CONTRA COSTA CLEAN WATER PROGRAM

**MANAGEMENT COMMITTEE MEETING AGENDA**
**Wednesday, February 15, 2023**
**1:30 PM to 3:30 PM**
Join Zoom meeting:
https://us06web.zoom.us/j/87930698822?pwd=b2lRT2ptV1VRcXFYR3d0U2xCUDBuZz09

Meeting ID: 879 3069 8822 Passcode: 982003 Dial: +1 669 900 6833 US (San Jose)
One tap mobile: +16699006833,,87930698822#,,,,*982003# 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 |
| City of Brentwood | Meghan Oliveira/ Brant Wilson/ Jigar Shah |
| City of Clayton | Larry Theis/ Jason Chen/ Ron Bernal |
| City of Concord | Bruce Davis **(Vice-Chair)**/ Carlton Thompson |
| Contra Costa County | Michele Mancuso/ Tim Jensen/ Allison Knapp |
| CCC Flood Control & Water Conservation District | Tim Jensen/ Michele Mancuso/ Allison Knapp |
| Town of Danville | Bob Russell/ Steve Jones/ Mark Rusch |
| City of El Cerrito | Stephen Prée/ Will Provost/ Yvetteh Ortiz/ Christina Leard |
| City of Hercules | Mike Roberts/Jeff Brown/Jose Pacheco/Nai Saelee/F. Kennedy |
| City of Lafayette | Matt Luttropp/ Tim Clark |
| City of Martinez | Khalil Yowakim/ Frank Kennedy |
| Town of Moraga | Shawn Knapp/ Mark Summers/ Bret Swain |
| City of Oakley | Billilee Saengcalern/ Frank Kennedy/ Andrew Kennedy |
| City of Orinda | Scott Christie/ Kevin McCourt/ Frank Kennedy |
| City of Pinole | Misha Kaur |
| City of Pittsburg | Jolan Longway/ Richard Abono |
| City of Pleasant Hill | Ryan Cook/Ananthan Kanagasundaram/Frank Kennedy **(Chair)** |
| City of Richmond | Mary Phelps |
| City of San Pablo | Amanda Booth/ Karineh Samkian/ Sarah Kolarik/ Jill Mercurio |
| City of San Ramon | Kerry Parker/ Robin Bartlett/ Maria Fierner |
| City of Walnut Creek | Lucile Paquette/ Neil Mock/ Steve Waymire |

| **PROGRAM STAFF AND CONSULTANTS** | |
|---|---|
| Karin Graves, Acting Program Manager | Erin Lennon, Watershed Planner |
| Andrea Bullock, Administrative Analyst | Lisa Welsh, Consultant |
| Yvana Hrovat, Consultant | Mitch Avalon, Consultant |
| Liz Yin, Consultant | Hilary Pierce, Consultant |
| Lisa Austin, Consultant | Duanne Hernaez, Clerical |

**Contra Costa Clean Water Program**
**MANAGEMENT COMMITTEE MEETING AGENDA**
**Wednesday, February 15, 2023**

# AGENDA

**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 not 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) January 18, 2023 Management Committee Meeting Summary

**B. ACCEPT** the following subcommittee meeting summaries into the Management Committee record: (Chair)
1) Administrative Committee
   - January 3, 2023
2) PIP Committee
   - January 3, 2023
3) Municipal Operations Committee
   - December 20, 2022
4) Development Committee
   - December 7, 2022

**Presentations:** **1:40**

A. IMP Calculator Update (E. Lennon/Y. Hrovat)
   a. See staff report for background information

B. Status report on the Alternative Compliance System (K. Graves/A. Booth/K. Havens)

C. Second Draft of the FY 23/24 budget (K. Graves/A. Bullock)
   a. See staff report for background information

D. Draft Trash Full Capture Device Impracticability Report (E. Yin)
   a. See staff report for background information

E. Draft Comment Letter on Baykeeper MRP 3.0 Petition (K. Graves)
   a. See staff report for background information

F. Draft Stormwater Funding Options Report Phase 2 Outline (M. Avalon)

a. See staff report for background information

**Actions:** **3:00**

A. CONDITIONALLY APPROVE the IMP Calculator Update at $41,000
B. APPROVE the Final Draft Annual Report Forms
    a. See staff report for background information

**Reports:** **3:10**

A. Quarterly status report on grant opportunities (S. Mathews/Z. Cholico)

**Updates:** **3:20**

A. Unfunded mandate claim and Time Schedule Order (K. Graves)
B. Draft UCMR and associated submittals (L. Welsh)
    a. See staff report for background information
C. Draft Old Industrial Control Measure Implementation Plan (L. Welsh)
    a. See staff report for background information
D. Personnel Update (K. Graves)
E. BAMSC Steering Committee meeting (K. Graves)
    a. Status of regional projects and working groups
    b. Workgroup meeting summaries
F. AGOL Work Group (E. Yin)

**Information:** **3:45**

A. SUA ERU Certifications Reminder (A. Bullock)

**Old/New Business:** **3:50**

**Adjournment:** Approximately 4:00 p.m.

**Next Management Committee Meeting:** Wednesday, March 15, 2023, 1:30 PM

**Attachments**

*Consent Items*

1. *Management Committee Meeting Summary January 18, 2023*
2. *Administrative Committee Meeting Summary January 3, 2023*
3. *PIP Committee Meeting Summary January 3, 2023*
4. *Municipal Operations Committee Meeting Summary December 20, 2022*
5. *Development Committee Meeting Summary December 7, 2022*

*Presentation Items*

6. *Staff report on FY 23/24 Second Draft Budget*
7. *FY 23/24 Second Draft Budget*
8. *Staff Report and Draft Trash Full Capture Device Impracticability Report, linked to Groupsite*
9. *Staff Report and Draft Comment Letter on Baykeeper MRP 3.0 Petition*
10. *Staff Report and Draft Stormwater Funding Options Report Phase 2 Outline*

11. *Staff Report on IMP Calculator Update*

*Actions*

12. *Staff Report and Draft Annual Report Forms*

*Reports*

13. *Grant tracking spreadsheet, linked to Groupsite*

*Updates*

14. *Staff Report on draft UCMR and associated submittals*
15. *Staff Report on draft Old Industrial Control Measure Implementation Plan*

| **UPCOMING CCCWP MEETINGS**<br>All meetings **will not** be held at 255 Glacier Drive, Martinez, CA 94553, but will be held virtually | |
|---|---|
| **February 21, 2023**<br>**3rd Tuesday** | Municipal Operations Committee Meeting, **10 a.m. – 12 noon** |
| **February 22, 2023**<br>**4th Wednesday** | Development Committee Meeting, **1:30 p.m. – 3:30 p.m.** |
| **March 7, 2023**<br>**1st Tuesday** | Administrative and PIP Committee Meeting **9 a.m. – 12:00 noon** |
| **March 13, 2023**<br>**2nd Monday** | Monitoring Committee Meeting, **10 a.m. – 12 noon** |
| **March 15, 2023**<br>**3rd Wednesday** | Management Committee Meeting, **1:30 p.m. – 3:30 p.m.** |
| **BAMSC (BASMAA) SUBCOMMITTEE/ MRP 3.0 MEETINGS**<br>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) |

CONTRA COSTA CLEAN WATER PROGRAM

# MANAGEMENT COMMITTEE MEETING MINUTES

## 1-18-2023

**Attendance:**

| MUNICIPALITY | ATTENDED | ABSENT |
|---|---|---|
| City of Antioch | Phil Hoffmeister | |
| City of Brentwood | Brant Wilson | Meghan Oliveira |
| City of Clayton | Reina Schwartz | |
| City of Concord | Bruce Davis **(Vice Chair)** | |
| Town of Danville | Bob Russell | |
| City of El Cerrito | Christina Leard | |
| City of Hercules | Jose Pacheco | |
| City of Lafayette | Matt Luttropp, Tim Clark | |
| City of Martinez | Frank Kennedy | |
| Town of Moraga | Mark Summers, Bret swain | |
| City of Oakley | Frank Kennedy | |
| City of Orinda | Frank Kennedy | |
| City of Pinole | | Misha Kaur |
| City of Pittsburg | Jolan Longway | |
| City of Pleasant Hill | Frank Kennedy (**Chair**) | |
| 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:** Erin Lennon, Andrea Bullock, Karin Graves, Duanne Hernaez

**Program Consultants:** Mitch Avalon (Consultant), Liz Yin (LWA/CCCWP), Hilary Pierce (LWA/CCCWP), Lisa Welsh (Geosyntec/CCCWP), Yvana Hrovat (Haley & Aldrich)

**Members of the Public/Others/Guests**: Jay Davis (San Francisco Estuary Institute)

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

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

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

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**Roll call was taken and the meeting was convened by the Chair at 1:41 p.m.**

1. **Announcements:** K. Graves notified the committee that the new clerical Duanne Hernaez started last week. R. Schwartz (Clayton) announced this was her last meeting representing Clayton—Larry Theis (City Engineer) and Ron Bernal (Interim City Manager) will split the duties going forward.

2. **Consent Calendar:** R. Schwartz (Clayton) motioned to approve the Management Committee meeting minutes as submitted, with no changes; B. Davis (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.

   Kerry Parker (San Ramon) motioned to accept the Subcommittee meeting minutes into the record; Bob Russell (Danville) seconded. The Subcommittee meeting minutes were accepted into the record.

3. **Presentations:**

   - **Status report on the Regional Monitoring Plan (Jay Davis, SFEI:** Jay Davis provided a brief background on the Regional Monitoring Program for Water Quality in the San Francisco Bay (RMP). A report called "The Pulse of the Bay" is the main way that the RMP provides information to the public about water quality monitoring. The theme of this year's "Pulse" is 50 years of the Clean Water Act (CWA). Jay shared photos and outlined the history of and results from the implementation of the CWA. Trash and bacteria were two contaminants that were addressed through the implementation of the CWA. Prior to the CWA, untreated sewage flowed into the Bay, but the Act provided funds for treatment plant updates that improved water quality in the Bay. Trash is still a contaminant of concern and there are established goals in place to remove trash through trash capture device and true source control. Jay also summarized data on long term trends of key water quality parameters. Improved DO in the Bay and reduction of PBDEs in cormorant eggs are two success stories from the CWA. Remaining challenges include mercury in striped bass and PCBs in shiner surfperch. Future challenges to be address include stormwater loads, contaminated sites, infrastructure, nutrients and algal blooms, emerging contaminants, and climate change.
     - Tim Clark (Lafayette) asked about the lapse in data collection concerning DO levels in the water between 1965-1970 and 1980-1990. Jay explained there was a change in agencies collecting data.
     - Michele Mancuso (CCC) asked if there would be a report card for the Bay. Davis responded that there aren't current plans to update the water quality of the State of the Estuary report card since water quality indicators aren't changing very rapidly.

- Lucile Paquette (Walnut Creek) asked about the monitoring of CECs. Jay responded that they are currently having meetings about this issue.

- **First Draft of the FY 23/24 budget (K. Graves/A. Bullock):** Karin reviewed the first draft budget for 2023-2024 and provided highlights:
  - This is the second year using a new format where the budget is organized by permit provision.
  - It is expected that the Program Manager position will be filled by FY 23/24, and there will be one vacant watershed planner position resulting in the need for continued staff augmentation.
  - There is a budget increase for general consultant services due to appropriating $200,000 to begin implementing the stormwater financing plan, $100,000 for the AGOL upgrades, and an increase in the alternative compliance set up.
  - GIS/AGOL is now broken up into 3 line items. The AGOL workgroup identified major upgrades needed, accounting for an increase to the overall AGOL budget. Additional line items include general operating cost of GIS/AGOL, as well as a line item to fund continued staff support for AGOL.
  - Alternative compliance administrative set up has been consolidated into one line item in the budget. The CCCWP is receiving a $1 million grant award that will reduce this line item significantly.
  - New Development/Redevelopment projects are being worked on during the current fiscal year. The amounts budgeted for FY23/24 are potential carryover from this year and are not additional costs associated with the line items.
  - The PIP line items increased slightly due to the desire to increase outreach to school age children and update the website to make it easier to edit and view the site on mobile devices.
  - Water quality monitoring budget line items have remained similar to last year.
  - Staff recommends a $200,000 placeholder to begin implementing the "Old Industrial Area PCBs Treatment Project."
  - Overall, the program is about $980,000 over the $3.5 million threshold, similar to last fiscal year.

Discussion:
Lucile Paquette (Walnut Creek) asked if staff could review the budget to identify any items that were not explicitly required by the permit, and if there are any items where the level of effort could be reduced. She suggested this was a policy question for the Committee to discuss and decide the level of effort from the program, which may include only required efforts for compliance or to determine criteria for when the program would fund additional efforts.

Michele Mancuso (CCC) commented that PIP does not have enough committee members, adding that the Administrative Committee supplements membership and

provides additional oversight. She noted her appreciation of the thoughtful review of the PIP budget that had taken place so far and that the budget increase seen this year represents deferred maintenance from previous PIP budgets.

Bruce Davis (Concord), asked about the amount available in reserves. Karin Graves responded that we have added $2+ million in the past 2 years, and Andrea Bullock shared that about $5.482 mill is currently in reserves. Mitch Avalon responded that $1.2million of that amount is not usually counted as part of the reserve fund.

Bruce asked about carryover for this year and how much will be transferred to next year. Karin responded that unspent money will be placed back in reserves and that any carryover must be budgeted for in the next fiscal year.

Amanda Booth (San Pablo) suggested that the raising the $3.5million cap should still be discussed in future years.

Frank Kennedy (Chair)suggested the next draft of the budget be color coded to identify items not required by the permit or for which level of effort could be reduced. Amanda Booth (San Pablo) suggested that each subcommittee will look at their own budget and identify potential items for discussion at the next Management Committee meeting.

- **Hydromodification Management and the Bay Area Hydrology Model (E. Lennon/Y. Hrovat):** Yvana presented updates that are being made to the Bay Area Hydrology Model (BAHM). Permit provision C.3.g requires hydromodification management for certain projects that create an acre or more of new impervious area and previously it was decided to use the BAHM to meet the hydromodification standard. In order to move forward with the Contra Costa-specific BAHM updates, the Committee would need to approve the conditional line item (row 32) from the FY 22-23 budget. Yvana showed an overview of the costs associated with the current tasks, which will be completed in June 2023 if work can begin in February 2023. A full breakdown of the costs was included in the associated staff report, but costs are expected to total around $97,000.
    - Bruce Davis had a question about the applicability maps and how they will be effected when BAHM goes live. Yvana responded that BAHM will not be used to determine applicability, but is a model used to design hydromodification facilities if they are needed and/or triggered. The hydromodification applicability maps will be included as part of a separate outreach effort to inform developers of updates to the map and will be included in the updates to the C.3. guidebook and in the training.
    -

4. **Actions:**

- **APPROVE the final scope and budget for the Hydromodification Management modeling budget item at $100,000 (conditionally approved at $100,000):** Amanda Booth (San Pablo) moved to approve the final scope and budget for the Hydromodification Management modeling budget item at $100,000; Michele Mancuso (CCC) seconded. There were no objections or abstentions. The Committee APROVED the Hydromodification Management budget.

5. **Reports:**

   - **Annual Report Forms (E. Yin)**: Liz provided an update on the annual report forms. Staff received the final draft of the annual report forms, which were updated based on feedback received on the first drafts. Staff are reviewing the final draft forms and the forms have been uploaded to Groupsite. Liz noted there were significant changes to section C.10. Comments are due by next Wednesday (January 25), so if Permittees would like to review and provide comments on the revised forms, they should work with Liz directly and email any redlines or comments to her by January 25. The final annual report forms will be reviewed and approved at the February Management Committee meeting.

6. **Updates:**

   **Draft Cost Reporting Framework and Methodology (H. Pierce):** Hilary reported that the cost reporting framework and guidance manual were sent out last week via Groupsite. A BAMSC regional cost reporting workgroup was formed, that produced a proposed approach to the cost reporting framework, a draft framework with worksheets for each MRP provision, and a draft guidance manual. The first draft was sent by the workgroup to Countywide programs on January 10, and comments are due to the BAMSC workgroup on February 8.Three documents have been released and were shown to the Committee: a guidance manual (Word document), the framework (Excel workbook), and a framework comment form (Word document for provided feedback on the Excel file). The framework comment form and edited guidance manual are due to Hilary on February 2. Comments will be finalized during the PIP Committee on February 7 and Management Committee members are invited to attend.
   Amanda Booth encouraged rest of Committee to review the cost reporting framework and guidance manual and stated that although the documents may be overwhelming, it's important for each agency to assess if they can be used since they will need to fill them out in the future and accurately report costs associated with each item.

   Hilary offered to set up an additional meeting to review the materials prior to the February 7 PIP Committee meeting, which Permittees indicated would be useful. February 1 from 4-5 pm was decided and an invitation would be sent out after the Management Committee meeting.

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**Personnel Update (K. Graves):**

- The new clerical Duanne started on January 9, 2023.
- The application period for the Clean Water Program Manager position has been extended by one week.

**BAMSC Steering Committee meeting (K. Graves):** Karin is now the co-chair along with Emily Corwin of the Solano County Stormwater Alliance.

**A. Status of regional projects and working groups**

- Hilary will be co-chairing a firefighting discharges workgroup along with Kristin Kerr (EOA representing SCVURPPP). She invited interested Permittees to sign up to attend meetings. Lucile Paquette asked if any County firefighters would be participating and Hilary replied that they have been invited.
- Elizabeth is representing the trash impractability work group. They haven't had any meetings since October and there aren't many updates, but there will be a draft report at the end of this month. It is anticipated that the report will be distributed within the next couple of weeks.
- Elizabeth is also representing the unsheltered homeless workgroup. There will be a meeting on January 24 from 8:30 – 11:30 am. The meeting will feature a series of presentations about efforts to address discharges. Representatives from the Regional Board and EPA will be in attendance, so it is a good opportunity for Permittees to attend and learn more.
    - Erin will forward the invitations for this workgroup once the agenda is completed.
- Lisa is representing the POCs Receiving Water Limitations Regional Project, and the group continues to meeting monthly for the POCs receiving water assessment report that is due in March 2023. The report is on schedule and there will be a draft of the report for Permittees to review in February. A regional approach will also be discussed.

**B. Workgroup meetings summaries**

Karin Graves noted that the BAMSC Steering Committee and Sub-Committee meeting summaries are now being uploaded to the BASMAA website. Sub-Committees and Regional Project meeting summaries will be provided each month at the relevant CCCWP Sub-Committee meetings. Staff will bring important updates to the CCCWP Management Committee each month.

- **AGOL Workgroup (E. Yin):** Liz reported they are working on minor updates to improve basic functionality. The group is going through the RFQ process so there aren't many updates. They will meet again in a month.

**7. Information:**

A. **Submit documentation of # of PCBs in Building Demo applicable structures (L. Welsh)** : In previous years, a data request for applicable structures was done around this time in an attempt to ease the number of requests that come up with the annual reports. This year, due to all of the other requests being made at this time, the plan is to do this data request differently. The spreadsheet will be posted on SharePoint so that Permittees can access and update it as they have time.

B. **SUA ERU Certifications Announcement (A. Bullock)**: Permittees should have received letters from Flood Control that the due date is April 3. They should ensure all paperwork is together for their board meetings to meet the deadline (April 3). Contact Andrea with any questions.

C. **Updated Management Committee Work Plan Q3 (K. Graves):** The work plan is included in this month's agenda packet and members may reach out to Liz if more information needed.

D. **CASQA Quarterly Meeting Agenda - Thursday January 19, 2023 10 am (K. Graves):** Andrea Bullock sent out a message on Groupsite and Outlook with the link for the meeting which will be held tomorrow, Thursday January 19, 2023, from 10 am to 3pm.

**8. Old/New Business:** Liz provided a clarifying comment on the annual report forms—the email had not been sent out, but will be sent out immediately after the Management Committee meeting.

**9. Adjournment:** The Chair adjourned the meeting at approximately 3:39 pm

CONTRA COSTA CLEAN WATER PROGRAM

**ADMINISTRATIVE COMMITTEE MEETING**
**SUMMARY**
**Tuesday, January 3, 2023**
**10:30 am – 12:00 pm**
Zoom Meeting

| VOTING MEMBERS | ATTENDED | ABSENT |
|---|---|---|
| Contra Costa County | Michele Mancuso | |
| CCC Flood Control and Water Conservation District | Tim Jensen | |
| City of Lafayette | Tim Clark | |
| City of Martinez | Frank Kennedy | |
| City of Pittsburg | Jolan Longway **(Vice Chair)** | |
| City of Pleasant Hill | Frank Kennedy **(Chair)** | |
| City of Richmond | | Mary Phelps |
| **NON-VOTING MEMBERS** | | |
| Town of Danville | Bob Russell | |

**Program Staff:** Karin Graves, Acting Program Manager

**Program Consultants:** Mitch Avalon (Watershed Resources Consulting), Liz Yin (Larry Walker and Associates(LWA)), Hilary Pierce (LWA), and Neftali Romero (Geosyntec)

**Guests /Others:** Bob Russell (Town of Danville)

1. **Convene Meeting and Roll Call (Chair)** **10:30**
   The Chair convened the meeting at 10:33 a.m.

2. **Announcements or Changes to the Agenda (all)** **10:32**
   There were no announcements or changes to the agenda.

3. **Approval of December 6, 2022 Meeting Minutes (Chair)** **10:35**
   There was no correction or revisions to the December 6, 2022, meeting minutes. T. Clark (City of Lafayette) motioned to approve the Administrative Committee meeting minutes as submitted, with no changes, and accept subcommittee minutes. J. Longway (Vice Chair) seconded. The Chair called for a vote. There were no objections or abstentions. The motion passed with no abstentions, and the items were approved.

4. **First Draft FY 23/24 Budget (K. Graves/ A. Bullock)** **10:40**
   K. Graves (Program Manager) began by sharing the budget report and stated that the report is in the same format as last year, organized by permit provision with general items at the beginning of the report. She highlighted noteworthy changes or increase in the budget:

CONTRA COSTA CLEAN WATER PROGRAM

**ADMINISTRATIVE COMMITTEE MEETING**
**SUMMARY**
**Tuesday, January 3, 2023**
**10:30 am – 12:00 pm**
Zoom Meeting

- For staff augmentation, K. Graves stated that this would be filled later in the year. The budget assumes a vacant position through the fiscal year.
- For the Financing Plan Strategy for MRP 4.0 line item, the budget assumes the most conservative/expensive option for property-related fees.
- For the Alternative Compliance line item, there is $90,000 item for completing the operational document and road map. Some of the cost will be covered by the Water Quality Improvement Grant.
- For AGOL, there are three budget line items: 1) to fund consultant staff to act as a liaison between Psomas and permittees and to run the AGOL workgroup; 2) to pay for minor maintenance and upgrade needs; and 3) to pay for major upgrades planned to better meet requirements in the new permit.
- For General Consultant Services, the overall cost increased due to the financing plan, $100,000 for the AGOL upgrades, and new alternative compliance set up costs.
- For PIP, the cost increase is due to expanding outreach to school-aged children, and the recommended website improvements for mobile access.
- For C.12.c, the overall cost is significant due to the work needed to meet the PCBs load reduction target requirements.
- For Asset Management, the cost includes development of the asset management framework with BAMSC.

**5. Approve January 18, 2023 Management Committee Agenda (Committee)** **11:20**
There was no correction or revisions to the January 18, 2023, Management Committee Agenda. M. Mancuso (CCC Flood Control and Water Conservation District) motioned to approve the Administrative Committee meeting minutes as submitted, with no changes, and accept subcommittee minutes. F. Kennedy (City of Martinez) seconded. The Chair called for a vote. There were no objections or abstentions. The motion passed with no abstentions, and the items were approved.

**6. Old/New Business (Committee)** **11:23**
No old or new business.

**7. Adjournment** **11:24**
The meeting adjourned at 11:24.

**Attachments**

CONTRA COSTA CLEAN WATER PROGRAM

**ADMINISTRATIVE COMMITTEE MEETING**
**SUMMARY**
**Tuesday, January 3, 2023**
**10:30 am – 12:00 pm**
Zoom Meeting

1) December 6, 2022 Administrative Committee meeting minutes
2) Staff report on First Draft FY 23/24 Budget
3) FY 23/24 First Draft Budget
4) Draft January 18, 2023 Management Committee agenda

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**PUBLIC INFORMATION/PARTICIPATION COMMITTEE**
**MEETING SUMMARY**
**Tuesday, January 3, 2023, 9:00 am – 10:01 am**
**Zoom Meeting**

| **PIP Committee Voting Members** | **Attended** | **Absent** |
|---|---|---|
| City of Antioch | | Julie Haas-Wajdowicz **(Vice Chair)** |
| CCC Flood Control District | Michelle Giolli | |
| City of San Ramon | Kerry Parker **(Chair)** | |
| **Admin Committee Members acting as PIP Voting Members** | **Attended** | **Absent** |
| Contra Costa County | Tim Jensen | |
| CCC Flood Control and Water Conservation District | Tim Jensen | |
| City of Lafayette | Tim Clark | |
| City of Martinez | Frank Kennedy | |
| City of Pleasant Hill | Frank Kennedy | |
| City of Pittsburg | Jolan Longway | |
| City of Richmond | | Joe Leach/Mary Phelps |

**Non-Voting Members:** Bob Russell (Town of Danville)
**Program Staff:** Karin Graves and Andrea Bullock
**Consultants:** Katie Gala and Stephen Groner (SGA); Hilary Pierce (LWA); Neftali Romero (Geosyntec)

1) **Introductions, Announcements, and Changes to Agenda (Chair)**
Introductions began at 9:07.

2) **Consent Items Approval (Chair)**
There was no correction or revisions to the following items:
- November 1, 2022, PIP Meeting Minutes
- January 2023 Facebook and Instagram Posts
- Winter Newsletter Content

J. Longway (City of Pittsburg) made a motion to approve the items listed above as submitted, with no changes, and accept subcommittee minutes. T. Clark (City of Lafayette) seconded. The Chair called for a vote. There was one abstention from M. Giolli (CCC Flood Control District), since they were not at the November meeting. The motion passed with one abstention, no objections, and the items were approved.

3) **Brochure Updates Creative Brief (SGA)**
Stephen Groner (SGA) began by sharing the BMP brochures' creative brief and stated that the first to be completed is the Trash Brochure. SGA plans to draft one that is accessible and simple to

CONTRA COSTA CLEAN WATER PROGRAM

**PUBLIC INFORMATION/PARTICIPATION COMMITTEE**
**MEETING SUMMARY**
**Tuesday, January 3, 2023, 9:00 am – 10:01 am**
**Zoom Meeting**

follow. The brochure will be more illustrative, in a tri-fold format, and target business owners. The call to action is "Keep your Property Trash Free," or "Visit a URL to learn how you can get in compliance."

Kerry Parker (City of San Ramon) supported having a website. Jolan Longway (City of Pittsburg) suggested that more background and compliance information might be needed to address concerns upfront.

Stephen Groner (SGA) responded that detailed compliance information can be included on the website. The intention is to minimize technical language in the brochure so that it is accessible, with technical details available online for follow-up.

**4) Caltrans Partnership Paid Media Outreach Campaign Recap (Hilary)**

Hilary Pierce shared that the Caltrans media campaign from "Let's Change This to That," had a budget of $50,000. It targeted English and Spanish-speaking adults. The campaign had 48% added value, equivalent to $24,004. There were 34 days of override, equivalent to $6,871 in added value. The campaign delivered 2.2 million bonus impressions. From radio, there was 62% in added value, equivalent to $9,411. From outdoor efforts, there was 58% in added value, equivalent to $12,643. From digital efforts, there was 15% in added value, equivalent to $1,590.

**5) Cost Reporting BAMSC Regional Workgroup Update (Hilary)**

Hilary Pierce stated that the cost reporting framework and methodology must be submitted to the RWB by June 30, 2023. The draft and revised draft products will be sent to permittees for review. The initial draft will be shared next week with comments due to BAMSC the week of Feb. 6, 2023. The revised draft will be shared by March 15, 2023.

**6) FY23-24 Budget (Hilary)**

Hilary Pierce shared the draft PIP Budget for FY23-24. The total draft budget for FY23-24 is $194,995, up from $144,300 in FY23-23. The FY23-24 budget includes the following changes from FY22-23:

- Increase in ongoing support to PIP Committee, from $35,000 to $50,000.
- Education through website improvements at $50,000.
- Increase in the budget amount for school-aged children outreach, from $9,000 to $20,000.
- The budget does not include the cost reporting framework since it will be completed this fiscal year.

The PIP Committee recommends the FY23-24 Budget is sent to the Management Committee for review and approval. Jolan Longway (City of Pittsburg) motioned to approve the FY23-24 PIP Budget

CONTRA COSTA CLEAN WATER PROGRAM

**PUBLIC INFORMATION/PARTICIPATION COMMITTEE**
**MEETING SUMMARY**
**Tuesday, January 3, 2023, 9:00 am – 10:01 am**
**Zoom Meeting**

as submitted, with no changes and accepts the budget. Tim Clark (City of Lafayette) seconded. The Chair called for a vote. There were no abstentions, no objections, and the items were approved.

**7) Adjournment (Chair)**
The meeting adjourned at 10:01.

CONTRA COSTA CLEAN WATER PROGRAM

# Municipal Operations Committee (MOC)
# Approved Meeting Minutes
# December 20, 2022

| MUNICIPALITY | ATTENDED [via Web/Phone] |
|---|---|
| **VOTING** | |
| City of Antioch | *Phil Hoffmeister, Jeff Cook* |
| City of Brentwood | *Melissa Barcelona* |
| City of Concord | |
| Contra Costa County | ***Michelle Giolli (Chair)**, Beth Baldwin, Michele Mancuso* |
| City of El Cerrito | *Stephen Prée* |
| City of Hercules | *Jeff Brown* |
| City of Martinez | *Andrew J Kennedy* |
| City of Orinda | *Andrew J Kennedy* |
| City of Pittsburg | *April Chamberlain* |
| City of Richmond | |
| City of San Pablo | *Amanda Booth* |
| City of Walnut Creek | *Lucile Paquette* |
| | |
| **NON-VOTING** | |
| Town of Danville | *Bob Russell* |
| | |
| **PROGRAM STAFF and CONSULTANTS** | |
| Staff Augmentation | *Elizabeth Yin* |
| Staff Augmentation | *Mitch Avalon* |
| Program Staff | *Karin Graves* |
| Program Staff | *Erin Lennon* |
| | |
| **GUESTS** | |
| | |

CONTRA COSTA CLEAN WATER PROGRAM

**MUNICIPAL OPERATIONS COMMITTEE MEETING**
**Tuesday, December 20, 2022, 10:00 am – noon**

**1. Introductions/Announcements –** Michelle Giolli (County, Chair welcomed the group to the Zoom call and asked for announcements. Erin Lennon (Program Staff) announced that Mitch Avalon is retiring.

**2. Approval of Minutes –** Michelle noted that "poster" should be edited to "brochure" on page 4 of the previous Meeting Summary. Lucile Paquette (Walnut Creek) moved to approve the finalized November 15, 2022, Municipal Operations Committee (MOC) Meeting Summary with corrections. Michelle seconded. The Committee voted to approve.

**3. Program Update –** Attendees received updates on Clean Water Program activities related to municipal operations.

- *Our Water Our World (OWOW) partnership (C.9)* – Erin updated MOC members on CCCWP's OWOW partnership with Plant Harmony. On November 21st, CCCWP Staff (Erin, Andrea Bullock, Karin Graves, Hilary Pierce) met with Suzanne Bontempo of Plant Harmony, to gain a better understanding of how Plant Harmony currently assists CCCWP, and to open dialog on better ways to utilize OWOW. Notes:
    - OWOW is a program to educate consumers of less toxic pest control methods and products via in-store product labels and factsheets, typically displayed on aisle endcaps in gardening and home improvement stores. Suzanne is an Integrated Pest Management (IPM) advocate and administers OWOW for CCCWP.
    - Andrea oversees CCCWP's partnership with Plant Harmony and can provide further information on OWOW stores and materials logistics in January. Andrea places orders based on recommendations from IPM advocates, who give monthly reports to CCCWP on factsheet restocking status at the participating stores.
    - Orders for OWOW factsheets are typically placed by countywide programs via the CASQA website twice a year: Once in January, and then again in late summer (July or August). The materials are distributed in early spring.
    - MOC members noted that CASQA emails Permittees directly, but CCCWP places the orders. Lucile Paquette (Walnut Creek) asked if Permittees may order factsheets for public lobby counters, and how this may affect costs. Erin will ask Andrea. Stephen Prée (El Cerrito) asked the protocol for notifying CCCWP if an OWOW-participating store does not have a visible display. Permittees may contact either Erin or Andrea.
    - **Next steps**: Erin will ask Andrea about the protocol for ordering factsheets for distribution at Permittee lobby counters, and whether this would affect costs. Erin will invite Andrea and/or Suzanne to a future MOC meeting for OWOW updates.
- *Direct Discharge Control Plan (DDCP) (C.10.f.ii.)* – This is an optional MRP submittal. Permittees with approved DDCPs may claim up to 15% trash load reduction using the Provision C.10.f.i. formula. The due date for submitting an updated DDCP for approval is January 3rd, 2023, for Permittees with a previously approved DDCP (April 1, 2024, for Permittees wishing to submit a new DDCP). Michelle (County) said that Permittees with a previously approved DDCP met to discuss their approach to submitting an updated DDCP. Permittees were unsure how to submit these and to whom; those who reached out to the Water Board received away messages due to the holidays. Amanda Booth (San Pablo) planned to email Keith Lichten of the Regional Water Board with a cover letter.

**4. BAMSC Regional Workgroup (WG) Summary –** Attendees received updates on Clean Water Program activities related to municipal operations.

- *C.10.e. Trash Impracticability WG* – This WG met December 6, 2022, and discussed the impracticability survey, an engineering survey that was developed, as well as the goals of the report. The countywide leads are reaching out to those who responded to the surveys. There will be a strong push over the next 3 months to develop, review and finalize this, since the due date is at the end of March. The MOC-reviewed report will be passed to the Management Committee before it is submitted to BAMSC. Andrew Kennedy (AJ, Martinez) emphasized the importance of all Contra Costa Permittees' comments and participation in the review process.
    - **Next steps:** Liz will distribute the draft report to the MOC for review. Upcoming agendas in February and March will involve a lot of review.
    - **Due date:** March 31, 2023, Trash Impracticability Report
- *C.17 Unsheltered BMPs Report WG* – This WG met November 22, 2022, and attendees discussed the timeline and structured outline for this report. Liz and Michelle (County) are compiling an internal, Contra Costa focused report describing and documenting the regional, local, or countywide BMPs that are used. Information from this report will be sent to the BAMSC C17 WG to assist with writing an executive summary. The next C.17 WG meeting will be focused on regional efforts and information sharing. There will be presentations from across the Bay Area, including the Contra Costa CORE team.
    - **Next steps:** January-April, countywide efforts for BMP report.
    - **Due date:** September 30, 2023, C.17 Unsheltered BMPs Report (C.17.a.ii.)
    - **Save the Date:** January 24, 2023, 9:00am-11:00am, next WG meeting with a focus on intersectional information sharing. Open to anyone in region who is interested. Representatives from the Regional Board and EPA have been invited.

**5. MOC FY2023-24 Draft Budget –** Erin presented a first draft of the MOC budget for FY 2023/24 (July 1, 2023 through June 30, 2024). MOC members offered feedback on the budget line items related to the OWOW program, Provision C.4, and C.17. A finalized budget is due in March.

- *Overall*– MOC members requested that symbology be added to column C ("Adopted FY 22/23 Budget") for which items are conditional versus approved. Liz indicated that for determining the budget needed for FY23-24, it would be beneficial for items to be non-conditional.
- *C4, BMPs Training/Workshop (Line item 5)* – Mitch said that the budget for C.4.e was twice as much for FY23-24 in the five-year plan. Erin will check back on this item.
- *C.9, OWOW (Line items 6-8)* – MOC members requested clarification on the OWOW process and how it ties into the budget. Erin will loop Andrea in to provide clarification on these line items.
- *C17, Unsheltered Homeless (Line items 12-14)* – Lucile noted that the C17 budget for FY22-23 assumes an implementation plan, that this is not required by the MRP, and that this item will need to be discussed further with Permittees to determine whether they want it. Liz noted that there is no C.17 budget in FY23-24; the C.17 BMPs report is due in September 2023, but the bulk of the work is anticipated to be completed FY22-23. C.17 will be budgeted for again in FY25-26.
    - C.17 Mapping – Amanda said that Permittees need to do the mapping, and that this should be made clear in the budget. Mitch noted that the San Francisco Estuary Institute might already have a map that can be used for C.17 requirements. AJ said that many smaller communities in West County and especially in East County lack MS4

drainage maps. Beth Baldwin (County) suggested that we talk to the Regional Group about making maps as simple as possible.

- C.17 MRP, appropriateness of scope – Several MOC members expressed concern that the C.17 requirements were inappropriate, harmful (e.g., privacy and safety issues in mapping encampments), and outside the scope of clean water programs. It was suggested that it may be useful to have a unified response to bring to the next C.17 WG meeting, since the Regional Water Board will be present. Issues to bring up include:
  - Describe why it is not appropriate for clean water programs to survey and map people living in encampments. Clarify that there are major privacy, respect, and safety issues for unsheltered populations.
  - Describe why it is not reasonable or practical for clean water programs to address homelessness. Clarify that there are specialized agencies that are already working on and are better equipped to address homelessness and encampments. Note that CORE answers to the H3 program.
  - Ask for specific guidance and reporting milestones for the C.17 BMPs report.
  - Ask for the C.17 mapping requirements to be removed from the MRP.
  - Reiterate the importance of regulators to be aware of the sensitivity of the on-the-ground situation and existing efforts to address homelessness.

**6. MOC Workplan Revisit –** Due to time constraints, Erin asked the MOC to review the upcoming MOC meeting topics on their own, particularly for January. Erin plans to incorporate agenda item plans for FY23-24. MOC members were asked to contact Erin with any updates, questions, or suggestions.

**7. Open Discussion – miscellaneous updates**

- The Trash Issues and Forum Planning agenda item was moved to after this item, so that those who were not interested in participating in the trash forum may leave sooner.
- Michelle summarized takeaways from the November 9, 2022 US Army Corps of Engineers meeting/workshop (presentation saved in Groupsite).
- Stephen expressed interest in learning how others are handling both the trash and biohazard elements. Lucile noted that Region 2 had a homelessness discharges forum.
- It was expressed that it may be more beneficial and preferable to allocate funds towards supporting existing programs, rather than writing a BMPs report.
- It was suggested that this and/or related groups discuss implementation and milestones for C.17 (e.g., information sharing forum, development of BMPs, which contractors can help).
- Erin noted that Groupsite has a discussion feature. This feature has been used in the past.

**8. Trash Issues and Forum Planning**

Erin asked the MOC for any topic preferences/suggestions to be included at the next Trash Forum. Beth suggested addressing what happens if a Permittee does not meet the 90% trash load reduction benchmark. Mitch said that it may be beneficial for Permittees unable to meet the benchmark to have a uniform strategy for next steps. Lucile suggested including Private Land Drainage Areas (PLDAs) requirements to the next forum. AJ agreed. Erin asked how long the forum should take. Permittees said that the length of time depends on desired outcome and should be more than 30 minutes.

**11. Adjournment –** Michelle Giolli adjourned the meeting at 12:03pm.

CONTRA COSTA CLEAN WATER PROGRAM

**DEVELOPMENT COMMITTEE**

**Meeting Summary**
**Wednesday, December 7, 2022**
**2:00 PM – 4:00 PM**

| Affiliation | Attended |
|---|---|
| **VOTING MEMBERS** | |
| City of Antioch | Phil Hoffmeister (Chair) |
| City of Brentwood | Aman Grewal |
| City of Clayton | *ABSENT* |
| City of Concord | Mitra Abkenari |
| Contra Costa County | John Steere |
| Town of Danville | Bob Russell |
| City of Lafayette | Matt Luttropp / Tim Clark (Vice Chair) |
| Town of Moraga | Bret Swain (attending on behalf of Mark Summers) |
| City of Oakley | Frank Kennedy |
| City of Pittsburg | Jolan Longway |
| City of Pleasant Hill | Frank Kennedy |
| City of San Ramon | Rod Wui |
| City of Walnut Creek | Joel Camacho / Lucile Paquette |
| **PROGRAM STAFF AND CONSULTANTS** | |
| Program Staff | Karin Graves |
| Program Staff | Erin Lennon |
| Program Consultant | Mitch Avalon |
| Program Consultant | Liz Yin |
| Program Consultant | Rachel Kraai |
| Program Consultant | Elai Fresco |

**Development Committee Meeting**
**Wednesday, December 7, 2022, 2:00 PM – 4:00 PM**

1. **Introductions, Announcements, and Changes to Agenda –** Phil Hoffmeister (Antioch, Chair) welcomed the group to the Zoom call and asked for announcements.

2. **Approve Previous Meeting Summary –** John Steere (County) moved to approve the draft summary of the October 18, 2022 meeting. Bob (Danville) seconded. The Committee voted to approve.

3. **Program Update –** The Development Committee received a summary status of previous meeting items and discussed other Program updates:
   - *Annual Report template review* – Groupsite folder (link), Development Committee members reminded to send reviews for the draft Annual Report templates for C.3 and C.6 to Erin by December 12th. Available as both separate files and as a combined file.
   - *BAMSC C.3 Workgroups* – Regional workgroups continue to meet, and Permittees are encouraged to participate. Relevant workgroup topics include but are not limited to: Category C/Affordable Housing, C.3.c Alternative Treatment, and Road Reconstruction in disadvantaged communities (DACs). It was noted that Keith and Zach of the Regional Board asked for specific suggestions on new, revised MRP language to be presented by July 1, 2023. Permittees expressed frustration with this request, indicating that a detailed approach to complex issues seems to dismiss multiple evidence-based presentations on why a prescriptive approach would not be effective at improving water quality. The next meeting on this topic is scheduled for January 13, 2023. It was noted that a subgroup of municipalities with DACs may meet to determine the best approach to the Regional Water Board's request for solutions. It was speculated that if the Water Board is willing to reconsider and revise the MRP language, then there might be another opportunity for input.
   - *Biotreatment Soil Media list* – Erin shared a SCVURPPP Biotreatment Soil Media Supplier list from 2021, which Michele Mancuso of Contra Costa County had forwarded to her. John provided background information, saying that he had reached out to Peter Schultze-Allen of EOA, Inc. for this updated list of soil providers in the Bay Area. Recently, a couple of Public Works inspectors of C.3 facilities had indicated that applicants seemed to struggle to find engineered biotreatment soils. Phil asked if Contra Costa Topsoil is still in business. John said that it is often not open. The resource was attached to the agenda.

4. **Budget Review –**
   Erin presented a first draft of the Development Committee budget for FY 2023/24 (July 1, 2023 through June 30, 2024). Committee members offered feedback on the budget line items related to Peakflow, and the Asset Management Plan. A finalized budget is due in March. It was requested that these spreadsheets be shared. A first draft of the entire budget will be sent to the Management Committee in January.
   *Peakflow* – The budget amount for this item would depend on (1) what BAHM is able to accommodate, and (2) whether the committee wants to proceed with it. It is expected that most of the BAHM work would be happening this fiscal year. The work would begin in January and be completed by July. There is an anticipated training component in FY23-24.
   *Asset Management Plan* – It was asked if asset management plan discussions would make more sense on a city-by-city basis, as opposed to via CCCWP. Mitch said that this draft budget item would be for creating a framework to assist cities with ensuring their Asset Management Plans comply with MRP 3.0 Provision C.21. It was asked whether the purpose, if kept in the budget, would be to create a checklist for Permittees to use, to ensure that the MRP requirements are met,

and that this would not specify contractors used. Mitch verified that this would be the case.

5. **HM Map Update –** Rachel Kraai (Lotus Water) presented the HM map update next steps and Scope of Work. The Development Committee asked about the extra task at the end of the scope of work, which would bring the total scope up to $25,000. Besides the extra task, which could be tabled for a later discussion, Permittees recommended to move this item to the Management Committee for their approval in January.

6. **C.3 Guidebook –** Erin shared 8th Edition updates on the C.3 Guidebook, with summary slides created by Yvana Hrovat. Some members of the Development Committee had not yet reviewed the updated sections. The Development Committee discussed the possibility of incorporating additional updates. Erin noted that additional updates could be included in the 9th Edition, which was expected be published in the summer. Permittees were asked to send reviews on the C.3 and C.6 templates to Erin by December 12th, and reviews on the C.3 Guidebook 8th Edition to Erin by the end of the week. The Development Committee recommended that the 8th Edition, incorporating any edits by the deadline, go to the Management Committee for approval. The Development Committee recommended that this item move to Management Committee for Approval.

7. **C.3j. mapping public interface –** Liz Yin (Program Consultant and lead of AGOL workgroup) discussed the data availability and implementation of the C.3.j Green Infrastructure (GI) mapping public interface requirement. MRP Provision C.3.j.v.(1)(b) states that, "*tracking and mapping tools shall include a component that is available to the public, which is advertised on individual Permittee websites and on County stormwater program websites, and as appropriate is advertised in other locations. This component must include the following basic information: a brief description of design (e.g., whether bioretention or bioswale), location, land use type, and area treated*." Lucile suggested that Contra Costa Permittees use the Stormwater Resource Plan (SWRP) Project Viewer tool, available here: Stormwater Resource Plan (cccleanwater.org). Lucile noted that the SWRP Project Viewer corresponds to GI Plans to an extent, and so it seems to be the quickest and simplest way to meet the C.3.j. public mapping interface requirements for now. Phil agreed. Mitch noted that there may a potential for incomplete data to be shared with the public. Liz indicated that the Program is trying to balance the burden of Permittees doing multiple tasks at once, keeping in mind the protection of data and the desire to not duplicate existing efforts. It was conjectured whether adding the mapping interface separately, rather than to add a checkbox that "C.3.j." in the application, would be easier. Liz reviewed the process and next steps, including reviewing C.3.j data and projects, mockups of the AGOL public interface, finalizing the project datasets, and review/publication. Phil expressed concern that the mapping public interface is due June 2023. Lucile volunteered to research this item and let the group know how it went.

**8. Next Steps/Action Items/Next Meeting Date**

The group discussed next steps and action items. Permittees will send their reviews on C.3 Guidebook 8th edition sections to Erin by the end of week; Erin will forward those edits to Yvana. Erin will write a staff report with the Development Committee's recommendation to the Management Committee. Staff will send out the draft budget to the Development Committee. The budget will be discussed further at the January Management Committee meeting and at the next Development Committee meeting. The next C.3.j. retrofit forum was previously scheduled for January, but this will likely be pushed to February.

The next Development Committee meeting is January 25th, 2023.

John Steer announced a Watershed Connections pilot project, the Fred Jackson rain garden, by Urban Tilth. It will filter 5,000 sq ft of water on one of the busiest roads in Richmond.

**9. Adjourn**

Phil Hoffmeister adjourned the meeting at 4:00pm.

**Attachments:**

1) Draft summary of the October 18, 2022, Development Committee meeting
2) SCVURPPP Biotreatment Soil Media Supplier list, 7-1-21
3) C.3 Guidebook Staff Report
    a. C.3 Guidebook, 8th Edition Redlines
4) HM Applicability Map Update Staff Report
    a. Scope of Work

| **UPCOMING EVENTS and/or DEADLINES** | |
|---|---|
| **Date** | **Event** |
| 12/13/22 9:00am – 11:30am | CCCWP Management Committee Meeting (Zoom) |
| 12/13/22 1:00pm – 3:00pm | BAMSC New Development Subcommittee (Zoom) |
| 12/26/22 | Contra Costa County Public Works Holiday |
| 12/28/22 10:30am – 12:00pm | BAMSC Standing Meeting: Alternative Treatment Systems Workgroup (Zoom) |
| 1/3/23 3:00pm – 4:00pm | BAMSC Standing Meeting: Category C/Affordable Housing Workgroup (Teams) |
| 1/18/23 1:30pm – 4:30pm | CCCWP Management Committee Meeting (Zoom) |
| 1/25/23 1:30pm – 3:30pm | CCCWP Development Committee Meeting (Zoom) |

CONTRA COSTA CLEAN WATER PROGRAM

**Date:** February 15, 2023

**To:** Management Committee

**From:** Karin Graves, Acting Program Manager

**Subject:** Second Draft Budget for FY 23/24

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**Recommendation:**
Review and consider the General and Administrative, Development and PIP Committee line items in the Second Draft Budget for FY 23/24 and provide any comments and direction to staff.

**Background:**
In the January 18th, 2023, Management Committee meeting, staff were directed by Management Committee to identify any budget line items that are not expressly required in the MRP 3.0 Permit. In response to this request, staff decided to review the budget line items through the subcommittee process in order to thoroughly examine each line item and refine the 2nd draft budget requests to Management Committee. As a result, staff have reviewed the entire budget and are bringing recommendations for these items to each subcommittee for their review and input.

Given the timing of the subcommittee meetings and to allow time for this request, review of the second draft of the FY 23/24 budget will happen in two parts at two different Management Committee meetings:

- February 15, 2023, Management Committee – The 2nd draft of the FY 23/24 will be presented after subcommittee review of the following budget categories: General and Administrative, Development and PIP Committee. The line items for these categories were reviewed at the respective subcommittee meetings on 2/7, 1/25, and 2/7.
- March 15, 2023, Management Committee – The 2nd draft of the FY 23/24 budget will be presented after subcommittee review of the following budget categories: Monitoring and MOC Committee. The line items for these categories will be reviewed at the respective subcommittee meetings on 2/13 and 2/21. Final approval of the budget will also take place at this meeting.

In the second drafts of the budget going to Management Committee in February and March, staff will identify any items not expressly required by the MRP 3.0 Permit that were recommended by the relevant sub-committee to be reduced or eliminated.

The Management Committee also requested that staff provide an adjusted FY 22/23 budget column, mid-year actuals, and clarification regarding carry-over items. The FY 22/23 budget column has been adjusted and mid-year actuals are included in the attached 2nd draft of the FY 23/24 budget. For budget line items where there is carryover from FY 22/23 to FY 23/24, staff have standardized notes so that it is clear when the original approved project scope (i.e. total amount to be spent on a project) will not increase.

**General and Administrative Budget Items:**

Two items currently included in the General and Administrative line items for FY 23/24 are not expressly required by the permit, and after consideration the Administrative Committee recommended to reduce the following two line items:

- **Miscellaneous Office Equipment/Supplies not covered by County Overhead:** Staff recommended, and the Administrative Committee agreed, to keep this line item in the FY 23/24 budget and reducing it from $5,640 to $2,640. The line item will be used to pay for office supplies and staff have not used the full amount in previous years.
- **MRP 3.0 SWRCB Review (Richards, Watson & Gershon):** Staff recommended, and the Administrative Committee agreed, to reduce this line item in the FY 23/24 budget to $0. The line item is no longer needed as Permittees decided not to file an unfunded mandate claim.

Staff and the Administrative Committee reviewed five additional General and Administrative line items and voted to keep them at their current funding in the FY 23/24 budget. For the Implementation of Financing Plan Strategy for MRP 4.0 line item staff will track these funds separately.

- **On-Call Staff Augmentation (as needed) (LWA, GC, H&A)**
- **BAMSC Regional Coordination**
- **Implementation of Financing Plan Strategy for MRP 4.0 (TBD)**
- **Grant Tracking and Application (LWA/GC)**
- **Brochures (TBD)**

**Development Committee Budget Items:**
One item included in the Development budget for FY 23/24 is not expressly required by the permit, and after consideration the Development Committee recommended to keep this item at its current funding in the FY 23/24 budget:

- **Asset Management Planning**

Additionally, the Development Committee requested to eliminate the $3,000 line item, C.6 PCBs Enhanced Inspections, in the FY 23/24 Budget. The line item was intended to assist Permittees with training for implementing new PCBs inspection requirements. Permittees felt that a similar line item included in the Monitoring Committee Budget for C.12, Guidance for MRP 3.0 Building Demolition Requirements (LWA/GC), would provide sufficient funding for training on new PCBs inspection requirements.

**PIP Committee Budget Items:**
Two items included in the PIP budget for FY 23/24 are not expressly required by the permit, and after consideration the PIP Committee recommended to keep them at their current funding in the FY 23/24 budget:

- **Contingency funds for additional program outreach**
- **Recommended Website Improvements (TBD)**

Additionally, staff recommended, and the PIP Committee agreed to add $5,000 to the Cost Reporting Framework and Methodology line item in the FY 23/24 Budget. Previously, no funds were allocated for this item since the framework needed to be submitted to the Regional Board by June 30, 2023. However, staff recommend adding funds to the line item in case there are comments from the Regional Board on the framework that may require Program-level support.

