



MEMORANDUM

DATE: July 11, 2023 Project No.: 592-60-23-16

TO: Russian River Watershed Association Technical Working Group

FROM: Vanessa Apodaca, Staff Engineer, PE 78424

REVIEWED BY: Andy Rogers, RRWA Executive Director

SUBJECT: Trash Capture Information Gathering

OVERVIEW

The North Coast Regional Water Quality Control Board is expected to include additional trash provisions as part of the National Pollutant Discharge Elimination System (NPDES) permit renewal process. In advance of permit renewal, the Russian River Watershed Association (RRWA) Technical Working Group (TWG) requested that RRWA staff seek input from various agencies throughout California on major takeaways, successes, and failures of any trash capture ordinances.

Through calls and online research of cities and counties throughout California, no specific trash capture ordinances were identified. Instead, most municipalities researched had a stormwater ordinance in which pollutant language may be interpreted to control trash. Very little language on trash capture was found in agencies' municipal codes.

INFORMATION GATHERING

To collect information on trash capture policies, RRWA staff contacted various cities and counties in California and conducted online research. In addition, RRWA staff contacted the State Water Resources Control Board (SWRCB) to seek state-level knowledge on stormwater programs involving trash reduction. Table 1 below displays the agencies information was gathered from.

Table 1. Contact Summary		
Agencies	Method of Information Gathering	Regional Water Board Number
State Water Resources Control Board	Phone, Email, Online Research	N/A
County of Placer	Phone, Email, Online Research	5
City of Salinas	Phone, Online Research	3
City of Oakland	Phone, Online Research	2
City of Newark	Phone, Online Research	2
Vallejo Flood and Wastewater District	Email, Online Research	2
City of Pinole	Email, Online Research	2
City of Richmond	Online Research, Phone Attempted	2
City of Los Angeles	Online Research, Phone Attempted	4
City of Manhattan Beach	Online Research	4
City of Petaluma	Online Research	2
City of Sacramento	Online Research	5
City of San Luis Obispo	Online Research	3
City of Morro Bay	Online Research, Phone Attempted	3
City of Ukiah	Online Research	1
City of Costa Mesa	Online Research	8
Town of Windsor	Online Research	1
City of San Diego	Online Research, Phone Attempted	9

Staff also attempted to reach by phone the following agencies: City of Santa Cruz, Mendocino County, City of Carpinteria, and County of Marin.

MAJOR TAKEAWAYS

Trash Capture Ordinances

Through speaking with, emailing, and researching various agencies’ websites, no agencies were found to have a specific trash capture ordinance. Municipal codes researched include stormwater ordinance language regulating discharge to waterways and pollutants City of Pinole’s ordinance was found to include language on trash capture devices.

The City of Pinole responded to California’s Municipal Regional Stormwater Permit Order No. R2-2015-0049, which was a state mandate requiring permittees to achieve 100% litter reduction in waterways by 2022, by amending their stormwater ordinance in 2017 to include language on trash capture and trash capture devices. The City of Pinole amended Pinole Municipal Code Sections (PMCS) 8.20.020, 8.20.050, 8.20.060, and 8.20.090 to require property owners to install and maintain full trash capture devices for any stormwater inlets at paved areas which drain to the City’s collection system. PMCS 8.20.090 is attached as Attachment A. The City of Pinole has not responded to RRWA staff’s inquiries about major takeaways from this ordinance.

The SWRCB representative indicated that it is difficult to anticipate what language a Regional Board will include in permits they issue, so it can be difficult to do research ahead of time on how to create a trash capture ordinance that will align and comply with said permit.

Encouraging Trash Capture Implementation

Although the agencies researched did not have a specific trash capture ordinance, RRWA staff inquired about other ways trash capture has been implemented or encouraged.

The City of Newark requires trash capture device installation during the plan approval process for new developments and improvement projects. The City of Newark may enact a trash capture ordinance for areas where trash is a problem in the future, but they have no immediate plan to do so. Newark would rather have property owners remove trash than install trash capture devices.

Similar to City of Newark, the City of Salinas uses the development review process to encourage developers to install trash capture devices, specifically screens, in their stormwater control design. Sometimes the developers comply, and sometimes they do not.

