

April 1, 2019

Daren Winkelman, Bureau Chief  
 Bureau of Sustainable Materials Management  
 Nevada Department of Environmental Protection  
 901 S. Stewart Street, Suite 4001  
 Carson City, Nevada 89701

RE: 2019 Clark County Recycling Report

Dear Mr. Winkelman,

The 2019 Clark County Recycling Report is now complete, and the information has been prepared for your review herein. Data used to generate the Clark County Recycling Report was collected from 82 different sources, a majority of which came from local solid waste management facilities. In calendar year 2019, Clark County recycled 657,339 tons of Municipal Solid Waste (MSW), an increase of 4,264.97 tons from the previous year resulting in a recycling rate of 19.71%. Metal, organic material, and paper accounted for a majority of MSW tonnage recycled in 2019 (See Figure 1).

Comparing year over year values, organic material observed the largest growth, while paper values continued to decline (See Figure 2). Although we observed a net tonnage increase for MSW recyclables in 2019, our recycling rate dropped 0.13%, a 0.66% decrease from 2018 (See Table 1).

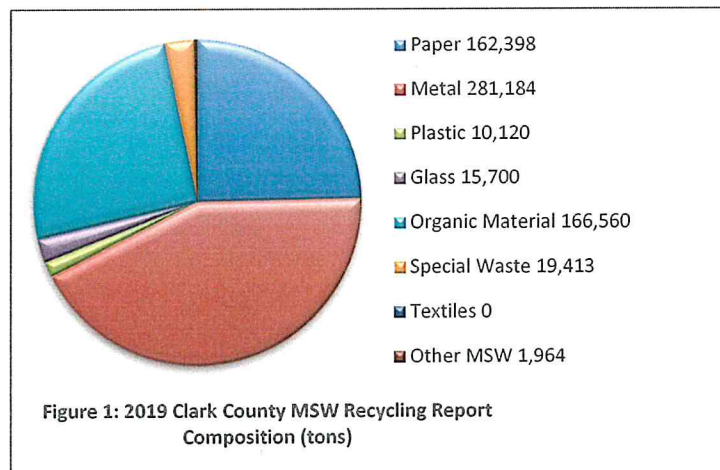
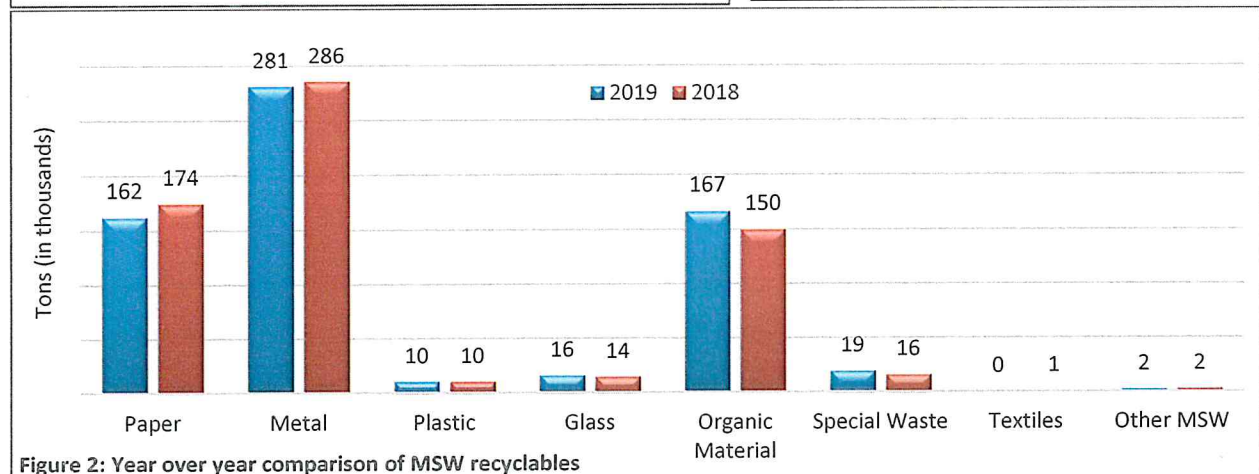


Table 1: Year over year rate and comparison.