**Fiscal Impact:**
Staff will prepare/modify the budget in accordance with the direction provided.

**Attachments:**
Second Draft Budget for FY 23/24

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# Contra Costa Clean Water Program (CCCWP)
## Fiscal Year 2023/24 Group Program Budget (SECOND DRAFT)

| Work Order # | Budget Description | Adjusted FY 2022/23* (Adopted) | Projected FY 2023/24 February 15, 2023 (Second Draft) | WQIF Grant Expense | NOTES FY 23/24 | 5-year budget notes |
|---|---|---|---|---|---|---|
| | **Administrative/Personnel** (See Admin Worksheet) | **$2,064,798** | **$1,871,418** | | | |
| 7608 | Staff Salaries and Benefits + County Overhead | $1,304,120 | $1,369,326 | | Includes COLA of 5% (year one of four); Clerk at 20hrs/week | Fill Program Manager July 2023, and then fill WMPS July 2024 |
| 7609 | Staff Augmentation (Watershed Resources Consulting for 6 months) | $109,200 | $0 | | | |
| 7609 | On-Call Staff Augmentation (as needed) (LWA, GC, H&A) | $138,000 | $103,000 | | | |
| 7609 | Staff Augmentation (LWA) | $223,000 | $100,000 | | | Continue LWA staff augmentation to match vacancies |
| 7609 | Staff Augmentation (Geosyntec) | $270,478 | $278,592 | | | Continue Geosyntec staff augmentation to match vacancies |
| 7608 | Staff Training and Conferences | $10,000 | $10,000 | | | |
| 7612 | Non-Program County Staff Labor | $10,000 | $10,500 | | | |
| | **General Supplies & Equipment** | **$7,788** | **$4,817** | | | |
| 7605 | Misc. Office Equipment/Supplies not covered by County Overhead | $5,640 | $2,640 | | Reduced by $3K | |
| 7605 | Zoom annual fee | $960 | $989 | | | |
| 7605 | Groupsite Annual Fee | $1,188 | $1,188 | | | |
| | **Association/Memberships/License Fees** | **$33,554** | **$34,261** | | | |
| 7611 | ESRI (AGOL Annual License Fee) | $10,000 | $10,000 | | | |
| 7611 | California Stormwater Quality Association (CASQA) | $23,554 | $24,261 | | | |
| | **Legal Services** | **$95,000** | **$61,800** | | | |
| 7606 | County Counsel and Contract Administration | $10,000 | $10,300 | | | |
| 7610 | MRP 3.0 SWRCB Review (Richards, Watson & Gershon) | $35,000 | $0 | | Reduced to $0 | Unfunded mandate claim? |
| 7610 | On-Call Legal Services (Richards, Watson & Gershon) | $30,000 | $30,900 | | | |
| 7613 | Alternative Compliance Legal Review (Richards, Watson & Gershon/County Counsel) | $20,000 | $20,600 | | | |
| | **Regional Projects/Regional Cooperation** | **$230,000** | **$236,300** | | | |
| 7611 | BAMSC | $30,000 | $30,900 | | Funds regional grant participation and on-call regional coordination | |
| 7618 | SFEI - RMP | $180,000 | $185,400 | | | |
| 7618 | SFEI - CECs | $20,000 | $20,000 | | | |
| | **General Consultant Services/Projects** (See Consultant Services/Projects Worksheet) | **$342,000** | **$580,910** | | | |
| 7616 | 5-Year MRP 3.0 Budget (LWA/GC) | $10,000 | $0 | | | |
| 7616 | Financing Plan Strategy for MRP 4.0 (LWA/GC) | $20,000 | $0 | | | |
| | Community Facilities Districts Analysis (TBD) | | | $180,000 | New line item funded solely by grant | |
| 7609 | Implementation of Financing Plan Strategy for MRP 4.0 (TBD) | $0 | $200,000 | | | Budget based on most conservative funding option assessed |
| 7616 | MRP 3.0 Compliance Checklist (LWA/GC) | $10,000 | $0 | | | |
| 7616 | Grant Tracking & Application (LWA/GC) | $40,000 | $40,000 | | | |
| 7616 | Alternative Compliance Administrative Set Up (LWA/GC) | $55,000 | $45,000 | $60,000 | Reduced from $90k to $45K as $45k covered by grant. Expect to be 2/3 done with | treatment plan in FY 23/24, $20k carryover for FY 24/25 |
| 7616 | Project Management, Technical Review, Regulatory Compliance, etc. (LWA/GC) | $97,000 | $99,910 | | | |
| 7665 | GIS/AGOL Major Upgrades (TBD) | $0 | $100,000 | | | Revise FY 23/24 once RFQ scope/estimate completed. This is for systemwide improvements; each project budgeted as a separate line item. |
| 7665 | GIS/AGOL Maintenance, Minor Upgrades (TBD)(GC) | $50,000 | $50,000 | | | |
| 7609 | GIS/AGOL Support Staff (LWA) | $35,000 | $36,000 | | | |
| 7620 | Brochures (TBD) | $25,000 | $10,000 | | | |
| | **Municipal Operations (C.2)** - Training/Workshop (See MOC Worksheet) | **$3,100** | **$0** | | | Training historically performed by permittees |
| | **New Development/Redevelopment (C.3)** (See Development Committee Worksheet) | **$436,000** | **$264,360** | | | |
| 7641 | Hydromodification Management Modeling Using BAHM (TBD)(Dubin) | $100,000 | $75,000 | | $75,000 carryover. Will not exceed approved amount of $100,000 | |
| 7641 | Hydrograph Management Compliance Options Report (H&A) | $10,000 | $0 | | | |
| 7641 | Hydromodification Management Maps (H&A) | $15,000 | $10,000 | | $10,000 carryover. Will not exceed approved amount of $15,000 | HM Maps due 9/2023 |
| 7641 | Hydromodification Management Calculator (TBD) | $41,000 | $0 | | | |
| 7641 | Green Infrastructure Design Guidelines (H&A) | $40,000 | $32,000 | | $32,000 carryover. Will not exceed approved amount of $40,000 | FY 23/24 budget depends on option chosen |
| 7641 | Peak Flow Control Calculator (TBD) | $52,000 | $0 | | | FY 23/24 and beyond budget depends on discussion with Flood Control |
| 7645 | Update Stormwater C.3 Guidebook (H&A) | $36,000 | $35,000 | | | |
| 7641 | BAHM Regional Update (EOA/Clear Creek) | $25,000 | $0 | | | |
| 7645 | Alternative Compliance Program Implementation (2 Pilot Projects)(LWA/GC) | $50,000 | $0 | | | |
| 7645 | Frequently Asked Questions | $5,000 | $0 | | | |
| 7645 | Annual C.3 Training/Workshop (H&A) | $12,000 | $12,360 | | | FY 25/26 and 26/27 includes any BAHM training costs |
| 7645 | General Technical Services Support (H&A)(LWA/GC) | $50,000 | $100,000 | | | |
| 7664 | **Industrial/Commercial Controls (C.4)** - Training/Workshop (See MOC Worksheet)(LWA) | **$3,100** | **$3,193** | | | |
| 7662 | **Illicit Discharge/Detection and Elimination (C.5)** (See MOC Worksheet) | **$0** | **$0** | | | |
| | **Construction Controls (C.6)** (See Development Committee worksheet) | **$0** | **$6,000** | | | |
| 7628 | Biennial Construction Training (LWA-Training only) | $6,000 | $6,000 | | | |
| *7628* | *PCBs C.6 Inspection Enhancements* | *$0* | *$0* | | Line item ($3,000) removed per DC | Inspections start Oct 2023 |
| | **Public Information/Participation (C.7)** (See PIP Committee Worksheet) | **$159,300** | **$235,000** | | | |
| 7617 | School-Aged Children Outreach (SGA) | $9,000 | $20,000 | | | |
| 7617 | Watershed Stewardship Green Business Program | $6,000 | $6,000 | | | |
| 7617 | Public Outreach through Bringing Back the Natives Garden Tour (Kathy Kramer-Sponsor) | $16,500 | $17,000 | | | |

# Contra Costa Clean Water Program (CCCWP)
# Fiscal Year 2023/24 Group Program Budget (SECOND DRAFT)

| Work Order # | | Budget Description | Adjusted FY 2022/23* (Adopted) | Projected FY 2023/24 February 15, 2023 (Second Draft) | WQIF Grant Expense | NOTES FY 23/24 | 5-year budget notes |
|---|---|---|---|---|---|---|---|
| 7617 | | Used Oil/Student Outreach /Youth Programs (Matt Bolender) | $2,000 | $2,000 | | | |
| 7617 | | Outreach Campaign, Public Education, Citizen Involvement (SGA)(Caltrans) | $70,800 | $70,000 | | | |
| 7617 | | Website Maintenance and Hosting (TBD) | $15,000 | $15,000 | | | RFQ to bring in new website host |
| 7617 | | Recommended Website Improvements (TBD) | $0 | $50,000 | | | Improvements for mobile users and to increase efficiency for updates and outreach |
| 7617 | | General Youth/Public Outreach; Media Management (SGA) | $35,000 | $50,000 | | | |
| 7617 | | Outreach Contingency | $5,000 | $5,000 | | | |
| | | **Water Quality Monitoring (C.8)** (See Monitoring Committee Worksheet) | **$605,000** | **$596,230** | | | |
| 7618 | | LID Monitoring Plan (KEI)(LWA/GC) | $60,000 | $4,120 | | | Annual cost for revising the Plan, as-needed. TAG is accounted for with the Plan in FY22/23. |
| 7618 | | LID Monitoring TAG (LWA/GC) | $0 | $7,110 | | | Annual cost for 1 external and 3 internal TAG meeting/year @$1,500 each (cost of the TAG is |
| 7618 | | LID Monitoring (KEI) | $0 | $165,800 | | | Estimated cost for conducting 6 samples/year (3 events, 2 locations) |
| 7618 | | Trash Monitoring Plan (LWA/GC)(KEI) | $70,000 | $4,120 | | | Annual cost for revising the Plan, as-needed. TAG is accounted for with the Plan in FY22/23. |
| 7618 | | Trash Monitoring TAG | $0 | $6,180 | | | Annual cost for 4 TAG meetings/year @$1,500 each (with Plan in the first year) |
| 7618 | | Trash (Outfall) Monitoring (KEI)(LWA) | $185,000 | $140,750 | | | Assumed grant award for receiving water monitoring. Estimate from Regional WQIF Grant |
| 7618 | | Pollutants of Concern Monitoring (KEI)(LWA/GC) | $50,000 | $51,500 | | | Assume 8/year for PCBs and Hg, excludes C.12.b source properties |
| 7618 | | Pollutants of Concern Monitoring Planning (GC) | $0 | $10,000 | | | |
| 7618 | | Pesticides and Toxicity Monitoring (KEI) | $70,000 | $36,050 | | | Average annual budget of $35k. Once during the permit term, wet season tox is required |
| 7618 | | Urban Creeks Monitoring Report (POC, Pesticides and Toxicity, Trash, LID) (KEI)(LWA/GC) | $90,000 | $95,000 | | | Excludes bioassessment (from FY2022) after FY22/23 and includes $30,000 for each of trash |
| 7618 | | Creek Status Monitoring Follow-Up | $20,000 | $0 | | | FY22/23 only |
| 7618 | | POC Receiving Water Monitoring Plan | $30,000 | $0 | | | Updated Plan due March 31, 2026 |
| 7618 | | POC Receiving Water Monitoring | $0 | $30,000 | | | 4 wet season and 1 dry season ($40k per year from AMS) |
| 7618 | | Bioassessment Final Report | $0 | $15,000 | | | by population |
| 7618 | | Monitoring Management Support | $20,000 | $20,600 | | | no change |
| 7618 | | All Monitoring Contingency | $10,000 | $10,000 | | | no change |
| | | **Pesticide Toxicity Control (C.9)** (See MOC Worksheet) | **$81,023** | **$86,038** | | | |
| 7636 | | Our Water Our World Local Outreach and Training (Plant Harmony) | $69,500 | $71,585 | | | |
| 7636 | | Our Water Our World Outreach Materials (Paid to CASQA) | $5,080 | $8,010 | | | |
| 7636 | | Pesticide Regulatory Coordination Program (Paid to CASQA) | $5,943 | $5,943 | | | |
| 7636 | | Outreach to Pest Control Professionals | $500 | $500 | | | |
| | | **Trash Load Reduction (C.10)** (See MOC Worksheet) | **$60,000** | **$10,000** | | | |
| 7620 | | Trash Load Reduction Plan (LWA) | $10,000 | $10,000 | | | Strategic assistance to submit notice of non-compliance and trash load reduction plan by 9/30/23 if can't meet 90% by 6/30/23 |
| 7620 | | Trash Reduction and Impracticability Report (LWA) | $50,000 | $0 | | | in 2023 AR 9/30/23 |
| 7618 | | **Mercury Controls (C.11)** (requirements addressed under C.12) | **$0** | **$0** | | | |
| | | **PCBs Controls (C.12)** (See Monitoring Committee Worksheet) | **$460,914** | **$231,791** | | | |
| 7618 | | Old Industrial Area PCBs Control Measure Plan (LWA/GC) | $40,000 | $0 | $100,000 | More detailed analysis to supplement plan completed FY 22/23 | Annual cost for revising the Plan, as-needed. |
| 7618 | | Old Industrial Area PCBs Treatment Project (first project to implement the Plan) (TBD) | $200,000 | $0 | $125,000 | Reduce CCCWP budget from $200k to $0 for FY 23/24 | Requires discussion on how the regional project is funded (e.g., grant funds, pilot project) |
| 7618 | | Annual Progress Report on Controlling PCBs (LWA/GC) | $30,000 | $30,000 | | | Annual acres treated and PCBs in Building demo summary. Initial cost is higher to set up new template. Report on total mass reduced over permit term for 9/30/2026 ($50,000) |
| 7618 | | Source Property Investigation Planning (KEI) (LWA/GC) | | $15,000 | | | |
| 7618 | | Source Property Investigation (KEI) (LWA/GC) | $140,000 | $129,200 | | | |
| 7618 | | Implement Caltrans Bridge/Overpass Specification and Report Loads Reduced | $0 | $15,450 | | | Likely due is 9/30/2023 (implementation is 6 months after availability of specification) |
| 7618 | | PCBs in Electrical Utilities (LWA/GC) | $10,000 | $20,600 | | | FY22/23 (develop program); FY23/24 (develop SOP and document PCBs loads avoided) |
| 7618 | | Guidance for MRP 3.0 Building Demolition Requirements (LWA/GC) | $20,000 | $0 | | | FY22/23 only |
| 7618 | | Provide Fish Risk Flyers/Signs | $5,305 | $5,464 | $10,000 | Additional fish risk outreach covered by grant | |
| 7618 | | Distribute Fish Risk Flyers (KEI) | $10,609 | $10,927 | | | |
| 7618 | | Annual Fish Risk Status Report (KEI) | $5,000 | $5,150 | | | |
| | | **Exempted and Conditionally Exempted Discharges (C.15)**(See PIP Committee Worksheet) | **$15,000** | **$15,000** | | | |
| 7617 | | Firefighting Discharges (LWA/GC) | $15,000 | $15,000 | | | Funds workgroup meetings and a portion of final report in FY 26/27 |
| | | **Unsheltered Homeless Discharges (C.17)** (See MOC Worksheet) | **$120,000** | **$10,000** | | | |
| 7616 | | Homeless Mapping (TBD) | $20,000 | $10,000 | | | Potential carryover from FY 22/23 mapping completed by Program for 9/30/2023 Annual Report |
| 7616 | | BMP Report (TBD) | $50,000 | $0 | | | |
| 7616 | | Implementation Plan (TBD) | $50,000 | $0 | | | Depends on how much work the program does for permittees |
| | | **East Contra Costa County Projects (C.19)** (See Monitoring Committee Worksheet) | **$105,000** | **$30,900** | | | |
| 7618 | | Methylmercury Monitoring for Delta TMDL (KEI) | $20,000 | $20,600 | | | Minimum 50 samples over permit term for SSC, total mercury, methylmercury |
| 7618 | | Marsh Creek Dissolved Oxygen (BOD) Monitoring (LWA/GC) | $30,000 | $0 | | | Assumes SSID can be wrapped up in FY22/23 |
| 7618 | | Annual Mercury Monitoring Plan UCMR (LWA/GC) | $25,000 | $0 | | | two plans due in FY22/23, Oct and March, and new for MRP 3 |
| 7618 | | Pyrethroid Control Program Baseline Monitoring Report (LWA/GC) | $5,000 | $0 | | | FY22/23 only |
| 7618 | | Pyrethroid Control Program Annual Report | $0 | $10,300 | | | Report on management practices and evaluation concentrations wrt the pyrethroid triggers (set up template in FY23/24) |
| 7618 | | Pyrethroid Control Program UCMR | $0 | $0 | | | Report monitoring results in the UCMR (IMR in Year 4) |
| 7618 | | East County TMDL Control Measure Plan (LWA/GC) | $25,000 | $0 | | | FY22/23 only |
| | | **Cost Reporting (C.20)** (see PIP Committee Worksheet) | **$20,000** | **$5,000** | | | |
| 7617 | | Cost Reporting Framework (LWA/GC) | $20,000 | $5,000 | | Coordinate comments from Permittees | FY 24/25 is to assist permittees with fiscal analyses based on approved framework |

# Contra Costa Clean Water Program (CCCWP)
# Fiscal Year 2023/24 Group Program Budget (SECOND DRAFT)

| Work Order # | Budget Description | | Adjusted FY 2022/23* (Adopted) | Projected FY 2023/24 February 15, 2023 (Second Draft) | WQIF Grant Expense | NOTES FY 23/24 | 5-year budget notes |
|---|---|---|---|---|---|---|---|
| | **Asset Management (C.21)** (see Development Committee Worksheet) | | **$30,000** | **$20,000** | | | |
| 7645 | | Asset Management Framework (TBD)(H&A)(LWA) | $30,000 | $20,000 | | $20,000 carryover. Work delayed until FY 23-24. Work will not exceed $20,000 total. Anticipate creating regional framework. | |
| | **Annual Report (C.22)** | | **$0** | **$43,100** | | | |
| 7609 | | Program Annual Report | $0 | $40,000 | | | |
| 7609 | | Permittee Forms | | $3,100 | | | |
| | | **GROUP PROGRAM BUDGET SUBTOTAL** | **$4,871,577** | **$4,346,117** | | | |
| | | **2% CONTINGENCY** | **$97,432** | **$86,922** | | | |
| | | **TOTAL GROUP ACTIVITIES BUDGET** | **$4,969,008** | **$4,433,040** | | | |
| | | **CONTINGENCY EXPENSE** | **$0** | **$0** | | | |
| | | **SALARY CREDIT (PM)(12 Months)** | **$0** | **$0** | | | |
| | | **SALARY SAVINGS (SWMPS 12 months)** | **($266,763)** | **$0** | | | |
| | | **SALARY SAVINGS (WMPS 12 months)** | **($213,058)** | **($213,058)** | | | |
| | | ***SUBTOTAL*** | ***($479,821)*** | ***($213,058)*** | | | |
| | | ***NET SUBTOTAL GROUP PROGRAM BUDGET*** | ***$4,489,187*** | ***$4,219,982*** | | | |
| | | **SUA FUNDING CAP** | **$3,500,000** | **$3,500,000** | | | |
| | | **NET TOTAL GROUP PROGRAM BUDGET** | **$4,489,187** | **$4,219,982** | | | |
| | | ***SUA FUNDING GAP*** | ***($989,187)*** | ***($719,982)*** | | | |

*Includes August 17, 2022 and conditional item adjustments

Item updated or changed since first draft budget

Identified as an item not explicitly required by the permit that staff and subcommittee thinks could be reduced or eliminated

CONTRA COSTA CLEAN WATER PROGRAM

**Date:** February 15, 2023

**To:** Management Committee

**From:** Elizabeth Yin, Program Consultant

**Subject:** Review and comment on Draft Trash Full Capture Device Impracticability Report

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## Recommendation:

Review and provide comments on the Draft Trash Full Capture Device Impracticability Report.

## Background:

MRP 3.0 provides the opportunity for Permittees to collectively submit a programmatic report that describes conditions under which it is impracticable to control trash via full trash capture devices. The report must be approved by the Water Board Executive Officer and conclusions included in the report can be used by Permittees when developing updated Long-term Trash Reduction Plans. As described in provision C.10.e, the impracticability report shall include, but not be limited to, the following:

- A description of the engineering constraints that prevent the installation of full trash capture devices;
- A process for evaluating and determining impracticability of full trash capture devices; and
- Alternative controls or a combination of controls that may be implemented to reduce trash loads to meet the requirements and deadlines in Provision C.10.a (Trash Reduction Requirements). Examples of alternative controls include, but are not limited to, requiring businesses or property owners to pick up litter, successful implementation of excess trash receptacles and collection services, increased code enforcement or parking enforcement/ticketing/towing, additional trash pick-ups, street sweeping, assessment and execution of cooperative implementation opportunities with Caltrans or neighboring Permittees, curb inlet screens, and long term measures such as pump station or storm drain retrofits, implementation of green stormwater infrastructure that controls trash, or changes to the

catchment to allow effective implementation of full trash capture measures.

A BAMSC Regional Working Group was formed to develop the Trash Impracticability Report, and to this date, the Working Group has developed a survey to identify engineering constraints, as well as conducted interviews to identify greater details of those engineering constraints. The BAMSC Regional Working Group has summarized those findings and produced a Draft Trash Impracticability Report for review and comment.

**Schedule:**
The Regional Working Group is requesting comments and feedback on the Draft Report by February 27th, 2023. Program Staff are requesting for comments to be submitted to Elizabeth Yin (eyin@pw.cccounty.us) no later than COB on Friday, February 24, 2023. Following the receipt of compiled comments from each of the Countywide Programs, the Regional Working Group will produce a Final Draft Trash Full Capture Device Impracticability Report by March 6, 2023 for approval by Management Committee on March 1, 2023, and submittal to the Regional Water Quality Control Board by March 31, 2023.

**Fiscal Impact:**

None at this time.

**Attachments:**

- Draft Trash Full Capture Device Impracticability Report
  also available on Groupsite
  https://cccleanwater.groupsite.com/folders/293822

G:\NPDES\01_Management Committee\02_Agendas\FY 22-23\Agenda Packets\2023-02-15\MC_Mtg_02-15-2023_(8.1)_Staff Report Draft Trash Full Capture Device Impracticability Report.docx

BAY AREA MUNICIPAL
STORMWATER (BAMS) COLLABORATIVE

# FULL TRASH CAPTURE SYSTEM IMPRACTICABILITY REPORT

## Draft

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.10.e.

**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

February 2023

## Preface

The Bay Area Municipal Stormwater (BAMS) Collaborative represents 103 stormwater management agencies in the San Francisco Bay Area, including 88 cities and towns, 8 counties, and 7 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 more cost-effectively completed regionally than locally.

This Trash Full Capture System Impracticability Report (Report) provides information to improve the successful planning and implementation of control measures to address trash in stormwater. The information included in this report is based on a current understanding of the feasibility of siting, designing, installing, and maintaining the types of full trash capture systems certified by the State Water Resources Control Board at the time this report was completed. The information included in this report was gained through a survey of BAMS Collaborative members and engineers that design and construct/install these types of systems. This report was funded by BAMS Collaborative member agencies and developed on behalf of the BAMS Collaborative by EOA, Inc. under the oversight of the BAMS Collaborative's Trash Impracticability Work Group.

## Disclaimer

Neither the BAMS Collaborative, its member agencies, contributors, nor the authors make any warranty, expressed or implied, nor assume any legal liability or responsibility for any third party's use of this report or the consequences of use of any information, product, or process described in this report. Mention of trade names or commercial products, organizations, or suppliers does not constitute an actual or implied endorsement or recommendation for or against use, or warranty of products.

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# LIST OF ABBREVIATIONS

To be completed

# EXECUTIVE SUMMARY

Trash control programs are implemented by cities, counties, and other public agencies in the San Francisco Bay Area to significantly reduce the levels of trash and litter discharged from municipal separate storm sewer systems (MS4s) and protect local creeks and the Bay. The recently reissued National Pollutant Discharge Elimination System (NPDES) municipal stormwater regional permit (a.k.a., MRP) requires that applicable public agencies achieve challenging trash load reduction benchmarks (i.e., 90% and 100%) over aggressive timeframes (i.e., 2023 and 2025). Reductions can be achieved either through the implementation of full trash capture (FTC) systems/devices certified by the State Water Resources Control Board (State Water Board) or through other trash management actions that reduce/intercept trash to an equivalent level as FTC systems/devices (i.e., to a low trash generation level). There are three main categories of certified FTC systems/devices: high-flow capacity systems; catch basin insert devices; and multi-benefit stormwater treatment systems.

The MRP acknowledges that engineering constraints may make it impracticable to fully address the trash reduction benchmarks solely through the implementation of FTC systems/devices. Provision C.10.e of the MRP provides public agencies the opportunity to collectively submit a programmatic report that describes conditions under which it is infeasible to control trash via FTC systems/devices. This report documents conditions under which FTC installation (and O&M) may be infeasible, based on the siting/design, installation/construction, and operation and maintenance of over 16,000 FTC systems/devices in the SF Bay Area over the past decade. Additionally, guidance is provided in this report on how to best identify and consider these conditions and evaluate whether it may be feasible (or infeasible) to install (or operate/maintain) a catch basin insert or high-flow capacity FTC device/system at a proposed location. Information on the types of alternative trash controls that may reduce trash to levels equivalent to FTC devices/systems is also provided.

Based on the results of a survey and follow-up interviews with public agency staff and consulting engineers that have extensive experience in siting, designing, installing/constructing, and operating/maintaining FTC systems/devices, the following key constraints were identified that make it infeasible to install a FTC system/device at a specific location:

- Existing MS4 conveyance deficiencies exacerbated by a FTC system/device;
- Significant hydraulic impacts, leading to increased flooding hazards;
- Configurations, compromised conditions, irregular dimensions, or lack of traditional grey MS4 infrastructure;
- Lack of public land area for system siting/placement;
- Conflicts with the locations of existing utilities;
- High water tables, backwater conditions, or excessive water intrusion impacting the FTC system/device performance;
- Manufacturer limitations (i.e., lack of systems/device that are feasible for location); and
- Complex topology or significant geologic features that impact the constructability of the system/device.

Additionally, a number of other non-engineering constraints were identified that may impact the construction, operation/maintenance, or trash interception performance of a FTC system/device:

- Environmental permitting/approval by regulatory agencies;
- Lack of adequate maintenance and operation equipment, training and resources;
- Performance impacts due to organic debris loading;
- Inability to control inflows into the system during maintenance;
- Damage, vandalism or theft of systems/devices; and
- Lack of the fiscal resources needed to install/construct and effectively operate/maintain FTC systems/devices over time.

A stepwise approach to evaluating the feasibility of both high-flow capacity and catch basin insert types of FTC systems/devices is presented in the report. Based on a review of the potential conditions/constraints to constructing/installing and operating/maintaining a FTC system/device it is recommended that the stepwise approach is applied on a site-by-site basis to evaluate infeasibility. Most constraints are site-specific and therefore may not apply to all situations/locations.

SF Bay Area public agencies have successfully implemented other types of trash controls to achieve trash reductions equivalent to those achieved by FTC systems/devices. Based on the results of over 15,000 On-land Visual Trash Assessments (OVTAs) conducted to date by SF Bay Area public agencies, which identify improvements over time in the levels of trash and litter on land areas draining to MS4s, control measures that may be equivalent to FTC system/device performance are identified and include: frequent street sweeping/cleaning, reoccurring on-land trash cleanups, anti-littering and illegal dumping prevention/enforcement actions, improved trash bin management, trash inspections on private properties, and source control ordinances.

# 1. INTRODUCTION

## 1.1 Background

In 2010, the San Francisco Bay Regional Water Quality Control Board (SF Bay Water Board) determined that trash levels observed in urban creeks in the San Francisco Bay Area (Bay Area) and on SF Bay shorelines are adversely impacting surface water quality and designated beneficial uses of these receiving waters. Additionally, the SF Bay Water Board determined that discharges from municipal separate storm sewer systems (MS4s) are significant contributors of trash observed in these receiving waters (Figure 1.1). These conclusions spawned the inclusion of new trash reduction requirements in the regional National Pollutant Discharge Elimination System (NPDES) permit for MS4s in the Bay Area (a.k.a., Municipal Regional Permit or MRP) that was first issued in 2009. Since that time, the development and implementation of stormwater trash control programs has become one of the highest priority components of the MRP. Requirements subsequent to those included in the first iteration of the MRP have significantly increased and the reduction of trash levels in stormwater discharges continues to be one of the highest priority control measure programs included in the recently reissued MRP (Order R2-2022-0018), referred to as MRP 3.0.

**Figure 1.1.** Trash accumulating on a storm drain inlet (Photo courtesy of the Santa Clara Valley Urban Runoff Pollution Prevention Program)

Trash control programs implemented by Bay Area cities, counties, and other public agencies (collectively referred to as Permittees) are designed to significantly reduce the levels of trash and litter[1] discharged from municipal separate storm sewer systems (MS4s) and to protect local creeks and the San Francisco Bay from these discharges. Under the MRP 3.0, Permittees are required to achieve challenging trash reduction benchmarks (i.e., 90% and 100%) over aggressive timeframes (i.e., 2023 and 2025). Reductions can be achieved either through the implementation of full trash capture (FTC) systems/devices certified by the State Water Resources Control Board (State Water Board) or through the implementation of other trash management actions that reduce/intercept trash to an equivalent level as FTC systems/devices (i.e., to a low trash generation level). There are three main categories of certified FTC systems/devices, which are further described in Sections 3 and 4:

- High-flow Capacity Systems;
- Catch Basin Inserts; and
- Multi-benefit Stormwater Treatment Systems.

Since the adoption of the initial trash load reduction requirement in the MRP in 2009, MRP Permittees have sited, installed, and maintained (or required the installation and maintenance) of over 16,000 FTC systems/devices. This significant level of investment over the past decade has provided Permittees with invaluable experience in the identifying conditions under which FTC system/device installation is feasible and constraints that may make it infeasible to install and/or maintain different types of systems/devices. Additionally, Permittees have gained invaluable experience in implementing other types of trash control measures over the past decade. This

[1] Trash consists of litter and particles of litter. The California Government Code Section 68055.1 (g) defines litter as all improperly discarded waste material, including, but not limited to, convenience food, beverage, and other product packages or containers constructed of steel, aluminum, glass, paper, plastic, and other natural and synthetic materials, thrown or deposited on the lands and waters of the State, but not including the properly discarded waste of the primary processing of agriculture, mining, logging, sawmilling, or manufacturing.

experience has resulted in significant trash reduction/interception in specific trash management areas (TMAs) in the Bay Area, as documented by On-land Visual Trash Assessment (OVTA) programs implemented by Permittees.

## 1.2 Project Purpose

MRP 3.0 acknowledges that engineering constraints may make it impracticable to fully address the trash reduction benchmarks solely through the implementation of certified systems/devices. Provision C.10.e provides the opportunity for Permittees to collectively submit a programmatic report that describes conditions under which it is infeasible to control trash via FTC systems/devices. At the request of MRP Permittees, the Bay Area Municipal Stormwater Collaborative (BAMSC)[2] led a project of regional benefit to develop a report that documents the conditions under which the installation and/or the operation and maintenance (O&M) of FTC systems/devices may be infeasible. The main purpose of the project is for MRP Permittees to address Provision C.10.e. by collectively developing and submitting a *Full Trash Capture System Impracticability Report* by March 31, 2023, for approval by the SF Bay Water Board Executive Officer. The project included the following tasks:

1. Survey Permittee staff, consulting engineers, and FTC vendors to document their experiences with siting, designing, installing and operating/maintaining FTC systems/devices;
2. Document conditions under which FTC installation and O&M may be infeasible based on input provided by survey respondents;
3. Identify and document alternative trash control measures or combinations of trash control measures that have been shown to achieve trash reduction/interception at a level equivalent to FTC systems/devices (i.e., low trash generation as defined by MRP 3.0); and
4. Develop guidance that can be used for evaluating and determining the feasibility of installing and operating/maintaining FTC systems/devices, in consideration of engineering and non-engineering constraints that may be present at locations where FTC system/device installation is most beneficial.

The main outcome of this project is this *Full Trash Capture System Impracticability Report*. A regional project workgroup comprised of MRP Permittee and stormwater program staff helped guide the project and the development of this report.

It is important to note that the project workgroup discussed and requested that the terms “impracticability” and “engineering infeasibility” be differentiated in the report because the term “practicable” has relevance to NDPES stormwater permitting and the Federal Clean Water Act (CWA). Specifically, the term “maximum extent practicable or MEP” is used in CWA section 402(p)(3)(B) states that NPDES stormwater permits “…shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods." The State Water Board has determined that MEP requires permittees to choose effective Best Management Practices (BMPs), and to reject applicable BMPs only where other effective BMPs will serve the same purpose, the BMPs would not be technically feasible, or the cost would be prohibitive” (Order No. WQ 2000-11). Further, the State Water Board has determined that MEP is the result of the cumulative effect of implementing, continuously evaluating, and making corresponding changes to a variety of technically and economically feasible BMPs that ensures the most appropriate controls are implemented in the most effective manner. Because “economic feasibility” is not the focus of the Trash Impracticability Project, the term “engineering feasibility” was used during the project to align with project goals more closely. Engineering feasibility is therefore the term used throughout this report instead of the term impracticability.

[2] The BAMS Collaborative is an informal group of San Francisco Bay Area stormwater programs representing cities, counties, and flood control districts subject to NPDES municipal stormwater permits. The BAMSC replaced the Bay Area Stormwater Management Agencies Association (BASMAA) in 2021 and continues to focus on regional challenges related to stormwater runoff and finding effective pollution prevention strategies.

## 1.3 Trash Impracticability Survey

When scoping the project, the workgroup discussed the best process to request and receive information from Permittee staff, consulting engineers, and FTC vendors that have significant experience with siting, designing, installing, constructing, and operating/maintaining FTC systems/devices. The workgroup agreed to develop and distribute a survey and then conduct follow-up interviews with key respondents to document their perspectives on conditions and constraints that may affect the feasibility of FTC systems/devices.

A 20-question survey was developed and distributed to over 100 Permittee staff, consulting engineers, and FTC vendors. The survey was intended to gather information on conditions and engineering constraints that prevent the installation or proper functioning of FTC systems/devices and collect any available data to identify alternative controls (or a combination of controls) that may be implemented to reduce trash loads to meet MRP 3.0 trash reduction benchmarks. The survey was developed by the BAMS Collaborative with oversight and input from the project workgroup.

A total of 48 individuals from 35 entities, including MRP Permittee public engineers and staff, engineering consultants, and FTC system/device vendors, responded to the survey (Figure 1.2). About 70% of the respondents have more than 5 years of experience with FTC systems/devices, and about 25% have over 10 years of experience. Therefore, the survey respondents collectively have over 300 years of experience in FTC systems/devices. Roughly 73% of the survey respondents have sited, designed, installed, or maintained more than 50 FTC systems/devices and 60% have sited more than 100 systems/devices. Follow-up individual interviews with key professionals that responded to the survey and had the most experience and expertise in siting, designing, and installing different types of FTC systems/devices (i.e., major categories of systems/devices certified by the SWRCB) were also conducted and provided additional information on the types of conditions and constraints most frequently encountered. The responses to the survey and information gained from the follow-up interviews heavily informed the contents of this report and the guidance provided on conducting feasibility evaluations. The findings of the survey are incorporated into this main body of the report, but a more comprehensive summary of the survey responses is included as Appendix A. Although survey responses helped guide the information in this report, it is important to point out that the survey responses should not be extrapolated to locations where FTC systems/devices are proposed. The importance of site-specific issues/conditions that may impact feasibility considerations cannot be understated. The guidance included in this report is based on the experiences to date and therefore may need to be updated over time if additional/different perspectives are gained through additional installations in the future.

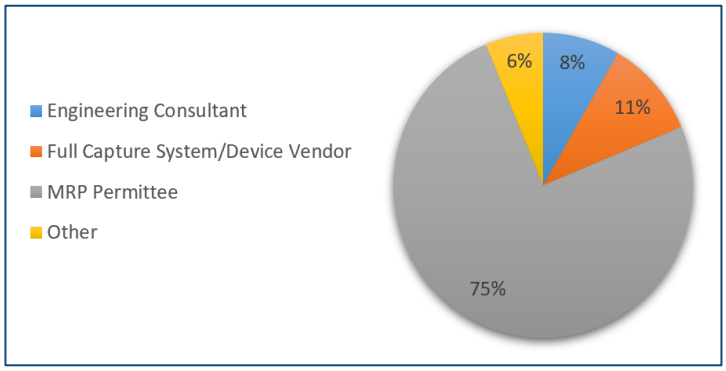


**Figure 1.2.** Types of stormwater management and engineering professionals that responded to the trash impracticability survey.

## 1.4 Organization of Report

The subsequent sections of this report are organized into the manner:

2. SF Bay Area Trash Control Measure Planning Framework & Implementation Status;
3. High-Flow Capacity FTC Systems;
4. Catch-Basin Insert Types of FTC Devices;
5. Guidance for Evaluating FTC System/Device Feasibility
6. Other Types of Trash Control Measures Possibly Equivalent to FTC Systems/Devices

References for all documents cited in this report are included in Section 7. A summary of the responses received on the survey are included in Appendix A. Example FTC system/device evaluations/reports and hydrologic/hydraulic modeling reports/analyses are included in Appendix B.

# 2. SF Bay Area Trash Control Measure Planning Framework & Implementation Status

To achieve the MRP 3.0 provision C.10 trash load reduction compliance benchmarks (i.e., 90% by June 30, 2023, and 100% by June 30, 2025), Permittees are required to identify, evaluate, select, and implement stormwater trash control measures. Evaluating, selecting, and implementing these measures requires a comprehensive planning process to ensure that the benchmarks will be achieved, cost efficiencies are realized, and unforeseen consequences are minimized. The *Generalized Trash Control Measure Planning Framework* implemented by MRP Permittees over the past decade is summarized in Section 2.1. This framework was used by Permittees to not only to achieve the MRP trash load reduction benchmarks to date by the required deadlines, but also to ensure that required trash reductions are sustained over time. Section 2.2 provides a summary of the FTC systems/devices implemented by MRP Permittees to date to achieve trash load reduction benchmarks. The number, types and areas addressed by these systems/devices were reported by Permittees in their FY 2021-22 annual compliance reports. Section 2.2 includes FTC systems/devices that Permittees have implemented (or caused to be implemented) through June 2022.

## 2.1 Generalized Trash Control Measure Planning Framework

This section presents the generalized framework that many MRP Permittees have conducted over the last decade to evaluate and implement stormwater trash control measures. The generalized framework is presented in Figure 2.1 and consists of a phased approach, including steps for planning, implementation, and adaptive management of stormwater trash control measure programs. It should be noted that while each MRP Permittee's process may vary, the phases and activities included in the generalized framework below are a good example of the overall process for planning, evaluating, and implementing stormwater trash control measures.

### *Phase 1. Develop Baseline Trash Generation Information*

The first step in the stormwater trash control measure planning process is to identify the baseline trash generation levels on land areas that produce runoff that enters an MS4. Baseline trash generation levels are identified by conducting On-land Visual Trash Assessments (OVTAs) on or adjacent to land areas or by acquiring similar information through other methods. Scoring categories for OVTAs include low (A), moderate (B), high (C) and very high (D).[3] As described in the MRP, land areas with low trash generation (i.e., consistent OVTA "A" scores) have achieved the 100% trash reduction goal and therefore additional or enhanced trash control measures are not needed to address trash generated on these land areas. Land areas with moderate, high, or very high trash generation levels (i.e., significant trash generating areas) are locations where additional or enhanced control measures are needed.

Baseline (circa 2009) trash generation levels are illustrated on Permittee baseline trash generation maps and serve as a starting point for Permittees to demonstrate that MRP-required trash load reduction goals have been achieved. To effectively assess and track control measure implementation and improvements in trash generation over time, Permittees have geographically grouped land areas into trash management areas (TMAs). Trash control measure implementation and trash load reductions are assessed, tracked, and reported at the TMA level by Permittees.

[3] EOA, Inc. 2017; EOA, Inc., 2018; and EOA and Keish Environmental, 2018.

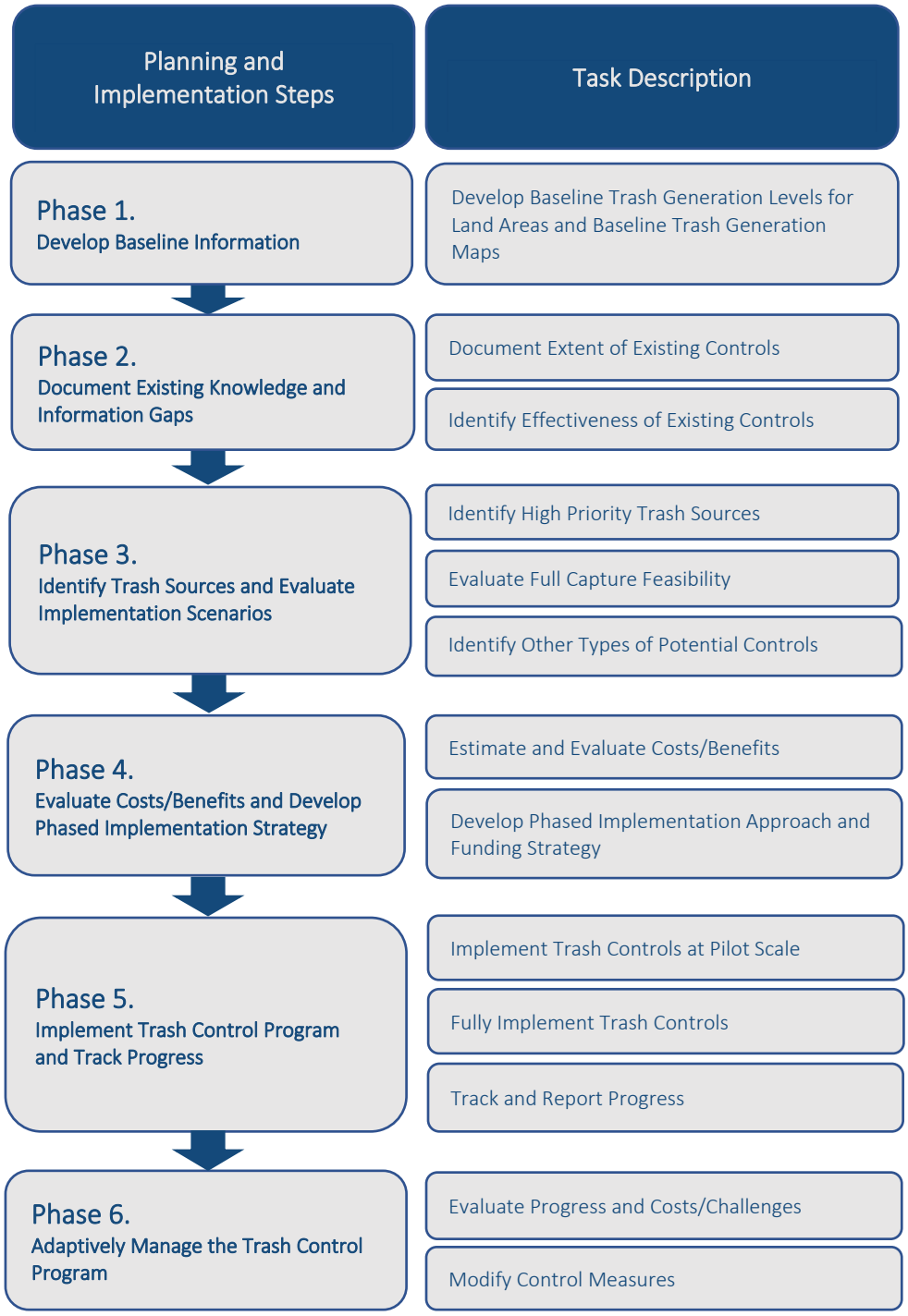


**Figure 2.1** Bay Area Trash Control Measure Planning, Implementation and Evaluation Framework

### *Phase 2. Document Existing Knowledge and Information Gaps*

Documenting the type and location of existing trash control measures, as well as the estimated area that they address and their effectiveness is fundamental to Permittees determining whether existing controls can be enhanced, or whether new trash control measures need to be implemented to achieve MRP load reduction benchmarks. If significant trash generating areas are addressed by certified FTC systems/devices, then these land areas have achieved the MRP 100% trash load reduction benchmark. If land areas generating significant levels of trash are not addressed by FTC systems/devices, then enhanced or additional trash control measures will need to be implemented and Permittees will need to demonstrate (via OVTAs) that low trash generation has been achieved in this area.

### *Phase 3. Identify Trash Sources and Evaluate Control Measure Implementation Scenarios*

The identification of high priority trash sources for land areas generating significant levels of trash can help Permittees identify the most appropriate types of control measures. For example, field surveys of high priority trash sources have resulted in the identification of inadequate trash bin management at multi-family residential and commercial properties in specific areas. These findings have resulted in the successful implementation of trash inspection programs focused on multi-family residential and commercial properties and trash reductions on those land areas. During inspections conducted on private properties, OVTAs were used by Permittees to document trash reductions and the achievement of the low trash generation goal.

As described in Phase 4, potential implementation scenarios for FTC systems/devices, both high-flow capacity and catch basin insert types, and/or alternative control measures are typically evaluated by Permittees to identify the most cost-effective control measures for specific TMAs and subareas. Sources of trash can help guide this implementation planning process.

### *Phase 4. Evaluate Costs/Benefits and Develop Phased Implementation Strategy*

Given that there is a general lack of funding for stormwater management programs and there are always competing interests for available public resources, Permittees usually attempt to identify and implement the most cost-effective control measures that achieve the desired goal/benchmark. With regards to trash control measures, cost-effectiveness is a function of both the costs and the trash reduction benefits anticipated via the implementation of a control measure.

Cost estimating for trash control measure design/development and implementation should include all types of costs (e.g., capital/initial and on-going), both internal (e.g., personnel) and external (e.g., contractor or vendor) costs, and should be based on the most recent information readily available. Additionally, costs should be estimated over longer timeframes (e.g., 50 years), given that Permittees will need to sustain the trash reduction benchmark in perpetuity. For estimating trash reduction benefits, the most readily available quantitative or qualitative information should be used. Local experience in implementing controls should be considered when estimating anticipated benefits. Based on the cost benefit analysis, a cost-effective control measure implementation strategy can then be selected by a Permittee and further defined in a trash control measures implementation plan, which should also include a funding strategy (e.g., amounts required to cover capital and on-going costs, estimated time periods of when disbursements will be required vs. an estimation on when, and how much it is expected to receive per source of funds). It is recommended that the implementation plan outlines control measure implementation in phases that allow enough flexibility to adapt to required modifications as lessons are learned over the implementation schedule. An example of a recent cost-benefit evaluation for FTC systems/devices and alternative controls can be found in Appendix B.

### *Phase 5. Implement Trash Control Program and Track Progress*

Trash control measures can be implemented at different geographical scales, as a pilot or a full-scale implementation, and over different timeframes. A phased implementation approach could provide valuable

feedback to improve future efforts and avoid identified challenges (CASQA 2021) and should be considered when developing a trash control measures plan. The design and construction of high-flow capacity FTC systems for example, can take over 2 years depending on the complexity of the capital improvement project and whether environmental permits and approvals are needed. Experience gained by Bay Area Permittees over a decade of implementation indicates that trash control programs will adapt based on lessons learned through pilot implementation, so expect that implementation plans and cost benefit estimates may also need to be updated over the implementation timeframe required by NPDES permits. The tracking methods used by Permittees to document both control measure implementation and trash load reductions should be based on what the Regional Water Board requires (e.g., annual report) and any information required by the Permittee to adequately track and adapt control measure implementation over time and ensure that trash load reduction benchmarks are achieved. Tracking of FTC systems/devices should be aligned with Permittee asset management programs as needed.

### *Phase 6. Adaptively Manage the Trash Control Program*

Trash control measure programs will adapt over time based on lessons learned, both successes and challenges. To assist this adaptation and continued efforts to optimize trash controls, implementation costs, benefits, and challenges should be tracked by Permittees over the implementation timeline. These tracked data should be evaluated periodically to support adaptation where needed. Examples of data and information that can be used to help Permittees effectively adapt their trash control programs include:

- Baseline Trash Generation, Full Capture, and Private Land Drainage Area Maps – Mapping is a key tool used to track trash generation, control measure implementation, and expended knowledge of stormwater drainage, specifically related to privately-owned drainage systems. Revisions, refinements, and updates to maps can also assist Permittees overtime in calculating trash load reductions.
- Control Measure Effectiveness Studies – Effectiveness evaluation studies focused on specific controls of combinations of controls can produce results to help modify (or not modify) trash control measure implementation over time. For example, SCVURPPP and the City of Oakland (2021) conducted a study that evaluated the ability of curb-inlet screens (partial capture devices) and street sweeping programs to achieve the MRP 3.0 100% trash load reduction goal. Although there are some remaining questions regarding the outcomes of the study, these control measures, if implemented in tandem and at the level outlined in the evaluation report, can significantly reduce trash in stormwater. Results such as those derived from the SCVURPPP and City of Oakland study can further inform Permittee decisions on control measure implementation and further define the costs and benefits of implementing specific types of trash control measures.
- On-land Visual Trash Assessments (OVTAs) and Trash Source Evaluations - OVTAs are used to document changes in trash generation over time in specific TMAs and whether a TMA has achieved the trash load reduction goal via the implementation of alternative trash controls. Importantly, OVTAs also document land areas where trash generation has not significantly improved and therefore control measure implementation will likely need to be expanded or modified in these land areas to achieve the reduction goal. In some cases, the lack of improvements in trash generation observed via OVTAs over time suggests that a FTC system/device approach may be more appropriate and cost-effective than expanding the implementation of alternative trash control measures in these areas. Also, OVTAs and source evaluation assessments can help identify trash sources in specific areas that may inform control measure implementation. For example, if overflowing trash bins/containers from private properties is identified as an important trash source, enhancing Permittee inspection programs designed to work with private property owners to improve bin/container management could be a viable control measure option that would address the levels of trash generation observed in a specific TMA or sub-TMA. Knowledge of trash sources, therefore, can be helpful in adapting a trash control measure program over time.

- Tracking Implementation Costs – Tracking the costs of implementing a trash control measure program can assist Permittees in identifying which controls are the most cost effective and which are not. Those that are the least cost effective should be evaluated over time and alternative controls should be considered, as long as the trash reduction benefits are equal to or greater than the control measure currently implemented by the Permittee. An good example of control measure costs being tracked and used by Permittees to adapt their implementation plans is the planned movement away from catch basin insert types of FTC devices installed in the upper Colma Creek watershed over the last decade to one high-flow capacity FTC system downstream of these devices. Although the project is still in the early planning stages, the costs ongoing maintenance of the one high-flow capacity device are anticipated to be lower than the costs of maintaining the catch-basin inserts installed within the catchment. Additionally, the high-flow capacity FTC system provides increased trash load reduction benefits because more trash generating areas (including those owned/operated by Caltrans) are addressed by this planned system.
- Change in the Types of Control Measure Allowed for Compliance - MRP 3.0 includes changes in the control measures that can be used to demonstrate attainment of trash load reduction benchmarks and the trash reduction benchmark. These changes include the elimination of credits for trash source control ordinances, offsets for creek/shoreline cleanups, and offsets for direct discharge control programs. If the list of acceptable types of control measures that can be used to demonstrate compliance are modified by the Regional Water Board, Permittee trash implementation plans and control measures will need to be updated.

## 2.2 Trash Control Measure Implementation Progress by MRP Permittees

MRP Permittees have implemented numerous enhanced and new trash control measures over the course of the past decade. These actions have substantially reduced the levels of trash in stormwater. As part of these efforts, Permittees have installed both catch basin type and high-flow capacity FTC systems/devices, and implemented other (alternative) types of trash control measures that prevent or intercept trash in stormwater before entering receiving waters. Table 2.1 summarizes the progress made by Permittees in implementing FTC systems/devices (as reported in FY 2021-22 annual reports). Additional information on the implementation of alternative trash controls is included in Section 6.

Through FY 2021-22, Permittees have successfully installed (or caused others to install) 16,419 FTC systems/devices (Table 2.1). The installation and ongoing O&M of these systems/devices is responsible for roughly a 60% stormwater trash load reduction at the regional level. As described in Section 6, additional trash reduction progress has also been achieved by Permittees through the implementation of alternative types of trash control measures (e.g., street sweeping[4] and on-land cleanups). Based on reporting by Permittees in FY 2021-22, an additional 20% stormwater trash load reduction has been achieved through the implementation these alternative control measures.

[4] Additional information can be found in the BASMAA Tracking California's Trash Project – Evaluation of Street Sweeping and Curb Inlet Screen Measures to Control Trash in Stormwater (BASMAA, 2016).

**Table 2.1.** Summary of Full Trash Capture (FTC) system/device implementation by county, as report by MRP Permittees in FY 2021-22 annual compliance reports.

| Permittee County | Catch Basin Inserts | | High-Flow Capacity Systems | | Multi-Benefit Treatment Systems[a] | | Total | |
|---|---|---|---|---|---|---|---|---|
| | # | Area Addressed (Acres) | # | Area Addressed (Acres) | # | Area Addressed (Acres) | # | Area Addressed (Acres) |
| **Alameda** | 7,661 | 19,652 | 169 | 7,603 | 27 | 284 | 7,859 | 27,547 |
| **Contra Costa** | 2,818 | 7,793 | 127 | 5,014 | 295 | 1,986 | 3,245 | 14,840 |
| **Santa Clara** | 1,963 | 3,209 | 63 | 17,502 | 201 | 998 | 2,226 | 22,437 |
| **San Mateo** | 2,946 | 7,115 | 60 | 2,922 | 4 | 99 | 3,010 | 10,135 |
| **Solano** | 26 | 23 | 12 | 7,954 | 0 | 0 | 79 | 8,026 |
| **Totals** | **15,414** | **37,792** | **431** | **40,995** | **490** | **2,907** | **16,419** | **82,984** |

[a] Includes other types of full capture systems reported by Permittees in annual reports.

# 3. HIGH-FLOW CAPACITY FULL TRASH CAPTURE SYSTEMS

## 3.1 Overview of Large Systems

High-flow capacity FTC systems are proprietary stormwater treatment systems that generally require engineering/hydraulic design and construction to install. These types of systems can address trash from an entire stormwater catchment, including land areas with private storm drains that connect to MS4s (i.e., Private Land Drainage Areas or PLDAs). Also known as "large" FTC systems, these systems provide a single location for maintenance and should be inspected at regular intervals and maintained when necessary (consistent with manufacturer specifications) to ensure the desired performance is sustained. Some disadvantages of high-flow capacity FTC systems are the relatively high capital and construction costs, which require a large initial funding source, and the higher instance of subsurface utility conflicts at desired locations within highly urbanized areas. Additionally, large systems installed in open channels may be infeasible due to potential impacts to wildlife habitat or at a minimum require environmental permitting that may require mitigation (Port of Oakland 2021).
There are three primary types of large systems/devices currently certified by the State Water Board:

- Hydrodynamic separators;
- Gross solids removal devices; and
- Netting systems.

All three types of large FTC systems have been installed in the SF Bay Area. Additional information on each of these types of systems is provided in this section. At the time this report was developed, 18 high-flow capacity FTC systems had been certified by the State Water Board.[5]

### *Hydrodynamic Separators*

#### Vortex Separators

Vortex separator (or swirl concentrator) types of HDS units are the most common types of large FTC systems installed within the Bay Area (Figure 3.1). These systems are produced by several manufacturers, each with their own designs, but all contain large cylindrical separation chambers in which stormwater enters, creating a vortex to separate trash, debris, oil, and other pollutants from stormwater. The velocity is highest at the outer edge of the vortex, keeping trash and debris from clogging outflow holes and allowing the stormwater to leave the cylinder. Heavier material settles to the bottom of the storage sump, and floatables (e.g., trash) remain on the surface of the water within the separator cylinder.

Vortex separators have the advantage of having relatively small footprint and offer additional flexibility in their installation locations when compared to other types of large FTC systems. HDS units come in a large variety of types and sizes and may be scaled up to handle peak flows of several hundred cubic feet per second. Trash, debris, and sediment are usually removed from the vortex separator with a vacuum-assisted truck, however, alternative systems may be fitted with a large basket to collect settled material, which is subsequently removed via a boom truck and emptied into a container for disposal. Vortex separators can also be small enough to be retrofitted into existing manholes. Unit configurations are available for in-line or off-line installation. Studies have shown that vortex separators can be highly effective at trapping trash and provide removal benefits for other pollutants (e.g., PCBs and mercury).