Enforcement

As noted by the SWRCB representative, it can be difficult for an inspector to issue a fee to any violator of trash or pollutant discharge without an ordinance in place. The County of Placer has a Stormwater Quality Ordinance that does not mention trash specifically, but their inspector references this ordinance for any illicit or polluting discharges. If the inspector gets notified of an illicit discharge, they first send a strongly worded letter indicating that if not corrected, potential violators would be referred to Placer County Code Enforcement or reported to SWRCB. In Placer County’s experience, this typically results in compliance.

Economic Feasibility of Trash Capture Implementation

Another topic brought up through discussions and research was the cost associated with installing trash capture devices. Trash capture devices can be costly, and mandating developers to install these features may be a disincentive to redevelopment and growth.

For example, City of Salinas staff noted that creating an ordinance for trash capture devices is not economically feasible because their town is trying to encourage development. Trash capture may be an additional barrier for development and would not encourage the city's growth.

The City of Oakland also discussed the high cost for installing trash capture devices, including the cost of siting studies, design, construction, and maintenance. Without proper maintenance of the trash capture area, drainage issues and flooding can occur and cause more costly issues. Oakland Public Works staff indicated that permit provisions resulted in substantial effort and cost to develop trash assessment methodology and mapping high-trash areas, resources that could have been directed to trash removal implementation. City of Oakland recommended focusing efforts on restaurants, gas stations, and bus stops.

According to a *Richmond Confidential* article (10/3/2018), the City of Richmond reduced 80 percent of its trash entering storm drains, thanks to a mix of trash bans, trash-filters and community projects. The city installed two trash capture devices in underground storm drain pipes which capture waste carried in stormwater runoff from 950+ acres of land, including part of Interstate 580. The City found the devices to be expensive to install and challenging to site, because they are ideally located where they can capture the most trash for their cost. (<https://richmondconfidential.org/2018/10/03/richmond-leads-way-in-effort-to-prevent-trash-from-entering-the-bay/>)

Public Perception and Behavior

In addition to codifying and enforcing trash capture and improving technology to make trash capture devices more effective, starting at the source by encouraging the public to create less trash and stop littering also is an important aspect of trash management programs.

City of Oakland had challenges with public perception and behavior. City staff felt that once trash capture devices were installed, people had the idea that they could continue to litter because the devices would capture and remove the trash. Oakland staff suggested an effective trash reduction program should include public outreach and education, increased trash receptacles, and reduced fast-food packaging. The most cost-effective trash reduction strategies should include a "start-at-the-source" approach by changing people's behaviors to reduce litter.

According to the previously noted *Richmond Confidential* article, the City of Richmond is pairing local trash laws and trash capture devices with their Love Your Block program, which funds

residents' local cleanup projects. The City of Richmond was not able to be reached for input on the outcomes of this program.

Trash Reduction Ordinances

Though not specific to trash capture, various other ordinances regarding trash reduction were found. City of Los Angeles' Municipal Code, Article 3 - Disposable Foodware Accessories and Plastic Drinking Straws prohibits the use of polystyrene food service ware. Other ordinances prohibit the use of plastic straws. Similarly, there is a statewide ban on single use plastic bags. The City of Sacramento also codified trash-free food truck service.

Trash Capture Implementation Resources

RRWA staff has extensive trash capture design experience and is available to share experience and expertise in trash capture technology, design, and installation.

CASQA has an electronic Trash Control Measure Implementation Guide for purchase (\$115 for Members, \$215 for Non-Members) that may be of help for implementing a trash capture plan. A copy may be purchased through RRWA.

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Attachment A

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1. Floating, suspended or deposited macroscopic matter or foam;
2. Bottom deposits or aquatic growth;
3. Alterations of temperature, sediment load, nutrient load, or dissolved oxygen, which cause significant adverse impacts to native aquatic biota;
4. Visible, floating, suspended or deposited oil or products of petroleum origin; or,
5. Substances present in concentrations or quantities which cause deleterious effects on aquatic biota, wildlife or waterfowl, or which render any of these unfit for human consumption. (Ord. 2004-16 § 1(part), 2004).

8.20.090 REDUCTION OF POLLUTANTS IN STORMWATER.

Any person owning or operating premises that may contribute pollutants to the City's stormwater system shall undertake best management practices to reduce the potential for pollutants entering the system to the maximum extent practicable. Examples of such premises include, but are not limited to, parking lots, gasoline stations, industrial facilities, and other commercial enterprises. Further, where best management practices or other requirements have been adopted by and federal, state, regional, City or county agency, for any activity, or operation of premises, which may cause or contribute to non-stormwater discharge, every person undertaking such activity, operation, or owning and operating such premises, shall comply with such BMPs or requirements. The City may require the owner of any premises regulated by this chapter to enter into a long-term covenant or agreement, in a form approved by City, to ensure the operation and maintenance of any facilities required hereunder, including without limitation a Full Trash Capture System, in compliance with the provisions of this chapter.

