



Memorandum

TO: TRANSPORTATION AND ENVIRONMENT COMMITTEE

FROM: Kerrie Romanow

SUBJECT: SEE BELOW

DATE: February 14, 2020

Approved

Date

2-23-20

SUBJECT: INTEGRATED WASTE MANAGEMENT RECYCLE RIGHT AND RECYCLING MARKETS UPDATE

RECOMMENDATION

Accept this update on the Recycle Plus residential recycling and solid waste collection program, including efforts to address recent developments in worldwide recycling markets.

OUTCOME

Acceptance of this update provides information on recent efforts related to implementing new program parameters for the Recycle Plus program, as directed by City Council, including, City-led outreach and contractual flexibility for recycling markets.

BACKGROUND

Prior to 2018, China was a primary buyer of recyclable material generated in the United States. On March 1, 2018, China implemented the "National Sword" policy that restricted the imports of paper, cardboard, and plastics, thereby causing ongoing disruptions to global recycling markets. The National Sword policy is detailed in the Council Information Memorandum "[China Recycling Waste Ban](#)",¹ December 4, 2017. While other countries such as India, Vietnam, Malaysia, Thailand, Indonesia, Mexico, and Canada are buying recyclables, the price paid per ton in these markets is reportedly much less than the historical rate, and the long-term capacity for these markets to absorb the material that traditionally went to China is uncertain.

The Environmental Services Department (ESD) and Recycle Plus service providers have been adapting to the uncertain market conditions. In the short-term, the City accommodated the immediate impacts of China's National Sword policy by implementing a one-time, partial waiver

¹ <http://files.constantcontact.com/7a210436601/d557351a-2efd-4c89-bbba-3fa05a196861.pdf>

of contractual disincentives related to recycling standards (see memoranda, [“Actions Related to Recycle Plus Residential Solid Waste Agreements and China’s Policy on Importing Recyclable Material”](#)², on the January 15, 2019 Council agenda and [“Diversion Disincentives Report”](#)³ on the June 3, 2019 Transportation and Environment Committee agenda). The Recycle Plus contractors continue to maximize landfill diversion and process material to the highest and best use for the available markets, reporting continued sales of most of the traditional, core recyclables, including paper, cardboard, metals, bottles, and cans.

For future Recycle Plus services, Council directed staff to make contract changes that incorporate enhancements and flexibility related to adapting to recycling markets over the long-term, while providing a convenient service for residents (see memoranda [“Actions Related to Negotiations of Recycle Plus Residential Solid Waste Agreements”](#)⁴ on January 15, 2019 Council agenda and [“Actions Related to Current and Future Recycle Plus Residential Solid Waste Agreements”](#)⁵ on June 18, 2019 Council agenda), including:

- *Centralized Public Outreach* – Shifts primary responsibilities for Recycle Plus public outreach from Recycle Plus contractors to the City, in order to provide more consistent and equitable messaging regarding proper recycling.
- *Adaptable Recycling Compensation Structure* - New, ‘sliding scale’ compensation structure for recycling services that increases contractor payment for more contaminated recyclable material collected and decreases contractor payment for cleaner recyclable material collected.
- *Adaptable Recyclables List* - A process which, in response to changing recycling markets, allows flexibility in the Recycle Plus contracts to adjust the list of recyclable materials used to determine compliance with recycling processing standards and appropriate compensation.
- *Recycling Markets “Safety Net”* – A process where, should markets become not reasonably available, a contract opener would be triggered and Recycle Plus contractors and the City would meet to discuss reasonable modifications to recycling standards and/or other adjustments to the contractors’ recycling obligations in the Recycle Plus agreement. Any related contract amendments would be brought forward for Council’s consideration.
- *Non-Collections Limited* - Non-Collection Notices (NCNs) can no longer be issued for non-recyclables found in the recycling cart, and NCNs are now limited to hazardous waste and overflowing garbage. Over the past six months, California Waste Solutions (CWS) has issued NCNs for only hazardous waste situations, amounting to less than ten NCNs per month (down from over 10,000 per month), which is consistent with the amount of NCNs issued by GreenTeam, the City’s other recycling collection contractor.

