to meeting the scope of work, the ability to demonstrate efficiency use of resources, the relevant experience of proposed personnel, and dedication of personnel to complete the project within the specified timeframe. Firms may be asked to participate in an interview with the City. If necessary, interviews are tentatively scheduled for the week of September 27, 2021.

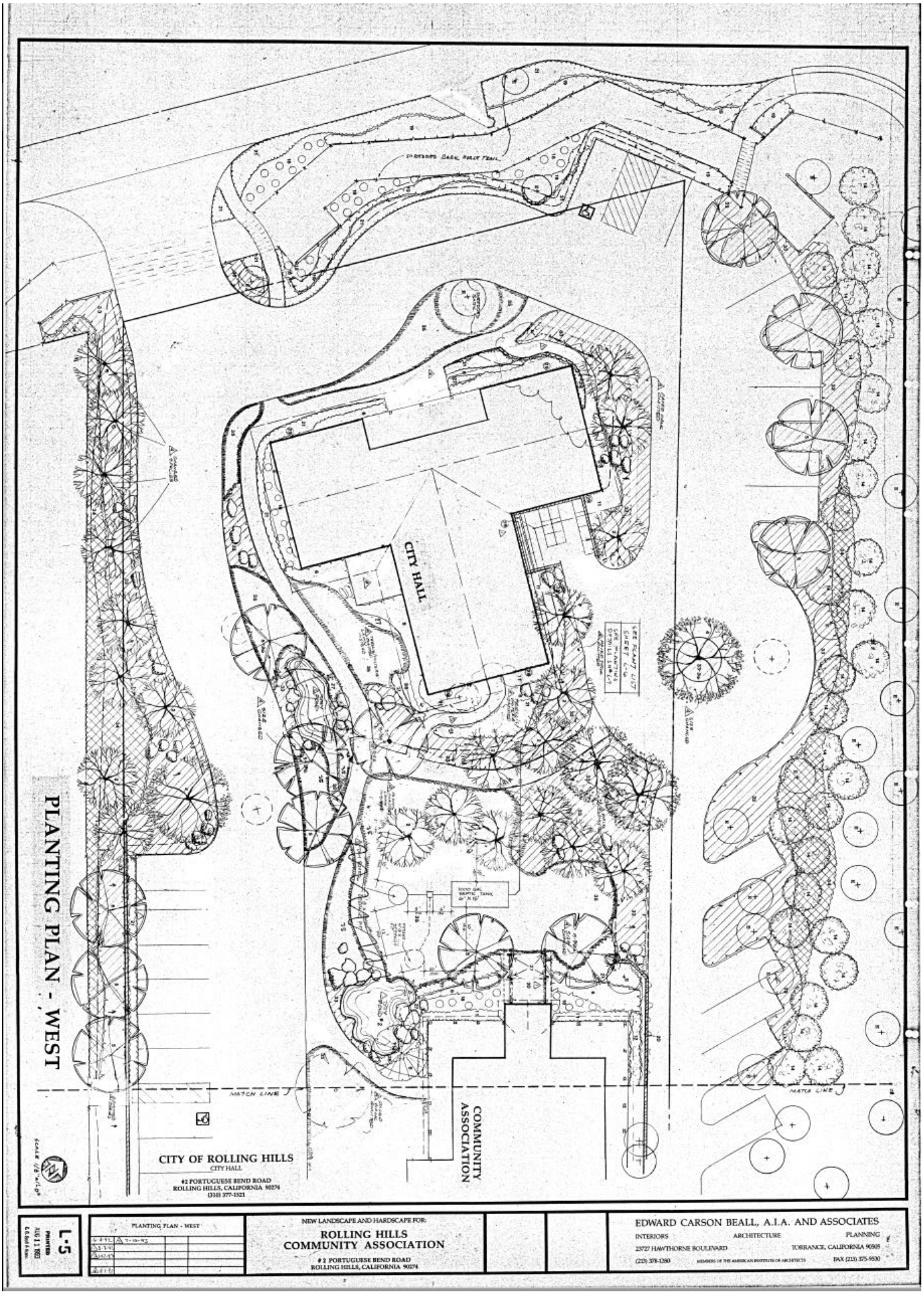
SECTION 5
ATTACHMENTS

Attachment 1 Site Plan
Attachment 2 Aerial View of City Hall Campus and Tennis Courts Facility
Attachment 3 Photographs of City Hall Campus
Attachment 4 Sample Professional Services Agreement

ATTACHMENT 1

Site Plan

MAIN GATE PLANT KEY
MATCH LINE
MATCH LINE
PLANTING PLAN - EAST
NEW LANDSCAPE AND HARDSCAPE FOR:
ROLLING HILLS
COMMUNITY ASSOCIATION
#2 PORTUGUESE BEND ROAD
ROLLING HILLS, CALIFORNIA 90274
EDWARD CARSON BEALL, A.I.A. AND ASSOCIATES
INTERIORS ARCHITECTURE PLANNING
23727 HAWTHORNE BOULEVARD TORRANCE, CALIFORNIA 90505
(213) 378-1280 MEMBERS OF THE AMERICAN INSTITUTE OF ARCHITECTS FAX (213) 375-9530
L-6
PRINTED
10 01 11 0810


CITY HALL
COMMUNITY ASSOCIATION
MATCH LINE
MATCH LINE
CITY OF ROLLING HILLS
CITY HALL
#2 PORTUGUESE BEND ROAD
ROLLING HILLS, CALIFORNIA 90274
(310) 377-1521
PLANTING PLAN - WEST
L-5
PLANTING PLAN - WEST
NEW LANDSCAPE AND HARDSCAPE FOR:
ROLLING HILLS
COMMUNITY ASSOCIATION
#2 PORTUGUESE BEND ROAD
ROLLING HILLS, CALIFORNIA 90274
EDWARD CARSON BEALL, A.I.A. AND ASSOCIATES
INTERIORS ARCHITECTURE PLANNING
23727 HAWTHORNE BOULEVARD TORRANCE, CALIFORNIA 90505
(213) 378-1280 MEMBERS OF THE AMERICAN INSTITUTE OF ARCHITECTS FAX (213) 375-9530

ATTACHMENT 2

Bird’s-eye View of City Campus

Rolling Hills Estates
Title Loans Pros
Portuguese Bend Rd
Bent Springs Trail
Portuguese Bend Rd
Bent Springs Trail
Portuguese Bend Rd
Bent Springs Trail
Rolling Hills City Hall
Palos Verdes Dr N
Rolling Hills
Community Association
Palos Verdes Dr N
Bridle Trail
Bridle Trail
Scout House Trail

ATTACHMENT 3

Photographs of City Campus










CITY HALL





ATTACHMENT 4

Sample
Professional Service Agreement

CITY OF ROLLING HILLS
PROFESSIONAL SERVICES AGREEMENT

THIS AGREEMENT made and entered into this_____day of_____2019 between the City of Rolling Hills, a municipal corporation, hereinafter referred to as "CITY'' and _____ with principal offices at _____-, hereinafter referred to as "CONSULTANT."

1. RECITALS:

A. The CITY desires to contract the CONSULTANT for _____

B. CONSULTANT is well qualified by reason of education and experience to perform such services; and

C. CONSULTANT is willing to render such _____ services as hereinafter defined.

Now, therefore, for and in consideration of the mutual covenants and conditions herein contained, CITY hereby engages CONSULTANT and CONSULTANT agrees to perform the services set forth in this AGREEMENT.

2. SCOPE OF WORK

CONSULTANT shall perform all work necessary to complete in a manner satisfactory to CITY the services set forth in the specifications and the scope of work described in the Proposal for _____ Services, attached herein as Exhibit A (hereinafter referred to as "SERVICES").

3. COST

The CITY agrees to pay CONSULTANT for all the work or any part of the work performed under this AGREEMENT at the rates and in the manner established in the attached Scope of Work, attached herein as Exhibit A.

Total contract shall not exceed the sum of_____during the term of the AGREEMENT. This fee includes all expenses, consisting of all local travel, attendance at meetings, printing and submission of grants, which are accrued during that period. It also includes any escalation or inflation factors anticipated.

Any increase in contract amount or scope shall be approved by expressed written amendment executed by the CITY and CONSULTANT.

SAMPLE

4. METHOD OF PAYMENT

CONSULTANT shall be reimbursed within 30 (thirty) days of submitting an invoice to City for the SERVICES. CONSULTANT shall submit an invoice for the SERVICES within 10 (ten) days of completing each task or portion thereof identified in Exhibit A to this AGREEMENT. CONSULTANT shall submit invoices electronically to the City Manager of the CITY and shall also provide a courtesy copy by U.S. Mail addressed to the City Manager of the CITY.

5. SUBCONTRACTING

CONSULTANT may employ qualified independent subcontractor(s) to assist CONSULTANT in the performance of SERVICES with CITY's prior written approval.

6. COMMENCEMENT OF WORK

CONSULTANT shall commence work under this AGREEMENT upon execution of this AGREEMENT.

7. PERFORMANCE TO SATISFACTION OF CITY

CONSULTANT agrees to perform all work to the reasonable satisfaction of CITY and within the time hereinafter specified.

8. COMPLIANCE WITH LAW

All SERVICES rendered hereunder shall be provided in accordance with the requirements of relevant local, State and Federal Law.

9. ACCOUNTING RECORDS

CONSULTANT must maintain accounting records and other evidence pertaining to costs incurred which records and documents shall be kept available at the CONSULTANT's California office during the contract period and thereafter for five years from the date of final payment.

10. OWNERSHIP OF DATA

All data, maps, photographs, and other material collected or prepared under the contract shall become the property of the CITY.

11. TERM OF CONTRACT

This contract shall be valid for _____ AGREEMENT.

SAMPLE

12. TERMINATION

This contract may be terminated by either party with or without cause upon seven (7) days written notice to the other party. All work satisfactorily performed pursuant to the contract and prior to the date of termination may be claimed for reimbursement.

13. ASSIGNABILITY

CONSULTANT shall not assign or transfer interest in this contract without the prior written consent of the CITY.

14. AMENDMENT

It is mutually understood and agreed that no alteration or variation of the terms of this contract, or any subcontract requiring the approval of the CITY, shall be valid unless made in writing, signed by the parties hereto, and approved by all necessary parties.

