

Street Sweeping in Richmond



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Executive Summary

For over twenty years, the Richmond City Council has struggled with policies related to street sweeping, mostly whether moving parked vehicles on sweeping days should be voluntary or mandatory. Mandatory parked vehicle moving, with signs and citations, has been the practice in most of the city for years with apparent acceptance and effectiveness.

The most visible holdouts have been the Richmond Annex and Annex Panhandle neighborhoods (home of Councilmembers McLaughlin and Martinez), which have once again flexed their political muscles to keep signs and citations out of their neighborhoods. They insist that voluntary compliance has been effective or will be with the use of additional notification strategies, although the historical evidence suggests otherwise.

Ultimately, street sweeping is most importantly about reducing significant human health hazards and reduction of pollutants in waterways and San Francisco Bay. Will the environment win, or will the convenience of residents prevail?

Why Sweep Richmond Streets?

Street sweeping has been a contentious subject in Richmond for decades, and Richmond is not alone. Streets are swept for two primary reasons (1) remove visible trash and improve the appearance of the neighborhood, and (2) remove stormwater pollutants before they drain into creeks and then San Francisco Bay. The latter is prohibited by the Clean Water Act (33 U.S.C. §1251 et seq. (1972)).¹

The State of California also regulates pollutants in stormwater via the Porter-Cologne Water Quality Control Act (Porter-Cologne)(California Water Code (Wat. Code) § 13000 et seq.)

In 1969, the Porter-Cologne Water Quality Control Act (Porter-Cologne) (California Water Code (Wat. Code) § 13000 et seq.) was adopted as the principal law governing water quality in California. Porter-Cologne institutes a comprehensive program to protect the quality and “beneficial uses”(or “designated uses” under federal parlance) of the state’s water bodies. Beneficial uses include, but are not limited to, “domestic, municipal, agricultural, and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves” (Wat. Code §13050, subd. (f)). Regulatory protection of beneficial uses is carried out, in part, through water quality objectives established in each regional water quality control plan (basin plan) (Wat. Code § 13241). Under Porter-Cologne, the regional water quality control boards (regional water boards) adopt basin plans in which they designate the beneficial uses of the waters of the region and establish water quality objectives to protect those beneficial uses. Basin plans are required to include a plan of implementation to ensure that waters achieve the water quality objectives.²

¹ The official text of the CWA continues to be available in [the United States Code](#) from the US Government Printing Office

² https://www.waterboards.ca.gov/water_issues/programs/trash_control/docs/01_final_sed.pdf, page 3

Many pollutants are liquids or fine particles that are not readily visible, including mercury, PCBs, furans, dieldrin, chlordane, DDT, selenium, copper, zinc, microplastics³ and 6PPD, which is essentially a preservative to keep car tires from breaking down too quickly.^{4,5}

The term pollutant is defined in [CWA section 502\(6\)](#) and defines pollutant very broadly and includes any type of industrial, municipal, or agricultural waste (including heat) discharged into water. For regulatory purposes, pollutants are grouped into three categories: conventional, toxic, and nonconventional.

- **Conventional** pollutants are those defined in [CWA section 304\(a\)\(4\)](#) and include Biological Oxygen Demand, Total Suspended Solids, fecal coliform, pH, and oil and grease.
- **Toxic (priority)** pollutants are those defined in [CWA section 307\(a\)\(1\)](#) and include 126 metals and manmade organic compounds.
- **Nonconventional** pollutants are those that do not fall under either of the above categories (conventional or toxic pollutants) and include parameters such as chlorine, ammonia, nitrogen, phosphorus, chemical oxygen demand (COD), and whole effluent toxicity (WET).⁶

In 2005, the Richmond Public Services Department wrote:

Street sweeping is one of the most visible aspects of the Public Services Department for the citizens and the traveling public. Clean streets and gutters not only give the city an overall clean appearance, but aids in helping reduce traffic accidents and pollution in our byways and waterways. Street Sweeping is an important part of the work done by the City's Public Services Department. These efforts are vital in maintaining compliance with the National Pollutant Discharge Elimination System (NPDES) provisions of the Clean Water Act. Under these provisions the Environmental Protection Agency (EPA) in coordination with the state, the regulated community, and the public, implements and conducts oversight of the NPDES permit. The permit provisions are designed to control point sources of pollution within the city. Since its introduction in 1972, the NPDES permit program is responsible for significant improvements to water quality.⁷

In order to effectively clean streets, street sweepers must be able to clean the gutters where pollutants collect, pushed by gravity, wind and water. It is pretty well demonstrated that voluntary vehicle moving on street sweeping days, at least in Richmond, does not work. People are, however, more motivated by citations and fines, and the law requires a sign in order for the police to cite. The size of the sign is not discretionary; it is dictated by the California Vehicle Code.

The Environmental Protection Agency notes:

Street sweeping services are provided by either municipal or contracted personnel. The overall effectiveness of a street cleaning program is primarily a function of the frequency and regularity of the cleanings. The frequency of street sweeping is determined by need, the number of miles to be served, and local budget constraints. Other factors for consideration include climatic conditions (e.g. rainfall frequency and season), the size of particles captured by the cleaning, and

³ <https://www.sfei.org/projects/microplastics>

⁴ <https://www.sfei.org/news/toxic-tire-contaminant-found-bay-area-stormwater#sthash.a0JfZluh.dpbs>

⁵ <https://science.sciencemag.org/content/371/6525/185.abstract>

⁶ <https://www.epa.gov/trash-free-waters/clean-water-act-and-trash-free-waters>

⁷ Street Sweeping Update, March 25, 2005, <http://www.tombutt.com/forum/2005/050325.htm>

street-parking regulations. Because parked cars prohibit the streetcleaner from removing curbside litter, enforcement of parking regulations is essential.⁸

One of the disputes about street sweeping is whether it is mandatory, and if so, by whom, and what the penalties are for not sweeping or not sweeping effectively.

See the summary from “San Francisco Stormwater Permit⁹” below. Permittees, including the City of Richmond, are required to “implement trash controls in all areas, except 'Low' trash generating areas, using a combination of trash capture devices and institutional controls.¹⁰” Much of Richmond, falls into the Medium (yellow) or high (red) trash generation categories.

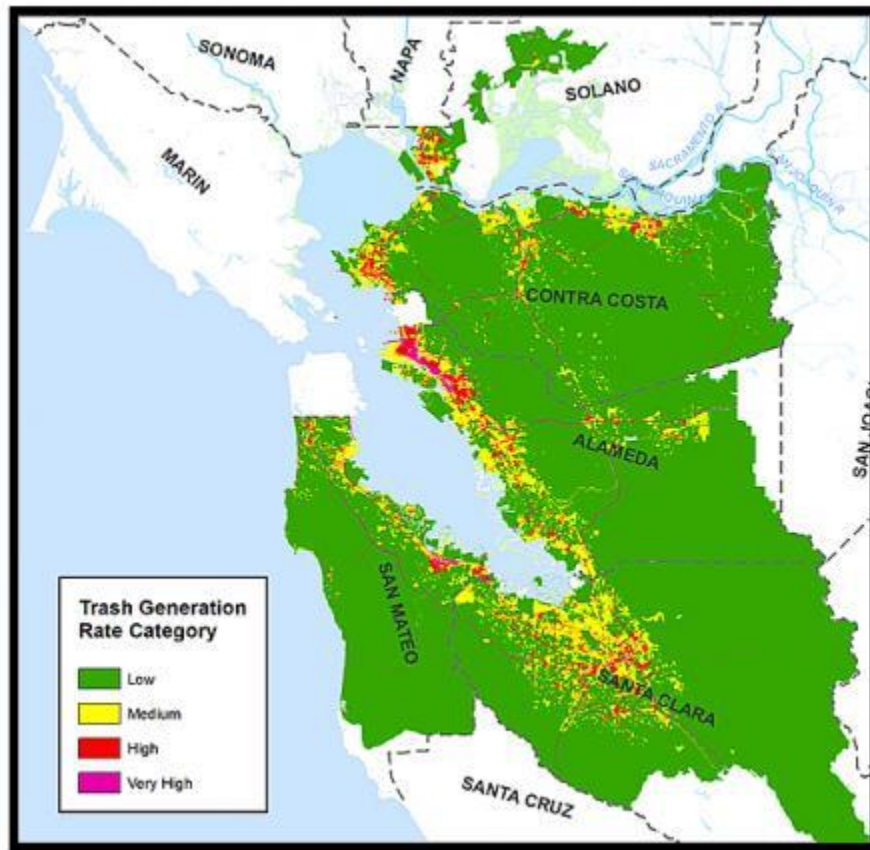


Figure 1 - Bay Area Trash Generation by Area (San Francisco Bay Stormwater Permit (California))