² <https://sanjose.legistar.com/View.ashx?M=F&ID=6946320&GUID=58FBBC86-DCC0-45D2-B60D-B5823CDFCD12>

³ <https://sanjose.legistar.com/View.ashx?M=F&ID=7244763&GUID=C823CF47-467A-4468-9844-C4290788879C>

⁴ <https://sanjose.legistar.com/View.ashx?M=F&ID=6946316&GUID=3D50BA03-F6F0-46CF-9A2B-09BF22DACCE5>

⁵ <https://sanjose.legistar.com/View.ashx?M=F&ID=7296420&GUID=9E9EA770-B80B-4149-A50E-DCE06E38135C>

ANALYSIS

The City and Recycle Plus contractors have already begun efforts to implement program enhancements to provide more consistent, equitable citywide outreach and to adapt to recycling market conditions.

Adapting to Recycling Markets

In December 2019, following the new process to adapt contractual requirements to recycling market conditions, recycling contractors CWS and GreenTeam jointly submitted a request to ESD to amend the recyclables list that is used for studies that inform performance standards and determine appropriate compensation tiers. In this joint letter from the contractors, they requested the recyclables list be amended to remove textiles (both bagged and loose), polystyrene (Styrofoam), and plastic bags and other film. The collaborative request included required substantiation, communications with recycling vendors and recent sales data. In late December 2019, ESD approved the contractors' request to remove textiles and polystyrene from the list; plastic bags and other film will remain on the list, with the clarification that it be limited to clean and clear plastic film (approval attached for reference).

China's National Sword policy created a dynamic and uncertain situation for global recycling markets, with constantly changing restrictions and opportunities. A recent review of industry publications Resource Recycling, Waste Dive, and Waste360, featured the following developments related to global recycling markets:

- *China* – Currently has a maximum mixed paper contamination limit of 0.5%, which is difficult for U.S. recycling processors to meet (note, this contamination rate is the standard recycling processors are held to when preparing materials for market, not the contamination rate in curbside carts). China has already banned 40 types of waste, and in 2020, 16 additional waste types are scheduled to be banned. It is expected that there will be an all-out ban on cardboard and most other paper grades by 2021.
- *India* – India is following China's lead with strict contamination limits on fiber (1% limit). In 2016, the U.S. was sending 12% of its mixed paper exports to India. In 2019, that number jumped to 41%. India also has an import ban on scrap plastic.
- *Indonesia* – Like China, Indonesia currently has 0.5% contamination rate for mixed paper. In 2019, some U.S. containers shipped to Indonesia were rejected. Twelve of the containers were returned to the U.S. Thirty-eight containers were diverted to India after being rejected in Indonesia. Eight of the rejected containers ended up in Canada, South Korea, Mexico, Netherlands, Thailand, and Vietnam.
- *Vietnam, Malaysia, and Thailand* – While these Southeast Asian countries initially provided a marketing alternative when China restricted imports, they have since also increased their scrap import restrictions.

- *Latin America* – Currently, there are approximately 400 pulp/paper mills in Latin America, but many of them are at capacity. Since 2017, two companies in Mexico plan to open new or add capacity for containerboard. Because of China’s National Sword policy, some U.S. fiber (paper and cardboard) is now marketed in Latin America. While most paper mills in Latin America can accept some paper, they are at near capacity and have strict contamination limits for cardboard. Large quantities of recycled fiber are being transported by truck (not seaport) to Mexico from the U.S.
- *Canada* – Since National Sword, Canada has been the second largest market (after India) for U.S. mixed paper, with 800,000 tons of capacity. Plastic recycling capacity is also expanding in Canada.

To meet the material quality requirements of the markets, many recycling companies are installing additional technology and improving infrastructure in processing facilities to generate better quality material. Processing facilities are also hiring more staff and slowing down processing speeds to improve the quality of their recyclable commodities.

