

**EXHIBIT 7:**  
**DIVERSION RECOVERY PLAN**

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## Exhibit 7 Diversion Plan Recovery Plan

*Note: This is the Diversion Recovery Plan as of the date of signing, May 26, 2015. This Document is subject to modification to update the information contained herein. Updating will be at the direction of the City, and subject to City and Contractor approval.*

CWS will make a major contribution to the City's goal of reducing the amount of material sent to landfills from approximately one hundred eighty five thousand (185,000) tons in 2011 to approximately forty-thousand (40,000) tons by 2030.

The CWS Diversion Plan describes the methods and programs to be implemented by the company to help the City achieve those objectives. The primary elements of CWS's Diversion Plan include the following:

- 1) Strong Outreach and education
- 2) Effective communication with SFD and MFD customers
- 3) Enforcement of program quality standards as necessary
- 4) Strategic routing of collection services
- 5) Expansion of customer services staffing and protocols
- 6) Expansion of CWS customer service environment and resources
- 7) Expanding and new operations training for existing and new CWS personnel
- 8) Investment in and operation of a state-of-the-art processing facility
- 9) Continuous product and market development
- 10) Operational connectivity features

### Diversion Plan Elements

1. Strong Outreach and Education – In November 2014 CWS began a collaborative education and outreach program, uniform container decal, brochure and web design project with Waste Management and the City. In February 2015 this ongoing program expanded to include the City of Oakland Zero Waste Outreach Program Manager.

CWS has been collaborating and continues to collaborate with Waste Management in the creation of programs and materials for SFD and MFD customers. That effort has included the following:

- Development recycling container decals for recycling carts and bins along with planning, implementation and scheduling
- Recycling brochure for distribution to SFD and MFD customers, along with planning, implementation and scheduling
- On-route surveys of recycling program participation and cart contents to support program communication, community outreach and enforcement
- MRF survey of recyclable materials arriving at CWS facilities to support program community outreach and enforcement

2. Effective communication with SFD and MFD customers – March 2015 CWS began working with Acorn Housing MFD properties, and will continue and extend reach to other MFD and SFD customers. In

April 2015 CWS expanded work with Lapham Properties which represents approximately 40 MFD properties in Oakland. CWS plans collaborating with WM on a program that may use Cascadia Consulting to provide outreach materials to MFD properties.

