Date:	February 11, 2020
Prepared by:	Meghan Macias, TE
To:	Andrea Arcilla
Site:	Pre-Zero Jurupa Valley Project
Subject:	**Project Trip Generation**

The purpose of this memo is to quantify the project trip generation for the Pre-Zero Jurupa Valley project. The project site was previously evaluated in the September 2015 Traffic Impact Analysis (TIA) prepared by Kunzman Associates, Inc. for the San Sevaine & Bain Street Manufacturing project. The previous traffic analysis evaluated the entire 328,130 square-foot project using trip rates from the Institute of Transportation Engineers, *Trip Generation*, 9th Edition for Manufacturing land use. The site was subsequently sold to GreenCycle, a global waste management company that focuses on innovations in the areas of recyclables and energy solutions. GreenCycle proposes to utilize the site by PreZero, a subsidiary of GreenCycle. Two operations are proposed on-site:

1. Manufacturing of raw plastic material using recycled plastic product, and
2. Manufacturing of food product using recycled organic product.

Project Trip Generation

PreZero has provided an estimate of the truck trips and personnel required for the two proposed manufacturing operations. The raw data provided by PreZero is attached to this memo. Using the data provided by PreZero, EPD identified trips by vehicle type that would occur during the AM and PM peak hours. Passenger car equivalent (PCE) factors were applied to truck trips to account for the additional roadway capacity required for large trucks. The trip generation for the PreZero project was then compared to the trip generation previously analyzed in the San Sevaine & Bain Street Manufacturing project TIA.

The project trip generation analysis is provided in Table 1. As shown in the Table, the PreZero project would generate 1,254 daily PCE trips including 255 PCE trips during the AM peak hour and 162 PCE trips during the PM peak hour. When compared to the previously analyzed project, the PreZero project would generate 429 fewer daily PCE trips, 68 fewer PCE trips during the AM peak hour, and 164 fewer PCE trips during the PM peak hour. Therefore, the project is within the trips analyzed in the prior analysis prepared for the project site.

Table 1.   Project Trip Generation Comparison

Land Use	Units	Daily	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Total Vehicle Trip Generation [1]								
Passenger Vehicles		538	114	71	185	79	25	104
Light Trucks (Service Vehicles)		360	22	14	36	14	14	28
Mid Size Truck (3 Axles)		88	4	4	8	4	4	8
Total		986	140	89	229	97	43	140
PCE Trip Generation [2]	*PCE Factor*							
Passenger Vehicles	1.0	538	114	71	185	79	25	104
2-Axle Trucks	1.5	540	33	21	54	21	21	42
3-Axle Trucks	2.0	176	8	8	16	8	8	16
Total PCE Trip Generation		1254	155	100	255	108	54	162
Previously Approved Project Trip Generation [3]								
Manufacturing	178.180 TSF	1683	253	70	323	115	211	326
Total Net New Trip Generation		-429	-98	30	-68	-7	-157	-164

TSF = Thousand Square Feet

PCE = Passenger Car Equivalent

[1] Estimated vehicle trips based on operational estimates provided by PreZero.

[2] Passenger Car Equivalent (PCE) factors from San Bernardino County CMP, Appendix B - Guidelines for CMP Traffic Impact Analysis Reports in San Bernardino County, 2016

[3] Previous trip generation taken from the San Sevaine & Bain Street Manufacturing Project Traffic Impact Analysis, Kunzman Associates, Inc., September 29, 2015.