15. NON-SOLICITATION CLAUSE

The CONSULTANT warrants that he or she has not employed or retained any company or persons, other than a bona fide employee working solely for the CONSULTANT, any fee, commission, percentage, brokerage fee, gifts, or any other consideration, contingent upon or resulting from the award or making of this contract. For breach or violation of this warranty, the CITY shall have the right to annul this contract without liability, or, in its discretion to deduct from the contract price or consideration, or otherwise recover, the full amount of such fee, commission, percentage, brokerage fee, gift, or contingent fee.

16. INDEMNITY

CONSULTANT shall indemnify and save harmless CITY, its elected and appointed officers and employees from all claims, damages, suits, cost or actions of every name, kind or description, brought for, or on account of, (i) injuries to or death of any person, (ii) damage to property or (iii) arising from performance of this AGREEMENT in any manner that resulted from the fault or negligence of CONSULTANT, it officers, agents, employees and/or servants in connection with this AGREEMENT.

CITY shall indemnify and save harmless CONSULTANT, its officers, agents, employees, and servants from all claims, damages, suits, costs or actions of every name, kind, or description, brought for, or on account of, (i) injuries to or death of any person, (ii) damage to property or (iii) arising from performance of this AGREEMENT in any manner that resulted from the fault or negligence of the CONSULTANT, its officers, agents, employees, and/or servants in connection with this AGREEMENT.

If CONSULTANT should subcontract all or any portion of the SERVICES to be performed under this AGREEMENT, CONSULTANT shall require each subcontractor to indemnify, hold harmless and defend CITY and each of its officers, officials, employees

SAMPLE

agents and volunteers in accordance with the term of the preceding paragraph. This section shall survive termination or expiration of this AGREEMENT.

17. INSURANCE

A. Without limiting CONSULTANT'S obligations arising under paragraph 16 - Indemnity, CONSULTANT shall not begin work under this AGREEMENT until it obtains policies of insurance required under this section. The insurance shall cover CONSULTANT, its agents, representatives and employees in connection with the performance of work under this AGREEMENT, and shall be maintained throughout the term of this AGREEMENT. Insurance coverage shall be as follows:

i. Automobile Liability Insurance with minimum coverage of $300,000 for property damage, $300,000 for injury to one person/single occurrence, and $300,000 for injury to more than one person/single occurrence.

ii. Public Liability and Property Damage Insurance, insuring CITY its elected and appointed officers and employees from claims for damages for personal injury, including death, as well as from claims for property damage which may arise from CONSULTANT'S actions under this AGREEMENT, whether or not done by CONSULTANT or anyone directly or indirectly employed by CONSULTANT. Such insurance shall have a combined single limit of not less than $500,000.

iii. Worker's Compensation Insurance for all CONSULTANT'S employees to the extent required by the State of California. CONSULTANT shall require all subcontractors who are hired by CONSULTANT to perform the SERVICES and who have employees to similarly obtain Worker's Compensation Insurance for all of the subcontractor's employees.

iv. Professional Liability Insurance for CONSULTANT that at a minimum covers professional misconduct or lack of the requisite skill required for the performances of SERVICES in an amount of not less than $500,000 per occurrence.

B. Deductibility Limits for policies referred to in subparagraphs A (i) (ii) and (iii) shall not exceed $5,000 per occurrence.

C. Additional Insured. City, its elected and appointed officers and employees shall be named as additional insured on policies referred to in subparagraphs A (i) and (ii).

D. Primary Insurance. The insurance required in paragraphs A (i) and (ii) shall be primary and not excess coverage.

E. Evidence of Insurance. Consultant shall furnish CITY, prior to the execution of this AGREEMENT, satisfactory evidence of the insurance required, issued by an insurer authorized to do business in California, and an endorsement to each such

SAMPLE

policy of insurance evidencing that each carrier is required to give CITY at least 30 days prior written notice of the cancellation of any policy during the effective period of the AGREEMENT. All required insurance policies are subject to approval of the City Attorney. Failure on the part of CONSULTANT to procure or maintain said insurance in full force and effect shall constitute a material breach of this AGREEMENT or procure or renew such insurance, and pay any premiums therefore at CONSULTANT'S expense.

18. ENFORCEMENT OF AGREEMENT

In the event that legal action is commenced to enforce or declare the rights created under this AGREEMENT, the prevailing party shall be entitled to an award of costs and reasonable attorney's fees in the amount to be determined by the court.

19. CONFLICTS OF INTEREST

No member of the governing body of the CITY and no other officer, employee, or agent of the CITY who exercises any functions or responsibilities in connection with the planning and carrying out of the program, shall have any personal financial interest, direct or indirect, in this AGREEMENT; and the CONSULTANT further covenants that in the performance of this AGREEMENT, no person having any such interest shall be employed.

20. INDEPENDENT CONTRACTOR

The CONSULTANT is and shall at all times remain as to the CITY a wholly independent contractor. Neither the CITY nor any of its agents shall have control over the conduct of the CONSULTANT or any of the CONSULTANT's employees or subcontractors, except as herein set forth. The CONSULTANT shall not at any time or in any manner represent that it or any of its agents or employees are in any manner agents or employees of the CITY.

21. ENTIRE AGREEMENT OF THE PARTIES

This AGREEMENT supersedes any and all other agreements, either oral or in writing, between the parties hereto with respect to the employment of CONSULTANT by CITY and contains all the covenants and agreements between the parties with respect such employment in any manner whatsoever. Each party to this AGREEMENT acknowledges that no representations, inducements, promises or agreements, orally or otherwise, have been made by any party, or anyone acting on behalf of any party, which are not embodied herein, and that no other agreement or amendment hereto shall be effective unless executed in writing and signed by both CITY and CONSULTANT.

22. NOTICES.

All written notices required by, or related to this AGREEMENT shall be sent by Certified Mail, Return Receipt Requested, postage prepaid and addressed as listed

SAMPLE

below. Neither party to this AGREEMENT shall refuse to accept such mail; the parties to this AGREEMENT shall promptly inform the other party of any change of address. All notices required by this AGREEMENT are effective on the day of receipt, unless otherwise indicated herein. The mailing address of each party to this AGREEMENT is as follows:

CITY: Elaine Jeng, PE, City Manager City of Rolling Hills
No. 2 Portuguese Bend Road Rolling Hills, CA 90274

CONSULTANT: _____

4. GOVERNING LAW

This AGREEMENT shall be governed by and construed in accordance with the laws of the State of California, and all applicable federal statutes and regulations as amended.

IN WITNESS WHEREOF, the parties hereto have executed this AGREEMENT on the date and year first above written.

CITY OF ROLLING HILLS CONSULTANT CITY

MANAGER

_____ _____

ELAINE JENG, PE

DATE:_____ DATE:_____

ATTEST:

_____

CITY CLERK

APPROVED AS TO FORM:

_____

MICHAEL JENKINS, CITY ATTORNEY

SAMPLE

Evan Smith ~ Landscape Architect #4716
1301 Via Gabriel, Palos Verdes Estates, CA 90274
Ph 818/665-8710 evansmith4716@gmail.com
facebook.com/EvanSmithLA

November 16th, 2021

The following proposal is intended to convey the scope of the work to be performed by Evan Smith for the address below, in agreement with the price and payment schedule outlined herein.

I intend to work with the cities agents to discuss the site developments. requirements, schedule and budgets; and to review and develop design concepts to formulate a landscape design that incorporates the elements found in the architectural design and brings the property to its full potential.

SCOPE OF WORK AT:
Rolling Hills City Hall Campus & Tennis Court
2 Portuguese Bend Road
Rolling Hills, CA 90274

All work shall be directed IN WRITING by the clients and may include but not be limited to:

SITE ASSESMENT :

- Irrigation Inventory of current condition and zone locations
- Planting: health, water usage and general condition
- Drainage: current condition and efficiency.

SITE IMPROVEMENTS :

- Design Development Plans(Concepts) I.e. “Improvement of patchy areas”
  To be submitted to authorized agent for review prior to Construction Documents / RFP’s being prepared.
- Construction/Submittal Documents and RFP’s for the installation of the hardscape & planting and any necessary HOA, city, county or state submittals.
  Documents may include but not limited to:
  - Construction Details and Specifications: Detailing all landscape construction items including, but not limited to, concrete, masonry, walls, planters, gates, ponds, pools and spas. All necessary specifications and construction details pertaining to the work shall be provided excluding structural and hydraulic engineering which are to be detailed by a LICENSED ENGINEER.
  - Drainage Plans: showing location, size, quantity and type of drainage devices for the landscape work.
  - Landscape Plan: Detailing all trees, shrubs, annual color, ground covers, and container plantings where appropriate. A plant list detailing all plant sizes, quantities, general notes and specific varieties.
  - Irrigation Plans and Details: showing design and equipment specifications of a segregated irrigation system. The system shall be designed to meet local code requirements.

Evan Smith ~ Landscape Architect #4716
1301 Via Gabriel, Palos Verdes Estates, CA 90274
Ph 818/665-8710 evansmith4716@gmail.com
facebook.com/EvanSmithLA

Site Improvements (continued) :

- Lighting Plans: showing design equipment specifications of the landscape lighting system.
- Fuel Modification Plans for submittal to the LACFD for review and/or approvals. This submittal includes a WUCOLS plan & Invasive species mitigation plan.

NOTE - (Above plans may be used for construction &/or bidding purposes.)

CONSTRUCTION OBSERVATION / MANAGEMENT

- Assist the client in obtaining bids, negotiating contracts, reviewing project billing and obtain mechanics lien releases.
- Attend meetings at the job site for the purpose of construction review with the agent, agent's representatives and/or contractors.
- Provide field visits to review layout of landscape elements and check for general conformance to the contract documents and design intent.
- Visit nurseries to tag and select plant material.

PROJECT ASSUMPTIONS

The client shall furnish Evan Smith with all necessary topographic survey maps, utility information, plot plan, architectural plans, soils report and other graphic or statistical information or data pertinent to the project at the clients expense.

All necessary specifications and construction details pertaining to the work shall be provided excluding structural and hydraulic engineering which are to be detailed by a LICENSED ENGINEER.

