CONTRA COSTA CLEAN WATER PROGRAM

MANAGEMENT COMMITTEE MEETING AGENDA
Wednesday, August 16, 2023
1:30 PM to 4:00 PM
Join Zoom meeting:
https://us06web.zoom.us/j/87882250373?pwd=azFTaGQ2ajRZdmdveEoxQUFhZzNZUT09
Meeting ID: 878 8225 0373   Passcode: 982003   Dial: +1 669 900 6833 US (San Jose)

If you require an accommodation to participate in this meeting, please contact Duanne Hernaez by phone at 925-313-2360, by fax at 925-313-2301, or by email at Duanne.Hernaez@pw.cccounty.us.
Providing at least 72 hours notice (three business days) prior to the meeting will help to ensure availability.

VOTING MEMBERS (authorized members on file)	
City of Antioch	Phil Hoffmeister/ Scott Beuting
City of Brentwood	Brant Wilson/ Jigar Shah/ Meghan Oliveira
City of Clayton	Larry Theis/ Jason Chen
City of Concord	Bruce Davis/ Carlton Thompson
Contra Costa County	Brian Balbas/ Allison Knapp
CCC Flood Control & Water Conservation District	Tim Jensen/ Michele Mancuso
Town of Danville	Bob Russell/ Steve Jones
City of El Cerrito	Christina Leard/ Stephen Prée/ Yvetteh Ortiz
City of Hercules	Mike Roberts/ Jose Pacheco/ Jeff Brown
City of Lafayette	Matt Luttropp/ Tim Clark
City of Martinez	Khalil Yowakim/ Frank Kennedy
Town of Moraga	Edrianne Aguilar/ Shawn Knapp/ Frank Kennedy **(Chair)**
City of Oakley	Billilee Saengcalern/ Brianne Visaya/ Rinta Perkins
City of Orinda	Kevin McCourt/ Ryan O'Kane/ Frank Kennedy
City of Pinole	Misha Dhillon
City of Pittsburg	Jolan Longway/ Richard Abono
City of Pleasant Hill	Frank Kennedy/ Ryan Cook
City of Richmond	Mary Phelps
City of San Pablo	Amanda Booth/ Itzel Gomez/ Allan Panganiban
City of San Ramon	Kerry Parker/ Robin Bartlett/ Chen-hsuan (Shane) Hsieh
City of Walnut Creek	Lucile Paquette **(Vice-Chair)**/ Neil Mock/ Steve Waymire
PROGRAM STAFF AND CONSULTANTS	
Rinta Perkins, Interim Program Manager	Liz Yin, Consultant
Andrea Bullock, Administrative Analyst	Lisa Austin, Consultant
Duanne Hernaez, Clerical	Lisa Welsh, Consultant
Erin Lennon, Watershed Planner	Nicole Wilson, Consultant
Mitch Avalon, Consultant	

Contra Costa Clean Water Program
MANAGEMENT COMMITTEE MEETING AGENDA
Wednesday, September 20, 2023

AGENDA

Modifications to the agenda, subsequent to the agenda approved by Administrative Committee on August 1, 2023, are shown in redlines below.

Convene the Meeting /Introductions/Announcements/Changes to the Agenda: **1:30**

Public Comments: Any member of the public may address the Management Committee on a subject within their jurisdiction and <u>not</u> listed on the agenda. Remarks should not exceed three (3) minutes.

Regional Water Quality Control Board Staff Comments/Reports: **1:32**

Consent Calendar: **1:35**
All matters listed under the CONSENT CALENDAR are considered routine and can be acted on by one motion. There will be no separate discussion of these items unless requested by a member of the Management Committee or a member of the public prior to the time the Management Committee votes on the motion to adopt.

A. **APPROVE** Management Committee meeting summary (Chair)
   1) July 19, 2023 Management Committee Meeting Summary

B. **ACCEPT** the following subcommittee meeting summaries into the Management Committee record: (Chair)
   1) Administrative Committee
      - July 11, 2023
   2) PIP Committee
      - July 11, 2023
   3) ~~Monitoring Committee~~
      - ~~June 12, 2023~~
   4) Municipal Operations Committee
      - June 20, 2023
   5) ~~Development Committee~~
      - ~~June 28, 2023~~

Presentations: **1:40**

   A. Review Draft Program Annual Report Attachments (L. Welsh)   1:40
      a. See staff report on background information and attachments for:
         i. CCCWP Mercury and PCBs Control Measures Update Report – Update 2023
         ii. Fish Risk Reduction Program for Mercury and PCBs: 2023 Status Report
         iii. East County Mercury Monitoring Results FY 2022/23
   B. Hydromodification Management (HM) Applicability Map (E. Lennon/E. Fresco)   2:00
      a. See staff report for background information
   C. Comment Letter on MRP 3.0 Permit Amendment Language (E. Yin / R. Perkins)   2:15
      a. See staff report for background information
   D. Final Regional Unsheltered Homeless BMP Report (E. Yin)   2:30
      a. See staff report for background information
   E. ~~Budget Status Updates (R. Perkins/A. Bullock)~~   ~~2:45~~
      ~~a. See staff report for background information~~

F. Review Funding Options and Feedback (R. Perkins/ A. Knapp) 2:40
    a. See staff report for background information
G. Letter of Support for SFEI WQIF Grant Application 3:00
    a. See staff report for background information

Actions: **3:10**
A. APPROVE the HM Applicability Map and Addenda, and AUTHORIZE the Interim Program Manager to submit the transmittal letter to the SFBRWQCB on behalf of the Program and Permittees.
B. APPROVE the Comment Letter on MRP 3.0 Permit Amendment Language
C. APPROVE the Final Regional Unsheltered Homeless BMP Report
D. APPROVE the Letter of Support for SFEI WQIF Grant Application on PFAS

Updates: **3:20**
A. BAMSC Steering Committee meeting (R. Perkins)
    a. Status of regional projects and working groups

Information: **3:30**
A. Annual Report Update (E. Yin)
B. Funding Options Workshop Information Item (R. Perkins)
C. BAHM Model Update - Documentation & Training Opportunities (E. Lennon)
D. Cost Study Report – RAC (A. Booth / K. Havens)
E. Standardized Cost Reporting in Municipal Stormwater Permits (E.Yin/N.Wilson)

Old/New Business: **4:00**

Adjournment: Approximately 4:15 p.m.

Next Management Committee Meeting: Wednesday, September 20, 2023, 1:30 PM

Attachments

Consent Items
1. *Management Committee Meeting Summary July 19, 2023*
2. *Administrative Committee Meeting Summary July 11, 2023*
3. *PIP Committee Meeting Summary July 11, 2023*
4. *Monitoring Committee Meeting Summary June 12, 2023*
5. *Municipal Operations Committee Summary June 20, 2023*
6. *Development Committee Meeting Summary June 28, 2023*

Presentation and Action Items
7. *Staff Report on CCCWP Mercury and PCB Control Measures Update Report – Update 2023*
8. *Staff Report on Fish Risk Reduction Program for Mercury and PCBs: 2023 Status Report*
9. *Staff Report on East County Mercury Monitoring Results FY 2022/23*
10. *Staff Report and Draft HM Management Plan Technical Report*
11. *Staff Report and Comment Letter for MRP 3.0 Permit Amendment Language*

12. *Staff Report and Final Regional Unsheltered Homeless BMP Report*
13. ~~*Staff Report on the Budget Status Updates*~~
14. *Staff Report on the Funding Options Next Steps*
15. *Staff Report and Letter of Support for SFEI's WQIF Grant Application on PFAS*
16. *GSI Cost Study Memorandum*

ACTION	AGENDA TOPIC/DOCUMENT	REVIEW BY:	SUBMITTAL DATE
UPCOMING DOCUMENTS FOR MANAGEMENT COMMITTEE REVIEW **-- September 2023 --**			
REVIEW	Annual Report Documents: Municipal Annual Report forms, Permittee Timeline, AGOL Data Entry Timeline.	Ongoing	September 30/ October 2 - SMARTs
REVIEW	Draft CCCWP Program Annual Report Attachments	Aug 16	September 30, with Program Annual Report
REVIEW	Draft MRP 3.0 Tentative Order Comment Letter	Aug 16	August 21, 2023
APPROVE	Final MRP 3.0 Tentative Order Comment Letter	Aug 16	August 21, 2023
APPROVE	2023 CCCWP Program Annual Report and Attachments	Sept 14	September 30, with Program Annual Report
APPROVE	Final Regional Unsheltered Homeless BMP Report	Aug 16	September 30, with Program Annual Report

UPCOMING CCCWP MEETINGS All meetings **will not** be held at 255 Glacier Drive, Martinez, CA 94553, but will be held virtually	
August 23, 2023 **4th Wednesday**	Development Committee Meeting, **1:30 p.m. – 3:30 p.m.**
September 5, 2023 **1st Tuesday**	Administrative and PIP Committee Meeting **9 a.m. – 12:00 noon**
September 11, 2023 **2nd Monday**	Monitoring Committee Meeting, **10 a.m. – 12 noon**
September 20, 2023 **3rd Wednesday**	Management Committee Meeting, **1:30 p.m. – 3:30 p.m.**

BAMSC (BASMAA) SUBCOMMITTEE/ MRP 3.0 MEETINGS Times for the BAMSC (BASMAA) Subcommittee meetings are subject to change.	
July 1, 2022	Effective date of MRP 3.0
1st Thursday	Development Committee, 1:30 – 4:00 p.m. (even months)
1st Wednesday	Monitoring/POCs Committee, 9:30 a.m. – 3:00 p.m. (odd months)
4th Wednesday	Public Information/Participation Committee, 1:30 – 4:00 p.m. (1st month each quarter)
4th Tuesday	Trash Subcommittee, 9:30 a.m.-12 noon (even month)

MANAGEMENT COMMITTEE MEETING MINUTES

7-19-2023

Attendance:

MUNICIPALITY	ATTENDED	ABSENT
City of Antioch	Phil Hoffmeister	
City of Brentwood	Brant Wilson	
City of Clayton	Larry Theis	
City of Concord	Carlton Thompson	
Town of Danville	Bob Russell	
City of El Cerrito	Christina Leard	
City of Hercules		Jose Pacheco
City of Lafayette	Tim Clark	
City of Martinez	Khalil Yowakim	
Town of Moraga	Frank Kennedy **(Chair)**	
City of Oakley	Billilee Saengchalern, Brianne Visaya	
City of Orinda	Kevin McCourt	
City of Pinole	Misha Dhillon	
City of Pittsburg		Jolan Longway
City of Pleasant Hill	Frank Kennedy	
City of Richmond	Mary Phelps	
City of San Pablo	Amanda Booth	
City of San Ramon	Kerry Parker	
City of Walnut Creek	Lucile Paquette	
Contra Costa County	Michele Mancuso	
CCC Flood Control and Water Conservation District	Tim Jensen	
Program Staff		
Interim Program Manager	Rinta Perkins	
Admin. Svcs Assistant III	Andrea Bullock	
Watershed Mgmt Planning Spec.	Erin Lennon	
Clerk	Duanne Hernaez	
Program Consultants:		
Larry Walker Associates	Liz Yin	
Larry Walker Associates	Nicole Wilson	
Geosyntec Consultants	Lisa Welsh	
Water Resources Consulting	Mitch Avalon	
Members of the Public/Others/Guests:		

Introductions/Announcements/Changes to Agenda: Due to the Covid-19 pandemic, the meeting was conducted via video-conference call.

- Rinta Perkins (CCCWP) announced that the 2023 CCC Watershed Symposium is seeking nominations. She encouraged permittees to nominate individuals or projects that have contributed exceptionally to the creeks and watershed within Contra Costa County. An award nomination sheet will be available to permittees and the deadline to turn them in will be August 11th @ 12 am. Any questions regarding the event and nomination process can be directed to the Contra Costa Watershed forum. A link to the website will be provided.
- Rinta reminded permittees to register for the upcoming GI Design Workshop #2 for all who would like to attend. The workshop is to be held on July 26th. Registration link for the workshop can be found on Groupsite.

Public Comments: No members of the public were called in.

Regional Water Quality Control Board Staff Comments/Reports: Regional Board staff did not call in.

Roll call was taken and the meeting was convened by the Chair at 1:36 pm.

Consent Calendar:

1. **APPROVE Management Committee meeting summary (Chair)**
   Lucile Paquette (Walnut Creek) motioned to approve the Management Committee meeting minutes as submitted, with no changes; Misha Dhillon (Pinole) seconded. The Chair called for a vote. There were no objections. The motion passed with no abstentions and the Management Committee meeting minutes were approved.

2. **ACCEPT the following subcommittee meeting summaries into the Management Committee record (Chair)**
   - Administrative Committee
     - June 6, 2023
   - PIP Committee
     - June 6, 2023
   - Monitoring Committee
     - June 12, 2023
   - Municipal Operations Committee
     - May 16, 2023
   - Development Committee
     - May 24, 2023

   Amanda Booth (San Pablo) motioned to approve the Sub-Committee meeting minutes as submitted, with no changes; Carlton Thompson (Concord) seconded. The Chair called for a vote. There were no objections. The motion passed with no abstentions, and the Management Committee meeting minutes were approved.

Presentations

3. **Final Stormwater Funding Options Report Phase 2 (M. Avalon)**

   Mitch Avalon shared a presentation on the final draft of the Stormwater Funding Options Report Phase 2. Mitch opened by sharing an overview of recommended actions which included:

   - Approval of the report
   - Implementing short-term actions
     o Recommended actions to take place during the current fiscal year 23/24
   - Focus on developing a Community Facilities District (CFD) with Regional Alternative Compliance (RAC)
     o This action was strongly recommended.
   - Wait for cost reporting data to be completed.
     o Reporting data can be used to campaign for a new funding measure.
   - Identify any additional information needed.
     o If moving forward with a new funding measure, additional information should be identified before making decisions.

   Mitch highlighted changes to the report since the last MC meeting:

   - Use of SUA funds issue expanded.
     o This section in the report (8.1.4) has been expanded to address questions asked at the last MC meeting.
   - Provision C.20 cost data recommendation added (Section 9.6)
     o Make sure the framework data acknowledges fiscal needs.
   - Outreach oversight structure recommendation added (Section 9.7)
     o Recommendations to improve this process.
   - Minor Changes to improve clarity/understanding.

   Recommended next steps were shared:

   - Property-related fee
     o Will provide ongoing revenue.
     o Will provide a significant amount of income.
       ▪ It was noted that two-thirds voter approval for a tax is not achievable.
   - Fundamental decision to be made:
     o To pursue implementing a property-related fee, Yes or no.
     o If no, consider other options.
       ▪ Phase 1 of the report includes 26 of these options.
       ▪ A "do nothing" option can be found in the phase 2 report.
   - Recommended workshop with Management Committee members:
     o Detailed review of the process forward
     o Identify any additional information needed, or additional actions.
     o After the annual report and before developing the budget (October or November)

4. **Final Trash Monitoring Plan (L. Welsh)**

Lisa Welsh (Geosyntec/CCCWP) gave an update on the recommended approval for the Trash Monitoring Plan and Quality Assurance Project Plan (QAPP). After Management Committee approval, the plan will be presented for approval at the July 27th BAMSC Steering Committee meeting, then submitted to the Regional Water Board by July 31st.

Lisa highlighted changes to the staff report, focusing on how the BAMSC trash monitoring workgroup has revised the draft in response to comments from permittees, the Trash Technical Advisory Group (TAG), and regional waterboard staff. Key comments were covered and presented to committee members.

It was asked what are the required commitments as outlined in the trash monitoring plan, during this permit term and the next. Currently, the plan mentions that the plan will be to eventually investigate alternative monitoring method (likely not in this fiscal year but the next), however, it was noted that this is not a permit requirement and how it will be investigated is to be determined. In monitoring committee there had been a concern that this language looks like "scope creep" and permittees seemed to be equally concerned with the specific language presented in the report. Discussion took place in which the evaluation and implementation of alternative monitoring methods as described in the Trash Monitoring Plan was reviewed and a table was shared which showed a proposed timeline of tasks related to evaluating alternative monitoring methods. Permittees decided to make several changes to the wording to lessen the proposed strict guidelines.

5. **Draft Regional Unsheltered Homeless BMP Report (E. Yin)**

Elizabeth Yin (LWA/CCCWP) shared a short presentation on provision C.17 Discharges Associated with Unsheltered Homeless Populations. Elizabeth shared an overview of the C.17 reporting requirements and highlighted the collective permittee requirement which the Regional BMP report covers.

A timeline of the next steps for the report was shared:
- Comments due – Friday July 21st
- CCCWP MC Approval – August 16th
- Submittal – the report will be attached to the the Program Annual Report.

Elizabeth shared a brief overview of the Regional BMP report and its contents:

- The BMP Report includes:

- Introduction & Background – This section covers the report's purpose, regulatory background, definitions of unsheltered homeless, impact on water quality, and an explanation of issue's complexity.
- Description of Countywide program efforts and Continuum of Care programs.
- Summaries of Best Management Practices

Elizabeth reviewed the BMP Fact Sheets that are included in the BMP report:

- Background - In Fall '22, a survey was distributed to permittees. Information gathered from the survey results was compiled to create a BMP Fact Sheets.
- An example of one of these Fact Sheets was shared and included the following:
  - A summary of the BMP
  - A detailed description of the BMP
  - BMP Goals
  - Challenges faced when implementing the BMP.
  - Lessons learned.
  - Considerations that may be required for the service to be implemented.
  - Local implementation examples
  - Resources and References.

Elizabeth noted that some of the Fact Sheets need to have adequate information. She asked permittees to review the factsheets and add any additional information to these sections of the Fact Sheets:

- Challenges
- Lessons learned.
- Other considerations and References/Resources

Elizabeth asked permittees to review each fact sheet's Local Implementation Examples section to confirm their accuracy especially if the BMP has been implemented within their jurisdiction. Permittees were also asked to provide unique examples of BMPs that do not have a fact sheet and that have been implemented within their jurisdiction.

6. **Update on the MRP 3.0 Permit Amendment Language Comment Letter (E. Yin)**

Elizabeth shared an update on the MRP 3.0 Permit Amendment Language Comment Letter. It was shared that the tentative order language has yet to be received and because of this the original schedule for submitting the comment letter has been delayed. It is estimated that the regional board adoption hearing date will take place sometime in late October. It was noted that there are plans to draft an additional comment letter once the tentative order language is received. However, this will be delayed and is estimated to be completed in late July/early August. With these delays, there is an opportunity to bolster the Select Committee. Elizabeth encouraged permittees to contact her if they would like to volunteer for the Select Committee.

7. **CCCWP FY 23/24 Budget Amendment – Development Committee Tasks (E. Lennon/R. Perkins)**

Erin Lennon (CCCWP) shared updates to the CCCWP FY 23/24 Budget relating to Development Committee recommendations:
- Two budget line-item requests:
  - $9000 for a new task, MRP 3.0 Permit amendment support
  - $6000 for tasks 11.1, Hydromodification Management Applicability Map Update
- One Budget Utilization item
  - Accept CCCWP staff's recommendation and provide feedback and direction for utilizing the FY 23-24 budget line item of $20,000 allocated for MRP 3.0 Provision C.21, Asset Management.

Erin asked for Management Committee approval for these items so that staff and the technical consultant can proceed with the tasks as budgeted and scheduled. It was noted that there will be no fiscal impact on the overall program budget and that the associated budget line items have already been approved.

It was asked how AGOL would support the new asset management requirements. It was answered that program staff believes the existing AGOL system is capable and would like to maximize its potential by gathering the needed data to support asset management reporting. It was answered that County Counsel is currently reviewing the contract for Arini Geographics for approval and the program hopes to begin the contract on August 1st.

Since asset management efforts by individual cities are being made in-house, a question on whether the integration of asset management into the AGOL system and its utilization by the county's cities is needed. The program proposed a survey be distributed to evaluate individual cities' needs to determine how the AGOL system can be utilized to address those needs.

Actions

8. **APPROVE the Final Stormwater Funding Options Report Phase 2**
   Lucile Paquette (Walnut Creek) motioned to approve, and Kerry Parker (San Ramon) Seconded. There were no abstentions or objections and Final Stormwater Funding Options Report Phase 2 was approved.

9. **APPROVE the Final Trash Monitoring Plan**
   Michele Mancuso (Contra Costa County) motioned to approve, with the discussed changes applied, and Lucile Paquette (Walnut Creek) Seconded. There were no abstentions or objections and the Final Trash Monitoring Plan was approved.

10. **APPROVE the Budget Amendment Request Development Committee Tasks**
    Bob Russell (Danville) motioned to approve, and Amanda Booth (San Pablo) Seconded. There were no abstentions or objections and the Budget Amendment Request Development Committee Tasks was approved.

Updates

11. **BAMSC Steering Committee meeting (R. Perkins)**
    - Unsheltered Workgroup
        - Rinta reminded permittees to review the Unsheltered Homeless BMP Report and provide comments.
    - Firefighting Discharges Workgroup
        - A project profile is currently being proposed to BAMSC. The idea is to develop a BMP report to address and reduce the impact of discharges related to firefighting activities. The report will assess the adequacies of existing BMPs, develop standard operating procedures, and prepare outreach materials. Once this is completed the report will be distributed for review.
    - Cost Reporting Workgroup
        - BAMSC has approved the Cost Reporting Framework and Tools. It has been submitted to the Regional Quality Control Board staff and the Program is waiting for their comments. Plans to hold a regional workshop are being discussed.
    - BAHM Workgroup
        - Contra Costa County is now added to the Bay Area Hydromodification Plan. A demonstration has been held to show how the model and calculators work. Regional Training is being planned for this fall.
    - Permit Amendment
        - The public hearing has been pushed back to October. The program is waiting for the release of the tentative draft. The program will share updates as they are announced.

    A question was asked about the C.15 annual report requirement which asks for a progress report on protocols and BMPs for dealing with the adverse effects of the discharges from firefighting activities. As noted in the Firefighting Discharges Workgroup update, permittees can complete the annual report requirement by acknowledging that the program is working on a BMP report to address this issue. Permittees can contact program staff, who will provide standard language to assist in reporting on this subject.

Information

A. **Climate Change Adaptation Grant Opportunities (R. Perkins / E. Corwin)**

   Rinta shared two grant funding opportunities:

   - Climate Resilience Regional Challenge:
       - A grant opportunity for coastal communities.
       - $571 M has been allocated under two tracks:
           - Planning – to develop resilience and adaptation strategies for coastal communities. Funding will be between $500k - $2M per project to support regional scale coordination, engagement, planning, advancement of equitable incomes, and capacity building for resilience adaptation. There is no match requirement.

- Implementation Support – Total funding will be $550 M. $15M - $75M per project to support adaptation actions that build the resilience of multiple communities within a coastal region, including those that are underserved or underrepresented.
        - Letter of intent will need to be submitted by August 21st.
        - Rinta encouraged coastal communities within the county to apply.
    - Regional Resilience Planning and Implementation Grant Program
        - Available to all permittees
        - A $25 M grant made available through the Regional Resilience Program for planning and implementing projects that advance climate resilience and respond to the greatest climate risks in their regions.
        - Total available funding in Round 1 - $9.4 M
        - Funding range for planning projects - $150k - $650k
        - Funding range for implementation projects - $650k - $3M
        - The RRGP plans to allocate at least 51% of grant funds to projects benefiting disadvantaged communities.
        - There is no matching requirement.
    - The deadline for applications is August 29. 2023.

B. BAHM Model Update - Documentation & Training Opportunities (E. Lennon/Y. Hrovat)

Erin shared that a short 10–15-minute demonstration of the BAHM will be held at the July 26th Development Committee Meeting. Management Committee Members will be invited to join this portion of the meeting. Agenda will follow.

The BAHM's draft model and beta version were provided to the BAHM workgroup for review on June 26th. The workgroup will have until July 26th to review and provide comments.

Training by Clear Creek Solutions is scheduled for September. The BAHM will be provided to the program around the same time.

C. Contra Costa County Health Services Notification (E. Lennon)

Erin shared that on June 29th, program staff met with staff from CCC Health Services and Hazmat to discuss the distribution process for spill and incident reports. It was determined that there were redundancies in the distribution process of these reports. Moving forward, CCC Health Services and Hazmat will be the sole distributors of these reports.

D. Mobile Business Inspection Template (E. Lennon)

Erin reminded permittees that according to provision C.5.e, permittees are required to include mobile business inspection and coordination with other entities in their respective business inspection plans. At the Muni-Ops Committee meetings, it is being discussed whether staff should prepare a template to assist with these efforts.

E. **CASQA Conference Registration Dates (L. Welsh)**

Lisa reminded permittees that the CASQA Annual Conference is approaching and will occur on September 11th – 13th. Early registration ends on Monday, July 31st. Lisa encouraged permittees to register for the event for anyone that would like to attend.

F. **Annual Report Update (E. Yin)**

Elizabeth reminded permittees that they should be working on their municipal annual reports. The regional board has confirmed that reports will be due in SMARTS on Monday, October 2nd.

G. **Review MRP 3.0 5-yr workplan spreadsheet Report (E. Yin)**

Elizabeth shared with permittees that the MRP 3.0 5-year workplan spreadsheet can be found on Groupsite within the file cabinet under the *Current CCCWP-wide Projects*/*MRP 3.0* folder. It was noted that the spreadsheet is a helpful tool for keeping track of deadlines. A brief explanation of the spreadsheet was given.

H. **Management Committee Workplan FY 23-24 Quarter 1 (E. Yin)**

Elizabeth shared the Q1 MC Workplan for FY23/24. A brief explanation of upcoming agenda items was provided. It was noted that many of the upcoming reports will also be attachments for the upcoming Annual Report. It was highlighted that a special Management Committee meeting is planned to be held on September 14th to approve several items for the Program Annual Report, which will then be distributed to permittees for individual City Council approval.

Old/New Business:

A doodle poll will be sent out to permittees to find the best time to hold the Special Management Committee Meeting which will take place on September 14th. It was noted that permittees can submit their roll call vote via email if they cannot attend.

Adjournment: The Chair adjourned the meeting at approximately 3:37pm

ADMINISTRATIVE COMMITTEE MEETING
SUMMARY
Tuesday, July 11, 2023
10:30 am – 12:00 pm
Zoom Meeting

VOTING MEMBERS	ATTENDED	ABSENT
Contra Costa County	Michele Mancuso **(Vice Chair)**	
CCC Flood Control and Water Conservation District	Tim Jensen	
City of Concord	Carlton Thomas	
Town of Moraga	Frank Kennedy **(Chair)**	
City of Oakley		Billilee Saengchalern
City of Pinole	Misha Dhillon	
City of Walnut Creek	Lucile Paquette	
NON-VOTING MEMBERS		

PROGRAM STAFF		
Interim Program Manager	Rinta Perkins	
Administrative Analyst	Andrea Bullock	
Clerical	Duanne Hernaez	
Consultant	Elizabeth Yin	
Consultant	Nicole Wilson	

1. **Convene Meeting and Roll Call (Chair)**

   The Chair convened the meeting at 10:36am

2. **Announcements or Changes to the Agenda (all)**
   It was noted that Administrative Committee will only need to elect a Vice Chair for FY 23/24.
   There were no changes to the agenda.

3. **Election of Vice Chair for FY 23-24 (Chair)**
   Michele Mancuso (CCC) volunteered to serve as Vice-Chair. The committee accepted the nomination. There were no objections or abstentions. The nomination was approved, and the Vice-Chair was elected.

4. **Approval of June 6, 2023, Meeting Minutes (Chair)**

   A few instances of incorrect dates were pointed out in the June 6, 2023, meeting minutes. Tim Jensen (CCC Flood Control) motioned to approve the Administrative Committee meeting minutes as submitted, with corrections, and accept subcommittee minutes. Michele Mancuso (CCC) seconded. The Chair called for a vote. There were no objections or abstentions. The motion passed with no abstentions, and the items were approved.

5. **Update on the MRP 3.0 Permit Amendment Language Comment Letter (E. Yin)**
   Elizabeth Yin announced that there has not been an update to the status of the MRP 3.0 Permit Amendment Language Comment Letter. The program is still waiting for the Regional Water Board to release tentative order language. It is anticipated that the program will have until the October board meeting to complete the comment letter process. Because of this, there is no rush to complete the comment letter as the language has not been received. Elizabeth shared that she will reach out to Management Committee members to join the Select Committee since more time is available to complete the comment letter.

6. **Draft July 19, 2023, Management Committee Agenda (E. Yin)**
   Elizabeth shared the upcoming Management Committee agenda for approval by the Administrative Committee

   There were no changes or corrections to the July 19, 2023 Management Committee Agenda. Michele Mancuso (CCC) motioned to approve the Management Committee Agenda as submitted, with no corrections. Frank Kennedy (Moraga) seconded. There were no objections or abstentions and the Management Committee Agenda was approved.

   Michele M. shared that she would like to announce details for the Watershed Symposium at the upcoming Management Committee meeting.

7. **Old/New Business (Committee)**
   Frank Kennedy noted that since there are enough members in PIP Committee, Administrative Committee members will no longer need to fill-in for PIP Committee, and they can now be set up as two separate meetings.

8. **Adjournment**
   The Meeting adjourned at 10:57 am

PUBLIC INFORMATION/PARTICIPATION COMMITTEE
MEETING SUMMARY
Tuesday, July 11, 2023, 9:00 am – 10:30 am
Zoom Meeting

PIP Committee Voting Members	Attended	Absent
City of Antioch	Phil Hoffmeister	
CCC Flood Control District	Michelle Giolli **(Chair)**	
	Jennifer Joel	
City of Clayton	Larry Theis	
Town of Danville	Bob Russel	
City of Pittsburg	April Chamberlain **(Vice Chair)**	
City of San Ramon	Kerry Parker	
City of Richmond	Bradley Harms	
Non-Voting Members		
City of Walnut Creek	Lucile Paquette	
City of San Pablo	Itzel Gomez	
Program Staff		
Interim Program Manager	Rinta Perkins	
Administrative Assistant	Andrea Bullock	
Watershed Mgmt. Planning Spec.	Erin Lennon	
Clerical	Duanne Hernaez	
Consultants		
Stephen Groner Associates (SGA)	Stephan Groner	
	Michelle Dissel	
Larry Walker Associates	Nicole Wilson	
Guests		

1) **Convene Meeting and Roll Call (Chair)**
   The Chair Convened the meeting at 9:04 am.

2) **Introductions, Announcements, and Changes to Agenda (Chair)**
   There were no announcements or changes to the agenda. The Committee introduced new members for the Fiscal Year 23-24.

3) **Consent Items Approval (Chair)**
   • June 6, 2023 PIP Meeting Minutes.

   There were no corrections or revisions to the June 6, 2023 meeting minutes. Bob Russel (Danville) motioned to approve the PIP Committee meeting minutes as submitted and accept the

subcommittee minutes. Bradley Harms (Richmond) seconded. The Chair called for a vote and the June 6, 2023 PIP committee meeting minutes were approved.

4) **Election of Chair and Vice Chair for FY 23-24 (Chair)**
Michelle Giolli (CCC Flood Control) was nominated for Chair. April Chamberlain (Pittsburg) was nominated for Vice-Chair. The committee accepted the nominations. A vote was called. There were no objections or abstentions. The nominations were approved, and the Chair and Vice-Chair were elected.

5) **Work Plan Update FY 23/24 (SGA)**
Michelle Dissel presented an overview of the workplan for the new fiscal year 23/24. It was shared that the themes that will be the focused on this year will be:
- The connection between trash reduction and pollution prevention
- Green infrastructure and stormwater protection
- Watershed conservation and sea-rise resiliency.

An overview of the current and upcoming tasks was shared:
- Brochures – the team is near finalizing the four draft brochures that PIP has been discussing throughout Spring and the next step will be to translate the Restaurant Brochures into Spanish and develop that last remaining prioritized brochure (Carpet Cleaning).
- School aged Outreach
  - Plans to hold a contest in which the prize will be related to one of this year's themes.
- Public education + Outreach/citizen involvement
  - Goal: Create a series of campaigns which will revolve around the chosen themes for this year to engage residents and business owners to provide valuable information.
    - This will be accomplished through social media campaigns, newsletter articles, blogs, podcasts, and workshops.
  - Hoping to involve the parents of children targeted through the school aged outreach goal.
- PIP Sub-committee Support
  - Goal: Support PIP committee members in their efforts to educate the public about managing storm water.
    - This will be accomplished through Pre-meetings, social media calendar production, quarterly newsletters, and discussion.
- Website
  - Goal: to increase the ease of use and stakeholder traffic to the website and provide valuable stormwater pollution prevention information to residents, businesses, teachers, and PIP members.
    - Upgrade the website, optimize for newsletter sign-ups and engagement.

PUBLIC INFORMATION/PARTICIPATION COMMITTEE
MEETING SUMMARY
Tuesday, July 11, 2023, 9:00 am – 10:30 am
Zoom Meeting

- Add educational seasonally themed contest to the website.
- Repurpose pictorials from brochures to promote themed content.
- Include interactive maps and infographics to help educate the public and promote behavior change and involvement.

SGA was asked what the long-term maintenance and cost for the website will be and if the site will work on mobile devices. Michelle D. answered that the estimated cost will be $500-1000 a year and confirmed that the website will be optimized for mobile devices since that is the main method of accessing the internet for most people.