With the uncertainty and restrictions in the recycling markets, there has been an industry-wide push for recycling programs to move toward waste prevention and redevelopment of domestic recycling markets. In the U.S., there has been a shift toward domestic plastics markets. Fifteen new and ten expanding facilities processing recycled plastics have been announced or completed since 2017 (six in California, one in Nevada, four in South Carolina, and one each in Alabama, Georgia, Louisiana, and North Carolina). In the paper/fiber market, there has also been a shift toward domestic markets. Since 2017, sixteen paper mills have opened/reopened to produce cardboard and mixed paper. These mills are concentrated in the Pacific Northwest, Northeast, and Midwest.

To promote investment in domestic recycling markets in California, the California Department of Resources Recycling and Recovery (CalRecycle) oversees the Recycling Market Development Zones (RMDZ) loan program that provides loans to businesses that prevent waste or use postconsumer waste materials as feedstock for their products/services. The available amount of funding for 2019-2020 is \$6,250,000 with a 4% interest rate. Eligible applicants include private, for-profit entities; non-profit organizations (except private schools); and local government entities (cities, counties, regional or local sanitation agencies, waste agencies, and joint powers authorities).

A domestic end-market solution being explored in San José is a public-private partnership amongst the City, GreenWaste Recovery, and BioCollection. BioCollection is working to create an alternative market for hard-to-recycle plastics, such as polyethylene (PE), which includes plastics number 2 and 4 and film plastics. PE makes up a significant amount of the municipal residual waste stream. The initial three-phase pilot is now complete and BioCollection is looking at the next phase, to bring the project full scale in San José.

In addition to the development of alternate markets to China and investments in domestic market development, waste reduction initiatives have also been a recent trend. To protect our watershed and reduce waste, San José has already banned plastic bags and polystyrene (Styrofoam) food service ware. Recently, California passed a law restricting the use of plastic straws in full-service restaurants unless requested (“Straws Upon Request”) and other California cities, such as Berkeley and Palo Alto, have passed bans on single-use disposables. These policies strive to protect the environment and reduce waste, which alleviates pressure on handling and marketing low-value material.

Providing Consistent, Equitable Outreach

In response to China’s National Sword Policy, to be in compliance to more stringent state legislative recycling requirements, and to meet the City’s Zero Waste goals, ESD began the transition of conducting enhanced, inclusive, and centralized recycling outreach in July 2019. Per their existing contracts, most Recycle Plus contractors continue to provide public education through June 2021. ESD launched a major Recycle Right public education campaign targeting specific audiences including the general public, Spanish and Vietnamese residents, low-income households, and youth. ESD also identified City staff as one of the targeted audiences.

There are two phases of the public education campaign. ESD is in phase one (first year) of the public education campaign. The campaign messages are simple: what are recyclable items and eliminate food and liquid in the recycling bin, resulting in cleaner recyclable materials diverted from landfills. ESD is using baseline surveys to measure the effectiveness of the campaign. The second phase of the campaign will consist of proven, effective messages and use survey information and program data to measure campaign success. Behavior science studies indicate that to change one behavior, it may take between two and a half weeks and eight months. Recycling is complex and requires multiple behavior changes, which may take longer than eight months to change.

Building on previous recycling customer satisfaction surveys and recycling studies, ESD also conducted five surveys beginning July 2019 to establish baseline data on residents’ and City staff’s recycling beliefs and behavior. These trilingual recycling surveys targeted residential households, multi-family households, City staff, and Vietnamese speaking audience (two separate surveys conducted). Every year, ESD will conduct the same survey to each respective audience, and every other year, starting October 2020, ESD will conduct recycling studies, both of which will gauge campaign effectiveness including changes in residents’ behavior.

To provide an easy tool to inform residents of what items are recyclable in San José, ESD introduced SanJoseRecycles.org in July 2019. This new web site is a data driven, visually appealing and user-friendly website for recycling information. The website allows the user to quickly and easily search over 300 recyclable items. To optimize the website, ESD continues to incorporate more recyclable items into the database, provide new content (blogs, videos) and new features to meet residents’ demands. In about six months since launching SanJoseRecycles.org, more than 60,000 people (as of Jan. 30, 2020) have visited the web site.

On average more than 9,000 *new* people visit the site each month, some using the website more than once. According to the ESD's website vendor, per resident, SanJoseRecycles.org's traffic is about five times higher than in other cities they do business with.