FEES

Client authorized work to be billed at the rate of $150 per hour.
Hours to include but not limited to:

- Office Design &/or Drafting time
- Phone, email, text, Zoom and any other time spent communicating with clients, agents &/or suppliers.
- Travel time will be included in each authorized site or off site meeting.
- Any task related to said project received IN WRITING from authorized agent(s)

ALL work to be performed against a retainer for services.
Evan Smith will provide a weekly written log of time showing:

- Services provided with Data, Time and hours accrued to nearest 1/10th of an hour (6 minuets)

Once initial retainer is depleted another retainer, To Be Determined, will be necessary to continue services.

Evan Smith ~ Landscape Architect #4716
1301 Via Gabriel, Palos Verdes Estates, CA 90274
Ph 818/665-8710 evansmith4716@gmail.com
facebook.com/EvanSmithLA

APPROVAL AND ACCEPTANCE

Your signature below and the receipt of $6,000 nonrefundable retainer will constitute acceptance of this proposal.

_____

Authorized Agent TITLE Date
City Rolling Hills
2 Portuguese Bend Road
Rolling Hills , CA 90274

_____

Evan Smith Date
Landscape Architect #4716
1301 Via Gabriel
Palos Verdes Estates, CA 90274

Landscape Architects are licensed by the State of California.
Any unresolved issue with the Landscape Architect will be arbitrated in The State of California by a third party OR:
California Architects Board, Landscape Architects Technical Committee
400 R Street, Suite 4000, Sacramento, CA 95814-6238, PH# 916/445-4954

NOTE: All documents, plans & other statistical information shall remain under copyright of Evan Smith. No reproductions nor publications shall be permitted without written authorization.

City of Rolling Hills INCORPORATED JANUARY 24, 1957

Agenda Item No.: 11.A
Mtg. Date: 01/24/2022

TO: **HONORABLE MAYOR AND MEMBERS OF THE CITY COUNCIL**

FROM: **CHRISTIAN HORVATH, CITY CLERK / EXECUTIVE ASSISTANT TO CITY MANAGER**

THRU: **ELAINE JENG P.E., CITY MANAGER**

SUBJECT: **BID PROPOSAL AND CONTRACT FOR EMERGENCY STORM DRAIN REPAIR AT 1 MIDDLERIDGE LANE SOUTH**

DATE: **January 24, 2022**

BACKGROUND:
On December 30, 2021, the easement adjacent to Middleridge Lane South developed multiple sinkholes during a storm event. As a result the RHCA contacted LA County Department of Public Works (LACDPW) on January 3, 2022 to request assistance and repair.

On January 6, 2022, LACDPW informed the RHCA and City that they had found documentation confirming that the City of Rolling Hills was responsible for maintenance of the subject drain via a 1972 signed agreement between the Los Angeles County Flood Control District and the City.

On January 9, 2022 the City Manager sent an email update to the Council and adjacent neighbors updating them on the above and the steps being taken to address the issues. While the city initially tried to engage LA County through our General Services agreement, they were unable to commit time and resources due to extenuating circumstances including lack of manpower due to COVID-19 and other emergency projects.

Staff contacted private contractors who visited the site and provided feedback on repair scope of work, schedule, and cost. In the meantime, the RHCA, in anticipation of projected rain directed staff to place sandbags and tarp over the sink holes.

On Tuesday, January 18, 2022, EC Construction was on site to investigate as to whether the broken drainpipe was the cause of the upper sinkhole and determine a more clear scope of work. The coupling (pipe connector) was the issue at the upper and lower sinkholes. Staff would like to commence repair work as soon as possible, depending on availability of EC Construction personnel and material. EC Construction did not express issues with the stability of the adjacent road and presented two options for the City to consider.

DISCUSSION:

Option 1:

1. Excavate all wet/bad soil at sink hole areas, 2 spots.
2. Remove 40 LF of damaged 24" CMP Pipe.
3. Connect to existing 24" CMP Pipe with 40 LF of new 24" CMP including ½" rock bedding under pipe for stability.
4. Backfill new Pipe with 1 sack slurry, 1' over new pipe.
5. Backfill and compact the remaining excavation with clean dirt.
6. Excavate small pipe displacement sink hole and pour a concrete collar around displacement. Backfill and compact with clean dirt.
7. Repair Asphalt berm at edge of street that eroded with trail failure.

Option 2:

Repair the pipe as stated above and line the entire length of 24" CMP from the upstream catch basin above 1 Middleridge Lane S to the catch basin at the intersection of Middleridge Lane S & N.

FISCAL IMPACT:
The repair to the storm drain line is an unexpected expense and not budgeted in the FY 2021-2022 adopted budget.

Option 1
COST: $33,235 include 15% contingency.
Exclusions: permits, inspection fees, SWPPP plan, engineering, survey, relocation of underground utilities, night or weekend work, concrete, slurry, and striping.

Option 2
COST: Unknown at this time. Waiting for pricing and timeline from EC Construction.

RECOMMENDATION:
Direct City Attorney to draft a professional services contract and authorize the City manager to execute.

ATTACHMENTS:
City of Rolling Hills SD Repair.pdf
CL_AGN_220124_CC_RH_StormDrain_EmergencyRepair_Resolution.pdf

BID PROPOSAL AND CONTRACT

2213 CHICO AVE./SO. EL MONTE, CA 91733
Phone: (626) 444-9596 Fax: (626) 444-3077
California Contractors License #366814

DATE: 1/19/2022

TO City of Rolling Hills
2 Portuguese Bend Rd
Rolling Hills, CA 90274

JOB ADDRESS

1 Middleridge Lane S

We agree to furnish all labor, materials, equipment and supervision necessary to complete the following:

STORM DRAIN REPAIR

1. Excavate all wet/bad soil at sink hole areas, 2 spots.
2. Remove 40 LF of damaged 24" CMP Pipe.
3. Connect to existing 24" CMP Pipe with 40 LF of new 24" CMP including ½" rock bedding under pipe for stability.
4. Backfill new Pipe with 1 sack slurry, 1' over new pipe.
5. Backfill and compact the remaining excavation with clean dirt.
6. Excavate small pipe displacement sink hole and pour a concrete collar around displacement. Backfill and compact with clean dirt.
7. Repair Asphalt berm at edge of street that eroded with trail failure.

COST……$28,900.00

Exclusions: permits, inspection fees, SWPPP plan, engineering, survey, relocation of underground utilities, night or weekend work, concrete, slurry, and striping.

The above described work will be performed in a workman like manner and in accordance with standard practices.
TERMS: Unless credit arrangements have been made, in writing, in advance, the invoice for the work described herein is due and payable on presentation. 1 ½ % per month will be charged on a daily basis on all accounts or portions thereof not paid within 10 days of the date of the invoice. Customer agrees to pay reasonable attorney fees and collection costs incurred by E.C. Construction Co. for the collection of both principal and interest due to customer's failure to pay per this agreement.
Unless otherwise specified, if this proposal is not accepted within_____30_____days from bid date, we reserve the right of cancellation.

APPROVE AND ACCEPTED

_____

Date_____20___

Respectfully Submitted,

E.C. CONSTRUCTION CO.

By_____

RESOLUTION NO. 1287

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ROLLING HILLS FINDING AND DECLARING THAT AN EMERGENCY CONDITION EXISTS ARISING FROM DAMAGE TO THE CITY'S STORM DRAIN LOCATED AT OR NEAR 1 MIDDLERIDGE LANE SOUTH AND AUTHORIZING EMERGENCY REPAIR TO THE STORM DRAIN WITHOUT PUBLIC BIDDING

RECITALS

A. Sections 22035 and 22050 of the Public Contracts Code authorize the City of Rolling Hills ("City") to proceed with awarding a public works contract to perform emergency work upon adoption by the City Council by a four-fifths vote of a resolution declaring that the public interest and necessity demand the immediate expenditure of public funds to safeguard life, health, or property;

B. The City's storm drain located at or near 1 Middleridge Lane South ("storm drain") is in need of emergency repair as a result of damage to the coupling (pipe connector) of the storm drain;

C. The repairs are necessary to preserve the health, safety and welfare of the City;

D. The need for repair of the City's storm drain requires immediate action that will not permit undergoing the formal competitive bidding process because the City is currently in a rainy season and the last storm event resulted in multiple sink holes in the easement adjacent to Middleridge Lane South. Additional rain events have the potential for causing soil instability;

E. The City Manager solicited proposals from Hardy Harper and EC Construction and received a written acceptable proposal to perform the emergency work from EC Construction, and the City now wishes to award an emergency contract for repair of the City's storm drain to EC Construction; and

F. Public Contract Code section 22050 also provides that the City Council may, by resolution, delegate the authority to order any action required by the emergency and to procure the necessary equipment, services, and supplies for those purposes, without giving notice for bids to let the contracts, to the City Manager, her designee, or any other officer.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF ROLLING HILLS, CALIFORNIA DOES HEREBY RESOLVE AS FOLLOWS:

Section 1. Recitals. The above recitals are true and correct.

Section 2. Findings. The City Council finds that the public interest and necessity demand the immediate expenditure of public funds for emergency work for the repair of the

City's storm drain to safeguard life, health and property. The City Council further finds that the emergency will not permit a delay that would result from a competitive solicitation for bids and that action is necessary to respond to the emergency related to the damaged condition of the City's storm drain. The City Council further finds that based on the foregoing, the approvals herein authorized are necessary to protect the public health, safety and welfare.

Section 3. **Award of Contract; Delegation of Emergency Contracting Authority.** A contract to perform the necessary emergency repair work to the City's water storage tank is hereby awarded to EC Construction for 33,235.00 and the City Manager, or her designee, is hereby authorized to execute said contract, and to order any other action required to remedy the emergency relating to the damaged condition of the City's storm drain, and to procure the necessary equipment, services, and supplies for those purposes, without giving notice for bids to let contracts. The City Manager, or her designee, is directed to report to the City Council at the next regularly scheduled meeting and at every meeting thereafter until the action is terminated to determine if there is a need to continue the action.

Section 4. **Effective Date**. This Resolution shall be effective immediately.