Discussion took place concerning to what extent each task will cover each permit provision requirements. Stephen Groner (SGA) suggested that SGA can create a matrix which will visually display how each project will cover each provision. This can be added to the workplan in the future. Erin Lennon (CCCWP) noted that the permit should be the starting point when prioritizing tasks and would like the committee to review provision requirements and how they overlap. Nicole Wilson (LWA) suggested coordinating outside the meeting to discuss better incorporating provision requirements.

6) **Brochure Update (Nicole)**

Nicole shared a quick overview of the brochure production process for the new members of the PIP committee. It was noted that the information from these brochures has been reviewed by experts.

Nicole shared the current versions of the various brochures and covered the most recent changes:
- Restaurant brochure
  - Adjusted the used oil bin to be modeled after real life examples.
  - Waste receptacles were made to look clearer.
  - The x-ray view of the restaurant has been removed as it was felt it did not add to the information.
  - Down arrows removed from the drains.

- Mobile Cleaners brochure
  - Adjusted the vacuum so it no longer drains to an outdoor manhole cover (a note that was made from sanitary sewer reviewers).
  - Image has been enlarged to give a more detailed view.
  - Small details have been removed to improve clarity.
  - Text information has been adjusted.
    - Website link replaced.

- Auto Shop brochure
  - Text and cover images have been adjusted.
  - Indoor drain has been modified to look less like a manhole cover.
  - Storm drain markers have been added.
  - It was pointed out that text box #4 should be rephrased to clarify that wet sanding byproduct should not go down the sanitary sewer drain.

- Pool Cleaning brochure
  - Cover image size has been adjusted.
  - A section has been added which explains how to identify a sanitary sewer clean-out.
  - Water has been added to hot tub to better illustrate that it is actively draining.
  - Cleaning of filter has been modified to be shown cleaned on the grass which is the recommended method.
  - The household trash bin has been modified to look more like a household bin.

It was asked how the brochures will be referenced in covering provision requirements when filling out annual report forms. Nicole answered that there is a PIP spreadsheet tracking tool that will show how certain provisions are covered. More details will be shared as the work is being done.

Committee members decided to approve the Restaurant, Mobile Cleaners, and Pool Cleaning brochures. The Auto Shop brochure required a few minor changes and it was agreed that PIP committee would like to see revisions at next month's meeting before approving.

Kerry parker (San Ramon) motioned to approve all brochures except Auto Shop brochure. Phil Hoffmeister seconded, and the Restaurant, Mobile Cleaners, and Pool Cleaning brochures were approved for finalization.

7) **Old / New Business (Committee)**
Rinta announced that the CASQA workshop series will take place on July 13th 10:00am – 3:00pm. The topics being covered include the Construction program and Trash Compliance.
Rinta announced that the CASQA Conference early-bird registration is ending soon and if participants are interested in going, they should do so before the end of the month.
Nicole informed the committee that the PIP committee in FY 22/23 approved the use of contingency funds in FY 23/24 to sponsor the Watershed Symposium which is taking place this Fall. Nicole shared that the sponsorship process will proceed as planned.

8) **Adjournment (Chair)**

PUBLIC INFORMATION/PARTICIPATION COMMITTEE
MEETING SUMMARY
Tuesday, July 11, 2023, 9:00 am – 10:30 am
Zoom Meeting

The meeting adjourned at 10:32 am

MUNICIPAL OPERATIONS COMMITTEE (MOC) MEETING
SUMMARY
Tuesday, June 20, 2023
10:00 am – 12:00 pm
Zoom Meeting

VOTING MEMBERS	ATTENDED	ABSENT
Contra Costa County	**Michelle Giolli (Chair)**, Beth Baldwin, Michele Mancuso	
City of Antioch	Phil Hoffmeister	
City of Brentwood	Melissa Barcelona	
City of Concord		Jesse Crawford, William Gallagher
City of El Cerrito	Christina Leard, Stephen Prée	
City of Hercules		Jeff Brown
City of Martinez	Andrew J. (A.J.) Kennedy	
City of Orinda	Kevin McCourt	
City of Pittsburg	**Jolan Longway (Vice Chair)**	
City of Richmond	Bradley Harms, Mary Phelps	
City of San Pablo	Amanda Booth	
City of Walnut Creek	Lucile Paquette	
NON-VOTING MEMBERS	**ATTENDED**	**ABSENT**
Town of Danville	Bob Russell	

PROGRAM STAFF	
Interim Program Manager, Geosyntec	Rinta Perkins
Watershed Planner	Erin Lennon

PROGRAM CONSULTANTS	
LWA	Elizabeth (Liz) Yin
Geosyntec	Lisa Welsh

MEMBERS OF THE PUBLIC/OTHERS/GUESTS
County Costa County Department of Agriculture (Erin Herbst – Speaker)
Psomas (Keith Palmer – Speaker, CCCWP GIS Technical Consultant)
Geosyntec (Grace Yao, technical consultant)
Cities of Concord (Bruce Davis); Lafayette (Tim Clark, Francine Kuykendall, Lara Chamberlain); Oakley (Brianne Visaya); Pinole (Misha Dhillon, Joe Bingaman); San Pablo (Itzel Gomez); and San Ramon (Kerry Parker, Rob Bartlett); and Hercules (Frank Kennedy of Kennedy and Associates).

MOC Meeting Summary
G:\NPDES\06_MOC Committee\02_Minutes&Attend\FY 22-23\Approved Minutes\2023-06-20\2023-06-20_MOC_Meeting_Summary_approved.docx

Page **1** of **4**

MUNICIPAL OPERATIONS COMMITTEE (MOC) MEETING
SUMMARY
Tuesday, June 20, 2023
10:00 am – 12:00 pm
Zoom Meeting

1. **Convene Meeting and Roll Call**
   The Chair convened the meeting at 10:00 am.

   Announcements or Changes to the Agenda
   The CCCWP Management Committee was invited to join for agenda items #1, 2, and 3.

2. **Presentation: Pesticide Toxicity Control**
   Note: The PDF of this presentation is available at cccleanwater.org/business/pesticides. Also, a video recording of this agenda item was emailed to MOC and Management Committee members. Video link: 6-20 -23 Zoom Recording (Passcode is m9LnU#14). The timestamp is 0:00-31:30.

   The Management Committee was invited to attend this agenda item. This presentation assisted Permittees in complying with MRP Provision C.9.d., which requires Permittees to Interface with County Agricultural Commissioners (CACs). Erin Herbst, CAC of the Contra Costa County Department of Agriculture, Weights, and Measures (County Ag. Dept.), presented on County Ag. Dept. pesticide use enforcement activities.
   - Overview of County Ag. Dept. activities
     o Municipal Pest Control Headquarters (HQ) Inspections for Contra Costa municipalities with an Operator ID/Restricted Material Use Permit
       ▪ Includes: County, Antioch, Brentwood, Clayton, Concord, Martinez, Oakley, Pinole, Pittsburg, Pleasant Hill, San Pablo, Walnut Creek, Danville, and Moraga
       ▪ No Permit: El Cerrito, Hercules, Lafayette, Orinda, Richmond, San Ramon
     o Other Inspections – Pest Control Business HQs, Pesticide Pre-Application, Field Worker Safety, Monitoring Inspections (Pesticide Use, Structural Use, Various Fumigation Use)
     o Pesticide Misuse Reporting Response
     o Outreach and Education on Pesticide Disposal
   - Water Quality
     o No pesticide-related water quality issues were reported to County Ag. Dept. in 2022. The department does not monitor water quality.
     o California Department of Pesticide Regulation (DPR) maintains a surface water database containing pesticide detection and water quality monitoring data across the State. *For more information: https://www.cdpr.ca.gov/docs/emon/surfwtr/surfdata.htm*
   - Health and safety communications
     o Notifications for pesticide applications in public ROW (Food and Ag. Code 12978)
     o Hazard communications are required (3 CCR 6723, Pesticide DPR N No.8 form)
   - Other Topics
     o License verification for consumers via the Structural Pest Control Board website
     o Proper pesticide use, storage, labeling, and signage
     o Reporting misuse of pesticides
       ▪ Emergency: 911
       ▪ Non-emergency: Contra Costa CAC (925) 608-6600

- Enforcement/Complaints: Structural Pest Control Board (916) 561-8708
- California DPR: (916) 324-4100, CDPRWeb@cdpr.ca.gov
  o Emergency medical care related to pesticides:
    - 911 is not sufficient, must know medical centers that are equipped to treat pesticide-related injuries/illnesses (See slide 16 of PDF)
    - Contra Costa CAC (925) 608-6600
    - National Poison Control Center: (800) 523-2222
  o Suburban and nonagricultural uses of pesticides
    - 35-55% of pesticide sales (pounds sold)
    - 16-19% of reported pesticide use (#s applied by licensed applicators)
    - 65-75% of reported pesticide-related illnesses
  o Pesticide disposal options:
    - Household Hazardous Waste (form and fee)
    - Contract with a Hazardous Materials Hauler
    - Event for Growers – Fall 2023, appointment only in East County

Action items:
- Erin H. to send the presentation to Erin L. to distribute to the MC and MOC.
- Permittees welcome to contact Erin Herbst with any follow-up questions
  o (925) 608-6600, erin.herbst@ag.cccounty.us

3. **Presentation: ArcGIS On-Line (AGOL) and Field Maps Training**
   Note: A video recording of this agenda item was emailed to MOC and Management Committee members. Video link: 6-20 -23 Zoom Recording (Passcode is m9LnU#14). The timestamp is 31:31 End.

   The Management Committee was invited to attend this agenda item. Keith Palmer (Psomas, CCCWP technical consultant) presented on ArcGIS On-Line (AGOL) desktop applications and field map applications. The "Smart Editor" capabilities were highlighted. It was asked whether changes could be made to the base map. Keith said yes, but all Permittees would need to agree before giving him the direction. Keith highlighted a few points for Permittees to be aware of:
   - The username is case-sensitive.
   - The drainage areas without trash capture devices will not be included in the report.
   - "Potential Drainage Area" is for reference only. The purpose is to enable snapping.
   - For a site to appear in the Field Maps application, the associated point must first be flagged as "Yes" (green color) in the desktop application.

   Action items:
   - Any questions can be directed to Program Staff, who will communicate with Keith.

MOC Meeting Summary
G:\NPDES\06_MOC Committee\02_Minutes&Attend\FY 22-23\Approved Minutes\2023-06-20\2023-06-20_MOC_Meeting_Summary_approved.docx

Page **3** of **4**

4. **Approval of May 16, 2023 Meeting Summary (Chair)**
    There were no corrections or revisions to the April 18, 2023, meeting summary. A.J. Kennedy (Martinez) motioned to approve and accept the submitted Municipal Operations Committee meeting summary. Lucile Paquette (Walnut Creek) seconded. There were no abstentions or objections. The motion passed with abstentions or objections, and the item was approved.

5. **C.17 Annual Reporting Approaches**
    Liz Yin and Permittees discussed the C.17 annual report forms and possible data coordination with Contra Costa Health, Housing and Homeless (H3) services.
    -   The Coordinated Outreach Referral, Engagement (CORE) program is part of the larger H3 umbrella. Details may be found on the Contra Costa Health website for H3 programs: https://cchealth.org/h3/services.php.
    -   It was discussed whether the level of detail provided in the census track made sense or if it would be better to split the county into four or five sub-regions.
    -   A 2023 Homeless Point in Time (PIT) Count summary infographic was attached to the MOC agenda. PIT and other data can be found here: https://cchealth.org/h3/coc/reports.php#PIT
    -   The C.17 BMPs report is a regional effort, with a draft from BAMSC for Permittees to review.
    -   The C.17 maps will be discussed further at the next MOC meeting.

6. **Program Update (Erin Lennon)**
    Erin Lennon (Watershed Planner) and Liz Yin discussed Program updates.
    •   Annual Report Schedule – The FY 2022-2023 Annual Report Schedule was attached to this agenda.
    •   C.4/C.5 – BMPs brochures have been under development in the Public Information/Participation (PIP) committee. Comments may be sent to Nicole Wilson (nwilson@pw.cccounty.us) on the draft BMPs brochures, which are tentatively set for approval at the July PIP meeting.
    •   C.10 – Reference documents related to the C.10.g. 90% trash load reduction reporting requirements were emailed to Permittees with total trash load values below or right on the border of 90% reduction as of last year. It was noted that the documents distributed were for reference only and that the distribution list was based on the totals from last year and did not necessarily reflect Permittees' compliance with the mandatory 90% trash load reduction this year.
    •   C.17 – Liz will present the draft C.17 BMPs report at the July Management Committee meeting.
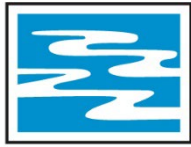
7. **Committee Chair/Vice Chair Elections (all)**
    •   Due to time constraints, this item was moved to the beginning of the next MOC meeting.

8. **Action Items/Next Steps**
    •   Upcoming events, deadlines, and due dates were included at the end of the agenda packet.
    •   Rinta Perkins announced that she is the Interim Program Manager.

9. **Adjournment**
    The Meeting adjourned at 12:00 pm.

MOC Meeting Summary
G:\NPDES\06_MOC Committee\02_Minutes&Attend\FY 22-23\Approved Minutes\2023-06-20\2023-06-20_MOC_Meeting_Summary_approved.docx

Page **4** of **4**

Date: August 16, 2023

To: Management Committee

From: Lisa Welsh, Lisa Austin (Geosyntec), Program Consultants Staff

Subject: Review the Draft Mercury and PCBs Control Measures – Update 2023, due with the 2023 CCCWP Annual Report submittal to the Regional Water Board

---

Recommendation:

Accept the draft Mercury and PCBs Control Measures – Update 2023 report for review and comment.

Background:

This report fulfills the requirements of MRP Provisions C.11.a.iii.(1), C.11.b.iii.(1), C.11.b.iii.(2), C.11.c.iii.(2), C.11.d.iii.(1), C.12.a.iii.(1), C.12.b.iii.(1), C.12.b.iii.(2), C.12.c.iii.(2), C.12.e.iii.(1), C.12.e.iii.(2), C.12.e.iii.(4), and C.12.g.iii.(3) for reporting on the mercury and polychlorinated biphenyls (PCBs) control measure implementation. The following MRP reporting requirements are addressed within this report:

- In each Annual Report, Permittees shall submit documentation confirming that all control measures effectuated during the previous Permit term (i.e., MRP 2.0) for which load reduction credit was recognized continue to be implemented at an intensity sufficient to maintain the credited load reduction. (C.11.a/C.12.a)

- In each of the 2022 through 2026 Annual Reports, Permittees shall report progress on the acreage of land areas investigated, including progress toward investigation of 100 percent of the old industrial land use area listed in the MRP. The reporting shall indicate what action was taken for the parcels investigated (e.g., abatement, referral, enforcement, etc.). Permittees shall submit all supporting data and information including referral reports. (C.11.b/C.12.b)

- Permittees shall report annually on ongoing enhanced operations and maintenance (O&M) activities associated with all past contaminated property referrals. (C.11.b/C.12.b)

- Beginning in 2023, in each Annual Report Permittees shall submit an

account of control measure implementation consistent with the Old Industrial Control Measure Plan submitted in March 2023 and any modifications thereto. Reporting shall include maps of the areas treated, the acreage of catchments addressed, and a description of all control measures, installed treatment devices, and routing facilities for each treated catchment. (C.11.c/C.12.c)

- Permittees shall submit in their 2023 Annual Report the estimated PCBs loads avoided (along with supporting documentation) resulting from the removal of municipally owned PCBs-containing oil filled electrical equipment (OFEE) through maintenance programs and system upgrades for the period 2002 to the beginning of this permit term (2023). (C.12.e)

- Permittees shall submit in their 2023 Annual Report a description of the improved spill response and reporting practices implemented by municipally owned electrical utilities. (C.12.e)

- Permittees shall submit in every Annual Report, beginning with the 2023 report, a summary of the actions undertaken during that reporting year that remove municipally owned PCBs-containing OFEE along with the loads avoided and the details of the calculations and assumptions used to estimate the load reduced. (C.12.e)

- Beginning with their 2023 Annual Report, the Permittees shall provide each of the following items (C.12.g):

  o The number of applicable structures that applied for a demolition permit during the reporting year.

  o A running list of the applicable structures that applied for a demolition permit since July 1, 2019, the number of samples each structure collected, and the concentration of PCBs in each sample.

  o For each applicable structure, with PCBs concentrations of 50 mg/kg or greater, include the following: the project address, the demolition date, and a brief description of the PCBs-containing materials.

  o For each structure that was constructed or remodeled between the years 1950 and 1980 and requires emergency demolition to protect public health and/or safety, provide the following: address, date building was constructed, and date of demolition.

- In each of the 2023 through 2026 Annual Reports, Permittees shall report on efforts to promote recycling of mercury-containing products and efforts to increase effectiveness of these recycling efforts. Permittees shall also report on the mass of mercury-containing material collected throughout the region along with an estimate of the mass of mercury contained in recycled material using the methodology contained in the load reduction accounting system. (C.11.d)

Accounting of control measure implementation consistent with the Old Industrial Control Measure Plan is derived from the C.3 and C.10 project data entered by the permittees into the ArcGIS Online (AGOL) database. The data used for this draft report may be incomplete for projects constructed in FY 2022/23 for the following permittees: **Clayton, Concord, Danville, El Cerrito, Pinole, Pleasant Hill, Richmond, and San Ramon.** Geosyntec will continue to work with permittees to make corrections to the treatment areas reported and resulting pollutant load reductions through August 25. The final report will note which permittees may have incomplete data for FY 2022/23.

The Mercury and PCBs Control Measures – 2023 Update report includes Appendices A to E, listed and described below:

A. Standard Operating Procedures for Spill Response and Reporting for Oil-filled Electrical Equipment (OFEE). This SOP was developed in collaboration with the four municipally owned electrical utilities subject to the MRP. Pittsburg Power is the only municipally owned utility in Contra Costa County.

B. PCBs Loads Avoided Resulting from the Removal of Municipally Owned PCBs-Containing OFEE. CCCWP Staff and Consultants worked with the City of Pittsburg and Pittsburg Power to estimate the PCBs loads avoided following the approach used in the 2020 BASMAA SSID study.

C. PCBs in Priority Materials: Model Screening Assessment Applicant Package and Construction Site Control Program Enhancement Options for Demolition Sites Subject to the PCBs Management Program. This applicant package was updated as part of a BASMC Regional Project to address new MRP requirements. The project was completed in May 2023.

D. PCBs in Building Materials Management Program – Fiscal Year 2022/23 Data Summary. CCCWP Staff and Consultants coordinated with Permittees to collect building and PCBs sample information on applicable structures that applied for a building demolition permit in Fiscal Year 2022-2023. A new requirement in MRP 3.0 includes providing a running list of all applicable structures with individual sample results, regardless of the measured concentration.

E. Mass of Mercury Recycled in Contra Costa County. CCCWP Staff and Consultants coordinated with three regional facilities that collect household hazardous waste in the County to estimate the total mass and mercury mass contained in recycled material throughout the region.

Schedule:

Permittee comments on the Mercury and PCBs Control Measures – 2023 Update are due on **August 25, 2023**. CCCWP Consultants will address final comments

by September 1, 2023, for compilation of the Program's Annual Report by CCCWP Staff.

Attachments:
1. Mercury and PCBs Control Measures – Update 2023 and Appendices (GroupSite Folder link).

Fiscal Impact: None.

Date: August 16, 2023

To: Management Committee

From: Lisa Welsh, Lisa Austin (Geosyntec), Consultants

Subject: Review the Fish Risk Reduction Program for Mercury and PCBs: 2023
Status Report, due with the 2023 CCCWP Annual Report submittal to
the Regional Water Board

Recommendation:

Accept the Fish Risk Reduction Program for Mercury and PCBs: 2023 Status Report
for review and comment.

Background:

MRP Provisions C.11.h and C.12.j requires permittees to conduct an ongoing risk
reduction program to address public health impacts of mercury and PCBs in fish
within the San Francisco Bay and Sacramento-San Joaquin River Delta. In each
fiscal year, the CCCWP, in conjunction with the California Office of Environmental
Health Hazard Assessment (OEHHA), conducts and maintains a public health
outreach program designed to reach a minimum of 3,000 individuals annually who
are likely consumers of San Francisco Bay or Delta-caught fish.

The status report provides an overview of the Fish Risk Reduction Program and
summarizes progress achieved by CCCWP during FY 2022-23. The report highlights
ongoing activities, suggestions for outreach improvements, and considers options
to maximize the program's effectiveness as part of the MRP.

Risk Reduction Program Summary:

Bait and tackle stores and local harbors and marinas were individually contacted
via telephone to establish the languages which would best reach their specific
clientele. Brochures, flyers, and posters were subsequently provided to 21 harbors
and marinas and 13 bait, tackle, and fishing supply stores. Fifteen fishing piers
and regional shorelines have existing metal signs or posters located in high visibility
areas such as park informational kiosks. Figure 7 in the report provides an
overview map of the fish risk reduction program outreach locations.

Following the distribution of program flyers and brochures in the spring, local harbors and marinas were contacted in the early summer and provided electronic copies of outreach material for use on marina websites, social media accounts, or to include in community bulletins or newsletters. Progress on this outreach effort will be reported in the FY 2023-2024 Status Report.

CCCWP estimates the Fish Risk Reduction Program has the potential to reach well over the program's minimum target of 3,000 individuals annually. Brochures and flyers are currently available to bait and tackle shops in English, Spanish, Simplified Chinese, Laotian and Vietnamese. Coordination with bait and tackle shops has enabled field staff to become familiar with which regions of the county have more demand for supply of material in foreign languages. In addition to the provided languages currently established, business operators have expressed interest in providing outreach material in additional languages, such as Russian and Tagalog. During FY 2021-2022, CCCWP began documenting the languages and locations business operators who expressed interest in expanding the availability of outreach material to subsistence fishermen. CCCWP continued this effort into FY 2022-2023, with plans to print and distribute additional languages in FY 2023-2024, when outreach material is resupplied from the county's print vendors.

In November 2022 and April 2023, OEHHA updated their fish risk advisory graphic for the Central and South Sacramento-San Joaquin River Delta and San Francisco Bay, respectively. The updated graphic contains a more extensive list of species to consider when consuming fish from the Bay and Delta. The updated graphics are provided in Attachment 1 of the report and have been archived this fiscal year for distribution in FY 2023-2024.

Schedule:

Permittee comments on the Fish Risk Reduction Program – 2023 Status Update are due on **August 25, 2023**. CCCWP Consultants will address final comments by September 1, 2023, for compilation of the Program's Annual Report by CCCWP Staff.

Attachment:
1. Fish Risk Reduction Program for Mercury and PCBs: 2023 Status Report (GroupSite link).

Fiscal Impact: None.

Date: August 16, 2023

To: Management Committee

From: Lisa Welsh, Lisa Austin (Geosyntec), Consultants

Subject: Review the 2023 Annual Mercury Monitoring Report, due with the 2023 CCCWP Annual Report submittal to Regional Water Boards 2 and 5

Recommendation:

Accept the 2023 Annual Mercury Monitoring Report, due with the 2023 CCCWP Annual Report submittal to Regional Water Boards 2 and 5, for review and comment.

Background:

The MRP requires East County Permittees to conduct annual mercury monitoring within Contra Costa County. Sampling locations can include, but are not limited to, Marsh Creek (downstream of the Reservoir), Central Delta, and West Delta Subarea tributaries within the MS4 permit boundary. During the 2022-2023 sampling period, CCCWP focused sampling efforts in the Marsh Creek subarea to address monitoring questions presented in the MRP.

The 2023 Annual Mercury Monitoring Report is submitted in compliance with Provision C.19.d.iii.(2) of the MRP. Each year, as part of the annual report, East County Permittees are required to submit monitoring and assessment results answering the questions presented in Provision C.19.d.ii.(2).

a) *What are the annual methylmercury loads from the MS4 discharge to the Central Delta, Marsh Creek, and West Delta subareas?*

b) *Do methylmercury loads to each subarea meet the assigned methylmercury wasteload allocations?*

c) *Are there any MS4 design features that increase mercury methylation in the discharge?*

d) *What MS4 water quality controls have been implemented or are planned to be implemented to reduce methylmercury production and transport in the MS4 discharge?*

e) *By January 1, 2024, address whether eutrophication and low dissolved oxygen concentrations increase methylmercury in ponded areas of Marsh Creek during low flow periods (depending on the year, low flow periods can range between*

mid-March and mid-November), and, if so:

> i. *Under what hydrologic or seasonal circumstances do increased methylmercury concentrations reach the Delta?*
>
> ii. *Are there reasonable and foreseeable management actions to ameliorate increased methylmercury concentrations?*

CCCWP submitted the *Annual Mercury Monitoring Plan: Water Year 2023* **and the** *Addendum to Annual Mercury Monitoring Plan: Water Year 2023* to the Central Valley Regional Water Quality Control Board (CVRWQCB) in October and December of 2022, respectively. CCCWP focused 2022-2023 sampling efforts in the Marsh Creek subarea to address the monitoring question presented in Provision C.19.d.ii.(2)(e) by January 1, 2024.

Monitoring Locations:

CCCWP targeted the same three locations for two wet weather events where specific hydrologic conditions (reservoir overflow) or prolonged antecedent dry periods (first flush) were present. Sampling locations included:

- M2 - Site located upstream of Brentwood WWTP
- M1 - Site located downstream of Brentwood WWTP
- M0 - Site located upstream of tidal boundary

At all three locations, two wet weather and one dry weather event were successfully sampled in the 2022-2023 sampling period, for a total of nine samples.

Monitoring Results:

Wet weather results from sampling events on November 8, 2022, and February 27, 2023, indicate normal mercury methylation ratios, ranging from 0.9 to 1.5 percent. Although these methylation ratios are in the normal range and do not indicate enhanced methylation, the methylmercury values which ranged from 0.20 to 0.57 ng/L were elevated above the Delta TMDL value of 0.06 ng/L at all three stations during both sampling events.

Dry weather results from the sampling event on June 22, 2023, (after eutrophication set in) indicate elevated mercury methylation ratios, ranging from 25 to 37 percent. These high methylation ratios suggest that eutrophication contributes to elevated methylmercury concentrations. Methylmercury concentrations at all three monitoring stations ranged from 0.22 to 0.37 ng/L and exceeded the Delta TMDL of 0.06 ng/L.

Schedule:

Permittee comments on the 2023 Annual Mercury Monitoring Report are due on **August 25, 2023**. CCCWP Consultants will address final comments by September 1, 2023, for compilation of the Program's Annual Report by CCCWP Staff.

Attachment:
1. 2023 Annual Mercury Monitoring Report (GroupSite link).

Fiscal Impact: None.

To: Management Committee

From: Erin Lennon, Watershed Management Planning Specialist

Subject: 2023 Contra Costa County Hydromodification Management (HM) Applicability Map and 2023 Addendum to the 2017 HM Applicability Mapping Methodology Memorandum

---

Recommendation:
Approve the 2023 Contra Costa County Hydromodification Management (HM) Applicability Map and the 2023 Addendum to the 2017 HM Applicability Mapping Methodology Memorandum.

Authorize the Interim Program Manager to sign and certify the associated transmittal letter to accompany the 2023 HM Applicability Map for submittal to the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB).

Background:
In Provision C.3.g.i., MRP 2.0 required Contra Costa Permittees to provide maps of areas exempt from Hydromodification Management (HM) Plan requirements. MRP 2.0 stated two location-based criteria for exemption from HM requirements:

1) The project is located in a catchment that drains to a hardened (e.g., continuously lined with concrete) engineered channel or channels or to enclosed pipes that extend continuously to the Bay, Delta, or flow-controlled reservoir or drains to channels that are tidally influenced.

2) The project is located in a catchment or subwatershed that is highly developed (i.e., that is 70% or more impervious).

During the MRP 2.0 permit cycle, CCCWP developed a draft HM Applicability Map for Contra Costa Permittees based on these two criteria. Staff from each of the County's municipalities reviewed and edited the draft map indicating stream channel status (hardened vs. unhardened) and HM applicability in their jurisdictions to produce the map submitted to the SFBRWQCB in 2017. This process revealed some inconsistencies in defining these categories. These inconsistencies stem, in part, from changes to Contra Costa municipalities' HM requirements in the 2015 MRP 2.0. CCCWP's 2006 HM Plan (HMP) used slightly different criteria;

those criteria were carried forward into Attachment C in MRP 1.0 (2009) but were changed in MRP 2.0. In particular, the earlier language provided that a project could comply with HM requirements by showing that all downstream channels between the project site and the Bay/Delta were in specified "low-risk" categories. These categories included enclosed pipes, channels with continuous hardened beds and banks, channels subject to tidal action, and channels shown to be aggrading (i.e., consistently subject to accumulation of sediments over decades) and to have no indications of erosion on the channel banks. In addition, historically, Permittees in the eastern part of Contra Costa County were regulated by a separate permit with similar language; the 2010 East Contra Costa Municipal Storm Water Permit, Order No. R5-2010-0102 contains language regarding compliance with HM requirements, showing that all downstream channels are in "low-risk" categories.

Contra Costa Permittees' draft 2017 HM Applicability Map was not deemed acceptable by the SFBRWQCB. In July 2020, CCCWP received a response letter to the 2017 submission, which detailed comments and questions from the SFBRWQCB about the map. In May 2022, the SFBRWQCB adopted MRP 3.0, including new reporting requirements for HM Applicability Maps. Per MRP 3.0 Provision C.3.g.vi., Contra Costa Permittees must submit a new HM Applicability Map acceptable to the Executive Officer not later than with the 2023 Annual Report, due September 30, 2023.

The revised 2023 Contra Costa County Hydromodification Management Applicability Map addresses the comments and questions from the SFBRWQCB's 2020 letter. In addition to updates in response to SFBRWQCB's comments, the 2023 consultant team revised the map by refining the subbasins dataset, updating the percentage impervious dataset, making additional refinements through multiple rounds of Permittee review and feedback, and improving the aesthetics and legibility of the web map. These changes are documented in the attached 2023 Addendum to the 2017 Hydromodification Management Applicability Mapping Methodology Memorandum. A pdf of the 2023 HM Applicability Map is attached to this report, and a web-based version of the map can be viewed at the following location:
https://lotuswater.maps.arcgis.com/apps/instant/sidebar/index.html?appid=e382ce6e29394a21b518ead5cb0589f5

Submittal to the San Francisco Bay Water Quality Control Board:
Should the Management Committee approve the 2023 Hydromodification Management Applicability Map and the 2023 Addendum to the 2017 Hydromodification Management Applicability Mapping Methodology Memorandum, CCCWP will submit a pdf of the 2023 Hydromodification Management Applicability Map to the SFBRWQCB with the attached transmittal letter.