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- 3. Enforcement of program quality standards as necessary – In November 2014 CWS co-led and advocated for meaningful and direct material quality messaging on program container decals and promotional brochures and assisted in the City's media campaign. That messaging encourages proper recycling practices and discourages contaminating recycling carts, and provides a framework for program guideline enforcement. In April 2015, container decals and brochures were approved; printing began and application and distributed will begin soon.
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- 4. Strategic routing and collection services – In January 2015 CWS began development and implementation of a re-route of SFD and MFD collection trucks to more safely and efficiently service City customers. Changes began in February 2015. Earlier, in November 2014, CWS and WM began collaborating on western Oakland changes; in February 2015 we began preparation our collaboration on changes for eastern Oakland. CWS contracted and began working with ContainerPros to audit the routes and suggest changes. ContainerPros has successfully worked locally with CWS, WM, Republic Services, and StopWaste.Org on similar programs.
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- 5. Expansion of customer service staffing and protocols – In January and March 2015 CWS added one customer service representative (CSR) to its Oakland staff. In April CWS began recruiting a customer service manager (CSM) and an additional CSR to be on board well before the collection program start date. CWS made changes to its CSR protocols to match the new collection program and is updating its CSR training guidelines to ensure uniformity in training on substance and etiquette. CWS anticipates beginning the transition with one customer service manager and three customer service representatives.
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- 6. Expansion of CWS customer service environment and resources – In March 2015 CWS made substantial improvements to its customer service work environment at 1819 10<sup>th</sup> St, adding and upgrading workstations, cabling, switching and lighting. A new phone system will be installed before May 1 and CWS will upgrade its customer service software architecture to use PC Scales Technologies and Tower 7.0 by the AMCS Group. PC Scales/Tower platforms are well established in the solid waste and recycling industries and their deployment will facilitate improvements in coordination reporting between customer service, collection and processing operations.
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- 7. Expansion and new operations training for current and new CWS personnel – In March 2015 factory (Cummins and McNeilus) training began for compressed natural gas (CNG) truck repair that will improve the collection operations efficiency and reduce CO<sub>2</sub> and particulate emissions.
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- In April 2015 drivers began training on the new and more efficient CNG collection vehicles. Training will continue and expand monthly. In May 2015 the CSM and CSRs will begin receiving training on the new software and procedures. On April 1 CWS proposed to WM a collaborative orientation for CWS and WM CSRs who will be working together and separately to serve Oakland residents. CWS believes that expansion and continuous improvement of the customer service department will increase diversion, help customers “right-size” containers and prevent contamination.
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- 8. Investment in and operation of a state-of-the-art processing facility – In 2015 CWS decided on a complement of equipment it will install and operate at the 10<sup>th</sup> St MRF. The delivery and operation of that equipment will begin in early 2016. CWS began design and evaluation of new processing components and system to best handle increasing SFD, MFD, as well as, Commercial recyclable materials in 2012. In 2014 CWS refined those designs to add processing equipment to increase productivity, efficiency and safely.
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- During the first quarter of 2016, CWS will train its MRF personnel in the operation of the company’s new, state-of-the-art processing equipment (mechanical screens and optical sorters.) Training will include the entire array of safety, operation, program guidelines ensuring the most productive, effective, and environmental.
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- 9. Continuous product and market development – CWS is a global recyclable product marketing leader, and continues aiding other prominent peer solid waste firms during periods of market access interruption, such as was experienced recently during the West Coast port strikes. Recyclable material quantity, character and quality as well as market conditions and political and economic environmental factors require flexibility by the company, the customer and City in ensuring continuity, growth profitability and success of waste diversion programs.
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- 10. Operational Connectivity Features – The integration of aforementioned activities and resources is part of CWS’s Operational Connectivity (OC) which will increase efficiency and solid waste diversion. CWS’s OC program is a continuous process that includes an integrated approach to operations and communication with customers, vendors, the City, regulators, and other stakeholders. OC also includes:

**Audit & Survey Process, Procedures and Programs** -- Audit and surveys include identifying participation, materials being diverted and contamination in the recycling stream. Surveys will be performed on-route and at the material recovery facility. On-route surveys will be performed by CWS EcoTeam members observe aspects of recycling collection operations and customer participation, including:

- Cart content
- Cart types and sizes
- Recycling program participation
- Distribute Outreach information

- Affix contamination notices when appropriate
- Engage and respond to residents in constructive communication about proper recycling Adherence to program guidelines

At MRF surveys may be completed by CWS or an independent contractor selected by CWS. Survey activities will include the characterizing percentages of program and non-program material from different areas in Oakland. CWS will focus attention on:

- Recycling collection routes
- Single- and Multi-family properties
- Program and non-program materials
- Observations and characterizations of materials after collections and before processing

Findings will be reported to the City of Oakland and will include:

- Residence type (Single-Family or Multi-Family)
- Audit observation and/or characterizations and results
- Educational materials shared with residents
- Notice and summary of personal contact made, if available
- Results/conclusions, if any
- Follow-up contacts/actions, if any

CWS's goal is to continuously improve in diverting materials from the incoming stream at the MRF and to help Oakland's residents participate in the program as designed so that more materials reach the MRF and less is lost to contamination. We will continually examine our operations, addressing all program areas, focusing foremost on how:

- Materials are collected and processed
- CWS materials are marketed and sold
- Customers are educated and motivated
- Consuming industries evolve and develop
- Materials are added to or subtracted from the program

CWS currently achieves a low residue rate for materials collected from its Oakland residential and commercial customers at its 10<sup>th</sup> St. and Wood St. facilities. In preparation, and as CWS begins to collect material from the entire franchise area we will report our discoveries about material quantity, character and quality in throughout Oakland and it will attempt to assess reason for differences. Differences that CWS has noticed is that the eastern area include:

- The area has historically been served by WM's "one-pass" trucks (whereby garbage, green waste and recycling is put into the same truck.) We believe this has an impact on the quality and frequency of participation and diversion and that its rectification may improve the factors including: recycling material quantity, character, quality and program participation.