This Resolution was adopted at a regular public meeting of the City Council of the City of Rolling Hills, California held on the 24th day of January, 2022, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

THE CITY COUNCIL OF ROLLING HILLS

_____
Bea Dieringer, Mayor

ATTEST:

_____
Christian Horvath, City Clerk

City of Rolling Hills INCORPORATED JANUARY 24, 1957

Agenda Item No.: 11.B
Mtg. Date: 01/24/2022

TO: **HONORABLE MAYOR AND MEMBERS OF THE CITY COUNCIL**

FROM: **JOHN SIGNO, DIRECTOR OF PLANNING & COMMUNITY SERVICES**

THRU: **ELAINE JENG P.E., CITY MANAGER**

SUBJECT: **CONSIDER APPLYING FOR THE SB 1383 LOCAL ASSISTANCE GRANT PROGRAM**

DATE: **January 24, 2022**

BACKGROUND:

The Department of Resources Recycling and Recovery (CalRecycle) is administering a one-time grant program meant to provide aid in the implementation of regulations adopted by CalRecycle pursuant to Chapter 395, Statutes of 2016 and SB170 Budget Act of 2021. This non-competitive grant program provides $57,000,000 of funding to local jurisdictions to assist with the implementation of regulation requirements associated with SB 1383, including but not limited to:

- Capacity Planning
- Collection
- Edible Food Recovery
- Education and outreach (includes organic waste & edible food recovery)
- Enforcement and Inspection
- Program Evaluation/Gap Analysis
- Procurement Requirements
- Record Keeping

DISCUSSION:
Grant funding can be used for planning and compliance efforts to adopt an ordinance amendment updating the Municipal Code to reflect SB 1383 requirements. It can also be used to pay for education and public outreach efforts. The City recently submitted a Low Population Waiver to CalRecycle per Section 18984.12 of SB 1383 which relieves the City from the requirement of adopting a mandatory recycling/organics ordinance. The City will need to update the Municipal Code to reflect the requirements for procurement of organic waste products, recycled content paper, minimum compost and mulch for landscaping projects, and recycling and organics enclosure space allocation.

Applicants who certify they will adopt an ordinance amendment to CalRecycle by April 1, 2022, will be eligible to receive first round funding (Spring 2022). In addition, the first round of awardees may be

eligible to receive additional remaining funds from entities who did not apply. For applicants who adopt an ordinance after April 1, 2022, awards will be delayed to the second round.

Timeline

February 1, 2022: Application Due Date

March 1, 2022: Secondary Due Date for First Round Funding

- Approved Resolution, and if applicable, Letters of Designation and Letters of Authorization, must be received by this date if it was not submitted with the application.

June 14, 2022: Secondary Due Date for Second Round Funding

- Approved Resolution, and if applicable, Letters of Designation and Letters of Authorization, must be received by this date if it was not submitted with the application.

April 1, 2022 (tentative): Grants Awarded for First Round Funding

- CalRecycle considers funding recommendations, and if approved, conditionally awards grants on this date.

September 1, 2022 (tentative): Grants Awarded for Second Round Funding

- CalRecycle considers funding recommendations, and if approved, conditionally awards grants on this date.

April 2, 2024: Grant Term End for First Round Funding

September 2, 2024: Grant Term End for Second Round Funding

FISCAL IMPACT:

If the grant application is approved, the City would receive up to $20,000.

RECOMMENDATION:

Direct staff to file an application for the SB 1383 Local Assistance Grant Program and prepare a resolution in support of the application.

ATTACHMENTS:

SB 1383 Grant Program Appl Guidelines and Instructions.pdf

CalRecycle

January 2022
Department of Resources Recycling and Recovery

SB 1383 Local Assistance Grant Program Application Guidelines and Instructions

Fiscal Year 2021–22
Revised January 10, 2022

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Grant Cycle Overview

The Department of Resources Recycling and Recovery (CalRecycle) offers the SB 1383 Local Assistance Grant Program pursuant to Chapter 395, Statutes of 2016. This non-competitive grant program will provide one-time funding to local jurisdictions to assist with the implementation of regulation requirements associated with SB 1383.

This resource document provides applicants with instructions to access and complete the application online and information about grant administration. The web-based application is in CalRecycle's Grants Management System (GMS) (https://www.calrecycle.ca.gov/Funding/GMS/). The applicant will need to sign in to GMS to complete and submit an application.

Note: The following terms used in this document are defined below, unless the context clearly indicates otherwise:

- "Applicant" refers to either the legal name of the entity that is legally responsible for grant administration and any entity that will receive and control grant funded equipment, if awarded, or to a person who is completing an application on behalf of the Applicant (this is usually the primary contact listed on the application, but could also be the secondary contact, signature authority, or consultant).
- "You" refers to a person who is completing the application on behalf of the Applicant.

Timeline

February 1, 2022: Application Due Date

- Applicants must submit applications in GMS by 11:59 p.m. on this date.
- Customer service will be available until 4:00 p.m. on this date.

Note: There is only one application period. All applicants must submit an application by February 1, 2022 to be considered for first and second round funding.

March 1, 2022: Secondary Due Date for First Round Funding

- Approved Resolution, and if applicable, Letters of Designation and Letters of Authorization, must be uploaded in GMS by this date if it was not submitted with the application.

June 14, 2022: Secondary Due Date for Second Round Funding

- Approved Resolution, and if applicable, Letters of Designation and Letters of Authorization, must be uploaded in GMS by this date if it was not submitted with the application.

April 1, 2022 (tentative): Grants Awarded for First Round Funding

- CalRecycle considers funding recommendations, and if approved, conditionally awards grants on this date.

Note: Applicants with outstanding debt owed to CalRecycle will not receive funding unless debt is paid by March 1, 2022.

September 1, 2022 (tentative): Grants Awarded for Second Round Funding

- CalRecycle considers funding recommendations, and if approved, conditionally awards grants on this date.

Note: Applicants with outstanding debt owed to CalRecycle will not receive funding unless debt is paid by August 15, 2022.

April 2, 2024: Grant Term End for First Round Funding

September 2, 2024: Grant Term End for Second Round Funding

For milestones that take place during the grant term, refer to the Procedures and Requirements document.

Eligible Applicants

California Labor Code section 1782 prohibits a charter city from receiving state funding or financial assistance for construction projects if that charter city does not comply with Labor Code sections 1770-1782. If any applicants or participating entities are charter cities or Joint Powers Authorities that include charter cities, the lead participating entity must certify on the Detail tab of the application that Labor Code section 1782 does not prohibit any included charter city from receiving state funds for the project described in this application. If it is determined after award that an applicant or participating entity is a charter city prohibited from receiving state funds for this grant project, the grant will be terminated and any disbursed grant funds shall be returned to CalRecycle.

Eligible applicants include:

- City
- County
- City and county
- Regional or Joint Powers Authorities
- Special Districts that provide solid waste collection services

Individual Application

An Individual Application is one in which a single eligible entity will be responsible for grant implementation. The applicant in an Individual Application will be responsible for the performance of the grant and all related documentation. In addition, the applicant will be the only entity receiving any real or personal property that is purchased with grant funds.

Regional Application

Local governments may join together in a Regional Application in which two or more eligible jurisdictions join together for the purpose of grant implementation. A Regional Lead Participant must be designated to act on behalf of all Non-Lead Participants. The Lead Participant is the applicant, and if awarded, will be the grantee responsible for the performance of the grant and all required documentation. CalRecycle will direct all official correspondence and grant payments to the Lead Participant. If a jurisdiction is a Non-Lead Participant in a Regional Application, it may not apply individually.

Joint Powers Authority Application Requirements

Joint Powers Authorities (JPA) may submit a grant application as an individual applicant. An entity may not submit an individual application if that entity is also a member of an applicant JPA. In addition to the requirements for an Individual Application, a JPA must upload a copy of its JPA Agreement.

The JPA Agreement must:

1. Give authority over solid waste management.
2. List all member entities.
3. Contain the signature of all members.

Eligible Projects/Products

Eligible activities and costs include:

- Capacity Planning
- Collection
- Edible Food Recovery
- Education and outreach (includes organic waste & edible food recovery)
- Enforcement and Inspection
- Program Evaluation/Gap Analysis
- Procurement Requirements (using recycled organic products – compost, mulch, electricity, and/or renewable gas and recycled paper and paper products)
- Record Keeping

Available Funds

- $57,000,000 is available for this grant cycle, fiscal year 2021–22, subject to funding availability.
- $20,000 base award for each eligible applicant.
    - CalRecycle provides estimated funding amounts on the Notice of Funding Availability page for applicants to budget anticipated costs of implementing the program.
- CalRecycle will distribute remaining funds to eligible entities based on per capita calculations using the Department of Finance's January 2021 population statistics.

Ordinance Requirement

Applicants must identify the status of adopting an enforceable ordinance(s), or similarly enforceable mechanism, pursuant to section 18981.2 of Title 14 of the California Code of Regulations.

Applicants who certify they will adopt an ordinance to CalRecycle by April 1, 2022, will be eligible to receive first round funding (Spring 2022). In addition, the first round of awardees may be eligible to receive additional remaining funds from entities who did not apply.

For applicants who adopt an ordinance after April 1, 2022, awards will be delayed to the second round.

Grant Term

The Grant Term for first round funding begins on April 1, 2022 (tentative) and ends on April 2, 2024. The Grant Term for second round funding begins on September 1, 2022 (tentative) and ends on September 2, 2024.

For detailed information about requirements within the grant term, refer to the Procedures and Requirements document.

Eligible and Ineligible Costs

Grantees may incur eligible costs only during the Grant Term. For detailed information about eligible and ineligible costs, refer to the Procedures and Requirements document.

Questions

Refer to the Frequently Asked Questions page (https://www.calrecycle.ca.gov/organics/slcp/owrlocalassistancegrant/faq202122). If your answer is not listed, send your question to grants@CalRecycle.ca.gov.

Public Records Requests

CalRecycle's policy is to make records requested by the public promptly available in accordance with the laws governing disclosure of records and information to the public. In general, all records in the possession of a state agency are public records subject to disclosure, unless a law provides that a particular kind of record or information is not a public record or is exempt or prohibited from disclosure.

Upon request, the entire contents of the submitted application are subject to public records requests. This may include contact information, project summary, uploaded documents, and scoring information. Public records may be requested from CalRecycle through the California Public Records Act Requests web page (https://www2.calrecycle.ca.gov/Forms/ContactUs/PublicRecordsRequest/).

Confidentiality

The following describes the treatment of certain confidential or proprietary information under the California Public Records Act (Government Code 6250, et seq.) and related regulations. It also describes how questions are resolved on whether information is truly confidential, the legal protections for confidential information, and internal and program procedures to maintain confidentiality.