Attachments:
- 2023 Contra Costa County Hydromodification Management Applicability Map (PDF version)
- 2023 Addendum to the 2017 Hydromodification Management Applicability Mapping Methodology Memorandum
- Transmittal Letter to the San Francisco Bay Regional Water Quality Control Board
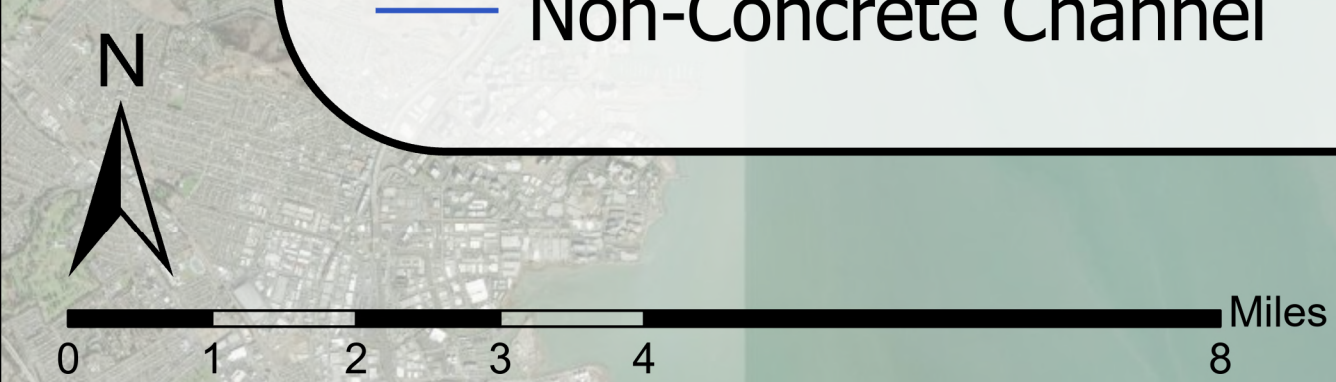
Applicability of Hydromodification Management (HM) Requirements in Contra Costa County
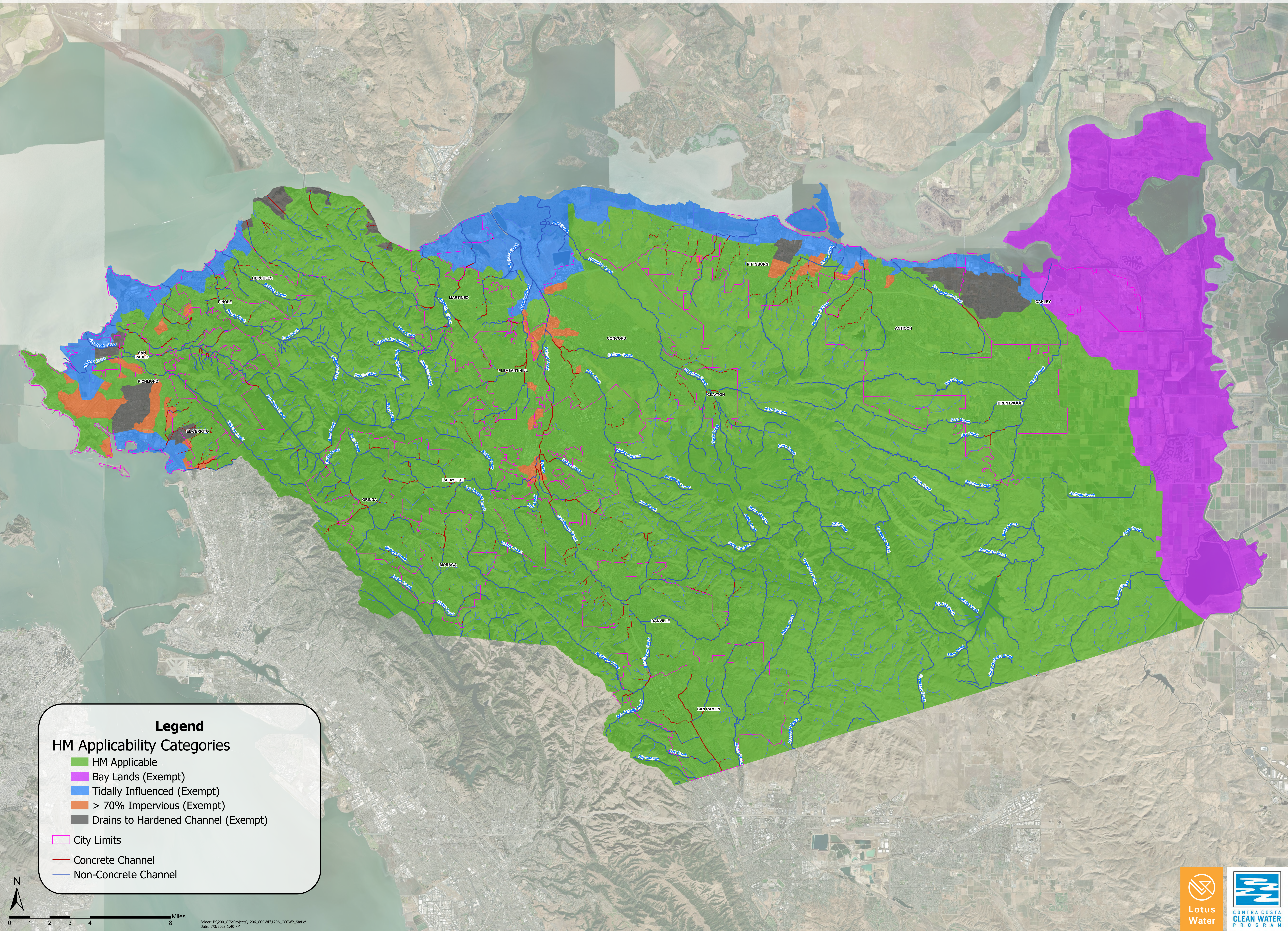
Legend

HM Applicability Categories

- HM Applicable
- Bay Lands (Exempt)
- Tidally Influenced (Exempt)
- > 70% Impervious (Exempt)
- Drains to Hardened Channel (Exempt)

- City Limits
- Concrete Channel
- Non-Concrete Channel

N

Miles
0   2   4   8

Folder: P:\200_GIS\Projects\1206_CCCWP\1206_CCCWP_Static\
Date: 7/3/2023 1:40 PM

Lotus Water

CONTRA COSTA
CLEAN WATER
PROGRAM

TECHNICAL MEMORANDUM

From:	Elai Fresco (Lotus Water)
To:	Contra Costa Clean Water Program
Date:	August 2, 2023
Subject:	2023 Addendum to 2017 Hydromodification Management Applicability Mapping Methodology

Contents

1. Introduction

On September 11, 2017, PSOMAS, a consultant to the Contra Costa Clean Water Program (CCCWP), delivered a technical memorandum to the CCCWP entitled "HMP Applicability Mapping Methodology," detailing the methods used to develop a 2017 draft Hydromodification Management (HM) Applicability Map for Contra Costa Permittees under provision C.3.g of the Municipal Regional Stormwater NPDES Permit, Order No. R2-2015-0049 (MRP 2.0).

This document serves as an addendum to the PSOMAS technical memorandum, documenting updates to the HM Applicability Map made by Lotus Water in 2023 using the output of the PSOMAS effort as a starting point. Lotus Water received the "HMP_Subbasins" GIS layer described in Section 4, "Project Outputs" of

the PSOMAS memorandum, as well as other supporting layers like channels and storm drains, but the "HMP_Review" GIS layer was not provided.

Lotus Water worked with CCCWP staff and affected Permittees to revise the map to respond to comments made by the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) in 2020, make other general improvements to the map, including symbology and data updates, and to incorporate additional Permittee input.

2. Response to SFBRWQCB Comments

On July 10, 2020, Keith H. Lichten, Chief of the Watershed Management Division of the SFBRWQCB, sent a memo to Karin Graves of the Contra Costa Clean Water Program entitled "Memo to CCCWP Regarding Their Hydromodification Technical Report and Hydromodification Applicability Map, Submitted September 29, 2017". This memo included four specific comments on the 2017 HM Applicability Map:

- A large section that drains to Marsh Creek is identified as hardened but does not appear to be hardened.
- A section that drains to Walnut Creek is identified as hardened but does not appear to be hardened.
- A section identified as hardened is ambiguous as to whether it drains to Pine Creek or Walnut Creek.
- Several areas on the map are labeled as "To Be Determined" and should be resolved.

After discussion with relevant Permittees, these comments were addressed in the updated 2023 HM Applicability Map as follows:

- Based on changes in the HM applicability language in recent permit cycles and SFBRWQCB's clarifying response to comments on HM applicability during the 2022 Municipal Regional Stormwater NPDES Permit negotiations, the area draining to Marsh Creek has been re-designated as HM applicable.
- Based on changes in the HM applicability language in recent permit cycles and SFBRWQCB's clarifying response to comments on HM applicability during the 2022 Municipal Regional Stormwater NPDES Permit negotiations, the area draining to Walnut Creek has been re-designated as HM applicable.
- Subbasin boundaries have been refined in the area between Pine Creek and Walnut Creek. This entire area is now all HM applicable, regardless of drainage to Pine Creek or Walnut Creek, due to the change in HM applicability of the Walnut Creek watershed, as noted above in item 2.
- All areas previously labeled "To Be Determined" have been assigned HM applicability categories with input from Contra Costa Public Works Flood Control Division and subsequent applicable Permittee review. Contra Costa Public Works Flood Control Division conducted the initial assessment and determination.

3. Other General Map Improvements

In addition to the updates in response to SFBRWQCB comments, the consultant team revised and improved the HM applicability map in several areas.

3.1 Subbasin Refinement

The basis of the HM Applicability Map is a countywide subbasin layer. These subbasins were initially delineated by PSOMAS as described in the 2017 memorandum. They have been generated algorithmically, largely based on surface topography (which may not accurately reflect stormwater drainage delineations based on subsurface storm drain infrastructure), leading to some geographical boundary issues that Lotus Water took steps to resolve. The topological process is most accurate in upland, mountainous, and/or undeveloped areas and less accurate in flat, highly urbanized, or industrial/commercial areas along the bay shore.

The 2017 geospatial algorithms resulted in small "sliver" gaps between subbasins where HM applicability was "null." All gaps between subbasins were filled by merging gap areas with the most adjacent subbasins.

Some subbasins consisted of multipart geometry, i.e., a single subbasin feature consisting of several non-adjacent areas. All multipart geometry was converted to single-part geometry, so all subbasins are single, contiguous areas.

Contra Costa County Flood Control & Water Conservation District maintains a countywide map of drainage areas[1]. These drainage areas are generally much larger than the subbasins generated by PSOMAS in 2017. However, the *boundaries* of these drainage areas can serve as a useful supplement to the initial subbasin delineation. A GIS process aligned existing subbasin boundaries with these greater drainage area boundaries.

After these initial refinements were made, all subbasins with a total area of fewer than 5 acres, or an area-to-perimeter factor of fewer than 75 feet (indicating an unrealistically elongated subbasin shape), were eliminated by merging them with the most adjacent subbasins.

The resulting subbasin layer is now more topologically consistent and more consistent with Contra Costa County's official drainage areas.

Storm drain data was sometimes used as a reference to refine subbasin boundaries in response to permittee comments. Storm drain data was provided by individual Permittees and consisted of over 20 distinct GIS data layers. These data are disparate in completeness, schema, resolution, and CAD/GIS program of origin. Furthermore, these data are exclusive of privately-operated storm drain pipes, common in commercial and industrial areas and near receiving water outfalls (subbasins are ideally defined as a specific outfall). This makes the data unsuitable for automated, countywide subbasin mapping processes.

However, using the existing subbasins as a starting point, additional subbasin refinement work was requested using an individual-subbasin process of assessing storm drain pipes, elevation data, imagery, and other data. This refinement should be strategically targeted and was generally requested in areas that are:
- Topologically flat,
- Far from open channels and/or in areas with dense storm drain networks,
- Urban, commercial, or industrial,
- Expecting high levels of future development and/or

---

[1] https://www.contracosta.ca.gov/DocumentCenter/View/61290/County-Zones-and-Drainage-Areas-PDF?bidId=

- Near HM Applicable/Exempt boundaries.

3.2 >70% Impervious Areas

The HM applicability category of "less than 70% impervious" was recalculated with the new subbasin geometry and more recent imperviousness data. The data used for the 2017 map was the 2016 edition of the National Land Cover Database Percent Developed Imperviousness dataset; the updated 2019 edition was used to generate the 2023 map[2].

3.3 Web Map Application Updates

Several updates were made to the web map application of the HM Applicability Map for aesthetic and user experience reasons not directly related to technical HM applicability concerns.

City limit geometry was updated to reflect several recent annexations and to conform to the coastline rather than extending into the Bay.

The Creeks and Drainages layer is now visible at all map scales, distinguishes between tributaries and named channels, and includes symbology to describe whether a channel is "concrete" or "non-concrete." This data is sourced from Contra Costa County Public Works and was not specifically developed or refined about the MRP definition of "hardened channel." It provides useful context but should not be understood as definitive about hydromodification applicability.

Unincorporated areas are highlighted with a semitransparent white fill that can be toggled on and off in the Layers section. This helps users understand city limits in areas with complex boundaries and unincorporated exclaves, such as southern Walnut Creek and northern Richmond / San Pablo.

Subbasin boundaries are not shown by default but can be toggled on in the Layers section. Typical users of the HM applicability map will most likely be concerned with where a potential project falls in the HM categories rather than with intra-category subbasin delineations.

Users can select from numerous base maps (e.g., satellite imagery, satellite imagery with labels, streets, topographic, etc.)

4. Updates Based on Permittee Input

After the updates described in Sections 2 and 3 were made, relevant Permittees reviewed draft maps and associated designations and provided additional feedback and changes.

4.1 Contra Costa County (Unincorporated Areas)

Based on a review of drainage data, including culverts, several subbasins along the bay shore between Hercules and Martinez had minor boundary changes and were recategorized as Hardened (HM exempt).

---

[2] Dewitz, J., and U.S. Geological Survey, 2021, National Land Cover Database (NLCD) 2019 Products (ver. 2.0, June 2021): U.S. Geological Survey data release, https://doi.org/10.5066/P9KZCM54

4.2 City of Concord

A single subbasin in a commercial area along Pine Creek had its boundaries redrawn by City drainage data. As with all cases when any subbasin changed shape, the percent imperviousness within the basin was recalculated; the subbasin remained greater than 70% impervious and therefore remained classified as HM exempt.

4.3 City of Oakley

Based on a review of City drainage data, portions of northern Oakley (and portions of neighboring Antioch) were found to drain directly to the Bay through enclosed storm drain pipes and not to Marsh Creek. These subbasins have been recategorized as Hardened (HM exempt).

Subbasin boundaries around the City's eastern portion near the Bay Lands margin were adjusted based on existing City drainage data without changing HM categorization.

4.4 City of Hercules

A portion of the Refugio Creek line was adjusted to reflect the current alignment. No changes were made to HM categorization.

Subbasin boundaries around the line of tidal influence were adjusted based on existing City drainage data.

4.5 City of Pittsburg

Several subbasin boundaries were adjusted based on existing City drainage data. No changes were made to HM categorization. The city limits layer was updated.

4.6 City of Martinez

The city limits layer was updated.

5. Project Outputs

The primary deliverable outputs are updated countywide GIS layers, documentation of responses to SFBRWQCB comments, and an interactive web map application that can be used to determine HM applicability for development projects.

The output GIS layers consist of the following:
- HMP_Subbasins_2023: a revised countywide subbasins layer that includes a "Notes" column where the details of changes made above are documented.
- CCC_Cities_Shoreline: a revised city limits layer that includes annexations made since 2017 and clips city limits to the approximate Bay shoreline (for aesthetic purposes).

The responses to SFBRWQCB comments were tracked in an Excel spreadsheet hosted on the Contra Costa Public Works internal SharePoint site[3]. The spreadsheet tracks responses to comments 1-3 as described above in Section 2, as well as HM applicability categorization input from the Contra Costa Public Works

---

[3]https://cccpublicworks.sharepoint.com/:x:/r/sites/CCCWP-Consulting/Shared%20Documents/H%26A/HMP%20Map%20Update%20Task/CCCWP_Lotus_HMP_AppMap_GISDecisionForm.xlsx

Flood Control Division regarding each subbasin listed as To Be Determined in the DRAFT 2017 map (per comment 4 described in Section 2).

The revised 2023 web map application is currently hosted online by Lotus Water but will be moved to the CCCWP public-facing web map location once finalized. The current map is located at:

https://lotuswater.maps.arcgis.com/apps/instant/sidebar/index.html?appid=e382ce6e29394a21b518ead5cb0589f5

A high-resolution static PDF map is provided in Attachment A.

September XX, 2023

Eileen White, Executive Officer
San Francisco Bay Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

Subject: **Submittal of 2023 Hydromodification Management Applicability Map for Contra Costa County**

Dear Ms. White:

Provision C.3.g.i of MRP 3.0 requires Contra Costa Permittees to provide maps of areas exempt from Hydromodification Management (HM) requirements for Executive Officer approval. This submittal provides the required map, along with supporting information. The enclosed map is a revised and improved version submitted to the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) with Contra Costa Permittee Annual Reports in 2017. On July 10, 2020, the SFBRWQCB responded to the 2017 Contra Costa submittal and sent a memo to the Contra Costa Clean Water Program (CCCWP) entitled "Memo to CCCWP Regarding Their Hydromodification Technical Report and Hydromodification Applicability Map, Submitted September 29, 2017". This memorandum included several questions and comments on the 2017 HM Applicability Map regarding the HM applicability of areas draining to Marsh Creek and Walnut Creek and the status of areas labeled as "To Be Determined." This submittal provides a revised map and supporting information that responds to the questions and comments made by SFBRWQCB.

This submittal includes the following:

- An updated .pdf format map of Contra Costa County that designates all county areas within HM Applicable and HM Exempt categories per the MRP 3.0 permit language designations.
- An 2023 addendum to the 2017 technical memorandum detailing the data sources and methods used to create the map and the history of revisions made to the map submitted in 2017.
- A link to a web mapping application that can be used by municipal staff, applicants for development project approvals, and the public.

Responses to comments made by the SFBRWQCB in 2020 consisted of reclassifying the HM applicability of areas draining to Marsh Creek and Walnut Creek and classifying all areas previously marked as "To Be Determined."

General improvements to the map included refined and more accurate subbasin boundaries, a recalculation of highly developed (>70% impervious) catchments using data published since 2017, and an improved map layout and web mapping application with additional supporting data.

Updates based on permittee input consisted of refining specific subbasin boundaries, changing the HM applicability of certain subbasins, and updates to stream alignments and city limits.

255 Glacier Drive, Martinez, CA 94553-4825 • **Tel: (925) 313-2360 Fax: (925) 313-2301** • **Website: www.cccleanwater.org**

Program Participants: Antioch, Brentwood, Clayton, Concord, Danville, El Cerrito, Hercules, Lafayette, Martinez, Moraga, Oakley, Orinda, Pinole, Pittsburg, Pleasant Hill, Richmond, San Pablo, San Ramon, Walnut Creek, Contra Costa County and Contra Costa County Flood Control & Water Conservation District

Submittal of Revised Hydromodification Management (HM) Applicability Maps and Supporting Information

The revised 2023 draft web map application is hosted online by Lotus Water but will be moved to the CCCWP public-facing web map location once finalized. The current draft 2023 web map is located:

https://lotuswater.maps.arcgis.com/apps/instant/sidebar/index.html?appid=e382ce6e29394a21b518ea d5cb0589f5

Until SFBRWQCB accepts the maps, Contra Costa Permittees will continue to apply the criteria in CCCWP's 2006 HMP and MRP 1.0. Following your acceptance of the maps, we will create and publish an update to CCCWP's Stormwater C.3 Guidebook referencing the maps and directing users to the updated web map.

Lastly, because any mapping effort inevitably contains some inconsistencies with conditions on the ground, we anticipate that occasional minor updates to the maps will be required. Typically, these would include adjusting the boundaries of a subwatershed based on new information regarding the locations of catch basins, their connection to subsurface drainage pipes, and the direction of flow and discharge location of those pipes. We propose to notify the Water Board of these updates in our annual reports.

If you have any questions, please don't hesitate to contact me at Rinta.Perkins@pw.cccounty.us.

Sincerely,

Rinta Perkins
Interim Program Manager
Contra Costa Clean Water Program

cc: CCCWP Permittees
         Keith Lichten, SFBRWQCB
         Zach Rokeach, SFBRWQCB
         Derek Beauduy, SFBRWQCB

Commented [RK3]: Are these the appropriate people to cc?

CONTRA COSTA
CLEAN WATER
PROGRAM

Date: August 16, 2023

To: Management Committee

From: Elizabeth Yin, Program Consultant

Subject: Review and Approve the MRP 3.0 Permit Amendment Comment Letter

---

Recommendation:

Review the comment letter developed in response to the MRP 3.0 Permit Amendment Tentative Order and Approve the comment letter for submittal to the SFBRWQCB.

Background:

During the MRP 3.0 adoption hearing in 2022, the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) asked SFBRWQCB staff to report back to them at their August 9, 2023, meeting. Specific items for reconsiderations included:

- Special Category C projects.
- Roads in disadvantaged communities.
- Alternative treatment systems compliance.
- Monitoring requirements.

In April 2023, SFBRWQCB staff released an Administrative Draft of the potential permit amendment language. In response to this language, CCCWP convened the Select Committee to review and develop a comment letter. Development Committee also reviewed and supported the development of the comment letter. This Management Committee approved the Program's MRP 3.0 Comment Letter on the Administrative Draft Permit Language at the April 25, 2023 Special Meeting of the Management Committee. The approved comment letter was subsequently submitted to the SFBRWQCB.

On July 21, 2023, the SFBRWQCB issued a Notice of Public Comment and Public Hearing to Consider Adoption of the Tentative Order Amending the Sn Francisco Bay Region Municipal Regional Stormwater NPDES Permit. The Notice identified the deadline to submit comments no later than 5:00 pm on Monday, August 21st, and the adoption hearing date of Wednesday, October 11, 2023.

In response to the Notice, the Program has been working with the Select Committee as well as the C.3. Technical Consultants to update the comment letter produced for the administrative draft, and develop any new comments in response to the Tentative Order. In a meeting held on July 21st with the Select Committee, changes to the Tentative Order and a strategy for developing comments was discussed. Subsequent to the meeting, a first draft of the comment letter was distributed for review by Staff, Legal Counsel, and Select Committee members on August 7th, 2023. Comments from the small group will be incorporated into the letter and a second and final draft of the Comment Letter will be distributed to Management Committee for approval at the August 16th Management Committee meeting.

Schedule:

Working Schedule

	Proposed Timeline for Tentative Order Comment Letter Submittal	
1	July 31st	Select Committee Meeting
2	August 4th	Draft Comment Letter Ready for CCCWP and Legal Counsel Review (Staff, Select Committee, and Legal Counsel)
3	August 9th	Comments due for incorporation in Second Draft Letter
4	August 10th	Second Select Committee (as needed)
5	August 11th	Final Comment Letter ready for staff review
6	August 14th/15th	Updated/Final Comment Letter ready for Management Committee
7	**August 16th**	**Management Committee Meeting (Approval)**
8	August 18th/21st	*Special Management Committee Meeting (if not ready for approval at 8/16 MC Meeting)*
9	**August 21st**	**Deadline to submit Comment Letter**
10	**October 11th**	**MRP 3.0 Permit Amendment Tentative Order Hearing**

Fiscal Impact:

None at this time.

Attachments:

Final Draft Comment Letter in response to MRP 3.0 Permit Language Amendment Tentative Order, will be posted to Groupsite when available. [[Groupsite Link]]

G:\NPDES\01_Management Committee\02_Agendas\FY 23-24\Agenda Packets\2023-08-16\MC_Mtg_08-16-2023_(12.1)_Staff Report MRP 3.0 Permit Amendment Comment Letter.docx

2

To: Management Committee

From: Elizabeth Yin, Consultant

Subject: Review and Approve Final Regional Provision C.17 BMP Report

Recommendation:

Review the Final Regional BMP Report developed by the BAMSC Unsheltered Homeless Populations Working Group and APPROVE the Final Regional BMP Report for inclusion in the Program's 2023 Annual Report.

Background:

MRP 3.0 introduced a new provision, C.17 Discharges associated with unsheltered homeless populations, that sets new requirements and deadlines for Permittee implementation. Under Provision C.17, several reporting items were introduced, including the development of a map, a report of best management practices (BMP), and the inclusion of an implementation evaluation into the 2023 Annual Report.

To support the development of the BMP Report, CCCWP has been participating in a Bay Area Municipal Stormwater Collaborative (BAMSC) Work Group with the focus of developing a Regional best management practices (BMP) Report that details the BMPs implemented to reduce the water quality impacts of unsheltered homeless populations. To date, the Work Group has established guidance on collecting information, prepared outlines for the Regional BMP Report and the Countywide BMP Report, and produced an initial and final draft of the Regional BMP Report.

On July 5th, CCCWP distributed the Draft Regional BMP Report for review by Countywide Permittees. The Report was developed and reviewed by the BAMSC C.17 Work Group which included CCCWP and other permittee staff. The BMP Fact Sheets that are included in Attachment A of the Report were developed based on information provided by Permittees to Countywide stormwater program leads.

By July 21, 2023, Program staff gathered and submitted comments provided in response to the Draft Regional BMP report, the majority of which included

additional details requested for individual BMP Fact Sheets. The BAMSC Work Group incorporated comments from the Program, as well as comments from the other Countywide Stormwater Programs, into the Final Draft C17 Regional BMP Report.

<u>Schedule</u>:
The Final C17 Regional BMP Report is expected to require approval from Management Committee at the August Management Committee meeting, and August 2023 BAMSC Steering Committee meeting. The Report will be submitted to the SFBRWQCB as an attachment to the Program's 2023 Annual Report.

<u>Fiscal Impact</u>:

None at this time.

<u>Attachments:</u>

- Final C.17 Regional BMP Report

G:\NPDES\01_Management Committee\02_Agendas\FY 23-24\Agenda Packets\2023-08-16\MC_Mtg_08-16-2023_(13.1)_ Staff Report Final Regional C17 BMP Report.docx

BAY AREA MUNICIPAL
STORMWATER (BAMS) COLLABORATIVE

Regional Best Management Practices Report for Addressing Non-stormwater Discharges Associated with Unsheltered Homeless Populations

Submitted in compliance with the San Francisco Bay Municipal Regional Stormwater National Pollutant Discharge Elimination System (NPDES) Permit, Order No. R2-2022-0018, Provision C.17.a.

Prepared on behalf of:

Alameda Countywide Clean Water Program

Contra Costa Clean Water Program

San Mateo Countywide Water Pollution Prevention Program

Santa Clara Valley Urban Runoff Pollution Prevention Program

Solano Stormwater Alliance

September 30, 2023

TABLE OF CONTENTS

ATTACHMENT A – BMP FACT SHEETS

DIRECT SUPPORT BMPS

- S-01: PORTABLE TOILETS AND HANDWASH STATIONS
- S-02: MOBILE SHOWER AND LAUNDRY SERVICES
- S-03: STATIONARY SHOWER AND LAUNDRY SERVICES
- S-04: GARBAGE COLLECTION AND DISPOSAL SERVICES
- S-05: INCENTIVES FOR INDIVIDUALS CONDUCTING CLEANUPS/SANITATION SERVICES
- S-06: ENCAMPMENT CLEANUPS
- S-07: TEMPORARY SAFE PARKING PROGRAMS FOR CARS AND RECREATIONAL VEHICLES
- S-08: SEWAGE PUMP-OUT SERVICES FOR RECREATIONAL VEHICLES
- S-09: PHYSICAL BARRIERS AND DETERENTS TO ENCAMPMENTS

DIRECT OUTREACH BMPS

- O-01: PROGRAMS TO ESTABLISH RELATIONSHIPS WITH HOMELESS POPULATIONS

INDIRECT PROGRAMMATIC BMPS

- P-01: ACCESS TO SUPPORTIVE HOUSING
- P-02: ENCAMPMENT MANAGEMENT POLICIES
- P-03: FUNDING INITIATIVES
- P-04: INTER-DEPARTMENT AND INTER-AGENCY INFORMATION SHARING
- P-05: COORDINATION WITH STATE AND RAIL AGENCIES
- P-06: COORDINATION WITH NON-PROFIT ORGANIZATIONS
- P-07: SOPS FOR RESPONDING TO RV AND ENCAMPMENT ILLICIT DISCHARGES

1   INTRODUCTION

This Regional Best Management Practices (BMPs) Report (Regional BMP Report) for addressing non-stormwater discharges associated with unsheltered homeless populations was prepared by the Bay Area Municipal Stormwater Collaborative (BAMS Collaborative). The Regional BMP Report was developed in compliance with the Municipal Regional Permit (MRP) for urban stormwater adopted by the San Francisco Bay Regional Water Quality Control Board (Permit Order No. R2-2022-0018, MRP 3.0) Provision C.17.a.i.(2) in 2022. The MRP regulates stormwater discharges from municipal separate storm sewer systems (MS4s) owned and/or operated by 79 cities, counties and other public agencies (i.e., Permittees) in the San Francisco Bay Area.

The BAMS Collaborative represents 103 stormwater management agencies in the San Francisco Bay Area, including 88 cities and towns, eight counties, and seven special districts. The BAMS Collaborative is focused on regional challenges and opportunities to improve the quality of stormwater flowing to our local creeks, the Delta, San Francisco Bay, and the Pacific Ocean. The BAMS Collaborative was organized in 2021 by the Board of Directors for the Bay Area Stormwater Management Agencies Association (BASMAA) to continue the information sharing and permittee advocacy functions of BASMAA in an informal manner after BASMAA's dissolution. The BAMS Collaborative continues BASMAA's mission to encourage information sharing and cooperation, and to develop products and programs that are required and/or more cost-effectively completed regionally than locally. The BAMS Collaborative has collectively developed this Regional BMP Report in fulfillment of MRP Provision C.17.a.iii.(1).

1.1   PURPOSE

This Regional BMP Report was collectively prepared by a BAMS Collaborative Work Group with representatives from the Alameda Countywide Clean Water Program, Contra Costa Clean Water Program, San Mateo Countywide Water Pollution Prevention Program, Santa Clara Valley Urban Runoff Pollution Prevention Program, and Solano Stormwater Alliance and individual cities, counties, and districts in Alameda, Contra Costa, San Mateo, Santa Clara, and Solano Counties that are regulated by the MRP. The Work Group also engaged service provider agencies, Caltrans, and other partner agencies during the development of this Regional BMP Report to gain additional insight and information on BMPs designed to address non-stormwater discharges associated with unsheltered homeless populations.

To encourage ongoing regional, countywide, and municipal coordination efforts, the BAMS Collaborative Work Group collectively identified effective BMPs to prevent and address non-stormwater discharges associated with unsheltered populations into municipal separate storm sewer systems (MS4s) that impact water quality and specific milestones for reducing such discharges within a given timeframe.

MRP Provision C.17.a.i.(2) requires the Regional BMP Report to:

- Describe practices that may be implemented by Permittees, including those currently being implemented, to address discharges associated with homelessness that are

impacting water quality.

- Identify regional and/or countywide efforts and implementation actions to address discharges associated with homelessness (including how those efforts and actions have been affected by unsheltered population growth). Include recommendations for engaging in these efforts and incorporating discharge-reduction strategies that also help meet the unsheltered population's clean water needs.
- Identify actions taken during the COVID-19 pandemic to reduce the spread of the virus in homeless populations, such as temporarily housing unsheltered people in hotels, that may have reduced discharges associated with homelessness. Permittees shall consider the practicability of such actions for longer-term implementation.

The broader goal of the Regional BMP Report is to develop useful information that can be used toward prioritizing individual Permittee and potential collaborative BMPs for reducing or managing such discharges, while ensuring the protection of public health. Examples of collaborative BMPs could include efforts between Permittees, Caltrans, sanitary sewer agencies, railroads, non-profit agencies, social service organizations, and others.

1.2 REGULATORY BACKGROUND

MRP Permittees have implemented illicit discharge detection and elimination programs since the inception of the NPDES municipal stormwater permits. Illicit discharges are discharges to a MS4 that are not composed entirely of stormwater and are prohibited by the MRP. The required elements of these programs are in MRP Provision C.5 - Illicit Discharge Detection and Elimination. The municipal illicit discharge detection and elimination programs include the legal authority to prohibit illicit discharges, procedures to receive information (e.g., complaints) on illicit discharges from municipal staff conducting field work and the general public, a process to investigate illicit discharges and achieve effective abatement.

Typically, municipal Permittees identify a responsible party and implement enforcement actions to achieve effective abatement of illicit discharges in a timely manner. Permittees may also choose to use education and outreach as an alternative to enforcement to bring responsible parties into compliance. If a responsible party cannot be identified Permittees will perform cleanup and abatement actions.

Discharges associated with people experiencing unsheltered homelessness, including human waste and trash, are prohibited under the MRP. Preventing and controlling illicit discharges from unsheltered populations presents unique challenges. For example, encampments can be transient, sanitation services can be difficult to maintain, unsheltered populations may not be receptive to the services, and typical illicit discharge enforcement actions/fines may not be appropriate or useful in these situations. Preventing and controlling illicit discharges from unsheltered populations cannot be fully addressed through the Permittee's illicit discharge program and enforcement procedures alone.

To address water quality impacts from discharges associated with unsheltered populations, Permittees evaluate the specific occurrence and implement appropriate BMPs. The BMPs implemented to address water quality issues in the short term can be in addition to longer term measures implemented by municipalities to address unsheltered homelessness, such as

providing housing and supportive services. Municipal staff associated with stormwater management may collaborate with other departments and organizations that are addressing the broader social issue of homelessness, but the immediate concern of stormwater management staff (as detailed in and supported by the BMP Factsheets in Attachment A), is to address short term water quality issues.

In addition to illicit discharge programs, applicable Permittees also address discharges associated with unsheltered populations under the Provision C.10 Direct Discharge Control Program and Provision C.14 Bacteria Control for Impaired Waterbodies. Direct Discharge Control Programs implemented via C.10 by specific Permittees prevent or reduce the impacts of discharges of trash and other pollutants from unsheltered homeless populations near surface waters. Provision C.14 includes requirements for specific agencies to evaluate the potential for bacteria transport and/or impact to surface waters from unsheltered populations and/or implement BMPs to address these discharges where needed.

The reissued MRP, that became effective July 1, 2022, includes a new provision (MRP Provision C.17) that specifically addresses illicit discharges to MS4s associated with unsheltered populations, including illicit discharges from areas where unsheltered people congregate. The Provision encourages "ongoing regional, countywide, and municipal coordination efforts" through the development of this Regional BMP Report. In addition, the Provision has new reporting requirements for Permittees to report individually on BMPs implemented and their effectiveness as well as reporting collectively.

As required by MRP Provision C.17.a.i.(2), this Regional BMP Report describes the BMPs that are currently being implemented or may be implemented by Permittees in the future to address discharges associated with homelessness impacting water quality. These practices are summarized in Section 3.0 (BMP Fact Sheets). The MRP also requires the Regional BMP Report to identify regional and/or countywide efforts, strategies that also help meet clean water needs, and actions taken during the COVID-19 pandemic to reduce the spread of the virus in unsheltered populations that may have reduced discharges associated with homelessness. These categories of actions are also specifically identified in the Section 3.0 (BMP Fact Sheets).

1.3 UNSHELTERED HOMELESS POPULATIONS DEFINITIONS AND AREAS OF CONGREGATION

Title 24 of the Code of Federal Regulations (CFR) defines unsheltered populations as "an individual or family with a primary nighttime residence that is a public or private place not designed for or ordinarily used as a regular sleeping accommodation for human beings, including a car, park, abandoned building, bus or train station, airport, or camping ground".

For the purpose of the Regional BMP Report, the following are considered unsheltered populations, based on requirements in the MRP, areas of congregation, and the potential for generating non-stormwater discharges that may enter MS4s and surface waters.

- People living on sidewalks in sleeping bags or tents.
- People living on streets in vehicles.
- People living in safe parking areas in vehicles.