- 80% of recycling carts have no labels or have labels that are illegible. We believe this has an impact on the quality and frequency of participation and that its rectification will improve the quality and frequency of participation.

As technological facility improvements are made, additional materials may be diverted from the recycling stream. Correct disposal and recycling practices may be improved with significant public information and education outreach. Importantly, CWS owns no domestic landfills and therefore has a unique incentive to divert the maximum amount of recyclable material away from landfills. CWS has no incentive to dispose of materials, in part, because CWS pays for disposal of materials it collects but cannot divert or recycle.

CWS has an ambitious diversion goal. Each year, from 2017 through 2025, CWS will divert an additional 0.25% of the total of all collected tons of SFD, MFD, City, and Commercial recyclable materials, reducing its tonnage sent to landfill by 0.25% annually.

Under a condition where the initial 2016 diversion goal is delayed due to delays in processing equipment installation and activation, the delayed diversion of tons from 2016 will be returned to the Zero Waste program in the following three years. In the event that CWS exceeds the diversion goals the excess percent will be credited toward CWS future diversion goal. CWS may include Recyclable Materials Collected as a result of providing Commercial Non-Exclusive Recyclable Materials Collection Service in the annual calculation of the Minimum Diversion Rate per section 8.01.

**Table - 1 Overall Diversion Outcome**

<b>Year</b>	<b>Minimum Diversion Rate</b>
7/1/2015 – 12/31/2015	90.00%
1/1/2016 – 12/31/2016	90.00%
1/1/2017 – 12/31/2017	90.25%
1/1/2018 – 12/31/2018	90.50%
1/1/2019 – 12/31/2019	90.75%
1/1/2020 – 12/31/2020	91.00%
1/1/2021 – 12/31/2021	91.25%
1/1/2022 – 12/31/2022	91.50%
1/1/2023 – 12/31/2023	91.75%
1/1/2024 – 12/31/2024	92.00%
1/1/2025 – 6/30/2025	92.50%

Tonnages for Recyclable Material delivered and processed, and the estimated Residual Tonnages for each calendar year of the RR Collection Services Contract beginning with calendar year 2016 are shown below segregated by SFD and MFD services.

### **Tonnages of Recyclable Material Received**

Calendar Year	SFD	MFD	City Services	Other	Total	Residue Rate	Residual Tonnage
2015	11,457	6,001	1,816	14,926	38,000	10.00%	3,800
2016	11,560	6,055	1,832	15,060	38,342	10.00%	3,834
2017	11,697	6,127	1,854	15,238	38,687	9.75%	3,772
2018	11,835	6,199	1,876	15,417	39,035	9.50%	3,708
2019	11,974	6,272	1,898	15,599	39,387	9.25%	3,643
2020	12,115	6,346	1,920	15,783	39,741	9.00%	3,577
2021	12,258	6,421	1,943	15,969	40,099	8.75%	3,509
2022	12,402	6,496	1,966	16,157	40,460	8.50%	3,439
2023	12,548	6,573	1,989	16,347	40,824	8.25%	3,368
2024	12,695	6,650	2,012	16,539	41,191	8.00%	3,295
2025	12,844	6,728	2,036	16,733	41,562	7.75%	3,221



## Exhibit 7 Diversion Methodology

*Note: This is the Diversion Methodology as of the date of signing, May 26, 2015. This Document is subject to modification to update the information contained herein. Updating will be at the direction of the City, and subject to City and Contractor approval.*

### Methodology for Diversion Calculation

CWS is in the recycling business and has successfully served the City of Oakland with a recycling franchise since 1993. We have two modern single stream recycling facilities in Oakland. The company is investing in state-of-the-art equipment to separate recyclables from other recyclables and is incentivized and committed to marketing recyclable materials in the best manner possible to ensure consistent access to markets, high diversion, and maximum revenues.