Category	2018	2019
Recycling Rate	19.84%	19.71% (↓ 0.13%)
Tons Recycled	653,074	657,339 (↑ 4,264)
Total Tons Generated	3,291,062	3,334,643 (↑ 43,580)

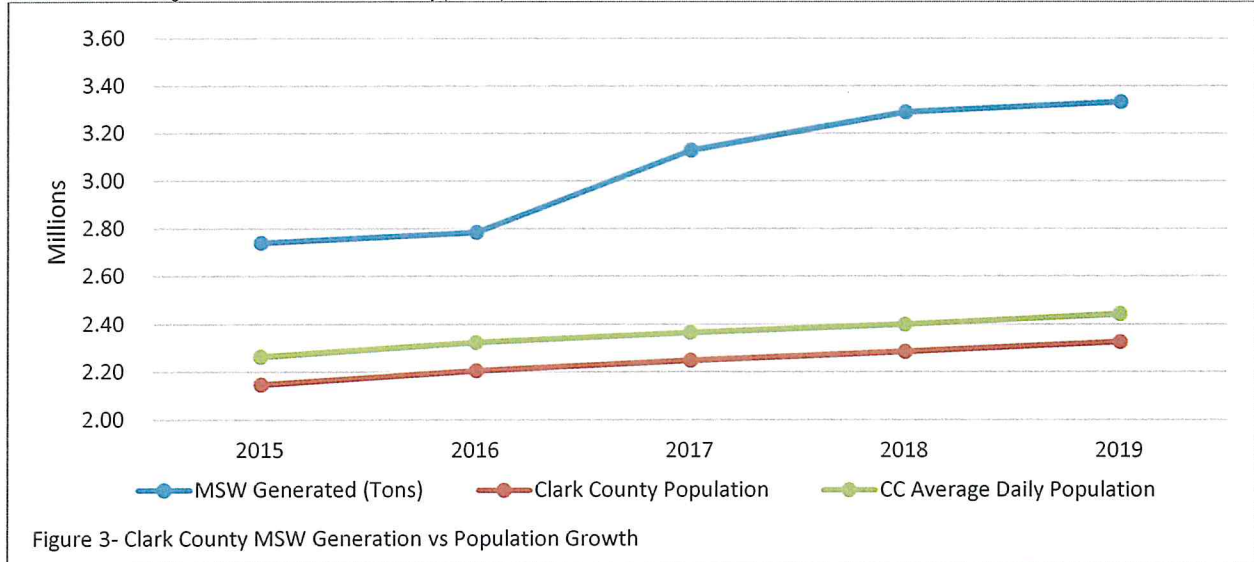


Looking at the data for Clark County Recycling Reports over a 5-year period (2015-2019), we're noticing a reduction in growth of MSW being generated. During 2019, MSW generated only increased 1.31%, while during 2018 an increase of 5.17% was observed, still substantially less than the 2017 growth of 12.37%.

Comparing these values to population growth<sup>1</sup> and a Clark County average daily population (an estimate using average daily tourism volume<sup>2</sup>), we see some interesting results (See Figure 3). A possible consideration for the reduced growth in MSW generation, could be attributed to the diversity of waste manage systems and diversion programs in Clark County. This would include diversion activities like animal feed and waste to energy operations which are not typically included when generating the recycling report. See a full breakdown of recycling and diversion values on the attached Form A.