- People living in parks, open spaces, and along waterways in vehicles, sleeping bags or tents.
- People living in formal or informal encampments (including tents or cabins) on streets, open spaces, and along waterways.

1.4 WATER QUALITY IMPACT

Surface water quality in Bay Area watersheds is threatened by urban development that degrades creek habitat and introduces potential pollutants. Stream channels have been altered for agricultural and flood control purposes, riparian forests have been converted to urban land uses, and the network of storm drainage systems constructed over the years limits opportunities for stormwater infiltration and increases peak rates of storm flow runoff. Results of bioassessment monitoring conducted by the BASMAA Regional Monitoring Coalition (RMC) from 2012 through 2016 suggest that urban streams in the Bay Area are generally in poor ecological condition with impacted populations of aquatic life resulting from modifications to the watershed and riparian areas associated with the urban development that has occurred over the past 70 years.[1]

Additionally, stormwater runoff from urban areas may convey trash, sediment, nutrients, pesticides, bacteria, metals, vehicle-related compounds, and legacy pollutants to surface waters. Emerging contaminants and the effects of climate change also likely impact surface water quality. These potential pollutants and issues are tracked through routine monitoring of creeks, beaches, and the San Francisco Bay. This monitoring is conducted by a variety of organizations and programs such as BAMS Collaborative member agencies, San Francisco Baykeeper, AB411 Compliance Monitoring, the San Francisco Estuary Institute (SFEI), and the Regional Monitoring Program for Water Quality in San Francisco Bay (i.e., RMP).

These monitoring efforts have identified urban runoff as an important pathway for several pollutants. As a result, MS4 contributions of pollutants are being addressed through water quality control plans that are implemented through MRP provisions:

- C.9 - implements requirements of the Total Maximum Daily Load (TMDL) for Diazinon and Pesticide-Related Toxicity for Urban Creeks;
- C.10 - requires a 100 percent reduction in trash loads from MS4s by June 30, 2025;
- C.11 and C.12 - address impacts from legacy pollutants, mercury and PCBs, on San Francisco Bay;
- C.13 - implements a control program for copper; and
- C.14 - addresses exceedances of bacteria Water Quality Objectives (WQOs) that have been identified in several receiving waters discharging to or along San Francisco Bay and the Pacific Ocean).

---

[1] BASMAA. 2019. *BASMAA Regional Monitoring Coalition Five-Year Bioassessment Report, Water Years 2012 - 2016.* March 15, 2019. Prepared by EOA, Inc and Applied Marine Sciences.

These MRP provisions require monitoring, tracking, and implementation of control measures to address discharges of the pollutants to creeks, the Bay, and the ocean via MS4s.

The Provisions identified above are associated with specific pollutants known to impact surface waters, while the MRP Provision C.17 is associated with addressing a specific source of pollutants (i.e., unsheltered populations). Common pollutants generated from unsheltered populations that may enter MS4s and surface waters are trash and debris (e.g., food waste, plastics, paper, cardboard, materials for shelter/bedding, etc.), and human waste (e.g., bacteria, pathogens). These pollutants are largely addressed in Provisions C.10 and C.14, as described above. Human waste may be directly from individuals or from recreational vehicles (e.g., leaking waste tanks, illegal dumping into storm drains or water bodies). Other types of pollutants that may also be generated from unsheltered populations include hazardous waste (e.g., cleaning chemicals, needles, electronic waste), motor oil and other fluids from leaking vehicles, and pet waste. Additionally, unsheltered populations living near waterways may cause ecological impacts such as barriers to fish passage, habitat loss for wildlife due to vegetation clearing, excavated or compacted soil, temporary structures built near or within waterways, etc..[2]

To date, the link between unsheltered homeless populations and trash in surface waters has been primarily established through visual observations. Many local agencies routinely conduct cleanups at encampments located on streets and near surface waters to remove significant quantities of trash and debris. For example, the City of San José removed approximately 432 tons of trash from encampments in FY 2020-21.[3] If not removed, trash from encampments may enter MS4s and surface waters, and could potentially impact water quality and beneficial uses within these surface waters.[4] Aside from trash, however, data that directly links other pollutants (e.g., bacteria or toxic chemicals) generated from encampments to water quality appear to be limited or unavailable. While numerous sources mention the water quality concerns associated with encampments, actual data are lacking.[5]. For example, the first phase of a DNA testing project to identify the leading causes of *E. coli* concentrations above numeric WQOs in the Lower American River revealed that the main sources of bacteria were birds and other wildlife, with negligible contributions from humans.[6] A microbial source identification study conducted in the Pillar Point Harbor watershed in San Mateo County focused on identifying geographic and seasonal sources of "controllable" bacteria (i.e., human and dog sources). However, detections of the genetic marker for human sources (i.e., HF183) were rare (2 of 48 samples) making it difficult to directly link detection of the HF183 marker to known locations of unsheltered individuals or encampments, as opposed to other potential human

---

[2] Valley Water. 2022. FY 2021–22 Annual Report, Safe, Clean Water and Natural Flood Protection. May 2022

[3] City of San José. 2022. *FY 2021-2022 Annual Report, Appendix 10.4.* September 2022

[4] Not all visibly discarded materials at an encampment located in a street/sidewalk are transportable through an MS4 to a surface water body (i.e., large bulky items such as tents, tarps, mattresses, etc.).

[5] Santa Ana Watershed Project Authority (SAWPA). 2020. Assessing Homelessness Impacts on Water Quality, Riparian and Aquatic Habitat in Upper Santa Ana River Watershed. Prepared for Santa Ana Watershed Project Authority. September 2020. Prepared by GEI Consultants, Inc. and CWE, Inc.

[6] Central Valley Water Board, 2019. Lower American River Bacteria Study - Data Summary of Phase 1 Source Identification Results

sources.[7] Therefore, while discharges associated with unsheltered populations identified in Section 1.3 may impact water quality, it should not be assumed that every unsheltered individual is a source of stormwater pollutants, or what the relative impacts may be regarding different types and loading rates of runoff related pollution.

The BMPs described in this Regional BMP Report focus on addressing unsheltered populations and the pollutants associated with encampments.

1.5   COMPLEXITY OF ISSUE

Although the purpose of this Regional BMP Report is to identify BMPs, the BAMS Collaborative Work Group has found significant value in regional collaboration, sharing knowledge, and providing each other with resources on effective strategies to manage the discharges associated with unsheltered populations. Throughout the development of the Regional BMP Report, participating agencies and members of the BAMS Collaborative Work Group have expressed awareness and concern over the fact that identifying BMPs and strategies to manage the water quality impacts associated with unsheltered populations does not inherently address the complex issues contributing to and impacting the chronic homelessness in the region. As such, the BAMS Collaborative Work Group agreed that development of this Regional BMP Report would be inappropriate without the acknowledgement of those complexities. This section discusses several considerations that impact not only the implementation of the BMPs identified in this Regional BMP Report, but also their overall likelihood, or lack thereof, of success in addressing the root causes of homelessness.

Intersectionality

As noted in the MRP 3.0 Fact Sheet, the number of Bay Area residents experiencing homelessness has increased between MRP 2.0 and the adoption of MRP 3.0. The Fact Sheet also cites the increase at approximately 25 percent between 2017 and 2019, based on Point-in-Time count data in the South Bay, East Bay, and the San Francisco Peninsula. However, the increase in unsheltered homelessness is on the rise across the United States.[8] A myriad of different issues may contribute to the rise in unsheltered homelessness, including the lack of affordable housing, increased housing costs, stagnant wages, pandemic-related disruptions, as well as acute physical or behavioral health crises, escaping domestic violence, and long-standing historical and structural racial disparities.[9,10] To effectively address and reduce homelessness, a coordinated systems approach is needed to inform decisions, allocate resources, and provide housing and services to address the needs of those experiencing homelessness.

In the San Francisco Bay Region, collaborative and coordinated efforts to reduce homelessness have been enacted throughout many levels of government. At the Statewide level, the Homeless Emergency Aid Program (HEAP) was established by Senate Bill 850 (2018) as a

---

[7] San Mateo Countywide Water Pollution Prevention Program (SMCWPP). 2020. *Pillar Point Harbor Watershed Pathogen Indicator Stressor/Source Identification Project Report.* Revised June 2020.
[8] The 2022 Annual Homelessness Assessment Report (AHAR) To Congress. US Department of Housing and Urban Development
[9] "What causes Homelessness?", The National Alliance to End Homelessness
[10] Homelessness in California: Causes and Considerations

response to the housing and homelessness crisis. The initiative allocated $500 million to a one-time set of block grants to help local communities address homelessness. By 2019, 54 block grants were awarded to 43 Continuums of Care (CoCs) and 11 municipalities.[11] The Housing and Homelessness budget trailer bill (AB 129), approved in 2023, establishes Round 5 of the Homeless Housing, Assistance and Prevention (HHAP) Program to be funded at $1 billion in 2023-24 to support the achievement of homelessness reduction goals through state grant programs.[12] All Home, a 501(c)(3) non-profit organization, alongside the Regional Impact Council (RIC), a coalition of Bay Area regional elected officials, city and county staff, leaders from business, nonprofit, and philanthropic organizations, developed and released a Regional Action Plan to reduce homelessness in the Bay Area by 75% in 3 years.[13] Agencies across the San Francisco Bay Region have incorporated the goals of the Regional Action Plan into their respective CoC programs.[14,15] From there, agency departments work and collaborate with others to develop tools and implement services that bring resources directly and indirectly to those who are in most need of assistance -- which is to say -- stormwater agencies are not the primary responsible entities for implementing programs to end/reduce homelessness. Stormwater management agencies can only provide services that help prevent and mitigate MS4 related environmental impacts associated with homeless-related activity.

Even so, questions remain about how local stormwater management programs fit into the complex network of service providers working to address homelessness and how the efforts of these programs will support, not detract, from the important work being implemented by more appropriate and qualified organizations. While there are many ways in which the work of stormwater management agencies can interact and engage with organizations whose primary mission is to end homelessness, stormwater management agencies need to make sure that they are not exacerbating the homelessness crisis or disrupting existing efforts by other agencies in the process of addressing water quality issues. As a first step, the development of this Regional BMP Report, the action of identifying stormwater adjacent BMPs, and the initial regional collaboration borne out of this process have illuminated important connections and educational context needed to work in conjunction with other service providers in the region on these complex issues. Nevertheless, it must be recognized that the purpose and funding of stormwater management programs is to focus on protecting stormwater quality.

Limitations and Challenges

In addition to addressing the intersection between the homelessness crisis and stormwater management, the BAMS Collaborative Work Group identified the following limitations and challenges to implementing BMPs to address non-stormwater discharges from unsheltered populations:

- Funding issues;

---

[11] An Initial Assessment of California's Homeless Emergency Aid Program

[12] https://www.counties.org/csac-bulletin-article/homelessness-trailer-bill-update

[13] Regional Action Plan: A Call to action from the Regional Impact Council. February 2021, All Home

[14] Staff Report from the Contra Costa Council on Homelessness. Contra Costa County Homeless System of Care Quarterly Report for Quarter 4 of 2022 (October – December)

[15] Home Together 2026 Community Plan. Alameda County Office of Homeless Care and Coordination

- Jurisdiction or land use authority;
- Coordination, communication and cooperation with unsheltered individuals and populations; and
- Legal implications of certain types of actions.

Funding the unfunded federal and state mandated stormwater permit compliance programs continues to be one of the most significant challenges facing agencies implementing MRP 3.0. With the increase in requirements and the absence of new revenues for stormwater pollution prevention and management, agencies must consistently prioritize actions that have proven most beneficial to water quality. In addition, the ability to apply current stormwater-specific revenue streams to addressing the discharges of unsheltered populations is unclear. One option for funding some of the BMPs identified in this Regional BMP Report is franchise agreements with vendors, such as municipal waste franchise agreements. These agreements, however, may be limited or restricted at local or regional levels or may not be possible due to other precedents and priorities of individual agencies.

Jurisdictional and land use issues also create challenges for implementing BMPs associated with unsheltered homelessness. By definition (Section 1.3), unsheltered populations may congregate on public or private lands, and may be transient or gather into formal or informal encampments. It can therefore be challenging to gather data, identify trends, and focus BMPs. In the San Francisco Bay Region, the areas where unsheltered populations gather into encampments may be outside municipal jurisdictional authority, such as on Caltrans, Bay Area Rapid Transit (BART), Union Pacific Railroad, or Burlington Northern Santa Fe (BNSF) Railways property. While collaborating with other entities is clearly important, individual stormwater management programs have limited or no capacity to implement services and BMPs in other jurisdictions.

Coordination, communication, and cooperation of unsheltered individuals and populations has been identified as another challenge to implementing BMPs to address non-stormwater discharges. Unsheltered individuals may have experienced trauma because of their situation or past experiences which can lead to mental health, behavioral and/or substance abuse issues. These factors can make it challenging to build relationships and trust, which are essential for effective communication and collaboration. Unsheltered individuals are also often mobile, which can make consistent coordination challenging.

Lastly, complex problems often require complex solutions, and the best solution for addressing homelessness does not lie in legal solutions focused on water quality impairments, such as enforcement of an MS4 permit. Although legal options may be available, Permittees do not believe that enforcement is a suitable practice for addressing discharges from unsheltered homeless populations. Policy changes, such as housing subsidies, housing development and funding for shelters, interim housing, and permanent supportive housing, as well as addressing mental health and substance abuse, would be more appropriate supportive actions than using stormwater regulations as a means of enforcement. It is important that the MRP continue to focus on supporting municipalities with data and information to support understanding and responding to the potential water quality impacts from unsheltered populations, and to respect

the roles of other municipal departments and agencies in their roles to address the more fundamental issue of homelessness occurrence and solutions.

2 DESCRIPTION OF COUNTYWIDE PROGRAM EFFORTS AND CONTINUUM OF CARE PROGRAMS

Permittees routinely collaborate at the Countywide level to efficiently and cost-effectively implement a variety of municipal programs. Stormwater programs that are generally organized at the Countywide level are an example of these collaborations. Another example are the Countywide Continuum of Care Programs (CoC Programs), which are Countywide efforts to provide support and housing service to sheltered and unsheltered members of the community. CoC Programs are designed to promote communitywide commitment to the goal of ending homelessness; provide funding for efforts by nonprofit providers, and State and local governments to quickly rehouse unsheltered individuals and families while minimizing the trauma and dislocation caused to unsheltered individuals, families, and communities by homelessness; promote access to and effect utilization of mainstream programs by homeless individuals and families; and optimize self-sufficiency among individuals and families experiencing homelessness. The Department of Housing and Urban Development (HUD) requires the CoC Programs to conduct an annual count of people (point-in-time or PIT count) experiencing homelessness who are sheltered in emergency shelter, transitional housing, and Safe Havens on a single night. CoC Programs are also required to conduct a PIT count of unsheltered people experiencing homelessness every other year (odd numbered years). Each count is planned, coordinated, and carried out locally, and provides valuable information for providing housing and other services.

This section describes the MRP Stormwater Management Programs and the associated local CoC Programs.

Alameda County

The Alameda Countywide Clean Water Program (ACCWP) is an association of 17 member agencies: Alameda County, the cities of Alameda, Albany, Berkeley, Dublin, Emeryville, Fremont, Hayward, Livermore, Newark, Oakland, Piedmont, Pleasanton, San Leandro, Union City, the Alameda County Flood Control and Water Conservation District, and the Zone 7 Water Agency. The ACCWP facilitates local compliance with the Federal Clean Water Act, coordinating its activities with other pollution prevention programs, such as wastewater treatment plants, hazardous waste disposal, and water recycling. The ACCWP also works with public agencies from around the County to foster a culture of stewardship, educating residents and businesses alike on how to prevent stormwater pollution. Alameda County has over 100 watersheds, ranging in size from just a few acres to the giant Alameda Creek watershed that overlaps with two other counties.

The Alameda County Office of Homeless Care and Coordination serves to implement expanded services and supports and lead the development of a strategic framework to address and work to end homelessness in Alameda County. The Office is working to build a robust, integrated, and coordinated system of homelessness and housing services, and to improve efficiency and

coordination within HCSA and with external partners. The five major initiatives of the program are:

- Property Owner Engagement
- CalAIM
- Homekey Initiative
- Project Roomkey
- Fairmont Navigation Center

Everyone Home, the collective impact initiative for the Berkeley/Oakland/Alameda County Continuum of Care (CoC) is actively engaged in the fight to end homelessness in Alameda County. In partnership with the Alameda County homeless and housing service delivery system, city leaders, the business community, the faith community, non-profits, and, most importantly, those who have themselves experienced the trauma of homelessness, EveryOne Home is building a future that aspires to sufficient resources, advocacy, and strong community involvement to erase homelessness in our social landscape.

Contra Costa County

The Contra Costa Clean Water Program (CCCWP) is comprised of unincorporated Contra Costa County (CCC), the County's 19 incorporated cities/towns[16] , and the Contra Costa County Flood Control & Water Conservation District (District). These 21 public agencies are collectively referred to as "Contra Costa Permittees". The mission of the CCCWP is to coordinate and assist Contra Costa Permittees' efforts to reduce and/or eliminate pollutant discharge into and from their MS4 in compliance with the MRP. The CCCWP is funded in part by a stormwater utility assessment (SUA) that is collected by the CCC Tax Collector with the property tax bill. The assessment is restricted revenue that may only be used for NPDES program activities including the construction of pollution control improvements and drainage system maintenance.

Contra Costa County has 16 major watersheds. These 16 major watersheds comprise 31 sub-watersheds, of which all but eight are entirely within the County. Creeks in the western portion of the County flow towards the San Francisco Bay, while those in the eastern portion of the County flow towards the Sacramento-San Joaquin Delta. The largest watersheds in the County are the Walnut Creek (93,556 acres) and Marsh Creek (60,066 acres) watersheds, which span multiple jurisdictions. However, many of the smaller watersheds and sub-watersheds are "community sized" and are important features of those communities.

Given the size and scale of the land areas that comprise Contra Costa County, the BMPs identified in this Regional BMP Report pertain to those watersheds and jurisdictions within the boundary of Contra Costa County, which reflect the existing county-wide stormwater compliance coordination efforts and administrative resources. While Contra Costa Permittees and the CCCWP gathered information to support the development of this Regional BMP Report,

---

[16] Cities of Antioch, Brentwood, Clayton, Concord, El Cerrito, Hercules, Lafayette, Martinez, Oakley, Orinda, Pinole, Pittsburg, Pleasant Hill, Richmond, San Pablo, San Ramon, and Walnut Creek, and Towns of Danville and Moraga.

many other collaborators, leads, and departments are involved in implementing these BMPs at the County-wide or local jurisdictional level.

The Contra Costa Council on Homelessness (CoH) is the governing and oversight body for the County Continuum of Care (CoC) and its members are appointed by the Board of Supervisors. The Council provides advice and input to the Board of Supervisors on the operations of homeless services, program operations, and program development efforts in Contra Costa County. The Contra Costa CoC is comprised of multiple partners, including service providers, members of faith communities, local businesses, private and public funders, community members, education systems and law enforcement, and others who are working collaboratively to end homelessness. The CoH and CoC are supported by Contra Costa Health Services Health, Housing & Homeless Services (H3) Division.

H3 functions as the CoC administrative entity and collaborative applicant, CoC Lead Agency and Homeless Management Information System (HMIS database) Lead Agency. H3 integrates housing and homeless services across the County health system, coordinates housing and homeless services across County government and in the community. H3 also provides technical assistance, strategic guidance, and funding to a network of community-based agencies organized to respond to homelessness in the community. A list of key Countywide collaborators and agencies implementing BMPs include:

- Contra Costa County CoC Program Services:
  - CoC Council on Homelessness
  - CoC Health, Housing & Homeless (H3) Services
    - Coordinated Outreach Referral, Engagement (C.O.R.E.) program.
    - Homeless Youth and Adult Services
    - Permanent Support Housing
    - Community Homeless Court
    - Health Care for the Homeless
  - Behavioral health, alcohol and other drug, and mental health services
  - CoC Annual/Data Report
- Trinity Center: Offers housing support, substance use counseling, workforce development and winter evening programs
- Monument Crisis Center: A community-based non-profit family resource center for Central and East Contra Costa County. Located in Concord, the Center offers nutritious food, quality resources and referrals to low-income individuals and families in order to help them become stable and secure in the community.
- St. Vincent de Paul of Contra Costa County: Programs include providing food, clothing, shelter, rental assistance, medical services, employment, and workforce development.
- Contra Costa 211 Crisis Database.
- Additional CoC partners and funders

San Mateo County

The San Mateo Countywide Water Pollution Prevention Program (SMCWPPP) is a program of the City/County Association of Governments (C/CAG) of San Mateo County. C/CAG is a Joint

Powers Authority (JPA) that addresses issues of regional importance to San Mateo County jurisdictions such as congestion management and water quality. A 1993 amendment to the JPA Agreement made C/CAG responsible for assisting San Mateo County municipalities with complying with the municipal stormwater NPDES permit (i.e., MRP). The San Mateo County municipalities SMCWPPP assists are 15 cities, five towns, the County of San Mateo and the San Mateo County Flood and Sea Level Rise Resiliency District.

About 26% of San Mateo County's 450 square miles is considered urbanized, with most of the urban area located on the eastern portion of the County adjacent to San Francisco Bay. Four watersheds lie within or border the County: San Francisco Bay watershed, San Francisco Coastal South watershed, Coyote watershed and San Lorenzo-Soquel watershed.

The San Mateo County Board of Supervisors is committed to preventing homelessness and ensuring anyone who is experiencing homelessness is supported with safe shelter and a pathway to housing. The Human Services Agency (HSA) is the County Department tasked with implementing this vision on behalf of the Board of Supervisors and the San Mateo County Continuum of Care Steering Committee (CoC), a diverse, cross-sectoral body that guides and shapes the countywide response to homelessness. HSA works in close collaboration with other County departments and community partners in these efforts.[17]

The County's CoC *Strategic Plan on Homelessness* identifies the programs, initiatives and strategies in place and system improvements for the next three years. The programs and services described include outreach and engagement, shelter/interim housing, housing solutions, prevention assistance, and targeted programs for special populations. The Plan identifies the strategies to accomplish the goals and track progress towards these goals, including reaching functional zero homelessness.

In addition to these efforts, San Mateo County and the City of Half Moon Bay have developed a Homeless Encampments Bacteria Runoff Prevention Plan for Pillar Point Harbor Beaches and Venice Beach to meet requirements of MRP Provision C.14.d. This plan identifies locations of encampments, existing BMPs (human services, sanitation services, clean-ups, illicit discharge enforcement), proposed BMPs, and an implementation schedule.

Santa Clara County

The Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) is an association of thirteen cities and towns in Santa Clara Valley, the County of Santa Clara, and Valley Water (formerly the Santa Clara Valley Water District). SCVURPPP participants are part of the Santa Clara Basin Watershed, which generally follows the boundaries defined by the USGS HUC 8 digit "Coyote" watershed with some minor adjustments made by SCVURPPP to account for catchment areas that have changed with urbanization and modifications to the built environment. The watershed comprises 709 square miles.

---

[17] County of San Mateo Human Services Agency, San Mateo County Continuum of Care (CoC) *Strategic Plan on Homelessness* July 2022 through June 2025.

There are two significant areas of Santa Clara County that are outside of the SCVURPPP area and not addressed by this Report. The northeastern part of the County is in a watershed that drains to Alameda County. It is largely undeveloped. The southern end of Santa Clara County ("South County"), including the Cities of Morgan Hill and Gilroy, is excluded because it drains to Monterey Bay. Thus, South County is not part of the San Francisco Bay Regional Water Quality Control Board Region 2 or the Bay Area Integrated Regional Water Management Plan region, and it is not covered by the San Francisco Bay Region MRP. This area is part of Region 3, under the jurisdiction of the Central Coast Regional Water Quality Control Board.

In Santa Clara County, efforts to provide services to unsheltered populations are led by the Santa Clara County Continuum of Care (SCC CoC), which is a broad group of stakeholders dedicated to ending and preventing homelessness in Santa Clara County. The key CoC responsibilities are ensuring community-wide implementation of efforts to end homelessness, as well as ensuring programmatic and systemic effectiveness. The SCC CoC developed the Community Plan to End Homelessness (2020-2025) through a robust community engagement process. This plan will guide the County, cities, nonprofits, and other community members as they make decisions about funding, programs, priorities, and needs. The Plan aims to:

- Achieve a 30% reduction in annual inflow of people becoming homeless,
- House 20,000 people through the supportive housing system,
- Expand the Homelessness Prevention System and other early interventions to serve 2,500 people a year,
- Double temporary housing and shelter capacity to reduce the number of people sleeping outside; and
- Address the racial inequities present among our unhoused people and families and track progress towards reducing disparities.

Solano County

The Solano Stormwater Alliance (Alliance) is a group of cities and utilities that manage storm drain networks in Solano County collaborating to prevent pollution from entering waterways that flow to the San Francisco Bay. Alliance members follow regulations specified within the Municipal Regional Stormwater National Pollutant Discharge Elimination Permit issued by the San Francisco Regional Water Quality Control Board, and include City of Vallejo, Vallejo Flood and Wastewater District, City of Fairfield, and City of Suisun City. The Fairfield-Suisun Sewer District manages the Alliance regional and Bay-wide collaboration efforts.

The County of Solano coordinates Housing and Homeless initiatives focused on the Behavioral Health population, in coordination with Health and Social Service Divisions, County Departments, Solano Homeless Continuum of Care and other community partners. The purpose of these efforts is to promote fully integrated independent living, self-sufficiency and resilience for the people served.

3 BEST MANAGEMENT PRACTICES

To support the development of this Regional BMP Report, the BAMS Collaborative Work Group surveyed regional agencies to identify BMPs that address the non-stormwater discharges from

unsheltered populations in San Francisco Bay Region. Results of the survey, including the description of BMPs, goals, challenges, lessons learned, partners and collaborators, and other considerations, have been organized into BMP Fact Sheets. The BMP Fact Sheets also include local examples of BMPs being implemented or planned for implementation by MRP Permittees. These local examples do not necessarily include all instances of BMP implementation by Permittees.

Attachment A includes the BMP Fact Sheets developed as part of this Regional BMP Report and are designed to serve as a resource for MRP Permittees and other interested parties.

The BMP Fact Sheets have been organized based on the type and level of implementation:

- **Support (Direct):** These BMPs provide services and incentives offered directly to unsheltered populations. These fact sheets are numbered S-01 to S-09.
- **Outreach (Direct)**: These BMPs provide information about resources and programs offered directly to unsheltered populations. There is one Outreach fact sheet, numbered O-01.
- **Programmatic (Indirect)**: These BMPs are implemented across a region or municipal jurisdiction and provide services offered indirectly to unsheltered populations. These fact sheets are numbered P-01 to P-07.

Each BMP Fact Sheet also includes the following information:

- **Impact to Water Quality**: Whether the BMP has a direct impact on water quality (e.g., by providing portable toilets) or an indirect impact (e.g., by providing access to housing)
- **Area of Implementation**: Whether the BMP is implemented locally or regionally.
- **COVID-19**: Whether COVID-19 was a driver for BMP implementation.
- **Clean Water Needs Met**: If the BMP also helps meet the unsheltered population's clean water needs. For example, providing access to sanitation services, drinking water, handwashing, showers, and laundry.

4   MILESTONES

The MRP requires that the Regional BMP Report describe milestones for reducing non-stormwater discharges from unsheltered populations within a given timeframe. As described in Section 1.5, homelessness is a complex issue and identifying BMPs and strategies to manage the discharges associated with unsheltered populations does not inherently address the issues contributing to and impacting chronic homelessness in the region. Many factors, including rising housing costs, lack of affordable housing, mental health issues, and loss of employment, contribute to homelessness, and cannot be addressed by stormwater agencies. However, MRP Permittees plan to continue to implement BMPs to address non-stormwater discharges from unsheltered populations.

The BAMS Collaborative has identified the following milestones for implementation in the MRP 3.0 term (i.e., by June 30, 2027). Recognizing the complexity of the issue, these milestones aim to improve collaboration between different agencies and ensure that all Permittees have access to information and resources for potential local implementation of BMPs.

Milestone	Timeframe
1. At the local, countywide, or regional level, participate in stormwater related regional or statewide meetings (e.g., BAMS Collaborative Work Group meeting[1], California Stormwater Quality Association (CASQA) Annual Conference, CASQA Quarterly Seminars, Alameda County's Illegal Dumping Conference) by presenting local, Bay Area case studies or obtaining information on activities outside the Bay Area.[2]	Once each fiscal year through June 2027
2. At the local or countywide level, present information to local CoC groups on stormwater permit requirements to improve collaboration.	Present information at least two times to each CoC by June 30, 2026
3. Distribute the Regional BMP Report to municipal staff from other departments to inform them of efforts being made across the region.	October 2023
4. Ensure that staff from other municipal departments are aware of BMPs that can reduce non-stormwater discharges.	Ongoing
5. Ensure that each Permittee agency has a list of local resources (e.g., housing services, mental health services, access to restrooms and laundry facilities) that can be offered to unsheltered populations.	Countywide Stormwater Programs verify resource list is available and distributed to Permittees by December 2023

Notes:

[1]BAMS Collaborative Work Group meetings could include outside agencies (e.g., rail agencies, Caltrans, etc.) and/or Federal, or State agencies (e.g., EPA, Regional Water Board, etc.) to share information.

[2]Examples of practices of interest outside of the Bay Area include Hygiene Hubs in Portland, OR that are operated by unsheltered individuals and provide multiple services; Microsites (i.e., various types of small temporary shelters) in Eugene, OR to provide safe locations for those in need and that are managed by community partner non-profits; the Housing First program, developed in Houston, TX, which has reduced the unhoused population in that region substantially between 2011 and 2020; and the JustCARE Program in King County, CA which provides behavioral health support to unsheltered individuals through intensive case management and temporary lodging.

ATTACHMENT A

Best Management Practices Fact Sheets (including references)

ATTACHMENT A – BMP FACT SHEETS

DIRECT SUPPORT BMPS

- S-01: PORTABLE TOILETS AND HANDWASH STATIONS
- S-02: MOBILE SHOWER AND LAUNDRY SERVICES
- S-03: STATIONARY SHOWER AND LAUNDRY SERVICES
- S-04: GARBAGE COLLECTION AND DISPOSAL SERVICES
- S-05: INCENTIVES FOR INDIVIDUALS CONDUCTING CLEANUPS/SANITATION SERVICES
- S-06: ENCAMPMENT CLEANUPS
- S-07: TEMPORARY SAFE PARKING PROGRAMS FOR CARS AND RECREATIONAL VEHICLES
- S-08: SEWAGE PUMP-OUT SERVICES FOR RECREATIONAL VEHICLES
- S-09: PHYSICAL BARRIERS AND DETERENTS TO ENCAMPMENTS

DIRECT OUTREACH BMPS

- O-01: PROGRAMS TO ESTABLISH RELATIONSHIPS WITH HOMELESS POPULATIONS

INDIRECT PROGRAMMATIC BMPS

- P-01: ACCESS TO SUPPORTIVE HOUSING
- P-02: ENCAMPMENT MANAGEMENT POLICIES
- P-03: FUNDING INITIATIVES
- P-04: INTER-DEPARTMENT AND INTER-AGENCY INFORMATION SHARING
- P-05: COORDINATION WITH STATE AND RAIL AGENCIES
- P-06: COORDINATION WITH NON-PROFIT ORGANIZATIONS
- P-07: SOPS FOR RESPONDING TO RV AND ENCAMPMENT ILLICIT DISCHARGES

PORTABLE TOILETS AND HANDWASH STATIONS

Portable toilets and handwashing station. Image courtesy of City of Cupertino

Implementation Level:

☒ Support (Direct)
☐ Outreach (Direct)
☐ Programmatic (Indirect)

At-a-glance:

☒ Water Quality (Direct)
☐ Water Quality (Indirect)
☒ Covid-19
☒ Ongoing Implementation
☒ Clean water needs
☒ Jurisdiction-specific implementation
☐ Regional implementation

Handwash stations and portable toilets can protect water quality by containing human waste, thereby reducing discharges of bacteria and other pollutants to storm drains and water bodies. Implementation of this BMP rose considerably in many Bay Area cities during the COVID-19 pandemic due to the stay on encampment removal and to prevent the spread of infection. This BMP is continuing to be implemented in some areas. Handwash stations and portable toilets require regular cleaning/maintenance. Cleaning/maintenance for a portable toilet generally includes emptying the waste tank, providing toilet bowl liners and small amounts of toilet paper, and cleaning the unit and surrounding area. Cleaning/maintenance for a sink includes filling up the water tank, restocking the soap and paper towels, providing trash cans and a trash collection service, and cleaning the unit and surrounding area.

BMP Goals:

- Service people's basic needs and build meaningful relationships with local, unsheltered members of the community.
- Reduce non-stormwater discharges.
- Provide mobile/moveable sanitation services to known encampments and public gathering locations.
- Improve sanitation for neighboring sheltered residents and public areas.

Challenges:

- Routine maintenance is required to clean portable toilets and refill handwash stations.
- There are accounts of mobile toilets being destroyed, being used for illicit activities and/or vandalized. Costs escalate for replacing units.
- Portable toilet locations can become places where unwanted loitering and littering can occur.

- There are space constraints for placing portable toilets and handwashing stations.