PreZero
Jurupa Valley Industrial Complex

Shift and Traffic Count
December 30, 2019

Vehicle Type	24 In	24 Out	1 In	1 Out	2 In	2 Out	3 In	3 Out	4 In	4 Out	5 In	5 Out	6 In	6 Out	7 In	7 Out	8 In	8 Out	9 In	9 Out	10 In	10 Out	11 In	11 Out	12 In	12 Out	13 In	13 Out	14 In	14 Out	15 In	15 Out	16 In	16 Out	17 In	17 Out	18 In	18 Out	19 In	19 Out	20 In	20 Out	21 In	21 Out	22 In	22 Out	23 In	23 Out	Total In	Total Out	Total Trips
Commercial Trucks																																																				
Inbound Mixed Recyclables, Plastics and Organics (5 ton/load)(140 trucks)													8	8	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12													140	140	280
Inbound Mixed Recyclables, Plastics and Organics (20 ton/load)(10 trucks)															1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1															10	10	20
Inbound Mixed Recyclables, Plastics and Organics (10 ton/load)(10 trucks)															1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1															10	10	20
Building 3 Product to Market (Cardboard, paper, metal, etc.)(20 tons/load)													1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1													13	13	26
Building 2 Product to Market (Plastic pellets)(10 tons/load)													1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1															11	11	22
Building 1 Meal to Market (5 tons/load)																					1	1	1	1	1	1																							3	3	6
Building 1 Frass to Market (5 tons/load)															1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1													10	10	20
Building 1 Oil to Market (7 tons/load)																					1	1	1	1	1	1	1	1																					4	4	8
																																																		0	0	0
Transfer to LF (From Bldgs 1,2&3)(10 tons/load)															1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	1	1	1	1													15	15	30
																																																		0	0	0
Subtotals for Commercial Trucks	0	0	0	0	0	0	0	0	0	0	0	0	10	10	18	18	17	17	18	18	20	20	20	20	22	22	20	20	19	19	19	19	18	18	15	15	0	0	0	0	0	0	0	0	0	0	0	0	216	216	432
Small Truck / Passenger Vehicles																																																			
Operating Staff Building 3 Shift 1 (8)															8																	8																	8	8	16
Operating Staff Building 3 Shift 2 (8)																																	8														8		8	8	16
Administrative Staff Building 3 Shift 1 (10)															10																	10																	10	10	20
Third Party Service Vehicles Building 3 Shift 1 (1)															1																	1																	1	1	2
Plastics Operating Staff Building 2 Shift 1 (10)															10																	10																	10	10	20
Plastics Operating Staff Building 2 Shift 2 (10)																																	10													10		10	10	20
Plastics Operating Staff Building 2 Shift 3 (10)	10															10																																	10	10	20
Plastics Administrative Staff Building 2 Shift 1 (5)															5																	5																	5	5	10
Plastics Third Party Service Vehicles Building 2 Shift 1 (2)															2																	2																	2	2	4
Organics Operating Staff Building 2 Shift 1 (20)															20																			20														20	20	40
Organics Operating Staff Building 2 Shift 2 (20)																																	20													20		20	20	40
Organics Operating Staff Building 2 Shift 3 (20)	20															20																																20	20	40
Organics Administrative Staff Building 2 Shift 1 (0)																																																	0	0	0
Organics Third Party Service Vehicles Building 2 Shift 1 (2)															2																	2																	2	2	4
Operating Staff Building 1 Shift 1 (50)															50	0																50																	50	50	100
Operating Staff Building 1 Shift 2 (40)																																	40													40		40	40	80
Operating Staff Building 1 Shift 3 (40)	40															40																																40	40	80
Administrative Staff Building 1 Shift 1 (10)															10																	10																	10	10	20
Third Party Service Vehicles Building 1 Shift 1 (3)															3																	3																	3	3	6
Security Shift 1 (1)															1																	1																	1	1	2
Security Shift 2 (1)																																	1													1		1	1	2
Security Shift 3 (1)	1															1																																1	1	2
Visitors Shift 1 (5)																			5	0														5														5	5	10
Subtotals for Small Truck/Passenger Vehicles	71	0	0	0	0	0	0	0	0	0	0	0	0	0	122	71	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	102	79	25	0	0	0	0	0	0	0	0	0	0	0	0	0	79	277	277	554
Grand Totals	71	0	0	0	0	0	0	0	0	0	0	0	10	10	140	89	17	17	23	18	20	20	20	20	22	22	20	20	19	19	19	121	97	43	15	15	0	0	0	0	0	0	0	0	0	0	0	79	493	493	986

Peak Hours (highlighted yellow)