<sup>1</sup> Clark County Department of Comprehensive Planning

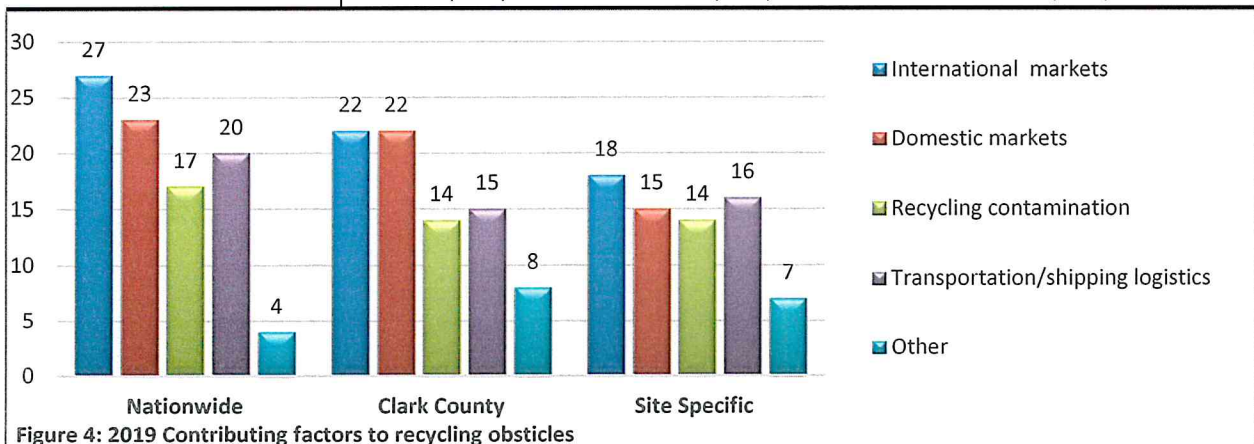
<sup>2</sup> Data from the Las Vegas Convention and Visitors Authority (LVCVA) Research Center



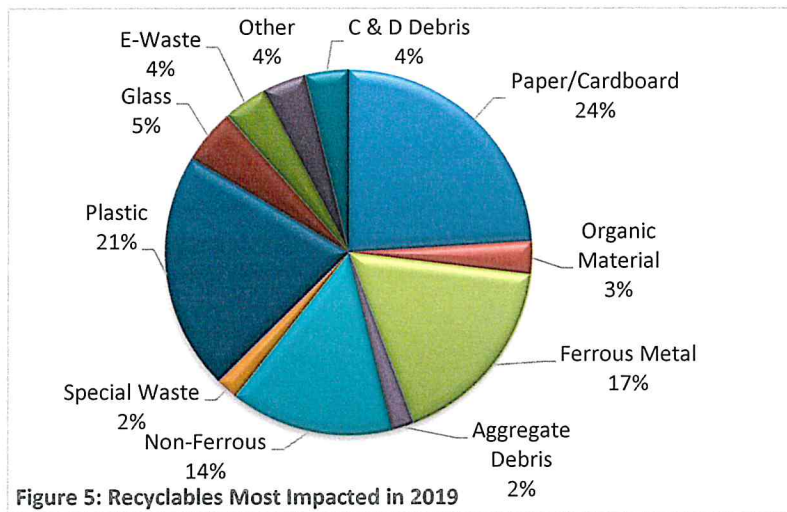
The recycling industry locally and throughout the nation experienced various obstacles during 2019. Obstacles included issues with international end use markets, availability or lack of domestic end use markets, recycling contamination, transportation/shipping logistics, as well as economic viability of recyclable commodities. The Southern Nevada Health District (SNHD) included several new questions during the 2019 Recycling Survey (see questions #7-13 on attached 2019 SNHD Recycling Survey Form 1) aimed at gauging which recyclable commodities were most negatively impacted and perceived obstacles to the recycling industry nationally, locally, and specific to their onsite operations. SNHD received results for the new questionnaire from 69 sources, of which 61% of the respondents identified national obstacles, 58% identified local recycling obstacles in Clark County, and 48% identified recycling obstacles that were site specific. (See a breakdown of the results in Table 2 and Figures 4 & 5).

Table 2: Summary of 2019 Clark County Recycling Obstacles Questionnaire

Recycling Obstacles?	Nationwide	Clark County	Site Specific
Yes	42 (61%)	40 (58%)	33 (48%)
No	27 (39%)	29 (42%)	36 (52%)







Data from Figure 1 appears to agree in principle with Figure 5, as paper/cardboard being perceived as having been the most impacted recyclable commodity in 2019. Since 2015, tonnage for paper/cardboard has steadily decreased almost 19% (37,516 tons). Contamination and lack of international & domestic end use markets could all be contributing factors as to the drop in tonnage.