Lessons Learned:

- If resources are available, continue to try to find areas where portable toilets may be beneficial and at minimal risk for vandalism/destruction.
- Placing portable toilets in high-visibility areas may help prevent vandalism.
- Engaging with an unsheltered individual at the location to monitor the portable toilets may help prevent vandalism.
- Explore new types of structures made of steel, or other material, that discourage destruction of property and/or stationary restroom facilities where feasible.
- Emergency cleanups may be required due to public concerns regarding hygiene and safety.

Personnel & Collaborators

- Contractors for placing the portable toilets and refilling hand wash stations
- Disposal hauler for routine maintenance
- If needed, local non-profit agencies for providing locations for placing portable toilets, outreach, etc.

Local Implementation Examples:

- The City of San José provides portable toilets at 15 of San José's largest encampments. In addition, the City addresses the removal of human waste at encampment locations as part of the encampment trash program. Human waste in containers (e.g., buckets, bags) and trash/debris soiled with human waste are also removed and disposed of appropriately.
- The City of Cupertino began providing portable toilets with secondary containment and hand washing stations during the COVID-19 pandemic. The practice is ongoing as needed for encampments in the City's right-of-way. The City funds and contracts with a private toilet/sink provider for maintenance.
- In FY 2023-24, Valley Water plans to install 35 portable toilets at over 20 locations countywide to help to reduce biowaste discharges and improve water quality.
- The City of Oakland has been providing portable toilets and washing stations since October 2016. By the spring of 2019, the number of sites receiving portable toilets and washing stations was 20, and this increased to 40 during the COVID-19 pandemic. The City provides cleaning services at these sites. During the pandemic, cleaning service at most sites increased from three times per week to four times per week. The typical configuration of a site includes two standard portable toilets and a two-faucet wash-station.
- During the COVID-19 pandemic, the City of Redwood City provided portable toilets, handwashing stations, and other critical support for COVID-19 health and safety, including Personal Protection Equipment (PPE), which was donated by local non-profits.
- During the COVID-19 pandemic, the City of Hayward provided portable toilets and wash stations at multiple locations, and worked with a contractor for regular maintenance.

- During the COVID-19 pandemic, the City of Albany provided portable toilets and wash stations at three locations. The City worked with a contractor for regular maintenance. At times, emergency cleanups were required because of public concerns regarding hygiene and safety.

- Contra Costa County began providing portable toilets and wash stations at known encampment locations in October 2020 in attempts to help address health and safety needs of the unhoused community during the COVID-19 pandemic when many stationary services became unavailable. Unfortunately, services were discontinued in March 2022 due to accounts of recurring vandalism, rendering them unusable and unpumpable.

References and Resources:

- City of Oakland Human Services Department – Hygiene Site Background, Review and Recommendations October 2020, Attachment D.
- [Somewhere to Go: Assessing the Impact of Public Restroom Interventions on Reports of Open Defecation in San Francisco, California from 2014 to 2020](#)

MOBILE SHOWER AND LAUNDRY SERVICES

A mobile shower facility in Oakland. Image courtesy of EOA, Inc.

Implementation Level:
- ☒ Support (Direct)
- ☐ Outreach (Direct)
- ☐ Programmatic (Indirect)

At-a-glance:
- ☒ Water Quality (direct)
- ☐ Water Quality (indirect)
- ☐ Covid-19
- ☒ Ongoing Implementation
- ☒ Clean water needs
- ☒ Jurisdiction-specific implementation
- ☒ Regional implementation

Access to shower and laundry services significantly helps reduce non-stormwater discharges from encampments and can restore dignity to individuals experiencing homelessness. Important factors to consider when providing mobile shower and laundry services include frequency of service, the number of individuals requiring service, and space available to park.

BMP Goals:

- Reduce non-stormwater discharges.
- Provide mobile/moveable sanitation services to known encampment locations.
- Establish meaningful relationships with unsheltered populations.

Challenges:

- Mobile shower and laundry require staff and/or volunteers trained in safe sanitation procedures and, at times, conflict resolution.
- Utilization may be low because it is difficult to find the best time and location to offer the service.
- Encampments may be small and scattered, making it challenging to reach more potential participants.
- There are space constraints for parking the mobile unit.
- Access to potable water, energy and wastewater utilities may be unavailable/limited.

Lessons Learned:

- This is a well-received and beneficial resource for people experiencing homelessness.

Personnel & Collaborators:

- Contractors/non-profits that provide these services
- Trained staff (provided by municipal agency or non-profit) for interacting with unsheltered populations

Local Implementation Examples:

- Several local agencies, including the Cities of Santa Clara, Oakland, Berkeley, and East Palo Alto, work with Project WeHOPE (a non-profit organization) to provide a mobile hygiene service called Dignity on Wheels. The service includes access to free showers and laundry in a mobile trailer. Each four-hour operation session may provide up to 30 showers and up to 14 single loads of laundry. The schedule showing locations and times is available on the Dignity on Wheels website. The City of Oakland also works with Urban Alchemy to provide mobile shower services.

- In 2018, the City of Fremont and the City of Union City received $125,000 in funding from Alameda County to purchase a mobile hygiene unit, which has two showers and a washer and dryer for laundry. The unit rotates to different locations in Fremont, Newark, and Union City and provides access to showering and laundry facilities. Waste and wastewater are disposed of at appropriate facilities located at the City of Fremont's corporation yard. The service, called CleanStart Mobile Hygiene Unit, was recently restarted and is serving unhoused residents with a new schedule.

- Mobile showers and sanitation services are provided at multiple locations within Contra Costa County by partner agencies in Contra Costa County's Continuum of Care (CoC) such as Clean Start Showers, SHARE Community Mobile Showers, Shower House Ministries, and Safe Organized Spaces (SOS) Richmond. For example, the cities of Pittsburg and Martinez are in partnership with The Bay Church to offer Clean Start Showers bi-weekly and weekly, respectively, for homeless members of the community. The City of Antioch partners with SHARE Community (a local non-profit) to offer mobile shower services at two sites. In addition to this, the City of Antioch partners with a small local ministry group to distribute vouchers at these mobile shower locations to offer unhoused residents one load of laundry per week.

- The City of San Leandro recently purchased a mobile shower, and a washer and dryer unit. The City is in the process of determining how best to compliment programs (e.g., April Showers) being implemented by the Interfaith Homelessness Network at the local Boys & Girls Club and Creekside Community Church.

References and Resources:

- City of Fremont Direct Discharge Trash Control Program Report, 2018
- CleanStart Mobile Hygiene Unit
- Contra Costa County Continuum of Care
- Dignity on Wheels
- Project WeHOPE
- Safe Organized Spaces (SOS) Richmond
- SHARE Community
- Urban Alchemy

STATIONARY SHOWER AND LAUNDRY SERVICES

<div align="right">S-03</div>

West Valley Community Services distributes laundry quarters to unsheltered populations. Image courtesy of EOA, Inc.

Implementation Level:

- ☒ Support (Direct)
- ☐ Outreach (Direct)
- ☐ Programmatic (Indirect)

At-a-glance:

- ☒ Water Quality (Direct)
- ☒ Water Quality (Indirect)
- ☐ Covid-19
- ☒ Ongoing Implementation
- ☒ Clean water needs
- ☒ Jurisdiction-specific implementation
- ☐ Regional implementation

Laundry and shower facilities provided at fixed locations (e.g., faith-based organizations, community centers, laundromats) for unsheltered populations help reduce non-stormwater discharges from encampments and can restore dignity to individuals experiencing homelessness. Other services, such as food distribution, can also be offered at the same location.

BMP Goal:

- Reduce non-stormwater discharges.
- Provide sanitation services to unsheltered populations.
- Service people's basic needs and build meaningful relationships with local, unhoused members of the community.

Challenges:

- Availability of locations that are willing to offer showers and laundry facilities to unsheltered populations
- Finding funding and appropriate and effective non-profits to provide staff/volunteers to coordinate
- Unsheltered people must be able to travel to the stationary facility.

Lessons Learned:

- Additional staff may be required to monitor and maintain the laundry and shower facilities.
- Stationary facilities should be located in or near encampments or transportation hubs, and generally be accessible, including for individuals with physical disabilities.

Personnel & Collaborators:

- Staff for facilities

- Faith based organizations, local non-profits, school districts, and community centers may offer facilities or assistance.

Local Implementation Examples:

- In partnership with a local church and community volunteers, the City of Alameda provides space for weekly showers to unsheltered individuals. The City of San Leandro works with non-profit organizations (e.g., Interfaith Homelessness Network April Showers program) to provide shower facilities to the homeless at a church or at the City of San Leandro's Boys and Girls Club.
- The City of Albany partners with the Albany Community Foundation and Albany Thrives Together (local non-profits) to provide free showers to unsheltered populations at the Albany School District.
- The Cities of San José, Saratoga, Cupertino, Los Gatos, Monte Sereno and the County of Santa Clara provide funding to West Valley Community Services which offers comprehensive programs to low-income and homeless families in the West Valley region of Santa Clara County. Their services include distributing laundry quarters and hygiene kits to unsheltered populations.

References and Resources:

- Alameda County Resource Finder (includes a variety of resources/services for homeless)
- Albany Community Foundation
- Albany Thrives Together
- City of San Jose Homeless Services Directory (includes a variety of resources/services for homeless populations)
- West Valley Community Services

GARBAGE COLLECTION AND DISPOSAL SERVICES

A dedicated, accessible garbage disposal area near an encampment. Image courtesy of City of Cupertino

Implementation Level:

☒ Support (Direct)

☐ Outreach (Direct)

☐ Programmatic (Indirect)

At-a-glance:

☒ Water Quality (Direct)

☐ Water Quality (Indirect)

☒ Covid-19

☒ Ongoing Implementation

☐ Clean water needs

☒ Jurisdiction-specific implementation

☐ Regional implementation

Disposal containers keep trash and other disposed materials, such as recyclable and compostable items, encapsulated and enclosed prior to collection helping reduce discharges to the stormwater conveyance system and surface waters. Providing disposal collection services to encampments requires coordination between different departments and contractors. The size of the encampment generally determines the size of the disposal containers and frequency of pick-up. Local jurisdictions may also need to supply trash bags to encampment residents.

BMP Goals:

- Reduce trash and waste-related water quality issues.
- Reduce illegal dumping.

Challenges:

- Disposal containers can be destroyed and/or vandalized or could be used for other purposes than garbage disposal.
- Space is needed for placing disposal containers.
- These areas can become an illegal dumping spot for other people not residing in the encampment.
- Separate disposal is needed for needles.

Lessons Learned:

- Disposal containers must be kept accessible for waste haulers. Carts get moved around and can become inaccessible. One solution is getting garbage bins and disposal containers without wheels.

- Some disposal hauler staff will not exit their vehicle to service in an active encampment. Containers can become inaccessible if there is trash/debris in front of the container that would have to be moved first to service the container.
- Garbage collected must be removed relatively quickly to prevent rummaging.
- Some municipalities utilize their franchise agreements with disposal haulers to provide these services which could result in cost savings if these services are included in the agreement.

Personnel & Collaborators:

- Contractors for placing the disposal containers
- Disposal haulers for routine maintenance
- Municipal staff

Local Implementation Examples:

- The City of Cupertino provided disposal containers to residents of an encampment that developed on a City sidewalk during the COVID-19 pandemic. The City initially provided plastic trash containers. However, these got moved around and the disposal hauler could not access them for disposal. The City then replaced the plastic trash containers with metal containers which could not be moved around.

- The City of San José began a garbage pickup program as part of its response to COVID-19 but has continued it as a core element of its Encampment Management Program. The City provides trash pickup at 150+ encampment locations weekly or every other week depending on need. In addition, litter bags are distributed and collected from each encampment, human waste is properly disposed of, and escalated actions to remove debris including encampment abatement, are utilized to manage discharges into waterways. These efforts also offer an opportunity to engage residents and educate them on the importance of bagging and containing their trash to prevent it from entering the storm drains.
- Contra Costa County's Coordinated Outreach Referral Engagement Program (CORE) works to engage and stabilize unsheltered individuals living outside through consistent outreach to facilitate and/or deliver health and basic need services and secure permanent housing. The CORE team regularly distributes trash bags to individuals and coordinates with Contra Costa County Public Works' contractors for trash pick-up.
- The City of Albany's Public Works Department has a contract with the City's waste management contractor to clean up trash from encampments on an 'as needed' basis.

References and Resources:

- City of San Jose Encampment Management Program
- Contra Costa County's Coordinated Outreach Referral Engagement Program

INCENTIVES FOR INDIVIDUALS CONDUCTING CLEANUPS/SANITATION SERVICES

Implementation Level:

☒ Support (Direct)

☐ Outreach (Direct)

☐ Programmatic (Indirect)

At-a-glance:

☒ Water Quality (Direct)

☐ Water Quality (Indirect)

☐ Covid-19

☒ Ongoing Implementation

☐ Clean water needs

☒ Jurisdiction-specific implementation

☐ Regional implementation

The City of San José provides a redemption value of $5 per bag of trash collected. Image courtesy of EOA, Inc.

Providing cash incentives to unsheltered individuals for picking up litter around encampments or cleaning portable toilets can help reduce water quality impacts. This BMP also helps build relationships with individuals so they are more receptive to other interventions and can provide work experience for other job opportunities.

BMP Goals:

- Prevent litter, waste and other pollutants from entering waterways.

Challenges:

- Building trust between individuals and the organization(s) offering incentives
- Individuals feeling safe to do this type of work in encampments

Lessons Learned:

- Make the process as simple and straightforward as possible to increase engagement.
- Make sure the type of incentive is a good fit for the specific unsheltered population (e.g. accessible, convenient, desired, etc.).
- This type of BMP can result in cost savings compared with having municipal crews collect litter and illegally dumped materials.

Personnel & Collaborators:

- Contractors for placing the disposal containers
- Disposal haulers for routine maintenance
- Municipal staff

- If needed, non-profits can provide additional staff and outreach

Local Implementation Examples:

- The City of Oakland implements a janitorial leadership development program at encampment sites where regular outreach and engagement alone are not sufficient in addressing challenges such as portable toilet units being damaged and difficult relationships between the vendor and the site residents. This program includes stipends (in the form of $25 gift cards) for participating individuals, and cleaning supplies for the site. It has proven to be an effective intervention for the successful maintenance of the portable toilets.
- Through its Cash for Trash program, the City of San José enlists unsheltered homeless individuals to bag their trash to prevent it from entering waterways, stormdrains or contributing to blight. City staff provide a redemption value of $5 per bag of trash collected. Each program participant can submit up to five bags per week for a total redemption value of $25 per week. Funds are loaded onto a reloadable Mastercard. These reloadable debit cards are program-specific cards that Mastercard has enabled maintenance-free, as part of this partnership. Funds can be used to pay for essential items with minor restrictions on items like alcohol and tobacco.
- Several cities collaborate with Downtown Streets Team (DST) to work with unsheltered individuals. Through the encouragement and support of DST staff and peers, DST participants or "Team Members" often connect to and follow-through with Coordinated Entry System (CES) and other services they otherwise are not actively engaging in. The DST program provides volunteer work experience opportunities for individuals experiencing homelessness in Redwood City. Team members volunteer work experience includes picking up litter, emptying trash receptacles, and assisting with clean-ups. In exchange for volunteering, Team Members receive stipends in the form of gift cards, rent, storage, and basic needs; and are offered additional support services.

References and Resources:

- Cash for Trash
- Downtown Streets Team

ENCAMPMENT CLEANUPS

Encampment cleanup at Guadalupe Ponds in San José. Image courtesy of Valley Water

Implementation Level:
- ☒ Support (Direct)
- ☐ Outreach (Direct)
- ☐ Programmatic (Indirect)

At-a-glance:
- ☐ Water Quality (Direct)
- ☐ Water Quality (Indirect)
- ☐ Covid-19
- ☒ Ongoing Implementation
- ☐ Clean water needs
- ☒ Jurisdiction-specific implementation
- ☐ Regional implementation

Individuals experiencing homelessness can generate waste during their daily activities of food preparation and consumption, shelter building and maintenance, storing their possessions, eliminating unwanted materials, and gathering recyclable materials of value. The resulting refuse may become harborages and food sources for vectors and related pathogens, sources of odors, fuel for fires, biohazards, unattractive nuisances to the public, and potential stormwater pollution. Local jurisdictions conduct cleanups of encampments on an as-needed basis. Encampment cleanups do not involve removing people or property from the site.

BMP Goals:

- Significantly reduce trash/illegal dumping that results from vacated and occupied encampments.
- Reduce litter entering local storm drains and waterways.

Challenges:

- Staff time is intensive.
- This is a temporary best management practice if it's implemented without additional integrative supportive services or temporary housing solutions from other agencies.

Lessons Learned:

- This BMP may require coordination with police and staff trained in conflict resolution and hazardous waste disposal to provide support during cleanups.
- Storing personal property, as required by law, requires significant staff time so this could be an area that is helpful to partner with a non-profit.

Personnel & Collaborators:

- Contractors for removing and hauling away waste materials
- Trained staff (provided by municipal agency or non-profit) for placing notices regarding cleanups and interacting with unsheltered populations

Local Implementation Examples:

- The City of Santa Clara Police Department (SCPD) Community Response Team routinely conducts cleanup operations throughout the city, including those near waterways. Specific site cleanups are conducted on an as-needed basis. SCPD coordinates with the City's Department of Public Works, Valley Water, private property owners, and a contractor to conduct cleanups.

- Valley Water coordinates with local municipalities to clean up trash, debris and hazardous pollutants generated from encampments near waterways to reduce the amount of these pollutants entering streams. In FY 21-22, responding to higher volumes of encampment-generated trash and debris in creeks throughout the county, Valley Water managed 1,457 acres to clean up 868 tons of trash, debris, and hazardous pollutants, exceeding the goal of managing 300 acres annually.

  Valley Water posts signs with 72-hours notice before an encampment cleanup. The signs ask encampment residents to place their belongings they do not want to be removed within a 12' x 12' area around their living space. During clean up, any trash and debris left outside of that area is removed. Personal items found outside the 12' x 12' area are bagged and left onsite.

- The City of Alameda's Public Works Maintenance crews perform bi-weekly cleanups at the Main Street encampment site. Municipal street sweepers are active in peripheral paved areas at least weekly.

- The City of Oakland's Public Works and Keep Oakland Clean and Beautiful (KOCB) crews are involved in weekly garbage removal efforts and publicly post the locations of garbage removal, days of scheduled pickup and the type of intervention (pile removal, garbage cart service, porta potty, wash stations, abandoned auto).

- The City of San Jose developed the BeautifySJ program that includes information and efforts to clean up and restore the community. Initiatives include reporting illegal dumping, volunteer trash clean-ups, encampment management/clean-ups, and a grant program that provides funds for community engagement and neighborhood clean-ups.

- The City of Redwood City's Public Works Department conducts garbage pickup services, including clean-up related to RVs on the street as well as encampments of all types throughout the City. In December 2021, the City enlisted the services of a nongovernmental organization (NGO) to assist with Encampment Waste Services as a pro-active approach to address trash and waste pick-ups, especially at encampments.

- Contra Costa County's CORE program includes education and outreach to unhoused community members about the importance of keeping encampment sites tidy and encourages residents to pick up their own trash. The CORE team also distributes trash bags and coordinates trash pick-ups at encampments.

- Abundant Grace Coastside Worker's Clean Team has had success with cleaning up abandoned encampments within Half Moon Bay and mobilizing the local unhoused population to ask for help with keeping their encampments clean.
- The City of San Leandro recently piloted a program in collaboration with the San Leandro Downtown Community Benefit District and administered by the San Leandro Improvement Association (SLIA) to deploy Safety Ambassadors to pick up litter, return grocery carts, remove minor graffiti, and report larger issues for Cleaning Ambassadors who conduct daily clean-ups. The City of San Leandro is also exploring partnerships with non-profits that work with the unhoused to clean-up encampment sites.
- The City of Pittsburg has a designated team of two police officers that monitor for potential encampments and encourage individuals to leave the premises before they have a chance to set up camp. For those that have established camps, the police officers put these individuals on notice, post the site, and the City follows up by removing all their debris immediately. Bags are provided to these individuals to give them a chance to take what they want and leave the rest. The City has an on-call contractor to help remove debris from the creek banks.

References and Resources:

- Abundant Grace Coastside Worker
- BeautifySJ program
- Contra Costa County's CORE program
- Keep Oakland Clean and Beautiful
- Oakland encampment cleanup schedule
- Safe Clean Water and Natural Flood Protection, FY 21-22 Annual Report, Valley Water

TEMPORARY SAFE PARKING PROGRAMS FOR CARS AND RECREATIONAL VEHICLES

S-07

Safe RV Parking Lot in Mountain View. Image courtesy of City of Mountain View

Implementation Level:
- ☒ Support (Direct)
- ☐ Outreach (Direct)
- ☐ Programmatic (Indirect)

At-a-glance:
- ☒ Water Quality (Direct)
- ☐ Water Quality (Indirect)
- ☒ Covid-19
- ☒ Ongoing Implementation
- ☒ Clean water needs
- ☒ Jurisdiction-specific implementation
- ☐ Regional implementation

Temporary Safe Parking Programs aim to minimize public health concerns while helping unsheltered individuals transition to alternative permanent housing. Participants of these programs are consolidated in a specified area, thereby consolidating waste, cleaning locations, and general areas of living activity. Temporary parking areas for cars generally include access to a kitchen, indoor restrooms, and showers.

BMP Goals:

- Reduce the costs and staff time related to RV residency-related clean-up and response to calls.
- Assist RV residents transition into permanent housing.
- Reduce RV-residency related environmental and public health impacts.

Challenges:

- There is limited availability of business/institutional partners willing to provide parking spaces, and limited availability of public parking spaces.
- This BMP is often limited to working RVs/cars only.

Lessons Learned:

- It is helpful to have parking located in safe areas and to have the support of the community.
- There may be a need for access control and other rules/regulations to manage the space.

Personnel & Collaborators:

- Municipal staff

- Local businesses or faith-based organizations can provide parking spaces

Local Implementation Examples:

- In July 2018, the City of East Palo Alto permitted Project WeHope (a local non-profit) to utilize a City-owned parking lot and operate a temporary overnight RV parking program from 7:00 pm to 7:00 am for RVs owned by unsheltered individuals or households. During the COVID-19 pandemic, Project We Hope operated the program during daytime hours, allowing RVs to remain on-site for 24 hours per day. The daytime program operation was authorized separately through City Council resolution (Resolution No. 49-2020) when the County Shelter-in-Place Order took effect. The City Council extended the program into early 2023.

- Several cities in Santa Clara County and the County of Santa Clara support the Rotating Safe Car Park Program in partnership with several local faith organizations. These organizations host guests for at least one month and up to three months per calendar year. Guests at the host location have access to indoor restrooms.

- The City of Mountain View offers a safe parking program that is operated 24 hours a day, seven days a week. Most of the participants are families and are residing in oversized vehicles, such as RVs. The City has been instrumental in: supporting the formation of a local, nonprofit, safe parking provider MOVE Mountain View launching small, safe parking programs at faith-based locations; adopting a Safe Parking Ordinance to facilitate the creation of safe parking locations on private lots; securing three dedicated safe parking lots; partnering with the County of Santa Clara to provide safe parking and a range of other services to support unstably housed residents on a path to permanent housing; and growing to become the largest safe parking provider in the region with the capacity for up to 101 parking spaces (includes both municipal and faith-based lots). Similar safe parking programs exist in Palo Alto and San José. The Palo Alto program is funded by the County of Santa Clara and operated on City-owned property.

- The City of Union City offers a safe overnight parking program called CAREavan in coordination with local community and faith-based organizations. It provides a safe place to park overnight for families and/or individuals who have been displaced and are temporarily unsheltered.

- The City of Fremont has a partnership with Union City, and Fremont staff can refer homeless individuals living in their vehicles to the CAREavan program. In turn, residents of Union City who are homeless are welcomed at Fremont's winter relief program. This program is similar to the provision of an RV safe parking area but is unique due to the partnership and collaboration that exists between two adjacent cities.

- The City of Fremont also has the Safe Parking Host Site Program (SPHS), which is designed as a safe, transitional space for individuals living in their vehicle. The program is a rotational model, with five faith-based organizations across the City hosting individuals or couples on their site for one month before rotating to the next site. Each site provides parking for 15 vehicles. The City's goal is to expand the program and the City is looking for a permanent site on public property.

- The City of Alameda coordinates with a local non-profit to provide overnight parking for people living in cars and RVs. Bathrooms and washing facilities are available at the parking site.
- The Alameda County Safe Parking Program offers a 24-hour safe parking program to single individuals living in cars. Participants are provided access to portable toilets and handwashing stations at the parking location.
- In the fall of 2020, Redwood City launched the Temporary RV Safe Parking Program to address over 110 households living in RVs on the street in the City. Since the launching of the program, the number of unsheltered households living in RVs on the street in Redwood City has dropped significantly to 10-15 RV/Motor Homes on any given night (Request for Proposals: Redwood City Homeless Outreach, May 2022).
- San Mateo County and the City of Half Moon Bay have begun to explore a partnership with WeHope to set up a safe parking program on the San Mateo coastside area. If this partnership proves fruitful it would help unsheltered homeless populations by providing them with safe parking, social support, bathrooms, showers, laundry facilities and meal services. A full-time security officer would also be at the site.
- The City of San Leandro intends to strategize, execute, and assess a pilot micro-site Safe Parking Program in collaboration with faith-based organizations.

References and Resources:

- Alameda County Safe Parking Program
- Fremont Safe Parking Host Site Program
- Memorandum to the Mountain View City Council, from Kimberly S. Thomas (Assistant to the City Manager and Praneet Dhindsa (Human services Manager) re: Human Services Division Update on Initiatives to Assist Homeless and Unstably Housed Residents. December 15, 2022.
- MOVE Mountain View
- Santa Clara County Rotating Safe Car Park Program
- Union City and Fremont CAREavan
- WeHope

SEWAGE DISPOSAL SERVICES FOR RECREATIONAL VEHICLES

S-08

RV-based encampments are not uncommon in the Bay Area. It is essential waste from these vehicles are managed properly. Image courtesy of City of Mountain View.

Implementation Level:

☒ Support (Direct)

☐ Outreach (Direct)

☐ Programmatic (Indirect)

At-a-glance:

☒ Water Quality (Direct)

☐ Water Quality (Indirect)

☐ Covid-19

☐ Ongoing Implementation

☐ Clean water needs

☒ Jurisdiction-specific implementation

☐ Regional implementation

Providing free sewage disposal services to individuals living in RVs is a way for jurisdictions to prevent illegal dumping of sewage down storm drains or waterways. The following types of services may be provided:

- Voucher programs where individuals can take RVs to a pump-out site for free disposal.
- Mobile pump-out vehicles that can drive to the RV to collect waste.
- Sewer hook ups at safe parking sites.
- Using sewer manholes to discharge wastewater to the municipal sanitary sewer collection system.
- Providing discharge location at a municipal wastewater treatment plant.

BMP Goals:

- Reduce illicit discharges or illegal dumping.

Challenges:

- Utilization of the free pump-out program has been very low.
- Older RVs do not work with RV pump out locations or mobile services.
- RV hook up equipment is broken or inoperable and cannot work with RV pump out locations or mobile services.
- Many RVs are inoperable, and owners cannot drive them to the pump-out sites.
- There is a lack of contractors that provide mobile pump-out services.

Lessons Learned:

- Utilization of the free pump-out program has been very low to none in two agencies that offered it.

- Some people living in RVs do not make use of the vehicle's sanitary systems, they instead use public restrooms at City facilities, stores, or gyms in the areas surrounding their parking site.
- Some RV owners who rent RVs pay for mobile sanitary waste disposal services for their renters.

Personnel & Collaborators:

- Municipal staff or trained outreach staff (non-profit) to distribute vouchers or information about pump out locations
- Mobile pump out contractors
- Municipal staff to monitor discharge locations

Local Implementation Examples

- The City of Mountain View conducted a 12-week pilot program to provide free waste pump-out services to people living in RVs. The pilot program was conducted from January through April 2018, with services offered at two locations. Securing a vendor to provide the pump-out service proved challenging. In response to a Request for Proposals (RFP) issued to three prospective vendors, no proposals were received in the first round, and one proposal was received in the second round. To advertise the program, staff and Community Services Agency (CSA) outreach workers contacted RV residents directly or by leaving information and a voucher packet on RV doors or windshields if the attempt to contact the individual was unsuccessful. The City also provided a courtesy notice to residents within a 500' radius of each service location. Information on the program was available on the City's website, and the City received media interest and coverage of the program. Despite considerable outreach, the utilization of the pilot was relatively low, with 3.08 visits to the pilot sites per four-hour session and a cost of $935 per individual RV serviced. Considering the limited pilot usage, challenges with siting, the high costs associated with providing waste disposal service through a mobile vendor or as a City operation, as well as the high cost to construct a dump station on City land, the City decided to not proceed with the provision of providing a free waste disposal service.

  The City of Mountain View shared their experiences with addressing the issue of providing pump-out services to people living in RVs to reduce the likelihood of discharges to the storm drain at a SCVURPPP Industrial and Illicit Discharge Detection and Elimination (IND/IDDE) Ad Hoc Task Group (AHTG) workshop on May 30, 2019 and at an ACCWP Industrial and Illicit Discharge Control (IIDC) Subcommittee workshop on November 6, 2019.

- Valley Water coordinates with the County of Santa Clara, and the Cities of Morgan Hill and Gilroy to distribute vouchers to people living in RVs to provide free pump-out services at County facilities at Mt. Madonna and Coyote Lake County Park. However, no vouchers have been used so far.

- Recreational Vehicles users can dump their waste for free at the Vallejo Flood and Wastewater District's RV dump site. This free service is used on average 22 times per week, though the type and housing status of users is not tracked.
- The City of Pacifica provided one time RV disposal at their Wastewater Treatment Plant.

References and Resources:

- Recreational Vehicle Waste Disposal Pilot Results and Consideration of Ongoing Waste Disposal Services. City of Mountain May 15, 2018.
- [RV Dump Station Directory](#)

PHYSICAL BARRIERS AND DETERENTS TO ENCAMPMENTS

S-09

Signage to deter encampments and illegal dumping. Image courtesy of City of Suisun City.

Implementation Level:
- ☒ Support (Direct)
- ☐ Outreach (Direct)
- ☐ Programmatic (Indirect)

At-a-glance:
- ☒ Water Quality (Direct)
- ☐ Water Quality (Indirect)
- ☐ Covid-19
- ☒ Ongoing Implementation
- ☐ Clean water needs
- ☒ Jurisdiction-specific implementation
- ☐ Regional implementation

Physical barriers, such as fences and signage, are sometimes used near sensitive locations (e.g., waterways) to deter encampments and prevent illegal dumping.

BMP Goals:
- Reduce illegal dumping into or near waterways

Challenges:
- Placing physical barriers can be cost-intensive.
- Fences and signage are prone to vandalization.

Lessons Learned:
- Routine maintenance of physical barriers is required.

Personnel & Collaborators:
- Contractors for installing and maintaining barriers and signage

Local Implementation Examples:
- The City of Suisun City recently identified and posted signs in 'Environmental Sensitive Areas' that have been effective at reducing non-stormwater discharges associated with homelessness, including along the Suisun Marsh shoreline.
- The City of San Jose uses a combination of deterrents including installing and repairing gates fencing, bollards, boulders and locking mechanisms to deter vehicles and people from entering, dumping, and encamping in certain areas. In 2021, the City received grant funding from the EPA to, among other activities, fund building and repairing

structural barriers adjacent to creeks to serve as deterrents to encampments and to reduce nonauthorized vehicle access to creeks.

References and Resources:

- City of San Jose Direct Discharge Trash Control Program Plan, January 2023

PROGRAMS TO ESTABLISH RELATIONSHIPS WITH HOMELESS POPULATIONS

O-01

Unsheltered individuals work with Downtown Streets Team as "Team Members" to clean streets, parks, and other public spaces. This helps build long-term relationships. Image credit: City of Redwood City

Implementation Level:
☐ Support (Direct)
☒ Outreach (Direct)
☐ Programmatic (Indirect)

At-a-glance:
☐ Water Quality (Direct)
☒ Water Quality (Indirect)
☐ Covid-19
☒ Ongoing implementation
☐ Clean water needs
☒ Jurisdiction-specific implementation
☐ Regional implementation

Establishing relationships and trust with unsheltered populations is important to ensure their willingness to engage in and eventually accept social services and move into temporary or permanent housing. Building relationships takes time, often many weeks or months. These outreach efforts also help identify other needs such as behavioral health and recovery services, employment, general hygiene, etc., that may not be known. Efforts to establish relationships with homeless populations often occur through non-profit, contracted outreach teams, or municipal police departments.

BMP Goals:

- Provide an opportunity for homeless outreach workers and mental health clinicians to regularly visit encampments, establish relationships, and provide resources to unsheltered individuals.
- Understand and offer both basic services as well as options for social services and emergency housing.

Challenges:

- Requires staff trained in various disciplines (e.g., outreach, behavioral health, social services).
- The mobility and turnover of individuals experiencing homelessness in a given place can be high thus making establishing meaningful connections a challenge.

Lessons Learned:

- Consistent efforts to establish long-term relationships with unsheltered populations have a higher likelihood of resulting in services being accepted.

- It may be challenging to establish relationships if there is an association or perceived association with the police department or law enforcement. Consider moving support officers under medical services or fire department.