[5] https://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/trash_implementation/2022/fullcptre-availabletopublic10-11.pdf (updated October 13, 2022).

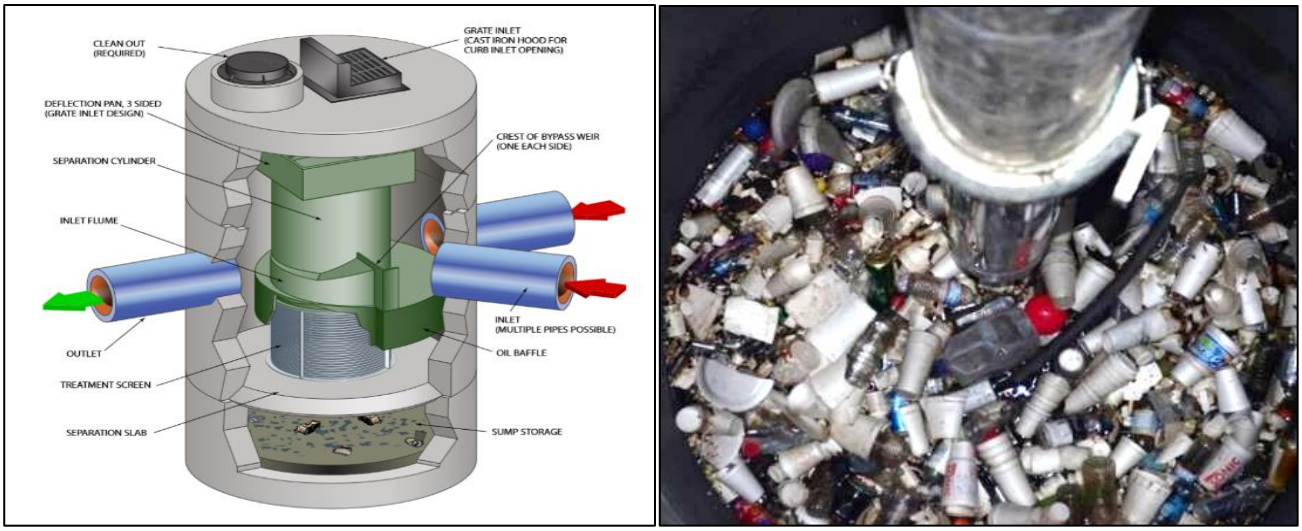


**Figure 3.1.** (Left) Diagram of a Contech CDS® hydrodynamic separator (Source: www.conteches.com/products/stormwater-management/treatment). (Right) Separator Cylinder of Contech CDS® hydrodynamic separator (Courtesy of City of San Jose).

**Figure 3.2.** Contech CDS® hydrodynamic separator installation in City of Hayward (Image courtesy of EOA, Inc.).

Although there are many advantages to vortex separators for trash control, but they also have their disadvantages. Compared to other types of large systems, vortex separators can have high capital costs. Additionally, for large drainage areas (e.g., >300 acres), the sump depths for vortex separators may need to be greater than 25 feet, which poses a maintenance challenge given that typical atmospheric pressure limits vertical suction lift of pumps (i.e., vacuum-assisted trucks). Additional booster pumps are therefore needed to clean vortex separator sumps at these depths.

### Nutrient/Debris Separating Baffle Boxes

Nutrient Separating Baffle Boxes (NSBB) and Debris Separating Baffle Boxes (DSBB) are both types of HDS units designed with a shallower depth than a vortex separator (Figure 3.3). Treatment flow rates vary by size and configuration of the unit. Stormwater enters a rectangular chamber with a screening system suspended above sedimentation chambers to separate trash, debris, oil, and other pollutants from stormwater.
The NSBB/DSBB screening system stores trash and debris in a dry state which minimizes nutrient leaching, bacterial growth, and odors. All collected material within the screening system and sump is removed with a vacuum-assisted truck. NSBB/DSBB units are shallower than vortex separators, reducing the need for shoring during construction. NSBB and DSBB unit configurations are available for in-line or off-line installation.
The disadvantages to NSBB/DSBB units for trash control include the need for a larger footprint for siting the system and the limited information on O&M, due to the more recent implementation of these types of systems. Because the design of the NSBB/DSBB requires a larger horizontal footprint than vortex separators, utility and ROW conflicts may pose a challenge to installation and maintenance. Studies have shown, however, that NSBB/DSBB systems can be highly effective at trapping trash and also provide removal benefits for other pollutants (e.g., PCBs and mercury).

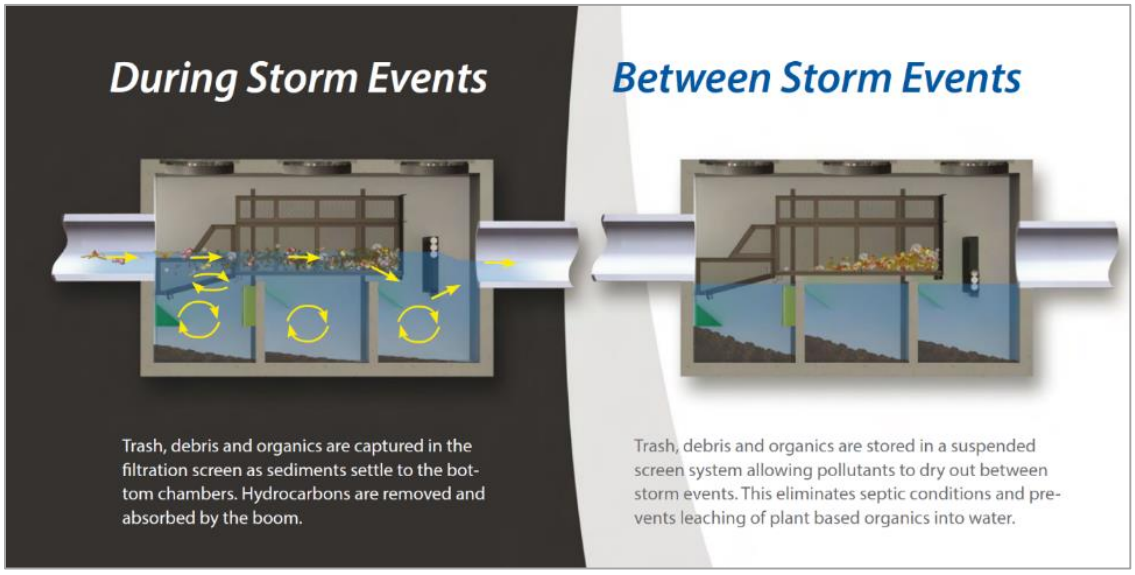


**Figure 3.3.** Bio Clean Debris Separating Baffle Box (Source: https://biocleanenvironmental.com/debris-separating-baffle-box/).

### *Gross Solids Removal Systems (GSRDs)*

Gross solids removal devices (GSRDs) have also been installed in the Bay Area. A GSRD may be installed as a series of screens in-line (Figure 3.4), within a channel, at the end of a pipe, or within the forebay or outlet of a stormwater pump station. As stormwater enters the GSRD, trash and debris are captured inside or by the screens and water exits through 5 mm wide gaps (i.e., screen louvers). GSRDs may be installed in a linear-radial configuration to treat flows from pipes that are 12 to 72 inches in diameter to the desired capacity or within a channel of the forebay of a stormwater pump station as a flat-panel configuration. A GSRD may require a large horizontal footprint compared to the other types of high-flow capacity systems but may be the best option if space is not a consideration.

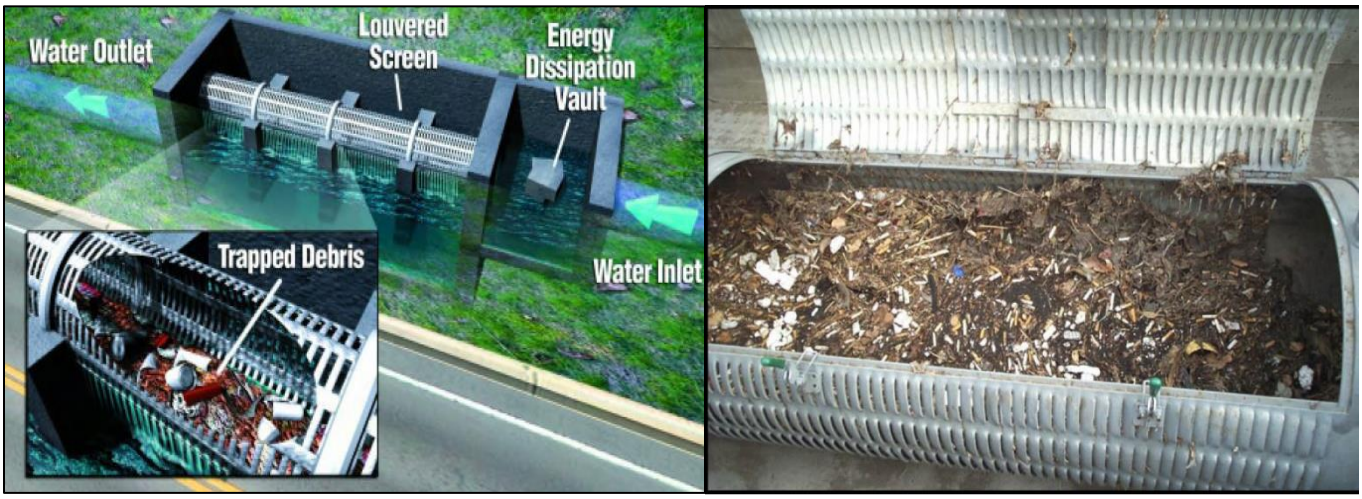


**Figure 3.4.** (Left) Cut away view of linear radial configuration (courtesy of the American Society of Civil Engineers Publications) and (Right) GSRD linear radial configuration (Courtesy of Caltrans and Roscoe Moss [Caltrans, 2003]).

The linear-radial configuration is maintained by opening the length of the system and vacuuming the trash and debris stored within the system. The flat-panel configuration is maintained by removing trash and debris adhering to the panels. Figure 3.5 shows the GSRD installed in a flat-panel configuration at a pumpstation in the City of East Palo Alto.

Disadvantages to the GSRD include siting and maintenance challenges. Siting can be difficult in certain situations due to the extent of the footprint needed to construct and maintain the device. Additionally, maintenance challenges with extruding the material captured by the GSRD are common with these types of devices.

**Figure 3.5.** Roscoe Moss Gross Solids Removal Device (GSRD) inclined screen configuration installed in the City of East Palo Alto at the outlet of a pump station (Image courtesy of Schaaf and Wheeler Consulting Engineers).

### *Netting Systems*

Figure 3.6. NetTech FTC netting system installed in the City of Livermore (Image courtesy of Schaaf and Wheeler Consulting Engineers).

These types of high-flow capacity systems rely on the force of flowing water to trap trash and debris in disposable nylon mesh bags/nets of varying mesh sizes and storage volumes. The typical configuration is a large net installed at the end of a stormwater outfall (i.e., end-of-pipe), however, the manufacturers indicate that these nets can also be placed in-line. Netting systems may be designed and installed to treat any size of catchment but are most commonly used to address flows from relatively large catchments. Two types of netting systems are currently available. The first is the NetTech manufactured by Oldcastle Stormwater Solutions (formerly KriStar Enterprises, Inc.) and requires retrofitting of an outfall. It can be installed with a relatively small initial cost relative to the other types of large systems. This type of netting system is placed over the entire outfall and is attached to the outfall with a tether (Figure 3.6). It is designed to detach with a certain amount of force, usually when the net is full. Once full, the net closes and detaches, and the tether prevents the net from moving down stream. The net requires a minimum footprint of typically 10-feet between the outfall and the receiving water body and must be placed on a concrete pad.

The second type of netting system is the TrashTrap manufactured by StormTrap Technologies Inc. (formerly Fresh Creek Technologies Inc.). It requires a structure to house the netting system (Figure 3.7). The nets are designed not to detach automatically. An overflow screen is located above the nets so that any excess flows can easily bypass. Once full, nets are removed with a boom truck and disposed. New nets may be installed to eliminate the cleaning of existing nets. This netting system can be easily scaled up, has negligible headloss (does not increase upstream flooding) when cleaned regularly, and may be installed under water or within tidal areas, allowing it to be installed in more types of locations than the other systems. This flexibility is particularly important in cities where stormwater outfalls have significant tidal influence or are partially submerged.

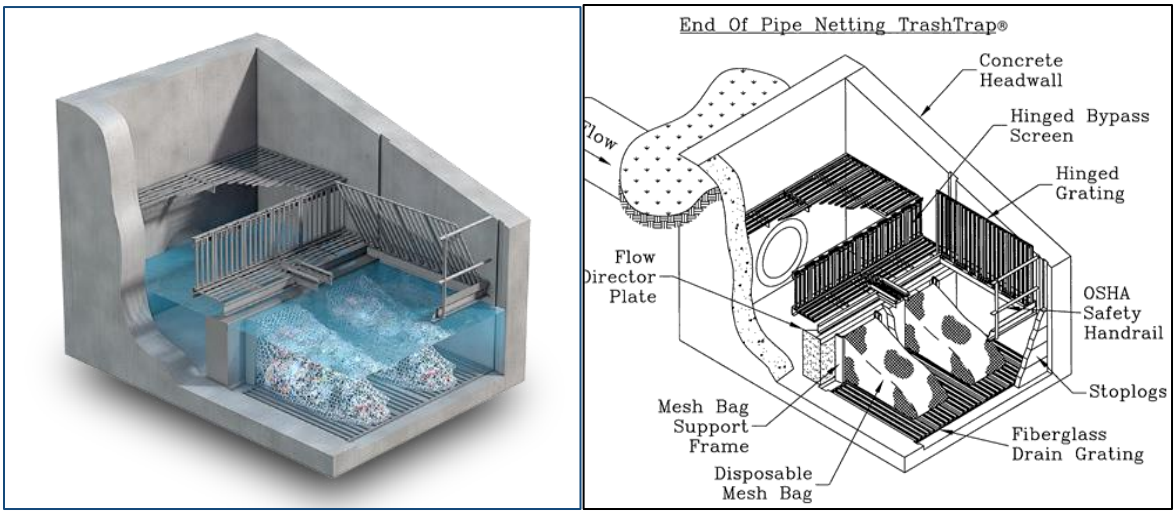


Figure 3.7. StormTrap Technologies End-of-Pipe Netting TrashTrap® (Images courtesy of StormTrap Technologies, Inc.).

## 3.2 Engineering Constraints

The selection of a high-flow capacity FTC system to address trash generated in a catchment will depend on a number of factors. Ideally, a high-flow capacity system should be located downstream of all land areas in a catchment that generate significant levels of trash, but prior to the location where the stormwater pipe discharges into a receiving water body (i.e., outfall). This location generally provides the greatest load reduction benefit, while minimizing encroachment onto the receiving water. That said, there are nearly always site-specific constraints at locations proposed for high-flow capacity systems, including the land available to construct the device, depth of the water table, conflicts with major utilities (e.g., gas, water, electricity), and stormwater pipe depths and conditions. These (and other) constraints can have a major barring on whether a high-flow capacity FTC is feasible to construct and maintain at a specific site/location. If feasible from an engineering perspective, considerations of the environmental permitting needed to construct and maintain the device, as well as the resulting trash load reduction benefit should also be considered prior to selecting a site.

Descriptions of different types of engineering constraints that must be considered and may prevent the installation of a high-flow capacity FTC system at a selected location are presented in this section. Information on constraints was compiled from survey respondents, who were asked to identify the engineering constraints that they have encountered during the siting and installation/construction of high-flow capacity FTC systems, and from follow-up discussions with engineers that have significant experience in siting, designing, and constructing these systems. The following list of engineering constraints was developed based on this input.

*Conveyance deficiencies and flat grades of existing storm drainage systems*. Municipal stormwater drainage systems in the Bay Area were generally constructed over the course of the last decade, as urbanization occurred and the need for stormwater infrastructure to reduce flooding in neighboring communities increased. Some portions of the stormwater drainage system that were constructed nearly a 100 years ago are still present and functioning as deigned. That said, design standards have evolved significantly since that time and some portions of the systems don not meet current standards.

Although some portions of the stormwater infrastructure in the Bay Area have undergone upgrades through redevelopment and capital improvement programs, many areas continue to be impacted by flooding due to conveyance deficiencies. Depending on the severity of the deficiencies, siting a high-flow capacity FTC system in a portion of a stormwater drainage system that experiences flooding is not advisable. Additionally, locations where drainage pipes have flat grades can pose significant challenges to siting FTC systems. At total of 31% of survey respondents indicated that they have encountered these engineering constraints while siting or designing FTC systems. Scenarios where pipes with flat grades are typically observed in the Bay Area include the following:

- Locations in close proximity to the coast or SF Bay. As stormwater drainage systems approach their outfall locations at the Pacific Ocean or the SF Bay, pipe grades are significantly reduced due to the lack of elevation and topology. Low gradient systems located near to the coast or SF Bay where velocities are reduced and high tail waters are found, should be excluded from high-flow capacity FTC system consideration, given that they likely increase flooding risks.
- Flat pipe grades in other locations. In low lying areas (e.g., valleys) and areas with high groundwater depths, pipes may have limited grades to avoid groundwater intrusion or the need for pump stations to move stormwater to high elevations. Should these situations be encountered, the feasibility of installing and maintaining a high-flow capacity system should be evaluated. In some cases, it may be infeasible to install a device due to the inability to direct flow through the FTC system at a velocity that is needed to avoid (or not exacerbate) flooding potential in the area.

*Existing storm drainage systems with shallow or deep pipe depths*. As described above, there are situations where existing storm drainage systems were constructed at shallow depths, which can make the installation of FTC

systems challenging. Generally speaking, pipe invert depths that are less than 3 to 5 feet provide significant constraints to constructing high-flow capacity FTC systems. For locations with pipes with deep inverts, feasibility will depend on the type of system and the maintenance requirements. Confined space entry should be avoided, to the extent possible, and may not make a site infeasible to maintain. A 25 feet maximum invert depth is a good estimation for when maintenance can be conducted by a standard vacuum-assisted truck. Anything deeper requires special types of maintenance equipment. A total of 66% of survey respondents indicated that they have encountered this engineering constraint while siting or designing high-flow capacity FTC systems.

*Compromised condition of existing storm drainage infrastructure*. In addition to the constraints described above, 53% of survey respondents indicated that they have encountered situations where storm drainage infrastructure was in compromised condition at the location where a FTC system is proposed. General guidance on how best to consider the current condition (or age) of stormwater piping/structures is that the existing infrastructure should have a remaining life expectancy that is equal to or greater than the estimated life expectancy of the FTC system. If the expectancy of the existing infrastructure is less than the estimated life expectancy of the proposed FTC system, then upgrades to the existing infrastructure should be considered prior to installation. Depending on the extent of upgrades needed, installation of a FTC system at the proposed location may need to be delayed or considered infeasible due the compromised condition of the existing infrastructure.

*Lack of public land area for the system*. High-flow capacity FTC systems are typically installed on land owned by a Permittee, including streets/roadways, pump station lands, and municipal parking lots. Channels owned and maintained by public agencies may also be used as locations for FTC systems, assuming the approval of the appropriate environmental permits. In many situations, the availability and location of public lands do not align well with ideal locations for or types of, FTC systems. High-flow capacity FTC systems generally have large footprints and require significant land to integrate into stormwater drainage systems. In many instances, public lands are not large enough to support the construction and maintenance of these types of systems. This is evident in the survey results, where 75% of respondents indicated that they have encountered this constraint for high-flow capacity FTC systems, the highest percentage of all potential constraints. The lack of public lands to construct and maintain these types of FTC systems may make installation (or maintenance) infeasible.

*Utility conflicts*. Most stormwater drainage pipes are located below public streets/roadways. Utilities, including electricity, natural gas, water, sewer, and telecom in many cases are also located below streets/roadways, and run parallel or perpendicular to stormwater drainage pipes. An abundance of utilities located underneath streets/roadways can pose challenges with siting high-flow capacity FTC systems (Figure 3.8), especially if utilities are within the footprint of the system and would need to be moved to accommodate the placement of the system. A total of 56% of the respondents to the survey indicated that they had encountered utility conflicts siting a high-flow capacity FTC system, making it one of the most frequently encountered constraints identified by survey respondents. While relocation of utilities may be an option in some cases, relocation can significantly increase project costs and delay FTC projects. For these reasons, relocation may not be a viable solution for siting a FTC system and therefore it may be infeasible to install a system at a proposed location due to utility conflicts.


**Figure 3.8.** Types of underground utilities that may be encountered when siting high-flow capacity FTC systems public streets/roadways (Image courtesy of Global Designing Cities Initiative Global Street Design Guide).

***Creating or increasing flood hazards or hydraulic impacts***. 59% of the survey respondents indicated that they have encountered flood hazards and/or significant hydraulic impacts to the storm drainage system when siting/designing a large FTC system. There are generally three potential scenarios where this constraint is realized:

(1) Proposed site is classified as a floodway. In this scenario, installation of a large FTC system is infeasible.

(2) Proposed site is classified as a floodplain. Based on a case-specific analysis it may be determined that engineering considerations may be taken (not applicable in all cases) or may be determined as infeasible for installation. If mitigation projects are required, additional costs are likely. Classification of a sites' flood hazard can be found on the Federal Emergency Management Agency's (FEMA) Map Service Center or other National Flood Insurance Program (NFIP) products data.

(3) Hydrologic/Hydraulic analysis for the site and proposed type of FTC system results determine that the proposed project may cause flooding. Based on a case-specific analysis it may be determined that engineering considerations may be taken (not applicable in all cases) or may be determined as infeasible for installation. If mitigation projects are required, additional costs are likely. An important note regarding the hydraulic impacts to the storm drainage system that caused by high-flow capacity FTC systems installed either underground or within a channel. There is a common misconception about design and construction of "*In-line*" and *"Off-line"* systems. Sometimes during the design process, the hydraulic analysis determines that the hydraulic losses calculated for a proposed "In-line" FTC system will likely cause flooding or compromise the proper functioning of the system. In these cases, engineering consultants are sometimes asked to explore an "Off-line" option under the assumption that off-line system would generate less hydraulic losses and will mitigate for hydraulic impacts caused by the in-line system. This is a misconception. Although hydraulic impacts may be reduced by moving the system to an off-line design, off-line configurations can still generate significant hydraulic losses, in some cases even more than

in in-line systems. In general, an off-line system diverts flows up to the one-year, one-hour storm flows into the system, but higher flows are diverted around the FTC system. Diversion typically occurs by constructing a weir wall upstream of the FTC system. The weir wall itself, however, may cause significant upstream hydraulic impacts. Therefore, assuming that the hydraulic impacts caused by a high-flow capacity FTC system can simply be addressed by designing the system off-line's is a misconception. The type, size, and configuration of the FTC system should be determined by analyzing several engineering variables calculated by iteratively running a hydraulic model based on site-specific conditions (Mendocino 2021; Schaaf and Wheeler 2017 and 2018). An example of an "off-line" vortex separator is illustrated in Figure 3.9.

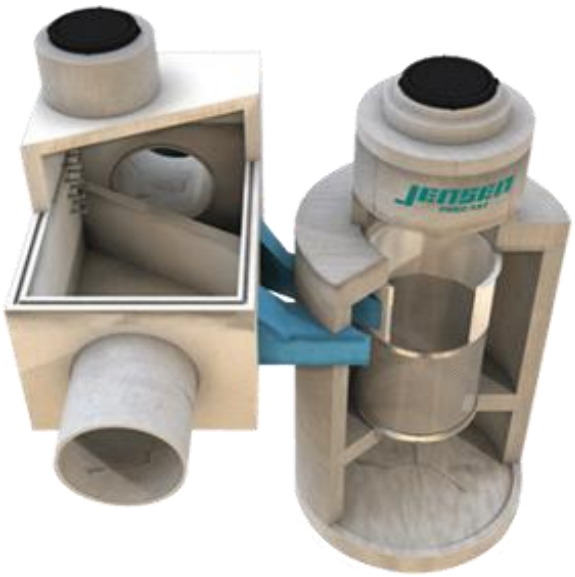


**Figure 3.9.** Jensen off-line HDS full trash capture system (Image courtesy of Jensen Precast).

***Potential impacts to stormwater pump stations.*** Because stormwater pump stations are generally located at the bottom of catchments, these types of infrastructure are natural locations to consider when siting high-flow capacity FTC systems. As described below, there are many constraints that need to be considered under two potential design scenarios associated with pump stations:

(1) Installation upstream a pump station. In general, pump stations are located at the lowest elevation points of a stormwater drainage system, so all flows congregate at these points. The pumps in the pumpstation, however, are designed to receive consistent and as close as possible laminar flow. Installing a FTC without changing the original capacity of the pump and the pump's set points, in most conditions, would essentially stop the pumps working in the station, as the flow would be obstructed by the FTC system. Therefore, the pump would cycle on-and-off in shorter periods than those allowed by original design, or constantly, which would inevitably burn out the pump(s). Adding more capacity or changing set points to the pumps are typically projects that require resources in the millions of dollars range and therefore in many cases siting the FTC system upstream of a pump station is not advised and likely should be considered infeasible.

(2) Installation downstream a pump station. Installation of a high-flow capacity FTC system downstream of the oufall(s) of a pump station will create increased hydraulic head, possibly at greater levels than the pumps were designed to address. In other words, the pump station would need to force more water through a force main, due to the FTC system blocking the flow. This scenario would place more strain on the pump(s), potentially causing the pump station to fail and cause upstream flooding.

In summary, high-flow capacity FTC systems installed upstream or downstream of pump stations may cause damage to a pump(s) in most design scenarios and may create significant flooding within and upstream of the pump station (City of San Rafael 2021a and 2021b). It may be feasible from an engineering standpoint to install a FTC at a pump station if the FTC system installation is part of a capacity improvement project (e.g., East Palo Alto's trash capture/pump station improvement capacity is part of the very few exceptions), but this scenario likely becomes cost prohibitive. Design alternatives need to be evaluated on a case-specific basis when considering installation of the FTC system near a pump station.

*High water tables/backwater conditions/excessive water intrusion.* High water tables, backwater conditions, and excessive water intrusion into FTC systems were identified by survey respondents as factors that constrain the implementation of high-flow capacity FTC systems. Should any of these factors significantly affect the proper functioning of the system and its ability to consistently achieve the FTC design standard throughout the year, this constraint may make the construction of the system at the desired location infeasible. Tidal and groundwater intrusion into the device can create hydraulic impacts and require the system, if feasible, to be designed to address these impacts. That said, any many situations the impacts caused by tidal/groundwater intrusion are too great to effectively mitigate through alternative engineering designs. Additionally, maintenance and operation impacts associated with these constraints should also be evaluated prior determining whether a design is feasible. Just because a system can be designed and constructed to address these constraints doesn't mean that the maintenance and operation of the system is feasible (see Section 3.2).

*Manufacturer limitations.* Although there are many types, models and manufactures of high-flow capacity FTC systems, there are situations where a system that will meet the constraints of a proposed location is not currently manufactured by a vendor or certified by the State Water Board. A total of 25% of survey respondents indicated that they have encountered this engineering constraint while siting or designing a high-flow capacity FTC system. These situations are mostly associated with the specific size or depth of an inlet pipe or the lack of a system design that allows for bypass of larger flows (Schaaf & Wheeler and EOA, Inc. 2021). If a certified FTC system is not available to address constraints at a proposed location, it is likely infeasible to install a high-flow capacity system site.

*Complex topology or significant geologic features.* The presence of outcroppings or near-surface bedrock at a proposed site are examples of this constraint. A total of 9% of survey respondents indicated that they have encountered this engineering constraint. Similarly, the presence of steep slopes at the proposed site could also create challenges for installing and maintaining high-flow capacity FTC systems. A total of 19% of survey respondents indicated that this is an engineering constraint that they have encountered. While, from an engineering standpoint, there may be options available to overcome these constraints, these alternatives may increase the costs of a project to a degree that makes in far less cost-effective and possibly infeasible.

*Damage, vandalism or theft.* This constraint for high-flow capacity FTC systems is mostly associated with end-of-pipe netting systems since most large systems are constructed underground. That said, theft and vandalism can occur during the construction of a FTC system, which increases project costs. Additional information on this constraint is provided in Section 3.2 (Operation and Maintenance Constraints).

## 3.3 Operation and Maintenance (O&M) Constraints

In addition to the engineering constraints described in Section 3.1, there may be constraints associated with the effective operation and maintenance (O&M) of a high-flow capacity FTC system that affect the feasibility of constructing a system at a proposed site. High-flow capacity FTC systems must be operated and maintained effectively to ensure that trash interception occurs as designed and to prevent hydraulic issues and flooding. To evaluate the importance of different types of O&M constraints, survey respondents were asked to identify from a list, *which engineering constraints have you encountered when operating and maintaining high-flow capacity full trash capture systems?* Survey responses led to the development of the following list of O&M constraints that may make the construction/installation or effective O&M of the FTC system infeasible. Additional information on the responses to the survey can be found in Appendix A.

*Lack of accessibility to maintain system*. Maintenance entry points (e.g., manholes, access hatches, outfalls) must be accessible to effectively operate, inspect, and maintain high-flow capacity FTC systems. More than half of survey respondents (56%) indicated that they have encountered situations where system access points were blocked by automobiles parked on/near the access point, construction operations within the area blocked the access point, or there was damage to the access point that required that required specialized equipment or repair to address the damage. If an access point is not accessible on a consistent basis to allow for adequate inspection

and maintenance, then the maintenance of a device at that location may be infeasible at a frequency necessary to ensure that the system is properly functioning throughout the year.

*Lack of proper maintenance equipment*. 36% of survey respondents indicated that they have encountered this engineering constraint when operating and maintaining catch basin insert types of FTC devices. While this constraint may include the lack of several types of equipment, including equipment required for confined space entry (see below), it essentially refers to the lack of vacuum-assisted trucks or the unavailability of these trucks to perform maintenance. Many Permittees do not own vacuum-assisted trucks or if they do, they are in high demand because they are used for multiple purposes by Permittee public works departments. Additionally, these types of equipment are known to need frequent repairs, which can reduce their availability for FTC system maintenance.

*Confined space entry requirements.* Confined spaces are defined as work areas that meet all three of the following criteria: 1) Limited openings for entry and exit making it difficult to enter/exit and perform repair work or general maintenance; 2) The space is not intended for continuous human occupancy, rather it was designed to hold something other than people; and 3) The space must be large enough for you to enter and conduct work. If a high-flow capacity FTC system must be entered to perform an inspection or maintenance, then OSHA's standard and requirements for entry into those confined spaces (outlined in 29 CFR 1910.146) must be followed to protect employees from the hazards of entering confined spaces. Entry into a confined space requires specialized training and equipment to ensure employees are protected. Should the maintenance of a FTC system require entry into a confined space and the Permittee not have staff (or contractors) that are trained in confined space entry or own the equipment required for confined space entry (see Figure 3.10), then the Permittee should reconsider the location, design and/or type of FTC proposed for the site to avoid the need for confined space entry. If there are no alternative locations, designs or types of FTCs that avoid confined space entry and the Permittee cannot address the confined space entry requirement for maintenance, then the site should be considered infeasible for the installation/construction of a high-flow capacity FTC system. A total of 28% of survey respondents indicated that they have encountered this constraint when conducting O&M on high-flow capacity FTC systems.


**Figure 3.10**. Very large HDS unit in San Jose that requires confined space entry to maintain (Image courtesy of City of San Jose staff).

*Inability to control inflows.* To effectively size a high-flow capacity FTC system to address the FTC design standard (i.e., 1-yr, 1-hr peak flow), the drainage area upstream of the FTC system location must be identified as well as the hydrology and runoff characteristics. The delineation of the drainage area is based on the most readily available information, which a times may be incomplete. For example, there are circumstances where Caltrans ties into a city/county stormwater drainage system and contributes clean groundwater pumped from a Caltrans stormwater pump station that has been installed to avoid flooding on Caltrans highways/freeways. There have been situations in the Bay Area (i.e., 24% of survey respondents indicated that they've encountered inflows into a FTC system) where these types of contributions are discovered after the construction of a high-flow capacity FTC system. These contributions can provide ongoing inflows into a high-flow capacity system, which makes maintenance challenging, especially when removing material from the sump areas of these FTC systems. Maintenance of high-flow capacity systems, depending on the type and configuration, is most effective when minimal or no flow is entering the system. A sluice or a valve to block inflows may be feasible to include in the design of a FTC system, but ongoing inflow to the system can make maintenance infeasible.

*Damage, vandalism, or theft of systems*. This constraint for high-flow capacity FTC systems is mostly associated with end-of-pipe netting systems, since most large systems are constructed underground. That said, 24% of survey respondents indicated that they have encountered damage, vandalism, or theft of high-flow capacity FTC system

components (e.g., nets). Damages/vandalism to these systems not only impacts routine maintenance activities and the performance of the system, but also reduce the device's functionality and could increase the potential for localized flooding. If damage, vandalism, or theft of FTC system components consistently occurs at a FTC system site, then the ongoing need to repair or replace a system or its components may cause the location for the system to be deemed as infeasible.

***Other O&M Constraints.*** Survey respondents identified a number of other types of constraints to operating and maintaining FTC systems (e.g., lack of location for dewater disposal). Generally, these constraints were less commons than those discussed above. Additional information on these constraints can be found in Appendix A.

## 3.4 Other Types of Constraints

Other non-engineering and O&M related constraints were also identified for high-flow capacity FTC systems. To identify the most important and frequently encountered constraints, survey respondents were provided a list of potential constraints and had the opportunity to add other types of constraints not listed. After receiving the survey results, follow-up communications were held with engineers with extensive experience/expertise in siting, designing, and installing/constructing high-flow capacity FTC systems. The combination of survey results and information gained from the follow-up conversations led to the following list of constraints included in this section that can impact the feasibility of installing/constructing high-flow capacity FTC systems. Additional information on each constraint identified by survey respondents can be found in Appendix A.

***Environmental permitting.*** 46% of survey respondents indicated that they have had to address environmental permitting requirements during the design and installation/construction of one or more high-flow capacity FTC systems. When a proposed site is associated with an environmentally sensitive area (e.g., stormwater outfall discharging into a surface water) there may be several types of requirements that can be applied to the project by regulatory agencies that have jurisdiction over the protection of these areas/resources. Regulatory requirements/permits and the associated regulatory agencies that may need to be involved in the approval of a FTC project may include, but are not limited to, the following:

- California Environmental Quality Act (CEQA);
- 401 Water Quality Certifications (Regional Water Board);
- 404 permit (Army Corp of Engineers);
- California Endangered Species Act (CESA) Permits (California Department of Fish and Wildlife);
- Lake and Streambed Alteration (LSA) Agreements (California Department of Fish and Wildlife); and
- Major or Administrative (Minor) Permit (Bay Conservation and Planning Commission).

Review of the project may yield a decision or condition by one or more regulatory agencies that makes the project infeasible. Additionally, the requirements imposed by one or more regulatory agencies can significantly increase the complexity and costs of the project to a point that it is essentially infeasible to implement.

***Limited benefits at high costs***. Several survey respondents highlighted the need for this constraint to be included. This scenario constitutes a current constraint for several SF Bay Area Permittees. As expressed, there are two situations where the benefits of installing and maintaining a high-flow capacity system does not outweigh the costs:

(1) Relatively large catchment, but limited land area with significant trash generation. Not all land areas generate significant levels of trash. Much of the land in the Bay Area is comprised single-family residential or open space/park land uses. Typically, these land areas do not generate significant levels of trash (BASMAA 2014) and therefore the MRP does not require trash load reductions from these areas. When siting high-flow capacity FTC systems, efforts are usually made to reduce or eliminate these types of areas from FTC system catchments by siting the system at a location that optimizes trash load reduction and minimizes the extent of of these low trash generating areas in the upstream catchment. That said, optimization is not always possible and therefore decisions have to be made by Permittees about whether

the construction of a high-flow capacity FTC system is the best approach to addressing trash in this area. Although no infeasibility criteria have been established for making these types of decisions, examples of cos-benefit evaluations that have been conducted by Permittees to inform the implementation of FTC systems and alternative types of trash controls are provided in Appendix B.

(2) Significant trash generating areas, but relatively small catchment area. – Stormwater catchments vary in size. Some catchments are more than 1,000 acres in size, while others are less than 10 acres. Catchment size is largely a function of topography, the extent and location of surface waters, and the extent and patterns of urban development. In a great number of cases in the Bay Area, some stormwater catchments with significant trash generating areas are relatively small (i.e., less than 30 acres). For these size of catchments, high-flow capacity FTC systems are typically the least cost-effective trash control measures that a Permittee can implement, based on lifecycle costs (see Appendix B). Therefore, although the installation/maintenance of a FTC system may not be technically infeasible from an engineering or O&M standpoint, high-flow capacity systems are generally not cost-effective options for addressing trash in relatively small stormwater catchments and Permittees may choose alternative types of controls for these size of catchments.

*Proposed location not owned by Permittee*. This constraint was identified by a number of survey respondents and could entail two different scenarios:

(1) Proposed location is on a private property. In this scenario, the high-flow capacity FTC system would need to be sited on a private property that a Permittee may or may not have an easement to address. If no easement is present, then a new agreement would need to be established to construct and maintain the system or the land would need to be acquired by the Permittee. Regardless, project costs and timelines would likely be significantly increased due to siting the device on a private property. Although these constraints may not technically make the project infeasible from an engineering or O&M standpoint, constructing a high-flow capacity system on private property is generally not a cost-effective option for addressing trash in a catchment, unless the trash load reduction benefit is substantial.

(2) Proposed location is in adjacent jurisdiction. Stormwater drainage systems do not always conform to political jurisdictions. In some cases, stormwater drainage systems owned and operated by two or more adjacent jurisdictions are connected. In these situations, siting a high-flow capacity FTC system in the portion of the connected drainage system that is located in an adjacent jurisdiction, may be the most cost-effective trash control option. A number of survey respondents cited that they have encountered this situation when siting high-flow capacity FTC systems. One common example is where a proposed FTC system site is located on the right-of-way (ROW) owned and operated by Caltrans. In this example, an encroachment permit and traffic control would be required (Emeryville 2019 and Hayward 2022) to allow the Permittee to construct and maintain the system. Another example is when a proposed location would address trash from multiple jurisdictions (e.g., Permittee, Caltrans, and adjacent Permittee). In this example, agreements would need may be executed between two or more jurisdictions to address this issue, but all applicable jurisdictions would need to enter the agreement to make this a viable option. If all parties are not willing to enter into an agreement, this constraint could make the installation (or O&M) of the FTC system infeasible.

*Permittee fiscal constraints*. Bay Area Permittees are faced with a lack of fiscal resources needed to effectively implement all aspects of their stormwater management programs. There are simply not enough resources available and limited avenues for Permittees to expand their resources to address all stormwater management drivers/needs. To help document how the lack of fiscal resources has impacted Permittee decisions on the feasibility of installing and maintaining high-flow capacity FTC systems, survey respondents were asked to describe and give examples of how the lack of fiscal resources available has impacted their evaluation of whether a FTC system project should be considered infeasible, at least within the regulatory timelines established through the

MRP. A total of 26 responses were obtained. Summaries of the responses and additional feedback received from Permittees through the development and revision of this report are presented here.

(1) Lack of dedicated sources of funding. As expressed by several survey respondents, most Permittees lack a dedicatee source of funding for stormwater management programs. Resources needed for the design, construction, and maintenance of FTC systems compete with other public works that may be a higher priority due to other regulatory or health/safety drivers. According to the information provided, many stormwater programs are primarily funded through a City's General Fund (others may funded through vehicle license fees or other regulatory fees), which is competitive. For expanding programs like trash capture (i.e., adding more FTC systems/devices) resources are not only needed for the design/construction of systems, but also on-going costs for O&M. Moreover, within the stormwater drainage system, there are also competing priorities such as maintaining, repairing, and replacing existing/old infrastructure, which may take precedent due to immediate health and safety concerns.

(2) Limitations with Funding via Grants and Agreements with other partner agencies. Generally, grant funding and agreements with partner agencies (e.g., Caltrans) only covers the costs for the acquisition and construction of a high-flow capacity FTC system and does not include funding for design, permitting, mitigation, and ongoing O&M. Additionally, in the case of applicable Caltrans funding programs for FTC systems, Caltrans will only fund projects that address trash from their ROW, which constrains projects to locations where there are benefits to both the Permittee and Caltrans. Additionally, there are time constraints for the use of funds provided through grants and agreement with partner agencies that add an additional level of challenge to completing projects within regulatory timelines.

*Other types of constraints.* Survey respondents identified a number of other types of non-engineering or O&M constraints (e.g., presence of archeological resources). Generally, these constraints were less commons than those discussed above. Additional information on these constraints can be found in Appendix A.

# 4. CATCH-BASIN INSERT TYPES OF FULL TRASH CAPTURE DEVICES

## 4.1 Overview of Catch Basin Types Systems/Devices

Screening systems that are installed in stormwater catch basins (or inlets) are commonly known as catch basin inserts. These devices are placed inside a catch basin to prevent trash, organic material (e.g., leaves and twigs) and sediment from entering the outflow pipe from the catch basin. There are two general designs of catch basin inserts – outflow screens and surface inlet baskets and screens (CASQA 2021). Each type of catch basin insert is described below.

### *Outflow Screens*

Outflow screens are placed in the front of the outlet pipe in the catch basin. A wide variety of catch basin insert designs exist, mostly in the form of outlet screens (e.g., connector pipe screens) that are placed in front of the outlet pipe. Figure 4.1 shows examples of outflow pipe screens installed in the Bay Area.

**Figure 4.1.** Outflow screens installed in catch basins within the Bay Area (Image courtesy of EOA, Inc.).

### *Surface Inlet Baskets and Screens*

Surface inlet baskets and screens are placed inside the catch basin where stormwater flows enter the basin, either through a grate or curb inlet (Figure 4.2). Catch basin inserts that use filtering walls or filter media are not applicable for trapping trash and do not meet the full trash capture standard. As a result, the term "insert" does not refer to configurations that use filter media for removing other stormwater pollutants. Figure 4.2 illustrates two examples of surface inlet baskets and screens.

Maintenance on catch basin inserts is performed with a vacuum-assisted truck or manually with a shovel (Figure 4.3). At a minimum, maintenance is performed at least once per year to ensure that the system consistently achieves the FTC standard (EOA 2016). Consistent with MRP requirements, if the catch basin insert is observed to have a plugged or blinded screen or is greater than 50 percent full during a maintenance event, the maintenance frequency is increased so that the system is neither plugged nor more than half full at the next maintenance event. At the time of this report, there were 29 catch basin insert types of FTC devices certified by the State Water Board.[6]

[6] https://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/trash_implementation/2022/fullcptre-availabletopublic10-11.pdf (updated October 13, 2022).


**Figure 4.2.** (Left) Catch basin insert manufactured by Revel Environmental Manufacturing, Inc. (Right) FloGard® Grate Inlet Basket manufactured by OldCastle (FloGard® GIB) (Images from CASQA https://www.casqa.org/resources/trash/certified-full-capture-system-trash-treatment-control-devices).

**Figure 4.3.** Small-scale FTC device maintenance, (Top) manual cleaning and (Bottom) cleaning process by using a vacuum-assisted truck (Photos courtesy of SCVURPPP and SMCWPPP (Image courtesy of EOA, Inc).

## 4.2 Engineering Constraints

This section presents descriptions of different types of engineering constraints that should be considered and may prevent the installation of catch basin insert types of FTC devices. Information on the constraints was developed via the responses to the survey and follow up conversations with consulting engineers with significant experience in siting and installing different types of catch basin insert types of FTC devices. This information was supplemented by the extensive experience the authors of this report have gained in siting catch basin inserts in the Bay Area and other locations in Northern California over the last decade. The constraints presented here are not necessarily comprehensive or mutually exclusive. Multiple constraints may be present in some circumstances.

*Flood Hazards and Hydraulic Impacts.* Catch basins, including outflow pipes, are typically sized to adequately address the stormwater runoff draining into the basin from the adjacent land areas. That said, many outflow pipes in older catch basins are undersized and do not conform with current stormwater infrastructure design standards established by cities/counties over the past 50 years. Localized flooding, even without a FTC device may be a risk in these situations. The installation of the FTC screen or basket in a catch basin with an undersized outflow pipe will likely further constrict and hydraulicly impact the velocity of the stormwater flowing through the basin and into the outfall pipe. If this hydraulic impact is significant, then the FTC screen or basket will likely further increase the risk of localized flooding. If a catch basin is known to frequently flood and/or if the outflow pipe from the catch basin is undersized and cannot adequately address storm flows from the adjacent land area (even without a catch basin insert FTC installed), then the installation of a catch basin type of FTC device may be infeasible in the catch basin.

*Tidal Influence or High-Water Table.* Many municipal stormwater conveyance systems in the Bay Area are impacted by Bay/ocean tides and/or high ground water. A total of 25% of survey respondents indicated that they have encountered one of these engineering constraints while siting, designing, or installing catch basin insert types of FTC devices. Tidal and groundwater influences can adversely impact the performance of these devices, including the re-entrainment of trash temporarily intercepted by these devices. In other words, trash that is intercepted can overflow the device if rising groundwater or tides are high enough and be transported downstream to receiving water. Should high groundwater or tides be present in catch basins, the installation of a catch basin insert type of device may be infeasible under these conditions.

*Irregular Catch Basin/Inlet Size or Shape.* Municipal stormwater drainage systems in the Bay Area were generally constructed over the course of the last decade as urban development occurred and the need for stormwater infrastructure increased to reduce flooding. Stormwater drainage system design standards have evolved significantly over that timeframe. Although some portions of the stormwater infrastructure in the Bay Area have undergone upgrades through redevelopment and capital improvement programs, many areas continue to be served by older, irregular catch basins. A few examples of irregular catch basins are illustrated in Figure 4.4. Because many types of catch insert FTC devices require that the basins be of standard sizes and shapes to properly install a device, irregular sized/shaped catch basins may make FTC device installation infeasible. Additional constraints include unusual inlet designs, insufficient catch basin depths, the locations of inlet/outlet pipes, and the locations of ladders used for maintenance access. A total of 78% of survey respondents indicated that they have encountered this engineering constraint while siting, designing, or installing these FTC devices, making it one of the most common constraints identifies for catch basin inserts.

*Catch Basin/Invert Depths.* A total of 75% of survey respondents indicated that they have encountered this engineering constraint while siting, designing, or installing catch basin FTC devices. A described above, catch basins have been historically constructed in all shapes and sizes, and may have irregular shapes or dimensions. Additionally, some catch basins were constructed at very shallow depths (e.g., < 3 feet) or are very deep (e.g., > 6-8 feet). Due to the shallow depths of some catch basins, some types of FTC devices may not properly fit into the catch basin. Additionally, catch basins with very shallow depths may not provide the storage capacity necessary to operate the devices at practical (and required) maintenance frequencies. Additionally, catch basins that are deep

may be challenging or infeasible to maintain in a practical manner due to confined space entry requirements or other factors.

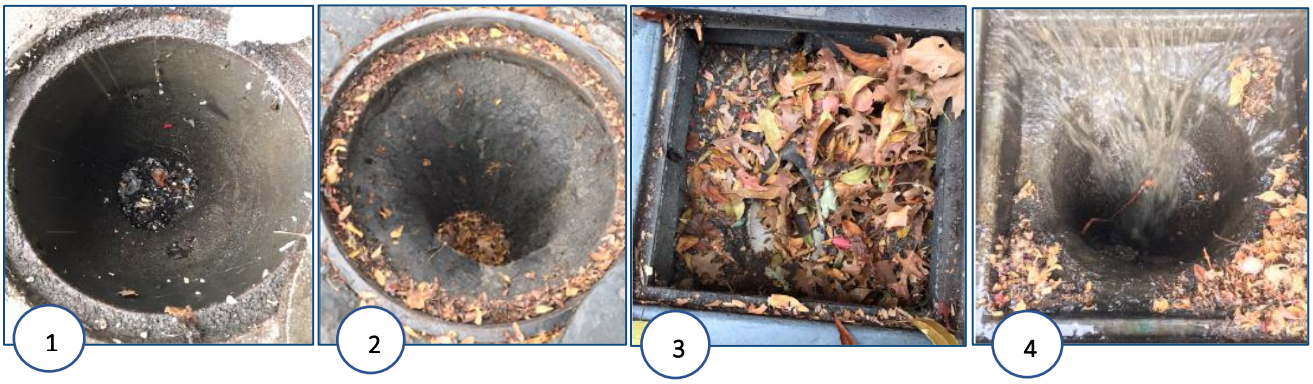


**Figure 4.4.** (1) Catch basin not wide enough (~15"); (2) Catch basin sump narrows to the outflow pipe; (3) Position of the outflow pipe would block any small FTC device installed; and (4) Catch basin sump not suitable for a device (e.g., square and then rounded or vice versa) (Images courtesy of City of Dublin and SWIMS).

***Lack of Traditional Grey Infrastructure.*** Stormwater drainage infrastructure design and types vary significantly throughout the Bay Area. Much of the urbanized Bay Area is served by traditional grey infrastructure, consisting of curb and gutters that direct stormwater flow into catch basins or inlets. Some urbanized areas, however, are not served by this type of traditional urban stormwater infrastructure and the types of certified catch basin insert FTC devices may not be easily installed and maintained in these situations. For example, some urban areas have stormwater drainage infrastructure that resembles the types of infrastructure found in more rural land areas, including earthen or concrete roadside ditches and areas where ponding is encouraged to support infiltration or evaporation. Of the individuals responding to the survey, 50% indicated that they have encountered this engineering constraint while siting, designing, or installing catch basin types of FTC systems. Although site-specific, in many situations where significant trash generating land areas are served by more rural infrastructure (Figure 4.5), no types of certified FTC devices are available or can be installed in these types of systems. Should existing infrastructure be designed in a manner that does not allow for the installation of a certified FTC device, the installation of the FTC device at the proposed location should be consider infeasible.


**Figure 4.5.** Rural type storm drainage infrastructure (i.e., roadside ditch) in Santa Clara County where full capture device is infeasible.

## 4.3 Operation and Maintenance (O&M) Constraints

In addition to the engineering constraints described in Section 4.1, there may be constraints associated with the effective O&M of a catch basin insert FTC device that affect the feasibility of constructing the FTC at a proposed site. Catch basin insert FTC devices must be operated and maintained effectively to ensure that trash interception occurs as designed and prevent hydraulic issues and flooding from occurring. To evaluate the importance of different types of O&M constraints, survey respondents were asked to identify from a list, *which engineering*

*constraints have you encountered when operating and maintaining catch basin insert full trash capture devices?* Survey responses led to the development of the following list of O&M constraints that may make either the construction/installation or effective O&M of a FTC system infeasible. Additional information on the responses to the survey can be found in Appendix A.

*Significant Organic Debris Loading.* Catch basin insert types of FTC devices generally perform as designed until the surfaces of the 5mm screens/meshes become significantly occluded/clogged with trash or debris. Once a screen becomes clogged, the device may overflow during peak flow a runoff event that is at or below the full capture design standard (i.e., 1-yr, 1-hr storm event). Overflows that occur below the design standard compromise the trash capture performance of the device and are inconsistent with the designation of the device as FTC.

**Figure 4.6.** Overflowing outflow screen FTC device due to a clogged/occluded screen. Courtesy of SCVURPPP and SMCWPPP (EOA 2016).

Based on previous studies in the SF Bay Area (BASMAA 2012), roughly 85% of the material captured by outflow screens and baskets is organic material, largely comprised of leaf litter and sediment. In many cases where there are large street trees or trees in the adjacent properties, the leaf litter generated by these trees can provide a heavy load of organic material to the drainage area for the FTC device. In many cases, this leaf litter can be lead to occluded/clogged FTC screens/meshes. A catch basin FTC outflow screen that is occluded by leaf litter and overflowing is illustrated in Figure 4.6. A total of 39% of survey respondents indicated that they have encountered flooding hazards and significant hydraulic impacts associated with leaf litter and other organic materials occluding screen/meshes of small FTC devices. If leaf litter and other organic material loading rates to these types of devices is at a high enough level to creates consistent occluding/clogging, catch basin insert types of FTC devices may be infeasible to maintain at a frequency necessary to ensure that the device properly functions throughout the year.

*Lack of Accessibility to Maintain Device*. Catch basins must be accessible for maintenance professionals to adequately clean/maintain the FTC devices installed within them. Impediments to accessing catch basins may include automobiles parked on/near the basin, construction operations within the area, or damage to the surface grates or manholes that require specialized equipment. Over half of the survey respondents (52%) indicated they had experienced a lack of access to the device during routine maintenance, issues with maintenance staffing, or other maintenance issues due to design of the device that had impeded the proper maintenance (and functioning/performance) of a catch basin insert FTC device. If a catch basin is not accessible on a consistent basis to allow for adequate maintenance, then the maintenance of a device at that location may be infeasible at a frequency necessary to ensure that the device properly functions throughout the year.

*Confine Space Entry Requirements.* Confined spaces are defined as work areas that meet all three of the following criteria: 1) Limited openings for entry and exit making it difficult to enter/exit and perform repair work or general maintenance; 2) The space is not intended for continuous human occupancy, rather it was designed to hold something other than people; and 3) The space must be large enough for you to enter and conduct work. If a catch

basin (Figure 4.7) must be entered to adequately maintain the FTC device in the catch basin, then OSHA's standard and requirements for entry into those confined spaces (outlined in 29 CFR 1910.146) must be followed to protect employees from the hazards of entering confined spaces. Entry into a confined space requires specialized training and equipment to ensure an employee is protected. Should the maintenance of a FTC device require entry into a confined space and the staff that are trained in confined space entry or equipment required are not available, the installation of a device in this scenario should be considered infeasible.

**Figure 4.7**. Outflow screen installed in a catch basin that requires confined space entry to maintain (http://unitedstormwater.com/cps.php).

*Damage, vandalism, or theft of devices*. Catch basin insert FTC devices can be damaged by storm flows or debris, vandalized, or stolen. A total of 45% of survey respondents have encountered damage to, or vandalization of catch basin FTC devices. Damages/vandalism to the device not only impact routine maintenance activities and the performance of the device, but also reduce the device's functionality and could increase the potential for localized flooding (see Figure 4.8) Additionally, 28% of survey respondents indicated that they have encountered FTC devices stolen from catch basins after installation. Many devices are constructed from stainless steel, which may have a high scrap metal resale value. If damage, vandalism, or theft of FTC devices consistently occurs in a specific catch basin(s), then the ongoing need to repair or replace a device may cause the location for the device to be deemed as infeasible.