⁸ United States Environmental Protection Agency Office of Water, Washington, D.C. EPA 832-F-99-038 September 1999 Combined Sewer Overflow Management Fact Sheet Pollution Prevention, <https://www3.epa.gov/npdes/pubs/pollutna.pdf>

⁹ <https://www.epa.gov/trash-free-waters/clean-water-act-and-trash-free-waters>

¹⁰ “institutional controls,” includes street sweeping

Goal: 0% trash by 2022

Area: 2,576 Square Miles

Population: 7 million people

Baseline trash load: ~1.3 - 2.5 million pounds per year

Links: [2009 Municipal Regional Permit \(PDF\)](#) | [2015 Municipal Regional Permit Exit](#)

In the San Francisco Bay Area, portions of the Bay and most of its tributaries had been 303(d) listed for trash. Rather than establishing individual TMDLs, in 2009 trash provisions were included in the Phase 1 Municipal Regional Stormwater Permit, which covers 76 MS4 permittees. Using land use data, areas were categorized into 'Low' 'Medium', 'High' and 'Very High' trash generating areas on the basis of gallons of trash produced (for example, Medium Trash Generation areas produce 5-10 gallons/acre/year). Permittees are required to implement trash controls in all areas, except 'Low' trash generating areas, using a combination of trash capture devices and institutional controls.

The permit requires at least 5,700 acres to be treated by full capture devices. By 2015, over 25,000 acres were covered by these systems, demonstrating that trash capture can be an effective solution. A unique feature of this permit is a 'hotspots' requirement that applies to creek or shoreline areas with the most trash. Each permittee must identify one 'hotspot' for every 30,000 residents and do at least one cleanup of each hotspot every year. Hotspot cleanups are particularly effective in removing trash from non-point sources such as illegal dumping. In addition, permittees may claim percentage reductions for reducing the sources of trash through measures like street-sweeping.

Below is the California Statewide Trash Policy.¹¹

¹¹ <https://www.epa.gov/trash-free-waters/clean-water-act-and-trash-free-waters>



Figure 2 - California Statewide Trash Policy

Goal: 0% trash by 2030

Area: 164,000 square miles

Population: 39 million people

Baseline trash load: Unknown

Links: [Policy Document](#) | [Video Exit](#)

Statewide, 73 water bodies are listed for trash or debris impairments. Based on lessons learned in Los Angeles and the San Francisco Bay Area, California adopted a statewide policy to address trash uniformly in areas without trash TMDLs and/ or permits. The policy establishes a narrative water quality standard for trash that applies to all state waters and requires all stormwater permits to be modified or reissued to include trash provisions. Stormwater permittees, like cities and counties, will create a trash implementation plan to reach zero trash within 10 years of the newly adopted permits, but no later than 2030.

Each plan must address high trash-generating areas such as 1) high-density residential areas (10+ dwelling/acre), 2) industrial and commercially-zoned land, 3) mixed urban, 4) public transit corridors, 5) on- and off- ramps in high trash areas, and 6) rest areas and park-and-rides. The policy will apply to approximately 17,000 permittees and will require treatment and control of trash for more than 600 square miles. Compliance may be demonstrated through either 1) use of trash capture devices on an entire stormwater system, or 2) some combination of trash capture devices and institutional controls like

street sweeping, sufficient to reach reductions equivalent to full capture. The policy also allows local regulators the option to require trash controls for non-point sources of trash, such as heavily used campgrounds, picnic areas, beaches and marinas. This approach is more efficient since it doesn't require a TMDL for each water body, which can be time consuming and expensive. It does require immediate action for controlling stormwater sources of trash, which are the main transport pathway.

The San Francisco Bay Municipal Regional Stormwater Permit does not have prescriptive language that requires street sweeping, except for corporation yards and construction sites. Rather, the trash-related receiving water limitations identified in the San Francisco Bay MRP do not place numeric targets on trash but uses the 2009 permit required that permittees reduce trash from their storm sewer systems by 40 percent by July 1, 2014.¹²

The 2015, *Final Staff Report Including the Substitute Environmental Documentation Amendment to the Water Quality Control Plan for the Ocean Waters of California to Control Trash and Part 1 Trash Provisions of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California* had recommendations for a future permit that included references to street sweeping:

Require the sole use of institutional controls. In this option, NPDES storm water permits would contain requirements that permittees comply with the prohibition of discharge through the sole use of institutional controls (such as street sweeping, clean-up events, education programs, additional public trash cans and increased collection frequency expanded recycling and composting efforts, and adoption of regulatory source controls). This option would meet the goal of preventing trash from entering state waters and provide statewide consistency. However, permittees should have flexibility to determine the most effective means of controlling trash because of particular conditions of sites, types of trash, and the resources available for maintenance and operation. Therefore, this approach is not recommended

5.2.2 Street Sweeping An institutional control that would likely to be used for compliance with the final Trash Amendments would be continuation of or increasing street sweeping. Street sweeping minimizes trash loading to storm drain systems and water bodies by removing trash from streets and curbs. Maintaining a regular street sweeping schedule reduces the buildup of trash on streets and prevents trash from entering catch basins and the storm drain system. Street sweeping can also improve the appearance of roadways and urban areas. There are three types of street sweepers expected to be utilized for compliance with the final Trash Amendments: mechanical, vacuum filter, and regenerative air sweepers (U.S. EPA2012b).

- Mechanical sweepers use a broom to remove particles from the street curb and a water spray to control dust. The removed particles are carried by a cylindrical broom to a conveyor belt and into a storage hopper (Federal Highway Administration 2012).
- Vacuum-assisted sweepers also use brooms to remove particles. The removed particles, however, are saturated with water and transported by a vacuum intake to the hopper. Vacuum-assisted dry sweepers use a specialized brush that allows the vacuum system to recover almost all particulate matter. A continuous filtration system prevents very fine

¹² https://www.waterboards.ca.gov/water_issues/programs/trash_control/docs/01_final_sed.pdf, page 8

particulate matter from leaving the hopper and trailing on the street behind the sweeper (Federal Highway Administration 2012).

- Regenerative air sweepers blow air onto the pavement and immediately vacuum it back to entrain and capture accumulated sediments. A dust separation system regenerates air for blowing back onto the pavement (Federal Highway Administration 2012).

No definitive independent studies have yet been staged to determine the best sweeping system (U.S. EPA2012b). It is expected, however, that local agencies may use a combination of types of street sweeper to maximize efficiency (CASQA 2003a). In the Los Angeles Region, use of certain sweeper types is dictated by South Coast Air Quality Management District Rule 1186, which requires local agencies to acquire or use only respirable particulate matter certified sweepers beginning January 1, 2000. Furthermore, Rule 1186.1 requires local agencies to acquire alternative fuel or less polluting street sweepers beginning July 1, 2002 (South Coast Air Quality Management District 2006).

Increasing the frequency of street sweeping in areas with high traffic volume and trash accumulation would further reduce trash loading to the waterways. Increases in street sweeping are expected before the rainy season begins. A successful street sweeping program would be expected to include accurate recordkeeping of curb-miles swept, proper storage and disposal of street sweepings, regular equipment maintenance, and parking policies that restrict parking in problematic areas and notify residents of sweeping schedules (CASQA 2003a).

Using modern and efficient street sweepers may reduce the need for other structural storm water controls and may prove to be more cost-effective than certain structural controls, especially in more urbanized areas with greater areas of pavement (U.S. EPA2012b).¹³

In summary, there appears to be no prescriptive order for street sweeping in Richmond, but a street sweeping program has been adopted as an effort to comply with the trash reduction goals of the regional permit.

Richmond, however, is not the only city struggling to meet trash reduction goals.

Oakland isn't the only city struggling to comply with the regulations, which apply to the labyrinth of curbside drains, gutters, underground concrete channels, pipes and catch basins that take water off city streets and direct it toward the sea.

Last July, 26 of the 70 cities and other municipalities in Alameda, Contra Costa, Santa Clara, San Mateo and Solano counties fell short of the reduction target, which was then 60 percent.

Oakland had cut its output 44.6 percent by last year. Collectively, the Bay Area had achieved a 50 percent reduction compared with 2009 — the equivalent of a million gallons of trash.