The MSW recycling rate for Clark County and the State of Nevada has hovered around 20% for the last five years. It is not clear as to why the MSW recycling rate remains


stagnant. SNHD along with the State of Nevada and members of private industry continue to educate the general public and promote more sustainable waste management practices. We are hopeful these methodologies will become ingrained in the Clark County waste management ideology and contribute to a decrease in contamination rates in the residential single stream recycling programs (See Attachment Don't Trash Recycling Banner).


A significant amount of the data missing from the recycling report could be attributed to the retail industry. Recyclable materials (organic materials, paper, plastic, and lead acid batteries) from various retail locations are often returned to their distribution facilities for consolidation before sending the material to be processed. Most times the distribution facilities are located outside of Clark County and the State of Nevada. Over the years, SNHD has tried to solicit recycling data from a number of these private retail entities but have had limited success.

It is however, encouraging to see diversion values increase, as evident by 2019 Clark County diversion tonnage of 91,699. Advancements in anaerobic digestion and waste to energy applications as well as an increase in animal feed operations within Clark County are the biggest contributing factors. For a breakdown of the associated diversion values please see the attached Form A.

It has been our pleasure to prepare this report. If you have any questions, please do not hesitate to contact Senior Environmental Health Specialist Erik Anderson at (702) 759-0729.

Sincerely,

  
 Herbert Luis Sequera, REHS  
 Environmental Health Manager

  
 Chris Saxton, MPH-EH, REHS  
 Environmental Health Director

Enclosures:

1. 2019 Clark County Recycling Report-Form A
2. 2019 SNHD Recycling Survey Form 1
3. Don't Trash Recycling Banner

EC:

1. Daren Winkelman, Bureau Chief, [dwinkelman@ndep.nv.gov](mailto:dwinkelman@ndep.nv.gov)
2. Rachel Lewison, Southern Nevada Recycling Program Coordinator, [rlawison@ndep.nv.gov](mailto:rlawison@ndep.nv.gov)
3. Patricia Moen, Northern Recycling Coordinator, [pmoen@ndep.nv.gov](mailto:pmoen@ndep.nv.gov)