**Figure 4.8.** Damaged (collapsed) outflow screen type of FTC device (Image courtesy of SCVURPPP and SMCWPPP - EOA

*Lack of proper maintenance equipment.* 21% of survey respondents indicated that they have encountered this engineering constraint when operating and maintaining catch basin insert types of FTC devices. While this constraint may include the lack of several types of equipment, including equipment required for confined space entry, it essentially refers to the lack of vacuum-assisted trucks or the unavailability of these trucks to perform maintenance. Many Permittees do not own vacuum-assisted trucks or if they do, they are in high demand because they are used for multiple purposes by Permittee public works departments. Additionally, these types of equipment are known to need frequent repairs, which can reduce their availability for FTC system maintenance.

## 4.3 Other Types of Constraints

Other (not engineering feasibility-related) constraints were also identified by survey respondents for the installation of catch basin insert FTC devices. In the survey, respondents were asked: *Please briefly describe any fiscal constraints that your agency has encountered that would render a full trash capture system/device siting/design/installation or maintenance/operation impracticable*. A total of 26 responses were obtained and summaries are provided below. These constraints may cause a FTC project to be deemed as infeasible, even though from an engineering standpoint the project may be feasible. These types of constraints are typically identified on a case-by-case basis.

*Land areas drain to catch basins in adjacent jurisdictions.* Surface runoff flow patterns do not always conform to political jurisdictions. In some cases, trash generated on land areas in one jurisdiction may be transported via stormwater to a catch basin located in an adjacent jurisdiction. In these situations, a FTC would need to be installed in a catch basin owned and operated by a jurisdiction that is not responsible for the trash generated in a neighboring jurisdiction. A total of 31% of the survey responses cited that they have encountered this issue when siting, designing, or installing small FTC systems. Agreements may be executed between two or more jurisdictions to address this issue, but all applicable jurisdictions would need to enter the agreement to make this a viable solution to addressing this issue. If all parties are not willing to enter into an agreement, this constraint could make the installation (or maintenance) of the FTC device infeasible.

*Permittee fiscal constraints.* Similar to the responses given by survey respondents to questions on the fiscal constraints for funding high-flow capacity FTC systems, several respondents also expressed concerns about the lack of dedicated funding sources to adequately implement their agencies' stormwater management program, including the funds necessary to install and maintain catch basin insert types of FTC systems. As described in Section 3.3, public stormwater infrastructure projects compete with other Permittee priorities such as maintaining, repairing, and replacing infrastructure, which may take priority due to immediate health and safety concerns. Additionally, even though there are an increasing number of FTC systems or devices installed into the stormwater system to meet MRP requirements, the stormwater drainage system is not considered a utility because of the lack of designation in the State constitution and recent propositions (e.g., Proposition 218). These constraints create challenges for Permittees to obtain the funding necessary to site, design, install, and maintain FTC devices. Although not engineering-related, these fiscal constraints can make the installation and O&M of FTC devices infeasible. The following are a few specific examples of the hardships that Permittees face with the on-going maintenance of recently installed (and expanding) FTC devices:

(1) Increased Staffing. Some survey respondents indicated that their agencies have major issues with hiring new staff, due to a lack of required resources that include, but are not limited to, the following: increased responsibilities and limitations on the capacities of support/oversight staff (i.e., additional work for human resources, manager/supervisor), a lack of qualified applicants and competitive compensation packages, and increased needs for training. Additionally, Permittees have difficulties contracting personnel for O&M of FTC devices due stipulations in public employee Union agreements.

(2) New/Expanded Equipment. With the installation of new devices, there are increased demands for equipment needed to conduct O&M, consistent with MRP requirements. Needs for vacuum-assisted trucks and expenditures for insurance, preventive and corrective maintenance, and fuel increase with the installation of new FTC devices.

*Financial hardships associated with FTC devices on private properties.* MRP 3.0 requires properties with private inlets and not achieving the 100% trash load reduction goal to install FTC systems/devices or implement alternative equivalent controls. The installation of FTC devices in catch basins on these private land drainage areas (PLDAs) not only places the financial burden upon private land owners/operators, which could create a financial hardship on the property owner/operator, but also requires Permittees to expend additional resources to identify the connectivity of these PLDAs to the public stormwater drainage system, potentially adopt and enforce an ordinance that requires the property owners/operator to address trash on their properties, and implement an ongoing inspection program to ensure that trash on the properties is effectively managed in perpetuity.

# 5. GUIDANCE FOR EVALUATING FTC SYSTEM/DEVICE FEASIBILITY

This section provides guidance to Permittees on evaluating whether a FTC system/device is feasible to construct/install and maintain at a particular site/location. The guidance includes a recommended feasibility evaluation process for all types of FTC systems/devices, including the consideration of costs and benefits. The guidance incorporates considerations of FTC system/device constraints (engineering and otherwise) described in Sections 3 and 4 and is informed by FTC system feasibility evaluations conducted by numerous Permittees over the course of the last decade (see Appendix B). The guidance is presented in a stepwise process, which can be easily incorporated into Permittee broader stormwater trash control measure planning processes.

## 5.1 Full Trash Capture System/Device Engineering Feasibility Evaluation Criteria

In order to evaluate whether a FTC system/device is feasible (or infeasible) to install/construct, recommended engineering feasibility criteria were developed based on the constraints described in Sections 3 and 4. Recommended engineering feasibility criteria for high-flow capacity systems are included in Table 5.1 and criteria for catch basin insert types of FTC devices are included in Table 5.2. Recommended criteria to evaluate O&M constraints are discussed later in this section.

**Table 5.1.** Recommended engineering infeasibility criteria for high-flow capacity FTC systems.

| Element subject to evaluation | Likely Infeasible if… | Comments/Notes |
|---|---|---|
| Conveyance deficiencies and flat grades in existing storm drainage systems | ✓ Existing deficiencies or grades create water stagnation, overflows, or flooding. | |
| Existing storm drainage systems with shallow or deep pipe depths | ✓ Proposed FTC system would be installed in a pipe that has an invert depth of less than 3 feet.<br>✓ Proposed FTC systems would be installed in a pipe with a very deep invert, which would eliminate the use of all types of available FTC systems or would require confined space entry to maintain. | |
| Compromised condition of existing storm drainage infrastructure | ✓ Proposed FTC system would be installed within stormwater piping/structures with a life expectancy less than the life expectancy of a FTC system. | |
| Lack of public land area for the system | ✓ Construction of FTC system would require the purchasing of private lands. | |
| Utility conflicts | ✓ The movement of utilities at the project site is not possible.<br>✓ Construction of FTC system would require the movement of utilities and cause significant increases in costs to the project or significant project delays. | |
| Creating or increasing flood hazards or hydraulic impacts | ✓ Proposed FTC system location is in a floodway | • May be feasible in "off-line" configuration, but not all hydraulic impacts will be addressed |

| Element subject to evaluation | Likely Infeasible if… | Comments/Notes |
|---|---|---|
| Impacts to stormwater pump station | ✓ Proposed FTC system location is directly upstream or downstream of an existing pump station that would be significantly impacted by the FTC system | • May be feasible (from engineering standpoint) if part of an upgrade to the pump station, but this scenario is usually cost prohibitive |
| High water table, backwater conditions, or excessive water intrusion | ✓ Proposed FTC system would be installed in a location with a high-water table, backwater conditions, or excessive water intrusion | |
| Manufacturer limitations | ✓ No FTC type or model is manufactured that addresses the constraints at the proposed location | |
| Complex topology or significant geologic features | ✓ Significant topology or geologic feature constraints cannot be addressed | • Constraints may be addressed via engineering alternatives but may significantly increase costs. |
| Damage, vandalism, or theft | ✓ Proposed FTC system is in a location where there is a high risk for damage, vandalism, or theft | • Constraint is generally applicable to netting systems and the risk may be mitigated by security measures which will increase costs |

Table 5.2. Recommended engineering infeasibility criteria for catch basin insert FTC devices.

| Element Subject to Evaluation | Likely Infeasible if… | Comments/Notes |
|---|---|---|
| Flood Hazards and Hydraulic Impacts | ✓ High flooding potential without FTC device<br>✓ Significant increase in hydraulic impacts and risk of flooding if FTC device is installed | |
| Tidal Influence and High-water Table | ✓ Proposed FTC device would be installed in a catch basin that is tidally influenced or subject to intrusion due to a high-water table | |
| Irregular Catch Basin/Inlet Size or Shape | ✓ No available types/models of FTC devices can be installed in catch basin due to irregular shape, size, or obstructions (e.g., ladders) | |
| Catch Basin/Invert Depths | ✓ Catch basin dimensions are too small/shallow to install a FTC device<br>✓ Catch basin depths are too deep to maintain without confined space entry | |
| Land Areas Drain to Catch Basins in Adjacent Jurisdictions | ✓ Adjacent jurisdiction unwilling to install FTC device in their catch basin | • Agreements between adjacent agencies may make this scenario feasible |
| Lack of Traditional Grey Infrastructure | ✓ No available types/models of FTC devices can be installed at desired location | |

## 5.2 Stepwise Approach to Evaluating FTC System/Device Feasibility

This section outlines a stepwise approach to evaluating the feasibility of installing/constructing FTC systems/devices. This guidance is based on numerous feasibility evaluations conducted over the past decade by Permittees throughout the Bay Area (see Appendix B) and is broken into two main sections: 1) High-flow capacity systems; and 2) Catch basin insert devices. These sections are organized by the three main steps taken during a feasibility evaluation: desktop analysis, field assessment, and design (Figures 5.1 and 5.2). Tasks that should be included in each step of the evaluation process are also described. The FTC system/device constraints described in Sections 3 and 4, and the feasibility criteria listed in Tables 5.1 and 5.2 are incorporated into the stepwise approach and serve as recommended decision points for determining whether a proposed site is a feasible location to install/construct a FTC system/device. Site characteristics that may make the installation of specific types of systems/devices feasible for installation are also identified.

### *High-Flow Capacity Full Trash Capture Systems*

Guidance on conducting feasibility evaluations for high-flow capacity FTC systems is provided in this section. The main steps included in the guidance are illustrated in Figure 5.1 and more specific tasks that should be completed during each step in the evaluation are described. Tables are included that list the potential constraints that should be considered during each step and the criteria that should be applied to assess the feasibility of constructing a high-flow capacity FTC system.

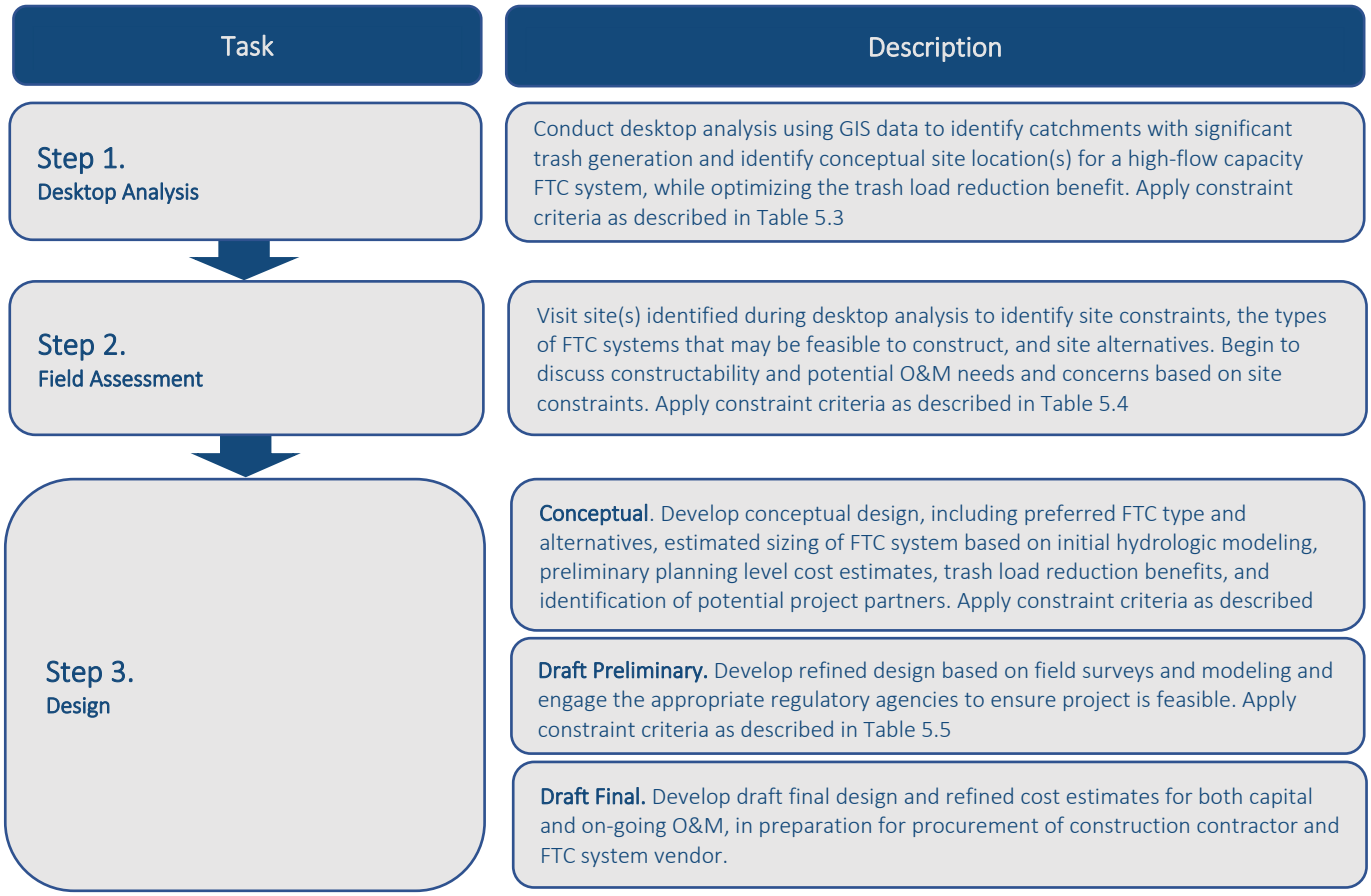


**Figure 5.1**. Stepwise approach to evaluating the feasibility of constructing a high-flow capacity FTC system at a proposed site.

Please note that each potential site/location being evaluated for a high-flow capacity FTC system will likely have site specific constraints that may not be included in this section. This guidance only incorporates those constraints that are the most frequently encountered by Bay Area Permittees, as described in the results from the *Trash Full Capture System Impracticality Survey* and summarized in Section 3. For example, "insufficient GIS data" may be a constraint encountered while performing desktop analysis tasks, but this constraint will likely be site-specific and may be resolved by performing field surveys.

(1) Desktop Analysis (see constraints in Table 5.3)

A. Compile data/information. The list of GIS features/datasets and other information that need to be compiled to analyze and create a first approach of large-scale FTC systems site alternatives should be defined in a case-by-case analysis. The following list is an example of types of data/information typically used to conduct a desktop analysis:

- Geographical Information System (GIS) Data
  - Storm drainage system (inlets, outfalls, storm drain pipes, engineered [concrete] channels).
  - Hydrography dataset (catchments, rivers, streams, natural channels; natural, artificial, and seasonal water bodies, etc.).
  - Elevation (topographic contours) data. This is especially important if direction of flow data for the storm drain system is not available.
  - Baseline trash generation map (e.g., trash generation categories, TMA boundaries).
  - Locations and associated drainage area delineations for FTC systems installed to date (public and private).
  - Water system and sanitary sewer system pipes.
  - Other utilities.
  - Others. Examples of additional attributes that can be used in the analysis are transit, parcels, land use, planning (land use/zoning), easements, median household income, and disadvantaged communities.
- Available On-land Visual Assessment (OVTA) data for the catchment.
- Flood hazard information (e.g., data from FEMA's Map Service Center or other NFIP products).

B. Potential Field Check. If there is relevant information that was not accurately determined through the desktop analysis a field check would be required. Some examples where a field check is required are when catchments sharing boundaries have gaps or overlaps that couldn't be resolved through GIS data processing, when there is uncertainty on whether a private storm drain network connects with the MS4, or where these points of connection are located.

- Mapping Proposed Locations. Map potential (primary and alternative) locations for FTC system(s). Determine associated drainage area per site/alternative, and associated jurisdictions within the drainage area. Maps should include information that will assist with field assessment. Include all type of data that may help inform feasibility, including those types listed in step #1.A.

**Table 5.3.** Application of recommended infeasibility criteria for high-flow capacity FTC systems during feasibility analysis Step #1 – Desktop Analysis.

| Element subject to evaluation | Likely Infeasible if… | Considerations |
|---|---|---|
| Risk of flooding | ⊗ Proposed location for high-flow capacity system/device is classified as a floodway. | • No considerations. Proposed large-scale FTC systems alternatives located at sites classified as floodway should be infeasible. |
| Risk of flooding | ⊗ Proposed location for high-flow capacity system/device is classified as a floodplain. | • Proposed large-scale FTC systems alternatives located at sites classified as floodplains could continue to the next phase of the planning process but may be considered infeasible at future step. |
| Size of drainage area | ⊗ Proposed location for high-flow capacity system/device would address a land area that is less than 30 acres in size. | • In a great majority of cases, installing a high-flow capacity system at a location that receives drainage from a relatively small land area (usually less than 30 acres) is not a cost-effective trash management approach. Therefore, it is recommended that locations with drainage areas less than this size are eliminated from further consideration for high-flow capacity systems.<br>• Projects for installation of a large-scale FTC system that are part of a multi-benefit project should be approved only when demonstrating positive costs/benefits evaluation results. |

(2) Field Assessment (see constraints in Table 5.4)

A. Conduct one or more field visits to the proposed site(s) and area with Permittee staff (e.g., public work engineers and maintenance supervisors) and applicable contractors/consultants. Identify and document the following:

- **Conveyance Deficiencies.** Condition of existing stormwater infrastructure, documenting the constructed material and any compromised portions of the infrastructure. Conditions indicating that restoration, upgrade, or retrofitting work would be required.
- **Depth and size of pipe.** Measure invert depth and diameter of pipe.
- **Physical condition of Infrastructure.** Document any visual observations of the condition of infrastructure that would be affected by the FTC system.
- **Extent of Public Land Area.** Identify the conceptual footprint of the proposed type of FTC system. Compare to the extent of public land area to identify whether encroachment on private property may occur, either for construction or O&M.
- **Utility Conflicts.** Identify/confirm the location of utilities with the project area, including within the footprint of the proposed FTC system and overhead. Document any potential utility conflicts.
- **Indications of recent flooding or water intrusion.** Document any indications of recent flooding within the project area and whether there is water flowing in the pipe of interest.
- **Extent of public access.** For netting-based FTC systems that are proposed for sites at outfalls or within channels, document whether the site is accessible by the public and may be at risk for vandalism.

B. Document identified opportunities to integrate trash treatment components into potential multi-benefit projects. Identify whether redevelopment is planned for adjacent parcels or in the drainage area.

**Table 5.4.** Application of recommended infeasibility criteria for high-flow capacity FTC systems during feasibility analysis Step #2 – Field Assessment.

| Element subject to evaluation | Likely Infeasible if… | Considerations |
|---|---|---|
| Significant geologic features | ⊗ Presence of outcrops or near surface bedrock. | • Mitigation project may be required, implying additional costs. Feasibility should be determined in a case-specific analysis. |
| Complex topography | ⊗ Presence of steep slopes. | • Mitigation project may be required, implying additional costs. Feasibility should be determined in a case-specific analysis. |
| Invert depth | ⊗ Too shallow or too deep invert depths. | • Minimum recommended invert depth for large-scale FTC systems is 3 ft. The maximum depth varies from depending on the type of system. |
| Presence of utility assets on site | ⊗ Utility conflicts. | • Utilities may need to be relocated, implying additional costs. Feasibility should be determined in a case-specific analysis. |
| Site access | ⊗ Limited access to the area. | • Mitigation project, or land easement may be required, implying additional costs. Feasibility should be determined in a case-specific analysis. All potential required maintenance conditions should be analyzed to avoid issues in the future. |
| Available Public Land Area | ⊗ Limited/lack of public ROW. | • Property or easement acquisition required, implying additional costs. Feasibility should be determined in a case-specific analysis.<br>• For sites with limited available public land area for the system, all potential required O&M conditions should be analyzed to avoid issues in the future. |
| Safety concerns | ⊗ Latent risk for maintenance staff of being hit by a vehicle, assault, or robbery.<br>⊗ System/device is prone to vandalism/theft (e.g., end-of pipe netting systems).<br>⊗ Proximity to hazard specifically identified in field assessment (e.g., area prone to landslides). | • Mitigation measures and feasibility should be determined in a case-specific analysis. |

(3) Design (see constraints in Table 5.5)

A. Develop conceptual design. The following should be performed for each FTC system proposed/alternative location during this stage:

- **Compile and interpret information collected during the site assessment**.
- **Perform hydraulic/hydrological analysis**. Based on the peak flow from the 1-year, 1-hour storm event for the catchment associated with the proposed site, calculate the "design storm" size to help determine the flow rate that would need to be treated, which determines the size of the FTC system.
- **Based on the hydraulic/hydrological analysis:**
  - Identify applicable types of FTCs that may work for the site.
  - Identify the configurations/designs of systems, including any retrofits or upgrades needed.
  - Identify maintenance requirements.
  - Develop preliminary cost estimates (capital, permitting, design, and annual O&M).
  - Document site specific considerations and assumptions.
- **Verify that there appear to be no utility conflicts (site or access).**

B. Develop Draft Preliminary Design, including:

- **Further investigate of site-specific conditions via discussions with Permittee staff as needed.**
  - If there's a history of overflows/flooding (undersized system), water intrusion (due to excessive irrigation flows), etc.
  - Document existence of backwater condition.
- **Conduct geotechnical surveys.** Identify any issues that could make the project infeasible.
- **Further investigate permitting requirements. (**For information on some of the required permits, see Appendix B-5 - MCSTOPPP Stormwater Trash Capture Feasibility Report, Attachment 4 "Permitting Matrix", courtesy of MCSTOPPP).
- **Revise design, as necessary, and consider alternatives if needed.**

C. Develop Draft Final Design, including:

- **Develop draft final design and refined cost estimates**. Include costs for both capital and on-going O&M.
- **Identify/secure funding**. Consider partnerships (as available) with adjacent jurisdictions.
- **Receive approval from regulatory agencies (as needed).**
- **Prepare construction procurement documents**.
- **Select and execute agreement with contractor**.

**Table 5.5.** Application of recommended infeasibility criteria for high-flow capacity FTC systems during feasibility analysis Step #3 – Design.

| Element subject to evaluation | Likely Infeasible if… | Considerations |
|---|---|---|
| Existing conveyance deficiencies | ⊗ Water stagnation, overflows, presence of tailwater. | • No considerations. Any project would require overcoming not only the existing issues but also the additional head losses due to the installation of the system/device, thus the location should be considered infeasible. Alternative locations should be considered, if available. |
| Hydraulic Analysis | ⊗ Hydraulic analysis results indicate that the proposed high-flow capacity system will generate hydraulic issues in the drainage system if installed under standard conditions (i.e., no mitigation projects considered). | • Feasibility should be determined in a case-specific analysis. Note that mitigation project alternative(s) could be feasible from an engineering standpoint but may result as cost prohibitive.<br>• Note: Installing a high-flow capacity FTC system "Off-Line" may not be an alternative to mitigate hydraulic impacts estimated for an "In-line" system. For the same location, both alternatives generate hydraulic losses. |
| Pump station | ⊗ Hydraulic impacts to pump station. | • Installation of large-scale FTC systems upstream or downstream a pump station will likely cause damages to the pumps in almost all scenarios. There are multi-benefit opportunities that can be cost prohibitive, so this type of projects needs to be evaluated in a case-specific basis. An example, not applicable in all cases, is the installation of a large-scale FTC systems while also executing a planned pump station capacity improvement. |
| Pipe grade | ⊗ Flat pipe grade. | • Proposed locations with flat pipe grades located near to the coast or near the bay where conditions of almost no velocity head and high tail waters are found should be considered infeasible.<br>• Flat pipe grades in other locations should be evaluated on a case-specific basis. |
| Longevity of the system | ⊗ Stormwater piping/structures life expectancy is less than proposed FTC system estimated life cycle. | • Feasibility evaluation should be done by using the specific device/system life expectancy information provided by the manufacturer. |
| Backwater condition | ⊗ Sea level, tidal influence. | • Proposed FTC systems located at sites with backwater condition should be considered infeasible unless mitigated. |
| Water intrusion | ⊗ Excessive water intrusion due to irrigation flows. | • Proposed FTC systems located at sites with excessive water intrusion due to irrigation flows may be considered infeasible, however, feasibility should be determined on a case-specific basis. |
| Groundwater depth | ⊗ High water table. | • Mitigation options for proposed FTC systems located at sites with high water tables should be considered, but site may be infeasible if mitigation is not possible. |

| Element subject to evaluation | Likely Infeasible if… | Considerations |
|---|---|---|
| Non-traditional stormwater infrastructure | ⊗ Installation of device require device/system modification(s). | • If certified FTC system design must be significantly modified, then recertification by the State Water Board may be needed. Thus, feasibility evaluation should be done on a case-specific basis. |
| Manufacturer limitations | ⊗ There are no FTC systems options available for the incoming pipe size.<br>⊗ There are no FTC systems options available that satisfy required bypass conditions (from hydrological analysis). | • Certified systems that cannot be practically engineered/configured to address site issues should be considered infeasible. Feasibility should be determined on a case-specific basis. |

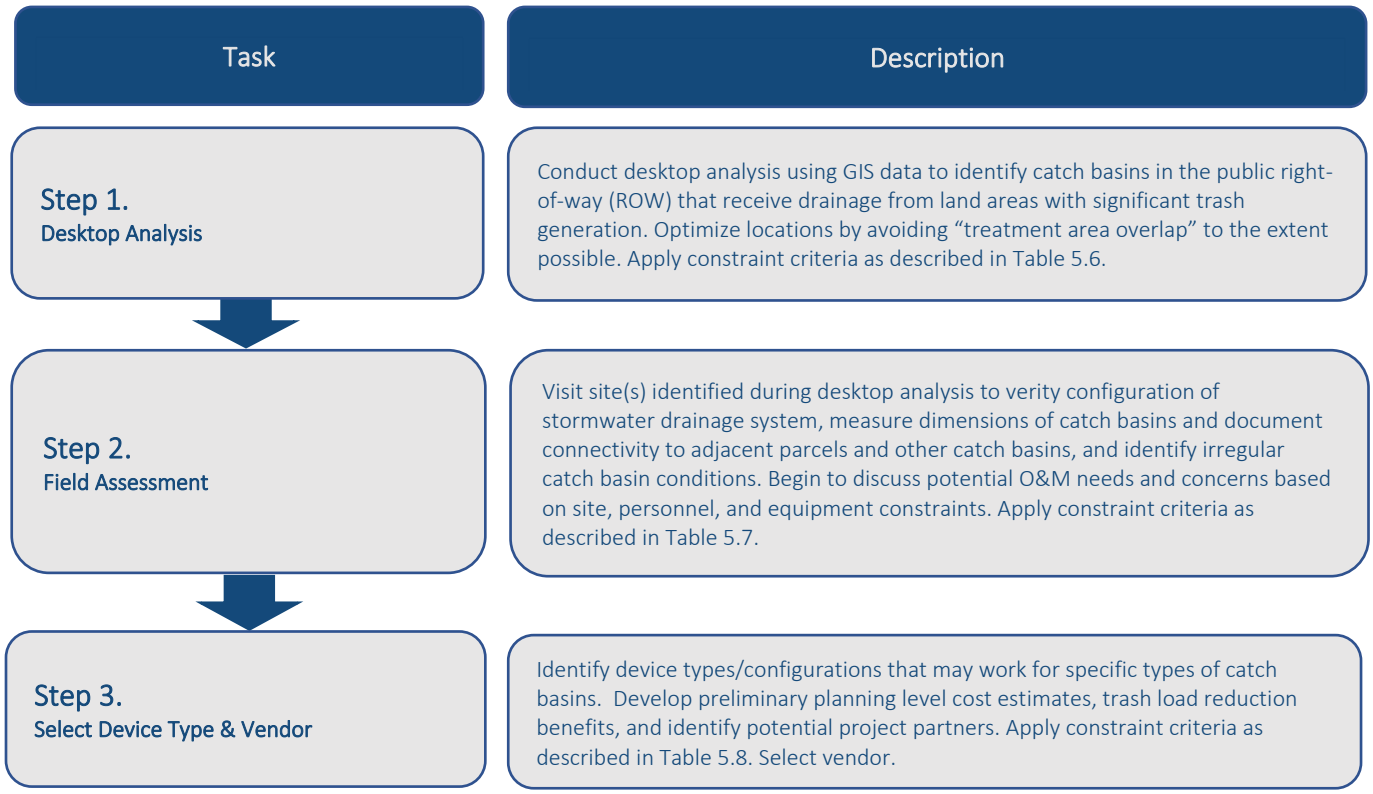


**Figure 5.2**. Stepwise approach to evaluating the feasibility of installing a catch basin insert FTC device at a proposed site.

### *Catch Basin Insert Full Trash Capture Devices*

Guidance on conducting feasibility evaluations for catch basin insert FTC systems is provided in this section. The main steps included in the guidance are illustrated in Figure 5.2 and more specific tasks that should be completed during each step in the evaluation are described in the section. Tables are included that list the potential constraints that should be considered during each step and the criteria that should be applied to assess the feasibility of installing a catch basin insert type of FTC device at a proposed location.

Please note that each potential site/location being evaluated for a catch basin insert FTC device will likely have site specific constraints that may not be included in this section. This guidance only incorporates those constraints that are the most frequently encountered by Bay Area Permittees, as described in the results from the *Trash Full Capture System Impracticality Survey* and summarized in Section 4. For example, "insufficient GIS data" may be a constraint encountered while performing desktop analysis tasks, but this constraint will likely be site-specific and may be resolved by performing field surveys.

(1) Desktop Analysis (see constraints in Table 5.6)

First, the storm drain catch basin upstream catchment area should be delineated to get information on the size of the catchment and the extent to which significant trash generating land areas can be addressed by the device (Milpitas, 2018). To identify optimal locations of catch basins for FTC devices, the following process should be conducted:

A. Compile data/information. The list of GIS features/datasets and other information that need to be compiled to identify optimal catch basins should be defined in a case-by-case analysis. The following list is an example of types of data/information typically used to conduct a desktop analysis:
   - Geographical Information System (GIS) Data
     - **Storm drainage system** (inlets, outfalls, storm drain pipes).
     - **Hydrography dataset** (catchments, rivers, streams, natural channels; natural, artificial, and seasonal water bodies, etc.).
     - **Elevation (topographic contours) data**. This is especially important if direction of flow data for the storm drain system is not available.
     - **Baseline trash generation map** (e.g., trash generation categories, TMA boundaries).
     - **Private Land Development Areas (PLDAs) and private inlets.** Areas known to drain to inlets on private properties.
     - **Locations and associated drainage area delineations for FTC systems installed to date** (public and private).
     - **Locations for small-scale FTC devices installed to date.**
   - On-land Visual Assessment (OVTA) data.

B. ID Catch Basins. Identify all catch basins located in the public ROW that may drain a significant trash generating area.

C. Refine list of Catch Basins. Remove catch basins from consideration that satisfy any of the following criteria:
   - Overlaps with a low trash generation area.
   - Within a drainage area of an existing or planned FTC system/device.
   - Associated with a non-jurisdictional land area.
   - Located on private property.
   - Connected directly to another downstream catch basin where a catch basin insert type of FTC device could be installed (i.e., "daisy-chained").
   - Catch basin dimensions are too small to adequately install a FTC device (id known).

D. Further refine list. From the catch basins that remain, identify the those that are located within significant trash generating areas, and select them as potential locations for FTC devices.

E. Drainage area. Estimate the drainage area for each catch basins selected.

F. Identify likely type of device. If catch basin is too shallow, has an irregular shape, or the outflow pipe is through the bottom of the catch basin, a CPS device cannot be installed. Consider a basket type of

device. Note: If basket type of device is selected, then installations must occur in all upstream catch basins as well.

G. Identify site specific constraints. Through discussions with Permittee staff, identify site specific constraints to the extent possible:
- Whether there's an adequate space in the public ROW for required routine maintenance (access conditions).
- Whether there are conditions that may lead to consistent overflows (undersized system), etc.
- Existence of backwater conditions (i.e., sea level, tidal influence).
- Known flooding concerns.
- Groundwater data (i.e., high water table).

**An important note:** Ideally, the delineation of land areas draining to catch basins where FTC devices are proposed should be conducted through a combination of desktop analysis and field work. Relatively accurate and comprehensive GIS information illustrating the configuration of the stormwater drainage system and land elevations is incredibly important to this effort, but field assessments (although possibly cost prohibitive) is critical to clearly delineating the areas addressed by these devices. One option is to delineate the simpler areas via desktop analysis and then conduct field assessments to address those with incomplete information or may be more complex (e.g., those potentially connected to a PLDA).

**Table 5.6.** Application of recommended infeasibility criteria for catch basin insert FTC devices during feasibility analysis Step #1 – Desktop Analysis.

| Element subject to evaluation | Likely Infeasible if… | Considerations |
|---|---|---|
| Risk of flooding | ⊗ Proposed location for catch-basin type of device is prone to overflows (e.g., undersized system, water stagnation or tailwater). | • No considerations. Proposed FTC device located at sites prone to overflows should be considered infeasible. |
| Size of drainage area | ⊗ Proposed location for catch-basin type of device would address a land area greater than ~2 acres. | • Installation may be feasible, but is not recommended. Size of upstream drainage area may increase required O&M frequency to a point that is not feasible. |
| Drainage area | ⊗ Land area of interest does not drain to catch basin. | • Not recommended. Limited to no trash reduction benefit. |
| Backwater condition | ⊗ Sea level, tidal influence. | • Proposed location with backwater condition should be considered infeasible because of likely reduced performance. |
| Groundwater data | ⊗ High water table. | • Proposed location with high water table should be considered infeasible because of likely reduced performance.. |

## (2) Field Assessment (see constraints in Table 5.7)

A. Assess the catch basin/inlet size and configuration.
- Confirm catch basin dimensions and conditions.
- Identify presence of inflow and outflow pipes in catch basin to help determine extent of drainage area (e.g., laterals from across the street, pipes draining from adjacent land areas).
- Document catch basin configuration/condition via photo.

- Identify likely type of FTC device that can be installed based on condition and configuration.

B. Identify/confirm drainage area for catch basin.
   - Using information gained through the catch basin assessment and maps created during the desktop step, delineate the drainage area for the catch basin.
   - Assess the drainage of the roadway and the drainage of the adjacent parcel to draw boundary lines on the map, including flow direction from adjacent land areas. Exclude PLDAs that are not directly connected to the catch basin (see Figure 5.3).

C. Identify site specific conditions:
   - Whether there's an adequate space in the public ROW for required routine maintenance (access conditions).
   - Whether there are conditions leading to overflows (undersized system), etc.
   - Existence of backwater condition (i.e., sea level, tidal influence).

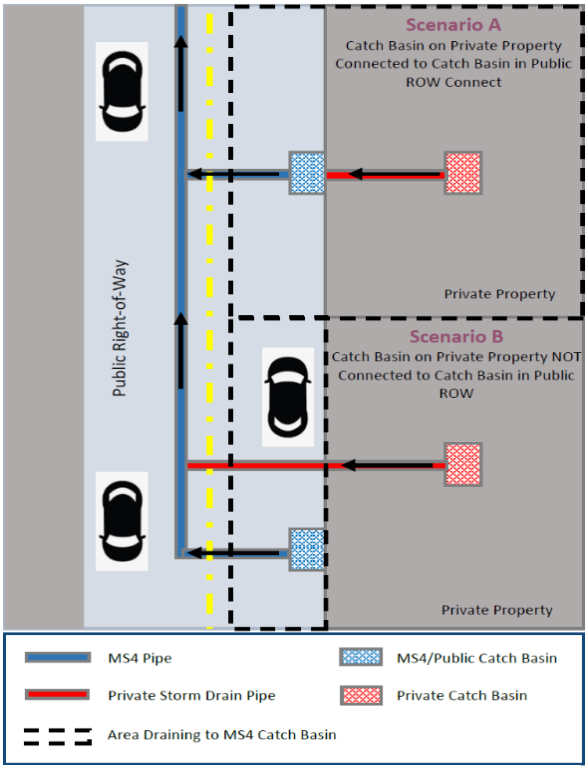


**Figure 5.3.** Example scenarios of private property and MS4 connectivity that determines the extent of the area addressed by a catch basin insert FTC device installed in the public ROW. (Image courtesy of EOA, Inc.)

**Table 5.7.** Application of recommended infeasibility criteria for catch basin insert FTC devices during feasibility analysis Step #2 – Field Assessment.

| Element subject to evaluation | Likely Infeasible if… | Considerations |
|---|---|---|
| Catch basin/Inlet dimensions | ⊗ Catch basin/inlet dimensions are irregular. | • If there are not commercially available options, installation is infeasible. |
| Risk of flooding | ⊗ Proposed location for catch-basin type of device is prone to overflows. | • No considerations. Proposed FTC device located at sites prone to overflows should be considered infeasible. |
| Size of drainage area | ⊗ Proposed location for catch-basin type of system/device would address a land area greater than ~2 acres. | • Installation may be feasible, but is not recommended. Size of upstream drainage area may increase required O&M frequency to a point that is not feasible. |

# 6. Other Types of Trash Control Measures Possibly Equivalent To FTC Systems/Devices

## 6.1 Alternative Trash Control Measures

MRP 3.0 allows Permittees to demonstrate the achievement of the 100% trash load reduction goal through the implementation of trash controls other than full capture system so long as the Permittee can demonstrate that the corresponding land area has achieved consistent low trash generation. The following types of trash control measures have been implemented in the Bay Area to reduce trash generation levels on land and trash in stormwater discharges:

1. Street Sweeping
2. On-land Cleanups
3. Anti-Littering and Illegal Dumping Enforcement
4. Improved Trash Bin Management
5. Storm Drain Catch Basin Inspection/Cleaning
6. Uncovered Loads
7. Public Outreach
8. Partial Capture Devices
9. Trash Inspections on Private Properties
10. Other Types of Actions

## 6.2 Demonstrated Effectiveness of Alternative Trash Control Measures

To determine the effectiveness of the trash control measures other than FTC systems/devices (i.e., alternative controls) that have been implemented in the Bay Area, the most recent Permittee annual reports (FY 2021-22) were compiled and evaluated. Those Trash Management Areas (TMAs) reported by Permittees as achieving the 100% trash load reduction goal were identified and detailed information on the types of control measures implemented in each of these TMAs was documented. The evaluation found that 66 TMAs within 28 Permittee jurisdictional areas achieved the trash reduction goal, at least partially through the implementation of alternative trash controls. Trash levels in these TMAs were either solely addressed by alternative controls or were addressed by a combination of FTC systems/devices and alternative controls. The number and proportion of TMAs achieving the trash reduction goal and the associated types of alternative controls documented by Permittees as being implemented in these TMAs are presented in Figure 6.1 and Table 6.1.

Figure 6.1 demonstrates that street sweeping and on-land cleanups are the most frequently implemented alternative control measures in TMAs achieving the 100% trash reduction goal in FY 21-22. This extent of implementation corresponds well with the responses to the Trash Impracticability Survey (Appendix A) and continue to be important trash control measures for Permittees. Importantly, trash inspections on private properties ranked the lowest of all alternative controls identified. This control measure, however, is a relatively recent addition to many Permittee trash control measure programs. It is anticipated that as implementation of this control measure increases in coming FYs, additional TMAs beyond those presented Figure 6.1 and Table 6.1 will achieve the 100% trash load reduction goal.

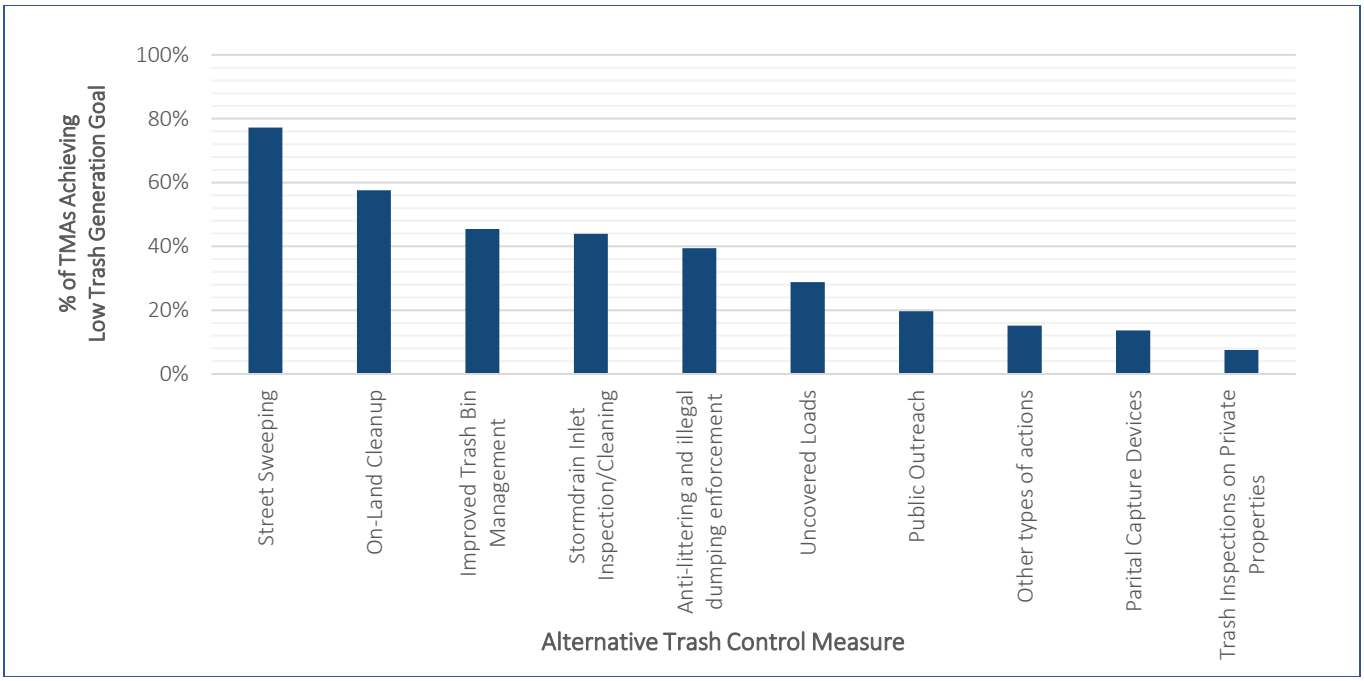


**Figure 6.1.** Extent of alternative trash control measures implemented in TMAs reported by Permittees in FY 2021-22 annual reports as achieving 100% the trash reduction goal.

### *Street Sweeping*

Of the 28 Permittees that have achieved low trash generation in one or more TMAs, 21 reported the use of street sweeping (Figure 6.2) as a trash control measure in those TMAs. A common aspect of the street sweeping programs in the TMAs that achieved the goal is the sweeping of commercial and retail areas at a frequency of at least once a week. Additionally, many of these Permittees reported that they reevaluate their street sweeping programs annually to add new sweeping locations, increase sweeping frequencies, and include newly constructed public streets. Some Permittees also reported enhancing parking enforcement efforts to ensure that sweepers can intercept trash along the curb and gutter.

A few street sweeping programs of note are the Unincorporated Santa Clara County and the City of San Bruno. Santa Clara County achieved low trash generation in 11 TMAs, the most of any MRP Permittee. Santa Clara County's street sweeping program within the TMAs achieving low trash generation entails the sweeping of expressways, including medians and the inside and outside curb and gutter, and all expressway on- and off-ramps. The City of San Bruno reported that they use a webpage to display and update street sweeping frequencies in residential areas and that moving sweeping times in these areas to later in the day has resulted in better curb access due to more people at work during this time. This change in timing has led to more effective sweeping since sweepers are now more likely to reach the curb/gutter where trash accumulates.


**Figure 6.2**. Street sweeping (Image courtesy of the City of San Jose)

**Table 6.1:** Summary of alternative trash control measures implemented in TMAs achieving the trash load reduction goal in the four primary counties subject to the MRP, as reported in the FY 21-22 Permittee Annual Reports.

| County | # of TMAs Achieving 100% Load Reduction Goal through Alternative Controls | Significant Trash Generating Area (acres) within TMAs Achieving the Trash Reduction Goal via Alternative Controls | % of Significant Trash Generating Areas Reported as Achieving the 100% Trash Reduction Goal via an Alternative Control Measure | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | On-Land Cleanup | Street Sweeping | Improved Trash Bin Management | Storm Drain Inlet Inspection/Cleaning | Anti-littering and illegal dumping enforcement | Public Outreach | Uncovered Loads | Partial Capture Devices | Trash Inspections on Private Properties | Other types of actions |
| ACCWP | 3 | 165 | -- | -- | -- | -- | 3% | -- | -- | -- | -- | -- |
| CCCWP | 10 | 384 | 8% | 11% | 5% | -- | 8% | 2% | 2% | -- | -- | 0% |
| SCVURPPP | 33 | 1,927 | 30% | 47% | 29% | 27% | 23% | 6% | 20% | 12% | 5% | 8% |
| SMCWPPP | 20 | 794 | 20% | 20% | 12% | 17% | 6% | 12% | 8% | 2% | 3% | 8% |
| **Totals** | **66** | **3,270** | **58%** | **78%** | **46%** | **44%** | **40%** | **20%** | **30%** | **14%** | **8%** | **16%** |
| **# of TMAs where Alternative Control is Implemented** | | | **22** | **21** | **14** | **12** | **10** | **9** | **8** | **5** | **4** | **6** |

### *On-land Trash Cleanups*

A majority of the 22 Permittees that achieved 100% trash reduction in at least one TMA also implemented on-land trash cleanups as a trash control measure. Permittees reported removing trash from medians, sidewalks, roads, trails, creeks, and parks. These clean ups are performed manually by contractors, volunteers, or both. Many Permittees utilized annual "Clean Up Days" in which volunteers would come together to clean a neighborhood, creek or beach. Some Permittees implemented Adopt-a-Highway or Adopt-a-Storm Drain programs where community members are provided cleaning equipment to remove trash from and near storm drains or roadways. For example, the City of San Bruno created a "trash patrol" program, where two employees perform clean ups five days a week. Some Permittees like the City of Orinda reported that the volume of trash collected during on-land cleanups was tracked so that adjustments to the frequency of cleanups could be made if necessary to improve consistent levels of low trash generation in TMAs.

### *Anti-Littering and Illegal Dumping Enforcement*

The 10 Permittees that used anti-littering/illegal dumping enforcement in TMAs achieving low trash generation reported using telephone hotlines or websites for receiving illegal dumping complaints from citizens. All complaints are addressed usually within the same day or within one business day. Some Permittees implemented physical barriers to prevent illegal dumping. In addition to these common measures, the City of Cupertino required the installation of "No Dumping Drains to Bay" medallions on inlets of redeveloped commercial properties as a condition of approval (COA) and included in their municipal code a provision that requires private commercial property owners to maintain a litter-free site. The City of San Bruno reported that their Public Works staff investigates refuse collected from illegal dumpsites to identify offenders and support the City's Code Enforcement division in issuing citations. The City of South San Francisco and the San Mateo County Flood Control District (SMCFCD) entered into an agreement to, among other things, abate illegal dumping and illegal encampments and collect and dispose of trash and debris deposited on land and in channels/creeks. Problem litter and encampment areas were cleaned by South San Francisco on an as-needed basis, with resource or cost reimbursement from SMCFCD as applicable. The City of Burlingame began an outreach campaign to inform residents and property owners about proper bulky waste disposal and how to report illegal dumping incidents.

### *Improved Trash Bin Management*

The 14 Permittees that successfully reduced trash in TMAs through improved trash bin management commonly used the following methods:

- Coordinating with waste haulers to ensure that all businesses and households have adequate trash service;
- Developing prohibitions of waste accumulation on properties through municipal codes;
- Enforcing requirements for keeping waste bins/containers covered; and
- Collaborating with haulers to require residents or businesses to change their service levels or container types to avoid overfilling.

Many cities also reported that through their C.4 Industrial and Commercial Site Control Program, inspectors confirm that trash and recycle receptacles are provided for customers, dumpsters are not overflowing, dumpster areas are clean, and dumpster lids are closed. Some Permittees installed new receptacles in the public ROW, bus stops, or parks to improve trash management and reduce overflowing bins.
In addition to these common trash bin management efforts, the following controls reported by Permittees are spotlighted:

- City of Mountain View increased inspection frequencies and park trash bin services during Spring and Summer seasons to improve trash management.
- City of Cupertino requires commercial and multi-family residential redevelopment project owners to install and maintain outdoor trio receptacles with cigarette filter urns.
- City of Sunnyvale uses a "Right Size/Right Service" Program (Figure 6.3) in which litter is addressed from overflowing trash and recycling containers in situations where containers are shared by businesses or

tenants in multi-family housing. Sunnyvale works with their waste hauler to develop campaign materials and operational procedures. The program led to successful increases in container collection frequency at several downtown businesses. The program also issues violation notices for overflowing bins, which has led to an increase in collection service.

- City of Colma reported their waste hauler drivers are trained in returning containers with the lids shut and picking up any items that may have fallen out.
- City of San Bruno works with their waste hauler to compare their list of service subscribers with the city's business license list to make sure no businesses were using public trash cans to dispose of trash instead of subscribing to their own service.
- City of Walnut Creek increased the number of in-ground trash cans that could hold up to 300 gallons per bag.
- City of Burlingame requires specialized bins at major public events and requires event sponsors to provide staffing to oversee management of bins and enforce clean-up activities.


Figure 6.3. Outreach material distributed to commercial and industrial properties on trash control measures. (Courtesy of City of Sunnyvale)

### *Storm Drain Catch Basin Inspection/Cleaning*

Twelve Permittees reported that they inspect and clean storm drain catch basins on a consistent basis with frequencies varying between annually and biannually. These municipalities monitor for catch basins with accumulated trash and debris that may need enhanced maintenance. Crews are trained to identify illicit discharges occurring at or near catch basins. A few Permittees provided specific information on their catch basin cleaning programs. The City of Burlingame uses an asset management software, Cartegraph, to document inspections and maintenance. The City of Cupertino also uses an asset management system, CityWorks, that tracks inspections, maintenance and condition of all City owned and maintained stormwater structures, including catch basins, trash

full capture devices, auto-retractable curb screens, and no dumping inlet medallions. Many Permittees also described the Adopt-a-storm drain programs implemented in their municipalities, in which citizens are provided cleaning materials to remove trash from local inlets.

### *Uncovered Loads*

Of the 28 Permittees that achieved low trash generation in TMAs via alternative trash control measures, 8 reported that their Municipal Code requires that loads are covered when transporting material/debris through their municipality. These requirements prohibit waste haulers, landscape contractors, and/or hauler trucks from carrying uncovered loads. The police department helps to enforce these requirements. In addition to the municipal codes, the City of Sunnyvale prevents uncovered loads by providing a tarp distribution program conducted at its SMaRT station recycling center. The City of Belmont has installed signs advising motorists "Uncovered Loads are Subject to Fines" on the road that is heavily used by garage trucks and other vehicles traveling to their recycling center. The City of Brentwood recently constructed a new Cit- owned and operated solid waste transfer station. This fully enclosed facility allows trash to be dropped within an indoor facility by trucks. The pre-existing outdoor facility was exposed to wind and water elements with a high susceptibility to carry trash off-site.

### *Public Outreach*

Public Outreach was reported as a control measure by 9 Permittee's that achieved 100% trash reduction in select TMAs via alternative trash control measures. Generally, these Permittees created public education material, promoted these material and anti-littering messages through social media and other communication outlets, and hosted volunteer events or programs to prevent trash from entering waterways. SCVURPPP Permittees such as the Cities of Campbell, Los Gatos, and Saratoga worked with the West Valley Clean Water Authority (Authority) to launch a social media Litter Prevention/Reusables campaign using Stormy, an animated storm drain. The Authority also hosted Coastal Clean-up Day events in which volunteers would remove trash from creeks. Additionally, The West Valley Collection & Recycling company published articles written by the Authority in their Fall 2021 residential and commercial newsletters, focusing on reusable products for lunches and reusable products for the workplace. In the City of Belmont, roadway banner for cigarette butt litter prevention was displayed multiple times over Ralston Avenue to bring public awareness to cigarette butt litter. The City of Burlingame produced an illegal dumping fact sheet that described how to dispose of unwanted furniture, developed a new webpage resource for reporting illegal dumping, and promoted antilittering messages on the City's social media platforms. The Town of Colma improved and distributed outreach material about stormwater pollutant best management practices to businesses via the Town's C.4 Industrial and Commercial Site Control Program.

### *Partial Capture Devices*

In the FY21-22 Annual Reports, the Cities of Cupertino, Los Gatos, Burlingame, Campbell, and Saratoga reported the implementation of auto-retractable screens (ARS), which are considered partial capture systems. The City of Burlingame reported inspecting and maintaining these devices before and after rainy seasons, as well as documenting inspection and maintenance using the City's asset management software. The City of Cupertino reported that each year it considers the installation of new ARSs as funding becomes available and additional prospects arise within development projects.

### *Trash Inspections on Private Property*

In the FY21-22 Annual Reports, the Cities of Mountain View, Sunnyvale, Colma, and Palo Alto reported using business inspections as a control measure in their TMAs that achieved 100% reduction. These business inspections provide an opportunity for city staff to improve bin management at commercial facilities and educate business owners about stormwater trash regulations and BMPs. The City of Mountain View reportedly increased the frequency of inspections at commercial and food service facilities compared to previous FYs. The Town of Colma reported that C.4 Industrial and Commercial Site Control Program inspections are used as an opportunity to confirm that trash and recycle receptacles are provided for customers, dumpsters are not overflowing, dumpster

areas are clean, and dumpster lids are closed. The City of Sunnyvale's Enhanced Business Education and Inspection Program conducted six inspections during one fiscal year in the TMA that achieved 100% trash reduction. The City of Palo Alto requires trash enclosures for major development projects and identifies maintenance issues through their commercial business inspection program.