The goals were set eight years ago after the water quality board required local agencies to measure the garbage flowing from storm drains. Regulators were concerned about the 2 million gallons of trash found bobbing in Bay Area waterways, about half of it plastic grocery bags, candy wrappers, lids, straws and chip bags.

For each city, compliance is calculated by measuring how much detritus local cleanup programs pull off the streets or out of the drains. More weight is given to the most effective measures, like

¹³ https://www.waterboards.ca.gov/water_issues/programs/trash_control/docs/01_final_sed.pdf, pages 97-98

installing hydrodynamic separators, which capture all garbage flowing down a drain. The amounts cleaned are subtracted from the 2009 baseline.

The crackdown is important, conservationists say, because the waste leaches toxins, flows into the bay and winds up in the ocean, where the plastic breaks down into tiny pieces that are ingested by marine mammals, fish and birds.

It was an indifferent attitude about litter, experts say, that created the enormous floating garbage patch in the North Pacific, a stew that marine biologists consider an ecosystem catastrophe.

In Oakland, where 8,000 storm drain inlets dump into a myriad of creeks, channels and the Oakland Estuary, one of the trashiest waterways is Damon Slough near the Coliseum complex. The muddy banks were strewn last week with aerosol cans, juice bags, hypodermic needles, straws, tennis balls, liquor bottles, candy wrappers and numerous plastic bags.

“All of the trash in here is from storm drains at the Coliseum or wind blown from the parking lot,” said David Lewis, executive director of the nonprofit Save the Bay, as he stood next to the foul-smelling slough. “There are five or six creeks that all empty into this area here. It is the pathway, the water column, and it circulates all over.”

The stepped-up mandate this year is likely to trip up at least as many cities and agencies as last year, including San Jose, Richmond, Vallejo, San Leandro and Berkeley.¹⁴

History of Street Sweeping in Richmond

A Regulatory Issue

Street sweeping became a regulatory issue in Richmond in 1999 with the issuance of California Regional Water Quality Control Board San Francisco Bay Region Order No. 99-058, NPDES Permit No. CA0029912 for Contra Costa cities and county, including the City of Richmond.

The permit required implementation of Best Management Practices (BMP) to “reduce pollutants in stormwater discharges to the maximum extent practicable.”¹⁵

In the Contra Costa Clean Water Program Stormwater Management Plan, 1999-2004, which implements Order No. 99-058, NPDES Permit No. CA0029912, street sweeping is listed as one of “The following activities will be conducted during the next five-year period.” Performance standards included four pages of detailed requirements, including:¹⁶

- MUNI-8: Each agency will discourage allowing residents to “opt out” of its street sweeping program.
- MUNI-16: Each agency will take appropriate measures to keep curbed areas clear during street sweeping. Measures may include but are not limited to posting “no stopping,” “no parking,” assigns in business

¹⁴ Oakland targeted in Bid to Cut Trash Flow into SF Bay, May 31, 2017, <https://savesfbay.org/oakland-targeted-in-bid-to-cut-trash-flow-into-sf-bay>

¹⁵ California Regional Water Quality Control Board San Francisco Bay Region Order No. 99-058, NPDES Permit No. CA0029912, page 9

¹⁶ Contra Costa Clean Water Program Stormwater Management Plan, 1999-2004, Table 5.1, pages 1-4

districts, near large apartment complexes, etc., posting street sweeping signs on streets where appropriate, and, distributing newsletters and other public education materials notifying residents and businesses of street sweeping schedules.

In order to be in compliance, the Richmond Public Works Department ramped up street sweeping, ordering two new sweepers and increasing sweeping to twice a month in six neighborhoods.¹⁷

Street Sweeping Begins in 2000

On April 28, 2000, Assistant City Manager Leveron Bryant, provided a memo to Isiah Turner, City Manager, summarizing progress on street sweeping to begin on May 15, 2000, beginning with North Richmond, Santa Fe, Belding Woods, Coronado, Cortez/Stege and Pullman. The service was to be expanded to include “twice-per-month sweeping...to include all neighborhood council areas,” “The Hilltop/Fairmede, Richmond Annex, Parchester and Carriage Hills neighborhood council areas will be targeted for September 2000”¹⁸

The plan called for installation of signs, and citations after a 30-day grace period.¹⁹

The Office of Neighborhood Services initiated a comprehensive public education program at the beginning of 2001 with a presentation to the City Council.²⁰ The public education program included:²¹

- Present street sweeping plan/schedules at 39 neighborhood council meetings
- Present street sweeping plan/schedules at Richmond Coordinating Council meetings
- Police cadets will distribute fliers to homes, libraries
- Seek placement of notices in Richmond Sanitary billings
- Place feature story in neighborhood newsletters
- Send news releases to the press and neighborhood newsletter editors
- Mail community notices in advance of sign posting (English, Spanish and Laotian)
- 3-minute video will illustrate streets being swept with and without parked vehicles, to be shown at community meetings and KCRT
- KCRT interview with Isiah Turner and Ray Lambert

On March 16, 2001, City Council members were provided a packet of meeting notices.²²

The initial contract for sign installation was awarded to Bay Hawk, Inc. on December 10, 2001, with a Notice to Proceed on January 9, 2002.

On September 5, 2001, officers of the Panhandle Neighborhood Council wrote to Richmond City Council members with several criticism of the program, including:

¹⁷ Memo dated October 19, 1999, from Arlanders Etheley, Public Works Superintendent to Mayor and Councilmembers

¹⁸ Memo, April 28, 2000, Assistant City Manager Leveron Bryant, to Isiah Turner, City Manager

¹⁹ *ibid*

²⁰ Public Services Street Sweeping, Street Sweeping Awareness Program, presented by Raymond Lambert, February 13, 2001.

²¹ Study Session, City Council meeting of February 23, 2001

²² Memo dated March 16, 2001, “Town hall Meetings re: Street Sweeping – Information Only,” from Leveron Bryant to Mayor and City Council

- Not coordinating with garbage pickup
- Sweeping both sides of streets on the same day, making parking compliance difficult

The group noted:

Finally, the City Council must have the will to devise a plan to have cars ticketed that do not observe the street sweeping signs. Citing cars that fail to follow this ordinance is simply a part of city life that has been ignored in Richmond for far too long. Perhaps the revenue from the tickets could be put back in the street sweeping program.

The Richmond Annex and Panhandle Annex Complain

On May 2, 2002, the same group of Panhandle Neighborhood Council officers complained again about sweeping both sides of streets on the same day and failure to coordinate garbage pickup with street sweeping.²³

On June 6, 2002, the City of Richmond distributed additional educational materials, including the advice, “Your neighborhood council area is scheduled for posted street sweeping signs in the near future. You will be notified via your neighborhood council meeting, newsletter and the City web site.”

By July of 2002, Richmond Annex and Panhandle Annex residents were beginning to revolt, writing letters objecting to signs as “ugly,” complaining that there was insufficient parking available to allow moving of cars, questioning the regulatory basis and advocating for a voluntary program like that in El Cerrito.

On June 17, 2002, Raymond Lambert wrote to Jeff Jones, President of the Richmond Annex Neighborhood Council, clarifying the regulatory and statutory basis for signs and ticketing:²⁴

The street sweeping sign installation program is part of the City of Richmond’s Joint Municipal National Pollution Discharge Elimination System (NPDES). Our Storm Water Permit is CA0029912, Order No. 93-105.

Street Sweeping is a NPDES Program under Section 22507.6 of the California Vehicle Code, which states:

22507.6. Local authorities may, by ordinance or resolution, prohibit or restrict the parking or standing of vehicles on designated streets or highways, or portions thereof, for the purpose of street sweeping. No ordinance or resolution relating to the parking or standing of commercial vehicles in a residential district shall be effective with respect to any commercial vehicle making pickups or deliveries of goods, wares, or merchandise from or to any building or structure located on the restricted street or highway, or for the purpose of delivering materials to be used in the repair, alteration, remodeling, or reconstruction of any building or structure for which a building permit has previously been obtained. No such ordinance or resolution shall be effective until the street or highway, or portion thereof, has been sign-posted in accordance with the uniform standards and specifications of the Department of Transportation, or local authorities have caused to be posted in a conspicuous place at each entrance to the street a notice not less than 17 inches by 22 inches in size, with lettering not less than one inch in height, setting forth

²³ Letter dated May 2, 2002, from seven Panhandle Neighborhood Council officers to Rich McCoy

²⁴ Letter dated June 17, 2002, from Raymond Lambert to Jeff Jones, President, Richmond Annex Neighborhood Council

the day or days and hours parking is prohibited. As used in this section, “entrance” means the intersection of any street or streets comprising an area of restricted parking for street-sweeping purposes on the same day or days and hours with another street or highway not subject to such a parking restriction, or subject to parking restrictions on different days and hours.