A. Littering. No person shall throw, deposit, leave, keep or permit to be thrown, deposited, placed, left or maintained, any refuse, rubbish, garbage or other discarded or abandoned objects, articles, or other litter in or upon any street, alley, sidewalk, stormwater system, creek, fountain, pool, lake, stream, river or any other body of water, business place, or upon any public or private plot of land in the city so that the same might become a pollutant, except in containers or in lawfully established waste disposal facilities.

The occupant or tenant, or in the absence of occupant or tenant, the owner or proprietor of any real property in the City in front of which there is a paved sidewalk shall maintain said sidewalk free of dirt or litter to the maximum extent practicable. Sweepings from the sidewalk shall not be swept or otherwise made or allowed to go into the gutter or roadway, but shall be disposed of in receptacles maintained as required for the disposal of solid waste.

B. Bodies of Water. No person shall throw or deposit litter in any fountain, pool, lake, creek, stream, river or any other body of water in a park or elsewhere within the City.

C. Maintenance of Premises and Landscaped Areas. Persons owning, operating, or maintaining premises, including landscaped areas, shall implement best management practices to minimize the release of pesticides, fertilizers, herbicides, and other related materials used to maintain landscaping and related facilities. Persons owning, operating, or maintaining premises shall further implement best management practices to minimize the release of litter, trash, or other refuse.

D. Standard for Parking Lots, Paved Areas and Related Stormwater Systems. Persons owning, operating or maintaining a paved parking lot, the paved areas of a gas station, a paved private street or road and related stormwater systems shall clean those premises as frequently and thoroughly as practicable in a manner that does not result in the discharge of pollutants to the stormwater system. Persons owning, operating or maintaining such premises shall install and maintain a Full Trash Capture System, and any other devices or facilities specified by the Director, on all inlets to the City's stormwater system no later than January 1, 2019, to prevent the discharge of trash or other pollutants to the City's stormwater system from private parking lots, streets, roads, and drainage facilities into the stormwater system. Failure or refusal to timely comply with such requirement is prohibited and shall constitute a violation of this chapter, except that the Director may waive this requirement or extend the deadline for compliance for any premises for which the Director determines, in his or her sole judgment, that installation of a Full Trash Capture System is not feasible or necessary to prevent discharge of pollutants.

E. Best Management Practices for New Developments and Redevelopments. All construction contractors performing work in the City shall conform to the requirements of the Best Management Practices (BMPs) for Construction Activities and New Development and Redevelopment required by the California BMP Handbook, Construction, January 2003, the Caltrans Stormwater Quality Handbooks, Construction Site Best Management Practices Manual, March 2003, the San Francisco Bay Regional Water Quality Control Board Erosion and Sediment Control Field Manual, 2002, the City's grading and erosion control ordinance and other generally accepted engineering practices for erosion control as required by the director when undertaking construction activities. As a minimum, such BMPs shall include provision for filter materials placed to preclude an increase in debris and sediments entering the stormwater system over "non project" conditions. The City Engineer may establish controls on the rate, volume, and duration of stormwater runoff from construction projects as may be appropriate to minimize the discharge and transport of pollutants. All construction sites must implement and maintain at least the following minimum BMPs: erosion control at the site, run-on and run-off controls to and from the site, control of sediments and fines on the site, active treatment systems (as necessary), good site management, and non-stormwater management.

F. Notification of Intent and Compliance with General Permits. Each industrial discharger, discharger associated with construction activity or other discharge described in any general stormwater permit addressing such discharges, as may be adopted by the United States Environmental Protection Agency, the State Water Resources Control Board, or the California Regional Water Quality Control Board, San Francisco Bay Region, shall provide the notice of intent, comply with and undertake all other activities required by any general stormwater permit applicable to such dischargers. Each discharger

identified in an individual NPDES permit relating to stormwater discharges shall comply with and undertake all activities required by such permit.

G. **Development Runoff Requirements.** For each new development and redevelopment project subject to the development runoff requirements, every applicant will submit a stormwater control plan and implement conditions of approval that reduce stormwater pollutant discharges through the construction, operation and maintenance of treatment measures and other appropriate source control and site design measures. Similarly, increases in runoff volume and flows shall be managed in accordance with the development runoff requirements.