CWS has no interest whatsoever in receiving garbage and non-program materials in the recyclable material stream. Non-program materials and garbage contaminate our recyclable end products, cause some recyclables to be lost, lower their value, create safety risks, damage our equipment, reduce productivity, increase residue disposal and raise our costs. Our objective is to divert 100 percent of the recyclables we receive but we know from experience that that objective is not achievable. Instead, we accept that a more modest goal of recycling 90 percent of the recyclables received is more realistic and commensurate to the equipment and labor employed.

The equation for determining CWS's diversion rate will therefore be Tons Diverted of program and non-program materials divided by total tons of collected of Recyclable Materials, where "Diverted" means sold or shipped to secondary markets (possibly at negative value) for reuse, recycling, or, in some non-program materials cases, transformation, and "Recyclable Materials" means materials solicited as part of the Residential Recycling program (known as program materials).

$$\frac{\text{Tons Diverted}}{\text{Tons Collected (or Incoming tons) of Recycalbe Materials}} = \text{Diversion \%}$$

Tons collected (or Incoming tons) of Program Materials will be determined from weight tickets on Zero Waste program trucks. And percentage of incoming material that is recyclable program material will be determined from a weighted average percent of recyclable materials as determined by a series of waste characterization studies to be performed at CWS with the participation of Zero Waste staff over the course of the first 12 months of the operation of the agreement using the relevant guidelines outlined in The California Department of Resources Recycling and Recovery "Collecting Your Own Solid Waste Characterization Data: CalRecycle Uniform Waste Disposal Characterization Method."

Thereafter characterizations will be performed every six months using the agreed-upon methods and the percentage of recyclable materials shall be a weighted average of the most recent five characterizations (a rolling average) throughout the operation of the agreement.

### **Allocation by Jurisdiction**

CWS may mix other jurisdictions' materials or non-Zero Waste materials on the tip floor at the processing facility. This will in no way interfere in the allocation of recyclables and residual to the Zero Waste program as those values shall be determined using the methodology described above and the CWS Zero Waste weight tickets.

## Exhibit 7 Attachment A

## Section 8.01.3 Sample Calculation

Oakland Recycles RR Bi-Annual Waste Characterization Studies	
<b>Study No. 1    Date: Mar 2016</b>	
Sample Total (lbs.)	11,000
Collected materials that are: Recyclable Materials plus other materials which CONTRACTOR can and does Divert (lbs.)	9,500
Result	86.4%
<b>Study No. 2    Date: Nov 2016</b>	
Sample Total (lbs.)	10,000
Collected materials that are: Recyclable Materials plus other materials which CONTRACTOR can and does Divert (lbs.)	8,000
Result	80.0%
<b>AVG of 2016 Studies</b>	
8.01.1   Percentage of Collected materials that are: Recyclable Materials plus other materials which CONTRACTOR can and does Divert	83.2%

Oakland Recycles RR Bi-Annual Processing Diversion Studies	
<b>Study No. 1    Date: Feb 2016</b>	
Sample Total (lbs.)	51,000
Material Diverted through Processing (lbs.)	38,000
Result	74.5%
<b>Study No. 2    Date: Oct 2016</b>	
Sample Total (lbs.)	52,000
Material Diverted through Processing (lbs.)	40,000
Result	76.9%
<b>AVG of 2016 Studies</b>	
8.01.2   Percentage of Collected materials that are Diverted through Processing	75.7%

8.01.3 Calculation of Compliance with Material Diversion Standard	
A - 2016 Total Collected Material per Article 19	35,000
B - 35,000 x 83.2%	29,114
C - 35,000 x 75.7%	26,501
<b>Compliance - Is C 90% of B?    Formula: C divided by B</b>	<b>91.0%</b>