(Amended by Stats. 1982, Ch. 466, Sec. 115.)

On June 24, 2002, 16 Richmond Annex residents submitted a petition against street sweeping signs.

With political pressure building from the Richmond Annex, the City Council on July 16, 2002, approved a 90-day moratorium on street sweeping signs. I was the only member opposing.²⁵

The matter came up again at the September 10, 2002 City Council meeting. Following a failure to adopt a motion the item was continued for two weeks.²⁶

On September 18, 2002, Jeff Jones, Richmond Annex Neighborhood Council President wrote Mayor Anderson and the City Council opposing the street sweeping sign program and advocating the El Cerrito voluntary program.

On September 21 through September 24, 2002. City Council members received multiple letters from Richmond Annex residents protesting street sweeping signs.

On September 24, 2002, the City Council took up the issue again, approving a voluntary street sweeping program for the entire city and no tickets for one year with the results to be evaluated in six months.²⁷

Panhandle Annex Signs Removed

At the same meeting, the City Council voted to remove the street sweeping signs already installed in the Richmond Annex.^{28,29}

On September 26, 2002, City Manager Isiah Turner directed Director of Public Services Rich McCoy to implement a voluntary street sweeping program.

On October 8, 2002, Councilmember Penn placed an item on the Agenda to “Consider the Matter of a Comprehensive Street Sweeping Program for the City of Richmond.” Penn was concerned that the Council has adopted a citywide program change without input from anyone outside the Richmond Annex.

There were many speakers concerned about a city-wide voluntary program. The Council did not take a vote, but City Manager Isiah Turner committed to present the Council with a plan for consideration in two weeks.³⁰

²⁵ Summary of City Council Actions Regarding Street Sweeping

²⁶ *ibid*

²⁷ Resolution 127-02

²⁸ *Ibid*

²⁹ Resolution 128-02

³⁰ City Council Minutes of October 8, 2002.

On October 22, 2002, the Council considered a “Proposed Citywide Street Sweeping Program” that had both mandatory and voluntary options. The mandatory option had signs and full enforcement. The voluntary option had no signs and no enforcement.

Citywide Neighborhood Votes on Street Sweeping

In order to qualify for the voluntary option, a neighborhood had to show 2/3 consent and require 80% compliance, based on warning citations issues. There was to be a one-year monitoring period.³¹ The item passed on a 7-2 vote.³²

The residents of every neighborhood were polled as to which option they wanted, and the results were presented to the Public Safety Committee on June 12, 2003. Option 1, mandatory installation of signs and full enforcement was the default and did not require return of ballots. Option 2, voluntary with no signs and no enforcement required a 2/3 vote. 40,885 ballots were mailed, and 1,386 returned. Carriage Hills South was the only neighborhood that qualified for Option 2, the volunteer program. However, the Committee recommended making an exception and adding Richmore Village and the Richmond Annex to the voluntary program.³³

On March 23, 2003, I wrote in my E-FORUM:³⁴

A Clean Sweep?

I have forwarded all comments received in response to the March 9, 2003, E-FORUM “Street Sweeping Ballot Hits the Streets.” to the Richmond Public Services Department. Meanwhile, I have attempted to craft a general response to those who have offered their opinions and to propose some program guidelines and policy modifications that may render the overall program palatable to a majority of residents.

The recently circulated ballot generated a lot of criticism, and it probably would have been wise to have run it up the flagpole before mailing it. However, the program appears to be salvageable with some changes. Here are my comments and suggestions:

NEIGHBORHOOD STREET CLEANING AND VOLUNTARY PARKING MANAGEMENT PROGRAMS

Some citizens and neighborhood groups have maintained that their streets are not dirty enough to require sweeping or that the neighbors, themselves, keep the streets clean

The cleanliness of a street may be more perception than fact. Everyone knows what a trashy street looks like, but the most damaging pollutants that originate on streets are those not readily observable, including such things as tire dust, brake dust and oil drippings from vehicles. One study claims that each tire loses about 6 pounds of rubber each year. Richmond has about 35,000 households, and if each household had only one vehicle that loses half its rubber in Richmond, that would produce 420,000 pounds of rubber annually that ends up in San Francisco Bay. This is known as “non-point source” (NPS) pollution, but when the runoff carrying it enters a storm drain system, it eventually becomes a “point source” that is regulated by the Federal Clean Water Act and Richmond’s National Pollution Discharge Elimination System (NPDES) permit program.

³¹ Agenda Report and attachments, October 22, 2002,

³² City Council Minutes, October 22, 2002.

³³ Staff Report for June 12, 2003, Public Safety Committee meeting

³⁴ <http://www.tombutt.com/forum/2003/030323b.htm>

Citizens have legitimate concerns about many inconveniences related to a street sweeping programs, but we have to remember that, in the end, it's not about aesthetics, parking, or personal convenience; it's about the environment. If a voluntary parking management plan can achieve the same results as a mandatory one, then the objective is achieved. If not, then some neighborhoods may have opted for environmental degradation while others make the required sacrifices.

The administration's benchmark of 80 percent compliance to maintain a voluntary parking management program seems reasonable.

ELECTION

The requirement for a 2/3 "protest" vote to opt out of mandatory parking management seems excessive. I recommend that it be reduced to 51 per cent. This is consistent with state law relating to the establishment of a benefit district, and it was the method used to ballot Richmond's wastewater rate increases. There were many complaints about the appearance of the ballot -- how it resembled junk mail -- about the effectiveness of the distribution, and so forth. Sure, perhaps it could have been done better, but those neighborhoods that have strong feelings on the subject are well-organized and can probably compensate for any shortcomings through outreach, activism and community organizations. It doesn't make sense to me to go through the time and expense of doing it all over again at this point.

SIGNS

The administration's program for small signs on neighborhood streets and larger signs on arterials seems reasonable, as does the plan to utilize existing utility or other poles for mounting. If three signs per block on each side of the street is not a legal requirement for enforcement, then a reduction to two signs, one near each end of the block, would seem reasonable where residents appear to be offended by the signs.

SWEEPING LOGISTICS

Streets in neighborhoods with any significant level of on-street parking should be swept on alternate days for each side of the street. In some neighborhoods, parking flexibility to sweep both sides of the street simultaneously simply doesn't exist. In others, such as some of the newer El Sobrante Valley developments, this will probably not be a problem.

Also, in older neighborhoods with dense on-street parking, sweeping should take place only between the hours of 9:00 AM and 4:00 PM, preferably within a four-hour block. This is a pattern used by many cities, and it seems to work well. This is a period when the maximum number of people will be at work, at school or doing errands and when people who stay home should be able to find a parking place somewhere besides in front of their home once a month.

Ideally, sweeping schedules should coincide with garbage collection.

Three Neighborhoods Approved for Voluntary Program

At its June 17, 2003, meeting, the City Council approved three neighborhoods for the volunteer program: Richmore Village, Carriage Hills South and the Richmond Annex, approved the mandatory program for the remainder of the city, and requested a progress report in six months.

Because of a citizen complaint about lack of enforcement in September of 2004, Interim City Manager Batchelor asked if there was enforcement. Willie Haywood responded, "Ticketing will begin mid-October '04 (gratis ticketing), formal ticketing will begin Jan. '05. Delay was due to being short staffed."

At the Public Safety and Public Services Committee Standing Committee meeting of March 10, 2005, staff reported a plan to commence courtesy ticketing for 60 days, then commence formal parking citations.

On June 18, 2004, Administrative Chief Janet Schneider wrote a memo to Mayor McLaughlin and the City Council summarizing a Contra Costa County Clean Water Program study showing “higher levels of PCBs in storm drain sediments in two drainage areas located in Richmond than any other site in Contra Costa County.” The study concluded that “street sweeping does remove 1.0 kg of PCBs annually.”

The 2009 Permit

On October 14, 2009, the California Regional Water Quality Control Board San Francisco bay Region issued a new Order R2-2009-0074, NPDES Permit No. CA612008.