H. **Compliance with Best Management Practices.** Where best management practice guidelines or requirements have been adopted by any federal, state, regional, City and/or county agency, for any activity, operation or facility which may cause or contribute to non-stormwater discharges, every person undertaking such activity or operation or owning and operating such facility shall comply with such guideline or requirement.

I. **Stormwater Pollution Prevention Plan.** The City Engineer may require any business in the city that is engaged in activities which may result in non-stormwater discharges or runoff pollutants to develop and implement a stormwater pollution prevention plan, which must include an employee training program. Business activities which may require a stormwater pollution prevention plan include maintenance, storage, manufacturing, assembly, equipment operations, vehicle loading, fueling, vehicle maintenance, food handling or processing, or cleanup procedures which are carried out partially or wholly out of doors.

J. **Coordination with Hazardous Materials Release Response Plans and Inventory.** Any business subject to the hazardous materials release response and inventory plan, Division 20, Chapter 6.95 of the California Health and Safety Code (commencing with Section 25500), shall include in that plan provision for compliance with this chapter, including the prohibitions for non-stormwater discharges and, the requirement to reduce release of pollutants to the maximum extent practicable.

(Ord. 2017-13 § 5, 2017; Ord. 2004-16 § 1(part), 2004).

8.20.100 COMPLIANCE CERTIFICATES FOR STORMWATER MANAGEMENT FACILITIES.

A. Every person who owns, leases or operates any premises containing a stormwater management facility or facilities is required to obtain annually a valid operation and maintenance certificate of compliance certifying to the inspection of and the proper operation and maintenance of the treatment measures and other appropriate source control and site design measures. Each responsible person subject to this requirement shall request an inspection from the City every 12 months. Upon the filing of such request, and the payment of a fee covering the cost of inspection, the City shall inspect the property and shall either issue such certificate upon a determination by the inspector that all treatment measures and other appropriate source control and site design measures have been properly maintained and are in good condition, or shall issue a conditional certificate noting deficiencies that must be corrected within a time indicated on the certificate, or shall deny the certificate. A certificate shall be valid for one year from the date of issuance. The City Council may by resolution establish the fee for the inspection and certificate.

B. In lieu of a City inspection, such person may arrange for an inspection from a private company authorized to conduct inspections by the City. Such company shall use a City-approved inspection form that shall be executed under penalty of perjury. Should such inspection form establish that the treatment measures and other appropriate source control and site design measures have been properly maintained and are in good condition, the City may issue an operation and maintenance certificate of compliance or the City may at its cost re-inspect the property and proceed as described in division A. The filing of a false inspection report shall be a misdemeanor. (Ord. 2004-16 § 1(part), 2004).

8.20.110 AUTHORITY TO INSPECT.

Routine or area inspections shall be based upon such reasonable selection process as may be deemed necessary to carry out the objects of this chapter, including but not limited to random sampling and/or sampling in areas with evidence of stormwater contamination, evidence of the discharge of non-stormwater to the stormwater system, or similar factors. Such inspections may also be done in conjunction with routine or scheduled inspections conducted by other public agencies or special district, including but not limited to the Central Contra Costa Sanitary District, the Contra Costa County Fire Protection District, County Environmental Health Department, the Contra Costa Mosquito and Vector Control District, or the Regional Water Quality Control Board.

A. **Authority to Sample and Establish Sampling Devices.** With the consent of the owner or occupant or pursuant to a search or inspection warrant, any Authorized Enforcement Officer may establish on any property such devices as are necessary to conduct sampling or metering operations. During all inspections as provided herein, the Authorized Enforcement Officer may take any samples deemed necessary to aid in the pursuit of the inquiry or in the recordation of the activities onsite.

B. **Notification of Spills.** All persons in charge of a facility or responsible for emergency response for a facility have a responsibility to train facility personnel and maintain notification procedures to assure immediate notification is provided to the City of any suspected, confirmed or unconfirmed release of material, pollutants or waste creating a risk of non-stormwater discharge into the City stormwater system.

As soon as any person in charge of a facility or responsible for emergency response for a facility or has knowledge of any suspected, confirmed or unconfirmed release of non-stormwater discharge entering the city stormwater system, such person shall take all necessary steps to ensure the discovery and containment and cleanup such release and shall notify the