The Recycle Right public education campaign has over 100 outreach strategies to deploy a message of "San José Recycles Clean" and an action to visit SanJoseRecycles.org. The campaign includes targeted audiences and a range of tactics from traditional paper flyers to high tech methods. Most outreach materials are in English, Spanish and Vietnamese. Some of the outreach tactics include hard copy flyers/postcards distributed at libraries, community centers and community events; direct mail; digital ads (social media, Google); ads in newspapers, radio and TV; and San Jose Earthquakes ads (at Avaya Stadium and on VTA buses).

Community engagement is a cornerstone of the campaign. In about six months, ESD staff and Recycle Plus contractors have presented and tabled 47 times to neighborhood associations, libraries and community events. All community engagements are posted on the ESD website calendar.

To be inclusive of a diverse city and to address equity, Vietnamese and Spanish community outreach is a focal point of the Recycle Right campaign. ESD has enhanced Vietnamese language outreach including:

- Placing Vietnamese language radio, television and newspaper ads; appearing on television talk shows; placing Facebook ads; and participating in a large San José Vietnamese community Facebook group (over 15,000 followers).
- Tabling at Vietnamese-specific events at the Moon Festival and the Tet Festival, both at Eastridge Mall.

The Recycle Right campaign also contains a robust Spanish language outreach plan. ESD has developed and placed Spanish language audio ads on streaming radio (Uforia); television commercials on Univision featuring a popular Spanish speaking San Jose Earthquakes player; digital ads on popular Spanish language websites and apps; Facebook ads; and radio talk show segments.

To be inclusive and to address equity, ESD refers to the HUD's formula to determine low-income limits; ESD then uses the latest Census data to identify low-income households in San José by zip code. ESD has conducted Recycle Right outreach to low-income households in correlated zip codes using Google ads, Nextdoor posts, and neighborhood association presentations.

To complete the first phase of the Recycle Right public education campaign in the next six months, ESD is eager to implement the following outreach tactics to further reach, include, and engage San José residents:

- Continue to be inclusive and address equity by enhancing outreach to Spanish and Vietnamese speakers and low-income households.
- Develop and promote an audio assistance feature allowing users to easily ask their smartphone or device about what is recyclable.
- Explore ways to incorporate virtual reality (VR) and augmented reality (AR) into recycling education; for example, this new feature can be incorporated into static bus shelters to further engage residents with their smartphone.
- Collaborate with the City Manager's Office through Startup In Residence (STIR) to find an automated and accurate way to translate SanJoseRecycles.org from English to Spanish and Vietnamese languages.
- Partner with Parks Recreation and Neighborhood Services to place ads in their widely distributed Community Activity Guides and engage families at Happy Hollow Park and Zoo's special events, youth summer camps, and existing classes and programs.
- Build strong partnerships with youth, including working with the San José Youth Commission and sponsoring the Zero Waste Youth Convergence and the Pathways to Climate Smart Careers.

EVALUATION AND FOLLOW-UP

City staff is collaborating with Recycle Plus contractors to finalize amended and restated agreements to fully implement new program parameters and to extend the contractual term through June 30, 2036. The primary outreach responsibilities for Recycle Plus should be fully transitioned to the City by June 30, 2021.

PUBLIC OUTREACH

This memorandum will be posted on the agenda for the March 2, 2020 Transportation & Environment Committee meeting.

COORDINATION

This memorandum has been coordinated with the City Attorney's Office.

TRANSPORTATION AND ENVIRONMENT COMMITTEE

February 14, 2020

Subject: Integrated Waste Management Recycle Right and Recycling Markets Update

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CEQA

Not a Project, File No. PP17-009, Staff Reports, Assessments, Annual Reports, and Informational Memos that involve no approvals of any City action.

/s/

KERRIE ROMANOW

Director, Environmental Services

If you have any questions, please contact Valerie Osmond, Deputy Director, Environmental Services Department, (408) 535-8557.

Attachment: Response to Recycle Plus Contractors' Request to Amend Recyclables List for Studies