The order prohibited discharge of other than stormwater:

- A. DISCHARGE PROHIBITIONS A.1. The Permittees shall, within their respective jurisdictions, effectively prohibit the discharge of non-stormwater (materials other than stormwater) into, storm drain systems and watercourses. NPDES-permitted discharges are exempt from this prohibition. Provision C.15 describes a tiered categorization of non-stormwater discharges based on potential for pollutant content that may be discharged upon adequate assurance that the discharge contains no pollutants of concern at concentrations that will impact beneficial uses or cause exceedances of water quality standards. A.2. It shall be prohibited to discharge rubbish, refuse, bark, sawdust, or other solid wastes into surface waters or at any place where they would contact or where they would be eventually transported to surface waters, including flood plain areas.³⁵

The 2015 Permit

On November 19, 2015, a new permit was issued.

The order prohibited discharge of other than stormwater:

- B. The Water Board finds stormwater discharges from urban and developing areas in the San Francisco Bay Region to be significant sources of certain pollutants that cause or may be causing or threatening to cause or contribute to water quality impairment in waters of the Region. Furthermore, as delineated in the CWA section 303(d) list, the Water Board has found that there is a reasonable potential that municipal stormwater discharges cause or may cause or contribute to an excursion above water quality standards for the following pollutants: mercury, PCBs, furans, dieldrin, chlordane, DDT, trash, and selenium in San Francisco Bay segments; pesticide associated toxicity, and trash in urban creeks; and trash and low dissolved oxygen in Lake Merritt, in Alameda County. In accordance with CWA section 303(d), the Water Board is required to establish Total Maximum Daily Loads (TMDLs) for these pollutants to these waters to gradually eliminate impairment and attain water quality standards. Therefore, pollutant control actions and further pollutant impact assessments by the Permittees are warranted and required pursuant to this Order.³⁶
- C. DISCHARGE PROHIBITIONS A.1. The Permittees shall, within their respective jurisdictions, effectively prohibit the discharge of non-stormwater (materials other than stormwater) into storm drain systems and watercourses. NPDES-permitted discharges are exempt from this

³⁵ California Regional Water Quality Control Board San Francisco bay Region issued a new Order R2-2009-0074, NPDES Permit No. CA612008, page 8

³⁶ California Regional Water Quality Control Board San Francisco bay Region issued a new Order R2-2015-049, NPDES Permit No. CAS612008, page 3

prohibition. Provision C.15 describes a tiered categorization of non-stormwater discharges based on potential for pollutant content that may be discharged upon adequate assurance that the discharge contains no pollutants of concern at concentrations that will impact beneficial uses or cause exceedances of water quality standards. A.2. It shall be prohibited to discharge rubbish, refuse, bark, sawdust, or other solid wastes into surface waters or at any place where they would contact or where they would be eventually transported to surface waters, including flood plain areas.³⁷

- D. The Permittees shall comply with Discharge Prohibitions A.1 and A.2 and Receiving Water Limitations B.1 and B.2 through the timely implementation of control measures and other actions as specified in Provisions C.2 through C.15. Compliance with Provisions C.9 through C.12 and C.14 of this Order, which prescribe requirements and schedules for Permittees identified therein to manage their discharges that may cause or contribute to violations of water quality standards (WQS) for pesticides, trash, mercury, polychlorinated biphenyls (PCBs), and bacteria, shall constitute compliance during the term of this Order with Receiving Water Limitations B.1 and B.2 for the pollutants and the receiving waters identified in the provisions. Compliance with Provision C.10, which prescribes requirements and schedules for Permittees to manage their discharges of trash, shall also constitute compliance with Discharge Prohibitions A.1 and A.2 during the term of this Order for discharges of trash. If exceedance(s) of (WQS), except for exceedances of water quality standards for pesticides, trash, mercury, PCBs, and bacteria that are managed pursuant to Provisions C.9 through C.12 and C.14, persist in receiving waters notwithstanding the implementation of the required controls and actions, the Permittees shall comply with the following procedure: a. Upon a determination by either the Permittee(s) or the Water Board that discharges are causing or contributing to an exceedance of an applicable (WQS), the Permittee(s) shall notify, within no more than 30 days, and thereafter submit a report to the Water Board that describes controls or best management practices (BMPs) that are currently being implemented, and the current level of implementation, and additional controls or BMPs that will be implemented, and/or an increased level of implementation, to prevent or reduce the discharge of pollutants that are causing or contributing to the exceedance of water quality standards. The report may be submitted in conjunction with the Annual Report, unless the Water Board directs an earlier submittal, and shall constitute a request to the Water Board for amendment of this NPDES Permit. The report and application for amendment shall include an implementation schedule. The Water Board may require modifications to the report and application for amendment; and b. Submit any modifications to the report required by the Water Board within 30 days of notification.³⁸

Proposed 2020 Street Sign Installation Reignites Controversy

The City Council Minutes of May 26, 2020:

I-7. The matter to approve the installation of 575 street sweeping parking restriction signs in the Richmond Annex and Panhandle Annex Neighborhoods was introduced by Public Works Director Yader Bermudez. Discussion ensued. The Council requested the documents that tied this matter to environmental guidelines. The following speakers gave comments via email, eComments, or telephone: Caroline Johnson, Grover G, Lee Huo, Sara Sunstein, Tally Craig, Gayle McLaughlin, Kirk Essler, Madalyn Law, Monica Olivares, Stefanie Silvia, Naomi Williams, and Margaret Child.

³⁷ Ibid, page 5

³⁸ Ibid, page 6

(At approximately 11:03 p.m., a motion made by Councilmember Willis, seconded by Councilmember Johnson, extended the meeting to complete the discussion for item I-7 by the unanimous vote of the City Council). Further discussion ensued for item I-7. The Council requested that the industrial areas documented as the highest in pollutants, such as Sims Metal and Levin Terminal, be swept more often and verified. On motion of Councilmember Willis, seconded by Councilmember Martinez, continued the matter for 90 days to allow staff time to work with the residents to develop a reasonable compromise regarding street sweeping signage to reach compliance passed by the unanimous vote of the City Council.

The following is from Richmond Standard:

City Council gives Annex 90 days on street sweeping compliance

May 28, 2020

<https://richmondstandard.com/richmond/2020/05/28/city-council-gives-annex-90-days-on-street-sweeping-compliance/>



Figure 3 - In May 2020, Richmond city staff presented several photos, including this one, of vehicles blocking street sweeping ability in the Annex neighborhoods of Richmond.

By Kathy Choutea

The Richmond City Council voted unanimously during its Tuesday meeting to give Richmond Annex and Panhandle Annex neighborhoods 90 days to comply with the citywide Street Sweeping Volunteer Program.

The City Council discussed whether or not to approve \$30,000 in funding for the installation of 575 street sweeping parking restriction signs in those neighborhoods—as well as enforcement of the restrictions.

Currently, the Richmond Annex and Panhandle Annex are exempted from the citywide Street Sweeping Program in lieu of the Volunteer Program, under the agreement that residents will move their vehicles in a timely manner to allow for street sweeping of their neighborhoods. Per the agreement, parking restriction signs have not been installed and enforcement have not been performed, according to the Public Works Department.

According to Public Works Director Yader Bermudez, the neighborhoods have not been abiding by the agreement, causing street sweepers to have to navigate around cars and not be able to sufficiently clean the streets. The increased amount of debris has not only increased blight in these areas, but also has entered the storm water system.

Concurrently, the department is working to meet the city's National Pollutant Discharge System (NPDS) permit requirements. The permit calls for cities adopting best practices for keeping pollutants out of the storm drain system and out of the bay, per Mayor Tom Butt.

"In regard to the environment, we are out of compliance in those two neighborhoods because we're not able to sweep the gutter," said Bermudez. "It is a compliance issue."

And so the city proposed using parking restriction signs and enforcement to gain compliance. Residents took issue with that plan. Mayor Tom Butt said a number of people sent him emails in protest.

During the City Council's discussion, Councilmember Eduardo Martinez, who said he lives in the Richmond Annex, noted that he believes the need for stop signs, particularly on Carlson Blvd., is a more pressing issue.

"People want to know why we're not getting stop signs and we are getting street sweeping signs instead," he said. Bermudez indicated that his department is working on it.

The discussion also touched on costs and the issue of equity regarding how these neighborhoods are exempt from the street sweeping program while others aren't.

"You can't have a program without moving cars. And if people don't move their cars voluntarily, then you have enforcement," said the mayor during the meeting.