### *Other Types of Actions*

Of the Permittees that achieved low trash generation in TMAs via alternative control measures, six reported the use of additional types of control measures outside of those described above. Many of these actions were implemented through municipal ordinances, including the following:

- Disposable Food Service Ware Ordinance (Burlingame)
- Smoking Ordinance (Foster City, Sunnyvale)
- Single-Use Carryout Bag Ban (Sunnyvale)
- Expanded Polystyrene (EPS) Foam Foodware Ban (Sunnyvale)
- Sustainable Food Packaging (Pittsburg)
- Plastic Bag Regulation (Pittsburg)
- Rubbish Removal and Disposal (Pittsburg)

In addition to Programs implemented through municipal ordinances, a few other control measures that are notable were also reported:

- City of Cupertino implemented an Environmental Programs Division that reviews residential and non-residential development projects at the time of permit submittal. Through this process Cupertino requires FTC devices on properties that connect to the City's storm drains and have commercial or multifamily land uses.
- The City of Menlo Park requires that property owners of large business parks submit an annual report to the City demonstrating that FTC devices on its property are well maintained and operated.
- San Mateo County provides a nonprofit organization, Sea Hugger, with a grant to conduct monthly beach cleanups using a Nurdle Trommel, which collects microplastics. The grant also allowed Sea Hugger to install a Seabin that collects trash in the harbor.

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# APPENDIX A
# MRP TRASH IMPRACTICABILITY SURVEY SUMMARY REPORT

# APPENDIX B
# TRASH FULL CAPTURE FEASIBILITY EVALUATIONS/REPORTS AND HYDRAULIC/HYDROLOGIC MODELING REPORTS/ANALYSES

*[Note: Inclusion of the documents listed below are pending approval from associated Permittees]*

**B-1.** City of Dublin Trash Implementation Study: Evaluation of Designing School District Properties as Non-Jurisdictional. March 2016.

**B-2.** City of Dublin Catch Basin Type of FTC Devices Feasibility Study on 7844 Dublin Blvd, 2022.

**B-3.** City of San Rafael / MCSTOPPP Full Trash Capture Feasibility Analysis Technical Memorandum. February 2021.

**B-4.** City of San Rafael / MCSTOPPP Full Trash Capture Hydraulics and Aquatic Resources Summary Technical Memorandum. July 2021.

**B-5.** Marin Countywide Pollution Prevention Program Stormwater Trash Capture Feasibility Report. June 2022.

**B-6.** City of Hayward Arf and Tennyson Trash Capture Technical Memorandum (Draft). 2022.

**B-7.** City of Milpitas Recommendations for the Installation of Inlet-based Trash Full Capture Devices and Actions to Address Future Trash Load Reduction Goals Technical Memorandum. 2018.

**B-8.** City of Mountain View Citywide Trash Capture Feasibility Study. 2015.

**B-9.** City of Oakland Trash Full Capture System Feasibility Evaluation. 2019.

**B-10.** County of San Mateo Unincorporated County Trash Capture Feasibility Study. 2018.

**B-11.** Mendocino County Stormwater Trash Capture Feasibility Report. 2021.

**B-12.** Port of Oakland Trash Capture Program: Feasibility Evaluation and Preliminary Implementation Strategy. December 2021.

**B-13.** Vallejo Flood and Wastewater District Trash Capture Feasibility Study. 2018.

CONTRA COSTA CLEAN WATER PROGRAM

**Date:** February 15, 2023

**To:** Management Committee

**From:** Karin Graves, Acting Program Manager

**Subject:** Comment Letter Regarding State Water Board's Own Motion Review of Alternative Compliance Requirements

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## Recommendation:

Provide staff with any comments or changes and authorize staff to sign and submit a comment letter to the State Water Board.

## Background:

When MRP 3.0 was adopted, Baykeeper filed a petition with the State Water Board to review the permit requirements. Their petition was filed late and rejected. However, in deference to the petition the State Water Board is currently considering whether to initiate their own review of certain permit requirements, as outlined in their letter/notice to the Regional Water Board dated November 28, 2022 (attached). The Program attorney recommended that the Program comment on the letter, and the Contra Costa Clean Water Program (CCCWP) Management Committee agreed to submit a letter at their December 2022 meeting. Below is additional information related to this issue.

- While Baykeeper filed a late petition which was rejected, the State Board has the authority to consider the issues raised by the petition on its "own motion." The State Board is considering whether to review certain "alternative compliance provisions" in MRP 3.0 on its own motion.
- According to the letter, the provisions are found at sections C.9 through C.12, C.14, C.18, and C.19.c-f of the MRP. The Program's attorney does not think the State Board would review alternative compliance in provision C.3 because Baykeeper is concerned about alternative compliance associated with effluent limits and receiving water limits. It appears that the State Board is not considering Baykeeper's challenge to the permit's monitoring provisions.
- The State Board is inviting comment on whether it should exercise its own motion authority to review the alternative compliance provisions. The

Program's attorney thinks the State Board is likely to proceed with the review, but that it's important to inform them of the Program's position and begin educating Board Members on the cost of compliance associated with the permit.

- The draft letter comments that the State Board should not undertake this review because it excuses a late filed petition; the own motion review includes issues not raised in the Petition; MRP 3.0 implements applicable TMDLs; and MRP 3.0's alternative compliance provisions satisfy State Board's principles. The letter also conveys that further review of MRP 3.0 is not helpful to the permittees; it would necessarily result in greater uncertainty and more time and expense to participate in the administrative process. Finally the letter states the State Board would be encouraged to ratchet up the requirements in response to Baykeeper and other NGOs and the permit already imposes significant expense and burden on the permittees.
- The deadline for the comment letter is February 21, 2023. The draft letter prepared by the Program's attorney is included as an attachment to this staff report.

## **Fiscal Impact:**

None at this time.

## **Attachments:**

- CCCWP comment letter to the State Water Board
- November 28, 2022, Letter/notice to the Regional Water Board

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CONTRA COSTA CLEAN WATER PROGRAM

February 21, 2023

**VIA ELECTRONIC MAIL**

Philip G. Wyels
Assistant Chief Counsel
State Water Resources Control Board
P.O. Box 100
Sacramento, California 95812-0100
philip.wyels@waterboards.ca.gov

**Subject: SWRCB/OCC File A-2791(c); Comments on Consideration of Own Motion Review**

Dear Mr. Wyels

On behalf of the Contra Costa Clean Water Program ("CCCWP"), I write to oppose the State Water Board's own motion review of the alternative compliance provisions adopted by the San Francisco Regional Water Quality Control Board ("Regional Board") in the 2022 Municipal Regional Stormwater NPDES Permit, Order No. R2-2022-0018 ("MRP 3.0"). Such review is unnecessary in light of MRP 3.0's aggressive and rigorous stormwater control program that exceeds State Water Resources Control Board ("State Board") standards. As acknowledged by the Regional Board, the alternative compliance provisions are not really alternative forms of compliance at all. Instead, the "requirements and controls specified in the relevant alternative compliance sections closely track the requirements and controls specified in the TMDL or WQIP implementation plans" and "milestones and deadlines in those TMDLs that occur within the term of the Permit are incorporated into the Permit." (MRP 3.0 Fact Sheet, Part C.1., pg. 100). After the Regional Board's multi-year effort to re-issue MRP 3.0, any further review will cause an unnecessary expenditure of technical and legal resources by the permittees and several years of regulatory uncertainty. CCCWP respectfully requests that the State Board decline an own motion review of MRP 3.0.

The CCCWP is comprised of twenty-one public agencies within Contra Costa County, including the nineteen incorporated cities and towns, unincorporated Contra Costa County, and the Contra Costa County Flood Control and Water Conservation District. The CCCWP is tasked with implementing and coordinating much of MRP 3.0's provisions throughout the County. The CCCWP worked closely with State Board staff and other stakeholders during the lengthy permit development process.

As you know, on May 11, 2022, the Regional Board adopted MRP 3.0. On June 10, 2022, the San Francisco Baykeeper ("Petitioner") submitted a late petition ("Petition") requesting that the State Board review certain provisions of the MRP 3.0. On July 13, 2022, the State Board declined to

review the petition on the basis that the Petitioner's submission was untimely. Despite the Petitioner's late submission, on November 28, 2022, the State Water Resources Control Board ("State Board") provided notice that it is considering using its own motion authority to review the alternative compliance provisions in MRP 3.0. For four reasons, the State Board should decline to use its own motion authority to review any portion of MRP 3.0.

**1. The Petition was properly rejected as untimely.**

First, the Petition is untimely, in violation of Water Code Section 13320(a), and should not be rescued by the State Board's own motion. As the State Board recognized in its July 13, 2022 letter to Petitioner, Water Code Section 13320, and its implementing regulations, require that petitions be filed within 30 days, no later than 5:00 p.m., for any action of a regional water quality control board. "The State Water Board interprets that requirement strictly and petitions filed more than 30 days from regional water board action are rejected as untimely." (Order WQ 2015-0075, pg. 7). Petitioner submitted its petition on June 10, 2022 at 6:59 p.m. There is no dispute that the Petition was untimely, as the Chief Counsel's Office correctly concluded.

Once the Petition was deemed untimely, the permittees were entitled to certainty that the challenged provisions in MRP 3.0 would remain throughout the permit term. Permittees responsible for implementing costly, long-term mandates in a municipal stormwater permit must have certainty that the permit they are implementing will not significantly change, at least during the five-year term of the permit. Instead, nearly six months after the Regional Board issued MRP 3.0, the State Board provided notice that it was considering its own motion authority to remedy this procedural defect and review substantial portions of MRP 3.0. Should the State Board take up the permit on its own motion, it may be years before the permittees have a final decision on the validity of the permit now in hand. This is not a fair or just outcome to the permittees or the public. While we acknowledge the State Board's broad own motion authority, it should not be exercised to rescue an untimely petition.

**2. The proposed own motion review includes issues not raised in the Petition.**

Second, assuming the State Board exercises its own motion authority (and it should not), its own motion review should be limited to the alternative compliance provision actually addressed in the Petition. Specifically, the Petition only challenges the bacteria provisions applicable to the cities of Sunnyvale and Mountain View under Provision C.14.a. (See Petition Section E.1.) As stated in the Petition, "The <u>bacteria</u> safe harbor provisions of the 2022 Permit do not meet the rigor, accountability, or transparency required by State Board Order WQ 2015-0075." (Petition Pg. 17.) This is the only allegation of an MRP 3.0 provision not meeting the State Board's standards for alternative compliance. Any further review of MRP 3.0's alternative compliance should be limited to the sole provision actually in dispute.

**3. MRP 3.0 implements applicable TMDLs.**

Third, MRP 3.0 implements water quality standards in accordance with the implementation programs outlined in the applicable TMDLs. In this regard, MRP 3.0 is fundamentally different than the alternative compliance option developed for the LA Region's WMP/EWMP programs. MRP 3.0 incorporates TMDL implementation programs directly into the Permit. The Regional Board's approach is consistent with EPA guidance: "Particularly in cases in which TMDL developers provide specific guidance or assumptions on how permit limits should be expressed to implement WLAs, permit writers should give that guidance/assumptions careful consideration." (Helpful Practices for Addressing Point Sources and Implementing TMDLs in NPDES Permits, EPA Region 9, June 2015, pg. 23). As demonstrated below, the Regional Board followed the TMDL's guidance for expressing the WLAs in MRP 3.0.

- Pesticides; Provision C.9: The TMDL for Diazinon and Pesticide-Related Toxicity in Urban Creeks states: "Strategy implementation will focus on three areas: (1) regulatory programs, (2) education and outreach, and (3) research and monitoring. Regulatory programs will prevent pollution by using existing regulatory tools to ensure that pesticides are not applied in a manner that results in discharges that threaten urban creek uses." (Basin Plan, Section 7.1.1.6). Permit Provision C.9 requires permittees to maintain Integrated Pest Management Programs, implement employee training and public outreach programs, and undertake a robust tracking process and reporting program.

- Trash; Provision C.10: This provision effectively implements the 2015 Trash Amendments as adopted by the State Board.

- Mercury; Provision C.11: The San Francisco Bay Mercury TMDL[1] requires the Regional Board to impose a BMP-based approach in municipal stormwater permits, stating: "The NPDES permits for urban runoff management agencies shall require the implementation of best management practices and control measures designed to achieve the allocations or accomplish the load reductions derived from the allocations." (Basin Plan, Section 7.2.2.4). MRP 3.0 Provision C.11.c includes a rigorous, and costly, load reduction program for mercury that requires permittees to rehabilitate thousands of acres of old industrial land with green stormwater infrastructure or similar controls. Contra Costa County is assigned the largest share of this burden, 664 acres of land. Such treatment is expected to eliminate 28 grams of mercury per year from entering the stormwater system.

- PCBs; Provision C.12: The San Francisco Bay PCB TMDL requires municipal stormwater permits to include "requirements and a schedule to implement technically feasible, effective and cost efficient control measures to attain allocations." (Basin Plan, Section 7.2.3.6). MRP 3.0 exceeds this requirement by incorporating a PCB load reduction

[1] The Guadalupe River Mercury TMDL incorporates implementation actions from the San Francisco Bay TMDL.

strategy that will remove 121 grams of PCBs per year from Contra Costa County. (MRP 3.0 Provision C.12.c.). Similar to the Mercury Provision, the load reduction is achieved by treating 664 acres of old industrial land within the County. The estimated cost to treat each acre of old industrial land with green infrastructure is approximately $5.8 million. This is a rigorous, expensive, and quantifiable control measure that is consistent with the TMDL implementation plan.

- East Contra County Permittees, Provisions C.19.d.-f.: These provisions implement TMDLs and other standards adopted by the Central Valley Regional Board and applicable to the CCCWP's members within that region. As noted in the MRP 3.0 Fact Sheet, these provisions correspond with the implementation, monitoring, and reporting requirements set forth in the Central Valley Basin Plan. No further review is necessary.

As required by the TMDLs, MRP 3.0 includes a robust list of control measures that are updated to reflect adaptive management efforts by the permittees and Regional Board. Accordingly, MRP 3.0 implements the applicable TMDLs, rather than provide an alternative compliance option to the permittees. As such, no further review is necessary.

**4. MRP 3.0's alternative compliance provisions satisfy State Board principles.**

Finally, MRP 3.0's alternative compliance provisions exceeds the standards set forth in Order WQ 2015-0075. Order WQ 2015-0075 recommended that regional water boards consider the "WMP/EWMP" approach as a means of enforcing numeric effluent limits, but also recognized that "regional differences may dictate a variation." (Id. at pp. 51-52.) The Regional Board adopted findings in support of the regional variation in our region.

While structured differently than the alternative compliance path in the Los Angeles Region, the MRP 3.0's alternative compliance path in provisions C.9 through C.12, C.14, C.18, and C.19.c-f, is nevertheless consistent with the precedential direction in Order WQ 2015-0075. Section C.1. of the Fact Sheet thoroughly evaluates why MRP 3.0 satisfies all seven of the factors identified in Order WQ 2015-0075. This letter will not repeat that analysis, but instead focus on several of the key points critical to the CCCWP permittees.

Importantly, the requirements of provisions C.9 through C.12, C.14, C.18, and C.19.c-f are ambitious and rigorous because they require permittees to fully commit to and implement challenging tasks to meet water quality standards. This includes meeting objective interim narrative or numeric effluent limitations. (*See e.g.*, Provision C.9 [requiring the review of the implementation strategy of pesticide toxicity control programs every five years]; Provision C.10 [requiring 100 percent trash load reduction or no adverse impact to receiving waters from trash within the permit term]; Provision C.11 [requiring CCCWP permittees to reduce mercury loads by 28 grams/year]; Provision C.12 [requiring CCCWP permittees to implement control measures that reduce PCB loads by 121 grams/year]; and Provision C.14 [implementing rigorous time schedules

requiring timely implementation of additional control measures for specified permittees].) MRP 3.0 requires thousands old industrial area acres to be remediated with green infrastructure, resulting in numerous multi-benefits. These provisions will ultimately strain the available resources of the Permittees, demonstrating the rigor in their implementation. As a result, any further ratcheting up of these requirements will threaten the Permittees' ability to effectively implement them.

Finally, each of the pollutant-specific provisions contain concrete milestones, deadlines, and reporting requirements that provide rigor and accountability. Unlike the LA County permit evaluated in Order WQ 2015-0075, where water quality objectives were to be achieved through WMPs/EWMPs, this MRP 3.0 explicitly sets forth the requirements for achieving receiving water limitations instead of relying on future plans. As such, its requirements are transparent. The pollutant-specific requirements track the controls and the timelines for attaining the wasteload allocations established in adopted TMDLs. Therefore, the analyses supporting the requirements for achieving receiving water limitations over time were provided in the first instance, in a transparent, public process. As implementation of the Permit's alternative compliance provisions proceeds, all reports, plans, and other required submittals will be made available to all interested parties. The input and feedback from interested parties will then be considered in the evaluation of all submittals. The MRP 3.0 successfully applies the principles in its alternative compliance provisions, consistent with the State Board's standards in WQ 2015-0075.

In conclusion, the CCCWP strongly believes that the alternative compliance provisions cited in the own motion notice already require the Permittees to undertake a rigorous and costly stormwater program. Incorporating additional requirements through another lengthy public process would only result in uncertainty and additional cost during the petition process. Currently, the MRP 3.0 includes 127 new reporting or submittal requirements above and beyond those required by prior permit. The MRP 3.0 also substantially increases the administrative, operational, and project costs for Permittees. For the foregoing reasons, the CCCWP respectfully requests that the State Board not exercise its own motion authority to review the MRP 3.0's alternative compliance provisions.

Sincerely,

Karin Graves, Interim Program Manager
Contra Costa Clean Water Program

_____

CC: San Francisco Bay Regional Water Quality Control Board at
RB2-MRP@waterboards.ca.gov
CCCWP Management Committee

# State Water Resources Control Board

November 28, 2022

**[via email only]**

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

Dear Ms. White:

CONSIDERATION OF OWN MOTION REVIEW OF ALTERNATIVE COMPLIANCE PROVISIONS OF MUNICIPAL REGIONAL STORMWATER NPDES PERMIT, ORDER NO. R2-2022-0018, NPDES PERMIT NO. CAS612008; ISSUED BY THE SAN FRANCISCO BAY REGIONAL WATER QUALITY CONTROL BOARD**:** INVITATION FOR RESPONSES
**SWRCB/OCC FILE A-2791(c)**

The State Water Resources Control Board (State Water Board) is considering whether to initiate own motion review pursuant to Water Code section 13320, subdivision (a), of the appropriateness of the alternative compliance provisions of the Municipal Regional Stormwater NPDES Permit, Order No. R2-2022-0018, issued by the San Francisco Bay Regional Water Quality Control Board on May 11, 2022. The alternative compliance provisions are contained primarily in sections C.9 through C.12, C.14, C.18, and C.19.c-f of the Municipal Stormwater NPDES Permit.

The San Francisco Bay Regional Water Quality Control Board, permittees and interested persons are invited to respond to this letter. All responses should be emailed to me at philip.wyels@waterboards.ca.gov no later than 5:00 p.m., January 20, 2023. Permittees and interested persons should also email a copy of their responses to the San Francisco Bay Regional Water Quality Control Board at RB2-MRP@waterboards.ca.gov.

Any person who would like to receive future correspondence from the State Water Board regarding this matter must subscribe to the electronic mailing list named “A-2791(c) Own Motion” under “LEGAL NOTICES – Office of the Chief Counsel” at http://www.waterboards.ca.gov/resources/email_subscriptions/swrcb_subscribe.shtml. Future correspondence regarding this matter will not be sent in hard copy, unless a request to receive future correspondence in hard copy is mailed to Adrianna Crowl at the Office of Chief Counsel at the address in the letterhead above. You should act as soon as possible to ensure you receive all items of future correspondence.

If you have any questions regarding this letter, please contact me at (916) 341-5178 or philip.wyels@waterboards.ca.gov.

***IN ALL FUTURE CORRESPONDENCE, PLEASE REFER TO***
**SWRCB/OCC FILE A-2791(c)**

Sincerely,

Philip G. Wyels
Assistant Chief Counsel

cc: See next page

cc: **[All via email only]**
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CONTRA COSTA CLEAN WATER PROGRAM

**Date:** February 15, 2023

**To:** Management Committee

**From:** Mitch Avalon, Consultant

**Subject:** Stormwater Funding Options Report, Phase 2, Outline

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**Recommendation:**
Accept report from staff on the outline of the Stormwater Funding Options Report Phase 2 and provide staff with any comments or direction.

**Background:**
At the July 20, 2022 Management Committee meeting, the Committee directed staff to prepare a Stormwater Funding Options Report, which has been developed in two phases. The first phase was approved by the Committee at their meeting on December 13, 2022. Phase 2 will expand the analysis of the viable options from Phase 1, describe the process to implement the options and potential challenges, and recommend a pathway forward.

Attached is an outline of the Stormwater Funding Options Report, Phase 2. Staff would appreciate any comments or direction on the outline of the report. The outlined includes, for example, analysis of the Property Related Fee describes why this is a popular approach with California jurisdictions, the process outlined in Proposition 218 that must be met, all the lessons learned from the 2012 Initiative and how the problems can be rectified, the cost to implement a new ballot measure, the projected revenue from a new ballot measure, and recommendations on a pathway forward. The outline also includes a similar level of detailed analysis for each of the potential funding options identified in Phase I by the Management Committee, including: litter/trash property related fee, community facilities district, one-time revenue options analysis, "do nothing" option, and other considerations. The outline and Phase 2 report will include a review of the pathway forward, including a review of the approaches at multiple implementation levels, and concluding recommendations.

Staff requests the Management Committee review and provide feedback on the level of information included in the Phase 2 report. Staff want to ensure that this information is enough for the Committee to decide on a funding option, or what, if any, additional information should be provided or irrelevant information removed. The Administrative Committee discussed the outline and questioned how the community facilities district would operate, which is difficult to determine at this time until more work is done on developing the Regional

Alternative Compliance System project. Regarding whether to provide more information on other recent ballot measures, the Committee suggested the issue be revisited after review of the draft report.

**Fiscal Impact:**

None at this time, other than the cost of drafting the report, but there may be an increase or decrease in the budget depending on the final decision of whether to move forward with a funding option or not.

**Attachments:**

Stormwater Funding Options Report, Phase 2, Outline

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# Stormwater Funding Options Report, Phase 2: Draft Outline

## Phase 2: The Pathway Forward, February 7, 2023

The Management Committee approved Phase 1 at their meeting on December 13, 2022 and authorized work on Phase 2. The following is a draft outline of the Stormwater Funding Options Report, Phase 2.

**Introduction**

**Financial Implications**

- Funding shortfall
- Monsanto settlement funds

**Property Related Fee**

- Description
- Popular approach
- Proposition 218 process
    - Total service cost limitation
    - Use limitation
    - Proportional cost limitation
    - Future services prohibition
    - General government service prohibition
- Lessons learned
    - Planning the approach
        - Due diligence
        - Flood Control District act
        - Safety factor
        - Countywide model
    - Election process
        - Elections office
        - Internal expert
        - The ballot
        - Fee amount
    - Legitimate process
        - Legality
        - Property related fee
    - Building support
        - Outreach campaign
        - Advocate and champion
        - Talking points
        - Regional Water Board
        - Project list
        - Existing SUA
        - Permittee support
        - Cost data

        - Media
            - Print media
- Implementation (ballot measure) costs
    - Background analysis and research
    - Future program cost analysis
    - Potential funding source analysis
    - Opinion research and survey
    - Stormwater funding needs and options report
    - Fee report
    - Revenue enhancement action plan
    - Implementation and educational outreach
    - Balloting results and final perspectives
- Projected revenue
- Recent ballot measures
    - Los Altos (unsuccessful, 2019)
    - Cupertino (successful, 2019)
    - Alameda (successful, 2019)
    - Davis (successful, 2021)
    - San Bruno (unsuccessful, 2021)
    - Sacramento (successful, 2022)
    - Vallejo Flood and Wastewater District (unsuccessful, 2022)
- Assumptions
    - Countywide
- Recommendation
    - Financial plan
        - Budget
        - Cost data
        - Outreach
    - Administrative plan
        - Countywide issues
        - Election ballot issues
        - Media
        - Timing
    - Outreach plan
        - Project champion
        - Advocacy
        - Messaging
        - Supporters/partners
    - Legal plan
        - Partner resolutions
        - General support

**Litter/Trash Property Related Fee**

- Description
- Possible alternative process
- Implementation (ballot measure) costs
    - Background analysis and research

    - Future program cost analysis
    - Potential funding source analysis
    - Opinion research and survey
    - Stormwater funding needs and options report
    - Fee report
    - Revenue enhancement action plan
    - Implementation and educational outreach
    - Balloting results and final perspectives
- Projected revenue
- Assumptions
    - Countywide
    - Balloted fee measure
- Recommendation
    - Financial plan
        - Budget
        - Cost data
        - Outreach
    - Administrative plan
        - Countywide issues
        - Election ballot issues
        - Media
        - Timing
    - Outreach plan
        - Project champion
        - Advocacy
        - Messaging
        - Supporters/partners
    - Legal plan
        - Partner resolutions
        - General support

**Community Facilities District**

- Description
- Formation process
    - Initiation of CFD
    - Local goals and policies
    - Rate and apportionment
    - Resolution of intention
    - Public hearing
    - Resolution of formation
    - Election
- Administrative Procedures
- Legal considerations
    - Flood Control District
    - Multiple CFDs
    - Formation process
- Implementation costs

- Projected revenue
- Assumptions
    - Countywide
    - Partnership
- Alternative compliance system partnership
- Recommendation

**One-time Revenue Options Analysis**

- Briefly analyze the one-time revenue options
- Describe how these options could be utilized as a short-term strategy
- Identify what role the Program could play in a short-term strategy
- Recommendation

**"Do Nothing" Option**

- Decide not to pursue an option that would provide ongoing revenue
- Optimize Program cost savings
- With this option the short-term strategy is really a long-term strategy
- Describe increasing the $3.5 million threshold to soften reserve fund depletion
- Discuss service reduction options
- Describe budget reduction to permittee budgets (SUA return to source reduction)
- Recommendation

**Other Considerations**

- Address questions raised in Phase 1
- Impact of 2024 Ballot measure by the California Business Roundtable
- Consider when, or if, polling or surveys should be conducted

**Pathway Forward**

- Review three approaches moving forward: Program, Permittees, Project level
- Review whether a short-term approach and long-term approach would be appropriate
- Describe political process to decide on best option
- Should Select Committee be engaged to help with the political process?
- Identify information needed to facilitate political process
    - Staff reports, MRP financial impact on jurisdiction, etc.
- Decide on the best option to implement
- Concluding recommendations
- Direct staff to prepare and report on next steps needed to implement the option chosen

CONTRA COSTA CLEAN WATER PROGRAM

**Date:** February 15, 2023

**To:** Management Committee and Development Committee

**From:** Erin Lennon, Watershed Management Planning Specialist, and Yvana Hrovat, Haley and Aldrich

**Subject:** Integrated Management Practices (IMP) Sizing Calculator Updates

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## Recommendation:

Approve the conditional budget for the update of the Integrated Management Practices (IMP) Sizing Calculator.

## Background:

Provision C.3 of the Municipal Regional Stormwater National Pollutant Discharge Elimination System Permit (MRP) requires municipal Permittees to use their planning and building authority to require applicants for development approvals to include Low Impact Development (LID) features and facilities in their projects.

The Integrated Management Practices (IMP) Sizing Calculator was released in October 2009 to assist applicants with sizing of LID and IMP features per MRP requirements, for use in conjunction with the Contra Costa Clean Water Program (CCCWP) Stormwater C.3 Guidebook.

MRP 3.0, adopted May 11th, 2022, included updated Provision C.3 categories, thresholds, and Hydromodification Management (HM) requirements. Within Provision C.3., the following sub-provisions outline the requirements for sizing stormwater treatment and Integrated Management Practices (IMP):

- C.3.c. (LID)
- C.3.d. (Numeric Sizing Criteria for Stormwater Treatment Systems)
- C.3.e.ii (Special Projects)

For consistency with MRP 3.0 and the 8th Edition Stormwater C.3 Guidebook, which was updated per MRP 3.0 requirements, as well as for further clarity and ease of use, IMP Sizing Calculator updates are proposed.

Haley & Aldrich prepared a draft Scope of Work and cost estimate for completing IMP Sizing Calculator updates on January 25, 2023 (see Attachment). The associated tasks and costs within the Scope of Work were presented and discussed at the January 25, 2023 Development Committee meeting. Comments on the draft

scope of work were received through February 1, 2023. The Development Committee did not offer significant comments on the scope of work.

**Related Tasks and Next Steps:**

Should the Management Committee recommend moving forward, then the following are the next tasks and anticipated timeline associated with that decision.

- Task 1: IMP Sizing Calculator Updates (Haley & Aldrich in coordination with Dubin Environmental)
    - Description: IMP Sizing Calculator updates will be provided by Haley & Aldrich and Dubin Environmental. Haley & Aldrich will coordinate this work with Dubin Environmental (detailed scope outlined in the Attachment).
    - Timeline: The draft updates are scheduled to be complete in April 2023 with final updates planned for May 2023.
- Task 2: Meetings with Contra Costa Permittees (Haley & Aldrich)
    - Description: Haley & Aldrich will present an overview of the updates made to the IMP Sizing Calculator at CCCWP Development Committee and Management Committee meetings (detailed scope outlined in the Attachment).
    - Timeline: Haley & Aldrich will present updates at Development Committee and Management Committee meetings in April/May 2023.

**Table 1: Schedule of Tasks**

| Task | Deliverable | Date |
|---|---|---|
| IMP Sizing Calculator Updates<br><br>Consultants: Haley & Aldrich in coordination with Dubin Environmental | Draft IMP Sizing Calculator updates for review | April 2023 |
| | Final updates | May 2023 |
| Meetings with Contra Costa Clean Water Program committees<br><br>Consultants: Haley & Aldrich in coordination with Dubin Environmental | Development Committee presentation | April/May 2023 |
| | Management Committee presentation | May 2023 |

## Fiscal Impact:

There is no fiscal impact. The Management Committee approved a conditional line item for $41,000 in the FY 22/23 budget to update the IMP Sizing Calculator.

Staff recommend that Haley and Aldrich and Dubin Environmental proceed with the work outlined in the attached Scope of Work.

**Table 2: Cost Breakdown**

| Consultant | Task | Amount |
|---|---|---|
| Haley and Aldrich | Draft IMP Calculator Updates | $21,000 |
| Haley and Aldrich | Final IMP Calculator Updates | $8,000 |
| Haley and Aldrich | Meetings | $2,000 |
| Tony Dubin, through Haley and Aldrich | Support on Draft IMP Calculator Updates | $7,000 |
| Tony Dubin, through Haley and Aldrich | Support on Final IMP Calculator Updates | $3,000 |
| Total | | $41,000 |

## Attachments:

Haley and Aldrich, and Dubin Environmental. January 25, 2023. "Integrated Management Practices (IMP) Sizing Calculator Updates; Draft Scope of Work."

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# Integrated Management Practices (IMP)
# Sizing Calculator Updates
# Draft Scope of Work (January 25, 2023)

**Background**

In response to the San Francisco Bay Region Municipal Regional Stormwater Permit (MRP 3.0, adopted May 11th, 2022) updates, which included updated Provision C.3 categories, thresholds, and Hydromodification Management (HM) requirements, Contra Costa Clean Water Program (CCCWP) updated the Stormwater C.3 Guidebook (8th Edition) to reflect the adopted changes. For consistency with MRP 3.0 and the 8th Edition Stormwater C.3 Guidebook as well as for further clarity and ease of use, IMP Sizing Calculator Updates are proposed as described in the Scope of Work below. The budget and schedule for this work is outlined in Table 1, with detailed IMP Sizing Calculator Updates described in Table 2.

SCOPE OF WORK:

**Task 1: IMP Sizing Calculator Updates**

Haley & Aldrich will edit the source code, figures, and documentation of the IMP Sizing Calculator as per Table 2: Planned IMP Sizing Calculator Updates. Haley & Aldrich will coordinate with Tony Dubin throughout the updates process. This task includes one round of *draft* (to be presented to Development Committee for comments) and *final* (to be presented to Management Committee for approval) IMP Sizing Calculator updates. Additionally, a brief IMP Sizing Calculator demonstration video will be provided with the final deliverable.

**Task 2: Meetings**

Haley & Aldrich will attend one (1) Development Committee (2 hours) and one (1) Management Committee meeting (1 hour) to present IMP Sizing Calculator updates.

*Draft* IMP Sizing Calculator updates will be presented to the Development Committee. Feedback from the Development Committee will guide any necessary changes to produce the *final* updates. The updates will then be presented to the Management Committee for final approval.

**Deliverables:**

- Draft IMP Sizing Calculator updates, to be presented to Development Committee for comments/input
- Final IMP Sizing Calculator updates, incorporating Development Committee feedback and per Management Committee approval, including source code, installer, documentation, and demonstration video

**Assumptions:**

- The source code, figures, and documentation of the current version of the calculator must be complete and accurate.
- The planned updates will be made using the existing source code, building on the framework of the current version of the IMP calculator (C# Windows Forms App).

- All final updates will have to be agreed upon and their scope must fit the proposed budget presented below.
- Potential inclusion of peak flow calculations will not be addressed as part of these updates. This option is being further explored and can be included in future updates, pending Development Committee approval and future budget availability.
- One round of consolidated Permittee comments will be addressed.
- No substantial additional updates from Permittees.

**Table 1: Estimated Budget and Schedule**

| Task | H&A Budget | Tony Dubin Budget | Estimated Completion Date |
|---|---|---|---|
| Draft IMP Calculator Updates | $21,000 | $7,000 | April 2023 |
| Final IMP Calculator Updates | $8,000 | $3,000 | May 2023 |
| Meetings | $2,000 | -- | April/May 2023 |
| **Total** | $31,000 | $10,000 | |
| **Sum Total** | $41,000 | | |

**Table 2: IMP Sizing Calculator Updates**

| Planned IMP Sizing Calculator Updates | | |
|---|---|---|
| **Update Number** | **Update Description** | **Update Tasks** |
| 1 | 1.1 Help File | 1.1.1 Add help for new features |
| | | 1.1.2 Link to updated help file online |
| | | 1.1.3 Emphasize/reference distributed LID design |
| | | 1.1.4 Update Guidebook page number references |
| 2 | 2.1 Windows Compatibility | 2.1.1 Update for Windows 10/11 compatibility |
| 3 | 3.1 Treatment Options for Sizing | 3.1.1 Standard Sizing (tributary equivalent impervious area × 0.04) – Table 3-5 in guidebook |
| | | 3.1.2 Reduced Sizing for Road Reconstruction and Non-Regulated Projects – Page 50 of Guidebook, Sizing Factor = 0.00060 × MAP + 0.0086 |
| | | 3.1.3 Special Projects Sizing (non-LID) – Tree well filters and vault-based media filters – Page 50 of Guidebook |
| 4 | 4.1 Hydromodification Management | 4.1.1 Remove "Treatment Plus Flow Control" option |
| 5 | 5.1 Integrated Management Practices | 5.1.1 Update graphics using images from Guidebook. |
| | | 5.1.2 Display key design criteria and reference all design criteria.<br>• Address explicitly $\Delta h$.<br>• Make output dimensions easier to follow and verify for cistern + bioretention and bioretention + vault options. Clarify options for configuring storage.<br>• Note minimum bioretention soil surface area is flat, floodable and does not include side slopes.<br>• Note $V_2$ volume is pore space = 0.4 × gravel volume. |
| 6 | 6.1 Input | 6.1.1 Require input of information in Project Data Form (Stormwater Control Plan template format) |
| | | 6.1.2 Allow input of polygon (shapefile) information representing DMAs and IMPs |
| 7 | 7.1 Output | 7.1.2 Generate text files for incorporation into Stormwater Control Plan, Project Data Form format. |

CONTRA COSTA CLEAN WATER PROGRAM

**Date:** February 15, 2023

**To:** Management Committee

**From:** Elizabeth Yin, Program Consultant

**Subject:** Final Draft Regional MRP 3.0 Annual Report Forms

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## Recommendation:

Approve the Final Draft Regional MRP Annual Report Forms.

## Background:

The regional project team working on the updated MRP Annual Forms has completed the Final Draft for review and approval by each of the countywide regional program Management Committees. Once the Management Committee approves the Final Draft Regional MRP Annual Report Forms, they will be approved at the February BAMSC Steering Committee and submitted to the Water Board soon after.

Over the past three months, Program Staff and Permittees have been reviewing and commenting on draft annual report forms in support of the regional project team. At this point in time, staff are recommending for Management Committee to approve the Final Draft MRP Annual Report Forms.

## Fiscal Impact:

None at this time.

## Attachments:

- 2022-23 Combined MRP 3.0 Annual Report Forms.

## Section 2 – Provision C.2 Reporting Municipal Operations

| **Program Highlights**<br>Highlight/summarize activities for reporting year: |
|---|
| Summary:<br>**Guidance: Summarize activities for the reporting year conducted by your municipality, such as participation in the countywide program's Municipal Operations Committee/Work Group (if applicable). Refer to the C.2 Municipal Operations section of the countywide Program's FY 22-23 Annual Report (if applicable) for a description of activities implemented at the countywide and/or regional level.** |

### C.2.a. ►Street and Road Repair and Maintenance

Place a **Y** in the boxes next to activities where applicable BMPs were implemented. If not applicable, type **NA** in the box and provide an explanation in the comments section below. Place an **N** in the boxes next to activities where applicable BMPs were not implemented for one or more of these activities during the reporting fiscal year, then in the comments section below provide an explanation of when BMPs were not implemented and the corrective actions taken.

| | |
|---|---|
| | Control of debris and waste materials during road and parking lot installation, repaving, repair, or maintenance activities from polluting stormwater |
| | Control of concrete slurry and wastewater, asphalt, pavement cutting, and other street and road maintenance materials and wastewater from discharging to storm drains from work sites |
| | Sweeping, vacuuming, and/or other dry methods to remove debris, concrete, or sediment residues, and spills or leaks, from work sites upon completion of work |

Comments:

## C.2.b. ►Sidewalk/Plaza Maintenance and Pavement Washing

Place a **Y** in the boxes next to activities where applicable BMPs were implemented. If not applicable, type **NA** in the box and provide an explanation in the comments section below. Place an **N** in the boxes next to activities where applicable BMPs were not implemented for one or more of these activities during the reporting fiscal year, then in the comments section below provide an explanation of when BMPs were not implemented and the corrective actions taken.

| | |
|---|---|
| | Control of polluted wash water and non-stormwater from pavement, sidewalk and plaza cleaning, mobile cleaning, outdoor pressure washing operations, and washing down of trash areas and gas station or mobile fueling service areas from discharging to storm drains |
| | BMPs for washing down outside areas of human habitation include sanitizing procedures |
| | Implementation of the BASMAA Mobile Surface Cleaner and California Stormwater BMP Handbook (or similar) Program BMPs |

Comments:

## C.2.c. ►Bridge and Structure Maintenance and Graffiti Removal

Place a **Y** in the boxes next to activities where applicable BMPs were implemented. If not applicable, type **NA** in the box and provide an explanation in the comments section below. Place an **N** in the boxes next to activities where applicable BMPs were not implemented for one or more of these activities during the reporting fiscal year, then in the comments section below provide an explanation of when BMPs were not implemented and the corrective actions taken.

| | |
|---|---|
| | Control of discharges from bridge and structural maintenance activities directly into surface waters or storm drains |
| | Control of non-stormwater and wash water discharges from graffiti removal activities |
| | Proper disposal for wastes generated from bridge and structure maintenance and graffiti removal activities |
| | Employee training on proper capture and disposal methods for wastes generated from bridge and structural maintenance and graffiti removal activities |
| | Contract specifications requiring proper capture and disposal methods for wastes generated from bridge and structural maintenance and graffiti removal activities |

Comments:

| **C.2.e. ►Rural Public Works Construction and Maintenance** | | | | |
|---|---|---|---|---|
| Does your municipality own/maintain rural[1] roads? | | **Yes** | | **No** |
| If your answer is **No**, then skip to **C.2.f**. | | | | |
| Place a **Y** in the boxes next to activities where applicable BMPs were implemented. If not applicable, type **NA** in the box and provide an explanation in the comments section below. Place an **N** in the boxes next to activities where applicable BMPs were not implemented for one or more of these activities during the reporting fiscal year, then in the comments section below provide an explanation of when BMPs were not implemented and the corrective actions taken. | | | | |
| | Control of road-related erosion and sediment transport from road design, construction, maintenance, and repairs in rural areas | | | |
| | Identification and prioritization of rural road maintenance based on soil erosion potential, slope steepness, and stream habitat resources | | | |
| | Constructing roads and culverts that do not impact creek functions, including migratory fish passage | | | |
| | Inspection of rural roads for structural integrity and prevention of impact on water quality | | | |
| | Maintenance of rural roads adjacent to streams and riparian habitat to reduce erosion, replace damaging shotgun culverts, and address excessive erosion | | | |
| | Re-grading of unpaved rural roads to slope outward where consistent with road engineering safety standards, and installation of water bars as appropriate | | | |
| | Inclusion of measures to reduce erosion, provide fish passage, and maintain natural stream geomorphology when replacing culverts or designing new culverts or bridge crossings | | | |
| | | | | |
| Comments (including listing increased maintenance in priority areas): | | | | |

[1]Rural means any watershed or portion thereof that is developed with large lot home-sites, such as one acre or larger, or with primarily agricultural, grazing or open space uses.

## C.2.f. ►Corporation Yard BMP Implementation

Place an **X** in the boxes below that apply to your corporation yard(s):

| | |
|---|---|
| | We do not have a corporation yard. |
| | Our corporation yard is a filed NOI facility and regulated by the California State Industrial Stormwater NPDES General Permit. |
| | We have a **Stormwater Pollution Prevention Plan (SWPPP)** for the Corporation Yard(s). |

*(For FY 22-23 Annual Report only)* Provide links to the Corporation Yard SWPP or include it in the FY 22-23 Annual Report.

Place an **X** in the boxes below next to implemented SWPPP BMPs to indicate that these BMPs were implemented in applicable instances. If not applicable, type **NA** in the box. If one or more of the BMPs were not adequately implemented during the reporting fiscal year then indicate so and explain in the comments section below:

| | |
|---|---|
| | Control of pollutant discharges in stormwater such as wash water |
| | Routine inspection of corporation yard(s) in August or September to ensure non-stormwater discharges have not entered the storm drain system and pollutant discharges are prevented to the maximum extent practicable |
| | Containment of all vehicle and equipment wash areas through plumbing to sanitary sewer or other collection method |
| | Use of dry cleanup methods when cleaning debris and spills from corporation yard(s) or collection and disposal of all wash water to sanitary sewer or other location where it does not impact surface or groundwater if wet cleanup methods are used |
| | Require private companies/contractors to use dry cleanup methods when cleaning debris and spills from corporation yard(s) or collect and dispose of all wash water to sanitary sewer or other location where it does not impact surface or groundwater if wet cleanup methods are used |
| | Cover and/or berm outdoor storage areas containing pollutants |

Comments:

**Guidance: Your municipality is <u>not</u> required to report on BMPs implemented or inspections conducted at municipal corporation yards that are covered under the State Industrial General Permit. If your corporation yard(s) inspection date is not in August or September 2022, provide an explanation and corrective action for fully inspecting your corporation yard each year between August 1 and September 30, as required.**

**You may report a narrative of activities conducted in the corporation yards that have BMPs in the site-specific SWPPP, date(s) of inspections, results of inspections, and any follow-up actions, including the date of any necessary corrective actions implemented in this space OR complete the table below.**

If you have a corporation yard(s) that is not an NOI facility, for inspection results for your corporation yard(s), complete the following table, provide a narrative above, or attach a summary including the following information: **Do not leave any cells blank. If you are only reporting the information in a narrative above, state that in the table below.**

| Corporation Yard Name | Corp Yard Activities w/ site-specific SWPPP BMPs | Inspection Date[2] | Inspection Findings/Results | Date and Description of Follow-up and/or Corrective Actions |
|---|---|---|---|---|
| | Guidance: For example, list if your yard includes general housekeeping; vehicle/equipment washing; vehicle/equipment maintenance & repair; fuel dispensing; outdoor material storage; outdoor waste/recycling storage; municipal vehicle/heavy equipment parking; employee parking. | | | |
| | | | | |
| | | | | |
| | | | | |

## C.2.h. ►Staff Training

| Dates of Training | Training Topics Covered | Total number of Permittee maintenance staff | Permittee maintenance staff who attended training | |
|---|---|---|---|---|
| | | | Number | Percent |
| | Guidance: For example, Stormwater pollution prevention; Appropriate BMPs for maintenance and cleanup activities; Street and Road Repair and Maintenance BMPs; Sidewalk/Plaza Maintenance and Pavement Washing; Bridge and Structure Maintenance and Graffiti Removal; Corporation Yard SWPPPs and BMPs; and Spill and discharge response and notification procedures and contacts. | | | |
| | | | | |

Comments:
Guidance: Use this area if needed to explain any information not included in the Staff Training Section. Trainings may be program-wide, region-wide or Permittee specific. If there was no training this FY, state that here.

[2] Minimum inspection frequency is once a year between August 1 and September 30.

## Section 3 – Provision C.3 Reporting New Development and Redevelopment

### C.3.a.ii. ► New Development and Redevelopment Performance Standard Implementation Summary Report

*(For FY 22-23 Annual Report only)* Provide a brief summary of the methods of implementation of Provisions C.3.a.i.(1)-(8)).

Summary:

**Guidance: Provide a brief summary for each of the following:**

- **(1) Municipality's legal authority to implement all requirements of Provision C.3;**
- **(2) Adequacy of municipality's development review and permitting procedures, including use of conditions of approval or other enforceable mechanisms, to implement C.3 requirements;**
- **(3) How potential water quality effects and appropriate mitigation measures are addressed in environmental reviews (e.g., CEQA);**
- **(4) C.3 training for staff in appropriate departments, and interdepartmental training (Program will report on training at the countywide level);**
- **(5) Outreach/education on C.3 requirements provided to staff, developers, contractors, construction site operators and owner/builders;**
- **(6) How municipality encourages site design measures at unregulated projects subject to Planning/Building Department review;**
- **(7) How municipality encourages source control measures at unregulated projects subject to Planning/Building Department review;**
- **(8) General Plan revisions (if needed) to integrate water quality/watershed protection with water supply, flood protection, habitat protection, groundwater recharge, and other sustainable development principles and policies. Include dates of General Plan revisions.**

### C.3.b.iv.(1) ► Regulated Projects Approved with No Provision C.3 Stormwater Treatment Requirements

*(For FY 22-23 Annual Report only)* Provide a complete list of development projects that were approved with no Provision C.3 stormwater treatment requirements under a previous MS4 permit and have not begun construction by July 1, 2022. Fill in attached table **C.3.b.iv.(1)** or attach your own table including the same information. **Guidance: Refer to footnotes in the table for instructions on how to complete the table. Do not leave any cells blank. For example, enter zero or N.A. as appropriate. If a Permittee has no projects subject to Provision C.3.b.i.(2), then you should state so here or in the C.3.b.iv.(1) Reporting Table.**

## C.3.b.iv.(2) ►Regulated Projects Reporting

Fill in attached table **C.3.b.iv.(2)** or attach your own table including the same information. **Guidance: Refer to footnotes in the table for instructions on how to complete the table. Do not leave any cells blank. For example, enter zero or N.A. as appropriate. If a Permittee did not approve any Regulated Projects during the reporting period (fiscal year), then the Permittee should state so here or in the C.3.b.iv.(2) Reporting Table.**

## C.3.e.iv. ►Alternative or In-Lieu Compliance with Provision C.3.c.

| | | | | |
|---|---|---|---|---|
| Is your agency choosing to require 100% LID treatment onsite for all Regulated Projects and not allow alternative compliance under Provision C.3.e.? | | **Yes** | | **No** |
| Comments (optional): | | | | |

## C.3.e.v ► Special Projects Reporting

| | | | | |
|---|---|---|---|---|
| 1. In FY 2022-23, has your agency received, but not yet granted final discretionary approval of, a development permit application for a project that has been identified as a potential Special Project based on criteria listed in MRP Provision C.3.e.ii(2) for any of the three categories of Special Projects (Categories A, B or C)? | | **Yes** | | **No** |
| 2. In FY 2022-23, has your agency granted final discretionary approval to a Special Project? If yes, include the project in both the **C.3.b.iv.(2)** Table, and the **C.3.e.v.** Table. | | **Yes** | | **No** |

If you answered "Yes" to either question,

1) Complete Table C.3.e.v.
2) Attach narrative discussion of 100% LID Feasibility or Infeasibility for each project.

**Guidance: Do not leave any cells blank. For example, enter zero or N.A. as appropriate. Contact your Countywide Program staff (if applicable) to obtain guidance on the narrative discussion of LID Feasibility/Infeasibility. If the project does not go through a discretionary approval process, contact Countywide Program staff for direction.**

## C.3.g.vi.(1) ► Hydromodification Management (HM) Applicability Maps (CCCWP Permittees only)

| | | | | |
|---|---|---|---|---|
| *(For FY 22-23 Annual Report only)* Has your agency prepared new HM Applicability Maps or equivalent information? | | **Yes** | | **No** |

**Guidance (CCCWP Permittees only): Provide the following text (if applicable):**

**Please refer to Countywide Program's FY 22-23 Annual Report for the HM Applicability Map(s).**

## C.3.g.vi.(2) ► Hydromodification Management (For CCCWP Permittees only)

*(For FY 22-23 Annual Report only)* Submit a Technical Report consisting of a HM Management Plan describing how the CCCWP Permittees will implement the HM Standard specified in Provision C.3.g.iii.

**Guidance: Provide the following text (if applicable):**

**Please refer to the Countywide Program's FY 22-23 Annual Report for the HM Technical Report.**

## C.3.h.v.(2). ► List of Newly Installed[1] Stormwater Treatment Systems and HM Controls

On an annual basis, before the wet season, provide a list of newly installed (installed within the reporting period stormwater treatment systems and HM controls to the local mosquito and vector control agency and include a copy of that information in the Annual Report. The list shall include the facility locations and a description of the stormwater treatment measures and HM controls installed.
(Optional) Also complete Table C.3.h.v.(2) ► Reporting Newly Installed Stormwater Treatment Systems and HM Controls

**Guidance: Contact your Countywide stormwater program (if applicable) regarding guidance on responding to these questions**

| | | | | |
|---|---|---|---|---|
| 1. Did your agency provide the list of newly installed Stormwater Treatment Systems and HM Controls to the Vector Control agency? | | **Yes** | | **No** |
| 2. Is a copy of the communication, including the list of newly installed treatment/HM measures, included in your Annual Report? | | **Yes, See Appendix 3-1** | | **No, see Countywide Annual Report for a copy of the communi-cation and list.** |

[1]"Newly Installed" includes those facilities for which the final installation inspection was performed during this reporting year.

## C.3.h.v.(3)(a) – (c) and (f) ► Installed Stormwater Treatment Systems Operation and Maintenance Verification Inspection Program Reporting

**Guidance (all Permittees): Beginning FY 16-17, Permittees must report the number of Regulated Project sites inspected, not the number of treatment measures inspected. Do not leave any cells blank. The calculation of the percentage of Regulated Projects for which O&M verifications were conducted during the reporting period is based on the total number of projects in the Permittee's database at the end of the previous fiscal year because projects added during the reporting fiscal year will likely have installation inspections and not O&M verification inspections, and it allows an agency to plan the required number of inspections to be conducted during the reporting period.**

| **Site Inspections Data** | **Number/Percentage** |
|---|---|
| Total number of Regulated Projects (including offsite projects, and Regional Projects) in your agency's database or tabular format at the end of the previous fiscal year (FY 21-22) | |
| Total number of Regulated Projects (including offsite projects, and Regional Projects) in your agency's database or tabular format at the end of the reporting period (FY 22-23) | |
| Total number of Regulated Projects (including offsite projects, and Regional Projects) for which O&M verification inspections were conducted during the reporting period (FY 22-23) | |
| Percentage of the total number of Regulated Projects (including offsite projects, and Regional Projects) inspected during the reporting period (FY 22-23) | %[2] |

## C.3.h.v.(3)(d)-(e) ► Installed Stormwater Treatment Systems Operation and Maintenance Verification Inspection Program Reporting

Provide a discussion of the inspection findings for the year and any common problems encountered with various types of treatment systems and/or HM controls. This discussion should include a general comparison to the inspection findings from the previous year.

Summary:

**Guidance: 1) Water Board staff in their April 11, 2011 annual report review letter indicated that a self-inspection by owners/operators of treatment and HM controls is not acceptable as a municipal O&M verification inspection. Inspections must be conducted by Permittee staff and/or contractor under direction of the permittee. However, for vault-based treatment systems, Permittees may accept 3rd party inspection reports in-lieu of conducting Permittee O&M inspections only if the 3rd party inspections are conducted at least annually. 2) If a Permittee did not inspect any Regulated Projects during FY 22-23 because there are no Regulated Projects within the Permittee's jurisdiction or because no stormwater treatment or HM controls have been built yet for Regulated Projects within the Permittee's jurisdiction, the Permittee should state that here.**

[2] Based on the number of Regulated Projects in the database or tabular format at the end of the previous fiscal year, per MRP Provision C.3.h.ii.(6)(b).

| Provide a discussion of the effectiveness of the O&M Program and any proposed changes to improve the O&M Program (e.g., changes in prioritization plan or frequency of O&M inspections, other changes to improve effectiveness program). |
|---|
| Summary: |

## C.3.i. ►Required Site Design Measures for Small Projects and Smaller Detached Single Family Home Projects

On an annual basis, discuss the implementation of the requirements of Provision C.3.i, including ordinance revisions, permit conditions, development of standard specifications and/or guidance materials, and staff training.

Summary:

**Guidance (all Permittees): Include the following text (if applicable) :**

BASMAA prepared standard specifications in four fact sheets regarding the site design measures listed in Provision C.3.i, as a resource for Permittees. We have modified local ordinances/policies/procedures and forms/checklists to require all applicable projects approved after December 1, 2012 to implement at least one of the site design measures listed in Provision C.3.i. We are using the following Program and BASMAA products for C.3.i implementation:

- BASMAA's site design fact sheets
- The countywide program's checklist [insert name of form]
- C.3.i guidance provided by the countywide program [insert name of guidance document/appendix]

## C.3.j.iii. ► No Missed Opportunities

On an annual basis, submit a list of green infrastructure projects, public and private, that are planned for implementation during the permit term and infrastructure projects planned for implementation during the permit term that have potential for green infrastructure measures. Include the following information:

- A summary of planning or implementation status for each public and private green infrastructure project that is not also a Regulated Project as defined in Provision C.3.b.ii. (see C.3.j.iii.(2) Table B - Planned Green Infrastructure Projects).
- A summary of how each public infrastructure project with green infrastructure potential will include green infrastructure measures to the maximum extent practicable during the permit term. For any public infrastructure project where implementation of green infrastructure measures is not practicable, submit a brief description of the project and the reasons green infrastructure measures were impracticable to implement (see C.3.j.iii.(2) Table A - Public Projects Reviewed for Green Infrastructure).