Confidential or Proprietary Information

Title 14 of the California Code of Regulations (14 CCR), sections 17041-17046 (https://www.calrecycle.ca.gov/Laws/Regulations/Title14/), states that confidential or proprietary information shall include, but is not limited to:

- Personal or business-related financial data, customer client lists, supplier lists and other information of a proprietary or confidential business nature provided by persons in applications, reports, returns, certifications or other documents submitted to [CalRecycle] which if released would result in harmful effects on the person's competitive position.
- Tax information prohibited from disclosure, pursuant to the Revenue and Taxation Code.

Accordingly, appropriate documents submitted with an application that are clearly marked, on each page, “confidential or proprietary information” will be treated by CalRecycle pursuant to the procedures set forth in 14 CCR sections 17041-17046. However, the law does not treat documents marked as “confidential or proprietary information” (such as sales brochures, promotional literature and other general non-financial documents) as confidential if they do not fall within the categories of protected financial documents listed above.

What if there is a question about what is confidential?
If CalRecycle receives a request to disclose data claimed by the applicant to be confidential, CalRecycle would notify the applicant of the request and state that the documents were under review to determine whether information was correctly identified as “confidential.” If there was any question as to whether specific information was confidential, CalRecycle would contact the person(s) identified in the application to provide a justification and statement why the information is confidential. The process for evaluating confidentiality claims is set forth in section 14 CCR 17046.

What procedures does CalRecycle have in place to ensure that confidential information is kept confidential?
Confidential or proprietary information will be evaluated and analyzed only by CalRecycle staff, kept confidential, and will be maintained with restricted access. Records no longer needed to provide the services offered under the grant program are periodically destroyed, when allowed by audit policies and state law.

Application Instructions

Application Access

The application is available in CalRecycle's web-based Grants Management System (GMS). Access to GMS is secure; therefore, you must have a CalRecycle WebPass to log in to the system. Those who have not previously obtained a CalRecycle WebPass can create an account at the CalRecycle WebPass page (https://secure.calrecycle.ca.gov/WebPass/).

To start an application:

1. Log in to GMS (https://secure.calrecycle.ca.gov/Grants).
2. Select **Apply for a Grant** on the left.
    - All open grant cycles are displayed in a table.
3. Find SB 1383 Local Assistance, OWR: 2021–22 and select **Start Application**.
    - A pop-up window will appear asking for contact information. If you have an existing GMS Account, the information may be auto populated.
    - GMS will automatically add you as the Primary Contact for the new grant application however; you may update this later.
4. Click **Save**.

GMS Tabs - Application Contents and Instructions

The components of the application are divided into tabs. To fill out an application, click on each tab and complete the sections in each tab as required. General directions are on the top of each tab, and detailed information about the requirements for each tab is listed below.

The applicant is responsible for a complete application. This includes signing documents, uploading required documents, and submitting the application by the due date(s). Failure to do so will result in disqualification from the SB 1383 Local Assistance Grant Program.

Examples of disqualifications may include:

- Applicant does not meet the eligibility requirements.
- Project is not eligible.
- Applicant fails to use required CalRecycle documents or forms.
- Applicant uploads incomplete or blank documents to the Documents tab.
- Signature Authority fails to sign Application Certification or any document that requires a signature.
- The online application is incomplete or missing information.
- Applicant fails to certify that they will have an enforceable ordinance, or similarly enforceable mechanism, pursuant to section 18981.2 of Title 14 of the California Code of Regulations by the required due dates.

Summary Tab

This tab provides a summary of the application, due dates, resource documents and links, application documents, and the Application Submission section. It is the applicant's responsibility to submit all required documents, based on the particular grant application/project, by the appropriate due date.

Applicant/Participant Tab
The applicant name is the legal name of the entity that is legally responsible for grant administration, if awarded.

1. Select the **Add Applicant/Participant** button and type in the **Applicant Name** and **County**. Do not enter your personal name.
2. Search the table for the correct applicant name and select **Add Applicant/Participant**.
3. Choose the **Lead Participant** radio button and click **Save**.
    - Every application must have a Lead Participant even if it is an individual application with no Non-Lead Participants.

If the Participant Search List does not contain your Applicant/Participant name:

1. Click on **Add New Applicant/Participant**.
2. Enter the **Applicant/Participant Name** as it appears on the Resolution. Do not include the department or unit name. Do not enter your personal name.
    - List county names with the name first followed by the word "County," e.g., "Sacramento County."
    - List city names as "City of" followed by the city's name, e.g., "City of Sacramento."
3. Complete all required fields then click **Save**.

For Regional, or Joint Powers Authority Applications, add the name of each eligible Non-Lead Participant and select the Participating Jurisdiction radio button.

For a list of eligible applicants, please see the Grant Cycle Overview section titled "Eligible Applicants."

Detail Tab
Complete this tab as follows:

1. Enter a dollar amount in the **Grant Funds Requested** field. Do not exceed the maximum grant award amount provided to you.
2. Enter the **Assembly Districts and Senate Districts**. To select more than one district hold the "Ctrl" key while selecting the numbers.
3. Enter the applicant's **Department Name**, e.g., "General Services." If the applicant does not have a department, enter the applicant's name.
4. Enter the grant payment mailing address.
5. **Project Summary/Statement of Use**: Enter a detailed description of your project.
6. Select the appropriate option for the Resolution Requirement and optional Letter of Designation.
7. Select the appropriate answer for Program Questions.

Contacts Tab
CalRecycle requires the application to have only one Primary Contact and at least one Signature Authority. Each application contact may be granted access by checking the box on the top of the contact's detail screen. The contact will be able to log in to GMS using their own CalRecycle WebPass and access the application.

- **Primary Contact.** One person who the Signature Authority or their designee has authorized to manage and oversee the grant. This person will be the first contact with whom the Grant Manager will communicate.
- **Signature Authority**. The person(s) authorized to sign CalRecycle documents, such as grant applications, grant agreements, etc., as authorized by a board/council-adopted Resolution or Letter of Designation.
- **Secondary Contact**. A person authorized (by the Primary Contact or Signature Authority or their designee) as the alternate person with whom the Grant Manager will communicate. (Not required.)
- **Consultant.** A professional who provides advice in an area of expertise. If CalRecycle awards a grant to the applicant, the consultants may manage the grant or only conduct specific activities, based on a written agreement between the applicant and the consultant outlining work to be performed. (Not required.)

Budget Tab
Select the applicable budget category and enter the dollar amount provided in the 1383 Local Assistance Grant Program Funding Estimates spreadsheet (URL) and detailed budget detail information. The total must equal the Grant Funds Requested amount shown on the Detail tab.

Documents Tab
See the Application Documents section in the Summary tab for documents that must be uploaded in the Documents tab.

When uploading a document, enter a document title, select the appropriate document type from the drop-down list, and enter the date that it was executed/signed, if applicable, or select "today's date." Utilizing a document form other than the official CalRecycle versions, tampering with the CalRecycle version, or otherwise circumventing imposed character limits may subject the applicant to disqualification.

Application Submittal and Deadline

The **Submit Application** button located in the Summary tab will be enabled after all required documents have been uploaded.

Click the **Submit Application** button and the application status will change to **Submitted**. You can only submit the application once; however, you may upload the following documents until the secondary due date: Resolution, Letter of Designation, Letters of Authorization, and JPA Agreements.

You must submit your application no later than 11:59 p.m. on February 1, 2022. Customer service will be available until 4:00 p.m. on the application due date either by emailing grantassistance@calrecycle.ca.gov or calling Melissa Sanford at (916) 341-6104.

Note: Applications that are not submitted by the due date will be deleted from GMS.

Application Documents

Electronic and Original Signatures

CalRecycle now allows for certified e-Signature or original wet signature on documents or forms that certify legally binding information.

Note: E-signatures must include the first and last name of the Signature Authority, be in the Adobe Digital ID format (or through another certified digital signature program), and cannot be completed using the "Fill and Sign" function within Adobe. Any documents using the "Fill and Sign" function, is considered incomplete and may be sent back to the applicant.

Once the document(s) have been signed by the Signature Authority, upload the digitally signed document, or scan the wet signature and save it to GMS. Retain the original document for potential CalRecycle audits. See Audit Considerations section of the Procedures and Requirements document for more information.

If you have questions, email grantassistance@calrecycle.ca.gov.

CalRecycle Documents

Altered or reproduced CalRecycle documents or templates may result in automatic disqualification of your application. Unless a document specifies that it may be reproduced as necessary, **do not** alter CalRecycle documents. If you are having trouble with a document, email grantassistance@calrecycle.ca.gov or call Melissa Sanford at (916) 341-6104.

Below is a list of CalRecycle documents:

Application Certification

The Application Certification is a required application document that must be generated from GMS.

After you have completed each tab of the application and uploaded the required documents, generate the Application Certification from the Summary tab. Once the Application Certification is signed, upload it to the Documents tab.

Applicant's Required Authorization Documents

Below is a list of required authorizing documents by application type that the applicant is responsible for preparing and uploading to their application.

Note: For Resolution, Letter of Authorization, and Letter of Designation templates refer to the CalRecycle Resolution and Letter Examples (https://www.calrecycle.ca.gov/Funding/SampleDocs) web page. CalRecycle staff are available to answer questions about the Resolution or to review your draft Resolution to ensure it meets the requirements of the grant program. You may upload the Resolution to your application as a "Draft Resolution," or, for immediate review, email it to grantassistance@calrecycle.ca.gov.

Individual Application Authorization Documents:
If **subject to a governing body** the applicant must submit a Resolution no later than the secondary due date or CalRecycle will deem the application incomplete and your application will be moved to the second funding round. The Resolution must:

1. Authorize submittal of an application for one or more specifically named CalRecycle grant(s), payment programs, or for all CalRecycle grants or payment programs for which the applicant is eligible.
2. Identify the time period, up to five years, during which the authorizations are valid.
    a. Five years is encouraged; however, periods of less than five years are acceptable.
3. Identify the Signature Authority by listing the job title of the person(s) authorized to sign all grant-related documents necessary to implement and close-out the grant(s).
    a. (Optional but encouraged) The Resolution should authorize the Signature Authority to delegate their signature authority to another person identified by job title. Applicants can only submit a Letter of Designation if the corresponding Resolution includes designee language.