Personnel & Collaborators:

- Municipal social service and police departments
- Non-profits that can provide staff trained in various disciplines (e.g., outreach, behavioral health, social services) and other contracted outreach teams

Local Implementation Examples:

- San Mateo County, in coordination with Coastside Hope, provides emergency safety net assistance for the unsheltered including food, rental, and utility assistance, referrals for healthcare, help with complex forms, and advocacy. Coastside Hope's services play an important role in building relationships, keeping individuals housed, and preventing homelessness, which ultimately prevents the development of encampments and potential for stormwater pollution.
- Contra Costa County's CORE program has been very successful in building long-term relationships and trust with unsheltered individuals. Through this trust, residents are more likely to accept social services and to participate in clean-ups of their encampment areas. It may take a long time to establish this trust, but it has proven to be successful over the long-term.
- The City of San José contracts with a local non-profit to implement its Services Outreach Assistance and Resources (SOAR) program at 15 of San José's largest encampments. Participating sites receive proactive, regular street outreach and case management.
- Redwood City has a Downtown Streets Team (DST) to work with unsheltered individuals who are not otherwise utilizing the County's Coordinated Entry System (CES) by providing a pathway to ending homelessness through employment and housing with an emphasis on peer-to-peer support and encouragement. Through the encouragement and support of DST staff and peers, DST participants or "Team Members" often connect to and follow-through with CES and other services they otherwise are not actively engaging in. The DST program provides volunteer work experience opportunities for individuals experiencing homelessness in Redwood City. Team members volunteer work experience includes picking up litter, emptying trash receptacles, and assisting with clean-ups throughout the City. In exchange for volunteering, Team Members receive stipends in the form of gift cards, rent, storage, and basic needs; and are offered the additional support services. The DST Program launched in October 2019 (Redwood City Staff Report to City Council, August 22, 2022).
- The City of San Leandro partners with community-based organizations to conduct outreach and provide basic need and emergency services in encampments, parking lots, bridges, parks, sidewalks, and other locations in the community. For example, Safety Ambassadors respond to calls from merchants, conduct daily wellness checks, and coordinate with volunteers to distribute lunches to unsheltered people. Ambassadors triage transients' needs and, when appropriate, refer them to resources. Other support services include but are not limited to emergency bus tickets, Clipper cards, ride

assistance, emergency gas cards, payment assistance for past due rent, motel vouchers, assistance with car impoundment, storage lock out, vehicle repair, food, and clothing.

- In January 2023, the City of San Leandro provided a Storm Support Resource Center at a local church in partnership with Building Futures. A dry space and a variety of supportive services were provided. Building Futures distributed resources and conducted assessments to assist with housing. Bay Area Legal Aid assisted with the social security application process. The City also partnered with community and faith-based organizations to provide food, clothing, supportive services, and shelter at a local hotel and at a Warming Center during the winter months.

- Camp Hope was founded in 2020 and was operated by the Homeless Action Coalition with assistance from City of Martinez staff. Camp Hope provided basic life necessities to approximately 20 homeless residents such as food, clothing, drinking water, port-a-potties, electric service, legal and City public works staff services. Unfortunately, the Camp Hope effort was terminated as it became a magnet for vandalism, illicit activities, and the crime level in downtown Martinez increased significantly. Alternative mechanisms of support are being investigated.

- In 2022, the City of Half Moon Bay launched the Crises Assistance Response & Evaluation (CARES) pilot program. Through a contract with El Centro de Libertad, the CARES program provides an alternative response to mental health related 911 calls traditionally answered by fire, ambulance, or law enforcement. Service calls appropriate for the CARES team include welfare checks, suicidal ideation and other mental health distress, substance abuse, and low-level, nonviolent concerns related to behavioral health. The team is staffed by a 2-person, bilingual mobile unit made up of a specially trained behavioral health professional and emergency medical technician.

- San Mateo County and the City of Half Moon Bay, partner with Abundant Grace Coastside Worker to conduct job-readiness programming, including its Coastside Clean Team, which picks up trash along the beaches and trails of Half Moon Bay.

- A non-profit called Downtown Streets Team partners with cities across the Bay Area (e.g., Palto Alto, Oakland, Redwood City, Sunnyvale, Berkeley) to build teams of unhoused individuals to engage in community beautification and clean-up projects. Downtown Streets Team also provides a pathway to recover from homelessness by providing access to case management and employment placement services. Unhoused people hear about these services through peer-to-peer outreach from current members of the team.

- The City of Fremont has a partnership with the police department and the Washington Hospital Healthcare System to provide crisis intervention and de-escalation services, and helps connect homeless community members with local mental health and support services providers.

- The San Jose Police collaborate with the County of Santa Clara Department of Behavioral Health to pair San Jose Police Officers and behavior clinicians to rapidly assist individuals in a mental health crisis. Officers in the program receive additional mental health and de-escalation training, respond to calls with the County's Mobile Crisis Response Team, and provide resources.

- The City of Los Altos police officers conduct outreach to unhoused unsheltered individuals on a regular basis. They also provide resource cards providing information on shelters and other helpful organizations.
- The City of San Mateo Police Department has a Homeless Outreach Coordinator. The Coordinator works to build relationships with homeless in the City and provides information on services available.

References and Resources:

- Call 211 Bay Area (Connects Residents With Health & Human Service Programs)
- Coastside Hope
- Contra Costa County Coordinated Outreach Referral, Engagement (C.O.R.E.) program
- Crises Assistance Response & Evaluation (CARES)
- El Centro de Libertad
- Fremont Mobile Evaluation Team
- Loaves and Fish
- Monument Crisis Center
- Redwood City DST
- Redwood City Staff Report on Study Session on homelessness Initiatives Work Plan Implementation, August 22, 2022
- St. Vincent de Paul
- Trinity Center

ACCESS TO SUPPORTIVE HOUSING

An Interim Housing Project in the City of San José. Image courtesy of City of San José.

Implementation Level:
- ☐ Support (Direct)
- ☐ Outreach (Direct)
- ☒ Programmatic (Indirect)

At-a-glance:
- ☐ Water Quality (Direct)
- ☒ Water Quality (Indirect)
- ☐ Covid-19
- ☒ Ongoing Implementation
- ☒ Clean water needs
- ☒ Jurisdiction-specific implementation
- ☒ Regional implementation

Supportive housing programs are generally implemented by the County Continuum of Care (CoC) Programs. Local jurisdictions and non-profits coordinate with the CoC Programs to offer housing and other services to unsheltered and sheltered individuals and families. Housing assistance programs are classified into the following types:

- Emergency shelter - provides a safe place to sleep for people who are unhoused. Provides meals, showers, other basic needs services, and connections to community resources.
- Transitional housing - provides temporary housing and services for people who are unhoused and seeking a more structured living environment, especially youth and veterans.
- Rapid rehousing - provides supportive services and temporary rental assistance to people who are unhoused. Helps individuals and families obtain permanent housing and increase income so that they can remain housed independently.
- Interim housing - provides temporary housing for people who are unhoused and have been enrolled in a rapid rehousing or permanent supportive housing program while they are searching for a permanent place to live.
- Permanent supportive housing - helps individuals and families with disabilities maintain permanent housing through long-term rental subsidies, connections to medical and behavioral health care, and other services.

BMP Goals*:*

- Provide information and assistance about what supportive housing services are available and how to access these services.

- Increase access to affordable and supportive housing, and offer housing to unsheltered individuals to minimize associated water quality impacts.
- Connect people with a home so they are in a better position to address other challenges that may have led to their homelessness, such as obtaining employment or addressing substance abuse issues.

Challenges:

- The need for housing is much higher than available funding and housing.
- High housing costs make permanent housing re-entry challenging.
- There can be logistical and technological barriers to accessing supportive housing, along with a lack of case management and long wait times.
- Physical disabilities and mental health issues can impede ability to access these services.
- Social services are often needed to support individuals entering supportive housing and to ensure they have what they need to remain housed. Funding and availability of social services are limited.
- Individuals may not accept housing, or the type of housing offered.
- There can be an influx of unsheltered persons and crime/loitering on community streets and properties near supportive housing when individuals are forced out or leave.
- Some housing services are only available to certain demographics (e.g., only women and children, young adults (ages 18-24), single men, no pets, etc.).

Lessons Learned:

- Requires coordination between multiple agencies
- The amount and duration of housing should be enough to help people secure a permanent place to live, which also often involves securing a job. This assistance shouldn't be a standard "package" but flexible to meet unique needs. This is particularly important when financial circumstances or housing costs change.

Personnel & Collaborators:

- Municipal staff
- Multiple non-profit agencies

Local Implementation Examples:

- Contra Costa County has many emergency, transitional, and permanent housing options available either directly through the County's Health, Housing, and Homeless (H3) Services or through community-based organizations located throughout the County in Contra Costa County's Continuum of Care (CoC). According to the 2022 Point in Time Count, approximately 2,680 emergency, transitional, and permanent housing beds were present in Contra Costa County on February 23, 2022. The number of beds fluctuates depending on the time of year, weather conditions, and resources available.
- During the 2020 pandemic, the State purchased a local motel in the City of Pittsburg and converted it into an emergency shelter facility under the Project Roomkey Program. The facility has now evolved into interim housing under the State's Homekey Program. It

was noted that most of the residents at the shelter are brought in from other cities (7% Pittsburg vs. 93% other city origins) thereby adding to the existing City unhoused population when they leave the shelter. Nearby sheltered residents have commented on the facility and its effectiveness for various real or perceived reasons.

- Opportunity Village is an Interim Housing Program targeted towards unsheltered adults in the City of Antioch. The program houses a maximum of forty-five participants at a time and works to connect participants to stable housing.

- In the County of Santa Clara, Project Roomkey was established in March 2020 as part of the state response to the COVID-19 pandemic to provide non-congregate shelter options, such as hotels and motels, including three meals per day for people experiencing homelessness. This program ended with the pandemic. The County also entered into a service agreement with a non-profit agency to operate a motel program for families with children. The goal of this temporary shelter program/interim housing program is to support households with basic needs resources to regain self-sufficiency and exit homelessness or to provide households with short-term housing while they search for permanent housing or wait for a permanent housing unit to open. In addition, the County partners with Casitas de Esperanza (a local non-profit) to provide temporary housing for unhoused families serving up to 25 families per night. The County's Office of Supportive Housing has service agreements with non-profit agencies to provide Temporary Housing and Basic Needs Services for clients seeking assistance including access to ADA-compliant restroom and shower trailer seven days a week, and a laundry trailer four days a week.

- The City of San José has constructed six interim housing sites totaling 499 beds in 385 individual units. They are temporary, non-congregating shelters, where individuals receive support services and assistance finding stable housing.

- San Mateo County partnered with service provider Abode Services from 2016 to 2018 to provide rapid rehousing services. The agreement was funded using Measure A Sales and Use tax revenue allocated to Homeless Services and was claimed under Measure A initiative tracking code HSALA. In the fiscal year 2022, Abode Services assisted 5,534 individuals in rapid rehousing programs, and 60 percent of households housed through rapid rehousing programs exited to permanent housing.

- The City of Oakland works with several non-profit organizations to provide rapid rehousing programs to families and/or youth, including, but not limited to, East Oakland Community Project, Building Futures with Women and Children, Abode Services, and Bay Area Community Services.

- In San Mateo County, LifeMoves opened the Coast House to provide interim housing and support services to families, couples, and individuals experiencing homelessness in Half Moon Bay. With 52 private rooms, the Coast House offers safe shelter and wraparound case management services to help clients work toward long-term self-sufficiency and returning to homes of their own. Since it opened in 2020, the Coast House has served 151 people, with 68 of the participants successfully moving into

permanent housing. In 2022, Abundant Grace was able to house 17 of its unhoused workers and move 20 of their unhoused workers into the Coast House Shelter.

- San Mateo County constructed a community services and affordable housing facility called the Navigation Center Shelter in April 2023, and is planning to operate an additional facility called the Middlefield Junction Community Hub. The City of Half Moon Bay is also in the process of converting its property at 555 Kelly Avenue into 40 units of affordable housing and a resource center for low-income farmworkers. These facilities are designed to provide permanent housing.

- In March 2016, the City of San Leandro (Human Services and Police Departments) partnered with Building Futures with Women & Children (BFWC), a local nonprofit service provider and the Rental Housing Association of Southern Alameda County to form the San Leandro Homeless Compact. This collaborative is dedicated to providing long-term housing and services to homeless individuals in San Leandro. The compact is the first of its kind in Northern California, and is a collaboration between the local government, BFWC and landlords to secure housing in tandem with key services. The Rental Housing Association, along with the compact, helps coordinate landlords to provide the housing and BFWC provides a variety of supportive services for individuals staying in the units. The compact is funded by the City and County, and HUD vouchers.

- The City of San Leandro provides funding for capital and operational support to Building Futures for the San Leandro Homeless Shelter, a thirty-bed homeless shelter and Sister Me Home, a twenty-bed safe house. The City of San Leandro is also collaborating with non-profits to acquire a local motel and convert it to a navigation center.

- Several cities and counties in the Bay Area offer Home Sharing Programs that connect homeowners with extra rooms with people seeking an affordable place to live. For example, San Mateo County partners with HIP Housing and the City of Fremont partners with Covia to provide home matching services.

- Several cities, such as San Jose and Oakland, have built tiny houses or community cabins for temporary, emergency and permanent housing. These initiatives often involve funding from state grants, and partnerships with non-profits and landowners such as Caltrans. For example, Oak Street Community was established by the City of Oakland in partnership with Family Bridges and offers 38 beds and six-months stay. These community cabins are one of six outdoor, emergency shelters in the City of Oakland.

References and Resources:

- Abode Services
- Best Practices Approaches for Engaging Chronically Homeless in Redwood City with Services and Transitioning Them to Interim Housing with Wrap Around Services, September 2022
- California's Homekey Program: Unlocking Housing Opportunities for People Experiencing Homelessness, March 2022
- City of Fremont Home Sharing Program
- County of Santa Clara Supportive Housing Map

- [Ending Homelessness 2022 – The State of the Supportive Housing System in Santa Clara County, County of Santa Clara](#)
- [Family Bridges Community Cabins](#)
- [Homelessness Task Force-Tools for Cities and Counties 2018](#)
- [LifeMoves](#)
- [Oakland Cabin Shelter Program at Wood Street](#) (Caltrans property)
- [Performance Audit of the City of Oakland's Homelessness Services, September 2022](#)
- [Project Roomkey](#)
- [Rapid Rehousing Resources](#)(including toolkit, a building owner's toolkit, rapid re-housing benchmarks and standards)
- [San Mateo County Home Sharing Program](#)
- [San Mateo County Navigation Center Program Overview](#)
- [San Jose Interim Housing Communities](#)
- [Toward a New Understanding: The California Statewide Study of People Experiencing Homelessness, June 2023](#)
- [Trinity Center Case Management](#)

ENCAMPMENT MANAGEMENT POLICIES

Encampment Management Policies identify factors (e.g., proximity to water) that guide BMP implementation. Image credit: City of Oakland

Implementation Level:
- ☐ Support (Direct)
- ☐ Outreach (Direct)
- ☒ Programmatic (Indirect)

At-a-glance:
- ☒ Water Quality (Direct)
- ☐ Water Quality (Indirect)
- ☐ Covid-19
- ☒ Ongoing Implementation
- ☐ Clean water needs
- ☒ Jurisdiction-specific implementation
- ☒ Regional implementation

Encampment management policies establish guidance for municipal staff for implementing practices to manage the adverse impacts of encampments

BMP Goals:

- Provide consistent guidance to municipal staff across departments to manage encampments.

Challenges:

- Coordination across municipal departments and maintaining common goals
- Implementing encampment management policies while navigating unknowns and potential safety concerns

Lessons Learned:

- Consider public perception of encampment management policies and balance the interests of all residents, sheltered and unsheltered.
- Keep camps small (<20 people), if possible, so they are easier to manage, safer and have a smaller impact on surrounding neighbors.

Personnel & Collaborators:

- Municipal staff from various departments
- Contractors as needed

Local Implementation Examples:

- The City of Oakland Encampment Management Policy was developed as part of its Permanent Access to Housing (PATH) Framework, which was adopted in December 2019. The Encampment Management Policy is consistent with the guidance and best

practices promoted by the City's Department of Race and Equity. The purpose of this policy is to protect and serve all Oaklanders, sheltered and unsheltered, and to manage the adverse impacts of homeless encampments by balancing the interests of all residents, focusing on encampment actions on mitigating negative outcomes as they pertain to public safety, public health, and equity outcomes. The policy includes definitions of locations deemed high and low sensitivity (i.e., 50 feet from a playground, within 50 feet of a protected waterway, etc.) and outlines a variety of ways that the Encampment Management Team (EMT) can intervene to help achieve the goals of the policy. The City of Oakland prioritizes encampment cleaning operations if an encampment is near a waterway or storm drain.

- The City of San José's City Roadmap – Encampment Management and Safe Relocation Policy, which began during the COVID-19 pandemic, outlines principles of an equitable, effective, and efficient approach to encampment management. The four objectives of the City's Encampment Management and Safe Relocation Policy include: clean the City's public spaces, create setbacks for priority locations, identify sites that promote safety and belonging, connect people to social services and meet their basic needs. Abatements are minimized to limit impacting the most vulnerable people in society.

- Redwood City began implementing the Resolving Encampments through Effective Engagement (REEE) Pilot Program. REEE will focus specifically on addressing homeless encampments by addressing health and safety concerns, offering services and housing to encampment residents, and ultimately reducing the number of homeless encampments in the City.

- The City of Fremont created an Assessment and Evaluation Form for Homeless Encampments and Hot Spots as part of its Trash Control Program. The City conducts weekly site assessments of encampments using this form to gather data for evaluation, and effective management of encampments. This form allows inspectors to track number of camps, location, impacts to waterways, property ownership, site condition, safety concerns, potential abatement/enforcement mechanisms, as well as maintenance and management needs.

- Valley Water created a Water Resources Encampment Risk Assessment to aid staff in documenting and assessing risks related to encampments located on Valley Water lands. The form allows for tracking of encampment locations, infrastructure, waterways, maintenance needs, safety issues, environmental impacts, and adjacent facilities. In this form, there is a hazard rating scale to help inform encampment management including if an abatement is warranted for the encampment. This tool helps ensure the protection of natural resources, water quality, and the health and safety of employees and the public.

- The City of San Leandro coordinates street outreach and case management services through bi-weekly meetings with City staff, other public agencies, and non-profits.

References and Resources:

- City of Oakland's 2019 Permanent Access to Housing (PATH) Framework
- City of Oakland Encampment Management Policy
- Exploring Homelessness Among People Living in Encampment and Associated Cost

- [San José Encampment Management and Safe Relocation Policy](#)
- [Understanding Encampments of People Experiencing Homelessness and Community Responses](#)
- Water Resources Encampment Risk Assessment. Valley Water. 2022.

FUNDING INITIATIVES

Pavilion Inn Development, a Young Adult Supportive Housing project, received funding from the Santa Clara County Measure A Housing Bond, Homekey funding from the State of California, State funding through the City of San José, and Santa Clara County Housing Authority vouchers. Image courtesy of County of Santa Clara.

Implementation Level:
- ☐ Support (Direct)
- ☐ Outreach (Direct)
- ☒ Programmatic (Indirect)

At-a-glance:
- ☐ Water Quality (Direct)
- ☒ Water Quality (Indirect)
- ☐ Covid-19
- ☒ Ongoing Implementation
- ☐ Clean water needs
- ☒ Jurisdiction-specific implementation
- ☒ Regional implementation

Local, Countywide, State, Federal, and Bay Area/Regional-level funding initiatives ensure the long-term sustainability and the ongoing implementation of efforts to mitigate the public health and environmental impacts of homelessness, and support implementation of long-term solutions. Funding initiatives are often sourced through municipal general fund allocations, countywide measures, HUD, local, regional, or statewide grants, and NGO fundraising efforts.

BMP Goals:

- Obtain funding and resources allotted to housing and supportive programs serving unsheltered homeless populations.
- Enhance opportunities for cross-agency collaboration to implement BMPs.

Challenges:

- Grant funding for housing and homelessness programs can be regionally competitive.
- Grants require significant staff time to prepare and submit applications.
- Countywide measures that require passing via a vote require public outreach.
- Public opinion and support can stop or slow down programs.

Lessons Learned:

- Be very clear about goals, objectives, the need for the funding and outcomes.
- Collaborate and partner with other organizations including regionally to pool resources and increase chances for funding.

Personnel & Collaborators:

- Municipal staff and/or contractors to prepare grant funding applications
- Non-profit organizations or often the recipients of grant funding

Local Implementation Examples:

- [Project Homekey](#) is an initiative by the State of California that provides local government agencies with funds to purchase and rehabilitate housing – including hotels, motels, vacant apartment buildings and other properties – and convert them into permanent, long-term housing for people experiencing or at risk of homelessness. Funding comes from the state's allocation of federal Coronavirus Aid Relief Funds and the state's General Fund. The County of San Mateo, the County of Santa Clara, County of Contra Costa, and many counties and cities in the Bay Area (e.g., Milpitas, Mountain View, San José) received funding through Project Homekey to purchase hotels.

- The County of Santa Clara's Continuum of Care (CoC) program received $11 million in funding from the U.S. Department of Housing and Urban Development (HUD) to provide services to unsheltered individuals. The County also received funding from the 2016 Measure A Affordable Housing Bond, which helped add several thousand units of affordable and supportive housing to the housing development pipeline.

- Annually, the City of San José receives funds from HUD to administer various grants that benefit unsheltered or low/moderate income persons. These include the following:

  o [Community Development Block Grant (CDBG)](#) - This program funds various nonprofit agencies and other city departments to implement services that benefit low- and moderate-income persons, resolve slum and blight concerns, or address community development needs. Grantees are generally selected through a competitive process and provide such services as senior nutrition, neighborhood engagement, legal services for tenant rights and fair housing, homeless outreach, housing rehabilitation, and code enforcement.

  o [Emergency Solutions Grant (ESG)](#) - This program is designed to identify sheltered and unsheltered homeless persons, as well as those at risk of homelessness, and provide the services necessary to help them quickly regain stability in permanent housing. Grantees are generally selected through a competitive process and provide such services as homeless outreach, shelter for families and victims of domestic violence, and rental assistance.

  o [HOME Investment Partnership (HOME)](#) - HOME provides formula grants to states and localities that communities use - often in partnership with local nonprofit groups - to fund a wide range of activities including building, buying, and/or rehabilitating affordable housing for rent or homeownership or providing direct rental assistance to low-income people. It is the largest Federal block grant to state and local governments designed exclusively to create affordable housing for low-income households. The City of San José currently dedicates HOME funds for the development of new affordable housing projects, and Tenant-Based Rental Assistance ([TBRA](#)).

- Voters in San José approved Measure E on March 3, 2020. It enacted a Real Property Transfer Tax, which is imposed on property transfers of $2 million or more. Revenues generated by Measure E provide funding for general City services, including affordable

housing for seniors, veterans, disabled, and low-income families; and helping families who are unsheltered move in to shelters or permanent housing.

- The City of Pittsburg was awarded funds from the Community Development Block Grant CARES Act (CDBG-CV) program to prevent, prepare for, and respond to the spread of COVID-19. The funds supported the City's efforts in addressing the health and safety concerns associated with the local unsheltered community during the COVID-19 pandemic.

- The San Mateo County Board of Supervisors awarded three cities, Redwood City, Millbrae and Half Moon Bay, grants in December 2022 to address homelessness. Redwood City and Millbrae will expand existing programs that steer individuals and families experiencing homelessness into shelters and services. Half Moon Bay will provide a safe parking area, with hygiene facilities and outreach services for people living in vehicles.

- The City of Milpitas provides support to unsheltered populations from the following funding sources:
  - The City Council designated $950,000 in American Rescue Plan Act funding to expanding the Rent Relief Program to a Rent & Mortgage Relief Program.
  - Permanent Local Housing Allocation (PLHA) is a California Department of Housing and Community Development grant. The City of Milpitas has been approved for its 2019, 2020, and 2021 entitlement of $1,017,554. The City is waiting for the Standard Agreement but was approved for 20% ($193,335.26) of the funding to go to the Homeless Engagement and Access team (HEAT). The HEAT team conducts homeless outreach, assessment, and street-based case management services.
  - Mayor Rich Tran requested support of one-time funding as part of the FY22-23 State budget from Assemblymember Alex Lee's Office. Assemblymember Lee approved the one-time state funding request, including $1,500,000 for homelessness prevention and unhoused services. The initial request was for continuation and expansion of the City's mobile shower and laundry services, twice a week, for a period of three years ($300,000), establish a Milpitas Resource Center as a 2-year pilot program ($500,000) and provide rent relief to vulnerable Milpitas residents ($700,000).

- The City of Alameda uses a creative method to raise funds for unsheltered populations in the City. They have installed specially designed orange "parking meters" to collect spare change and credit card donations at 20 sites to raise funds for services for unsheltered individuals. Businesses, individuals, families, and groups may also sponsor a meter. The City has created a map of the meter locations.

- The City of San Leandro allocates about $260,000 annually through a competitive process to local non-profits through Community Assistance Program (CAP) and Community Development Block Grant (CDBG).

- The City of Walnut Creek offers:

- o Homeless Services Grant -This grant program was approved by Walnut Creek City Council in July 2017 to fund services that address homelessness in Walnut Creek. The Homeless Services Grant will have $70,000 available each fiscal year.
- o Permanent Local Housing Allocation - In 2017, the state began a new Permanent Local Housing Allocation (PLHA) grant available to jurisdictions to implement plans to increase the affordable housing stock, as well as address homelessness. The PLHA is an ongoing formula grant that provides non-competitive funding to entitlement cities like Walnut Creek. From 2019-2023, the state will provide an estimated $830,694 available over a five-year implementation period (2020-2024) through the PLHA grant to assist persons who are experiencing or at risk of experiencing homelessness. Walnut Creek is estimated to receive an allocation of $138,449 annually.

References and Resources:

- CA Housing and Community Development Grants & Funding
- Community Development Block Grant CARES Act
- Emergency Solutions Grant (ESG)
- Federal grants received by the City of San José
- HOME Investment Partnership (HOME)
- Homekey Program Notice of Funding Availability
- Homeless Housing, Assistance and Prevention Program (HHAP)
- Homelessness Task Force Tools and Resources for Cities and Counties 2018
- HUD Programs and Grantee Info
- Permanent Local Housing Allocation
- San Francisco Bay Water Quality Improvement Fund Request for Applications-US EPA
- Valley Water Standard Grants Program

INTER-DEPARTMENT AND INTER-AGENCY INFORMATION SHARING

Coordination with other departments and agencies is important tool for obtaining resources and information. Image courtesy of SCVURPPP.

Implementation Level:
- ☐ Support (Direct)
- ☐ Outreach (Direct)
- ☒ Programmatic (Indirect)

At-a-glance:
- ☐ Water Quality (Direct)
- ☒ Water Quality (Indirect)
- ☐ Covid-19
- ☒ Ongoing Implementation
- ☐ Clean water needs
- ☒ Jurisdiction-specific implementation
- ☒ Regional implementation

Municipal stormwater staff coordinate with other departments within their agency (e.g., housing services, City/Town/County/Agency manager's office) and with other municipal agencies to develop and implement strategies to address non-stormwater discharges from unsheltered populations. This coordination offers opportunities for additional funding, access to staff with appropriate and applicable expertise, and data that may inform and improve future efforts.

BMP Goal:

- Connect with other departments and municipal agencies to share information and resources.

Challenges:

- Scheduling meetings and coordinating meetings across different departments and agencies can be difficult.
- Detracting from programs to provide housing and social services being implemented by appropriate and qualified organizations with implementation of temporary, water quality based BMPs.

Lessons Learned:

- Funding and resources may be available from other departments (e.g., City Manager's office) and agencies (County Housing Departments) that share similar goals.

Personnel & Collaborators:

- Municipal staff from different agencies and departments

Local Implementation Examples

- On September 15, 2015 (Item No. 27), with recommendations from the County of Santa Clara's Housing Task Force (HTF), the County Board of Supervisors directed the Administration to expand and improve homelessness prevention programs in Santa Clara County. The HTF's recommendations were intended to develop an effective and efficient coordinated network of service partners that could fully serve individuals and families who are on the brink of homelessness. The HPS Pilot was established in 2017 in a unique partnership between public agencies, private funders, and non-profit services providers. D:H (Destination: Home) is the Administrative Lead of the HPS Pilot while Sacred Heart as the Program Lead, works with partner agencies under a "no wrong door" policy that removed barriers to county residents seeking homelessness prevention services at any of the participating agencies. Additionally, Sacred Heart oversees the training and coordination of the HPS Pilot with the partner agencies to ensure the prevention services provided meet the community needs. The HPS Pilot targets households with the highest needs and provides longer-term financial assistance, case management services, employment services, legal services, childcare, and transportation. The HPS Pilot has made it possible to streamline and standardize service delivery, assessments, prioritization, and data collection. Since 2017, the HTF Pilot has assisted 4,455 unduplicated households and 95.8% of those households have been able to retain their housing.

- In March 2020, the County of Santa Clara and its partners established the Housing Joint Departmental Operations Center (JDOC), which brought together the Office of Supportive Housing (OSH), Valley Homeless Healthcare Program (VHHP), Behavioral Health Services Department (BHSD), Public Health Department (PHD), and the City of San José to implement strategic and collaborative responses to protect the health and safety of unhoused individuals and families. On April 2, 2020, the JDOC launched a hotline to centralize referrals to temporary housing programs. Requests for shelter are received from hospitals, service providers, and unhoused individuals and families. The intake process includes an assessment to determine the appropriate placement for each individual. The hotline has proven effective in preventing unhoused residents and County partners from needing to call or visit multiple shelter sites to determine availability and eligibility. This centralization also enables improved data collection to analyze trends and system gaps. Due to the success of the hotline and the increased shelter utilization, the OSH identified State funding to continue the operations for a two-year pilot period.

- To further efforts in collaborating with other agencies in tackling the homeless concerns, the City of Fremont actively engages in Homeless Task Force meetings that include staff from Abode Services and various City departments (Fremont Direct Discharge Trash Control Program, 2018).

- The City of Santa Clara has convened a Homelessness Taskforce that includes stakeholders with a range of perspectives and experience to help identify priorities and provide recommendations related to the development of a City Plan to address Homelessness and its impacts. The City has received feedback on the Homelessness Plan

Draft Framework, conducted a Study Session, and will be submitting a finalized plan to City Council in 2023.

- Since 2004, the City of San José and Valley Water have collaborated to help keep waterways clean within their jurisdictions through a Trash Removal and Prevention Memorandum of Agreement (MOA). This MOA improves coordination and communication and promotes a more effective use of resources and expertise between the two parties. In 2008, the parties updated the MOA to include encampment cleanups. Since then, the MOA for Encampment Cleanup and Trash Removal and Prevention has been updated and extended twice (in 2013 and 2019) and is currently set to expire June 30, 2025.

- The County of Alameda coordinates weekly Alameda County Health Care for the Homeless Meetings, monthly Alameda County all-city meetings around homelessness, and monthly Alameda County all-city meetings around housing.

- The City of Albany organizes monthly case conferences with Albany Project HOPE (a local non-profit), Albany Policy Department, Albany Public Works, Alameda County Homeless Services Regional Coordinator, and the Lifelong Street Medicine Program Manager. The Lifeline Street Medicine is the largest provider of Street Medicine services in Alameda County.

- The City of Redwood City's Homeless Services Manager leads the City's inter-departmental and inter-agency efforts. The City is deeply integrated into the County Homeless Services System and the City recently expanded these efforts through a $1.8 million contract to create a Redwood City Coordinated, Inter-Agency Homeless Outreach Strategy Team. The City has invested one time City resources and sought outside funding for this work.

- The City of Hayward has an internal team consisting of staff from Community Development, Police Department, Water Pollution Source Control (stormwater program), Code Enforcement and other interested parties that work together to abate encampments and help provide services to needy individuals.

- The City of Cupertino has an internal working group comprised of Emergency Services Division, Public Works Director, and Stormwater Program representative and coordinates with the Santa Clara County Office of Supportive Housing as well as Caltrans.

- The City of Walnut Creek has established the Walnut Creek Homeless Community Task Force, which is composed of Walnut Creek City staff, the Walnut Creek Police Department, community organizations, local businesses, and community residents. The task force has been meeting regularly for over four years with a mission to research and identify best, promising, and emerging practices for short-term and long-term solutions to the causes of homelessness; to present information and recommendations to Walnut Creek City staff and City Council; and to work collaboratively to put into place respectful and compassionate solutions.

- The Contra Costa Council on Homelessness (the Council) provides a forum for the Continuum of Care (CoC) to communicate the implementation status of strategies to

prevent and end homelessness. The purpose of the forum is to educate the community on issues and advocate for Federal, State, County and City policy issues that affect people who are homeless or at-risk of homelessness. The Council provides advice and input on the operations of support services, policy formulation and program development efforts in Contra Costa. Furthermore, it establishes the local process for applying, reviewing, and prioritizing project applications for funding in HUD Homeless Assistance Grant Competitions, including the CoC Program and the Emergency Solutions Grant (ESG) Program. The San Pablo Police Department currently serve on the Council in a public safety seat. The City of San Pablo's involvement has allowed the City to have input on the services and programs available in Contra Costa and advocate for those who are unhoused in the City.