Summary of Planning or Implementation Status of Identified Projects:

See attached Tables C.3.j.iii.(2)-A and C.3.j.iii.(2)-B for the required information, and any additional notes provided here (optional).

**Guidance (all Permittees):**

**Fill in** attached Tables C.3.j.iii.(2)-A and C.3.j.iii.(2)-B or attach your own table **including the same information. Refer to the BASMAA guidance and footnotes in the table for instructions on how to complete the table. Add any additional narrative or explanation in this box. Note that any projects listed in Table A in last year's Annual Report should be listed again with an updated status, and any projects that were determined to be feasible for GI and funded should be moved to Table B. Use the same project name each time the project is reported, or make a note that the name of the project was formerly "xyz". Do not include any Regulated Projects in these Tables. If, for some reason, you need to include Regulated Projects in these tables, add a note identifying them as Regulated Projects.**

## C.3.j.iv.(2) ► Participate in Processes to Promote Green Infrastructure

On an annual basis, report on the goals and outcomes during the reporting year of work undertaken to participate in processes to promote green infrastructure.

**Guidance (all Permittees):**

**Provide the following text (if applicable).**

**Please refer to Countywide Program's FY 22-23 Annual Report for a summary of efforts conducted to help regional, State, and federal agencies plan, design and fund incorporation of green infrastructure measures into local infrastructure projects, including transportation projects.**

## C.3.j.v.(1)(a) ► Non-Regulated (Green Infrastructure) Projects Reporting

Fill in attached table **C.3.j.v.(1)(a)** with information on non-regulated GI projects that have completed construction during the reporting period, or attach your own table including the same information. **Guidance: A "non-regulated" GI project is GI that is not providing treatment for a Regulated Project as defined in Provision C.3.b.ii. Refer to footnotes in the table for instructions on how to complete the table. Do not leave any cells blank. For example, enter zero or N.A. as appropriate. If a Permittee did not construct any Non-Regulated Projects during the reporting period (fiscal year), then the Permittee should state so here or in the C.3.j.v.(1)(a) Reporting Table.**

## C.3.j.v.(1)(c) and (d) ► Tracking and Mapping Tools

Certify in the 2023 Annual Reports that the tracking and mapping tools have been completed and are being implemented. In each Annual Report, provide summary reports on the implementation of the tracking and mapping tools and provide a link to the component which is available to the public.

| | | | | |
|---|---|---|---|---|
| Has your agency completed developing Green Infrastructure tracking and mapping tools, and are they being implemented? | | **Yes** | | **No** |

**Summary Reports:**

**Provide the following text (if applicable):**

**Please refer to the Countywide Program's FY 22-23 Annual Report for a summary of implementation of the tracking and reporting tools, and a link to the component which is available to the public.**

## C.3.j.v.(3) ► Numeric Retrofit Requirements

In each Annual Report, report on progress made towards the retrofit requirements described in Provision C.3.j.ii.(2).

**Guidance - Report on progress made by your jurisdiction toward meeting the numeric retrofit requirement based on information provided in C.3.j.ii.(2) ► Table B - Planned and/or Completed Green Infrastructure Projects and C.3.j.v.(1)(a)►Non-Regulated (Green Infrastructure) Projects Reporting Table (part 1) – Projects Constructed During the Fiscal Year Reporting Period. Report on any non-regulated projects that are in planning, design, or construction phases, or have been constructed since January 1, 2021, or funding provided to such projects. Include any projects that have received funding from outside sources.**

**In addition, Provide the following text (if applicable):**

**Please refer to the Countywide Program's FY 22-23 Annual Report for a summary of progress made towards the retrofit requirements described in Provision C.3.j.ii.(2) at the countywide level.**

## C.3.j.v.(5) ► Alternative Green Infrastructure Techniques for Rural Communities

Permittees whose jurisdictions are dominated by rural areas may collectively submit a proposal, subject to the Executive Officer's approval, for the use of alternative green infrastructure techniques.

| | | | | |
|---|---|---|---|---|
| Is your jurisdiction a rural community that is participating in a program to develop a proposal to use alternative green infrastructure techniques? | | **Yes** | | **No** |

If yes, include a copy of the proposal in the FY 22-23 Annual Report.

## C.3.j.v.(6) ► One-time Offset of Numeric Implementation Retrofit Requirements

Permittees with ordinances that require Regulated Projects to treat significantly more impervious surface than the minimum required by Provision C.3.c-d, may offset their Numeric Implementation retrofit requirements by a one-time credit of up to 25 percent, and by no greater than one acre.

| Is your jurisdiction submitting a report to offset numeric implementation retrofit requirements by a one-time credit of up to 25 percent? | ☐ | **Yes** | ☐ | **No** |
|---|---|---|---|---|

If yes, include a copy of the report in the FY 22-23 Annual Report.

## C.3.b.iv.(1) ►Regulated Projects Approved with No Provision C.3 Reporting Table

*(For FY 22-23 Annual Report only)* Fill in table below or attach your own table including the same information. **Guidance: The table is intended to provide a list of Regulated Projects that were approved with no Provision C.3. stormwater treatment requirements under a previous MS4 permit and that have not begun construction by July 1, 2022. For each project, indicate the type of stormwater treatment system required or the specific exemption granted. Do not leave any cells blank, if required, enter "NA".**

| Project Name<br>Project No. | Project Location[3], Street Address | Type of Stormwater Treatment System Required | Specific Exemption Granted[4] |
|---|---|---|---|
| | | | |
| | | | |
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| | | | |

Comments:
**Guidance: If necessary, provide any additional details or clarifications needed about listed projects in this box. Do not leave any cells blank.**

[3] Include cross streets
[4] Pursuant to Provision C.3.b.i.(2)(a) and (b) (i.e., any Regulated Project that was previously approved with a vesting tentative map approved or conditionally approved, as allowed by State law;
any Regulated Projects for which the Permittee has no legal authority to require changes to previously granted approvals; and any Regulated Project exempted from the LID requirements of Provision C.3.c as is provided with a stormwater treatment with media filters that comply with the hydraulic sizing requirements of Provision C.3.d.

## C.3.b.iv.(1) ►Regulated Projects Approved with No Provision C.3 Reporting Table

*(For FY 22-23 Annual Report only)* Fill in table below or attach your own table including the same information. **Guidance: The table is intended to provide a list of Regulated Projects that were approved with no Provision C.3. stormwater treatment requirements under a previous MS4 permit and that have not begun construction by July 1, 2022. For each project, indicate the type of stormwater treatment system required or the specific exemption granted. Do not leave any cells blank, if required, enter "NA".**

| Project Name<br>Project No. | Project Location[3], Street Address | Type of Stormwater Treatment System Required | Specific Exemption Granted[4] |
|---|---|---|---|
| | | | |

**C.3.b.iv.(2) ►Regulated Projects Reporting Table (part 1) – Projects Approved During the Fiscal Year Reporting Period**

| Project Name Project No. | Project Location[5], Street Address | Name of Developer | Project Phase No.[6] | Project Type & Description[7] | Project Watershed[8] | Total Site Area (Acres) | Total Area of Land Disturbed (Acres) | Total New Impervious Surface Area ($ft^2$)[9] | Total Replaced Impervious Surface Area ($ft^2$)[10] | Total Pre-Project Impervious Surface Area[11] ($ft^2$) | Total Post-Project Impervious Surface Area[12] ($ft^2$) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Private Projects** | | | | | | | | | | | |
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| **Public Projects** | | | | | | | | | | | |
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Comments:
**Guidance: If necessary, provide any additional details or clarifications needed about listed projects in this box. Do not leave any cells blank.**

[5] Include cross streets
[6] If a project is being constructed in phases, indicate the phase number and use a separate row entry for each phase. If not, enter "NA".
[7] Project Type is the type of development (i.e., new and/or redevelopment). Example descriptions of development are: 5-story office building, residential with 160 single-family homes with five 4-story buildings to contain 200 condominiums, 100 unit 2-story shopping mall, mixed use retail and residential development (apartments), industrial warehouse.
[8] State the watershed(s) in which the Regulated Project is located. Downstream watershed(s) may be included, but this is optional.
[9] All impervious surfaces added to any area of the site that was previously existing pervious surface.
[10] All impervious surfaces added to any area of the site that was previously existing impervious surface.
[11] For redevelopment projects, state the pre-project impervious surface area.
[12] For redevelopment projects, state the post-project impervious surface area.

**C.3.b.iv.(2) ►Regulated Projects Reporting Table (part 2) – Projects Approved During the Fiscal Year Reporting Period (private projects)**

| Project Name Project No. | Project Status[13] | Estimated or Actual Completion Date | Source Control Measures[14] | Site Design Measures[15] | Treatment Systems Approved[16] | Type of Operation & Maintenance Responsibility Mechanism[17] | Hydraulic Sizing Criteria[18] | Alternative Compliance Measures[19/20] | Alternative Certification[21] | HM Controls[22/23] |
|---|---|---|---|---|---|---|---|---|---|---|
| **Private Projects** | | | | | | | | | | |
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[13] Provide status of project (e.g., application date, application deemed complete date, project approval date).
[14] List source control measures approved for the project. Examples include: properly designed trash storage areas; storm drain stenciling or signage; efficient landscape irrigation systems; etc.
[15] List site design measures approved for the project. Examples include: minimize impervious surfaces; conserve natural areas, including existing trees or other vegetation, and soils; construct sidewalks, walkways, and/or patios with permeable surfaces, etc.
[16] List all approved stormwater treatment system(s) to be installed onsite or at a joint stormwater treatment facility (e.g., flow through planter, bioretention facility, infiltration basin, etc.).
[17] List the legal mechanism(s) (e.g., O&M agreement with private landowner; O&M agreement with homeowners' association; O&M by public entity, etc…) that have been or will be used to assign responsibility for the maintenance of the post-construction stormwater treatment systems.
[18] See Provision C.3.d.i. "Numeric Sizing Criteria for Stormwater Treatment Systems" for list of hydraulic sizing design criteria. Enter the corresponding provision number of the appropriate criterion (i.e., 1.a., 1.b., 2.a., 2.b., 2.c., or 3).
[19] For Alternative Compliance at an offsite location in accordance with Provision C.3.e.i.(1), on a separate page, give a discussion of the alternative compliance site including the information specified in Provision C.3.b.iv.(2)(m)(i) for the offsite project.
[20] For Alternative Compliance by paying in-lieu fees in accordance with Provision C.3.e.i.(2), on a separate page, provide the information specified in Provision C.3.b.iv.(2)(m)(ii) for the Regional Project.
[21] Note whether a third party was used to certify the project design complies with Provision C.3.d.
[22] If HM control is not required, state why not.
[23] If HM control is required, state control method used (e.g., method to design and size device(s) or method(s) used to meet the HM Standard, and description of device(s) or method(s) used, such as detention basin(s), biodetention unit(s), regional detention basin, or in-stream control).

**C.3.b.iv.(2) ►Regulated Projects Reporting Table (part 2) – Projects Approved During the Fiscal Year Reporting Period (public projects)**

| Project Name Project No. | Approval Date[24] | Date Construction Scheduled to Begin or Date of Completion | Source Control Measures[25] | Site Design Measures[26] | Treatment Systems Approved[27] | Operation & Maintenance Responsibility Mechanism[28] | Hydraulic Sizing Criteria[29] | Alternative Compliance Measures[30/31] | Alternative Certification[32] | HM Controls[33/34] |
|---|---|---|---|---|---|---|---|---|---|---|
| **Public Projects** | | | | | | | | | | |
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Comments:

**Guidance: If necessary, provide any additional details or clarifications needed about listed projects in this box. Note that MRP Provision C.3.c. contains specific requirements for LID site design and source control measures, as well as treatment measures, for all Regulated Projects. Entries in these columns should not be "None" or "NA". Do not leave any cells blank.**

[24] For public projects, enter the plans and specifications approval date.
[25] List source control measures approved for the project. Examples include: properly designed trash storage areas; storm drain stenciling or signage; efficient landscape irrigation systems; etc.
[26] List site design measures approved for the project. Examples include: minimize impervious surfaces; conserve natural areas, including existing trees or other vegetation, and soils; construct sidewalks, walkways, and/or patios with permeable surfaces, etc.
[27] List all approved stormwater treatment system(s) to be installed onsite or at a joint stormwater treatment facility (e.g., flow through planter, bioretention facility, infiltration basin, etc.).
[28] List the legal mechanism(s) (e.g., maintenance plan for O&M by public entity, etc.) that have been or will be used to assign responsibility for the maintenance of the post-construction stormwater treatment systems.
[29] See Provision C.3.d.i. "Numeric Sizing Criteria for Stormwater Treatment Systems" for list of hydraulic sizing design criteria. Enter the corresponding provision number of the appropriate criterion (i.e., 1.a., 1.b., 2.a., 2.b., 2.c., or 3).
[30] For Alternative Compliance at an offsite location in accordance with Provision C.3.e.i.(1), on a separate page, give a discussion of the alternative compliance site including the information specified in Provision C.3.b.iv.(2)(m)(i) for the offsite project.
[31] For Alternative Compliance by paying in-lieu fees in accordance with Provision C.3.e.i.(2), on a separate page, provide the information specified in Provision C.3.b.iv.(2)(m)(ii) for the Regional Project.
[32] Note whether a third party was used to certify the project design complies with Provision C.3.d.
[33] If HM control is not required, state why not.
[34] If HM control is required, state control method used (e.g., method to design and size device(s) or method(s) used to meet the HM Standard, and description of device(s) or method(s) used, such as detention basin(s), biodetention unit(s), regional detention basin, or in-stream control).

**C.3.h.v.(2). ►Table of Newly Installed[35] Stormwater Treatment Systems and Hydromodification Management (HM) Controls (Optional)**

Fill in table below or attach your own table including the same information. **Guidance: The table is intended to provide a list of all newly installed treatment measures and HM controls to vector control agencies on an annual basis before submission of the Annual Report (i.e., September 30). Countywide Programs (or in some cases, individual Permittees) will submit these tables to vector control agencies to fulfill this requirement. A copy of the communication to Vector Control should be included in the Permittee or Countrywide Annual Report (see C.3.h.v.(2). List of Newly Installed Stormwater Treatment Systems and HM Controls) The facility name, address, responsible party and type of treatment/HM control should be provided for all facilities installed during this fiscal year. Do not leave any cells blank.**

| Name of Facility | Address of Facility | Party Responsible[36] For Maintenance | Type of Treatment/HM Control(s) |
|---|---|---|---|
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[35] "Newly Installed" includes those facilities for which the final installation inspection was performed during this reporting year.
[36] State the responsible operator for installed stormwater treatment systems and HM controls.

## C.3.e.v.Special Projects Reporting Table

**Reporting Period – July 1 2022 - June 30, 2023**

**Guidance: Provide all information indicated in the table. Do not leave blank cells in the table. If any of the indicated information is not available, please explain (for example, "Information is not yet available due to the preliminary phase of design.")**

| Project Name & No. | Permittee | Address | Application Submittal Date[37] | Status[38] | Description[39] | Site Total Acreage | Total Impervious Surface Created / Replaced[40](ft²) | Gross Density DU/Acre | Density FAR | Special Project Category[41] | # of DUs in each AMI Category for Category C | LID Treatment Reduction Credit Available[42] | List of LID Stormwater Treatment Systems[43] | List of Non-LID Stormwater Treatment Systems[44] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Name of the Special Project and Project No. (if applicable) | Name of the Permittee in whose jurisdiction the Special Project will be built | Address of the Special Project; if no street address, state the cross streets | See footnote | See footnote | See footnote | Total site area in acres | See footnote | Number of dwelling units per acre. | Floor Area Ratio | Category A:<br>Category B:<br>Category C:<br>Location:<br>Density:<br>Parking:<br><br>See footnote | Total DUs:<br>Moderate:<br>Low:<br>Very Low:<br>Extremely Low: | Category A:<br>Category B:<br>Category C:<br>Location:<br>Density:<br>Parking:<br><br>See footnote | Indicate each type of LID treatment system and % of total runoff treated.<br><br>See footnote | Indicate each type of non-LID treatment system and % of total runoff treated. Indicate whether minimum design criteria met or certification received<br>See footnote |
| | | | | | | | | | | | | | | |

[37] Date that a planning application for the Special Project was submitted.
[38] Indicate whether final discretionary approval is still pending or has been granted, and provide the date or version of the project plans upon which reporting is based.
[39] Type of project (commercial, mixed-use, residential), number of floors, number of units, type of parking, and other relevant information.
[40] The total impervious surface in acres created or replaced by the project, which is subject to the treatment requirements listed in Provision C.3.e.ii.(1).
[41] For each applicable Special Project Category, list the specific criteria applied to determine applicability. For each non-applicable Special Project Category, indicate n/a.
[42] For each applicable Special Project Category, state the maximum total LID Treatment Reduction Credit available. For Category C Special Projects also list the individual Location, Density, and Minimized Surface Parking Credits available.
[43] List all LID stormwater treatment systems proposed. For each type, indicate the percentage of the total amount of runoff identified in Provision C.3.d. for the Special Project's drainage area.
[44] List all non-LID stormwater treatment systems proposed. For each type of non-LID treatment system, indicate: (1) the percentage of the total amount of runoff identified in Provision C.3.d. for the Special Project's drainage area, and (2) whether the treatment system either meets minimum design criteria published by a government agency or received certification issued by a government agency, and reference the applicable criteria or certification.

**Special Projects Narrative**

**C.3.j.iii.(2) ► Table A - Public Projects Reviewed for Green Infrastructure**

| Project Name and Location[45] | Project Description | Status[46] | GI Included?[47] | Description of GI Measures Considered and/or Proposed or Why GI is Impracticable to Implement[48] |
|---|---|---|---|---|
| **EXAMPLE: Storm drain retrofit, Stockton and Taylor** | **Installation of new storm drain to accommodate the 10-yr storm event** | **Beginning planning and design phase** | **TBD** | **Bioretention cells (i.e., linear bulb-outs) will be considered when street modification designs are incorporated** |
| Do not include any Regulated Projects in the Table. If, for some reason, you are reporting a Regulated Project in this table, add a note stating that it is a Regulated Project.<br><br>Use the same project name each time the project is reported, or make a note that the name of the project was formerly "xyz" | | | | |
| | | | | |
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[45] List each public project that is going through your agency's process for identifying projects with green infrastructure potential.
[46] Indicate status of project, such as: beginning design, under design (or X% design), projected completion date, completed final design date, etc.
[47] Enter "Yes" if project will include GI measures, "No" if GI measures are impracticable to implement, or "TBD" if this has not yet been determined.
[48] Provide a summary of how each public infrastructure project with green infrastructure potential will include green infrastructure measures to the maximum extent practicable during the permit term. If review of the project indicates that implementation of green infrastructure measures is not practicable, provide the reasons why green infrastructure measures are impracticable to implement.

**C.3.j.iii.(2) ► Table B - Planned Green Infrastructure Projects During the Permit Term**

| Project Name and Location[49] | Project Description | Planning or Implementation Status | Green Infrastructure Measures Included |
|---|---|---|---|
| **EXAMPLE: Martha Gardens Green Alleys Project** | **Retrofit of degraded pavement in urban alleyways lacking good drainage** | **Construction completed October 17, 2015** | **The project drains replaced concrete pavement and existing adjacent structures to a center strip of pervious pavement and underlying infiltration trench.** |
| Do not include any Regulated Projects in the Table. If, for some reason, you are reporting a Regulated Project in this table, add a note stating that it is a Regulated Project. | | | |
| | | | |
| | | | |
| | | | |

[49] List each planned (and expected to be funded) public and private green infrastructure project that is not also a Regulated Project as defined in Provision C.3.b.ii. Note that funding for green infrastructure components may be anticipated but is not guaranteed to be available or sufficient.

**C.3.j.v.(1)(a)►Non-Regulated (Green Infrastructure) Projects Reporting Table – Projects Constructed During the Fiscal Year Reporting Period**

| Project Location, Street Address | Name of Owner | Project Description | Construction Completion Date | Treatment Measures | Party Responsible for O&M | Hydraulic Sizing Criteria[50] | Total Area Draining to Treatment Measures ($ft^2$) | Impervious Area Treated ($ft^2$) | Pervious Area Treated ($ft^2$) |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
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Comments:
**Guidance: Complete this table for non-regulated GI projects that meet the Hydraulic Sizing Criteria. If necessary, provide any additional details or clarifications needed about listed projects in this box. Do not leave any cells blank.**

[50] See Provision C.3.d.i. "Numeric Sizing Criteria for Stormwater Treatment Systems" for list of hydraulic sizing design criteria. Enter the corresponding provision number of the appropriate criterion (i.e., 1.a., 1.b., 2.a., 2.b., 2.c., or 3).

## Section 4 – Provision C.4 Industrial and Commercial Site Controls

| **Program Highlights and Evaluation**<br>**Highlight/summarize activities for reporting year:** |
|---|
| Summary:<br>**Guidance: Summarize activities for the reporting year conducted by your municipality, such as: 1) updating business plans, facility lists, and inspection frequencies and priorities; 2) conducting inspections; 3) conducting training; and 4) participating in a countywide committee or work group. Refer to the C.4. Industrial and Commercial Site Controls section of the countywide Program's FY 22-23 Annual Report (if applicable) for a description of activities implemented at the countywide and/or regional level.** |

| **C.4.b.iii.(1) ► Business License Applications** |
|---|
| Provide a brief description below of which Permittee entity or entities are responsible for reviewing and approving business license applications, or provide a link to your website for business license applications. |
| **Guidance: Provide the name of the entity responsible for reviewing and approving business license applications. If more than one entity is involved, then provide a brief description of the role of each one. Include a link to your website for business license applications, if available. Provide a statement if your jurisdiction does not have a business license program.** |

| **C.4.d.iii.(1)(a) & (c) ► Facility Inspections** | |
|---|---|
| Fill out the following table or attach a summary of the following information. Indicate your reporting methodology below. | |
| ☐ Permittee reports multiple, discrete, potential and actual discharges at a site as one enforcement action. | |
| ☐ Permittee reports the total number of discrete potential and actual discharges at each site. | |
| | **Number** |
| Total number of inspections conducted (C.4.d.iii.(1)(a)) | |
| Total number of enforcement actions, or discrete number of potential and actual discharges resolved within 10 working days or otherwise deemed resolved in a longer but still timely manner (C.4.d.iii.(1)(c)) | |
| Comments:<br>**Guidance: Do not leave any cells blank.**<br>**Provide an explanation for each enforcement action or potential and actual discharge not resolved within 10 days or otherwise deemed resolved in a longer but still timely manner.** | |

## C.4.d.iii.(1)(b) ► Number of Each Type of Enforcement Conducted

Fill out the following table or attach a summary of the following information. **Do not leave any cells blank. Provide a brief description of each enforcement action level (e.g., verbal warning, notice of violation, legal action, etc.).**

| | **Enforcement Action** (As listed in ERP)[1] | **Number of Enforcement Actions Taken** |
|---|---|---|
| Level 1 | | |
| Level 2 | | |
| Level 3 | | |
| Level 4 | | |
| **Total** | | |

## C.4.d.iii.(1)(d) ► Frequency of Potential and Actual Non-Stormwater Discharges by Business Category

Fill out the following table or attach a summary of the following information. **Do not leave any cells blank.**

| **Business Category**[2] | **Number of Actual Discharges** | **Number of Potential Discharges** |
|---|---|---|
| | | |
| | | |
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| | | |

[1]Agencies to list specific enforcement actions as defined in their ERPs.
[2]List your Program's standard business categories.

**C.4.e.iii ► Staff Training Summary**

| Training Name | Training Dates | Topics Covered | No. of Industrial/ Commercial Site Inspectors in Attendance | Percent of Industrial/ Commercial Site Inspectors in Attendance | No. of IDDE Inspectors in Attendance | Percent of IDDE Inspectors in Attendance |
|---|---|---|---|---|---|---|
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| | | | | | | |

Comments:
**Guidance: Use this area if needed to explain any information in the Staff Training Summary. Include training of any contractors or other entities performing inspections.**

**Section 5 – Provision C.5 Illicit Discharge Detection and Elimination**

| **Program Highlights and Evaluation**<br>**Highlight/summarize activities for reporting year:** |
|---|
| Provide background information, highlights, trends, etc. |
| Summary:<br>**Guidance: Summarize activities for the reporting year conducted by your municipality, such as:1) implementation of your collection system screening program even though no longer required by MRP; and 2) participation in a countywide program's committee or work group. Refer to the C.5 Illicit Discharge Detection and Elimination section of countywide program's FY 22-23 Annual Report (if applicable) for description of activities implemented at the countywide and/or regional level.** |

| **C.5.d.iii.(1) ►Spill and Discharge Complaint Tracking** | |
|---|---|
| Spill and Discharge Complaint Tracking (fill out the following table or include an attachment of the following information) | |
| | **Number** |
| Discharges reported (C.5.d.iii.(1)(a)) | |
| Discharges reaching storm drains and/or receiving waters (C.5.d.iii.( 1)(b)) | |
| Discharges resolved in a timely manner (C.5.d.iii.( 1)(c)) | |
| Comments:<br>**Guidance: Do not leave any cells blank. Describe the implementation of your agency's illicit discharge complaint and response program and explain how data account for discharge reports that are unsubstantiated in the field and discharges that are prevented from reaching storm drains/receiving waters.** | |

## C.5.e.iii.(2)(a)&(c) ► Mobile Sources Inspections and Enforcement

Fill out the following table or attach a summary of the following information. **Do not leave any cells blank.**

| | **Number** |
|---|---|
| Mobile business inspections conducted (C.5.e.iii.(2)(a)) | |
| Summary of the enforcement actions taken against mobile businesses during the reporting year (C.5.e.iii.(2)(c)). | |
| Summary:<br>**Guidance: Provide a discussion of the inspection findings for the year, any enforcement actions take and explain how data account for discharge reports that are unsubstantiated in the field. Discuss if these numbers are included in the Spill and Discharge Complaint Tracking data reported above.** | |

## C.5.e.iii.(2)(b) ► Frequency of Mobile Sources Inspections by Business Type

Fill out the following table or attach a summary of the following information.

| **Mobile Business Type**[1] | **Number Inspected**[2] |
|---|---|
| | |
| | |
| | |
| | |
| | |

[1] Including, but not limited to, automobile washing, vehicle fueling, power washing, steam cleaning, graffiti removal, and carpet cleaning.
[2] The number of each type of mobile business inspected

## Section 6 – Provision C.6 Construction Site Controls

**C.6.e.iii.(3)(a), (b), (c), (d) ►Site/Inspection Totals**

| **Total number of construction sites requiring inspections during at least part of the Permit year;** (C.6.e.iii.1.a) | **Total number of active hillside sites disturbing <1 acre of soil requiring inspection** (C.6.e.iii.1.b) | **Number of High Priority Sites (sites disturbing < 1 acre of soil requiring storm water runoff quality inspection)** (C.6.e.iii. 1.d) | **Number of sites disturbing ≥ 1 acre of soil** (C.6.e.iii.1.c) | **Total number of storm water runoff quality inspections conducted (include only Hillside Sites, High Priority Sites and sites disturbing 1 acre or more)** (C.6.e.iii. 1.e) |
|---|---|---|---|---|
| # | # | # | # | # |
| **Guidance: This is the total number of SITES which triggered a requirement for monthly inspection during the rainy season. This number should be equal to the sum of the number of hillside sites + number of high priority sites + number of sites disturbing ≥ 1 acre of soil.** | **Guidance: This is the total number of SITES considered Hillside Projects based on criteria submitted in FY 2015-2016 Annual Report, which triggers a requirement for monthly inspection during the rainy season.** | **Guidance: This is the total number of SITES considered high priority, which triggers a requirement for monthly inspection during the rainy season. Please see MRP C.6.e.ii.2.c for discussion of what sites are considered high priority sites. Sites disturbing less than one acre of soil that are not considered high priority by the Permittee should not be reported here.** | **Guidance: This is the total number of SITES that disturb one or more acres of soil and are inspected monthly during the rainy season.** | **Guidance: This is the total number of INSPECTIONS conducted at hillside sites, high priority sites and at sites disturbing one or more acres of soil. Do not list inspections that are conducted at sites that are not within these two categories.** |

Comments:

**Guidance: Do not leave any cells blank.**

**Provide explanatory details about the data reported above if necessary. Do not count the same site in more than one category. Recommend reporting sites ≥ 1 acre in third box above, report sites < 1acre and defined as Hillside in first box above and report remaining sites < 1 acre that are inspected monthly as High Priority in second box above.**

| | |
|---|---|
| | **Provide the number of inspections that are conducted at sites not within the above categories as part of your agency's inspection program and a general description of those sites, if available or applicable.**<br><br>**Guidance: Do not leave this cell blank. Write the number of inspections and general description of sites inspected, or write "Information not available" or "Does not Apply".** |

## C.6.e.iii.(1)(f) ►Construction Related Storm Water Enforcement Actions

**Guidance: Do not leave any cells blank. Provide a brief description of each enforcement action level (e.g., verbal warning, notice of violation, stop work order, legal action, etc.)**

| | **Enforcement Action** (as listed in ERP)[1] | **Number Enforcement Actions Issued** |
|---|---|---|
| Level 1[2] | | |
| Level 2 | | |
| Level 3 | | |
| Level 4 | | |
| **Total** | | |

## C.6.e.iii.(1)(g), ►Illicit Discharges

**Guidance: Do not leave any cells blank.**

| | **Number** |
|---|---|
| Number of illicit discharges, actual and potential, of sediment or other construction-related materials | |

[1]Agencies should list the specific enforcement actions as defined in their ERPs.
[2]For example, Enforcement Level 1 may be Verbal Warning.

## C.6.e.iii.(1)(h) ► Corrective Actions

Indicate your reporting methodology below.

| | |
|---|---|
| ☐ | Permittee reports multiple discrete potential and actual discharges at a site as one enforcement action. |
| ☐ | Permittee reports the total number of discrete potential and actual discharges on each site. |

| | Number |
|---|---|
| **Enforcement actions or discrete potential and actual discharges fully corrected within 10 business days after violations are discovered** or otherwise considered corrected in a timely period (C.6.e.iii.1.h) | |

**Comments:**

**Guidance: Do not leave any cells blank. Provide an explanation for enforcement action(s) or discrete potential and actual discharges not resolved within 10 days or otherwise deemed resolved in a longer but still timely manner. Potential and actual discharges are the problems tracked using illicit discharge and the six BMP categories according to C.6.e.ii.(4)(f).**

## C.6.f.iii ►Staff Training Summary

| Training Name | Training Dates | Topics Covered | Total Number of Inspectors (both municipal and non-municipal staff) | | No. of Inspectors in Attendance (both municipal and non-municipal staff) |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | | | | |

Comments:

**Guidance: Use this area if needed to explain any information in the Staff Training Summary. Include training of any contractors or other entities performing inspections. If there was no training in this FY state that here.**

## Section 7 – Provision C.7. Public Information and Outreach

### C.7.g.iii.(1) ► Reporting

Submit a table listing the types of outreach programs implemented during that Permit year along with a brief description. The table should be a cumulative table showing the number, if applicable, of each type of outreach campaigns or events occurring during each Permit year.
Guidance

- **Provide a summary of local outreach efforts using the table below, AND/OR**
- **Refer to your Countywide Program's Annual Report (if applicable)**

| Type of Outreach Program Implemented | Brief Description of Current Year Campaigns | Number of outreach campaigns or events occurring during each Permit Year, if applicable | | | | |
|---|---|---|---|---|---|---|
| | | FY 22-23 | FY 23-24 | FY 24-25 | FY 25-26 | FY 26-27 |
| C.7.a. Outreach Campaigns | Describe the outreach campaign(s) implemented, including target audience, pollution prevention message(s), and media type | Provide the number of outreach campaigns conducted | | | | |
| C.7.c. Public Outreach and Citizen Involvement Events | Describe public outreach and citizen involvement events conducted | Provide the number of public outreach and citizen involvement events | | | | |
| C.7.d. Watershed Stewardship Collaboration | Describe watershed stewardship efforts | Provide the number of meetings/events | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| C.7.e. School-Age Children Outreach | Describe school outreach activities conducted | Provide the number of classroom presentations, school assemblies, etc.) | | | | |
| **Type of Outreach Program Implemented** | **Brief Description** | **Number of outreach campaigns or events occurring during each Permit Year, if applicable** | | | | |
| | | **FY 22-23** | **FY 23-24** | **FY 24-25** | **FY 25-26** | **FY 26-27** |
| C.7.f. Outreach to Municipal Officials | Describe outreach conducted to municipal officials | If applicable, write the number of presentations | | | | |

## C.7.g.iii.(2) ► Reporting - Stormwater Pollution Prevention Education

**Guidance - *(For FY 22-23 Annual Report only, unless changes made)* List the point of contact and URL for your agency's stormwater pollution prevention website. Discuss how the point of contact and website are publicized and maintained. Certify that your agency maintains a website (or refers to a regional website) to provide information on stormwater issues, watershed characteristics, and stormwater pollution prevention approaches.**

| | | | | |
|---|---|---|---|---|
| Is your agency maintaining a website (or referring toa regional website) to provide information on stormwater issues, watershed characteristics, and stormwater pollution prevention approaches? | | **Yes** | | **No** |
| If no, explain: | | | | |
| Local stormwater point of contact phone number(s) | | | | |
| Local/Regional stormwater website(s) | | | | |
| Outreach: | | | | |

**Guidance: Describe local efforts to publicize stormwater point of contact. Refer to Countywide Program's C.7 Public Information and Outreach section of the Annual Report (if applicable) for efforts conducted by the countywide program to publicize stormwater points of contact (e.g., program website, hotline, outreach materials, etc.).**

## Section 9 – Provision C.9 Pesticides Toxicity Controls

### C.9.a. ►Implement IPM Policy or Ordinance

| | | | | |
|---|---|---|---|---|
| Is your municipality implementing its IPM Policy/Ordinance and Standard Operating Procedures? | | **Yes** | | **No** |
| If no, explain: | | | | |
| *(For FY 22-23 Annual Report only)* Provide links to IPM policies or ordinances and IPM standard operating procedures: | | | | |

Report implementation of IPM BMPs by showing trends in quantities and types of pesticides used, and **suggest reasons for increases in use of pesticides that threaten water quality**, specifically organophosphates, pyrethroids, carbamates, fipronil, indoxacarb, diuron, and diamides. A separate report can be attached as evidence of your implementation.

**Guidance: List only quantities of organophosphates, pyrethroids, carbamates, fipronil, indoxacarb, diuron, neonicotinoids, and diamides that are used in a manner that could potentially impact water quality.**

**Trends in Quantities and Types of Pesticide Active Ingredients Used[1]**

| Pesticide Category and Specific Pesticide Active Ingredient Used | Amount[2] of Active Ingredient | | | | |
|---|---|---|---|---|---|
| | FY 22-23 | FY 23-24 | FY 24-25 | FY 25-26 | FY 26-27 |
| **Organophosphates** | | | | | |
| **Active Ingredient Chlorpyrifos** | | | | | |
| **Active Ingredient Diazinon** | | | | | |
| **Active Ingredient Malathion** | | | | | |
| **Pyrethroids (see footnote #2 for list of active ingredients)** | | | | | |
| **Active Ingredient Type X** | | | | | |
| **Active Ingredient Type Y** | | | | | |
| **Carbamates** | | | | | |
| **Active Ingredient Carbaryl** | | | | | |
| **Active Ingredient Aldicarb** | | | | | |

[1] Includes all municipal structural and landscape pesticide usage by employees and contractors.
[2] Weight or volume of the active ingredient, using same units for the product each year. Please specify units used. The active ingredients in any pesticide are listed on the label. The list of active ingredients that need to be reported in the pyrethroids class includes: metofluthrin, bifenthrin, cyfluthrin, beta-cyfluthrin, cypermethrin, deltamethrin, esfenvalerate, lambda-cyhalothrin, and permethrin.

| Pesticide Category and Specific Pesticide Active Ingredient Used | Amount | | | | |
|---|---|---|---|---|---|
| | FY 22-23 | FY 23-24 | FY 24-25 | FY 25-26 | FY 26-27 |
| **Indoxacarb** | | | | | |
| **Diuron** | | | | | |
| **Diamides** | | | | | |
| **Active Ingredient Chlorantraniliprole** | | | | | |
| **Active Ingredient Cyantraniliprole** | | | | | |
| **Neonicotinoids** | | | | | |
| **Active Ingredient Imidacloprid** | | | | | |
| **Active Ingredient Acetamiprid** | | | | | |
| **Active Ingredient Dinotefuran** | | | | | |
| **Fipronil** | | | | | |

**Reasons for increases in use of pesticides that threaten water quality:**

**Guidance: Suggest reasons for increases in use, or write N/A if there was no increase in use.**

**IPM Tactics and Strategies Used:**

**Guidance: Provide a brief description (e.g., one or two sentences) of two IPM tactics or strategies implemented in the reporting year. Do not state that your municipality is implementing its IPM policy, instead state how, with 2 examples.**

## C.9.b ►Train Municipal Employees

| | |
|---|---|
| Enter the number of employees that apply or use pesticides (including herbicides) within the scope of their duties. | |
| Enter the number of these employees who received training on your IPM policy and IPM standard operating procedures within this reporting year. | |
| Enter the percentage of municipal employees who apply pesticides who have received training in the IPM policy and IPM standard operating procedures within this reporting year. | |
| Type of Training: | |

| |
|---|
| **Guidance: State the type of training received (e.g., Countywide IPM Training, PAPA Seminar, local tailgate training etc.)** |

## C.9.c ►Require Contractors to Implement IPM

| | | | | |
|---|---|---|---|---|
| Did your municipality contract with any pesticide service provider in the reporting year, for either landscaping or structural pest control? | | **Yes** | | **No** |
| If yes, did your municipality evaluate the contractor's list of pesticides and amounts of active ingredients used? | | **Yes** | | **No** |
| If your municipality contracted with any pesticide service provider, briefly describe how contractor compliance with IPM Policy/Ordinance and SOPs was monitored<br>**Guidance: Describe procedures that your agency follows to ensure contractor compliance, and any actions taken or needed to correct contractor performance. Some examples include: reviewing pest monitoring reports (to know if pest population needs controlling), reviewing actions taken before chemical pesticides are applied (such as traps, baits, physical barriers, mulching, etc.).** | | | | |
| If your agency did not evaluate the contractor's list of pesticides and amounts of active ingredients used, provide an explanation. | | | | |

## C.9.d ►Interface with County Agricultural Commissioners

| | | | | |
|---|---|---|---|---|
| How did your municipality communicate with the County Agricultural Commissioner to: (a) get input and assistance on urban pest management practices and use of pesticides or (b) inform them of water quality issues related to pesticides? | | | | |
| **Guidance: Summarize communication with County Agricultural Commissioner here and/or refer to the Countywide Program's Annual Report (if applicable).** | | | | |
| Did your municipality report any observed or citizen-reported violations of pesticide regulations (e.g., illegal handling and applications of pesticides) associated with stormwater management, particularly the California Department of Pesticide Regulation (DPR) surface water protection regulations for outdoor, nonagricultural use of pyrethroid pesticides by any person performing pest control for hire. | | **Yes** | | **No** |
| If yes, provide a summary of improper pesticide usage reported to the County Agricultural Commissioner and follow-up actions taken to correct any violations. A separate report can be attached as your summary. | | | | |

## C.9.e.ii (1) ►Public Outreach: Point of Purchase

Provide a summary of public outreach at point of purchase, and any measurable awareness and behavior changes resulting from outreach (here or in a separate report); **OR** reference a report of a regional effort for public outreach in which your agency participates.

Summary:

**Guidance: Provide the following text (if applicable):"See the C.9 Pesticides Toxicity Control section of Countywide Program's FY 22-23 Annual Report for information on point of purchase public outreach conducted countywide and regionally."**

## C.9.e.ii (2) ►Public Outreach: Pest Control Contracting Outreach

Provide a summary of outreach to residents who use or contract for structural pest control and landscape professionals); **AND/OR** reference a report of a regional effort for outreach to residents who hire pest control and landscape professionals in which your agency participates.

Summary:

**Guidance: Provide the following text (if applicable):"See the C.9 Pesticides Toxicity Control section of Countywide Program's FY 22-23 Annual Report for information on point of purchase public outreach conducted countywide and regionally."**

## C.9.e.ii.(3) ►Public Outreach: Pest Control Operators

Provide a summary of public outreach to pest control operators and landscapers and reduced pesticide use (here or in a separate report); **AND/OR** reference a report of a regional effort for outreach to pest control operators and landscapers in which your agency participates.

Summary:

**Guidance: Provide the following text (if applicable): "See the C.9 Pesticides Toxicity Control section of Program's FY 22-23 Annual Report for a summary of our participation in and contributions towards countywide and regional public outreach to pest control operators and landscapers to reduce pesticide use."**

## C.9.f ►Track and Participate in Relevant Regulatory Processes

Summarize participation efforts, information submitted, and how regulatory actions were affected; **AND/OR** reference a regional report that summarizes regional participation efforts, information submitted, and how regulatory actions were affected.

Summary:

**Guidance: Include the following text (if applicable):**

**"During FY 22-23, we participated in regulatory processes related to pesticides through contributions to the countywide Program and CASQA. For additional information, see the Regional Report prepared by CASQA."**

# Section 10 – Provision C.10 Trash Load Reduction

**General Guidance: Ensure the totals are correct in all tables.**

| C.10.a.i ► Trash Load Reduction Summary | |
|---|---|
| For population-based Permittees, provide the overall trash reduction percentage achieved to-date within the jurisdictional area of your municipality that generates problematic trash levels (i.e., Very High, High, or Moderate trash generation). Base the reduction percentage on the information presented in C.10.b i-v and C.10.f.i-ii. Provide a discussion of the calculation used to produce the reduction percentage | |
| **Trash Load Reductions** | |
| Percent Trash Reduction in All Trash Management Areas (TMAs) due to **Full Trash Capture Systems** (as reported C.10.b.i) | |
| Percent Trash Reduction in all TMAs due to **Control Measures Other than Full Trash Capture Systems** (as reported in C.10.b.iii)[1] | |
| Percent Trash Reduction due to **Jurisdictional-wide Source Control Actions[2]** (as reported in C.10.b.v) | |
| **Subtotal for Above Actions** | |
| **Trash Offsets (Optional)** | |
| Offset Associated with Additional Creek and Shoreline Cleanups (as reported in C.10.f.i) | |
| Offset Associated with Direct Trash Discharges (as reported in C.10.f.ii) | |
| **Total (Jurisdiction-wide) % Trash Load Reduction through FY 2022-23** | |
| **Discussion of Permittee Trash Load Reduction and the Load Reduction Calculation:** | |

**Guidance:**

- This section is not applicable to Non-population based Permittees. Non-population based Permittees should mark "NA" in all cells.
- Based on information presented in the C.10 tables following this page, report the % of trash reduced to-date from your jurisdictional areas that generate VH, H or M levels of trash, including any reduction offsets for additional creek and shoreline cleanups and direct trash discharges.
- The "Total (Jurisdiction-wide) % Trash Load Reduction through FY 2022-23" should equal the sum of the subtotal row plus entries for offsets, if used.
- Attach or provide website link to most recent version of your **Baseline Trash Generation map.**
- Delete highlighted text before finalizing.

[1] See Appendix 10-1 for changes between 2009 and FY 22-23 in trash generation by TMA as a result of Full Capture Systems and Other Measures.
[2] To claim a load percentage reduction value, Permittees must provide substantive and credible evidence that new source control actions are being implemented jurisdiction-wide and reduce trash by the claimed value. Permittees may no longer claim source control actions implemented under previous Permits (i.e., foam foodware and single-use plastic bags).

## C.10.a.ii(a) ► Full Trash Capture Systems – Population-based Permittees
## C.10.c ► Full Trash Capture Systems – Flood Management Agencies

Provide the following:

1) Total number and types of full capture systems (publicly and privately-owned) installed during FY 22-23, and prior to FY 22-23, including inlet-based and large flow-through or end-of-pipe systems, and qualifying low impact development (LID) required by permit provision C.3.
2) Total land area (acres) treated by full capture systems for population-based Permittees and total number of systems for flood management agencies compared to the total required by the permit.

| Type of System | # of Systems | Areas Treated (Acres) |
|---|---|---|
| **Installed in FY 22-23** | | |
| | | |
| | | |
| **Installed Prior to FY 22-23** | | |
| | | |
| | | |
| **Total for all Devices or Systems Installed To-date** | | |
| **Treatment Acreage Required by Permit (Population-based Permittees)** | | |
| **Total # of Systems Required by Permit (Flood Management Agencies)** | | |

**Guidance:**

- Only include full capture systems that are being counted towards full capture system requirements in the permit. As described in the permit, "a full capture device or system is a treatment control, or series of treatment controls, including, but not limited to, a multi-benefit project (as defined in the Trash Amendments) or a low-impact development control that traps all particles that are 5 mm or greater, and has a design treatment capacity that is either: a) of not less than the peak flow rate, Q, resulting from a one-year, one-hour storm in the subdrainage area, or b) appropriately sized to, and designed to carry at least the same flows as, the corresponding storm drain. The device(s) must also have a trash reservoir large enough to contain a reasonable amount of trash safely without overflowing trash into the overflow outlet between maintenance events. Types of systems certified by the State Water Resources Control Board are deemed full capture systems. A stormwater treatment facility implemented in accordance with Provision C.3 is also deemed a full capture system if the facility, including its maintenance, prevents the discharge of trash to the downstream MS4 and receiving waters and discharge points from the facility, including overflows, are appropriately screened or otherwise configured to meet the full trash capture screening specification for storm flows up to the full trash capture one-year, one-hour storm hydraulic specification."
- For **Population-based Permittees (cities/counties)**, provide the number and types of full capture systems installed during FY 22-23 and prior to FY 22-23. Identify the total area (acres) treated by each type of system. Clearly identify treatment systems installed via provision C.3 (e.g., bioretention) and whether systems are publicly or privately owned.

- For **Flood Management Agencies**, list the number and types of systems installed during FY 22-23 and prior to FY 22-23. To the extent possible, identify the total area treated by each boom/curtain, netting device or equivalent measure(s).
- Delete highlighted text before finalizing.

## C.10.a.ii(b) ►Trash Generation Area Management - Private Lands

| Provide a summary of implementation actions and progress towards meeting the July 1, 2025 requirement for all private lands that are moderate, high, or very high trash generating, and that drain to storm drain inlets that Permittees do not own or operate (private), but that are plumbed to Permittees' storm drain systems. Include any trash control measures implemented or caused to be implemented, including full trash capture systems and/or trash discharge control actions equivalent to or better than full trash capture systems. |
|---|
| **Summary of Implementation Actions and Progress:** |

**Guidance:**

- Provide summary of actions implemented in FY 22-23 and progress towards meeting Permit Provision C.10.a.ii(b.) by July 1, 2025.
- Add rows as necessary.
- Delete highlighted text before finalizing.

## C.10.b.i and ii ► Trash Reduction - Full Capture Systems

Provide the following:

1) Jurisdiction-wide trash reduction in FY 22-23 attributable to full capture systems implemented in each TMA;
2) The total number of full capture systems installed to-date in your jurisdiction;
3) The percentage of systems in FY 22-23 that exhibited significant plugged/blinded screens or were >50% full when inspected or maintained;
4) A narrative summary of any maintenance issues and the corrective actions taken to avoid future performance issues; and
5) A certification that each full capture system is operated and maintained to meet full capture system requirements in the permit.

| TMA | Jurisdiction-wide Reduction (%) | Total # of Full Capture Systems | % of Systems Exhibiting Plugged/Blinded Screens or >50% full in FY 22-23 | Summary of Maintenance Issues and Corrective Actions |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| **Total** | | | | |

***Certification Statement:***

| | | | | | | |
|---|---|---|---|---|---|---|
| **Did your agency provide the names and locations of new and existing full trash capture systems to the County vector control agency for FY 2022-23?** | | **Yes** | | **No** | | **N/A** |

## C.10.b.i and ii ► Trash Reduction - Full Capture Systems

**Guidance:**

- **TMA** – List each TMA included on your trash management area map(s) even if no full capture systems have been installed to-date in the specific TMA.
- **Jurisdiction-wide Reduction** – Calculate the overall % reduction in your jurisdiction that has occurred in each TMA as a result of full capture systems. For TMAs with no full capture system treatment, use "0.0%". For TMAs with no moderate, high or very high trash generating areas (i.e., all low trash generation and/or non-jurisdictional) AND with no full capture system treatment, use "NA." The "Total" in the last row should equal the sum of the rows above.
- **Total # of Full Capture Systems –** List the total number or large and small full capture systems installed to-date in your jurisdiction. This number should be the same as the "Total for all Systems Installed To-date" reported in Section C.10.a.iii (Trash Full Capture Systems- Population-based Permittees)/C.10.c. (Trash Full Capture Systems- Flood Management Agencies) on page 10-2.
- **% of Systems Exhibiting Plugged/Blinded Screens or >50% full in FY 22-23 –** Provide the percentage of all full capture systems that based on operation and maintenance records were significantly plugged/blinded or greater than 50% full at the time of maintenance. Note: if one device is plugged two times in one year, it is still counted as one system for this calculation.
- **Summary of Maintenance Issues and Corrective Actions** – Provide a narrative summary of corrective actions taken to avoid future full capture system performance issues that cause full capture requirements to not be achieved. Include increases in maintenance frequencies or other changes to operation/maintenance procedures. As applicable, identify if certain types of systems or systems in specific geographical areas (e.g., TMAs) have significantly higher rates of maintenance issues.
- **Certification Statement**: Provide a statement certifying that each system is operated and maintained to meet the full capture system requirements in the MRP. For example: *"The City/County of _____ certifies that a full capture system maintenance and operation program is currently being implemented to maintain all applicable systems in manner that meets the full capture system requirements included in the Permit."*
- **Vector Control Agency Submittal of New and Existing Full Capture Systems**: Population-based Permittees mark the "yes" or "No" box. The submittal is not applicable to flood management agencies. Therefore, flood management agencies mark the "NA" box.
- Add rows as necessary.

## C.10.b.iii(a) ► Trash Reduction – Other Trash Management Actions
## C.10.c ► Requirements for Flood Control Agencies

Provide a summary of trash control actions other than full capture systems or jurisdictional source controls that were implemented within each TMA, including the types of actions, levels, timing, frequency, and areal extent of implementation, whether actions are new, including initiation date, and information relevant to effective implementation of the action or combination of actions.

| TMA | Summary of Trash Control Actions Other than Full Capture Systems |
|---|---|
| | |
| | |
| | |
| | |
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| | |
| | |
| | |
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| | |

### GUIDANCE - C.10.b.iii(a) ► Trash Reduction – Other Trash Management Actions/C.10.c ► Requirements for Flood Control Agencies

**General:**

- Only actions implemented since the effective date of MRP 1.0 in 2009 should be reported.
- Include only the name of the trash control measure (e.g., Street Sweeping or Uncovered Load) as listed in the summary below and summarize the actions that were implemented since the effective date of MRP 1.0 and continued in FY 2022-23. **Report on any changes to** the level of implementation for the control

measure that has occurred since the last Annual Report, listing any enhancements implemented in FY 22-23. For example, increased frequency of street sweeping, new equipment deployed, or other improvements to existing actions or new trash controls implemented.

- Do not leave any cells blank.
- Add rows as necessary.
- Delete this section of general guidance after finalizing.

**Summary of Trash Control Measures Other than Full Capture Devices: (Do not delete this section – include in annual report)**

- **Street Sweeping:** Include a description of any enhancements or new actions implemented after the MRP 1.0 effective date (i.e., December 2009). Identify portions of the TMA where enhanced street sweeping (i.e., increased sweeping frequency) and parking enforcement above 2009 levels was implemented.
- **On-land Cleanup:** Include a description of on-land cleanup activities that began after the MRP 1.0 effective date (i.e., December 2009) and continued into FY 22-23, including any enhancements or new actions implemented in FY 22-23. Describe if these actions are Permittee or volunteer-led.
- **Partial Capture Devices:** Provide a description of devices installed after the MRP 1.0 effective date (i.e., December 2009). Describe the level of maintenance conducted per device types.
- **Storm Drain Inlet Cleaning:** Describe storm drain inlet maintenance activities implemented after the MRP 1.0 effective date (i.e., December 2009) and continued in FY 22-23, including any enhancements or new maintenance activities implemented in FY 22-23. For new/enhanced actions, include the number of inlets where enhanced maintenance occurred, and the increased frequency of maintenance.
- **Uncovered Loads:** Describe activities designed to reduce trash from uncovered loads that began after the MRP 1.0 effective date (i.e., December 2009) and continued in FY 22-23, including any enhancements or new actions implemented in FY 22-23. Describe the types of actions implemented including new or redirected enforcement efforts to increase the focus towards new or enhanced actions.
- **Anti-littering and illegal dumping enforcement activities:** Describe anti-littering and illegal dumping enforcement activities began after to the MRP 1.0 effective date (i.e., December 2009) and continued in FY 22-23, and any enhancements or new actions implemented in FY 22-23. Include any new or redirected enforcement efforts to increase the focus towards new or enhanced actions. Describe the number of citations or other correction actions accomplished this year and compare with previous years. Indicate how anti-littering and illegal dumping enforcement records are kept, and how they may be retrieved for audit.
- **Improved Trash Bin/Container Management:** Describe activities designed to improve trash bin/container management that began after the MRP1.0 effective date (i.e., December 2009) and continued in FY 22-23, and any enhancements or new actions implemented in FY 22-23. Include any new or redirected efforts to increase the focus towards these new or enhanced actions.
- **Other Types of Actions:** Describe activities designed after the MRP effective date (i.e., December 2009) and continued in FY 22-23, and any enhancements or new (post December 2009 effective date) actions implemented in FY 22-23.

## C.10.b.iii(b) ► Trash Reduction – Other Trash Management Actions

Provide the following:

1) A summary of the on-land visual assessments in each TMA (or control measure area), including the street miles or acres available for assessment (i.e., those associated with VH, H, or M trash generation areas not treated by full capture systems), the street miles or acres assessed, the % of available street miles or acres assessed, and the average number of assessments conducted per site within the TMA; and
2) Percent jurisdictional-wide trash reduction in FY 22-23 attributable to trash management actions other than full capture systems implemented in each TMA; OR
3) Indicate that no on-land visual assessments were performed.

If no on-land visual assessments were performed, check here ☐ **and state why:** **Explanation:**

| **TMA ID** or *(as applicable)* Control Measure Area | **Total Street Miles[3] or Acres Available for Assessment** | **Summary of On-land Visual Assessments** | | | **Jurisdictional-wide Reduction (%)** |
|---|---|---|---|---|---|
| | | **Street Miles or Acres Assessed** | **% of Available Street Miles or Acres Assessed** | **Avg. # of Assessments Conducted at Each Site** | |
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| **Total** | | | | | |

[3] Street miles are defined as the street length and do not include street median curbs.