"It's inequitable for all of the neighborhoods in Richmond to be in the program and abiding with it and the Richmond Annex and Richmond Panhandle get a free ride," he added.

In the end, the City Council moved forward with an idea initially suggested by Mayor Butt as a compromise: giving the residents of the Richmond Annex and Panhandle Annex a timetable for compliance with the aforementioned agreement, set at 90 days.

Councilmember Melvin Willis made the motion for a continuance that encompassed the neighborhood outreach and 90 day timetable, Councilmember Eduardo Martinez seconded it and a roll call vote was made with all councilmembers voting in favor of it.

Watch the video of the City Council's street sweeping decision [here](#).

Over the last few months of 2020, the Public Works Department has provided multiple photos showing substantial non-compliance with vehicle removal on street sweeping days.



Figure 4 - 8/27/2020, Santa Cruz and San Mateo Sweeping 4th Thursday



Figure 5 - 8/27/2020 San Mateo and Santa Cruz Sweeping 4th Thursday



Figure 6 - 8/27/2020, Plumas and Mendocino Sweeping 4th Thursday



Figure 7 - 8/27/2020, Huntington and Santa Clara Sweeping 4th Thursday



Figure 8 - 8/27/2020, Carlson and Sutter Sweeping 4th Thursday,



Figure 9 - 8/27/2020, Carlson and Sutter Sweeping 4th Thursday



Figure 10 - 8/27/2020, Carlson and Santa Cruz Sweeping 4th Thursday



Figure 11 - 8/27/2020, Carlson and Santa Clara Sweeping 4th Thursday



Figure 12 - 8/27/2020, Shasta and Carlson Sweeping 4th Thursday



Figure 13 - 11/30/2020



Figure 14 - 11/30/2020



Figure 15 - 11/30/2020



Figure 16 - 11/30/2020





Figure 17 - 11/30/2020



Figure 18 - 11/30/2020



Figure 19 - 11/30/2020

The following is from the September 17, 2020, **Richmond Standard**:

Richmond to resume street sweeping citations Oct. 1

September 17, 2020

<https://richmondstandard.com/richmond/2020/09/17/richmond-to-resume-street-sweeping-citations-starting-oct-1/>



In May 2020, Richmond city staff presented several photos, including this one, of vehicles blocking street sweeping ability in the Annex neighborhoods of Richmond.

Starting October 1, the Richmond Police Department Parking Unit will resume issuing citations to vehicles that are not moved for street sweeping, police announced today.

Residents and visitors are asked to move their vehicle during designated street sweeping dates and times. "Even if it appears the street sweeper has already passed by, you may be issued a citation" as parking enforcement officers won't know when the vehicle was parked there, police said.

"We are resuming issuing citations due to numerous complaints of trash and debris accumulating on the street," police said. "This is due to the street sweepers not being able to access the streets due to vehicles being parked on them."

On November 30, 2020, Public Works Director Yader Bermudez emailed the City Council:

From: Yader Bermudez <Yader_Bermudez@ci.richmond.ca.us>
Sent: Monday, November 30, 2020 12:06 PM
To: Tom Butt <tom.butt@intres.com>; Nat Bates <natbates@comcast.net>; Ben Choi <Ben_Choi@ci.richmond.ca.us>; Ben Choi <ben.wb.choi@gmail.com>; Demnlus Johnson <demnlus_johnson@ci.richmond.ca.us>; Eduardo Martinez <Eduardo_Martinez@ci.richmond.ca.us>; Jael Myrick <Jael_Myrick@ci.richmond.ca.us>; Jael Myrick <jaelpmyrick@yahoo.com>; Melvin Willis <melvin_willis@ci.richmond.ca.us>
Cc: Laura Snideman <Laura_Snideman@ci.richmond.ca.us>; Robert Chelemedos <Robert_Chelemedos@ci.richmond.ca.us>
Subject: FW: Annex

Please find additional pictures related to next Council Meeting on December 1, 2020, Item J-2, APPROVE the installation of 575 street sweeping parking restriction signs in the Richmond Annex and Panhandle Annex Neighborhoods and in regard to Mr. Grover's email to Councilmembers dated November 29, 2020, which provided some selected pictures that relate to ONLY the Panhandle Annex Neighborhood.

The pictures attached represent the whole Richmond Annex and Panhandle Annex Neighborhoods.

Additionally, the San Francisco Regional Water Board concerns about the City needs to increase reduction of PCBs/Mercury loads to be in compliance with the reissuance of the Municipal Regional Stormwater NPDES permit (MRP). The Francisco Regional Water Board is in the process of implementing more stringent requirements as condition for the new City's Stormwater NPDES permit (MRP) renewal. Therefore, Public Works Department recommends that Council approve the installations of these 575 street sweeping parking restriction signs.

From: Robert Chelemedos
Sent: Monday, November 30, 2020 11:12 AM
To: Yader Bermudez <Yader_Bermudez@ci.richmond.ca.us>
Cc: Carlos Castro <Carlos_Castro@ci.richmond.ca.us>
Subject: Annex

Here are some streets that are not moving their cars in September, the last month of the trial period.

First 6 are on September 24th (Annex)

7,8,and 9 South/West Annex September 24th

Robert Chelemedos
Streets Superintendent
City of Richmond
Engineering and CIP
#6 – 13th Street
Richmond, CA 94801
(510) 231-3007 – Ofc
(510) 231-3013 – Fax

After a multi-month hiatus due to COVID-19, the Public Works Department notified the public that citations would again be issues beginning October 1, 2020.

Is street sweeping still happening during this time? Do we need to move our cars?

Yes, street sweeping is still occurring. Starting October 1, 2020, citations will be issued for vehicles not moved during their designated street sweeping times. Residents requiring special consideration can contact Sgt. D. Decious at 510-621-1578 for additional assistance.

City Council Halts Signs and Citations

An agenda item on the December 1, 2020 City Council Agenda requested approval to install 575 street sweeping signs in the Richmond Annex and Panhandle Annex. It appeared again on the December 22, 2020, Agenda. It was continued both times.

The item was again agendized for the January 19, 2021, City Council meeting, along with an additional item on the same subject.

[DISCUSS and DIRECT staff to suspend ticketing during the COVID-19 Shelter-in-Place Order and come back to the Council in three months with options to modify the Street Sweeping Program](#)

[for ALL interested neighborhoods - Councilmember McLaughlin \(620-6636\) and Councilmember Martinez \(620-6593\).](#)

On January 19, 2021, The City Council majority voted to suspend ticketing and come back to the City Council in three months with options for all neighborhoods.

H-3. The matter to discuss and direct staff to suspend ticketing during the COVID-19 Shelter-in-Place Order and come back to the Council in three months with options to modify the Street Sweeping Program for ALL interested neighborhoods was introduced by Councilmembers McLaughlin and Martinez. Discussion ensued. The Council requested staff to verify that the proposed alternatives to street sweeping signs described with item H-3 complied with the National Pollutant Discharge Elimination System permit requirements described with item H-2; and to provide the cost for such alternatives. The following speakers gave comments via teleconference: Franco DeMarinis, Garland Ellis, Naomi Williams, Karen Franklin, Kathleen Erwin, Roberta Boucher, Michele Rappaport, and Tarnel Abbott. Further discussion ensued. A motion was made by Councilmember Willis approving item H-3, seconded by Councilmember McLaughlin. Further discussion ensued. The council recommended staff start working on a neighborhood street sweeping notification system immediately to help all neighborhoods begin compliance. The motion suspended ticketing in all neighborhoods with current signage at least until the shelter-in-place was lifted; directed staff to research revisions to the City of Richmond's Street Sweeping Program that included: use of city reminder notifications by email, phone, and/or text to all interested residents on street sweeping days; allowed ALL interested neighborhoods to opt into a voluntary compliance process (with potential removal of signage); ceased any plans to install new signage in any neighborhood while modifications were under study by staff and the Council; explore making temporary signs available to interested residents; and return to the Council in three months with options to consider for modification of the Street Sweeping Program by the following vote: Ayes: Councilmembers Jimenez, Johnson, Martinez, McLaughlin, Willis, and Vice Mayor Bates. Noes: Mayor Butt. Absent: None. Abstained: None.

Inaction 2020-2022

After the December 19, 2021, vote by the City Council, nothing happened until April 19, 2022, when Councilmember Willis agendaized a somewhat confusing item addressing street sweeping: "Reinstate the Issuance of Citations in the Street Sweeping Program."