## FORM A

## MSW RECYCLING RATE

## MSW RECYCLING RATE

County Name: CLARK COUNTY, NEVADA

19.71%

19.84%

-0.66%

RECYCLED MSW	REPORTING YEAR:	REPORTING YEAR:	CHANGE FROM 2018	
	2019 # OF TONS	2018 # OF TONS	TONS	% Change
<b>Paper</b>				
Corrugated cardboard	123,684.40	132,208.90	-8,524.50	-6.45%
Newspaper	13,707.44	14,517.84	-810.40	-5.58%
Office paper	12,509.97	15,692.18	-3,182.21	-20.28%
Magazines	774.38	794.79	-20.41	-2.57%
Telephone books	0.00	0.00	0.00	
Mixed paper	11,721.82	11,116.35	605.47	5.45%
Other paper	reported as mixed paper			
<b>Paper Total</b>	<b>162,398.00</b>	<b>174,330.06</b>	<b>-11,932.06</b>	<b>-6.84%</b>
<b>Metals</b>				
Aluminum containers	1,893.38	1,731.22	162.16	9.37%
Tin/steel containers	1,590.61	20,331.48	-18,740.87	-92.18%
Ferrous scrap metals	228,764.53	228,907.75	-143.21	-0.06%
Non-ferrous scrap metals	36,637.90	28,893.38	7,744.52	26.80%
Appliances (white goods)	1,922.81	0.00	1,922.81	
Mixed metal	10,374.65	5,700.22	4,674.43	82.00%
<b>Metals Total</b>	<b>281,183.88</b>	<b>285,564.05</b>	<b>-4,380.17</b>	<b>-1.53%</b>
<b>Plastic</b>				
Plastic (PET)	5,759.76	5,444.12	315.64	5.80%
Plastic (HDPE)	2,343.25	2,233.29	109.96	4.92%
Mixed plastic	145.53	788.54	-643.01	-81.54%
Plastic film	641.51	899.34	-257.83	-28.67%
Polystyrene	30.86	159.26	-128.40	-80.62%
Other (PVC, LDPE, PP)	1,199.21	567.44	631.77	111.34%
<b>Plastic Total</b>	<b>10,120.12</b>	<b>10,091.99</b>	<b>28.13</b>	<b>0.28%</b>
<b>Glass</b>				
Mixed glass (crushed/whole)	15,700.39	14,299.31	1,401.08	9.80%
Other glass	0.00	0.00	0.00	
<b>Glass Total</b>	<b>15,700.39</b>	<b>14,299.31</b>	<b>1,401.08</b>	<b>9.80%</b>
<b>Organic Material</b>				
Yard debris	85,900.97	83,368.10	2,532.87	3.04%
Food waste	7,038.57	24,453.51	-17,414.94	-71.22%
BioSolids	3,680.00	0.00	3,680.00	
Restaurant grease	13,460.99	34,814.46	-21,353.47	-61.34%
Rendered animal matter	55,062.46	6,416.06	48,646.40	758.20%
Pallets/Wood	1,417.08	716.77	700.31	97.70%
<b>Organic Material Total</b>	<b>166,560.07</b>	<b>149,768.90</b>	<b>16,791.17</b>	<b>11.21%</b>
<b>Special Waste</b>				
Used oil	9,382.84	10,242.32	-859.47	-8.39%
Used antifreeze	447.26	288.96	158.30	54.78%
Lead acid batteries	4,353.62	4,075.78	277.84	6.82%
Used batteries	23.10	13.97	9.14	65.43%
Hg Devices	0.04	0.10	-0.06	-60.00%
Used tires	5,024.95	1,261.34	3,763.61	298.38%
Lamp Ballasts	13.88	1.43	12.45	870.56%
Fluorescent Bulbs	70.69	45.20	25.49	56.40%
Paint	0.00	0.00	0.00	
HHW/Other	96.86	9.22	87.64	950.21%
<b>Special Waste Total</b>	<b>19,413.25</b>	<b>15,938.32</b>	<b>3,474.94</b>	<b>21.80%</b>
<b>Textiles</b>				
Textiles	0.00	624.11	-624.11	-100.00%
Other (specify)	0.00	0.00	0.00	
Other (specify)				
<b>Textiles Total</b>	<b>0.00</b>	<b>624.11</b>	<b>-624.11</b>	<b>-100.00%</b>
<b>Other Recycled MSW</b>				
Toner Cartridges	15.42	8.00	7.42	92.75%
Other (Used oil filters)	411.87	74.00	337.87	456.59%
Other (SOAP)	161.79	301.00	-139.21	-46.25%
Other (E-Waste/Cellphones)	1,374.13	2,074.53	-700.41	-33.76%
Other	0.35	0.05	0.30	600.00%
<b>Other Rec. Materials Total</b>	<b>1,963.56</b>	<b>2,457.58</b>	<b>-494.02</b>	<b>-20.10%</b>
<b>TOTAL RECYCLED MSW</b>	<b>657,339.27</b>	<b>653,074.31</b>	<b>4,264.97</b>	<b>0.65%</b>



Total MSW Disposed of:	2,677,304.00	2,637,988.00	39,316.00	1.49%
Total Industrial & Special Waste Disposed of:	1,082,518.00	785,660.00	296,858.00	37.78%
Total MSW generated in County:	3,334,643.27	3,291,062.31	43,580.97	1.32%