Note: The Signature Authority must sign a Letter of Designation **prior** to the designee's exercise of their authority.

Regional Application Authorization Documents:
Lead Participant
Applicant must submit a Resolution no later than the secondary due date or CalRecycle will deem the application incomplete and your application will be moved to the second funding round.

The Resolution must:

1. Authorize submittal of a Regional Application on behalf of itself as Lead Participant and all other Non-lead Participants for a specifically named CalRecycle grant or payment program.
2. Identify the time period, up to five years, during which the authorizations are valid.
    a. Five years is encouraged; however, periods of less than five years are acceptable.
        i. A Resolution that is valid for more than one year must contain either:
            1. A list of all potential jurisdictions that may serve as Non-Lead Participants, or
            2. A provision that the Signature Authority may alter the list of Non-Lead Participants for each grant cycle.
3. Identify the Signature Authority by listing the job title of the person(s) authorized to sign all grant-related documents necessary to implement and close-out the grant(s).
    a. (Optional but encouraged) The Resolution should authorize the Signature Authority to delegate their signature authority to another person identified by job title. Applicants can only submit a Letter of Designation if the corresponding Resolution includes designee language.

Non-Lead Participant

The Non-Lead Participant prepares the Letter of Authorization (LOA) and gives the Lead Participant authorization to apply for and to act on its behalf in the implementation and administration of the grant or payment program.

Applicant must submit a Letter of Authorization no later than the secondary due date or CalRecycle will remove the Non-Lead Participant(s) from the application.

The LOA must:

1. Be on the Non-Lead Participant's official letterhead.
2. Specify grant or payment program name.
3. Be valid for as long as the Lead Participant's Resolution, not to exceed five years; otherwise, the participating entity must date the letter within the last 12 months.
4. Authorize the Lead Participant to submit a Regional Application and act as Lead Agency on behalf of the Non-Lead Participant.
5. Authorize the Lead Participant to execute all documents necessary to implement the grant or payment program.
6. Be signed by an individual authorized to contractually bind the Non-Lead Participant.

Joint Powers Authority Agreement

Joint Powers Authorities (JPA) must upload a copy of their JPA Agreements giving them authority to conduct the project, listing all member entities, and containing the signature of all members. CalRecycle does ~~not~~ require Letters of Authorization for JPA applicants. A JPA applicant must still upload a Resolution as a part of their application and list all JPA members as Non-Lead Participants on the Applicant/Participant tab.

Letter of Designation

CalRecycle requires a Letter of Designation (LOD) only when the Signature Authority identified in the approved Resolution chooses to delegate their signature authority to another person.

The approved Resolution must indicate the Signature Authority's ability to delegate or designate their authority. The applicant must upload the LOD **prior** to the designee's exercise of their authority. If the designee signs an application document in place of the Signature Authority, the applicant must upload the LOD with their application.

The LOD must:

1. Be on the applicant's letterhead.
2. Include the job title of the designee and the scope of the designee's authority.
3. Include the time period during which the designee may exercise the authority.
4. Be signed by the Signature Authority.

The designee's authority may not extend beyond the effective date of the approved Resolution. For example, if the Resolution is effective until December 31, 2022, then the Letter of Designation may not be effective beyond December 31, 2022. If the letter does not identify a valid time period, the letter will follow the same time frame as the Resolution.

Grant Review and Award Process

Grant Application Review Process

After the close of the application period, CalRecycle staff will review the applications for completeness and eligibility. Only complete applications will be considered for award.

Grant Award Process

For qualifying applications, CalRecycle staff will develop funding recommendations for the consideration and approval of CalRecycle's Director, or their designee; tentatively scheduled for April 1, 2022 and September 1, 2022. CalRecycle reserves the right to partially fund or fund individual phases of selected proposals, and CalRecycle may fund an amount less than requested.

CalRecycle reserves the right to not award any grant funds under one or more cycles.

Grant Award Conditions

If recommended for award, this grant will be subject to the following condition:

1. The recommended grantee for round one funding must pay all outstanding debts due to CalRecycle, or bring current outstanding payments owed to CalRecycle, by March 1, 2022.
2. The recommended grantee for round two funding must pay all outstanding debts due to CalRecycle, or bring current outstanding payments owed to CalRecycle, by August 15, 2022.

Failure to comply with the above condition will void the grant award.

Grant Program Administration

Application Certification

The Application Certification will be the Grant Agreement that binds the Grantee to CalRecycle's requirements as outlined in the documents below. These documents shall guide the grantee's administration of the grant project.

Following CalRecycle's approval of the grant awards, CalRecycle will email grantees the information below.

- **Award email**
- **Exhibit A: Terms and Conditions**
  - Contain CalRecycle standard legal requirements for grants
- **Exhibit B: Procedures and Requirements**
  - Contain specific requirements for administering this grant, including but not limited to project, reporting, and audit requirements

Reporting Process

CalRecycle requires grantees to report on the progress and expenditures on a bi-annual basis. The Procedures and Requirements document contains reporting information and deadlines.

Note: This requirement is subject to change at CalRecycle's discretion.

Payments

Funds must be placed into an interest-bearing account. Tracking and reporting of interest earned (if any) on the funds is not required. All interest accrued and received from the funds shall be used only for eligible expenses related to the performance of this Agreement.

Agenda Item No.: 12.A
Mtg. Date: 01/24/2022

TO: **HONORABLE MAYOR AND MEMBERS OF THE CITY COUNCIL**

FROM: **ASHFORD BALL, SENIOR MANAGEMENT ANALYST**

THRU: **ELAINE JENG P.E., CITY MANAGER**

SUBJECT: **REPORT BY THE FIRE FUEL COMMITTEE ON THE JANUARY 20, 2022 COMMITTEE MEETING AND APPROVE COMMITTEE'S RECOMMENDATION TO HIRE WILDLAND RESOURCE MANAGEMENT.**

DATE: **January 24, 2022**

BACKGROUND:
At the Fire Fuel Committee meeting on December 15, 2021, the Committee reviewed proposals from interested parties to review the draft vegetation management in the canyon ordinance and to provide educational workshops in the community to showcase appropriate vegetation management measures in the canyons. The Committee recommended to the City Council to engage the services of Wildland Resource Management. The Council shortly spoke about this item at the previous City Council meeting on January 10, 2021 and decided to revisit the discussion for today's Council meeting so that all members of the Council can vote on the matter. Councilmember Jeff Pieper was absent from the January 10, 2022 meeting. Additionally, the Fire Fuel Committee was waiting for updated information on estimated costs for consultant's site visits to private properties to offer guidance and approach to managing fuel for properties abutting canyons. The cost for site visits was made available on the week of January 17, 2022 and can be found in the attachment to this report.

DISCUSSION:

The Fire Fuel Committee met Thursday January 20, 2022 and discussed two of the five categories, applicability and environmental regarding the vegetation in the canyons management draft ordinance. The five categories are as follows: (1) applicability, (2) environmental, (3) appropriate standards for mitigation, (4) cost, and (5) mandatory versus voluntary. The Committee discussed the details of making a decision on whether to apply a specific slope standard to each canyon or apply regulations on a case-by-case basis. The Committee then decided to make a recommendation to Council at the January 24, 2022 City Council meeting on a case-by-case premise as opposed to a standard due to the various characteristics/hazard of each canyon. The Committee then discussed distance from the structure to the canyon for regulation of the ordinance with three options:

A. Add 100 feet to the distance of the fire departments' jurisdiction (defensible space 200 ft) with a total of 300 feet from the structure of clearance needed.

B. If the property distance from the top of the canyon is beyond the defensible space amount (200 ft) and does not go into the property's canyon then the additional 100 feet would start at the top of the canyon.

C. Residents would be required to clear the whole property (which would include their canyon)

For the discussion on the environment the committee requested staff to bring the list from the high hazard plant prohibition discussed at the November 22, 2021 City Council meeting at the next Fire Fuel meeting to better inform their discussion. The plants requested to be prohibited on any new builds in the city were:

1. **Pine**
2. **Pampas Grass**
3. **Palm**
4. **Juniper**
5. **Acacia (Shrub)**
6. **Eucalyptus**
7. **Cedar**
8. **Cypress**
9. **Italian Cypress**

With the exception of Bougainvillea and Wisteria. The next Fire Fuel Committee meeting is scheduled for Tuesday February 8, 2022 at 6:30pm and the committee plans to discuss the remaining three categories. Staff recommends the committee receive this report, consider the Committee's recommendations, and provide direction to staff.

FISCAL IMPACT:
Costs for Wildland Resource Management Assistance with Ordinance Development- $7,500
Canyon Management Data Collection and home inspections $9,250
TOTAL $16,750.00

ADDITIONAL COSTS
$500 Per site visit based on the aggregation of 3 visits in one day

$1,500.00 a day for 3 visits.

OPTIONAL COST
Optional $ 3,700 Training staff on canyon inspections

There is available budget in Emergency Preparedness account if the City Council decided to engage Wildland Resource Management for services.

RECOMMENDATION:
Receive report, consider Committee's recommendations and provide direction to staff.

ATTACHMENTS:
CL_AGN_220120_FF_Agenda.pdf
Wildland Resource Management-Proposal to City of Rolling Hills UPDATED.pdf

City of Rolling Hills INCORPORATED JANUARY 24, 1957

2 Portuguese Bend Road
Rolling Hills, CA 90274

AGENDA
Special Fire Fuel Management Committee Meeting

FIRE FUEL MANAGEMENT COMMITTEE
Thursday, January 20, 2022

CITY OF ROLLING HILLS
6:30 PM

Executive Order

All Committee members will participate in-person wearing masks per Los Angeles County Health Department's Health Officer Order effective Saturday, July 17, 2021. The meeting agenda and live audio will be available on the City's website:
https://www.rolling-hills.org/government/agenda/index.php

Members of the public may come in to City Hall wearing masks, per the new Health Officer's Order. Zoom teleconference will not be available for this meeting, but members of the public can submit written comments in real-time by emailing the City Clerk's office at cityclerk@cityofrh.net. Your comments will become part of the official meeting record. You must provide your full name, but please do not provide any other personal information that you do not want to be published.