The Agenda Report stated:

During the Shelter in Place Order, the City Council voted to suspend ticketing of vehicles that were not moved on Street Sweeping days. The City Council took this position because the pandemic created many hardships for residents in Richmond and residents were confined to their homes. Suspending the ticketing process provided a sense of relief for residents because they wouldn't receive a citation on Street Sweeping days. During the Shelter in Place Order, it was appropriate to suspend components of the program; however, the Order has been lifted and the streets are extremely blighted with debris. Complaints of the unsightly condition of the streets have increased. In order AGENDA REPORT32 Page 2 of 2 April 19, 2022, for the Street Sweeper to effectively clean the streets, cars need to be moved on designated streets according to the schedule. In order to prepare residents for the reinstatement of ticketing, a 90-day notification/warning period is recommended. In addition, the City Council needs information from the Parking Enforcement Division of the Richmond Police Department regarding their

capacity to provide warning notices of the reinstatement of ticketing within 90 days of reinstating this component of the program. The City Council also needs information from the Streets Division, Public Works Department, on their ability to reinstate the Street Sweeping program to its full capacity to clean our streets and prevent debris from entering the San Francisco Bay. The effective date of the reinstatement should be in accordance with the Parking Enforcement Division's and the Streets Division's capacity to do so.

DISCUSS and APPROVE reinstating the citation component of the Street Sweeping Program with a 90- day notification/warning period – (Councilmember Melvin Willis 510-412-2050).

There followed a rather circular argument about signage. It was pointed out that in order to motivate residents to move vehicles, there need to be consequences, such as citations and towing. In order to cite or tow, state law requires warning signs.

Ultimately, the City Council again kicked the can down the road and requested staff to figure it out and report back sometime in the future.

Human Health, Road Dust, Coho Salmon and Street Sweeping

From a health and environmental standpoint, the most important result of street sweeping is the debris you cannot see.

Recent research has revealed that a chemical found in car tire debris kills coho salmon returning to spawn.³⁹ For the first time in years, endangered Coho salmon have been spotted in tributaries of San Francisco Bay.⁴⁰

High levels of organic and inorganic contaminants in street dust represent a source of dual potential risk to stormwater and air quality.

Further, studies have indicated that as much as 85 % of ambient airborne particulate matter (PM 10), exposure to which is associated with several adverse health effects, can arise from accumulated street dust (Amato et al. 2010a).⁴¹

³⁹ <https://www.acs.org/content/acs/en/pressroom/presspacs/2022/acs-presspac-march-2-2022/substance-derived-from-tire-debris-is-toxic-to-two-trout-species.html#:~:text=Every%20time%20it%20rains%2C%20fish%20living%20downstream%20of,of%20coho%20salmon%20across%20the%20U.S.%20West%20Coast.>

⁴⁰ <https://www.sfgate.com/local/article/Nearly-extinct-coho-salmon-spawns-in-Bay-Area-16761425.php#:~:text=Spawning%20season%20typically%20happens%20in%20December%20and%20January%2C,to%20SPAWN.%20Even%20those%20numbers%20are%20encouraging%2C%20however.>

⁴¹

https://www.researchgate.net/publication/267815452_Street_Dust_Implications_for_Stormwater_and_Air_Quality_and_Environmental_Management_Through_Street_Sweeping

Parked cars pose a significant interference to street sweeping.

Parked car interference can have a significant negative effect on the ability of street sweepers to pick up accumulated particulate material. Since it is reasonable to assume that all street dirt accumulation essentially occurs within the width of a parked car, access to the curb is denied for the entire length of the parked cars along with the additional distance it takes for the sweeper to maneuver around parked cars. The most skilled sweeper operators can minimize this additional interference to a distance of approximately the length of a single car on both sides of one or more parked cars. So a good program minimizes parked car interference by sweeping at night in commercial or industrial areas and during the day for residential areas. It also uses and enforces residential parking restrictions where they are warranted.⁴²

The AB 617⁴³-driven Community Emissions Reduction Plan⁴⁴ is providing surprising and compelling evidence that marine and rail operations, along with vehicles and trucks, are the source of most of the hazardous PM_{2.5} particulates in Richmond.⁴⁵ This is counterintuitive from the widely held belief that Chevron is the biggest threat. While Chevron remains a significant source of PM_{2.5} particulates, its impact on health is relatively small compared to other sources.

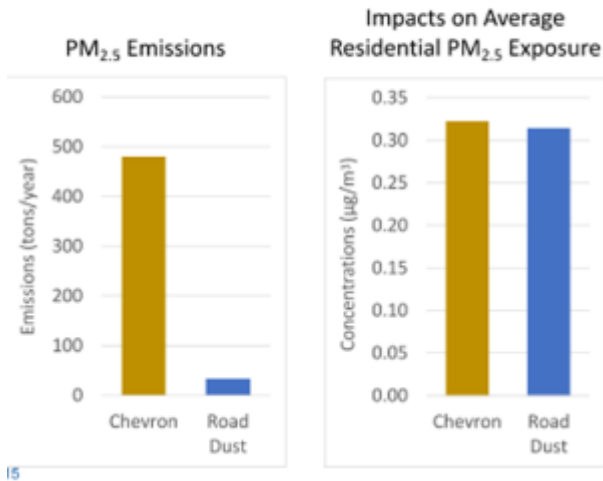
⁴² <https://www.tymco.com/street-sweeping-101/>

⁴³ AB 617, which passed in 2017, mandates that the state improve air quality in disadvantaged communities like Richmond & includes grants for improving community-based monitoring and emissions reduction plans. <https://ww2.arb.ca.gov/our-work/programs/community-air-protection-program/communities/richmond-north-richmond-san-pablo>

⁴⁴ In 2021, at the recommendation of CARB staff, the CARB Board [selected](#) the Richmond, San Pablo Community to transition and develop a community emissions reduction program, in addition to continued implementation of the 2018 Community Monitoring Plan. <https://www.baaqmd.gov/community-health/community-health-protection-program/richmond-area-community-health-protection-program>

⁴⁵ <http://www.tombutt.com/pdf/path%20to%20clean%20air.pdf>

Modeled PM_{2.5} Impacts Emissions vs. Exposure



Why do they differ?

- Source **release characteristics** (e.g., low-level vs. high stacks)
- **Proximity** to emissions sources
- Only showing **local impacts** on PM_{2.5} exposures (within the PTCA study area)

Figure 20 – While Chevron emissions as a source of PM_{2.5} far exceed that of road dust, the impact of road dust on human health is far higher. Source: Richmond – North Richmond – San Pablo Community Path to Clean Air, Community Emissions Reduction Plan (CERP) Community Steering Committee Meeting #154, May 16, 2022, presentation. (<http://www.tombutt.com/pdf/path%20to%20clean%20air.pdf>)

Modeled Impacts: Source Contributions

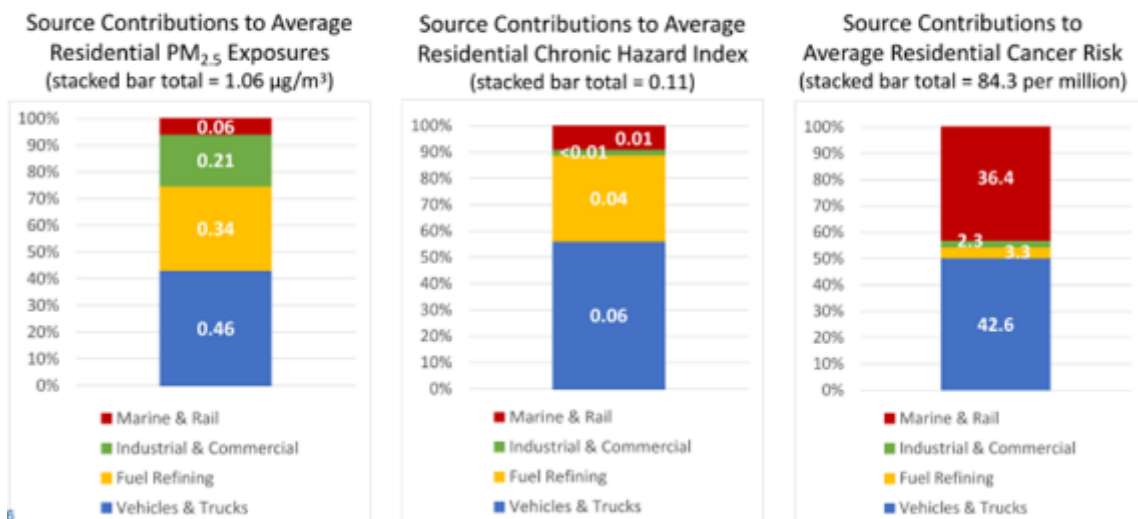


Figure 21 - As a source contribution to cancer risk, Vehicles and Trucks (including road dust) and marine and dominate, far exceeding that of Chevron. Source: Richmond – North Richmond – San Pablo Community Path to Clean Air, Community Emissions Reduction Plan (CERP) Community Steering Committee Meeting #154, May 16, 2022, presentation. (<http://www.tombutt.com/pdf/path%20to%20clean%20air.pdf>)

Vehicles and Trucks A Closer Look at PM_{2.5}

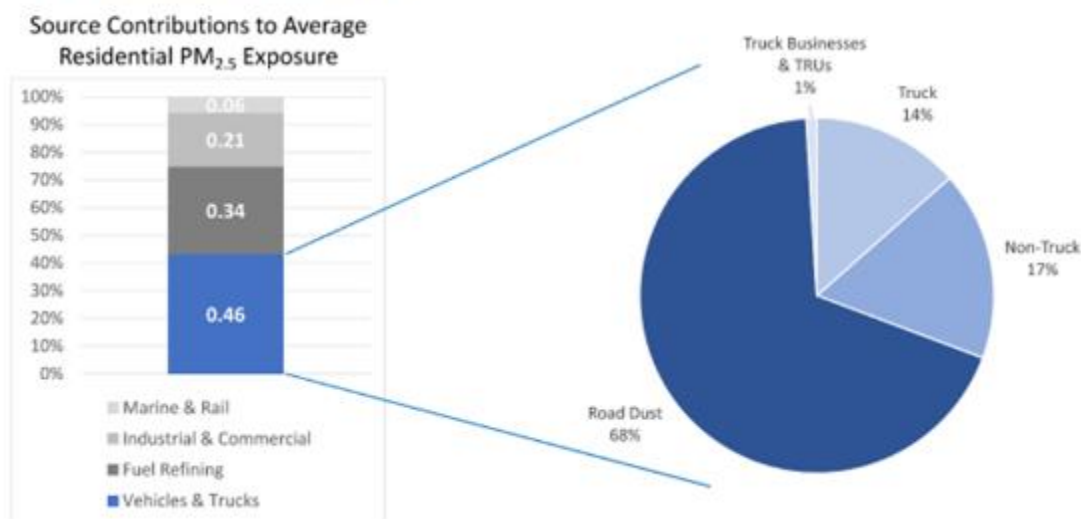


Figure 22 - Of the vehicle and truck sources of PM_{2.5}, road dust makes up 68 percent. Source: Richmond – North Richmond – San Pablo Community Path to Clean Air, Community Emissions Reduction Plan (CERP) Community Steering Committee Meeting #154, May 16, 2022, presentation. (<http://www.tombutt.com/pdf/path%20to%20clean%20air.pdf>)

Of the Vehicle and Trucks component, road dust contributes 68 percent of the total PM_{2.5} particulates.

Road dust represents a growing portion of on-road emissions inventories due to recent reductions in vehicle exhaust emissions; this category is currently the subject of a study by CARB, Caltrans and EPA.⁴⁶

One of the recommended strategies for reduction is street sweeping:

Control road dusts through street sweeping and/or reducing trackout from construction projects and industrial sites.

⁴⁶ Ibid

Connecting to Strategies (cont.)

Mobile Sources

- Control road dust through street sweeping and/or reducing trackout from construction projects and industrial sites
- Vegetative barriers where rail lines or roadways pass near densely populated areas
- Incentive funds to replace trucks, engines, or equipment



Figure 23 - Street sweeping is recommended as a way to control road dust. Source: Richmond – North Richmond – San Pablo Community Path to Clean Air, Community Emissions Reduction Plan (CERP) Community Steering Committee Meeting #154, May 16, 2022, presentation. (<http://www.tombutt.com/pdf/path%20to%20clean%20air.pdf>)

General Plan 2030

The Richmond General Plan supports best management practices to improve water quality. Although street sweeping is not specifically identified, it is a well establish best management practice.

Finding 3: The City is making efforts to improve water quality in creeks and Bays, but stormwater runoff and long-term viability of the watersheds remains a concern. Federal, state and local regulations protect water quality, recharge areas and the overall watershed. To meet these regulations, the City is continually evolving and adapting best management practices. Ways to reduce impacts from urban and stormwater runoff include:

- Integrating stormwater management techniques to minimize runoff;
- Encouraging water conservation efforts by residents, businesses and industry.
- Working with regional stakeholders to protect and restore watershed viability and protect the health of wildlife and natural habitat; and
- Creating an integrated watershed management approach and best management practices aligned with local, state and federal priorities.⁴⁷

Policy CN3.2 Water Quality Work with public and private property owners to reduce stormwater runoff in urban areas to protect water quality in creeks, marshlands and water bodies and the bays. Promote the use of sustainable and green infrastructure design, construction and maintenance techniques on public and private lands to protect natural resources. Incorporate

⁴⁷ <http://www.ci.richmond.ca.us/DocumentCenter/View/8812/70-Conservation-Natural-Resources-and-Open-Space?bidId=>

integrated watershed management techniques and to improve surface water and groundwater quality, protect habitat and improve public health by coordinating infrastructure and neighborhood planning and establishing best practices for reducing non-point runoff. See also: HW9.3

Action CN3.A NPDES Compliance and Permit Continue to comply with the City's National Pollutant Discharge Elimination System (NPDES) Permit and continue to implement the following action steps:

- Maintain municipal infrastructure (sewer systems, roads, corporation yards, buildings) to reduce pollutants that flow into water courses;
- Require development to comply with the Contra Costa Clean Water Program Stormwater Guidebook;
- Work with developers to ensure compliance with the City's minimum standards and NPDES requirements;
- Encourage all projects to use pervious pavements, cluster structures, disconnect downspouts, minimize land disturbance and utilize micro- detention such as low impact development (LID);
- Require adequate source control measures to limit pollution generation in businesses including draining non-stormwater discharges such as swimming pools, trash and food compactor racks, vehicle outdoor storage, fire sprinkler test water and equipment washing;
- Require businesses that may be susceptible to polluting stormwater to implement best management practices (BMPs) including covering drains and storage precautions for outdoor material storage, loading docks, repair and maintenance bays and fueling areas; • Inspect contamination sites to prevent illicit discharges;
- Inspect municipal storm drains to eliminate illicit discharges and prevent illegal dumping;
- Educate the public about stormwater pollution prevention methods and provide incentives for public participation;
- Adopt an integrated pest management (IPM) policy or ordinance and advocate IPM through public education;
- Manage waste generated from the cleaning and treating of copper architectural features including copper roofs; and
- Adopt a local ordinance for installing a sanitary sewer connection and prohibiting discharges of copper-based chemicals or other fungicides from pools, spas and fountains. See also: HW9.L.

Conclusion

In the last 20 years, the Richmond City Council has continued to waffle over street cleaning policy, pondering whether moving vehicles on sweeping days should be mandatory or voluntary. Most of the City's neighborhoods have been signed for years with violators at least threatened with citations and/or towing.

There is a clear resentment from neighborhoods that have embraced street sweeping against those neighborhoods that have arm wrestled certain City Council members to exempt them from mandatory compliance for moving vehicles on street sweeping days,

Although there are at least two neighborhoods without signs (Richmore Village and Carriage Hills South) that appear to generally respect the requirement to move vehicles, there are only two other neighborhoods (Richmond Annex and Annex Panhandle) that are generally not in compliance and continue to resist signs and citations.

Whether street sweeping is legally required, and further, whether signs and citations are legally required by regulatory agencies enforcing the Clean Water Act remains murky.

What is becoming increasingly clear, however, is that street sweeping is a critical component of improving human health and keeping pollutants out of creeks and San Francisco Bay. Among the best practices of an effective street sweeping program is the motivation provided by signs and citations to move vehicles on sweeping days.

It is ironic that members of the City Council who hold themselves up as protectors of the environment are leading the charge to make vehicle removal on sweeping days voluntary, reducing the effectiveness of the program, increasing pollution of waterways and San Francisco Bay and posing a significant human health hazard, all to simply cater to the convenience of residents in a few selected neighborhoods.