RECYCLING RATE W/ C&D

RECYCLING RATE W/ C&D

County Name: CLARK COUNTY, NEVADA

31.31%

29.35%

6.68%

	REPORTING YEAR:	REPORTING YEAR:	CHANGE FROM 2018	
	2019	2018	TONS	% Change
CONSTRUCTION & DEMOLITION DEBRIS (C & D)	# OF TONS	# OF TONS		
Asphalt	597,397.46	478,202.00	119,195.46	24.93%
Concrete	671,735.55	424,663.72	247,071.83	58.18%
Carpet	1,950.00	0.00	1,950.00	
Carpet padding	1,134.00	1,008.00	126.00	12.50%
Drywall	76,613.86	127,066.20	-50,452.34	-39.71%
Wood	6,725.76	8,935.60	-2,209.84	-24.73%
Plastic Buckets	362.80	85.00	277.80	326.82%
Other (Mixed C&D)	250.00	500.00	-250.00	-50.00%
Other (specify)				
Other (specify)				
<b>CONSTRUCTION &amp; DEMOLITION DEBRIS TOTAL</b>	<b>1,356,169.43</b>	<b>1,040,460.52</b>	<b>315,708.91</b>	<b>30.34%</b>
<b>RECYCLED MSW AND C &amp; D GRAND TOTAL</b>	<b>2,013,508.70</b>	<b>1,693,534.83</b>	<b>319,973.88</b>	<b>18.89%</b>

DIVERSION & RECYCLING RATE

DIVERSION & RECYCLING RATE

County Name: CLARK COUNTY, NEVADA

32.28%

30.01%

7.56%

	REPORTING YEAR:	REPORTING YEAR:	CHANGE FROM 2018	
	2019	2018	TONS	% Change
Waste To Energy	# OF TONS	# OF TONS		
Used Tires <sup>1</sup>	10,520.24	5,629.92	4,890.31	86.86%
Grease Trap <sup>2</sup>	38,206.00	31,342.85	6,863.15	21.90%
Food Waste <sup>2</sup>	8,360.00	9,108.33	-748.33	-8.22%
Other (specify)				
Other (specify)				
<b>WASTE TO ENERGY TOTAL</b>	<b>57,086.24</b>	<b>46,081.10</b>	<b>11,005.13</b>	<b>23.88%</b>
Alternative Waste Diversion	# OF TONS	# OF TONS	TONS	% Change
Food Waste (Animal Feed) <sup>3</sup>	34,613.46	6,374.14	28,239.32	443.03%
Alternative Daily Cover	0.00	0.00	0.00	
Other (specify)-Donations	0.00	1,786.73	-1,786.73	-100.00%
Other (specify)				
Other (specify)				
<b>ALTERNATIVE WASTE DIVERSION TOTAL</b>	<b>34,613.46</b>	<b>8,160.87</b>	<b>26,452.59</b>	<b>324.14%</b>
<b>WASTE TO ENERGY &amp; ALTERNATIVE WASTE</b>	<b>91,699.70</b>	<b>54,241.97</b>	<b>37,457.72</b>	<b>69.06%</b>
<b>RECYCLING &amp; DIVERSION TOTAL</b>	<b>2,105,208.40</b>	<b>1,747,776.80</b>	<b>357,431.60</b>	<b>20.45%</b>

\* This number can be found in the report at the following link:

\*\* Total MSW generated is the sum of recycled MSW (tabulated above) plus the quantity of MSW disposed of in a landfill, which was reported as generated in the municipality.

<sup>1</sup> Used tires send to cement kiln to be burned for energy.

<sup>2</sup> Solid waste introduced into an anaerobic digestion waste water treatment system used to generate methane gas for energy and reduce the amount of biosolids

<sup>3</sup> Food waste used to feed livestock.

**Southern Nevada Health District  
Solid Waste Management Authority**

**2019 RECYCLING SURVEY  
FORM 1**

Facility Name: \_\_\_\_\_

Address: \_\_\_\_\_

Contact Person: \_\_\_\_\_

Email: \_\_\_\_\_

Telephone: \_\_\_\_\_

1. Does your facility generate recyclable material that is provided to either a processor or a collector of recyclables?

Yes  No

2. Does your facility process and/or collect recyclables or solid waste?

Yes  No

3. If Yes to #1 or #2, do any of your recyclables go to a facility in Clark County?

Yes  No

If Yes to #3, indicate every facility in Clark County that each of your recyclables is sent:

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4. If Yes to #1 or #2, do any of your recyclables go to a facility outside of Clark County?

Yes  No

If Yes to #4, indicate every facility outside of Clark County that each of your recyclables is sent:

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5. Does your facility use solid waste or recyclables generated in Clark County (that would otherwise be thrown away) to generate and/or manufacture a new product (i.e. waste to energy or waste to new product)?