1. PARTICIPANTS

2. ITEMS FOR DISCUSSION

2.A. ANNOUNCEMENT OF COMMUNAL BIN EVENT ON JANUARY 24, 2022 - JANUARY 31, 2022
RECOMMENDATION: Receive and File
Communal Bin 2nd Event Placement 2022.pdf

2.B. RECEIVE AND FILE AN UPDATE ON THE CALOES/FEMA GRANT VEGETATIVE MANAGEMENT PROJECT
RECOMMENDATION: Receive and File
RHills - Vegetation Management Overview.pdf
Rolling Hills Vegetation Management_Bio Tech Memo.pdf

2.C. DISCUSS THE DETAILS OF APPLICABILITY AND A STANDARDIZED SLOPE FOR VEGETATION MANAGEMENT ON STRUCTURES ADJACENT TO CANYONS
RECOMMENDATION: Discuss and Consider

2.D. DISCUSS THE ENVIRONMENTAL IMPACTS OF NATIVE/ NONNATIVE AND INVASIVE /NONINVASIVE PLANTS AND DETERMINE MITIGATION MEASURES
RECOMMENDATION: Discuss and Consider

2.E. CONSIDER AGENDA ITEMS FOR THE NEXT FIRE FUEL MEETING AND SET THE

NEXT MEETING DATE

RECOMMENDATION: Consider Agenda Items

3. COMMENTS WILL BE TAKEN BY EMAIL IN REAL TIME - PUBLIC COMMENT WELCOME

This is the appropriate time for members of the public to make comments regarding items not listed on this agenda. Pursuant to the Brown Act, no action will take place on any items not on the agenda.

4. ADJOURNMENT

Documents pertaining to an agenda item received after the posting of the agendas are available for review in the City Clerk's office or at the meeting at which the item will be considered.

In compliance with the Americans with Disabilities Act (ADA), if you need special assistance to participate in this meeting due to your disability, please contact the City Clerk at (310) 377-1521 at least 48 hours prior to the meeting to enable the City to make reasonable arrangements to ensure accessibility and accommodation for your review of this agenda and attendance at this meeting.

Wildland Res Mgt (510) 502-4737
316 California Ave. #68, Reno NV 89509 carollrice@aol.com

January 20, 2022



Ashford Ball
Senior Management Analyst
2 Portuguese Bend Road
Rolling Hills, CA 90274

Sent via email to aball@cityofrh.net

Dear Mr. Ball:

Thank you for this opportunity to submit a combined proposal for consulting services to the City, and to visit canyon properties to provide advice to the owners of those sites so that they can appropriately treat their lands and advance the wildland fire safety of the City of Rolling Hills.

The services will focus on two different types of activities. The first is to guide code and ordinance development, primarily to assist the determination of what constitutes a nuisance. Tasks would include the description of a nuisance in terms of fuel volume, or arrangement of type (include possibly plant species). For this activity we propose an arrangement based on responding to the questions of the city and offering clarification and guidance. The need for clarification regarding CEQA can also be anticipated. Because of the uncertainty involved in this activity, an arrangement based on time and materials (with a set not-to-exceed ceiling of $7,500) makes the most sense.

The second activity would be to offer consultations regarding canyon management. The overall goals would be to (1) provide guidance to the community about best practices and CEQA, (2) conduct canyon evaluations, and (3) as an optional activity, train staff regarding how to evaluate the compliance and fuel management of canyons. Based on the tasks associated with site visits, meetings, and consultation, we estimate a cost of $16,750.

An important feature of this second activity is to offer advice to canyon owners. The cost per visit is $500 separate from the total cost listed above, based on the aggregation of three visits in a day. Because travel time is a significant portion of the cost, we aim to aggregate three site visits in one day.

We look forward to the possibility of working with the City on scheduling these visits; We assume the City will gather the visit requests and facilitate the scheduling. In addition, this proposal is based on having the City staff document the recommendations. This will result in a City record of expectations, and increased knowledge base and expertise of City staff.

We would be pleased to expand the description of services and deliverables in following discussions.

These services would be provided by Carol Rice, with Wildland Res Mgt and J. Lopez, Los Angeles County Fire Department (retired). Both have been working in the wildland urban interface for decades, and are familiar with the environs and community of the City of Rolling Hills. Both J. and Carol are both natural resource managers and wildland fire managers. Our combined experience enables our ability to offer recommendations that minimize wildland fire hazards and environmental impacts.

The initial work can begin in as soon as agreements are reached.

Below please find a description of services and costs estimated for each task. Please let me know if adjustments should be made so that we can better support the City of Rolling Hills.

Sincerely,

Carol L. Rice

Carol L. Rice

Task	Cost
Guide code development Time and Materials, NTE	**$7,500**
Work aimed at determining what constitutes a nuisance	
E.g., fuel volume, fuel arrangement, species	
Discussion of CEQA procedure and local regulations	
Canyon Management	
Identify/select good example of canyon mgt	
Site visit to identify/select canyon where lessons can be learned	$4,440
Develop BMPs for canyon management, considering local regulations	$1,480
Assumes work done by other entities, per BMP	
Develop a checklist for evaluations	$2,220
Spot check other inspections next year	$1,110
Subtotal (Canyon Management only)	**$9250**
Site Vists/ Traning Staff Services	
Consultation services for canyon property owners, at $500/visit, based on 3 properties/day. Estimated 24 site visits	$500/site
Training of staff, via site visits to inspect 2 canyons (Optional)	$3,700

City of Rolling Hills INCORPORATED JANUARY 24, 1957

Agenda Item No.: 13.A
Mtg. Date: 01/24/2022

TO: **HONORABLE MAYOR AND MEMBERS OF THE CITY COUNCIL**

FROM: **ELAINE JENG, CITY MANAGER**

THRU: **ELAINE JENG P.E., CITY MANAGER**

SUBJECT: **COMMUNITY RECOGNITION LUNCHEON FOR RETIRING SHERIFF DEPUTIES REECE SOUZA AND TAMI BOUSE FROM THE LOMITA STATION.**

DATE: **January 24, 2022**

BACKGROUND:
In February 2022, Deputy Tami Bouse and Deputy Reece Souza will be retiring from the Los Angeles County Sheriff's Department.

Deputy Bouse and Souza are a part of the Community Resource (CORE) Team for the Sheriff's Department Lomita Station serving the Peninsula for over fifteen years. The CORE team unlike patrol deputies, provide education, and awareness to prevent crime and incidents. The CORE team of the Lomita Station conducts the traffic enforcement within the city, often placing a black and white at certain locations to remind drivers to slow down. The CORE team also conduct site visits in the community to work with neighbors on invasion of privacy issues, attend Block Captain meetings, neighborhood zone meetings to educate residents on being emergency prepared. In the last three years, Deputy Souza has been a fixture at Block Captain meetings, coyote forums, and public safety forums. Deputy Bouse attends all the Traffic Commission meetings to report on the traffic enforcement statistics and trends. Deputy Bouse and Souza are engaging, and present. Their work has made them an indispensable part of the community providing a sense of community and safety. A third deputy, John Despot make up the CORE team at Lomita Station. Deputy Despot retired earlier than anticipated in December 2021.

Captain James Powers of Lomita Station will be hiring a new CORE team for the station. If the City Council approves the recognition lunch, staff will invite the new CORE deputies to attend the event for an opportunity to meet the community.

DISCUSSION:
The event would comprise of catered lunch at the Council Chambers, a short presentation of Deputy Bouse and Souza's career, and time for the residents to engage the deputies to wish them well.

FISCAL IMPACT:

There is available budget in account 917 Community Recognition to fund the recognition event. Staff anticipates the event to cost $2,000. Adjacent cities like Rancho Palos Verdes and Rolling Hills Estates are interested in participating in the event and offered to share the expense. The Rolling Hills Community Association may also want to participate in the event. Contribution amounts are unknown at this time but if contributions are made by adjacent cities and or the RHCA, the cost to the city will be less than $2,000.

RECOMMENDATION:
Discuss and consider approval for hosting a community luncheon on Wednesday, February 9, 2022.

ATTACHMENTS:

City of Rolling Hills INCORPORATED JANUARY 24, 1957

Agenda Item No.: 13.B
Mtg. Date: 01/24/2022

TO: **HONORABLE MAYOR AND MEMBERS OF THE CITY COUNCIL**

FROM: **JOHN SIGNO, DIRECTOR OF PLANNING & COMMUNITY SERVICES**

THRU: **ELAINE JENG P.E., CITY MANAGER**

SUBJECT: **FIRE FUEL ABATEMENT ENFORCEMENT CASES QUARTERLY REPORT FOR THE FOURTH QUARTER OF 2021. (OCTOBER 1 THROUGH DECEMBER 31)**

DATE: **January 24, 2022**

BACKGROUND:
The Code Enforcement division provides quarterly updates on code enforcement cases and fuel abatement cases which consist of active and closed cases. The attachments show active and closed cases consisting mainly of unpermitted work, dead vegetation and code violation complaints from neighbors.

DISCUSSION:
In the fourth quarter of 2021 (October 1, 2021 through December 31, 2021), there was a total of 3 new Code Enforcement cases that were opened: one (1) new fire fuel abatement violation cases and two (2) new complaints unrelated to fire fuel abatement violations. During that same period, a total of 6 cases were closed: four (4) vegetation related cases and two (2) non-fire fuel abatement violation.

Due to the busy holiday schedule, the Code Enforcement division did not hold the 4th Quarter Fire Fuel meeting with the City's fire fuel reduction partner agencies. Staff sent emails to the participating agencies requesting reports regarding Fire Fuel Abatement activities. The Palos Verdes Peninsula Land Conservancy (PVPLC) provided a report regarding the current Fuel Load Reduction Project. According to the PVPLC, the third phase was completed in the fall of 2021.

The Rolling Hills Community Association (RHCA) has been working on clearing of the trails, riding rings, and hillsides.

The Los Angeles County Fire Department (LACFD) indicated they do not have any reports of fuel modification requests for the fourth quarter. They are looking to begin brush inspections starting February and lasting through May.

The Code Enforcement Division is continuing to use iWorQ to generate quarterly updates and track code enforcement and fire fuel abatement cases.

FISCAL IMPACT:
None.

RECOMMENDATION:
Receive and file.