## GUIDANCE - C.10.b.iii(b) – Trash Reduction – Other Trash Management Actions

**Total Street Miles or Acres Available for Assessment (Column 2) -** For each TMA or applicable control measure area, list the total street miles or acres associated with jurisdictional areas with very high, high, or moderate baseline trash generation. Do not include street miles or acres associated with areas treated by full capture systems or low baseline trash generation.

**Street Miles or Acres Assessed (Column 3) -** For each TMA or applicable control measure area, sum the miles or acres for sites assessed. Do not include street miles or acres assessed that are associated with areas treated by full capture systems or low baseline trash generation.

**% of Available Street Miles or Acres Assessed (Column 4) –** For those Permittees using randomly selected sites, for each TMA or applicable control measure area, calculate the % of street miles or acres assessed by dividing the "Street Miles or Acres Assessed" (column 3) by the "Total Street Miles or Acres Available for Assessment" (column 2) and multiplying by 100. For those Permittees conducting assessments at strategic locations, place a "NA – Strategic Locations" in this cell.

**Ave. # of Assessments Conducted at Each Site (Column 5) -** For each TMA or applicable control measure area, calculate the average number of assessments conducted at each site by dividing the total # of assessments conducted at all sites in the TMA or control measure area, by the number of sites assessed in the TMA or control measure area. Round to the nearest whole number.

**Jurisdictional-wide Reduction (%)** – Use the following MRP formula and methods described in the MRP, calculate the trash reduction percentage associated with trash management actions other than full capture systems:

$$\% \text{ Reduction} = 100\ [(12A_{VH(2009)} + 4A_{H(2009)} + A_{M(2009)}) - (12A_{VH} + 4A_{H} + A_{M})]$$
$$/\ (12A_{VH(2009)} + 4A_{H(2009)} + A_{M(2009)})$$

*where:*

| | | |
|---|---|---|
| $A_{VH(2009)}$ | = | total amount of the 2009 very high trash generation category jurisdictional area |
| $A_{H(2009)}$ | = | total amount of the 2009 high trash generation category jurisdictional area |
| $A_{M(2009)}$ | = | total amount of the 2009 moderate trash generation category jurisdictional area |
| $A_{VH}$ | = | total amount of very high trash generation category jurisdictional area in the reporting year |
| $A_{H}$ | = | total amount of high trash generation category jurisdictional area in the reporting year |
| $A_{M}$ | = | total amount of moderate trash generation category jurisdictional area in the reporting year |
| 12 | = | Very High to Moderate weighing ratio |
| 4 | = | High to Moderate weighing ratio |
| 100 | = | fraction to percentage conversion factor |

Delete highlighted text before finalizing.

## C.10.b.v ► Trash Reduction – Source Controls

Provide a description of each jurisdiction-wide trash source control action implemented to-date other than those addressed under previous Permits (i.e., foam foodware and single-use plastic bags). For each new control action, identify the trash reduction evaluation method(s) used to demonstrate on-going reductions, summarize the results of the evaluation(s), and estimate the associated reduction of trash within your jurisdictional area. Note: There is a maximum of 10% total credit for source controls.

| Source Control Action | Summary Description & Dominant Trash Sources and Types Targeted | Evaluation/Enforcement Method(s) | Summary of Evaluation/Enforcement Results To-date | % Reduction |
|---|---|---|---|---|
| | | | | |
| | | | | |

**Guidance:**

- **Source Control Action -** Provide a brief description of the ordinance/policy, implementation date(s), manner of implementation including a summary of enforcement and a web link or attach a copy of the ordinance. Permittees may no longer claim trash load reductions addressed under previous Permits (i.e., foam foodware and single-use plastic bags).
- **Summary Description & Dominant Trash Sources and Types Targeted –** Provide a summary of the sources and types of trash the source control is attempting to target.
- **Evaluation Method(s) -** For each control measure, list the method(s) (e.g., surveys, inspections, field monitoring) used to evaluate the effectiveness of the control measure in reducing trash from entering the municipal stormwater conveyance device. Document the implementation, enforcement, and effectiveness relative to the programs of any Permittee whose effectiveness data are cited to obtain trash reduction value. Also, describe the method and assumptions used to estimate the % reduction of trash in stormwater attributable to the implementation of the control measure. Reference any studies, strategies, or other reports that detail the methods used. Reference or attach separate reports as applicable.
- **Summary of Evaluation Results To-date -** For each control measure, provide a brief description of the results of evaluations conducted to-date. Results may include, but are not limited to, business compliance rates, survey results, or environmental monitoring. Reference any separate reports that provide more detailed results. For Ordinance document implementation, enforcement, and effectiveness relative to the programs of any Permittee whose effectiveness data are cited to obtain trash reduction value. Reference or attach separate reports as applicable.
- **% Reduction -** For each control measure, provide an estimate of the % of trash load generated in your municipality that was reduced as a result of the on-going implementation of the control measure. Use available information from your municipality, or another representative municipality, or regional/countywide study/assessment. If using another representative municipality, describe with documentation and statistics from effectiveness evaluation, the comparability of their results with your program.
- Delete highlighted text before finalizing.

## C.10.d ►Long-Term Trash Load Reduction Plan

State (Y/N) if your agency met the 90% compliance benchmark and submit an updated Long-term Trash Load Reduction Plan in accordance with Permit Provision C.10.d.ii.

| | | | | | | |
|---|---|---|---|---|---|---|
| Did your agency **meet the 90% compliance benchmark** as of June 30, 2023 without the use of source control credits or creek/shoreline cleanup and direct discharge control offsets? | | **Yes** | | **No** | | **N/A** |
| If your agency **checked "No" above**, did your agency develop an updated Trash Load Reduction Plan and submit it as an attachment to this Annual Report? | | **Yes** | | **No** | | **N/A** |

If your agency **checked "Yes" above AND significantly revised your Trash Load Reduction Plan**, include a summary of the significant revisions below. Significant revisions include any changes made to primary or secondary trash management areas (TMAs), baseline trash generation maps, control measures, or time schedules identified in your Plan. Indicate whether your trash generation map was revised and, if so, what information was collected to support the revision. If your map was revised, attach it to your Annual Report or provide a link to the map.

| **Summary Descriptions of Significant Revisions Made to 2014 Trash Load Reduction Plan** | **Associated TMA** |
|---|---|
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**Guidance:**

- Answer the questions above indicating whether your agency met the 90% compliance benchmark by June 30, 2023 and submitted an updated Long-term Trash Load Reduction Plan attached to the FY 22-23 Annual Report due to not meeting the 90% compliance benchmark. **Flood Management Agencies** are not required to achieve the 90% compliance benchmark and therefore should check "NA" for the two questions above.
- For those **Permittees who did not meet the 90% compliance benchmark**:
  - Attach your updated Trash Load Reduction Plan to this Annual Report. Include your updated trash generation map, if updated, in your Plan with a summary of any significant changes/revisions that were made to the map.

- **Do not** fill out the table above describing significant revisions made to your Trash Load Reduction Plan. Your updated Trash Load Reduction Plan that you attach to this Annual Report will suffice to report these updates. Mark "NA" in the first row of the table above titled "Summary Descriptions of Significant Revisions Made to 2014 Trash Load Reduction Plan."

For those **Permittees who did meet the 90% compliance benchmark AND updated their Trash Load Reduction Plan since 2014:**

- Complete the table above titled "Summary Descriptions of Significant Revisions Made to 2014 Trash Load Reduction Plan", summarizing any significant changes made to your trash load reduction plan since February 2014. Descriptions provided in this section should only pertain to significant changes or additions made to your Plan to date.
- Add rows to this section of the table above as necessary.
- If your baseline trash generation map was revised subsequent to your Trash Reduction Plan submittal in February 2014, include the map as an attachment to your FY 22-23 Annual Report or provide a link to the map.

- Delete highlighted text before finalizing.

## C.10.f.i ► Trash Reduction Offsets –Creek and Shoreline Cleanups (Optional)

Provide a summary description of creek and shoreline cleanups conducted at a minimum frequency of twice per year, and sufficient to demonstrate sustained improvement of the creek or shoreline area, the volume of trash removed, and the offset claimed in FY 22-23. Provide the number and frequency of cleanups conducted, locations and cleanup dates.

| Offset Program | Summary Description of Actions and Assessment Results | Volume of Trash (CY) Removed/Controlled in FY 22-23 | Offset (% Jurisdiction-wide Reduction) |
|---|---|---|---|
| Additional Creek and Shoreline Cleanups (Max 10% Offset) | | | |

**Guidance:**

- **Additional Creek and Shoreline Cleanups:**
  - Describe the creek and shoreline cleanup actions taken in FY 22-23 in addition to those required by provision C.10.c. Include the number and frequency of cleanups conducted, the locations and cleanup dates, and the volume of trash removed.
  - Include separate tables with an equivalent level of information as needed.
  - Using the formula below, calculate the offset (% reduction) and include in the last column:

$$1\ \%\ \text{Reduction Offset (Volume)} = (12A_{VH(2009)} + 4A_{H(2009)} + A_{M(2009)})\ OF$$

*where:*

| | | |
|---|---|---|
| $A_{VH(2009)}$ | = | total amount of the 2009 very high trash generation category jurisdictional area |
| $A_{H(2009)}$ | = | total amount of the 2009 high trash generation category jurisdictional area |
| $A_{M(2009)}$ | = | total amount of the 2009 moderate trash generation category jurisdictional area |
| 12 | = | Very High to Moderate weighing ratio |
| 4 | = | High to Moderate weighing ratio |
| OF | = | offset factor equal to (7.5 x 0.1) for the 2019 mandatory trash load reduction deadline, where 7.5 is the conversion from acres to gallons based on trash generation rates and 0.1 is the ten to one offset ratio |

## C.10.f.ii ► Trash Reduction Offsets – Direct Trash Discharge Controls

For those Permittees with a Direct (Trash) Discharge Control (offset) Program (DDCP) approved by the Water Board Executive Officer, provide a summary description of the trash controls implemented, the volume of trash removed via the DDCP, and the offset claimed in FY 22-23. Attach a report that includes the following:

- For Permittees whose DDCPs address significant discharges from **unsheltered homeless populations**, include a narrative description and quantitative information for the following for the current year and for each prior year of the permit term:
    - The estimated number of people experiencing unsheltered homelessness in their jurisdiction;
    - the estimated number of people experiencing unsheltered homelessness living within approximately 500 feet of receiving waters;
    - the estimated portion of those populations provided housing as described in Provision C.10.f.ii.b.(i);
    - the estimated portion of those populations served with the services described in Provision C.10.f.ii.b.(i);
    - the number and scope of sanitation controls and services provided to homeless encampments;
    - the number and scope of trash controls and services provided to homeless encampments; and
    - the number and scope of sanitary cleanouts and other services provided to RVs.

- For Permittees whose DDCPs address significant discharges from **illegal dumping sites**, include a narrative description and quantitative information for the following for the current year and for each prior year of the permit term:
    - The total number of active illegal dumping sites;
    - the number of active illegal dumping sites within approximately 500 feet of receiving waters;
    - the number of illegal dumping sites where trash was collected and the amount of material collected;
    - dumping vouchers (or equivalent) provided (and who they are provided to);
    - dumping vouchers (or equivalent) used; and
    - outreach and education provided to the public regarding illegal dumping and the availability of dumping vouchers (or equivalent).

- For Permittees whose DDCPs address significant discharges from **both unsheltered homeless populations and illegal dumping sites**, include a narrative description and quantitative information for all of the elements listed above for the current year and for each prior year of the permit term.

| Offset Program | Summary Description of Actions and Assessment Results | Volume of Trash (CY) Removed/Controlled in FY 22-23 | Offset (% Jurisdiction-wide Reduction) |
|---|---|---|---|
| Direct Trash Discharge Controls (Max 15% Offset) | | | |

**Guidance:**

- Describe your Direct Discharge Control Program approved by the Water Board Executive Officer and implemented in FY 22-23. Reference approval obtained by the Water Board Executive Officer. In your summary description, include the number and frequency of actions conducted, the locations and dates of actions taken, and the volume of trash removed/reduced.

- Use the formula below, to calculate the offset (% reduction) and include in the last column:

$$1\ \%\ \text{Reduction Offset (Volume)} = (12A_{VH(2009)} + 4A_{H(2009)} + A_{M(2009)})\ OF$$

*where:*

| | | |
|---|---|---|
| $A_{VH(2009)}$ | = | total amount of the 2009 very high trash generation category jurisdictional area |
| $A_{H(2009)}$ | = | total amount of the 2009 high trash generation category jurisdictional area |
| $A_{M(2009)}$ | = | total amount of the 2009 moderate trash generation category jurisdictional area |
| 12 | = | Very High to Moderate weighing ratio |
| 4 | = | High to Moderate weighing ratio |
| OF | = | offset factor equal to (7.5 x 0.1) for the 2019 mandatory trash load reduction deadline, where 7.5 is the conversion from acres to gallons based on trash generation rates and 0.1 is the ten to one offset ratio. |

- Attach a separate report that documents the information required by the MRP, as described in the table above. Also include the results of any assessments conducted in receiving waters to demonstrate the effectiveness of the control program.

**Appendix 10-1.** Baseline trash generation and areas addressed by full capture systems and other control measures in Fiscal Year 22-23.

| TMA | 2009 Baseline Trash Generation (Acres) | | | | | Trash Generation (Acres) in FY 22-23 After Accounting for Full Capture Systems | | | | | Jurisdiction-wide Reduction via Full Capture Systems (%) | Trash Generation (Acres) in FY 22-23 After Accounting for Full Capture Systems and Other Control Measures | | | | | Jurisdiction-wide Reduction via Other Control Measures (%) | Jurisdiction-wide Reduction via Full Capture AND Other Control Measures (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | M | H | VH | Total | L | M | H | VH | Total | | L | M | H | VH | Total | | |
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| **Totals** | | | | | | | | | | | | | | | | | | |

**Note:** "NA" indicates that the TMA has no moderate, high, or very high trash generating areas (i.e., all low trash generation and/or non-jurisdictional) and therefore no additional trash control measures are needed.

- Assign an Appendix Number (e.g., Appendix 10-1) for the table above.
- **2009 Baseline Trash Generation (Acres)** – Provide the jurisdictional area (acres) in each trash generation category depicted on your most recent baseline trash generation map. Do not include non-jurisdictional areas.
- **Trash Generation (Acres) in FY 22-23 After Accounting for Full Capture Systems** – Provide the jurisdictional area in each trash generation category after moving all areas treated by full capture systems and reported in section C.10.b.i to "low/L" trash generation. (Total acres should match totals under the 2009 Baseline Trash Generation Section)
- **Jurisdiction-wide Reduction via Full Capture Systems (%)**
  - Using the load reduction calculation formula included in the MRP, provide the % reduction in your jurisdiction that has occurred in each TMA as a result of full capture systems.
  - For TMAs with no full capture system treatment, use "0.0%".
  - For TMAs with no moderate, high or very high trash generating areas (i.e., all low trash generation and/or non-jurisdictional) AND with no full capture system treatment, use "NA."
  - The "Total" in the last row should equal the sum of the rows above.
  - The % reductions reported for each TMA and the Total should be consistent with those reported in section C.10.b.i.
- **Trash Generation (Acres) in FY 22-23 After Accounting for Full Capture Systems and Other Control Measures** - Provide the jurisdictional area in each trash generation category after moving all areas treated by full capture systems and reported in section C.10.b.i to "low/L" trash generation AND accounting for trash load reductions via on-land assessments reported in C.10.b.ii. (Total acres should match totals under the 2009 Baseline Trash Generation Section)
- **Jurisdiction-wide Reduction via Other Control Measures (%)**
  - For TMAs with no reductions calculated, use "0.0%".
  - For TMAs with no moderate, high or very high trash generating areas (i.e., all low trash generation and/or non-jurisdictional), use "NA."

- For each column, the "Total" in the last row should equal the sums of the rows above.
- The % reductions reported for each TMA and the Total should be consistent with those reported in section C.10.b.ii.
- If a load reduction associated with other actions implemented in non-jurisdictional areas is claimed in section C.10.b.ii, indicate such in a footnote that states the percentage reduction claimed, the acreage of non-jurisdictional area addressed via other actions, and the associated baseline trash generation category.

- **Jurisdiction-wide Reduction via Full Capture AND Other Control Measures (%)**
  - Provide the sum of "Jurisdiction-wide Reduction via Full Capture Systems (%)" and "Jurisdiction-wide Reduction via Other Control Measures (%)" for each TMA.
  - For each column, the "Total" in the last row should equal the sums of the rows above.

## Section 11 – Provision C.11 Mercury Controls

### C.11.a ► Assess Mercury Load Reductions from Stormwater

Submit documentation confirming that all control measures effectuated during the previous Permit term for which load reduction credit was recognized continue to be implemented at an intensity sufficient to maintain the credited load reduction.

Summary:

**Guidance: Refer to the Countywide Program's Mercury and PCBs Control Measures Update Report attached to the Countywide Program's FY 2022-23 Annual Report.**

### C.11.b.iii (1), (2) ► Program for Source Property Identification and Abatement

Report progress on the acreage of land areas investigated, including progress toward investigation of 100 percent of old industrial land uses. 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.

Summary:

**Guidance: Refer to the Countywide Program's Mercury and PCBs Control Measures Update Report attached to the Countywide Program's FY 2022-23 Annual Report.**

Report on ongoing O&M activities associated with all past contaminated property referrals. Prior to all new referrals, Permittees shall submit, for staff review and comment, a detailed description of the enhanced O&M plan for the referred properties.

Summary:

**Guidance: Refer to the Countywide Program's Mercury and PCBs Control Measure Update Report attached to the Countywide Program's FY 2022-23 Annual Report.**

## C.11.c.iii (2) ► Program for Control Measure Implementation in Old Industrial Areas

Submit an account of control measure and stormwater diversion implementation consistent with the plan submitted in March 2023 and any modifications thereto. 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.

Summary:

**Guidance: Refer to the Countywide Program's Old Industrial Area Control Measure Update Report attached to the Countywide Program's FY 2022-23 Annual Report.**

## C.11.d.iii (1) ► Mercury Collection and Recycling Implemented throughout the Region

Report on efforts to promote recycling of mercury-containing products and efforts to increase effectiveness of those recycling efforts. 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 load reduction accounting system described and cited in the Fact Sheet.

Summary:

**Guidance: Refer to the Countywide Program's Mercury and PCBs Control Measures Update Report attached to the Countywide Program's FY 2022-23 Annual Report.**

## C.11.g ► Fate and Transport Study of Mercury: Urban Runoff Impact on San Francisco Bay Margins

Submit a workplan describing how information needs for the mercury discharge from urban runoff studies will be obtained and describe the studies to be performed with a preliminary schedule. Report on the status of the studies in the FY 22-23 Annual Report.

Summary:

**Guidance: See Countywide Program's FY 22-23 Annual Report.**

## C.11.h ► Implement a Risk Reduction Program

Report on the status of the risk reduction program, including a brief description of actions taken, an estimate of the number of people reached, and why these people are deemed likely to consume Bay fish.

**Provide the following text here (if applicable):** "A summary of Program and regional accomplishments for this sub-provision, including a brief description of actions taken, an estimate of the number of people reached, and why these people are deemed likely to consume Bay fish are included in the Countywide Program's FY 2022-23 Annual Report." **As an optional addition:** Describe any accomplishments by your municipality during FY 2022-23 that contribute to implementation of this sub-provision, but only to the extent that these accomplishments are not already described in your Countywide Program's FY 2022-23 Annual Report.

## Section 12 – Provision C.12 PCBs Controls

### C.12.a ► Assess PCBs Load Reductions from Stormwater

Submit documentation confirming that all control measures effectuated during the previous Permit term for which load reduction credit was recognized continue to be implemented at an intensity sufficient to maintain the credited load reduction.

Summary:

**Guidance: Refer to the Countywide Program's Mercury and PCBs Control Measures Update Report attached to the Countywide Program's FY 2022-23 Annual Report.**

### C.12.b.iii (1), (2) ► Program for Source Property Identification and Abatement

Report progress on the acreage of land areas investigated, including progress toward investigation of 100 percent of old industrial land uses. 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.

**Guidance: Refer to the Countywide Program's Mercury and PCBs Control Measures Update Report attached to the Countywide Program's FY 2022-23 Annual Report.**

Report on ongoing O&M activities associated with all past contaminated property referrals. Prior to all new referrals, Permittees shall submit, for staff review and comment, a detailed description of the enhanced O&M plan for the referred properties.

Summary:

**Guidance: Refer to the Countywide Program's Mercury and PCBs Control Measure Update Report attached to the Countywide Program's FY 2022-23 Annual Report.**

### C.12.c ► Program for Control Measure Implementation in Old Industrial Areas

Submit an account of control measures and stormwater diversion implementation consistent with the plan submitted in March 2023 and any modifications thereto. 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.

| |
|---|
| Summary:<br>**Guidance: Refer to the Countywide Program's Old Industrial Area Control Measure Update Report attached to the Countywide Program's FY 2022-23 Annual Report.** |

## C.12.d.iii (1), (2), (3) ► Program for Controlling PCBs from Bridges and Overpasses

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|---|
| In the 2022 Annual Report or the Annual Report immediately following availability of the specification, include a description of the Caltrans specification for managing PCBs-containing materials in bridge or roadway expansion joints during roadway replacement or repair. |
| Summary:<br>**Guidance: See the Countywide Program's FY 2022-23 Annual Report for a description of the Caltrans specification.** |
| Submit an inventory of bridges in the program area that includes bridge ownership and the bridge roadway replacement schedule. |
| **Guidance: Include the inventory of bridges and overpasses in your jurisdiction, including ownership and replacement schedule.** |
| Submit documentation confirming the use of the Caltrans specification (once it is available) during all instances of bridge roadway replacement or repair in their jurisdiction during the reporting year and provide an estimate of the volume of material managed and total PCBs mass load reduced resulting from implementation of the specification. |
| Summary:<br>**Guidance: The Caltrans specification was not available to be implemented during FY 2022-23.** |

## C.12.e.iii (1), (2), (4) ► Program for Controlling PCBs from Electrical Utilities
**[Note: Applicable only to municipalities that own electrical utilities]**

| | | | | |
|---|---|---|---|---|
| Does your municipality own an electrical utility? If yes, follow the directions below. | | **Yes** | | **No** |
| Submit 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). | | | | |

| |
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| Summary:<br>**Guidance: Refer to the Countywide Program's FY 2022-23 Annual Report for the estimated PCBs load avoided in FY 2002–23.** |
| Submit a description of the improved spill response and reporting practices implemented by municipally owned electrical utilities. |
| Summary:<br>**Guidance: Refer to the Countywide Program's FY 2022-23 Annual Report for the SOP.** |
| Submit a summary of the actions undertaken during the FY 22-23 that remove municipally owned PCBs-containing OFEE along with loads avoided and the details of the calculations and assumptions used to estimate the load reduced. |
| Summary:<br>**Guidance: Refer to the Countywide Program's FY 2022-23 Annual Report for a summary of maintenance programs and system upgrades that removed PCBs-containing OFEE from municipally-owned electrical utilities and loads avoided.** |

## C.12.g ► Manage PCB-Containing Materials and Wastes During Building Demolition Activities

| | | | | |
|---|---|---|---|---|
| Permittees seeking exemption from Provision C.12.g requirements based on lack of application structures must submit documentation, such as historic maps or other historic records, that clearly demonstrates that the only structures that existed pre-1980 were single-family residential and/or wood-frame structures. | | | | |
| Did your agency obtain an exemption from Provision C.12.g requirements? | | **Yes** | | **No** |
| Discuss enhancements to construction site control programs to minimize migration of PCBs from demolition activities into the MS4. | | | | |
| Summary:<br>**Guidance: Refer to the Countywide Program's FY 2022-23 Annual Report for enhancements to site control programs.** | | | | |
| **Provide the following text here (if applicable): "**See the Countywide Program's FY 22-23 Annual Report for:<br>• Documentation of the number of applicable structures in each Permittee's jurisdiction for which a demolition permit was applied for during the reporting year;<br>• 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; | | | | |

- The project address, the demolition date, and a brief description of the PCBs-containing materials for each applicable structure with a PCBs concentration 50 mg/kg or greater; and
- The address, date building was constructed, and date of demolition 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."

## C.12.i ► Fate and Transport Study of PCBs: Urban Runoff Impact on San Francisco Bay Margins

Submit a workplan describing how information needs for the PCBs discharge from urban runoff studies will be obtained and describe the studies to be performed with a preliminary schedule. Report on the status of the studies in the FY 22-23 Annual Report.

Summary:

**Guidance: See Countywide Program's FY 22-23 Annual Report.**

## C.12.j ►Implement a Risk Reduction Program

Report on the status of the risk reduction program, including a brief description of actions taken, an estimate of the number of people reached, and why these people are deemed likely to consume Bay fish.

**Provide the following text here (if applicable):** "A summary of Countywide Program and regional accomplishments for this sub-provision, including a brief description of actions taken, an estimate of the number of people reached, and why these people are deemed likely to consume Bay fish are included in the Countywide Program's FY 2022-23 Annual Report." **As an optional addition:** Describe any accomplishments by your municipality during FY 2022-23 that contribute to implementation of this sub-provision, but only to the extent that these accomplishments are not already described in your Countywide Program's FY 2022-23 Annual Report.

## Section 13 – Provision C.13 Copper Controls

| **C.13.a.iii (1), (2), (3) ► Manage Waste Generated from Cleaning and Treating of Copper Architectural Features** | | | | |
|---|---|---|---|---|
| *[Note: One-time, 2022 Annual Report Requirement]* Do you have adequate legal authority to prohibit the discharge of wastewater to storm drains generated from the installation, cleaning, treating, and washing of copper architectural features, including copper roofs? | | **Yes** | | **No** |
| Summary:<br>**Guidance: If adequate legal authority was certified previously in the FY 15-16 Annual Report, include a statement here stating so. Describe updates made to legal authority ordinance, if any.** | | | | |
| *[Note: One-time, 2022 Annual Report Requirement]* Provide a summary of how copper architectural features are addressed through the issuance of building permits. | | | | |
| Summary:<br>**Guidance: Describe how your municipality is implementing the above requirement.** | | | | |
| Provide summaries of permitting and enforcement activities to manage waste generated from cleaning and treating of copper architectural features, including copper roofs, during construction and post-construction. | | | | |
| Summary:<br>**Guidance: Describe how your municipality is implementing the above requirement.** | | | | |

| **C.13.b.iii (1), (2), (3) ► Manage Discharges from Pools, Spas, and Fountains that Contain Copper-Based Chemicals** | | | | |
|---|---|---|---|---|
| *[Note: One-time, 2022 Annual Report Requirement]* Do you have adequate legal authority to prohibit the discharge to storm drains of water containing copper-based chemicals from pools, spas, and fountains? | | **Yes** | | **No** |
| Summary:<br>**Guidance: If adequate legal authority was certified previously in the FY 15-16 Annual Report, include a statement here stating so. Describe updates made to legal authority ordinance, if any.** | | | | |
| *[Note: One-time, 2022 Annual Report Requirement]* Report how copper-containing discharges from pools, spas, and fountains are addressed to accomplish the prohibition of the discharge. | | | | |

| |
|---|
| Summary:<br>**Guidance: Describe how your municipality is implementing the above requirement (e.g., through either (1) requiring installation of a sanitary sewer discharge connection for pools, spas, and fountains, including connection for filter backwash, with a proper permit from the POTWs, or (2) requiring diversion of discharge for use in landscaping or irrigation).** |
| Provide summaries of any enforcement activities related to copper-containing discharges from pools, spas, and fountains. |
| Summary:<br>**Guidance: Describe how your municipality is implementing the above requirement.** |

## C.13.c.iii ►Industrial Sources Copper Reduction Results

| |
|---|
| Based upon inspection activities conducted under Provision C.4, highlight copper reduction results achieved among the facilities identified as potential users or sources of copper, facilities inspected, and BMPs addressed. |
| Summary:<br>**Guidance: Summarize inspections conducted at facilities identified as potential users or sources of copper that resulted in the use of copper reduction BMPs. (Refer to BASMAA POC inspector training materials.)** |

## Section 14 – Provision C.14 Bacteria Control for Impaired Water Bodies

| **C.14.a.i. Municipal Operations Bacteria Control [Note: Applicable only to the Cities of Mountain View and Sunnyvale]** |
|---|
| Describe the BMPs, frequency and location for actions taken to reduce bacteria sources related to municipal operations. |
| **Guidance:** Describe how your municipality implemented the above requirement. |

| **C.14.a. ii. Industrial/Commercial Site Bacteria Control and Illicit Discharge Detection and Elimination [Note: Applicable only to the Cities of Mountain View and Sunnyvale]** |
|---|
| Describe the BMPs, frequency, and location for actions taken to reduce bacteria sources related to Industrial and Commercial Site Bacteria Control and Illicit Discharge Detection and Elimination. |
| **Guidance:** Describe how your municipality implemented the above requirement. |

| **C.14.a.iii. ► Control of Bacteria Sources Related to Unsheltered Homeless Populations [Note: Applicable only to the Cities of Mountain View and Sunnyvale]** |
|---|
| Describe the BMPs, numbers or frequency (as applicable), and locations of actions taken to reduce bacteria discharges from areas inhabited by unsheltered persons |
| **Guidance:** Describe how your municipality implemented the above requirement. |

| **C.14.a. iv. Pet and Livestock Bacteria Source Control [Note: Applicable only to the Cities of Mountain View and Sunnyvale]** |
|---|
| Describe the BMPs, numbers or frequency (as applicable), and locations of actions taken to reduce bacteria from domestic animal sources. |
| **Guidance:** Describe how your municipality implemented the above requirement. |

| **C.14.a. v. Public Outreach on Bacteria Source Control [Note: Applicable only to the Cities of Mountain View and Sunnyvale]** |
|---|
| Describe the outreach messages, methods of delivery, audiences, and number of repetitions. |
| **Guidance:** Describe how your municipality implemented the above requirement. |

| **C.14.a.vi. ► Coordination with Sanitary Sewerage System Entities [Note: Applicable only to the Cities of Mountain View and Sunnyvale]** |
|---|
| Describe the status of any actions taken to coordinate with sanitary sewer entities. |
| **Guidance:** Describe how your municipality implemented the above requirement. |

| **C.14.a.vii. ► Prioritize Trash Removal to Control Bacteria Sources [Note: Applicable only to the Cities of Mountain View and Sunnyvale]** |
|---|
| Describe how the bacteria-reduction benefit of focused trash-control efforts was evaluated, the conclusions reached, and any actions taken during the reporting period to reprioritize trash control areas. |
| **Guidance:** Describe how your municipality implemented the above requirement. |

| **C.14.a.viii. ► Water Quality Monitoring [Note: Applicable only to the Cities of Mountain View and Sunnyvale]** |
|---|
| Submit the results of all monitoring conducted the previous year, including parameters analyzed, frequencies, and locations, and planned monitoring for the current year, including parameters, frequencies, and locations. |
| **Guidance:** Describe how your municipality implemented the above requirement by attaching a separate report describing the monitoring conducted during the previous year, including methods and results, and the monitoring planned for the current year, or by providing the required information here. |

| **C.14.c.i.(3) ► Control Measures to Achieve Indicator Bacteria Wasteload Allocations [Note: Applicable only to the City of San Mateo]** |
|---|
| Summarize the actions taken to satisfy the requirements in Provision C.14.c.i.(2) during October 1, 2022 through September 30, 2023 period. This report shall include:<br>• The number, type, and locations and/or frequency (if applicable) of control measures;<br>• The description and scope of pollution prevention measures; and<br>• A data table and graphs showing Enterococcus data collected during the reporting year for the two San Mateo Lagoon beaches, Parkside Aquatic Park Beach and Lakeshore Park Beach.<br><br>Quantitatively and qualitatively evaluate the effectiveness of the City's actions toward wasteload allocation attainment and modify or refocus control measure implementation efforts as appropriate. |
| **Guidance:** Describe how your municipality implemented the above requirements by attaching a separate report or by providing the required information here. |

| **C.14.c.ii.(3) ► Phase II Measures [Note: Applicable only to the City of San Mateo]** |
|---|
| Summarize the actions taken to satisfy the requirements in Provision C.14.c.ii.(2) during the foregoing October 1 through September 30 period. This report shall include:<br>(a) The number, type, and locations and/or frequency (if applicable) of control measures;<br>(b) The description and scope of pollution prevention measures; and<br>(c) A data table and graphs showing enterococcus data collected during the reporting year for the two San Mateo Lagoon beaches, Parkside Aquatic Park Beach and Lakeshore Park Beach. |
| **Guidance:** Describe how your municipality implemented the above requirements by attaching a separate report or by providing the required information here. |

## Section 15 – Provision C.15 Exempted and Conditionally Exempted Discharges

### C.15.b.iii.(3) ► Ongoing Implementation Practices

Annually report on the following ongoing practices:

- Ensuring proper BMPs and SOPs are included in contracts for non-municipal (contracted) staff hired by Permittees to assist with containment and cleanup, and to assist with prevention and mitigation of adverse impacts, of discharges associated with firefighting emergencies; and
- Evaluating the adequacy of large industrial sites' BMPs and SOPs for the prevention, containment and cleanup of emergency firefighting discharges into storm drains and receiving waters within Permittees' jurisdictions and cause those BMPs and SOPs to be improved as appropriate.

Summary:

**Guidance: Describe how your municipality is implementing the practices above, and/or refer to the Countywide Program's FY 2022-23 Annual Report, if applicable.**

### C.15.b.vi.(2) ► Irrigation Water, Landscape Irrigation, and Lawn or Garden Watering

Provide implementation summaries of the required BMPs to promote measures that minimize runoff and pollutant loading from excess irrigation. Generally the categories are:

- Promote conservation programs
- Promote outreach for less toxic pest control and landscape management
- Promote use of drought tolerant and native vegetation
- Promote outreach messages to encourage appropriate watering/irrigation practices
- Implement Illicit Discharge Enforcement Response Plan for ongoing, large volume landscape irrigation runoff.

Summary:

**Guidance: Describe how your municipality is promoting the measures listed above. You may include participation in relevant countywide Program outreach efforts but explain how countywide materials and efforts are used to promote local implementation of required BMPs. Refer to the C.3 New Development and Redevelopment, C.7. Public Information and Outreach and C.9. Pesticide Toxicity Control sections of Countywide Program's FY 2022-23 Annual Report as needed (if applicable).**

## Section 17 – Provision C.17 Discharges Associated with Unsheltered Homeless Populations

**C.17.a.iii.(1) ► Regional Best Management Practice Report**

*(For FY 22-23 Annual Report only)* Collectively submit, acceptable to the Executive Officer, a best management practice report as described in Provision C.17.a.i.(2)

Summary:

**Guidance: "Provide the following text: See the Regional BMP Report submitted by BAMSC on behalf of all MRP Permittees to the Water Board Executive Officer, and included in the Countywide Program's FY22-23 Annual Report (if applicable)."**

**C.17.a.iii.(2) ► BMP Implementation and Effectiveness Evaluation**

*(For FY 22-23 Annual Report only)* Submit a map identifying the approximate location(s) of unsheltered homeless populations within your jurisdiction, including homeless encampments and other areas where other unsheltered homeless people live.

Summary:

**Guidance: Provide the following text (as applicable):**

**"See the FY 22-23 Countywide Program Annual Report for a map identifying the approximate locations of unsheltered homeless populations in relation to storm drain inlets and existing streams, rivers, flood control channels, and other surface water bodies."**

**OR**

**"A map showing approximate locations of unsheltered homeless populations in relation to storm drain inlets and existing streams, rivers, flood control channels, and other surface water bodies within our jurisdiction is included in Appendix 17-1."**

*(For FY 22-23 Annual Report only)* Report on the best management practices being implemented and include the effectiveness evaluation reporting required in Provision C.17.a.ii.(3) and additional actions or changes to existing actions that the Permittee will implement to improve existing practices.

Summary:

**Provide the following text (if applicable):**

**"See Section C.17 of the Countywide Program's FY 22-23 Annual Report for a report on the BMPs implemented, effectiveness evaluation, and additional actions or changes to existing actions that the Permittee will implement to improve existing BMPs."**

**OR**

**Describe the following here:**

- **List BMPs implemented to address MS4 discharges associated with homelessness that impact water quality, including those impacts that can lead to public health impacts. Examples of actions that may be implemented include, but are not limited to, access to emergency shelters; the provision of social services and sanitation services; voucher programs for proper disposal of RV sanitary sewage; establishment of designated RV "safe parking" areas or formalized encampments with appropriate services; provision of mobile pump-out services; establishing and updating sidewalk/street/plaza cleaning standards for the cleanup and appropriate disposal of human waste; and establishing trash and waste cleanup or pickup programs within the Permittee's jurisdiction, or at the countywide or regional level.**
- **Evaluate effectiveness of BMPs by reporting the approximate portion of the Permittee's unsheltered homeless population and locations being served by BMPs implemented and portion and locations of the Permittee's unsheltered homeless population not reached, or not fully reached by the BMPs implemented**
- **Additional actions or changes to existing actions that the Permittee will implement to improve existing BMPs**

## Section 18 – Provision C.18 Control of Sediment Discharges from Coastal San Mateo County Roads

| **C.18.a.iii Road Erosion Inventory [Note: Applicable only to the County of San Mateo]** |
|---|
| Submit the road erosion inventory for the Pescadero-Butano Creek watershed in the Annual Report. The road erosion inventory shall be submitted in ArcGIS and Google Earth KML format with an accompanying report that provides all the information listed in Subprovision C.18.a., in addition to:<br>1. A summary table for the watershed that lists the total drainage area, the total length of all San Mateo County roads, the total length of all hydrologically connected San Mateo County roads; and the percentage of unpaved San Mateo County roads that are hydrologically connected.<br>2. Summary table documenting the results of the road erosion inventory by watershed.<br><br>New erosion sites identified during routine patrols shall be added to the road erosion inventory. San Mateo County shall provide a status update of these new erosion sites each year as part of its Annual Report. |
| **Guidance:** Describe how your municipality implemented the above requirement by submitting ArcGIS and Google Earth KML files with an accompanying report that provides all the information listed in Subprovision C.18.a. and the summary tables described above. |

| **C.18.b.iii Prioritized List and Schedule of [Note: Applicable only to the County of San Mateo]** |
|---|
| Submit the prioritized list and schedule for the Pescadero-Butano watershed in the Annual Report. Include a list of completed, in-progress, and scheduled control measure and pollution prevention strategies and include at a minimum the following information for each control measure:<br>1. The project name<br>2. The project location and a brief project description<br>3. Authorizations required to implement the project, including status<br>4. The actual or estimated project start and end dates |
| **Guidance:** Describe how your municipality implemented the above requirement by attaching the above-described list and schedule or providing this information here. |

| **C.18.c.iii. Implement Control Measures to Attain Performance Standards [Note: Applicable only to the County of San Mateo]** |
|---|
| Submit a report documenting project status with the Annual Report each year starting the first year of project implementation. The report shall include a list of projects from the priority list and schedule of actions in Provision C.18.b. that have been completed or are in-progress, including:<br>1. An estimate of the potential sediment delivery to stream channels prevented by the implemented control measure or pollution prevention strategy.<br>2. The percent of control measures in the prioritized list completed to date so that progress in achieving the implementation of 20 percent of the control measures for the Pescadero-Butano Creek watershed by June 30, 2027, is documented.<br>3. A summary of projects scheduled for completion since the last Annual Report submittal that were delayed or not completed and an explanation of why they were delayed or not completed. |
| **Guidance:** Describe how your municipality implemented the above requirement by submitting a report that provides the above information. |

**C.18.d.iii. Monitoring [Note: Applicable only to the County of San Mateo]**

Document the results of the implementation, effectiveness, and forensic monitoring in a monitoring report submitted with the Annual Report each year starting in the first year of project implementation. If preferred, implementation monitoring information may be included with the implementation reporting required pursuant to Provision C.18.c.iii. The report shall include the following:

(1) Results of implementation and effectiveness monitoring, including:

(a) The monitoring point location and description of the project, or a reference to the specific project in the completed projects report.

(b) A brief description of the visual observations made during the monitoring inspection.

(c) The date the monitoring inspection was conducted.

(2) Results of any forensic monitoring conducted in the past year, including:

(a) The monitoring point location and description of the project, or a reference to the specific project in the completed projects report.

(b) Site photos documenting the failed control measure

(c) A brief description of the mechanism and/or circumstances of failure

(d) Proposed corrective measures to be taken and timeline for completion

(e) The date the monitoring inspection was conducted

(3) Results of annual monitoring conducted in the past year, including:

(a) A summary of all unpaved roads inspected at the end of the rainy season.

(b) A brief description of general road conditions and any specific problems noted, particularly with regard to sediment delivery to stream channels. These observations will be used to make annual updates to the Road Erosion Inventory as required by Provision C.18.a. Any new road-related erosion sites identified during this effort shall be documented in the report and added to the Road Erosion Inventory required by Provision C.18.a.

(c) The date(s) the monitoring inspections were conducted.

**Guidance:** Describe how your municipality implemented the above requirement by submitting a monitoring report that provides the above information. If preferred, implementation monitoring information may be included with the implementation reporting required pursuant to Provision C.18.c.iii.

## Section 19 – Provision C.19 Cities of Antioch, Brentwood, and Oakley, Unincorporated Contra Costa County, and the Contra Costa County Flood Control and Water Conservation District Requirements

### C.19.d.iii.(2) ► Methylmercury Control Measure Plan and Monitoring

**Provide the following text here (if applicable):** "See the Countywide Program's FY 2022-23 Annual Report for:

- Monitoring and assessment results answering the questions required under Provision C.19.d.ii.(2).
- The Methylmercury Control Measure Plan and RAA.

### C.19.e.iii ► Delta Mercury Control Program Minimum BMPs

**Provide the following text here (if applicable):** "See the Countywide Program's FY 2022-23 Annual Report for the Mercury Control Program report that includes:

- Report on mercury collection and recycling efforts
- A list municipal operations and municipal maintenance activity BMPs that are implemented to minimize sediment discharges
- Mercury pollution prevention messages
- Tasks implemented to provide notices on the health risk associated with eating mercury contaminated fish
- Implementation of methylmercury controls required in C.19.e.ii.(4)

| Name | Last Update Date | New Opportunity? | Funding Source |
|---|---|---|---|
| 2023 EJ Government-to-Government Program (EJG2G) | 2/6/2023 | Yes | EPA |
| 2023 Coastal Stories | 2/6/2023 | Yes | Proposition 40 |
| Fisheries Restoration Grant Program (FRGP) | 2/6/2023 | No | CDFW Watershed Restoration Grants Branch |

| | | | |
|---|---|---|---|
| Riverine Stewardship Program (RSP) Grants: Riverine Stewardship Program | 2/6/2023 | No | Prop 68, Budget Act of 2021 |
| Riverine Stewardship Program Grants: Urban Streams Restoration Program | 2/6/2023 | No | Prop 68, Budget Act of 2022 |

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|---|---|---|---|
| Explore the Coast Grants | 2/6/2023 | No | Prop 1 |
| Adaptation Planning Grant Program | 2/6/2023 | No | Governor's Office of Planning and Research; SB 170 |
| B-WET | 2/6/2023 | No | NOAA |

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|---|---|---|---|
| Rebuilding American Infrastructure with Sustainability and Equity, or RAISE Discretionary Grant program | 2/6/2023 | No | BIL funding and FY 2023 Appropriations Act funding |
| Affordable Housing and Sustainable Communities | 2/6/2023 | No | Funded by auction proceeds from California's Cap-and-Trade emissions reduction program |
| Coastal Conservancy Grants | 2/6/2023 | No | State Coastal Conservancy |
| Cooperative Implementation Agreements (CIA) for TMDL Compliance | 2/6/2023 | No | Caltrans |

| | | | |
|---|---|---|---|
| Bicycle & Pedestrian Funds | 2/6/2023 | No | Transportation Development Act Article 3, |
| Wildlife Conservation Board (WCB) Grant | 2/6/2023 | No | Prop 8, 1, 84, 40, 50, Habitat Conservation Fund, Greenhouse Gas Reduction Fund, Tax Credit Program, etc. |
| Small Community Drought Relief Program | 2/6/2023 | No | Trailer Bill, (Wat. Code, § 13198 et seq.) |

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|---|---|---|---|
| Clean Water State Revolving Fund (CWSRF) Program – Construction | 2/6/2023 | No | CWSRF |
| Watershed Restoration Grant Programs | 2/6/2023 | No | Prop 1 |
| Clean California Local Grant Program | 2/6/2023 | No | Assembly Bill 149 under Streets and Highway Code §91.41 et al. |

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|---|---|---|---|
| Safe Streets and Roads for All (SS4A) Grant Program | 1/9/2023 | No | BIL |
| Outdoor Equity Grants Program | 2/6/2023 | No | AB 209, the Outdoor Equity Grants Program |
| Measure AA Competitive Grants | 1/9/2023 | No | Regional Measure AA |
| WaterSMART Environmental Water Resources Projects (EWRP) | 2/6/2023 | Yes | Bipartisan Infraestructure Law |

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|---|---|---|---|
| 2023 Nonpoint Source (NPS) Grant Program | 1/9/2023 | No | USEPA through Section 319(h) of the Federal Clean Water Act and from the state Timber Regulation and Forest Restoration Fund |
| Regional Resilience Planning & Implementation Grant Program | 2/6/2023 | No | Governor's Office of Planning and Research |
| Delta Water Quality and Ecosystem Restoration Grant Program | 1/9/2023 | No | Prop 1 |
| Transportation Fund for Clean Air | 1/9/2023 | No | California Health and Safety Code Sections 44241 and 44242 |
| WaterSMART Grants: Water and Energy Efficiency Grants for Fiscal Year 2023 | 1/9/2023 | No | Department of the Interior |

| | | | |
|---|---|---|---|
| California Marine Protected Area Outreach & Education Small Grants Program | 2/6/2023 | No | Ocean Protection Council |
| Integrated Regional Water Management (IRWM) Grant Program | 2/6/2023 | No | Prop 1 |
| Division of Boating and Waterways Public Beach Restoration Program FY24 | 12/13/2022 | No | Shoreline Erosion Control and Public Beach Restoration programs. |
| Shoreline Erosion Control & Public Beach Restoration | 12/13/2022 | No | Shoreline Erosion Control and Public Beach Restoration programs. |

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|---|---|---|---|
| Working Lands and Riparian Corridors Program | 12/13/2022 | No | Prop 68 |

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|---|---|---|---|
| Outdoor Recreation Legacy Partnership (ORLP) Program | 12/13/2022 | No | National Park Service (NPS) grant program |
| Bipartisan Infrastructure Law | 11/4/2022 | No | USEPA/SWRCB |

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|---|---|---|---|
| Coastal Zone Management (CZM) Habitat Protection and Restoration Infrastructure Investment and Jobs Act (IIJA) Competition investment and Jobs Act (IIJA) Competition | 11/4/2022 | No | NOAA |
| National Sea Grant Infrastructure Investment and Jobs Act (IIJA) Marine Debris Challenge Competition | 11/4/2022 | No | BIL |
| Bipartisan Infrastructure Law Grant Opportunity for Marine Debris Removal | 11/4/2022 | No | BIL |

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|---|---|---|---|
| USEPA San Francisco Bay Water Quality Improvement Funds | 10/7/2022 | No | USEPA |
| EPA-R9-SFBWQIF-22-01 | 10/7/2022 | No | USEPA |

| | | | |
|---|---|---|---|
| EPA-I-R9-SFBWQIF-22-02 | 10/7/2022 | No | USEPA |
| 2022 Marine Protected Areas and Climate Solicitation | 10/7/2022 | No | Prop 68 |
| Whale Tail Grants | 11/4/2022 | No | Protect Our Coast and Oceans Fund |

| | | | |
|---|---|---|---|
| Coastal Program - 2022 | 10/7/2022 | No | Fish and Wildlife Coordination Act |

| Administering Agency | Eligible Project Types |
|---|---|
| EPA | Projects submitted under this funding opportunity should support the EJG2G program goals<br>detailed below:<br>(1) achieve measurable and meaningful environmental and/or public health results in<br>communities;<br>(2) build broad and robust, results-oriented partnerships, particularly with communitybased nonprofit organizations (CBOs) within disproportionately impacted areas; |
| Coastal Conservancy | Projects should research, develop, and present diverse stories of historically excluded communities in publicly accessible outdoor spaces. Proposals that use creative forms of historical, ecological, and cultural storytelling are encouraged. The Conservancy envisions that these storytelling materials will foster representation of BIPOC and other historically excluded groups in outdoor spaces, making the outdoors more inclusive and welcoming for all Californians. |
| California Department of Fish and Wildlife (CDFW) | Eligible projects for this solicitation are those for implementation or design projects that restore, enhance, or protect salmon and steelhead habitat in rivers and streams. Projects that support implementation projects through planning, effectiveness monitoring, outreach, and/or education are also eligible. Projects can include multiple project types. Some examples of eligible multiple project types include, but are not limited to in-river and floodplain habitat restoration, bridge and culvert replacements, urban<br>stream revitalization as part of community development, community outreach and project development, organizational capacity building, and technical trainings. |

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| DWR | Habitat restoration, green infrastructure designs and solutions that improve water quality or supply issues that directly affect aquatic habitat or species, fish friendly intakes/diversions near agricultural drainage, barrier removal, or connectivity enhancements and gravel injection projects. |
| DWR | Stream cleanups, bank stabilization projects, revegetation, recontouring of channels to improve floodplain functions and localized flood protection, acquisition of strategic floodplain properties. |

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| The Coastal Conservancy | Eligible projects include a wide range of programs and activities that help to bring people to the coast and/or enhance their experience at the coast. At least 50% of participants served by the grant must be from Explore The Coast (ETC) Priority Communities. Competitive projects will provide participants with joyful and culturally relevant coastal experiences, with other benefits such as ecosystem stewardship and environmental education as secondary benefits. Projects must involve visiting the coast of California or the shore of San Francisco Bay. The Conservancy is interested in supporting programs that bring participants to the coast from throughout the state, including inland areas. |
| Integrated Climate Adaptation and Resiliency Program (ICARP) | Building community planning and capacity by supporting peer to peer learning and information sharing and publishing replicable case studies in the State Adaptation Clearinghouse.<br>Support equitable outcomes and wide geographic and economic diversity in applicants.<br>Support much-needed integrated infrastructure planning by providing flexible funding to meet cross-sectoral and multi-issue planning needs that intersect with climate risk and resilience<br>Help communities plan for and respond to multiple climate risks simultaneously by supporting an all-risk approach and integrated planning activities. |
| NOAA | Student investigations of local environmental issues<br>Professional development for teachers<br>Support to get MWEEs implemented throughout an entire school district or school |

| | |
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| USDOT | The Department seeks to fund projects under the RAISE Program that reduce greenhouse gas emissions and are designed with specific elements to address climate change impacts. Specifically, the Department is looking to award projects that align with the President's greenhouse gas reduction goals, promote energy efficiency, support fiscally responsible land use and transportation efficient design, increase use of lower-carbon travel modes such as transit and active transportation, incorporate electrification or zero emission vehicle infrastructure, increase climate resilience, support domestic manufacturing, incorporate lower-carbon pavement and construction materials, reduce pollution, and recycle or redevelop brownfield sites. |
| Strategic Growth Council | AHSC provides funding for affordable housing developments (new construction or renovation) and transportation infrastructure. This may include sustainable transportation infrastructure, such as new transit vehicles, sidewalks, and bike lanes; transportation-related amenities, such as bus shelters, benches, or shade trees; and other programs that encourage residents to walk, bike, and use public transit. |
| The Coastal Conservancy | The Coastal Conservancy funds a wide variety of projects along the California coast, San Francisco Bay, and in coastal watersheds to increase availability of beaches, parks and trails for the public, protect and restore natural lands and wildlife habitat, preserve working lands, and increase community resilience to the impacts of climate change. |
| Caltrans | Must treat Caltrans ROW in TMDL watersheds. |

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| MTC | The funding requested is for one or more of the following purposes:<br>1. Construction and/or engineering of a bicycle or pedestrian capital or quick build projects.<br>2. Maintenance of a Class I shared-use path and Class IV separated bikeways.<br>3. Bicycle and/or pedestrian safety education program (no more than 5% of county total).<br>4. Development of a comprehensive bicycle or pedestrian facilities plans (allocations to a claimant for this purpose may not be made more than once every five years).<br>5. Restriping Class II bicycle lanes and buffered bicycle lanes. |
| WCB | List includes: Projects to protect and improve water supply and water quality; Projects to improve forest health, reduce wildfire danger, or mitigate the effects of wildfires on water quality and supply; Projects to increase flood protection, Projects to improve climate adaptation and resilience |
| DWR | The Program aims to implement needed resiliency measures and infrastructure improvements for small water suppliers and rural communities. The Program will support projects and programs that provide immediate and near-term water supply reliability benefits and improve small communities' drought and water shortage resiliency and preparedness.<br>The specific objectives are to implement projects that provide reliable water supply sources, improve water system storage, replace aging and leaking pipelines, and provide alternative power sources for operation (emergency generators). Potential projects include emergency and permanent interties, well deepening, second well, fixing or replacing leaking water lines, construction or upgrade of intake structures, additional water storage facilities, and tanks. The Program will also provide funding for hauled water, temporary community water tanks, bottled water, water vending machines, and emergency water interties, as a bridge to more permanent and drought resilient solutions. |

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| Proposition 1, Proposition 68, and Small Community Grant Fee | Construction of publicly-owned treatment facilities: wastewater treatment, local sewers, sewer interceptors, water reclamation and distribution, stormwater treatment, combined sewers, and landfill leachate treatment.<br><br>Implementation of nonpoint source (NPS) projects to address pollution associated with: agriculture, forestry, urban areas, marinas, hydromodification, wetlands, and development and implementation of estuary comprehensive conservation and management plans for: San Francisco Bay Morro Bay Santa Monica Bay. |
| CDFW | CDFW is accepting proposals for planning, implementation, acquisition, monitoring, capacity building, and scientific studies. |
| CALTRANS | Eligible projects meet the goals of the CCLGP and may include, but not be<br>limited to:<br>• Infrastructure related community litter abatement and beautification projects.<br>• Non-infrastructure related community litter abatement events and/or educational programs. |