Yes  No

If Yes to #5, what type of new product is manufactured or how much and what type of energy was produced?

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6. Does your facility use recyclable components from its own waste stream (that would otherwise be thrown away) to generate and/or manufacture new product (i.e. recycle off spec material back into process)?

Yes  No

If Yes to #6, what new product is manufactured and how much?

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7. What do you feel were the biggest obstacle(s) to the national recycling industry in 2019? You may select more than one answer.

- International end use markets (i.e., China's National Sword)
- Availability or lack of domestic end use markets (papermills, smelters, etc.)
- Recycling Contamination
- Transportation/shipping logistics
- Other:
- No issues observed in 2019

8. If you provided an answer for question #7 do you feel this trend will continue in 2020?

Yes  No

9. What do you feel were the biggest obstacle(s) to the Clark County recycling industry in 2019?

You may select more than one answer.

- International end use markets (i.e., China's National Sword)
- Availability or lack of domestic end use markets (papermills, smelters, etc.)
- Recycling Contamination
- Transportation/shipping logistics
- Other:
- No issues observed in 2019

10. If you provided an answer for question #9 do you feel this trend will continue in 2020?

Yes  No

11. Locally, for your business(s) in Clark County, what was your biggest recycling and/or diversion obstacle in 2019? You may select more than one answer.

- International end use markets (i.e., China's National Sword)
- Availability or lack of domestic end use markets (papermills, smelters, etc.)
- Recycling Contamination
- Transportation/shipping logistics
- Other:
- No issues observed in 2019

12. If you provided an answer for question #11 do you feel this trend will continue in 2020?

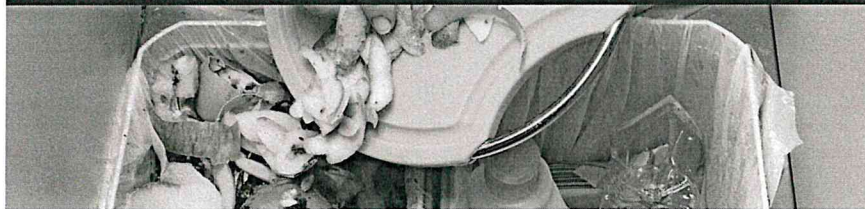
Yes  No

13. What recyclable(s) do you think were most negatively impacted in 2019?

- |  |   |
|--|---|
| <input type="checkbox"/> Paper/Cardboard   | <input type="checkbox"/> C & D debris                 |
| <input type="checkbox"/> Ferrous Metal     | <input type="checkbox"/> Aggregate Debris             |
| <input type="checkbox"/> Non-Ferrous Metal | <input type="checkbox"/> Special Waste                |
| <input type="checkbox"/> Plastic           | <input type="checkbox"/> E-Waste                      |
| <input type="checkbox"/> Glass             | <input type="checkbox"/> Other:                       |
| <input type="checkbox"/> Organic Material  | <input type="checkbox"/> No recyclables were impacted |



# DON'T TRASH RECYCLING



**Recycling contamination and improper recycling techniques are a significant cause of why curbside recyclables are landfilled.** Follow these simple steps to keep your recyclables from going to the landfill.



**Always keep your recyclables empty and clean.**

Cardboard and paper that is wet or contaminated with food or grease should be thrown in the trash. Make sure your containers are empty or rinsed out before placing them in the recycling bin.



**Bags don't belong.**

Keep bags out of your recycling bin and never bag your recyclables.



**Check your label.**

Look at the label on your recycling bin. Locally we can recycle cardboard, paper, metal cans, glass bottles, plastic bottles, and jugs.



**Don't throw trash in your Recycle Bin.**

Never put landscape debris, food waste, diapers, clothing, batteries, or bags in your recycle bin. Throw them in your trash can.

Do you have an item that you don't know how to throw out?  
Or you don't know where to take it? Visit us online for more information!  
[www.SNHD.info/clark-county-recycles](http://www.SNHD.info/clark-county-recycles)

**SNHD**  
Southern Nevada Health District