- The City of Antioch hosts an Unhoused Resident Services Pop-Up Event where City staff invite the community and local stakeholders to learn more about the local resources.

- The City of San Leandro collaborates with local non-profits to provide staff, partners, and community members training in mental health awareness, safety, conflict de-escalation, local resources, gender-based violence, and trauma-informed care. There are plans to pilot a Mental Health Response Unit in 2024 with Alameda County Fire Department, San Leandro Police Department and community-based organizations.

References and Resources:

- Albany Project HOPE
- City of Santa Clara Homelessness Plan Draft Framework
- Contra Costa Council on Homelessness
- Destination: Home
- Fremont Direct Discharge Trash Control Program, 2018
- Walnut Creek Homeless Community Task Force
- Walnut Creek Police Department Homeless Resources

COORDINATION WITH STATE AND RAIL AGENCIES

P-05

Responding to encampments not in a local jurisdiction's right-of-way requires coordination with other agencies. Image courtesy of City of Redwood City.

Implementation Level:

☐ Support (Direct)
☐ Outreach (Direct)
☒ Programmatic (Indirect)

At-a-glance:

☐ Water Quality (Direct)
☒ Water Quality (Indirect)
☐ Covid-19
☒ Ongoing Implementation
☐ Clean water needs
☒ Jurisdiction-specific implementation
☒ Regional implementation

Many encampments across the Bay Area are located on Caltrans, California Highway Patrol (CHP), and Union Pacific (or other railroad properties) properties. Local agencies need to coordinate with these agencies to manage these encampments. Some cities and counties in the Bay Area have established Memorandum of Understandings (MOUs) or Memorandum of Agreements (MOAs) between their jurisdiction and these agencies to formalize shared boundaries and come to an agreement on processes for responding to homelessness (e.g., timing of notifications for service requests, applications for funding). Conducting outreach to and offering supportive services to encampments on Highway 101 for example, requires coordinating with Caltrans, working across agency policies and timelines, and using available resources. By having established relationships in the form of MOUs and MOAs, and consequentially, smooth workflows, defined fiscal responsibilities, clearing and cleaning, access, and notification times, local jurisdictions can be as responsive to homelessness as possible.

BMP Goals:

- Develop processes for responding to water quality impacts from unsheltered populations located on properties that are not under the jurisdiction of local agencies.

Challenges:

- Difficult to find appropriate contacts at State and railroad agencies.
- Different priorities and difficulty agreeing on a management process.
- The issue may just get moved from one jurisdiction to another.

Lessons Learned:

- Make a commitment to establishing relationships and regular communication, potentially in the form of a work group or task force.

- State and rail agencies may have a list of local collaborators (non-profits) that they work with and can share with local municipalities.
- Transportation agencies typically prioritize locations of unhoused populations that involve a safety risk to both the unhoused individuals as well as the general public (e.g., on highway off-ramps).

Personnel & Collaborators:

- Law enforcement agencies and enforcement departments of State agencies may need to be involved where transportation safety issues and locations of unhoused populations are at conflict.
- If needed, faith based organizations, local non-profits, and community centers can assist with relocation, outreach and clean ups.

Local Implementation Examples:

- The City of San José executed a Memorandum of Understanding (MOU) in December 2020 with Union Pacific Railroad Company to coordinate resources to clean up trash, debris, overgrown vegetation, and encampments on their respective properties. The parties will conduct a minimum of eight coordinated cleanups, as needed, per year under this MOU. In FY 2021-22 there were six cleanups that occurred along railroad property.

- In March 2022, Redwood City initiated a meeting with Caltrans and State legislative representatives which resulted in the establishment of a working group to address homeless encampments on Caltrans properties. The working group continues to meet every two months to request Caltrans action on homeless encampments and to assure sufficient lead time (e.g., two weeks' notice) to provide intensive outreach to encampment residents by offering shelter and housing options as well preventing loss of personal belongings which occurs when minimal notice is given prior to encampment clear-outs. As a result of the initial March meeting, Caltrans has also taken action to modify the landscape of critical locations such as the Woodside Road/El Camino Real cloverleaf to reduce the likelihood of re-encampment. The City will continue to share information with Caltrans where there are concerns regarding health and safety at the encampments on Caltrans right of way.

- Contra Costa County Public Works Maintenance and Environmental Health coordinate regularly with Caltrans and the railroads for encampment cleanups.

- Caltrans representatives participated in a BAMS Collaborative Work Group information sharing meeting on January 24, 2023. After the meeting, Caltrans shared with the BAMS Collaborative Work Group contact information for key Caltrans staff working in the Bay Area on homelessness and encampments and a list of 23 local partners Caltrans collaborates with in Alameda, Contra Costa, San Mateo, Santa Clara, and Solano Counties, including non-profit organizations.

COORDINATION WITH NON-PROFIT ORGANIZATIONS

The Trinity Center Overnight Shelter Program offers up to 38 participants a warm evening meal and a safe, dry place to sleep each year from December to April. Image courtesy of City of Walnut Creek.

Implementation Level:

☐ Support (Direct)

☐ Outreach (Direct)

☒ Programmatic (Indirect)

At-a-glance:

☐ Water Quality (Direct)

☒ Water Quality (Indirect)

☐ Covid-19

☒ Ongoing Implementation

☐ Clean water needs

☒ Jurisdiction-specific implementation

☒ Regional implementation

Non-profit organizations have the expertise, set-up, and staff to provide a wide range of services to unsheltered populations, including those that address non-stormwater discharges. The services may include conducting cleanups at areas where unsheltered populations congregate, establishing relationships with unsheltered individuals, providing them with information on shelter, job development or other BMPs, etc. Additionally, unsheltered populations may be more receptive to receiving information and services from these organizations rather than government agencies.

BMP Goals:

- Provide a range of services to unsheltered populations, including those that address non-stormwater discharges.

Challenges:

- Finding the appropriate non-profit organizations
- Funding and public support for these programs can be difficult.
- Monitoring the program to make sure they are within budget and workers are following the scope (i.e., only cleaning in approved areas and capping the maximum number of participants as outlined in the program)

Lessons Learned:

- These programs require a lot of oversight and support from organizations running the program.
- Good relationships with local solid waste haulers are invaluable due to the flexibility that can be required to run these programs.

Personnel & Collaborators:

- Municipal staff oversight of programs
- Faith based organizations, local NGOs, school districts, and community centers

Local Implementation Examples:

- The City of Sunnyvale collaborates with the Downtown Streets Team (DST), a non-profit organization, to conduct regular cleanups in the downtown area. In addition, DST provides aid and support to homeless individuals with the goal of transitioning the homeless into permanent housing. DST clients serve on a team of volunteers that provide community services throughout the year. The City is also implementing a one-year pilot to provide services to unhoused populations as a complement to services provided by the County of Santa Clara. The City contracted with HomeFirst to provide services, including outreach, case management services to direct to support services available, and dedicated shelter beds for individuals needing accommodation beyond what is available from the County. HomeFirst provides two dedicated staff for these services. The City created an interdepartmental team lead by the Assistant City Manager, and City staff meet periodically with the contractor to discuss progress on outreach, determine additional locations for action, and share information gained from the community. The project funding is also available to address site cleanup, as needed.

- The Cities of San José , Saratoga, Cupertino, Los Gatos, Monte Sereno and the County of Santa Clara provide funding to West Valley Community Services which offers comprehensive programs to low income and homeless families in the West Valley region of Santa Clara County. Their services include distributing laundry quarters and hygiene kits, referrals to shelters, and safe parking areas. In addition, West Valley Community Services owns and operates two apartment complexes that offer permanent housing to low-income households. These complexes are managed through the City of Cupertino Below Market Rate Housing Program.

- The City of Albany has created a partnership, known as Albany Project Hope (APH), with Berkeley Food & Housing Project (BF&HP) and the Solano Community Church to assist those living unsheltered in Albany find permanent housing (or, if appropriate or necessary, alternatives such as transitional housing, return to families, homeless shelters, residential care or other living situations).

- The City of Milpitas receives Community Development Block funding from the Housing and Urban Development Department. One of the organizations it funds is LifeMoves who provide shelter and intensive care management services to Milpitas residents across its facilities in Santa Clara County.

- LifeMoves Homeless Outreach Team (HOT) also works throughout San Mateo County to meet unsheltered clients wherever they are and provide services in the field. HOT canvasses the streets and known encampments to identify, build relationships, and assist unsheltered clients as needed.

- The City of Half Moon Bay has a contract with the local nonprofit Abundant Grace Coastside Worker. Abundant Grace Coastside Worker aims to transform the lives of

Coastsiders experiencing or at risk for homelessness through meaningful employment, community-building, food justice, and other support services. They provide workforce training opportunities through their coastal clean team and farm apprenticeship programs. In 2020, they purchased a workforce development center that provides a physical location for their programs as well as access to showers, laundry, Wi-Fi, mail delivery, temporary storage, food distribution, job/housing program assistance, and a safe gathering space for unsheltered individuals.

- The City of San Leandro partners with a local non-profit to provide a Domestic Violence Outreach and Mobile Unit. A 24-hour/day, 365 days/year program administered by non-profit staff in collaboration with other contracted service providers who provide intensive case management, including housing and shelter resources.

- The City of Walnut Creek coordinates with the Walnut Creek Homeless Task Force for monthly meetings to discuss compassionate solutions to homelessness and to work collaboratively with local and regional organizations to develop safety net services and the means for affordable supportive housing.

References and Resources:

- Abundant Grace Coastside Worker
- Albany Project Hope
- Downtown Streets Team
- Homelessness Taskforce Report- Tools and Resources for Cities and Counties, 2018
- LifeMoves Homeless Outreach Team
- Monument Crisis Center
- St. Vincent de Paul of Contra Costa County
- Walnut Creek Homeless Task Force and wchomelessctf@gmail.com
- West Valley Community Services

STANDARD OPERATING PROCEDURES FOR RESPONDING TO RV AND ENCAMPMENT ILLICIT DISCHARGES

P-07

Staff using a vacuum truck to clean an illicit RV discharge. Image courtesy of City of Mountain View.

Implementation Level:
☒ Support (Direct)
☐ Outreach (Direct)
☒ Programmatic (Indirect)

At-a-glance:
☒ Water Quality (Direct)
☐ Water Quality (Indirect)
☐ Covid-19
☒ Ongoing Implementation
☐ Clean water needs
☒ Jurisdiction-specific implementation
☐ Regional implementation

Standard Operating Procedures (SOPs) that focus on how to respond to RV and encampment illicit discharges, and that focus especially on responses to discharges of human waste and other immediate threats to water quality, provide tried and tested options to municipal agencies on how to manage encampment discharges and prevent the reoccurrence of waste accumulation in closed and abated encampments. The SOPs can be shared with other jurisdictions and provide opportunities for cross-agency collaboration.

Challenges:

- Staff time to develop, review, and revise SOPs over time
- Special training for municipal staff sanitizing sidewalks, plazas and other public right of way areas

Lessons Learned:

- Encompass needs of specific locations (i.e. near waterways) or times of year in the SOP.
- It often takes a lot of time to address illicit discharges from encampments since multiple agencies and departments need to work together to develop a collaborative approach to address the encampment.
- Police may need to be present for cleanups of illicit discharges from RVs and encampments.

Personnel & Collaborators:

- Municipal staff and/or contractors

Local Implementation Examples:

- The City of Berkeley's SOP for Managing Vehicular Homelessness in the Public Right-of-Way, developed in September 2022, outline the ways in which the Homeless Response Team and its participating departments will ensure Municipal Code standards are maintained. These include, for example, prioritizing initial outreach and attempting voluntary compliance and if these are not abided by, implementing remedies such as scheduling deep cleanings to remove debris.

- The City of Pleasanton utilizes an SOP for when an encampment is along or near a waterway. It includes Police Department, Code Enforcement, and Environmental Services staff responsibilities. The City works closely with its local flood control agency (Zone 7) for encampments on their property as well.

- The City of Oakland uses an internal SOP for how to respond to illicit discharges from encampments and/or RVs, including cleaning storm drains and addressing human waste discharges.

- West Valley Clean Water Authority developed sanitization procedures best management practices (BMPs) for municipal maintenance staff to use when publicly used areas present an elevated risk to public health. The BMPs include protecting storm drains and surface water from any discharges related to the cleaning activities.

- Within the City of Pittsburg, City staff, with the assistance of law enforcement officers, will engage the RV occupants and tell them to stop discharging their grey water and sewage. It is not in the City's policy to tow RVs. City staff will wash down and vacuum the gutter to then dispose of the wastewater to the sanitary sewer.

- The City of El Cerrito inspectors have been successful in responding to reports or observations of encampment illicit discharges in accordance with the City's Enforcement Response Plan. An inspector immediately follows up on a report of an illicit discharge. It often takes time to address illicit discharges from encampments since multiple agencies and departments, such as Contra County County's CORE team, Public Works Maintenance Team, Police Department, and others work together to come up with a collaborative approach to address the encampment at large. This involves the CORE team working with residents to clean up their own trash and to offer other services and housing so residents will vacate the encampment. If the encampment or RV is determined to be hazardous, then multiple City departments, along with County CORE will work together to provide appropriate outreach and notification to the residents and subsequently work to clean up the encampment area. This collaborative approach has worked well, although often takes time to complete.

References and Resources:

- City of Oakland Direct Trash Discharge Control Plan, 2019

Date: August 16, 2023

To: Management Committee

From: Rinta Perkins, Interim Program Manager and
Allison Knapp, Deputy Director

Subject: Stormwater Funding Options – Next Steps

Recommendation:
Accept the presentation and provide staff with direction or comments regarding the recommended next steps for exploring Stormwater Funding Options.

Background:
Management Committee directed staff to a Stormwater Funding Options Report on July 20, 2022. The first phase of the report analyzed 26 funding options and identified those that were viable for further evaluation and implementation by the Program. The second phase expands the analysis of the feasible options, describes the process to implement the options and potential challenges, and recommends a pathway forward at the countywide level.

The report's development spanned over FY 22-23, with multiple presentations and discussions with the Administrative and Management Committees for feedback and directions. The CCCWP contract attorney provided a legal analysis, and two consulting firms provided peer reviews. The report was updated to incorporate comments received and to address
questions about the impact of a potential Monsanto lawsuit settlement, the revenue estimates for each viable option, how a proposed fee amount would be justified, and how we address or discuss existing SUA funding.

On July 19, 2023, the Management Committee accepted the final report. It directed the Program staff and consultant to present the report summary to the City-County Engineering Advisory Committee (CCEAC) and Public Managers Association (PMA) Sub-Committee.

Overview of the Presentations:
On July 20, 2023, the Program staff and consultant presented the report summary separately to the CCEAC and PMA Sub-Committee.

There was a general acknowledgment of increasing compliance costs due to new permit requirements and implementing more stringent control measures with subsequent MRP renewals. These costs had outpaced the Stormwater Utility Assessment (SUA) fees that permittees collect. This was the primary premise that led to the development of the Funding Options report.

The "Do Nothing" option was mentioned in case there is a lack of interest in exploring new funding source(s). This results in the Program and permittees adjusting their budgets to make do with existing revenues. Through cost-saving measures and unanticipated delays in implementing regional projects, CCCWP has combined fund reserves of $5,482,100. Since FY 2021-22, the Program has consistently drawn down its fund reserves to supplement permittees' contributions to fund its activities. Once the delayed regional projects start, reliance on the reserves would be inevitable.

The top three funding options that provide ongoing revenue were mentioned in the presentation, along with their pros and cons. Two are property-related fee options, similar to the 2012 funding initiative. There were some discussions on what went wrong with the 2012 funding initiative (lessons learned) and what can be done to provide a better chance of success. Using the same process for the 2012 funding initiative, and making some assumptions on cost, a similar funding initiative today would cost about $2.6 million. If a new funding initiative were conducted five years from now, it would be closer to $3.0 million in cost. This analysis is based on data developed for the 2012 funding initiative, which needs to be updated.

Received Feedback.
PMA Sub-Committee was represented by Joe Calabrigo (Town of Danville) and David Biggs (City of Orinda). Kevin Marstall, Carlton Thompson, and Frank Kennedy (City of Concord) were in attendance.

The initial question was whether and when the Program and permittees would require additional funds. The query can be addressed through an updated financial analysis, to be conducted once the MRP 3.0 Provision 20 Cost Reporting data becomes available in 2025. The current analysis was based on information gathered for the 2012 funding initiative, which needs to be updated.

One critical issue discussed with the Sub-Committee is the use of SUA funds. The Program's attorney notes that stormwater utility assessments are restricted funds as outlined in the legislation authorizing the Flood Control District to establish the assessments, along with the Engineer's Report adopting the assessments for each jurisdiction. Funds can only be used for activities associated with managing a stormwater program complying with an NPDES permit and stormwater system maintenance. Likely, SUA funds cannot be used

to pay for most of the cost of developing a funding measure. The report recommends a detailed legal analysis of the steps required to develop a funding initiative to determine what can and cannot be paid for with SUA funds. The group expressed interest in obtaining additional opinions from other legal experts on this issue.

The Program and permittees should recognize that there might be only one opportunity to succeed with this funding measure. Therefore, meticulous planning involves educational/informational outreach, developing appropriate strategies, and assembling the right team. This approach underscores the lessons learned from the 2012 Funding Initiative, including the importance of strong, relevant messaging aimed at voters, the development of projects with measurable and community-relevant benefits, and the engagement of key stakeholders who can act as champions.

The Sub-Committee recommended that Program staff share the pertinent information with the broader PMA members, including inviting city attorneys as an initial outreach. Following the presentations thus far, the next step is organizing an informational workshop. This workshop will target elected officials, city managers, public works directors, city engineers, and stormwater managers, initiating a dialogue on key questions. These questions include determining the desired funding option and preferred approach (whether as a countywide or as specific parts of the county), identifying the right timing, and exploring alternative funding sources for the ballot measures (especially if the SUA fee cannot be used to cover the entire costs).

Staff Recommendations:
The report recommends that the Management Committee adopt short-term and long-term strategies for securing additional funding. It acknowledges that the decision to pursue a funding measure involves obtaining approval from various individuals across different levels within the permittee organizations. A substantial engagement with the permittees' senior management and elected officials is necessary, including presentations to the City-County Engineers, PMA, Mayors' Conference, City/Town Councils, and the Board of Supervisors. Consequently, it is essential to recognize and understand any questions, concerns, or hesitations that senior management and the elected might have and to develop an effective response to address them.

As a short-term approach, Program staff recommends the following actions:
1. Present to the broader PMA members and city attorneys in September.

2. Convene a Workshop Planning Committee to plan the informational workshop.
3. Retain a workshop facilitator (knowledgeable in public funding and financing).

4. Hold an informational workshop for stakeholders.

5. Present findings to the Management Committee for further direction

Fiscal Impact:
None at this time, but there may be an increase or decrease in the budget depending on the final decision of whether to move forward with staff recommendations to retain a workshop facilitator or not.

Attachments:
Stormwater Funding Options: Next Steps presentation slide deck.

Management Committee

Stormwater Funding Options: Next Steps

August 16, 2023

Presented by
Rinta Perkins & Allison Knapp

1

Agenda

- Completed Outreach Efforts

- Feedback and Directions Received

- Timelines and Required Funding

- Recommendations

- Next Steps

2

Completed Outreach Efforts

- Phase 1: Management Committee

  July 20, Sept. 21, Oct. 19, Nov. 16 and Dec. 13, 2022

- Phase 2: Management Committee

  Feb. 15 & July 19, 2023

- City-County Engineers Advisory Committee (July 2023)

- PMA Sub-Committee (July 2023)

- Administrative Committee (August 2023)

3

PMA Sub-Committee Presentation

- Rising permit compliance expenses

- Depleting fund reserves with the 'Do Nothing' option

- Review of funding options

- 2012 Funding Ballot initiative and lessons learned

4

Feedback Received From PMASub-Committee Presentation (Continued)

- Are we really running out of funds?

- Why can't SUA be used to fund the funding measure?

- Branding to support successful funding measure

- Request from PMA for CWP

  - Presentation to PMA & City/Town Attorneys

  - Informational workshop for stakeholders

- Emphasized "Right Decision – Right Timing."

5

Staff Recommendations

- Presentation to the PMA members and City Attorneys

- Convene a Workshop Planning Committee to plan the workshop

- Retain a facilitator

- Hold informational workshop(s) for stakeholders

- Present findings/direction at Management Committee

6

Staff Recommendations (Cont.)

If Management Committee approves to move forward

7

Proposed Timelines and Preparation

- (September '23): Presentation to PMA members and city attorneys on Funding Options Report
  - Share information & successful examples
  - Invitation to attend an informational workshop
  - Steps beyond if CCWP goes the route of a tax measure
  - Q&A
- (September – October '23): Convene a workshop planning committee; solicit participants
- (September – October '23): Identify an experienced consultant with the tax measure approaches to facilitate a workshop.

8

Proposed Timelines and Preparation (Cont.)

- (September – October '23): CCCWP secures the facilitating consultant (3 weeks)
- (November '23): Circulate pre-workshop questionnaires and hold informational workshops
- (November '23): Direction to CCCWP on the funding option approach to take
- (January '24): Budget discussion to plan for the funding initiative
- (January '24): RFQ for a consultant to implement

9

Q & A

Thank you!

10

CONTRA COSTA
CLEAN WATER
PROGRAM

Date: August 16, 2023

To: Management Committee

From: Lisa Welsh, Program Consultant

Subject: AUTHORIZE the Interim Program Manager to sign the letter of support for the SFEI San Francisco Bay Water Quality Improvement Fund Proposal - *PFAS Sources to Solutions: Identifying and Preventing PFAS Pollution in San Francisco Bay*.

Recommendation:

CCCWP Staff recommend each Permittee's duly authorized representative authorize the Interim Program Manager to sign the letter of support for the SFEI San Francisco Bay Water Quality Improvement Fund Proposal - *PFAS Sources to Solutions: Identifying and Preventing PFAS Pollution in San Francisco Bay*.

Background:

On July 17, 2023, Kelly Moran (SFEI) contacted the Bay Area Stormwater Programs asking for their support on a four-year $2.2M to $2.6M EPA Water Quality Improvement Fund (WQIF) grant proposal called *PFAS Sources to Solutions: Identifying and Preventing PFAS Pollution in San Francisco Bay*. Specifically, SFEI asked that Stormwater Programs provide match for the grant via LID permit compliance monitoring. The grant would be managed through the SFEI Regional Monitoring Program (RMP). As described in Kelly Moran's July 17, 2023, email:

> *The grant involves an SFEI/RMP partnership with the California DTSC Safer Consumer Products Program with a goal of identifying PFAS-containing consumer product categories that are priorities for DTSC to regulate to protect Bay water quality. Such regulation would reduce PFAS in urban runoff and wastewater.*
>
> *The grant has three main components:*
> (1) *Monitoring and Loads - for stormwater, this involves PFAS monitoring in urban runoff to significantly grow our data set and then preparing an order of magnitude PFAS load estimate to the Bay.*

(2) _Product Sources, Linkages, and Solutions_ - science to identify PFAS-containing product sources to urban runoff and wastewater in coordination with DTSC. This will include product research, conceptual model development, product prioritization, product testing, a product linkage assessment, information gaps analysis, and reporting.

(3) _Science communications and manager/community organization outreach_ - This includes scientific engagement to obtain and share information and stimulate work by other scientists to address identified information gaps, presentations to non-scientist managers and community organizations, and development of resources like fact sheets and a web site to support outreach by stakeholders and partners.

At the BAMSC Steering Committee meeting on July 27, the Stormwater Programs generally agreed to the concept and asked SFEI to reach out to the Stormwater Programs. Following the meeting, SFEI contacted Applied Marine Sciences (AMS) and Kinnetic Environmental, Inc. (KEI), the Stormwater Programs' monitoring consultants, to develop cost estimates that could reasonably be applied as "match" via LID-related PFAS monitoring. AMS and KEI also provided cost estimates for the small amount of grant-associated efforts beyond their current scopes of work with the Stormwater Programs. This additional amount would be reimbursed by SFEI using grant funds.

In sharing the generic support letter template on August 7, 2023, Kelly Moran provided the following context:

> Our need for "match" contribution for this grant application would be met by a commitment of $245,000 of these in-kind consulting services from each of your programs. Using a $245K match amount for each of your programs instead of the much larger full amount that each your programs plan to spend on these activities reduces the grant-related paperwork/bureaucracy associated with the match (this paperwork/bureaucracy increases for match levels at or above $250,000).

> The letter contains three elements important for the grant application:
> (1) Support for the PFAS Sources to Solutions WQIF proposal

> (2) Commitment to support the project through in-kind consulting services worth $245,000 and continued engagement in the RMP (via BAMSC)

> (3) Commitment to share your program's Water Year 2024-2026 PFAS (LID) monitoring data with SFEI for use in the project

> The letter does not specifically mention *LID* monitoring to avoid any confusion among the EPA reviewers of the proposal. For this project, the

data of greatest value from your LID monitoring program are the PFAS concentrations *entering* the LID facilities, i.e., prior to any treatment or infiltration. (Effluent data will be of minor - if any - interest for this project, which will not be assessing PFAS treatment).

Schedule:

SFEI has requested the Stormwater Programs' letter of support by Friday, August 18. With approval from the Management Committee, the CCCWP Interim Program Manager will sign the letter of support and email it to SFEI.

Fiscal Impact:

None.

Attachments:

1. CCCWP letter of support for the SFEI San Francisco Bay Water Quality Improvement Fund Proposal - *PFAS Sources to Solutions: Identifying and Preventing PFAS Pollution in San Francisco Bay*.

August 9, 2023

US EPA Region 9 (WTR-2-2)
Attn: Luisa Valiela
75 Hawthorne Street
San Francisco, CA 94105

SUBJECT: **Support for SFEI San Francisco Bay Water Quality Improvement Fund proposal - PFAS Sources to Solutions: Identifying and Preventing PFAS Pollution in San Francisco Bay**

Dear Ms. Valiela:

The Contra Costa Clean Water Program is pleased to offer our support for the proposal being led by the San Francisco Estuary Institute (SFEI) called ***PFAS Sources to Solutions: Identifying and Preventing PFAS Pollution in San Francisco Bay***. Per- and polyfluoroalkyl substances (PFAS) are contaminants of high concern in San Francisco Bay, and consequently are a priority to understand and address. This project operationalizes cutting-edge science to support the development and implementation of measures to prevent contamination in San Francisco Bay and beyond.

The Contra Costa Clean Water Program (CCCWP) is comprised of twenty-one local government agencies in Contra Costa County that share a common National Pollutant Discharge Elimination System (NPDES) permit to discharge stormwater to the San Francisco Bay Region. CCCWP facilitates local compliance with the NPDES permit and supports its member agencies implement regulatory, monitoring, and outreach measures for improving the water quality of the creeks in Contra Costa County, San Francisco Bay, San Pablo Bay, and Suisun Bay.

Bay Area municipalities and public stormwater agencies have supported the SFEI-administered Regional Monitoring Program for Water Quality in San Francisco Bay (RMP) for decades. We rely on the world-class science and monitoring capacity of SFEI and the RMP to inform municipal stormwater management decisions. We recognize our critical role in ensuring the health of the Bay. The stormwater community also acknowledges the challenges of understanding and reducing the threats that the persistent and mobile PFAS family of chemicals poses to the Bay. The proposed PFAS Sources to Solutions project will accelerate PFAS monitoring in Bay Area watersheds and develop high-quality information on PFAS-containing products to support reduction of product sources of PFAS to urban runoff. The project's partnership with the California Department of Toxic Substances Control's Safer Consumer Products Program will facilitate timely state action on PFAS products and improve the water quality of San Francisco Bay. The project's focus on PFAS product sources has particular importance for us, as preventing urban runoff chemical contamination at its source is far more societally cost-effective than downstream management of contaminants, which in the case of PFAS is not currently technically or financially feasible.

255 Glacier Drive, Martinez CA 94553-4825 • Tel (925) 313-2360 • Fax (925) 313-2301 • Website: www.cccleanwater.org

Program Participants: Antioch, Brentwood, Clayton, Concord, Danville, El Cerrito, Hercules, Lafayette, Martinez, Moraga, Oakley, Orinda, Pinole, Pittsburg, Pleasant Hill, Richmond, San Pablo, San Ramon, Walnut Creek, Contra Costa County and Contra Costa County Flood Control & Water Conservation District

Ms. Luisa Valiela
US EPA, Region 9
Re: Support for SFEI SFB WQIF Proposal – PFAS Sources to Solutions
August 9, 2023

Through the Bay Area Municipal Stormwater Collaborative (BAMSC) engagement in the RMP, we anticipate providing our expert support for the urban runoff-related elements of the project. We appreciate the project's strong communication element, as we plan to use project deliverables to inform our future PFAS management approach and to support our local outreach and education programs.

To support the **PFAS Sources to Solutions** project, CCCWP is pledging at least $245,000 of in-kind matching funds. This in-kind contribution represents the cost of monitoring consultant and laboratory services for water years 2024-2026 urban runoff PFAS monitoring. We will share the results of this monitoring with SFEI as part of this project.

We encourage your full support of this timely proposal. If you have any questions, please do not hesitate to contact me at 923-313-2392 or Rinta.Perkins@pw.cccounty.us.

Sincerely,

Rinta Perkins
Interim Program Manager
Contra Costa Clean Water Program

Memorandum

Date:	August 10, 2023
To:	Amanda Booth, City of San Pablo and Contra Costa Clean Water Program Staff
From:	Kelly Havens, Senior Engineer; Grace Yao, Senior Staff Professional; Sam Hwang, Senior Staff Professional; and Ariel Mosbrucker, Project Professional; Geosyntec Consultants, Inc.
Subject:	CCCWP GSI Cost Study for the Regional Alternative Compliance System Geosyntec Project Number: CWR0758

1 INTRODUCTION AND BACKGROUND

This cost study was developed for the Contra Costa Clean Water Program as part of the development of the Contra Costa County Regional Alterative Compliance (RAC) System. The Contra Costa County RAC System is intended to provide a structure that enables participants to alternatively comply with the San Francisco Bay Region Municipal Regional Stormwater Permit (MRP; Order R2-2022-018). The RAC System will certify Off-Site Green Stormwater Infrastructure (GSI) Projects that generate Equivalent Acres Greened compliance units for sale through the RAC System. Buyers will purchase Equivalent Acres Greened compliance units through the RAC System for their compliance purposes. The compliance purchase amount is dependent on the number and unit cost of Equivalent Acres Greened compliance units purchased. The Equivalent Acres Greened compliance unit cost is expected to be leveled across the RAC System based on the average cost to implement Off-Site GSI Projects.

This cost study was developed to provide an estimate of what the Equivalent Acres Greened compliance unit cost could be for the RAC System, based on projects that have been implemented across California within approximately the past five years. After compiling cost and project information, unit costs per area treated were computed and aggregated for five different GSI categories: Green Streets with Infiltration, Green Streets without Infiltration, Parcel-Based GSI, Regional Projects with Infiltration, and Regional Projects without Infiltration.

2 COST DATA

Cost data was obtained through formal data requests, historical bid results, state and local funding documents, and Geosyntec project data. The data vary in location and level of detail. Reasons for omitting data are described in Section 3.

engineers | scientists | innovators

Table 1. Summary of GSI Projects Received by Source

Source	Total Received	Used	Omitted	Notes
Contra Costa County	2	2	0	Received via e-mail (Contra Costa County, 2023)
City of El Cerrito	1	1	0	Received via e-mail (City of El Cerrito, 2023)
City of Fremont	2	2	0	Received via e-mail (City of Fremont, 2023)
Marin County	3	2	1	Received via e-mail (Marin County, 2023)
City of San Jose	6	6	0	Received via e-mail (City of San Jose, 2023)
San Mateo County	9	9	0	Received via e-mail (San Mateo County, 2023)
City of San Pablo	8	6	2	Received via e-mail (City of San Pablo, 2023)
City of Santa Clara	4	0	4	Received via e-mail (City of Santa Clara, 2023)
Los Angeles County Bid Awards History	8	6	2	Data from project bid awards and per correspondence with LA County staff (Los Angeles County, 2023a-b)
Los Angeles County Safe Clean Water Program (Measure W)	99	75	24	Data as stated in each project's funding application publicly available on the Safe Clean Water Program portal (Los Angeles County, 2023c)
Los Angeles Clean Water Bond Program (Proposition O)	6	2	4	Data as stated in the publicly available Proposition O January 2021 Monthly Report (City of Los Angeles, 2021)
California Proposition 1 Stormwater Grant Budgets and Reports	11	6	5	Data as described in the detailed budgets and funding agreements provided by the CA Water Board (California State Water Resources Control Board, 2023)
San Diego County Green Stormwater Infrastructure Study	21	20	1	Data as compiled in San Diego County's GSI study, performed by Geosyntec
Geosyntec Los Angeles Design Projects	10	10	0	Data as reported in payment applications submitted by Geosyntec to the client at the end of project construction
Totals	**190**	**147**	**43**	

engineers | scientists | innovators

3 ANALYSIS

3.1 Data Preparation

A total of 190 project-specific cost values (construction and/or design) were received. Cost values were screened for use in the analysis, and some data were excluded based on a variety of reasons including:

- Missing project drainage area information

- GSI not sized for full water quality treatment (considered 80% average annual runoff capture; e.g., partial capture/diversion, dry weather flow projects, etc.)