ATTACHMENTS:
PVPLC Reducing Fuel Load Project Update -2021.pdf
4th_Quarter_Report_All_Closed_Cases_from_10.1.21-12.31.21.pdf
4th_Quarterly_Report_All_Open_Cases_from_10.1.21-12.31.21.v2.pdf
4t_Quarter-_All_Open_Cases_Comprehensive_Report_from_January_2018_-_December_2021.pdf

Update on Fuel Load Reduction

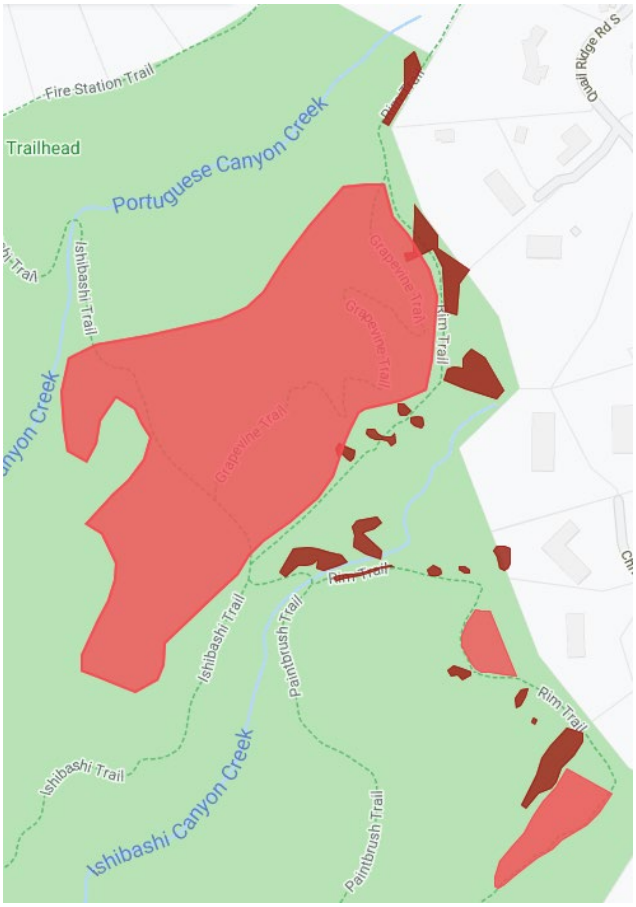
2021

Submitted by the Palos Verdes Peninsula Land Conservancy

In the spring of 2021, The Palos Verdes Peninsula Land Conservancy (Conservancy) proposed a third phase of fuel load reduction work in the Palos Verdes Nature Preserve abutting the City of Rolling Hills. The third phase was completed in the fall of 2021 and this document serves as a report and update of the work completed, including phase one and two, which were completed in the spring of 2021.

Phase 1

Approximately 18 acres of fuel load reduction maintenance were implemented. Of the 18 acres, 2 acres of previously removed acacia areas were monitored for regrowth (and treated) and 16 acres of mustard and non-native grasses were mowed. All sites had biological monitoring surveys done before any work was implemented.



Mowed areas in pink. Monitored areas in red

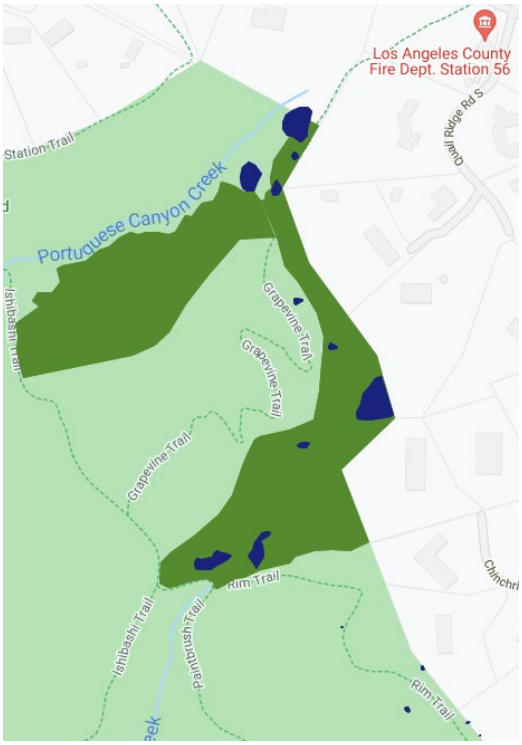




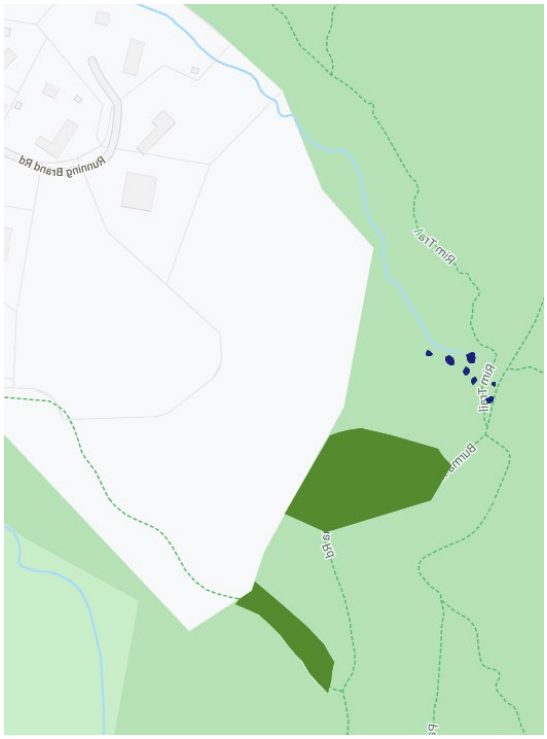
2

Phase 2

Approximately 15 acres of fuel load reduction maintenance were implemented. Of the 15 acres, 1 acre of previously removed acacia areas were monitored for regrowth (and treated) and 14 acres of mustard and non-native grasses were mowed. All sites had biological monitoring surveys done before any work was implemented.



Mowed areas in green. Monitored areas in dark blue



Mowed areas in green. Monitored areas in dark blue







Phase 3

Approximately 7.5 acres of fuel load reduction were implemented. Of the 7.5 acres, 2 acres were Acacia removal and 5.5 acres were mowing of mustard and non-native grasses. The site is currently being monitored for Acacia regrowth. All sites had biological monitoring surveys done before any work was implemented.



Acacia Removal Site in Red Polygon and Mowing in Blue Polygon

















City of Rolling Hills INCORPORATED JANUARY 24, 1957
2 PORTUGUESE BEND ROAD ROLLING HILLS, CA 90274
(310) 377-1521 WWW.ROLLING-HILLS.ORG

4th Quarter Closed Cases Report

Cases closed from 10/01/2021 - 12/31/2021

Case #	Case Date	Address of Violation	Description	Case Closed
216	6/17/2021	5 Johns Canyon Road	View	11/30/2021
153	10/22/2020	15 Portuguese Bend Road	View	10/4/2021
248	9/9/2021	66 Portuguese Bend Road	Tumbleweeds	12/16/2021
229	7/20/2021	88 Saddleback Road	Dead Vegetation	12/15/2021
222	6/28/2021	77 Portuguese Bend Road	Dead Vegetation	10/26/2021
138	8/11/2020	2 Appaloosa Lane	Dead Vegetation	12/14/2021

Total Records: 6

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4th Quarterly Opened Cases

Opened Cases 10/1/2021 - 12/31/2021

Case #	Case Date	Address of Violation	Description
254	12/30/2021	3 Appaloosa Lane	Dead Tree
253	11/23/2021	2 Acacia Lane	Unpermitted replacement of roof on guesthouse, unpermitted demolition of pool deck, and no C&D permit.
251	10/13/2021	2 El Concho	Illegal structure

Total Records: 3

City of Rolling Hills INCORPORATED JANUARY 24, 1957
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(310) 377-1521 WWW.ROLLING-HILLS.ORG

4th Quarterly All Open Cases Report

All Open Cases from 1/1/2018 - 12/31/2021

Case #	Case Date	Address of Violation	Description
225	7/6/2021	1 Chestnut Lane	Illegal structure
246	9/1/2021	1 Crest Road East	Tumbleweeds
205	6/3/2021	1 Hackamore Road	Illegal construction and structures
223	6/22/2021	1 Pinto Road	Dead Vegetation
241	8/10/2021	1 Ranchero Road	Illegal construction
253	11/23/2021	2 Acacia Lane	Unpermitted replacement of roof on guesthouse, unpermitted demolition of pool deck, and no C&D permit.
251	10/13/2021	2 El Concho Lane	Illegal structure and no permits
206	6/8/2021	2 El Concho Lane	Planting trees, illegal construction
66	3/11/2020	2950 Palos Verdes Drive	Expired Permit
254	12/30/2021	3 Appaloosa Lane	Dead Tree
245	8/23/2021	38 Crest Road West	Dead Vegetation
244	8/18/2021	5 Caballeros Road	Dead vegetation
239	8/3/2021	53 Portuguese Bend Road	View Impairment
175	3/17/2021	57 Saddleback Road	Dead Vegetation
208	5/25/2021	6 Pine Tree Lane	Dead Vegetation
5	6/24/2020	61 Eastfield Drive	Grading and Drainage
119	5/16/2019	67 Portuguese Bend Road	Illegal Construction
213	6/11/2021	8 Crest Road East	Illegal export of dirt
250	9/28/2021	8 Middleridge Lane	Dead Vegetation
224	6/29/2021	80 Saddleback Road	Dead vegetation

There are a total of 9 Fire Fuel Abatement related cases highlighted in green.
There are a total of 11 Non-related Fire Fuel Abatement cases.

Total Records: 20

City of Rolling Hills INCORPORATED JANUARY 24, 1957

Agenda Item No.: 14.A
Mtg. Date: 01/24/2022

TO: **HONORABLE MAYOR AND MEMBERS OF THE CITY COUNCIL**

FROM: **ELAINE JENG, CITY MANAGER**

THRU: **ELAINE JENG P.E., CITY MANAGER**

SUBJECT: **CONFERENCE WITH LABOR NEGOTIATOR**
GOVERNMENT CODE SECTION 54957.6

CITY'S DESIGNATED REPRESENTATIVE: MAYOR BEA DIERINGER
UNREPRESENTED EMPLOYEE: CITY MANAGER ELAINE JENG

DATE: **January 24, 2022**

BACKGROUND:
None

DISCUSSION:
None

FISCAL IMPACT:
None

RECOMMENDATION:
None.

ATTACHMENTS: