

CITY OF SAN RAFAEL

Piloting Bulky Item Pick-up from Multifamily Properties

The city of San Rafael's cross-departmental Together San Rafael team wants to reduce illegal dumping by 50% by 2025 and determines which interventions should be permanently adopted to address the issue.

Through the team's previous research, community engagement, and data analysis, the city identified knowledge, cost, and transportation as the biggest obstacles for multifamily residents to discard bulky waste properly, and mattresses as one of the most common illegally dumped items. However, the city's contract with the local refuse and recycling hauler does not include curbside pick-up for bulky items from multifamily properties.

Including multifamily properties in bulky item pick-up services would require amending the city's franchise agreement with the hauler, and city ordinance language to require multifamily properties to provide their residents the ability to access these services.

With funding from the Mattress Recycling Council, the city created a six-month pick-up pilot program for mattresses and box springs. Designed in collaboration with the hauler and offered in two neighborhoods, the pilot project aimed to understand logistical challenges, anticipate costs, gauge resident use and identify communication strategies. Through this project, the city collected baseline data and feedback to inform franchise agreement language and city ordinance amendments.

Project Elements & Design

The city took a data-driven, human centered approach to designing the pilot program. Using illegal dumping data collected by the city's department of public works the project team identified two major hotspots in the Canal community. The team also sought anecdotal feedback from crews responding to illegal dumping incidents and identified another hotspot along a section of Lincoln Avenue. Next, the team looked for large multifamily properties near these hotspots and recruited seven locations to participate. An additional property not near these hotspots also opted in to the program.

The city and hauler worked together to determine the timeframe of the pilot project and the number of pickups to offer the multifamily properties in these areas – settling on a twice a month pickup on a set day of the week during June to December 2022.

The city designed three surveys to collect feedback from property managers before, during and after the pilot project term. This allowed for the capturing of real-time information about concerns and recommendations such as tenant communication and engagement, bulky waste collection frequency and property space constraints. To incentivize survey responses, the city provided gift cards at its own expense.

The city expected the property managers to communicate with their tenants and distribute promotional material. So, the project team provided multilingual posters, guidelines, sample letters and text messages.

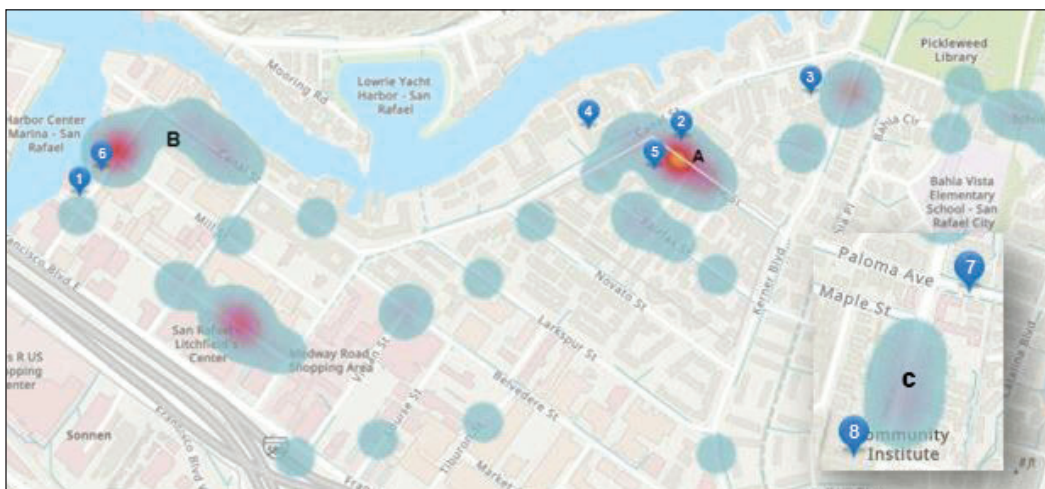


Figure 1. Map of the eight participating properties and three illegal dumping hotspot locations. Properties are numbered and hotspots are lettered. Illegal dumping reports are displayed using a heat map of the data submitted by the Department of Public Works staff for 2021 and 2022.

Table 1: Usage Rate and Mattresses Collected

	Property	Nearest Hotspot	Pick-ups Conducted	Pick-ups Offered	Usage Rate	Mattresses Collected
1	27 Harbor St.	B	6	8	75%	4
2	191 Canal St.	A	7	10	70%	2
3	123 Canal St.	N/A	5	10	50%	7
4	220 Canal St.	A	4	10	40%	2
5	221 Canal St.	A	1	10	10%	0
6	49 Harbor St.	B	0	8	0%	0
7	1400 Lincoln Ave.	C	0	8	0%	0
8	1327 Lincoln Ave.	C	4	8	50%	0
	TOTALS		27	72		15

Project Results

Despite varying levels of participation across properties, the pilot program demonstrated flexibility and adaptability to each property's circumstances. Usage and mattress collection did not reach the city's expectation, but the program helped alleviate the problem of illegal dumping most prominently in the Canal neighborhood.

Across all properties, 27 of 72 available bulky item pick-ups were utilized, achieving an overall usage rate of 37%. Ultimately, 15 mattresses were collected.

Canal Neighborhood Impacts

The overall change in illegal dumping near the participating properties was another important evaluation metric, but baseline illegal dumping data did not exist in all areas of the city. Therefore, the project team determined the Canal neighborhood provided the best opportunity to observe any changes.

To determine if illegal dumping was occurring more or less frequently, the team looked to the city's Survey 123 data. The department of public works uses the app to record details about illegal dumping site cleanups. Therefore, the recorded illegal dumping pick-ups provides insight into the pilot program's impact on all bulky waste.

A dramatic difference was observed in the two hotspot locations in the Canal neighborhood. A significant

decrease in dumping occurred at hotspot A, while a significant increase (though with much smaller overall numbers) occurred at hotspot B. Important differences in the makeup of building and use types and participation seemed to influence these different results.

Table 2: Reports of Illegally Dumped Bulky Items in the Canal Neighborhood

	Hotspot Location	2021 Reports	2022 Reports	% Change in Reports
A	Charlotte Dr. and Sonoma Street	29	10	65.52% decrease
B	Harbor and Mill Street	4	9	125% increase

Hotspot A - Charlotte Dr. and Sonoma St.

Made up primarily of multifamily properties and a few single-family homes, hotspot A experienced a 65.52% decrease in the number of illegal dumping pickups by the city in 2022 compared to 2021.

Three participating properties were located near hotspot A. Each had a varying level of usage rate (one high, one moderate, one low). However, all had on-site property managers, two of which were highly engaged with the project team and in communicating to their residents. In addition to the pilot program, the overall decrease in illegal dumping in hotspot A may be due to the full

suite of programs the city offers to combat illegal dumping, plus additional actions taken by the participating properties (one property added a surveillance camera and fence after the pickups ended).

- Bulky Waste Collection Events
- Community education via mailers, posters in laundry rooms, and through community organizations
- Enhanced security via surveillance cameras and signage.

Hotspot B – Harbor and Mill Streets

This is a mixed-use area with various businesses, an emergency shelter, and multifamily housing. Hotspot B experienced a 125% increase in the number of illegal dumping pickups by the city in 2022 compared to 2021 data.

Two participating properties were located nearby and starkly contrasted one another. One property recorded the highest usage rate among all the participating properties and benefited from an on-site property manager that communicated regularly with the residents and project team. Meanwhile the other property did not utilize the program, nor had an on-site property manager or any engagement with their residents or the project team. However, the project team continued to put up outreach posters at the property in the designated pick-up area throughout the duration of the pilot program.

The city concluded that an area with mixed-use, like hotspot B, may need additional programs geared toward businesses and other populations of interest to reduce illegal dumping. Additional research into the relationship between businesses and illegal dumping would benefit understanding the increase of illegal dumping.

Actionable Insights for Cities

The pilot program results underscore the importance of an engaged property manager and to anticipate communication challenges with off-site management. Alternatively, waste haulers can directly engage with tenants to increase program awareness. Among the specific recommendations for city leaders and staff:

- Consider implementing an on-call pick-up service or voucher program for residents' convenience and accessibility.
- Explore various programs to address transportation and affordability barriers.
- Monitor usage rates and adjust policies as needed for optimal effectiveness.
- Implement community surveys periodically to assess disposal needs and identify trends.
- Engage tenants with targeted communication to ensure awareness and participation in programs .
- Research subtenant activity and strategies to engage these residents, potentially through on-call pick-up programs, or require that program information is posted in common areas.
- Research the potential correlation between illegal dumping and nearby businesses to inform potential interventions.
- Designate a worker to collect data and maintain communication with relevant stakeholders to address data collection barriers and share data findings with staff.

Resources

City Ordinance and Franchise Agreement Language

Courtesy of the City of San Rafael and based on the data and feedback collected during this pilot project.

[View the sample language](#)

Best Practices in Addressing Illegal Dumping of Durable Waste - A Guide for Policy Makers

Authors Dr. Calvin Lakhan and Nana Adjei, Faculty of Environmental and Urban Change at York University identify the drivers of illegal dumping, as well as approaches to address the problem.

[View the executive summary and full white paper](#)

City of Palmdale's Case Study

Building awareness of the Junk Away the Right Way campaign among multifamily housing.

[View the case study](#)

City of San Jose's Case Study

Finding the right mix of education and surveillance to combat illegal dumping near multifamily housing.

[View the case study](#)

City of Berkeley's Case Study

A 12-month pilot project to design and test a curbside pickup program.

[View the case study](#)