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| USDOT/MTC | Planning, infrastructure, behavioral, and operational initiatives to prevent death and serious injury on roads and streets involving all roadway users, including pedestrians; bicyclists; public transportation, personal conveyance, and micromobility users; motorists; and commercial vehicle operators. Under the selection criterion #4 Climate Change and Sustainability, and Economic Competitiveness, it includes storm water management practices and incorporates other climate resilience measures or feature, including but not limited to nature-based solutions that improve built and/or natural environment while enhancing resilience. |
| Natural Resources Agency; and California State Parks | Awarded through the new Outdoor Equity Grants Program, the funding helps establish hubs for local activities and trips to natural areas for underserved communities. The program also empowers youth and families with outdoor leadership education, career pathways, environmental justice engagement, and access to nature. |
| SFB Restoration Authority | Projects must be located within the nine Bay Area counties: Sonoma, Marin, Napa, Solano, Alameda, Contra Costa, San Mateo, Santa Clara, or San Francisco. The Board will fund projects that qualify as one or more of the following project types:<br><br>1) A habitat project that aims to restore, protect, or enhance tidal wetlands, managed ponds, or natural habitats on the shoreline in the San Francisco Bay Area;<br>2) A flood management project that is part of a habitat project;<br>3) A public access project that will provide or improve access or recreational amenities that are part of a habitat project. |
| Bureau of Reclamation | Applicants are invited to leverage their money and resources by cost sharing with Reclamation on<br>Environmental Water Resources Projects, including (1) water conservation and efficiency projects that<br>result in quantifiable and sustained water savings and benefit ecological values or watershed health; (2)<br>water management or infrastructure improvements with benefits to ecological values or watershed health;<br>and restoration projects benefitting ecological values or watershed health that have a nexus to water<br>resources or water resources management. |

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| SWRCB | Seeks proposals for projects that reduce runoff of pollution to waters of the state, such as agricultural projects that reduce pesticide and nutrient runoff, improvement or decommission of dirt roads to reduce erosion and sediment runoff, streambank stabilization to reduce erosion, marina programs to reduce toxic discharges from anti-fouling paints on boats, and infrastructure improvements for ranching and livestock operations to reduce erosion and runoff of nutrients and pathogens. Projects that address TMDL implementation and those that address problems in impaired waters are favored in the selection process. This grant program also funds projects that implement forest management measures on forest lands to improve water quality. |
| integrated Climate Adaptation and Resiliency Program (ICARP) | Program will support regional projects and plans that improve regional climate resilience and reduce risks from climate impacts, including wildfire, sea level rise, drought, flood, increasing temperatures, and extreme heat events. |
| CDFW | Delta Water Quality and Ecosystem Restoration Grant Program ($7 million)<br>Priorities<br>1. Improve water quality<br>2. Improve habitats in the Delta<br>3. Planning for multi-benefit restoration through regional partnerships<br>4. Scientific studies to support implementation of the Delta Science Plan |
| ARB and CCTA | The intent of the criteria is to maximize the air quality benefits to San Francisco while allowing room to test a variety of new and innovative strategies for achieving motor vehicle emission reductions. Zero emissions non-vehicle projects including, but not limited to, bicycle and pedestrian facility<br>improvements, transit priority projects, traffic calming projects, and transportation demand management projects are priority projects. Green infrastructure is not specifically mentioned as eligible but "Improving water quality by decreasing contaminated runoff from roadways " is listed as benefit of these projects |
| Bureau of Reclamation | Water Conservation Projects<br>• Canal lining/piping<br>• Municipal metering<br>• Irrigation flow measurement<br>• Supervisory Control and Data Acquisition and Automation (SCADA)<br>• Landscape irrigation measures |

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| Coastal Quest | This third round of funding will provide grants between $25,000 and $100,000 to proposals that engage or conduct outreach targeting:<br><br>Recreational and commercial fishing communities.<br>Communities of color that have been underserved in MPA management and education, i.e. Black, Latinx, and Asian users/potential users of MPA spaces and resources.<br>California Native American Tribes or tribal organizations.<br>Smaller grants of $5,000 – $25,000 will also be available to support projects that maintain momentum for programs that were either funded in Rounds 1 or 2 of the MPA Outreach and Education Small Grants Program, or programs that are already established, especially those focused on K-12 education. |
| DWR | Funding is intended to improve regional water self-reliance security and adapt to the effects on water supply arising out of climate change. DMR is administering three separate grant programs: Disadvantaged Community involvement Program ($1M ensuring the involvement of DACs, economically distressed areas, and underrepresented communities in regions); Planning Grant Program ($4.2M development of new IRWM plans or to update of existing IRWM plans); and Implementation Grant Program ($403M implementation programs and projects, of which not less than $51M to projects that directly benefit DACs). |
| Department of Parks and Recreation | The restoration, enhancement, and nourishment of public beaches through the cost-effective engineered placement of sand on the beach or in the nearshore environment. |
| California Division of Boating and Waterways | Cosponsoring the planning and construction of cost-effective erosion control projects with local and federal agencies,<br>Improving present knowledge of oceanic forces, coastal erosion factors, and evolving shoreline conditions, and<br>Sharing and applying this knowledge to help prevent or reduce future erosion. |

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| California Department of Conservation | In accordance with the Program Guidelines, projects funded under this solicitation must:<br>• Restore or enhance riparian habitat on agricultural lands, including grazing lands<br>• Improve climate adaptation and resilience by restoring riparian areas, supporting natural water retention, preventing soil degradation, and sequestering carbon<br>• Support long-term sustainable farm or ranch operations |

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| Natural Resources Agency; and California State Parks | National Park Service (NPS) grant program |
| SWRCB | Stormwater Implementation Grants<br>Installing new and emerging, but proven, stormwater control infrastructure technologies; Protecting or restoring interconnected networks of natural areas that protect water quality; Monitoring and evaluating the environmental, economic, or social benefits of stormwater control infrastructure technologies that incorporate new and emerging, but proven, stormwater control technology; Implementing a best practices standard for stormwater control infrastructure programs.<br><br>Stormwater planning and development grants<br>Planning and designing stormwater infrastructure projects; Identifying and developing standards necessary to accommodate stormwater infrastructure project; Identifying and developing fee structures to provide financial support for design, install, and operate stormwater infrastructure; Developing approaches for community-based public-private partnerships for the financing and constructing stormwater infrastructure; Developing and delivering training and educational materials regarding new and emerging stormwater infrastructure |

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| CZM Program | Any coastal State or Territorial CZM Program that has been approved by NOAA pursuant to the Coastal Zone Management Act (16 U.S.C. § 1455) is eligible for habitat restoration and conservation funds |
| NOAA | Development of innovative removal and/or interception technologies and reusable systems that prevent debris from entering the marine environment.<br>Innovative solutions for mitigation and clean-up of derelict fishing gear and ghost gear.<br>Microplastics and nanoplastics |
| NOAA | RIORITY 1: the development of large scale and high-value marine debris removal programs (hereafter “partnerships”) that can be responsive to local and regional marine debris removal needs, with a focus on large marine debris. For the purposes of this funding opportunity, “large debris” is defined as abandoned and derelict vessels (ADVs), derelict fishing gear (DFG), and other debris that is generally unable to be collected by hand. Applicants may apply for funding to execute a plan for a particular marine debris removal project or to administer a competition for sub awardees that will propose marine debris removal projects.<br>PRIORITY 2: the implementation of projects that use proven interception technologies that capture marine debris at or close to known marine debris sources or pathways. |

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| USEPA | The SFBWQIF priorities are to support projects that reduce polluted run-off, restore impaired waters, and enhance aquatic habitat. Since the inception of the SFBWQIF, emphasis has been on achieving significant on-the-ground environmental results. To maximize the likelihood of achieving significant results, funded activities are most often based on thorough assessments and plans, including watershed plans and Total Maximum Daily Loads (TMDLs). While most funds support on-the-ground implementation, EPA has also supported projects undertaking thoughtful planning processes essential for future implementation to be successful. |
| USEPA | Given the historic loss of over ninety percent of San Francisco's Baylands and the significant number of waterbodies in the San Francisco Bay region with water quality impairments, the SFBWQIF aims to support a broad array of project types that will protect and restore those wetlands and waters. This year, in addition to long-standing funding priorities such as wetlands restoration, improving stormwater quality, and remediating contaminated shorelines, this solicitation seeks applications that address climate change impacts and environmental justice concerns, as well as those that advance landscape-scale watershed restoration. Priority projects include: Multi-benefit shoreline projects that restore habitat, provide flood protection and/or reduce pollutants; Watershed and urban infrastructure improvements in frontline communities; Solutions that reduce water quality impacts associated with people and communities experiencing homelessness; Reductions in levels of trash and microplastics in Bay waters ; Installation of green stormwater infrastructure features to treat stormwater; Projects to reduce nutrient inputs into San Francisco Bay, (e.g. wastewater treatment plant technologies, agricultural land BMPs, etc.) |

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| USEPA | Projects that have measurable positive impacts in underserved communities, particularly those facing climate change stressors in the San Francisco Bay and its watersheds. A project that benefits an underserved community could, for example, include implementation of green infrastructure to improve water quality and reduce a community's vulnerability to flooding from aging infrastructure. Achieving equity in the Bay Area for shoreline and watershed restoration projects will likely include technical and financial support for community representation throughout a project's multi-year planning process. Priority projects include: Community visioning aimed at developing conceptual plans for shoreline projects to improve climate change resilience; Installation of green stormwater infrastructure features to treat stormwater ; Watershed and urban infrastructure improvements in EJ communities ; Contaminant investigations in local communities; Solutions that reduce water quality impacts associated with people and communities experiencing homelessness |
| Ocean Protection Council | Projects that conserve, protect, and restore marine wildlife and healthy ocean and coastal ecosystems with a focus on the state's system of marine protected areas and sustainable fisheries, and projects that assist coastal communities, including those reliant on commercial fisheries, with adaptation to climate change. Climate adaptation projects may address ocean acidification and hypoxia, sea level rise, or habitat and restoration and protection. Research and monitoring projects shall be designed to improve the management, protection and/or restoration of coastal and ocean resources. Funding may also be used for technical assistance, community access, and planning and evaluation projects |
| Costal Commission | WHALE TAIL Grants are for projects that focus on coastal and ocean education and stewardship. Projects can take place anywhere in California; you don't have to go to the ocean (although many projects do). Projects that take place away from the ocean should address how the connection to the coast and ocean will be emphasized. Climate change-related projects are eligible, as are projects that engage people in protecting and conserving the coast and ocean through beach cleanups, ecological restoration, or otherwise. |

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| Fish and Wildlife Service | The Coastal Program takes an adaptive approach to designing and implementing coastal habitat protection and restoration strategies that anticipate and ameliorate the impacts of climate change and other environmental stressors. Coastal Program habitat improvement projects strive to increase coastal resiliency by improving the ability of coastal ecosystems to adapt to environmental changes and supporting natural and nature-based infrastructure projects to protect and enhance coastal habitats. |

| Local Cost Share | Call for Projects Date |
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| No cost-sharing or matching is required as a condition of eligibility under this competition. | Tuesday, January 10, 2023 |
| No | February 1, 2023 |
| To be eligible cost share must be used during the term of the grant. There are three tiers of cost sharing for projects depending on the project's sources of money or in-kind ocntributions. | The 2023 FRGP Proposal Solicitation Notice (PSN) includes a required pre-application phase that will be open from January 5, 2023 through February 9, 2023. |

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| No cost share required | June 2022 and monthly thereafter; concepts closing date will be the last day of the month. Concepts will be reviewed monthly starting the 1st of following month and monthly thereafter. |
| Yes, projects funded with P68 funds require a minimum of 20% match of non-State sources unless the grant serves a DAC | June 2022 and monthly thereafter; concepts closing date will be the last day of the month. Concepts will be reviewed monthly starting the 1st of following month and monthly thereafter. |

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| No matching funds required | Friday, December 9, 2022 |
| No matching funds required | Friday, January 6, 2023 |
| No local cost share. | Monday, December 19, 2022 |

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| Per the BIL, the Federal share may be up to 80 percent of the costs of projects located in an urban area. The Federal share may be up to 100 percent of the costs of a project located in a rural area, a historically disadvantaged community, or an area of persistent poverty. | January 5, 2023 |
| Matching funds are listed as part of the scoring criteria, but no matching requirement is listed. | January 2023 |
| There is no mention of cost share, although the application form instructs to include the proposed sources of funding in the preliminary budget. Additionally, part of the project's criteria is that the project leverages non state resources including volunteer work, in-kind support, or partnerships. | The Coastal Conservancy accepts grant applications on an ongoing basis for projects that benefit public access, natural resources, working lands, and climate resiliency on the California coast. |
| This grant will only cover labor and materials, maintenance and operation costs must be solely borne by the local MS4. | On-going. Funding availability evaluated annually on March 1 (2022 NPDES permit attachment D) |

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| MTC allows counties to use 2% of Transit Development Act (TDA) funds collected for TDA 3 projects in their county. Some counties competitively select projects, while other counties distribute the funds to jurisdictions based on population. | You can submit projects and contact the RTPA or equivalent to understand how funds are administered in the region. The MTC delegates project selection to counties. |
| Cost share is not required but may be beneficial, in particular to complete a larger project. Applications with higher proportions of secured cost share contribution towards total project cost will score more points through the “Cost Share” application evaluation criterion. | Continuous grant application process |
| No matching funds required | Wednesday, August 11, 2021 |

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| No matching requirement. Funding method is listed as reimburstent(s) | Monday, October 3, 2022 |
| Not required, but improves chance to be awarded the grant. Limits indirect costs. | Tuesday, November 1, 2022 |
| Required local match is the minimum percentage of the project's funding the applicant commits to provide as a condition of accepting a program grant.<br>The required local match will range from 0% (i.e., no local match required) to 50% of the total grant amount request. The percentage is determined based on the "severity of disadvantage" (SOD) of the community surrounding the project. The guidelines provide how to calculate it. | February 14, 2023 |

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| The Federal share of a SS4A grant may not exceed 80 percent of total eligible activity costs. Recipients are required to contribute a local matching share of no less than 20 percent of eligible activity costs. All matching funds must be from non-Federal sources. | Monday, May 16, 2022 |
| No local cost share. | Spring 2023 (TBD) |
| There is no matching funds requirements, but for the competitive Grant Round, consideration of matching funds is part of proposal evaluation as it is included as part of the proposed project's leveraging ability, which is a Measure AA priority. | The San Francisco Bay Restoration Authority plans to release its next RFP in July 2023 release its next RFP in 2023. |
| Yes, , with a non-Federal cost share of 50% or more of the total project cost | Anticipated for early 2023 |

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| Matching funds in the amount of 25% (or 75%, for eligible septic system upgrades or conversions) of the total project must be secured by the time of grant agreement execution, unless the project qualifies and is approved for a full or partial match waiver. | Monday, October 3, 2022 |
| TBD Fall 2023 | Spring 2023: Grant Applications |
| Not required, but improves chance to be awarded the grant. Limits indirect costs. | Monday, January 24, 2022 |
| Project Sponsor providing significant matching funds is listed as an attribute of cost-effective projects. But no matching requirement listed. | Wednesday, March 4, 2022 |
| Generally, a 50% non-Federal cost share is required for grants under WaterSMART. However, under the EWRP, non-federal cost-share may be 25% dependent on environmental value | Monday, May 2, 2022 |

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| Matching funds are listed as part of the budget forms, but no matching requirement is listed. | Thursday, December 1, 2022 |
| An average local cost share of not less than 50% of the total project costs in a proposal is required. The local cost share requirement may be waived or reduced for projects that directly benefit the water management needs of a DAC or EDA. | Round 2: May 17, 2022 Final Proposal Solicitation package and Guidelines Released; Aug 8 - Open for submittals; Aug 8-Oct 10 - Receive submittals – forms possibly in Google Docs |
| Requires a funding match of 15% | November 1, 2022 |
| Requires a funding match of 50% | November 1, 2022 |

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| In accordance with Public Resources Code section 9084(b)(3), applicants are required to provide at least a 25% match, of which 40% shall be provided in cash. The remainder may be in cash or in kind. For example, a project with a project cost of $1,000 would need to have a minimum $250 in match funding of which $100 is required to be cash and the remainder can be in kind. | Tuesday, September 6, 2022 |

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| At least 50% of the total project cost must come from an eligible match source. | Friday, July 29, 2022 |
| CWSRF are typically distributed as low interest loans. Some loans may be forgiven or outright grants may be distributed. More is expected in the updated guidelines. | Monday, October 3, 2022 |

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| No matching funds required, but having matching funds would make project score more points on eligibility criteria | Tuesday, June 28, 2022 |
| Applications DO NOT require the standard 50% non-federal match for Sea Grant projects. However, applicants are strongly encouraged to combine NOAA federal funding with formal matching contributions and informal leverage from a broad range of sources in the public and private sectors. To this end, applicants should note that cost sharing and leverage of other funds is an element considered in the evaluation criteria. | Tuesday, June 28, 2022 |
| No matching requirement | Tuesday, June 28, 2022 |

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| Two RFAs: a “regular” SFBWQIF RFA for approximately $24 million (50% match requirement) and a “BIL-SFBWQIF” RFA for approximately $5 million that does not require match. Funding for the SFBWQIF is dependent each year on allocations in the federal budget approved by Congress. BIL-SFBWQIF will be $5 million for the years 2022-2026. | EPA is currently accepting applications via two separate RFAs: 1 )EPA’s BIL-SFBWQIF RFA (EPA-I-R9-SFBWQIF-22-02) focuses on inequities in the access to Federal funding and implementation of projects and climate resilience in underserved communities.; 2) EPA’s SFBWQIF RFA (EPA-R9-SFBWQIF-22-01) is accepting applications for approximately $24 million in grant funding to protect and restore San Francisco Bay watersheds and wetlands. |
| Yes, 50% match | Monday, July 18, 2022 |

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| No | Monday, July 18, 2022 |
| No mention of cost sharing scheme but the guidelines mention as part of the application process: Applicants consult with OPC staff and seek matching funding (if needed). | Friday, July 1, 2022 |
| No matching funds required | Tuesday, August 30, 2022 |

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| No matching funds required | Sep 30, 2022  Applications are accepted on a rolling basis between October 1, 2021 and September 30, 2022. In order for applications to be considered for funding in FY22, they must be submitted by June 30, 2022. Applications received after June 30, 2022 may not be awarded until the following fiscal year. |

| Applications Due Date | Tentative Next Round Date |
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| April 10, 2023 at 11:59 PM (Eastern Time) | Current Round Open |
| Pre-proposals are due by 5 pm on Friday, March 31, 2023, via email to grants@scc.ca.gov.<br><br>Applicants invited to submit a full proposal or asked to provide further information on their project will be contacted by May 18th, 2023. | Current Round Open |
| Eligible applicants will be invited to submit a full application by March 11, 2023. The full application deadline is April 20, 2023 at 3:00 p.m. | Current Round Open |

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| Starting Aug 2022; Selected candidates that submitted concept applications will be invited to provide a full application and will be evaluated for potential award on the following award date. Full application closing dates will be:<br>o Summer – August 31, 2022<br>o Fall – November 30, 2022<br>o Winter – February 28, 2023<br>o Spring – May 30, 2023<br>award for a particular full application will be dependent on application submittal date. | Current Round Open |
| Starting Aug 2022; Selected candidates that submitted concept applications will be invited to provide a full application and will be evaluated for potential award on the following award date. Full application closing dates will be:<br>o Summer – August 31, 2022<br>o Fall – November 30, 2022<br>o Winter – February 28, 2023<br>o Spring – May 30, 2023<br>award for a particular full application will be dependent on application submittal date. | Current Round Open |

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| Monday, February 27, 2023 | Current Round Open |
| Friday, March 31, 2023 | Current Round Open |
| Thursday, February 23, 2023 | Current Round Open |

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| Tuesday, February 28, 2023 | Current Round Open |
| March 2023: AHSC Round 7 applications due | Current Round Open |
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| On going (*Full applications should only be submitted if a pre-application has been submitted and an invitation to submit a full application has been received) | On going |
| Friday, December 29, 2023 | On going |

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| On going | On going |
| On going | On going |
| April 28, 2023 by 5:00 PM | Call for projects February 2023 |

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| Thursday, September 15, 2022 | Spring 2023 |
| No earlier than November 2023 (TBD) | Spring 2023 |
| October 2023 | Summer 2023 |
| TBD | Expected next round in 2023 |

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| Monday, December 19, 2022 | Expected next round in 2023 |
| Summer 2023: Awards | Expected next round in 2023 |
| Friday, March 4, 2022 | Expected next round in 2023 |
| Friday, April 22, 2022 | Expected next round in 2023 |
| Thursday, July 28, 2022 | Expected next round in 2023 |

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| Friday, January 20, 2023 | Closed |
| Round 2: August 19, 2022 Fist Deadline of Applications; February 1, 2023 Second Deadline of Applications | Closed |
| Thursday, December 15, 2022 | Closed |
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| Friday, November 18, 2022 | Closed |

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| Thursday, December 15, 2022 | Closed |
| October 2022 | Closed |

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| Friday, October 28, 2022 | Closed |
| Thursday, October 27, 2022 | Closed |
| Friday, October 14, 2022 | Closed |

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| Tuesday, September 20, 2022 | Closed |
| Tuesday, September 20, 2022 | Closed |

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| Tuesday, September 20, 2022 | Closed |
| Letters of Intent due July 29, 2022<br>Full Proposals due October 7, 2022 | Closed |
| November 4, 2022. | Closed |

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| Sep 30, 2022  Applications are accepted on a rolling basis between October 1, 2021 and September 30, 2022. In order for applications to be considered for funding in FY22, they must be submitted by June 30, 2022. Applications received after June 30, 2022 may not be awarded until the following fiscal year. | Closed |

| Applicable for? | Recommended for? | Notes |
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| Federal | CCCWP or Permittees | Priority will be given to projects addressing climate change, disaster resiliency, and /or emergency prepardness; projects on rural areas; and projects involving health impact assessments. |
| State | CCCWP | The Coastal Stories grants build upon our existing Explore the Coast (ETC) program, funding projects that make the outdoors more welcoming to people and communities that face barriers to accessing or enjoying the coast. These communities may include but are not limited to BIPOC people, people with disabilities, immigrant communities, low-income communities, and other historically excluded communities.<br><br>These are the priorities of the Coastal Stories grant program:<br>• Promote a sense of belonging in outdoor spaces by presenting perspectives that include BIPOC and/or other |
| State | Permittees | **Priority 1 Project Types:** Fish Passage at Stream Crossings, Instream Barrier, Modification for Fish Passage, Instream Habitat Restoration, Riparian Restoration, Instream Bank Stabilization, Watershed Restoration (Upslope), Project Design (100% design), Cooperative Rearing, Fish Screening of Diversions, Water Conservation Measures<br>**Priority 2 Project Types**: Monitoring Watershed Restoration (Large-scale), Watershed Evaluation (Large-scale)<br>**Priority 3 Project Types:** Monitoring Watershed (Project-scale), Watershed and Regional Organization, Project Design (Feasibility study), Public Involvement and Capacity Building (Includes AmeriCorps projects), Watershed |

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| Bay Area | Permittees | The RSP's goals include:<br>(1) Protecting, restoring, and enhancing the natural environment of riparian systems.<br>(2) Supporting innovations in green infrastructure that support fish migration improvements, and habitat enhancement that benefit aquatic species, by reconnecting aquatic habitat to help fish and wildlife endure drought and adapt to climate change. |
| State | CCCWP or Permittees | The USRP goals include:<br>(1) Protecting, enhancing, and restoring the natural ecological value of streams;<br>(2) Preventing future property damage caused by flooding and bank erosion;<br>(3) Promoting community involvement, education, and riverine stewardship. |

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| State | CCCWP or Permittees | Webinar was held on 1/21/2022. See website for recording.<br><br>Goals and guidelines change with each solicitation.<br><br>All Conservancy funded grants must<br>advance specific objectives in the Conservancy's Strategic Plan. |
| State | CCCWP | Round 1 has a two-phase application process. First, one representative from each project team must fill out the Request for Full Application - APGP Intent Survey to indicate their intent to apply and gain access to an individualized SharePoint folder. Completed Surveys will be accepted through March 31, 2023. Second, after completing the Intent Survey, applicants must complete a full application. Applicants must submit all application materials to APGP via Microsoft SharePoint **before 5:00 p.m. PT on Friday, March 31, 2023**. |
| State | CCCWP | Examples of activities that may be funded under this priority include but are not limited to:<br>1) Developing a district-wide climate literacy strategy, plan, or framework.<br>2) Building a cadre of formal educators, including Career and Technical Education, to work<br>across the county or districts, to increase knowledge sharing and communication pathways to<br>scale best practices for systemic and sustainable climate literacy programming (aka<br>"Network Weavers") with an emphasis on reaching underrepresented communities |

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| State | Permittees | This program is referred to as the Local and Regional Project Assistance Program in the Infrastructure Investment and Jobs Act ("Bipartisan Infrastructure Law"). The RAISE grant program is described in the Federal Assistance Listings under the assistance listing program title "National Infrastructure Investments" |
| State | Permittees | California Department of Housing and Community Development. |
| State | CCCWP or Permittees | Regional Managers: San Francisco Bay Area (San Francisco, bayside Marin, bayside Sonoma, Napa, Solano, Contra Costa, Santa Clara, and bayside San Mateo counties)<br><br>Moira McEnespy – moira.mcenespy (at) scc.ca.gov |
| State | Permittees | For questions regarding either of these programs, contact the Caltrans NPDES Coordinator for the Caltrans District in which the project is located or Tom Rutsch, Watershed Manager - North<br>916-753-7396 or tom.rutsch@dot.ca.gov<br>for projects in Caltrans Districts 1, 2, 3, 4, 6, and 10 |

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| Bay Area | Permittees | The Roadmap of Funding Solutions for Sustainable Streets contained several MTC funding sources, which seem to have closed, we would need to review ad revise the specific sources. |
| State | CCCWP or Permittees | Goals and Objectives includes the following benefits: Conserved or enhanced water-related projects; Projects should also contribute to the State's priorities such as protecting biodiversity, increasing climate resilience, providing access for all, and expanding nature-based solutions. Applicants do not need to determine which WCB Grant Program or Funding Source to apply to; rather, WCB staff will determine that during application review. |
| State | Permittees | To be eligible for the Program funding, projects must be designed to benefit small communities and rural communities. Eligible projects must address one or more program objectives. Eligible projects must be designed to provide interim or immediate relief to small communities that are not served by an Urban Water Supplier. |

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| Federal | Permittees | Applicants are eligible for grant funding if they meet the eligibility criteria described in the annual CWSRF IUP. Generally, applicant agencies must serve a population less than 20,000. The community median household income (MHI) is less than 60% of the statewide MHI, or The community MHI is less than 80% of the statewide MHI and the community's sewer rates are at least 1.5% of their MHI. |
| State | CCCWP or Permittees | The application process begins with a concept proposal submitted through CDFW's WebGrants(opens in new tab) portal. CDFW will review concept proposals as received. Upon review, CDFW will contact applicants regarding next steps. Applicants awarded funding will work with CDFW to develop a grant agreement. If applicable, CDFW will contact applicants if proposals are deemed not sufficient and need additional information. |
| State | CCCWP or Permittees | The goals of the Clean CA Local Grant Program are to:<br><br>Reduce the amount of waste and debris within public rights-of-way, pathways, parks, transit centers, and other public spaces.<br>Enhance, rehabilitate, restore, or install measures to beautify and improve public spaces and mitigate the urban heat island effect.<br>Enhance public health, cultural connection, and community placemaking by improving public spaces for walking and recreation.<br>Advance equity for underserved communities. |

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| State | CCCWP | This grant includes action plan grants and implementation plan grants |
| State | CCCWP | |
| Bay Area | Permittees | |
| Federal | CCCWP or Permittees | |

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| State | Permittees | Typically excludes projects required for compliance with an NPDES permit. Projects which include activities under a MS4 may be eligible if they are excluded or exempt from the MS4 permit.<br>Regional Water Board staff ultimately determine whether proposals meet regional program preferences so applicants who discuss their proposals with Regional Water Board staff generally have a higher chance of being selected for funding.<br>Eligibility requirements for the CWA 319 grant and Timber Fund are different. |
| State | CCCWP or Permittees | |
| State | CCCWP or Permittees | |
| Bay Area | Permittees | Each year, the Air District's Board of Directors updates to the priorities and policies. Solicitations and Call for Projects are issued following the Board's approval. 40% of the funds are distributed through the local congestion management agency - CCTA. |
| State | Permittees | Funding is allocated through annual competitive processes |

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| California Coastline | Permittees | Funded projects help produce the following outcomes:<br><br>Increased ocean stewardship, engagement, compliance, and leadership<br>Increased docent and educator capacity<br>Reduced illegal take of marine life in MPAs<br>Increased diversity of stakeholders engaged, including both traditional and non-traditional audiences as well as underserved audiences (e.g., the recreational fishing community) |
| State | CCCWP or Permittees | These Program Preferences and Priorities will be taken into consideration during the review process: California Water Code Program Preferences: leverage funds, employ new or innovative technology or practices, implement IRWM plants with greater watershed coverage. Statewide Priorities: utilize natural infrastructure such as forests and floodplains, encourage regional approaches among water users sharing watersheds, drought preparedness, climate resilience, strengthen partnerships with local, federal, and Tribal governments, water agencies and irrigation districts, and other stakeholders. |
| California Coastline or within SF Bay | Permittees | |
| California Coastline or within SF Bay | Permittees | |

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| State | Permittees | The Department will prioritize projects that address the following:<br>• Projects that achieve the program's restoration and enhancement goals while not impeding agricultural activities on the larger property<br>• Projects that provide connectivity by being directly adjacent to or within a planned conservation corridor that connects:<br>o existing intact habitat<br>o other protected lands<br>o public trails or access points<br>• Restoration of endemic and/or endangered species habitat in areas where those species are known to occur<br>• Protection of riparian corridors in perpetuity<br>• Facilitation of wildlife conservation on public lands or through voluntary projects on private lands<br>• Location in an area where significant degradation has occurred in the past<br>• Improvements in water quality<br>• Efficient use and conservation of water supplies<br>• Use of recycled water<br>• Capture of stormwater to reduce runoff, reduce water pollution, or recharge groundwater supplies<br>• Provision of safe and reliable drinking water supplies to park and open space visitors |

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| State | Permittees | Eligibility Requirements:<br><br>Projects must be located in urban cities and towns with at least 30,000 people.<br>Projects must involve land acquisition or development for outdoor recreation.<br>Projects must be in a community with a poverty rate of at least 20%.<br>Project sites that have received LWCF funding and were closed out in the last 7 years are not eligible. Project sites that have one active ORLP grant are eligible to apply for one additional grant at that site.<br>At least 50% of the total project cost must come from an eligible match source.<br>All non-federal (state, local, or private) sources.<br>The only federal sources that are eligible as match for this program are Community Development Block Grants (CDBG), Fixing America's Surface Transportation (FAST) Act funding, and Readiness and Environmental Protection Integration Program (REPI) funding.<br>For Round 6 A and B, ORLP requires applications that already have complete Section 106 and NEPA Environmental documents. |
| Federal | Permittees | The BIL has two sections that apply to stormwater projects. Other sections of the BIL address sanitary overflows and water resilience; stormwater projects that address these issues may be eligible, especially if partnered with water/wastewater agencies. Includes Federal Sewer Overflow and Stormwater Reuse Municipal Grants Program. |

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| State | Permittees | Program not intended to cover any mandatory mitigation projects. |
| Federal | Permittees | This competition will support innovative research to application (R2A) projects that will address the prevention and/or removal of marine debris and provide the potential for transformational behavior change. “Research to application” or R2A refers to research that transitions into tangible outputs. A strong application will clearly outline how the project will produce new and effective deliverables that change the landscape for marine debris prevention and/or removal. |
| Federal | Permittees | These two priorities will be reviewed as separate, parallel tracks under this funding opportunity, and they have different application requirements, described in this NOFO, that applicants must adhere to. Applicants wishing to compete under both priorities must submit separate applications for each. Funding will be split across the two priorities. While NOAA anticipates a greater portion of funding going to Priority 1, the specific funding split will depend on the merit of submitted applications. |

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| Bay Area | CCCWP or Permittees | Projects tracked in three categories: restoring wetlands, restoring water<br>quality, and greening development. This year (2022), in addition to long-standing funding priorities such as beneficially reusing dredged sediments and multi-benefit projects that improve shoreline and watershed resiliency, EPA is soliciting applications under BIL- SFBWQIF RFA to provide funding to underserved communities and for projects that have the maximum positive impact for underserved communities. |
| Bay Area | Permittees | Implementation projects should be based on existing plans, such as a restoration plan, a Total Maximum Daily Load Implementation Plan, a watershed plan or a stormwater/green infrastructure plan. All project proposals must be consistent with the San Francisco Estuary Partnership's (SFEP) Comprehensive Conservation and Management Plan (CCMP) and must indicate the CCMP objective(s) and action(s) to be implemented under the project. Additional consideration will be given to projects that address these concerns in underserved and overburdened communities within San Francisco Bay. |

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| Bay Area | CCCWP | Applications that identify the true cost of community engagement in their budgets to ensure community support of a restoration project is evidence of meaningful engagement. |
| State | Permittees | An informational webinar for prospective applicants was held on July 7, 2022. Mentioned in the guidelines: Priority will be given to projects with components that emphasize the efficient use and conservation of water supplies, use of recycled water, capture of stormwater, or carbon sequestration features in project design. |
| State | CCCWP | Things we can't fund: Grants will not be awarded to provide for an organization's general,<br>ongoing administrative costs; to fund political advocacy work; for projects that include<br>religious content in their programming; for travel outside of California; or for the purchase<br>of vehicles, insurance, prizes or cash gifts, or items that will be sold.<br>• Educational Focus: The WHALE TAIL® Grants Program focuses on education about coastal and |

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| State | Permittees | |

| News | Website | Website2 |
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| EJG2G Live Webinar: Applicants may ask general questions about this RFA. February 7, 2023 2:00 - 3:30 pm Eastern https://usepa.zoomgov.com/j/1607862778#success Join the February 7, 2023 EJG2G Webinar. Registration is NOT required. | https://www.epa.gov/system/files/doc | https://www.epa.gov/environmentaljustice/environmental-justice-government-government-program |
| The Conservancy will hold an informational webinar on Wednesday, February 15, 2023, from 12 PM-1 PM to walk through the Coastal Stories Grant Program and address common questions regarding the application. The registration link for the webinar is through this link: https://scc-ca-gov.zoom.us/webinar/register/WN_-_SAdfC3QzST7NkNrGjVXw The recorded webinar will be posted on scc.ca.gov afterward. | https://scc.ca.gov/2023/02/01/coastal-stories-2023-rec | |
| | https://wildlife.ca.gov/Grants/FRGP/Sc | https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=207453&inline |

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| | https://water.ca.gov/rspgrants | https://water.ca |
| | https://water.ca.gov/rspgrants | https://water.ca |

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| February 8, 2023: Technical Assistance Office Hour registration link is https://scc-ca-gov.zoom.us/meeting/register/tZ0qf-Cvpz8tG9MsdqxSkF-pqNyFLmGIv3Ej | http://scc.ca.gov/grants/proposition-1 | https://scc.ca.g |
| | https://www.grants.ca.gov/grants/inte | https://www.op |
| | https://www.noaa.gov/office-educatio | https://www.nc |

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| Please be aware that you must complete the Grants.gov registration process before submitting the Final Application, and that this process usually takes 2-4 weeks to complete. Applicants are encouraged to start the Grants.gov registration process as soon as possible. | https://www.transportation.gov/RAISE | https://www.tra |
| September-October 2022: Draft Guidelines released for Public Comment<br>October 2022: Draft Guidelines Workshops (Northern and Southern CA)<br>December 2022: Final Guidelines adopted<br>January 2023: NOFA released<br>March 2023: AHSC Round 7 applications due | https://www.sgc.ca.gov/programs/ahs | https://www.sg |
| A webinar was held on November 9, 2022 on Conservancy funding and how to apply for our grants.<br><br>The slides used in the webinar can be found here: https://scc.ca.gov/files/2022/11/SCC-Nov-9-Grant-Webinar.pdf | https://scc.ca.gov/grants/ | https://scc.ca.g |
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| | https://mtc.ca.gov/funding/regional-funding/tda-sta/bi | |
| | https://wcb.ca.gov/Grants | https://nrm.dfg. |
| There will be no formal proposal solicitation for this Program. Small communities impacted by the drought are encouraged to apply as soon as possible. Applications for funding will be accepted on a first-come, first-served basis until all the funds are awarded, or until December 29, 2023, whichever comes first. No applications will be accepted after December 29, 2023. | https://water.ca.gov/-/media/DWR-W | https://www.gra |

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| | https://www.grants.ca.gov/grants/clea | https://www.wa |
| CDFW will host an online workshop Thursday, February 23, 2023, from 10:00 a.m. to 12:00 p.m. to provide an update on grant funding available for restoration projects as well as permitting tools through CDFW's Cutting the Green Tape Program. Link here: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=209342&inline | https://www.wildlife.ca.gov/conservat | https://nrm.dfg |
| **Cycle 2**: Call for Projects in January 2023 (date still TBD). No action is needed from applicants on the Call for Projects, that is just the day that the final guidelines and application materials will be published. Applications will be due in April 2023 (date still TBD) | https://cleancalifornia.dot.ca.gov/local | https://cleancali |

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| | https://www.transportation.gov/grant | https://www.tra |
| **December 2022 Update:** web page will be updated soon with 2023 Round Two information. | https://www.parks.ca.gov/pages/1008 | https://www.pa |
| The San Francisco Bay Restoration Authority plans to release its next RFP in July 2023 with proposals due in October 2023. | https://www.sfbayrestore.org/restorat | https://www.sfb |
| Monday, February 6, 2023, from 2-3:30 pm MST to discuss eligible applicants and project types, program requirements, and the evaluation criteria for the Environmental Water Resources Projects funding opportunity and the new Aquatic Ecosystems Restoration Program | https://www.usbr.gov/watersmart/ewrp/index.html | |

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| | https://www.waterboards.ca.gov/wate | https://www.wa |
| | https://opr.ca.gov/climate/icarp/grant | https://opr.ca.g |
| | https://www.wildlife.ca.gov/conservat | https://nrm.dfg |
| | https://ccta.net/projects/transportatio | https://www.sf |
| | https://www.grants.gov/web/grants/v | https://www.us |

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| | https://www.coastal-quest.org/mpa-o | https://www.co |
| The Bay Area IRWMP (BAIRWMP) Coordinating Committee (CC) presented the schedule for the Prop 1 Round 2 project submittal schedule:<br>Aug 8 Open for submittals<br>Aug 8-Oct 10 Receive submittals – forms possibly in Google Docs<br>Nov 21 Screening committee completes ranking for BA IRWMP projects<br>Dec 5 Nov/Dec combined CC meeting used to approve the project list.<br>Dec-Jan BA IRWMP will fill out the State application | https://water.ca.gov/Work-With-Us/G | https://water.ca |
| | https://www.grants.ca.gov/grants/division-of-boating-a | |
| | https://www.grants.ca.gov/grants/divi | https://dbw.par |

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| | https://www.conservation.ca.gov/dlrp | https://www.co |

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| | https://www.parks.ca.gov/?page_id=30578 | |
| | https://www.waterboards.ca.gov/wate | https://www.ep |

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| Application deadline extended to October 28, 2022 | https://www.grants.gov/web/grants/view-opportunity. |
| | https://www.grants.gov/web/grants/view-opportunity. |
| | https://www.grants.gov/web/grants/view-opportunity. |

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| EPA is hosting a series of drop in support sessions. on MS Teams<br>August 18, 2-3 PM<br>August 23, 9-10 AM<br>August 31, 2-3 PM<br>Sept. 7, 11 AM-12 PM<br>Sept. 13, 10-11 AM<br>https://teams.microsoft.com/l/meetup-join/19%3ameeting_Zjk5ZmJkOGMtZTI0ZS00MDQwLWI1YWEtOGEwZjk2NjUwOWYy%40thread.v2/0?context=%7b%22Tid%22%3a%2288b378b3-6748-4867-acf9-76aacbeca6a7%22%2c%22Oid%22%3a%22cceb2295-70a4-448f-99cc-6c856a56d9c1%22%7d | https://www.epa.gov/sfbay-delta/san- | https://www.ep |
| | https://www.epa.gov/system/files/documents/2022-07 | |

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| | https://www.epa.gov/system/files/documents/2022-07 | |
| Current Round Passed, Next competitive solicitation expected July-September 2024 | https://www.grants.gov/web/grants/v | https://www.op |
| | https://www.coastal.ca.gov/whaletailgrant/faq.html | |

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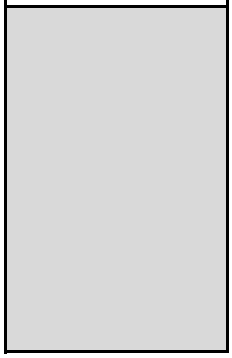
| | https://www.grants.gov/web/grants/v | https://apply07. |

**Website3**



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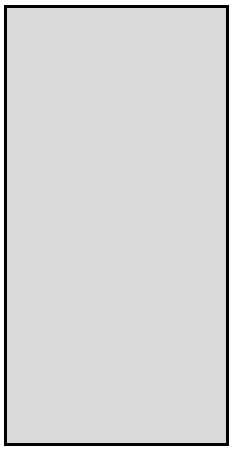


https://www.grants.ca.gov/grants/riverine-stewardship-program/

https://www.grants.ca.gov/grants/riverine-stewardship-program/

https://scc.ca.gov/files/2022/12/ETC-2023-24-RFP-Instructions.pdf

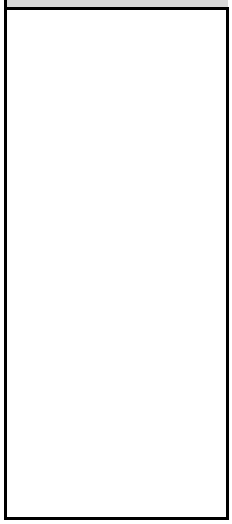
r.ca.gov/climate/icarp/grants/adaptation-planning-grant.html

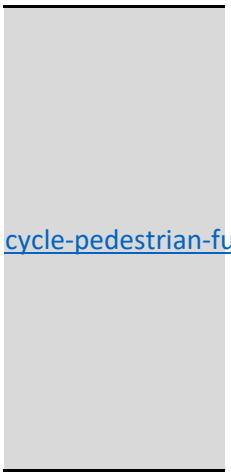
https://nmssanctuaries.blob.core.windows.net/sanctuaries-prod/media/docs/2023-bwet-notice-of-federal

https://www.grants.gov/web/grants/search-grants.html?keywords=20.933

c.ca.gov/programs/ahsc/resources/

https://scc.ca.gov/2019/10/08/grant-application-and-award-process/





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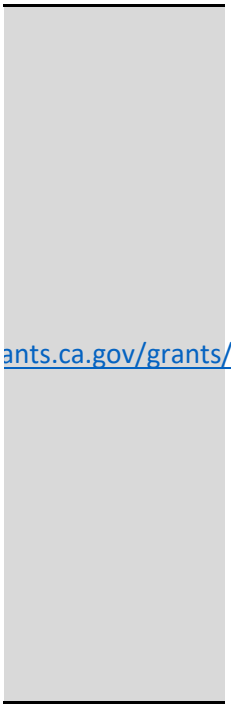
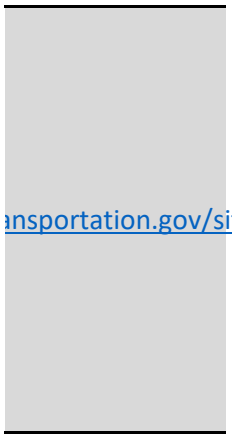


ants.ca.gov/grants/small-community-drought-relief-program/

https://www.waterboards.ca.gov/water_issues/programs/grants_loans/docs/2022/cwsrf-iup-sfy2022-23-f

https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=205945&inline

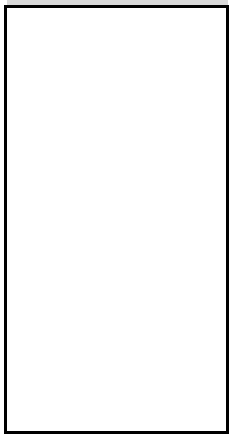
ifornia.dot.ca.gov/-/media/cleancalifornia-media/documents/local-grant-program/guidelines/program-guid



ansportation.gov/sites/dot.gov/files/2022-05/SS4A-Notice-of-Funding-Opportunity-FY-2022.pdf

rks.ca.gov/?page_id=30443

bayrestore.org/sites/default/files/2021-07/Round%205%20RFP%202021_0.pdf



https://www.waterboards.ca.gov/water_issues/programs/nps/docs/319grants/2022/Solicitation-Notice-2(

https://opr.ca.gov/climate/icarp/grants/docs/20221108-RRGP_Engagement_Summary.pdf

http://deltaconservancy.ca.gov/prop-1/

https://www.sfcta.org/funding/transportation-fund-clean-air#panel-open-call

https://www.usbr.gov/watersmart/weeg/

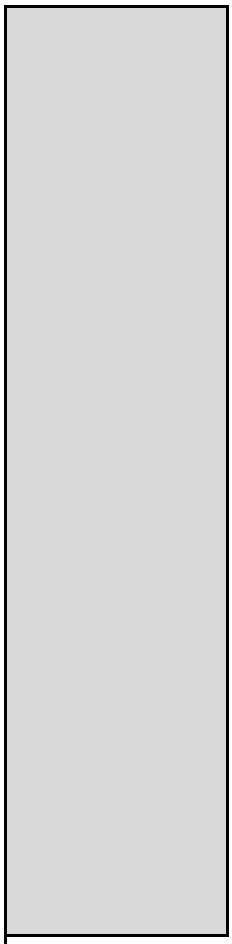
astal-quest.org/wp-content/uploads/2022/11/FINAL_Grant-Guidance.pdf

https://water.ca.gov/-/media/DWR-Website/Web-Pages/Work-With-Us/Grants-And-Loans/IRWM-Grants/

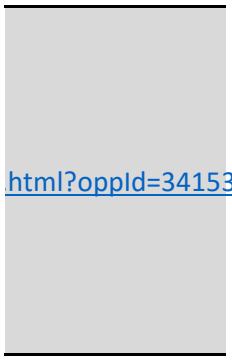
and-waterways-public-beach-restoration-program-fy24/

ks.ca.gov/?page_id=28766

https://www.grants.ca.gov/grants/2022-working-lands-and-riparian-corridors-program-riparian-restoratior



https://www.epa.gov/infrastructure/fact-sheet-epa-bipartisan-infrastructure-law



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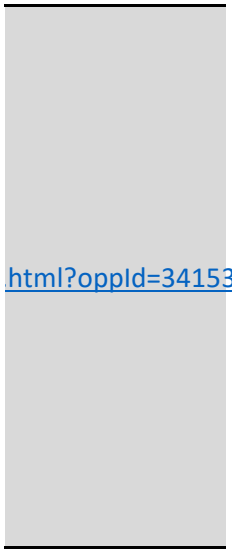

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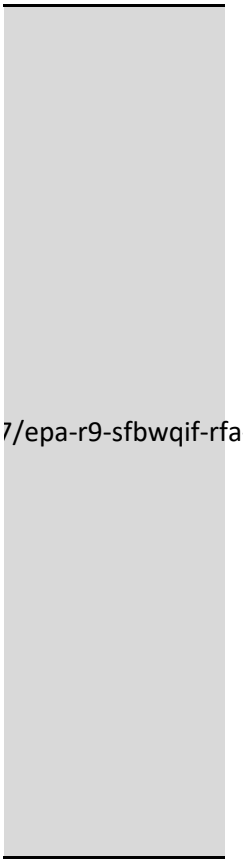
a.gov/sfbay-delta/san-francisco-bay-water-quality-improvement-fund-2022-requests-applications-now-ope



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7/epa-r9-sfbwqif-rfa-EPA-R9-SFBWQIF-22-01-2022-07-18.pdf

https://www.opc.ca.gov/webmaster/_media_library/2022/06/MPA-and-Climate-Solicitation-508.pdf

.grants.gov/apply/opportunities/instructions/PKG00270830-instructions.pdf

Files/Prop-1-Implementation/Round-2/Accessible-Implementation-Grant-Proposal-Solicitation-Package-

-v2.pdf

CONTRA COSTA CLEAN WATER PROGRAM

**Date:** February 15, 2023

**To:** Management Committee

**From:** Lisa Welsh (Geosyntec), Augmented Staff for Monitoring Committee

**Subject:** Update on Urban Creeks Monitoring Report: Water Year 2021 – 2022 (October 1, 2021 – September 30, 2022).

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## Recommendation:

Accept update on the status of the WY2022 Urban Creeks Monitoring Report (UMCR) and provide Staff with any comments. The link to the Groupsite folder for the Old Industrial Control Measure Plan is provided to preview the report prior to the Management Committee review in early March.

## Background:

The Contra Costa Clean Water Program (CCCWP) gathers and reports monitoring data to help Permittees comply with the Municipal Regional Stormwater NPDES Permit (MRP). The data provides valuable information that can help make water quality management and prioritization decisions. MRP 3.0 Provision C.8.h requires reporting of monitoring data collected each Water Year (WY, the period October 1 - September 30), including the following elements:

- C.8.g.ii – Electronic reporting
- C.8.g.iii – Urban Creeks Monitoring Report

The WY2022 UCMR complies with MRP 3.0 Provision C.8.h.iii for reporting of data collected in WY2022 (Oct. 1, 2021-Sept. 30, 2022). As MRP 3.0 became effective July 1, 2022 – at the start of the fourth quarter of WY 2022 - data were collected pursuant to Provision C.8 of MRP 2.0 and MRP 3.0.

## Report Outline:

The UCMR follows the structure specified in Provision C.8.g.iii and the table of contents is provided in Attachment 1.

The UCMR includes the Umbrella Report and the following Appendices:

- Appendix 1 – LID Monitoring Status Report
- Appendix 2 – Trash Monitoring Progress Report
- Appendix 3 - Regional/Probabilistic Creek Status Monitoring Report
- Appendix 4 - Local/Targeted Creek Status Monitoring Report
- Appendix 5 – Pollutants of Concern Monitoring Report
- Appendix 6 – East County Mercury Monitoring Plan
- Appendix 7 – Pollutants of Concern Receiving Water Limitations Assessment Report
- Appendix 8 – Stormwater Monitoring Strategy for Contaminants of

## Schedule:

The UCMR must be submitted to the Regional Water Board (RWB) by March 31, 2023. In recent years, the Monitoring Committee reviewed the preliminary draft UCMR in January and a revised draft of the UCMR with the Management Committee in February. Due to several new MRP 3.0 C.8 monitoring reporting and planning requirements this year, the UCMR review schedule is delayed by one month. Monitoring Committee will review the Draft UCMR in February and Monitoring and Management Committee will review the Final Draft UCMR in the first half of March.

Staff is planning to share the Draft UCMR products in three stages for Monitoring Committee review in February, following the schedule below.

1. Shared on February 6 with Permittee comments due on February 20:
    a. Umbrella Report
    b. Appendix 3 - Regional/Probabilistic Creek Status Monitoring Report
    c. Appendix 4 - Local/Targeted Creek Status Monitoring Report
2. Shared on February 13 with Permittee comments due on February 27:
    a. Appendix 1 – LID Monitoring Status Report
    b. Appendix 7 – Pollutants of Concern Receiving Water Limitations Assessment Report
    c. Appendix 8 – Stormwater Monitoring Strategy for Contaminants of Emerging Concern
3. Shared on February 20 with Permittee comments due on March 1:
    a. Appendix 2 – Trash Monitoring Progress Report
    b. Appendix 5 – Pollutants of Concern Monitoring Report
    c. Appendix 6 – East County Mercury Monitoring Plan

The Final Draft UCMR will be shared of March 6 and presented for approval to the Management Committee on March 15. The UCMR will be submitted to the RWB by March 31, 2023.

**Where to find the UCMR:**

Draft and Final Draft UCMR products will be posted on GroupSite for Permittee review, available at: https://cccleanwater.groupsite.com/folders/293799

**Fiscal Impact:**

None.

**Attachments:**

1. WY2022 UCMR Table of Contents
2. GroupSite folder for draft and final draft WY2022 Urban Creeks Monitoring Report products: https://cccleanwater.groupsite.com/folders/293799

# Table of Contents



## Appendices



## Attachment

CONTRA COSTA CLEAN WATER PROGRAM

**Date:** February 15, 2023

**To:** Management Committee

**From:** Lisa Welsh (Geosyntec), Augmented Staff for Monitoring Committee

**Subject:** Update on Contra Costa County Old Industrial Control Measure Plan

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## Recommendation:

Accept update on the Contra Costa County Old Industrial Control Measure Plan and provide Staff with any comments. The link to the Groupsite folder for the Old Industrial Control Measure Plan is provided to preview the report prior to the Management Committee review in early March.

## Background:

The Old Industrial Area Control Measure Plan (Plan) will present the old industrial area implementation plan for the CCCWP Permittees to meet mercury and polychlorinated biphenyls (PCBs) load reduction requirements. MRP 3.0 Provisions C.11.c.iii.(1) and C.12.c.iii.(1) require a report providing plans and schedules for implementing control measures in old industrial areas to address mercury and PCBs load reduction requirements included in MRP Provisions C.11.c and C.12.c. This report will include maps of the areas where control measures will be implemented, the size of the treated catchments, and a description of design and sizing features for the selected control measures.

Preliminary results indicate that the planned treated area and loads reduced exceed the MRP 3.0 permit requirement to treat 664 acres of old industrial or moderate area or reduce mercury loads by 28 g/yr and PCBs loads by 121 g/yr.

## Report Outline:

The Table of Contents for the Old Industrial Control Measure is provided in Attachment 1.

## Schedule:

The Old Industrial Control Measure Plan must be submitted to the Regional Water Board (RWB) by March 31, 2023. Monitoring Committee will review the Draft Plan in February and Monitoring and Management Committee will review the Final Draft Plan in early March. The Draft Plan will be shared for review on February 13 and with comments due on February 27.

The Final Draft Plan will be shared with Monitoring and Management Committee on March 6 and presented for approval to the Management Committee on March 15. The Plan will be submitted to RWB on March 31, 2023.

**Where to find the Old Industrial Control Measure Plan:**

Draft and Final Draft Plan will be posted on GroupSite for Permittee review, via the link below. It is anticipated that the Draft Plan will be uploaded to the folder on February 13 at: https://cccleanwater.groupsite.com/folders/293800

**Fiscal Impact:**

None.

**Attachments:**

1. Old Industrial Control Measure Plan - Table of Contents
2. GroupSite folder for Draft and Final Draft Old Industrial Control Measure Plan: https://cccleanwater.groupsite.com/folders/293800

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