- GSI elements composed a small part of a larger project and costs could not be easily separated

- Improvements to an existing GSI or stormwater control measure

After screening the cost data, a total of 147 project-specific cost values were retained for the analysis.

3.2 Data Categorization and Unit Cost Calculation

GSI project costs and drainage area parameters were compiled in a database and categorized by source (summarized in Table 1 above), GSI category, and primary GSI measure type. The GSI categories used included:

- Green Street: Projects built within the right-of-way, including bulb-outs and roadside planters. These projects include other costs associated with street retrofits.

- Parcel-Based GSI: GSI measures installed within a parcel to treat runoff generated on that parcel.

- Regional Stormwater Control: Large-scale GSI facilities installed to treat runoff from a larger drainage area (5 acres – 2,320 acres).

The GSI measure types identified included:

- Biofiltration: Primarily surface features or facilities that utilize biological processes to treat and filter runoff.

- Subsurface Infiltration: Subsurface facilities that capture, store, and infiltrate runoff into underlying aquifers.

- Storage and Reuse: Primarily non-infiltrating facilities that capture and store runoff for future reuse.

engineers | scientists | innovators

Project costs were escalated to 2023 values by applying inflation factors based on cost year. Inflation factors were determined using the "CPI Inflation Calculator" from the U.S. Bureau of Labor Statistics (U.S. Bureau of Labor Statistics, 2023).

Using the escalated 2023 costs, project unit costs were computed in cost per acre treated ($/acre) for construction costs based on the tributary drainage area. Unit costs were summarized for total treatment area, impervious treatment area, and Equivalent Acres Greened (100% of impervious treatment area + 10% of pervious treatment area).

Log transformation and outlier tests were conducted to identify unit cost outliers to be removed from the final analysis. Outliers were identified for each unit cost method (i.e., total treatment area, impervious treatment area, and Equivalent Acres Greened) based on project construction costs. A detailed summary of the statistical analysis is provided in Attachment A.

Among the 147 projects used for the analysis, 88 design costs were obtained in addition to construction costs. A statistical analysis was also performed to understand the average and the range of design costs as compared to the project's construction cost.

4   RESULTS

A statistical analysis of unit GSI costs was conducted by organizing the data into each of the five GSI categories. Unit construction costs per total treatment area, Equivalent Acres Greened, and impervious treatment area are summarized in Table 2. A detailed summary is provided in Attachment A.

Table 2: Unit Construction Cost ($/acre, in 2023 dollars)

Category	Per Total Treatment Area		Per Equivalent Acres Greened		Per Impervious Treatment Area	
	Median	**Mean**	**Median**	**Mean**	**Median**	**Mean**
Green Street with Infiltration	$50,000	$88,000	$73,000	$127,000	$78,000	$137,000
Green Street without Infiltration	$322,000	$558,000	$397,000	$799,000	$419,000	$841,000
Parcel-Based GSI	$268,000	$344,000	$447,000	$529,000	$460,000	$612,000
Regional with Infiltration	$38,000	$52,000	$70,000	$90,000	$74,000	$92,000
Regional without Infiltration	$61,000	$74,000	$104,000	$127,000	$112,000	$138,000

Detailed statistics for Equivalent Acres Greened unit construction costs are provided in Table 3. A box plot showing the visual data spread of construction cost per Equivalent Acres Greened is provided in Attachment A.

engineers | scientists | innovators

Table 3: Statistics of Unit Construction Cost Per Equivalent Acres Greened ($/acre, in 2023 dollars)

Category	Mean	Minimum	1st Quartile	Median	3rd Quartile	Maximum
Green Street with Infiltration	$127,000	$11,000	$33,000	$73,000	$173,000	$421,000
Green Street without Infiltration	$799,000	$54,000	$189,000	$397,000	$941,000	$8,158,000
Parcel-Based GSI	$529,000	$152,000	$335,000	$447,000	$561,000	$1,137,000
Regional with Infiltration	$90,000	$18,000	$46,000	$70,000	$102,000	$385,000
Regional without Infiltration	$127,000	$31,000	$65,000	$104,000	$159,000	$308,000

The statistics demonstrate that mean unit cost values can be heavily skewed by very expensive projects, especially those with very small drainage areas. This is demonstrated by the relatively smaller difference between the median and mean unit costs for regional projects, which typically treat larger drainage areas. This is also clearly shown in Figure 1, which displays the unit cost per Equivalent Acre Greened as a function of project drainage area (in Equivalent Acres Greened). A figure displaying unit cost as a function of total drainage area is provided in Attachment A as Figure A-3.

Figure 1 shows that construction costs for Green Streets Projects without Infiltration with a drainage area of less than 1 Equivalent Acre Greened are consistently over $1,000,000 per Equivalent Acre Greened. Additionally, construction costs for all GSI projects with a drainage area less than 10 Equivalent Acres Greened are more than $100,000 per Equivalent Acre Greened. Conversely, construction costs for more than 80% of GSI projects with a drainage area greater than 100 Equivalent Acres Greened cost less than $100,000 per Equivalent Acre Greened. The data also clearly demonstrate that projects that infiltrate to underlying soils are less expensive per Equivalent Acre Greened than those that do not infiltrate. Similar trends are seen when comparing unit cost to impervious drainage area and total drainage area, see Figure 2 below and Figure A-3 in Attachment A.
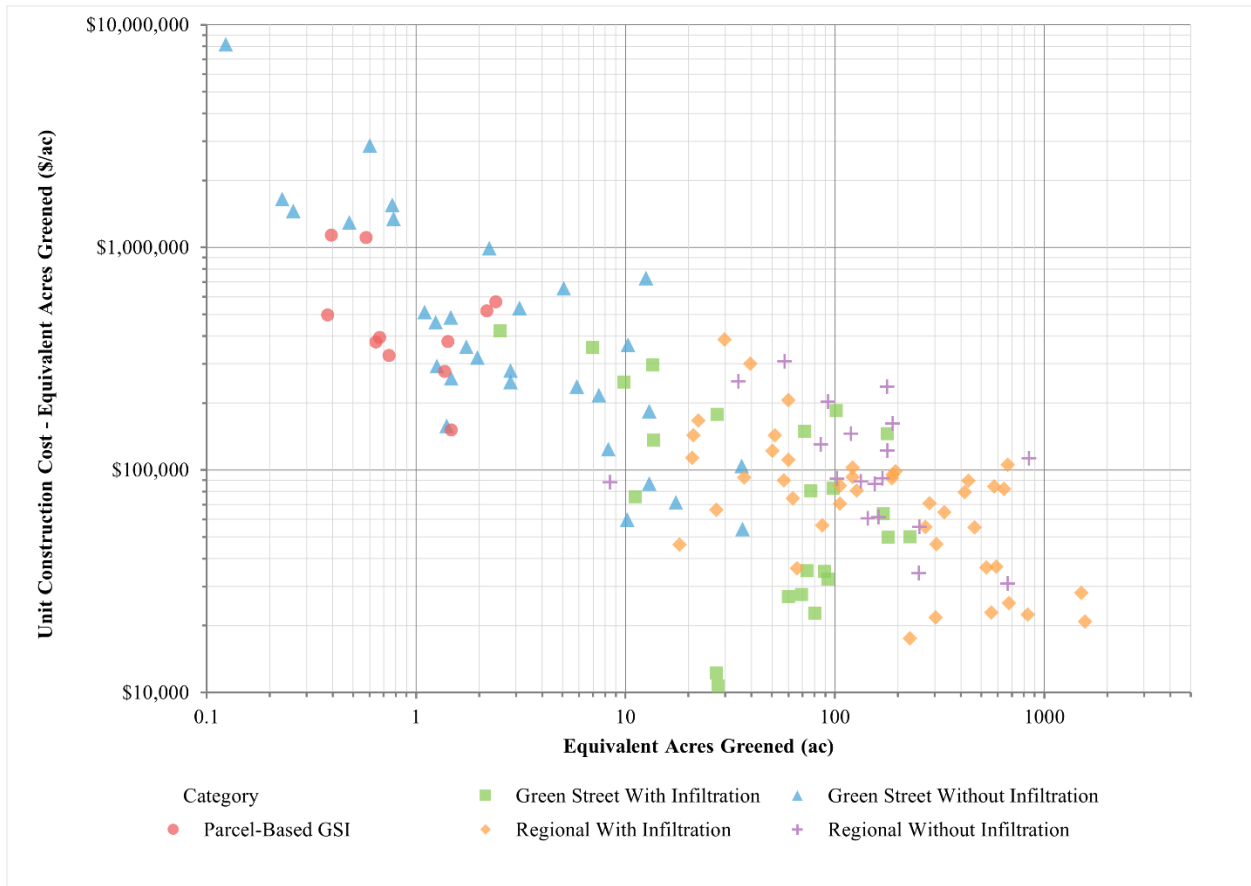
engineers | scientists | innovators

Figure 1: Unit Construction Cost per Equivalent Acre Greened based on Equivalent Acres Greened (acres)
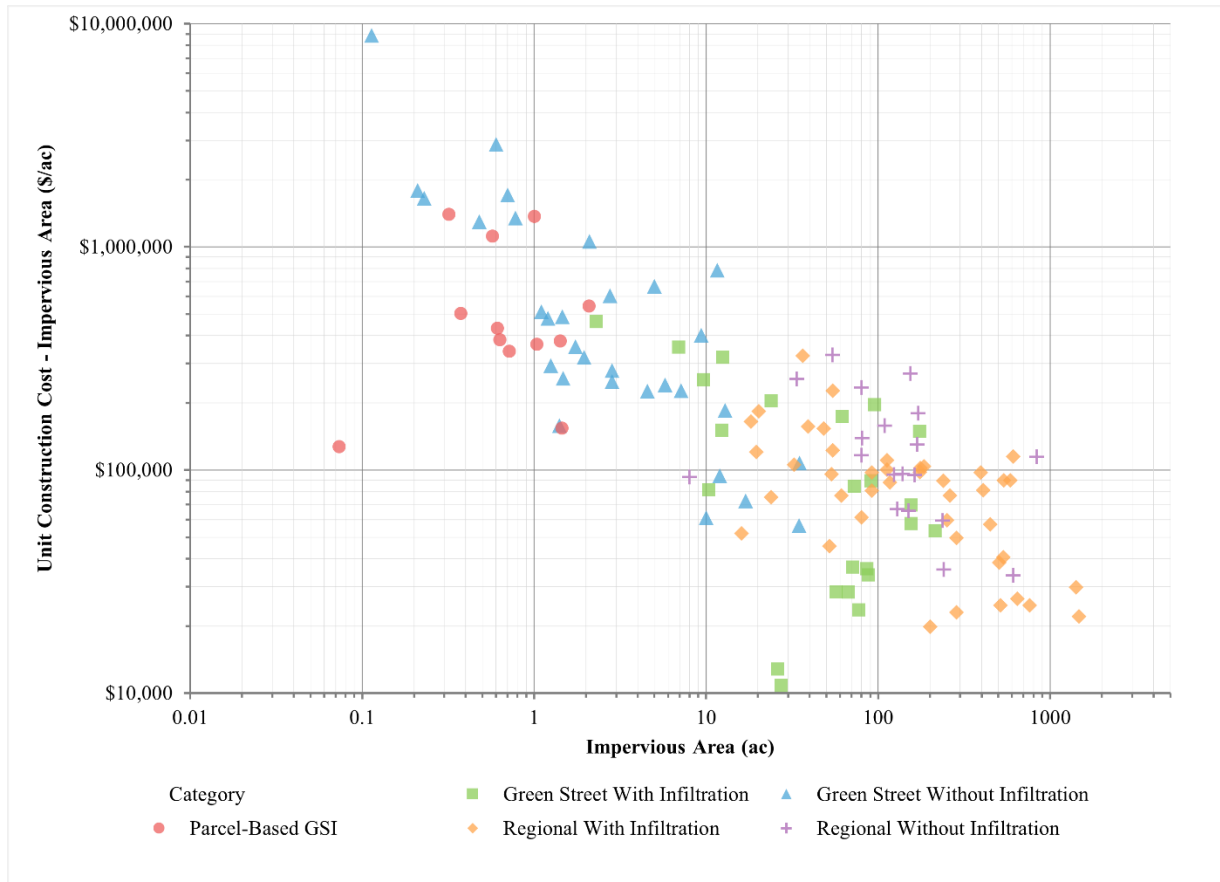
Figure 2: Unit Construction Cost per Impervious Drainage Area based on Impervious Drainage Area (acres)

In the San Francisco Bay Area, where there are few opportunities to infiltrate, GSI project cost efficiencies should be achieved through larger drainage areas. If a potential project drainage area is less than 1 acre, other locations downstream that could treat larger areas should be considered given the very high unit cost of these projects. GSI projects with drainage areas less than 10 acres should also be carefully considered and project owners should be aware that these will be expensive projects per acre treated.

Design costs were provided for 88 of 147 project cost values. A test of normality and outlier removal was completed to prepare the data set for analysis of design costs as a percent of construction costs. Across all GSI categories, the design costs range from one percent to sixty-one percent of the project's construction costs. The median design costs were calculated as 15% of construction costs and mean design cost were calculated as 18% of construction costs. The mean and median were calculated following the same approach for the unit construction costs and explained in Attachment A.

engineers | scientists | innovators

5 POTENTIAL EQUIVALENT ACRE GREEN UNIT COST

The cost to implement non-infiltrating Off-Site GSI Projects was estimated using the median construction costs plus the median design cost percentage, as summarized previously. Based on these values, The Equivalent Acre Greened compliance unit base price is expected to be as follows:

- For Small projects (generally treating less than 10 Equivalent Acres Greened):

    - Green Streets: Approximately $457,000 per Equivalent Acre Greened

    - Parcel-Based Projects: Approximately $514,000 per Equivalent Acre Greened

- For Regional Projects (generally greater than 20 Equivalent Acres Greened):

    - Approximately $120,000[1] per Equivalent Acre Greened

6 REFERENCES

California State Water Resources Control Board. 2023. Email: "Detailed Budget." From Jennifer Toney. 15 March.

City of El Cerrito. 2023. Email: "Stormwater Treatment Cost Study – El Cerrito – Data Request." From Christina Leard. 13 February.

City of Fremont. 2023. Email: "RE: Stormwater Treatment Cost Study – Data Request – Extended to February 24." From Daniel Matlock. 15 March.

City of Los Angeles. 2021. *January 2021 Monthly Report*. City of Los Angeles, Bureau of Engineering, Clean Water Division.

City of San Jose. 2023. Email: "GSI cost information from San Jose." From Vishakha Atre. 6 March.

City of San Pablo. 2023. Email: "C3 Cost Study." From Amanda Booth. 7 February.

City of Santa Clara. 2023. Email: "FW: Stormwater Treatment Cost Study – Data Request – due February 24." From Vishakha Atre. 24 February.

Contra Costa County. 2023. Email: "RE: Stormwater Treatment Cost Study – Data Request response." From John Steere. 27 February.

---

[1] Based on the data, if **all** regional projects (without infiltration) treat **less than** 100 Equivalent Acres Greened, the unit cost would be higher – approximately $233,000 based on the median cost for drainage areas less than 100 Equivalent Acres Greened plus the median design percentage.

engineers | scientists | innovators

Los Angeles County. 2023a. Email: "RE: Green Infrastructure (GSI) Cost Study." From
Antonino Monterrosa. 7 March.

Los Angeles County. 2023b. *Bid Results.* Accessed March 2023.
http://dpw.lacounty.gov/general/bids/

Los Angeles County. 2023c. *Safe Clean Water Portal.* Accessed March 2023.
https://portal.safecleanwaterla.org/scw-reporting/map

Marin County. 2023. Email: "FW: Stormwater Treatment Cost Study – Data Request." From
Robert Carson. 3 February.

San Mateo County. 2023. Email: "RE: Stormwater Treatment Cost Study – Data Request." From
Reid Bogert. 3 February.

U.S. Bureau of Labor Statistics. 2023. *CPI Inflation Calculator.* Accessed March 2023.
https://www.bls.gov/data/inflation_calculator.htm

* * * * *

engineers | scientists | innovators

ATTACHMENT A: STATISTICAL ANALYSIS

The data for each unit cost method (i.e., total treatment area, impervious treatment area, and Equivalent Acres Greened) were analyzed to test if the data were normally distributed. After a visual assessment that the data were not normally distributed, the data were transformed using the natural logarithm of each data point to verify the lognormal distribution of the datasets.

The log-transformed data for each GSI Category analyzed were assessed for normality (i.e., confirming that the data is lognormally distributed) using the Shapiro-Wilk test, the results of which are shown in Table A- 1. A p-value below the alpha value of 0.05 indicates there is evidence the sample did not come from a normally distributed population (i.e., for this log-transformed dataset, the sample did not come from a lognormally distributed population). Figure A-1 below provides a visual illustration of the normality test results on the natural log unit construction costs per Equivalent Acres Greened.

Table A- 1: Shapiro-Wilk Test Results by GSI Measure Types and Unit Costs Category

Category	Per Total Treatment Area		Per Equivalent Acres Greened		Per Impervious Treatment Area	
	W^1	p	W^1	p	W^1	p
Green Street with Infiltration	0.93	0.12	0.96	0.37	0.96	0.45
Green Street without Infiltration	0.98	0.83	0.98	0.75	0.98	0.68
Parcel-Based GSI	0.92	0.23	0.95	0.58	0.92	0.29
Regional with Infiltration	0.98	0.53	0.96	0.14	0.96	0.12
Regional without Infiltration	0.94	0.14	0.92	0.08	0.92	0.08

[1] The Test Statistic, denoted as W, measures the discrepancy between the observed data and what would be expected under a normal distribution.

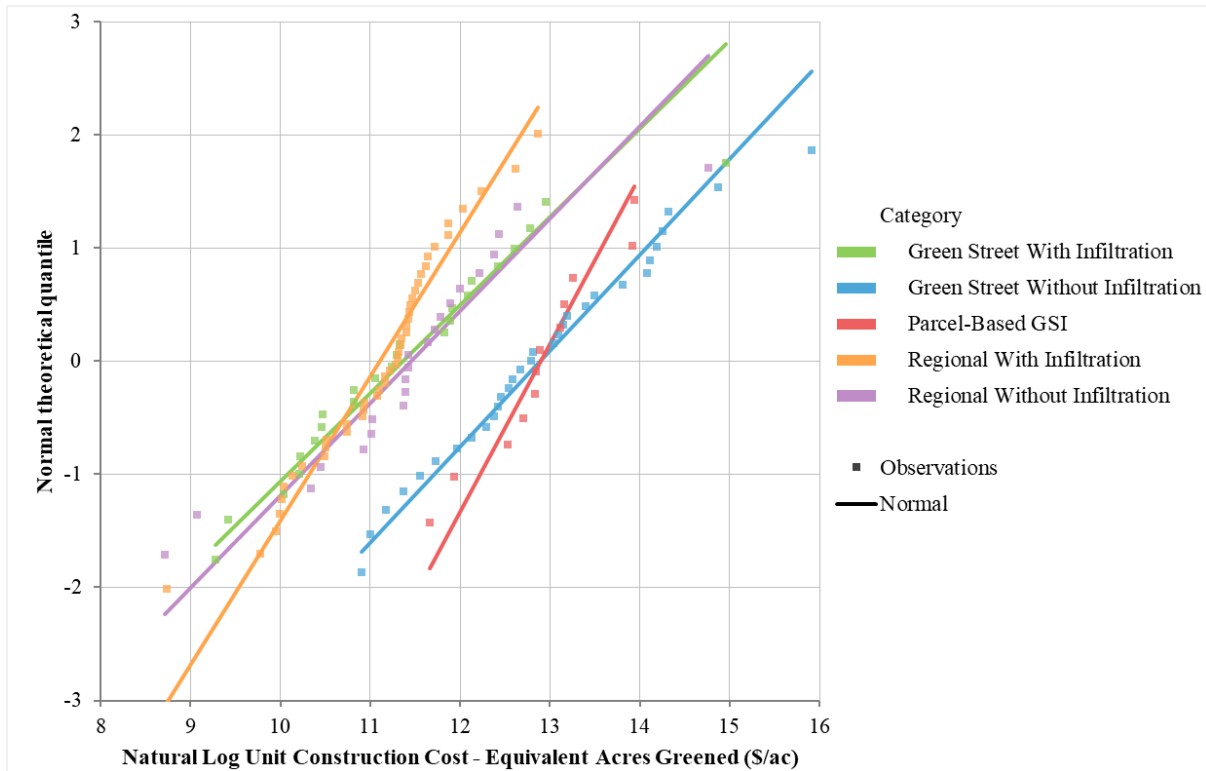The closer the value of W is to 1, the more the data resemble a normal distribution.

.

engineers | scientists | innovators

Figure A - 1: Normality Test Plots for Unit Construction Costs Per Equivalent Acres Greened

The log-transformed unit cost data were then analyzed for outliers prior to calculating the median and average values. Outliers were defined as any data more than 1.5 interquartile ranges (IQRs) below the first quartile or above the third quartile. Outliers were removed prior to calculating the average and median unit costs. The number of total samples, outliers removed, and number of samples used for the statistical analyses are summarized in Table A- 2 and Table A- 3. Note that due to limited information on the impervious treatment area, the number of samples for unit costs per Equivalent Acres Greened and per impervious treatment area are smaller than the number per total treatment area.

engineers | scientists | innovators

Table A- 2: Summary of Total Number of Samples

Category	Number of Samples Prior to Outlier Removal			Number of Outliers Removed		
	Per Total Treatment Area	Per Equivalent Acres Greened	Per Impervious Treatment Area	Per Total Treatment Area	Per Equivalent Acres Greened	Per Impervious Treatment Area
Green Street with Infiltration	24	24	24	1	1	1
Green Street without Infiltration	36	31	31	2	0	0
Parcel-Based GSI	14	12	12	0	1	0
Regional with Infiltration	48	44	44	0	1	2
Regional without Infiltration	25	22	22	4	3	3
Grand Total	**147**	**133**	**133**	**7**	**6**	**6**

Table A- 3: Summary of Number of Samples After Outlier Removal

Category	Number of Samples Remaining		
	Per Total Treatment Area	Per Equivalent Acres Greened	Per Impervious Treatment Area
Green Street with Infiltration	23	23	23
Green Street without Infiltration	34	31	31
Parcel-Based GSI	14	11	12
Regional with Infiltration	48	43	42
Regional without Infiltration	21	19	19
Grand Total	**140**	**127**	**127**

After removing the outliers, the mean and median unit costs were developed by taking the arithmetic mean of the natural log-transformed distributions using the natural logs of the mean and the standard deviation as shown in the equation below (from Geosyntec and Wright Water Engineers, 2009):

$$Mean\ Unit\ Costs = \exp(\mu_{ln} + 0.5\sigma_{ln}^2)$$

$$Median\ Unit\ Costs = \exp(\mu_{ln})$$

engineers | scientists | innovators

Where:

exp = e to the power of

μ_{ln} = the mean of the natural log-transformed distribution

σ_{ln} = the standard deviation of the natural log-transformed distribution

The mean and median unit costs are summarized in Table A- 4 and Figure A - 1.

Table A- 4: Mean and Median Unit Construction Costs Summary

Category	Per Total Treatment Area		Per Equivalent Acres Greened		Per Impervious Treatment Area	
	Median	Mean	Median	Mean	Median	Mean
Green Street with Infiltration	$50,000	$88,000	$73,000	$127,000	$78,000	$137,000
Green Street without Infiltration	$322,000	$558,000	$397,000	$799,000	$419,000	$841,000
Parcel-Based GSI	$268,000	$344,000	$447,000	$529,000	$460,000	$612,000
Regional with Infiltration	$38,000	$52,000	$70,000	$90,000	$74,000	$92,000
Regional without Infiltration	$61,000	$74,000	$104,000	$127,000	$112,000	$138,000

Figure A - 2: Median Unit Construction Cost by GSI Category

engineers | scientists | innovators

Plots of Equivalent Acre Greened versus unit construction cost per Equivalent Acre Greened and Impervious Area versus unit construction cost per Impervious Area treated are shown in the main memorandum. The results demonstrate that there is a clear trend for GSI facilities that the smaller the drainage area, the more expensive the facility. A correlation test performed for the Equivalent Acre Greened versus unit construction cost per Equivalent Acre Greened resulted in the Spearman's ρ value of – 0.76, indicating a strong monotonic decreasing relationship[2].

A plot of total drainage area versus unit construction cost per total treatment area for each of the GSI categories is provided as Figure A-3.
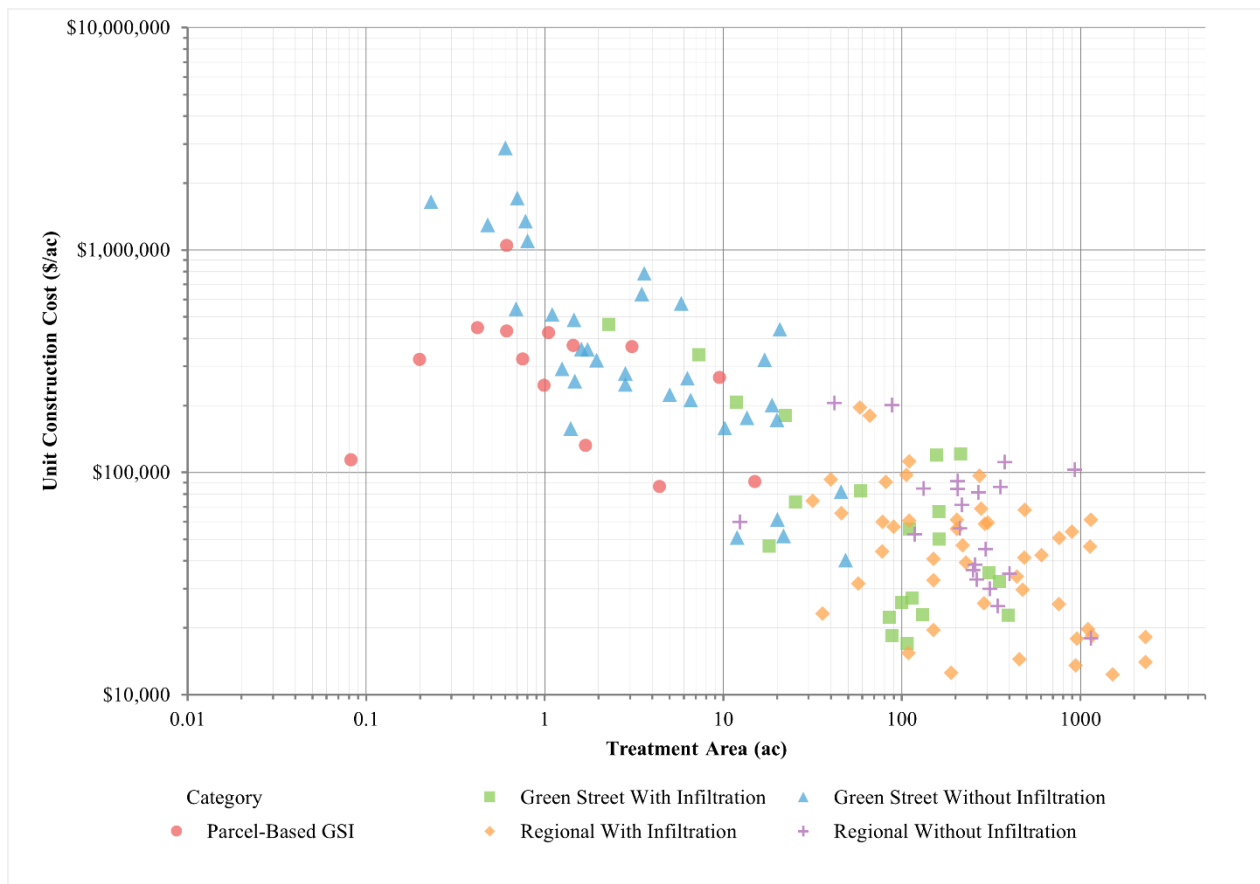

Figure A-3: Total Project Drainage Area (ac) versus Unit Construction Costs

---

[2] Spearman's rank correlation coefficient, often denoted as "ρ", is a statistical measure that quantifies the strength and direction of a monotonic relationship between two variables, in this case, the Equivalent Acres Greened and the Unit Construction Costs. Monotonic refers to the relationship between two variables where one variable consistently increases or decreases as the other increases. Spearman's ρ ranges from -1 to 1, where the larger the absolute value of ρ indicates a stronger relationship. A positive ρ indicates that as one variable increases, the other tends to increase. Whereas a negative ρ indicates that as one variable increases, the other tends to decrease.

engineers | scientists | innovators

Summary statistics for each GSI treatment category for the Equivalent Acres Greened unit costs are provided in Table A- 5 and the box plot provided as Figure A-4.

Table A- 5: Statistics of Unit Construction Cost Per Equivalent Acres Greened ($/acre, in 2023 dollars)

Category	Mean	Minimum	1st Quartile	Median	3rd Quartile	Maximum
Green Street with Infiltration	$127,000	$11,000	$33,000	$73,000	$173,000	$421,000
Green Street without Infiltration	$799,000	$54,000	$189,000	$397,000	$941,000	$8,158,000
Parcel-Based GSI	$529,000	$152,000	$335,000	$447,000	$561,000	$1,137,000
Regional with Infiltration	$90,000	$18,000	$46,000	$70,000	$102,000	$385,000
Regional without Infiltration	$127,000	$31,000	$65,000	$104,000	$159,000	$308,000

In the box plot, medians are shown as bold black lines, the 1st and 3rd quartiles as the edges of the boxes, and minimums/maximums as end caps.

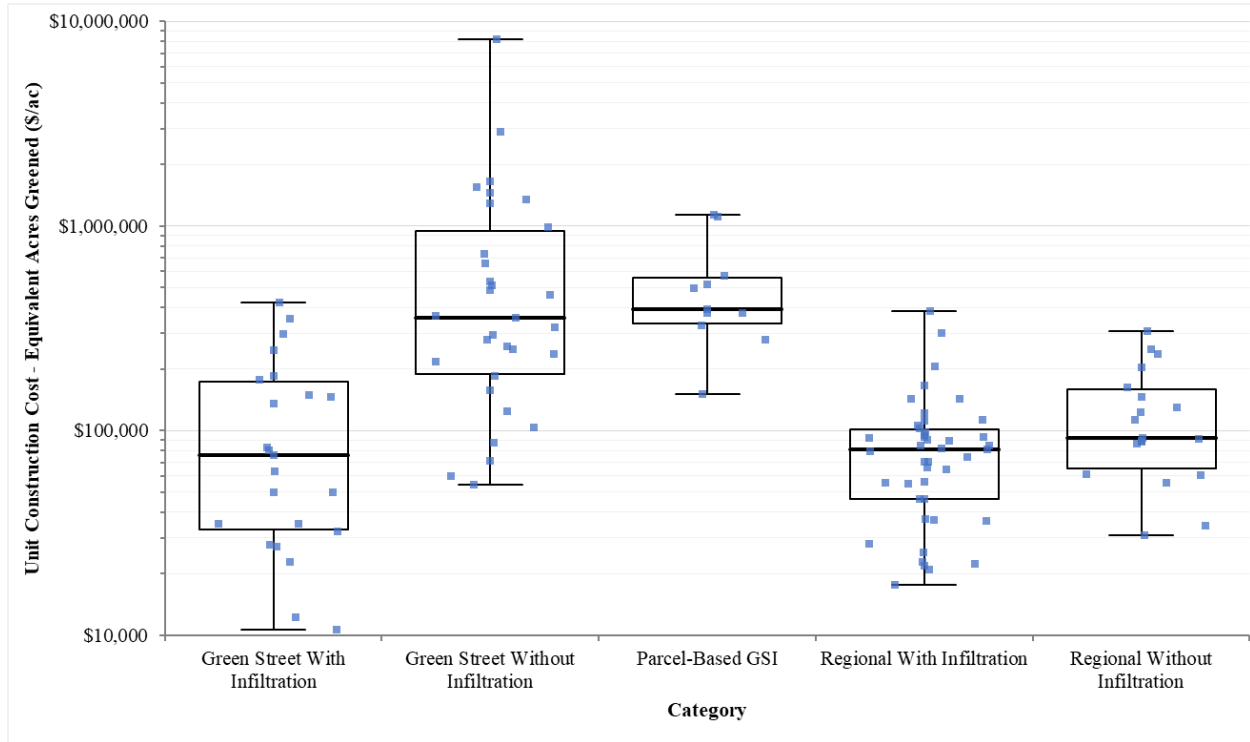engineers | scientists | innovators

Figure A - 4: Box plot of Unit Construction cost per Equivalent Acre Greened by GSI Category

Design costs were calculated as a percentage of construction costs for all data combined. A visual inspection suggested the lognormal distribution of the percent design cost. Hence, a log transformation was performed to the data along with outlier removal[3]. A Shapiro-Wilk test was then performed to confirm the log-normality of the dataset ($p = 0.92$, $W = 0.99$). Using the same equations mentioned above for the unit construction costs calculations, the stats for the percent design costs were estimated. A statistical summary of the design cost is provided in Table A-6.

Table A- 6: Design Cost as Percentage of Construction Cost

Number of Data	Project Design Cost (% of Project Construction Cost)					
	Mean	Minimum	1st Quartile	Median	3rd Quartile	Maximum
86	18.1 %	2.9 %	10.0 %	14.9 %	23.3 %	61.2 %

* * * * *

---

[3] A total of two outliers were removed.

engineers | scientists | innovators