



2019 RecycleMania Case Study Competition

1. Contact: Molly Blumhoefer, Physical Plant Department, Central New Mexico Community College (CNM), mblumhoefer@cnm.edu, (505) 224-4315
2. Focus of Case study:
Educational outreach campaign and recycling bin reorganization. Omitted the 2018 pre-RecycleMania custodial training and added a Recycling Audit to further understand diversion rates.
3. Detailed description of campaign component:
To better analyze our success at minimizing waste in 2018, we repeated most campaign efforts such as continued to show [this outreach video](#) at New Student and New Employee Orientation; published media blurbs about how to recycle right and results of campus diversion rates; reorganized recycling bins on main campus; and hosted the Grand Finale Event to which we added a live recycling audit. See more specific information below.

Bin Reorganization: The CLL Sustainability PM worked with Maintenance and Operations Department to reorganize indoor recycling bins in common areas at main campus to: 1) locate them in strategic areas and 2) pair lone trash receptacles with recycling bins. According to studies, giving both options will increase recycling rates and decrease contamination. This was also evidenced by CNM's RecycleMania 2018 results. However, over time, recycling/trash receptacles move around because building occupants have their own ideas of what is best. As a result, the bins are often unpaired. The annual pairing of bins has become a RecycleMania standard at the college.

The Recyclemania Grand Finale: On March 21, 2019, seminars on the impacts of 1) *The Impacts of Plastics on Impoverished Communities* 2) *The Economic Realities of Recycling* and 3) *The Science of Landfills* took place at main campus along with educational tables including a pledge to refill water bottle campaign #CNMrefills! Outside organizations, such as Keep Albuquerque Beautiful and the City of Albuquerque Open Spaces tabled the event. Artists that reuse materials for their products also tabled the event.

A live Recycling Audit was also executed at the Grand Finale to determine the "real" diversion rates vs perceived rates. Perceived diversion rates are based on weekly visual inspections by Waste Management (haulers on contract with the college) and reported as cubic feet of trash and recycling to the Sustainability



Project Manager. These figures are then converted to pounds and are reported to RecycleMania Org. The live audit was performed by Waste Management staff and students assigned by their instructors to participate.

Data reporting: whatever is reported to RecycleMania Org, is also reported in college social media and news outlets on a weekly basis.

4. Planning steps & timeline to implement:

- Spring semester (May), 2018: The Sustainability Project Manager and the Sustainability Curriculum Committee meet. They discuss how they may support RecycleMania in 2019. They also discuss what worked and what didn't work well for the 2018 campaign.
- Spring semester (May), 2018: The Sustainability Project Manager meets with key staff in the college Maintenance and Operations Department. They discuss logistics of the 2019 Grand Finale event (what support staff is needed, etc.) and what worked well for the 2018 event.
- Spring semester (May), 2018: The Sustainability Project Manager discusses with Waste Management's regional education coordinator (Laila Amerman) about RecycleMania current practices and future needs.
- Spring Semester (January) 2019: The Sustainability Project Manager and Chair of the Sustainability Curriculum Committee meet with Waste Management local representative (Dan Darnell) to discuss Grand Finale event. They decide that a recycling audit would be a good way to establish a baseline about the "real" diversion rate vs the perceived diversion rate. It was agreed that the audit would be a fantastic educational activity for students. Waste Management representative offers to have his staff deliver 3 cubic yards of recyclables from each of the 3 busiest campuses (Main, Montoya and Westside).
- Spring semester (January), 2019: The Sustainability Project Manager meets with key staff in Maintenance and Operations, to discuss logistics of the Recycling Audit since it will be hosted outdoors in possibly poor weather conditions. Therefore, a tarp, fencing, protective gear and other items will be needed.
- Spring semester (January) 2019: The Sustainability Project Manager obtains the support of one service learning student. For a communications class, she obtains credit by visiting classes to persuade students to recycle correctly, reduce plastic waste by signing the "pledge to refill" and to attend the Grand Finale Event.



- Spring semester (January-February) 2019: The Sustainability Project Manager requests funding for stainless steel bottles from the President’s Office that will be the “giveaways” at the Grand Finale Event (if students pledge to refill). The funding is approved and processed.
 - Spring Semester 2019: The Sustainability Project Manager meets with the City of Albuquerque Open Spaces Division Staff about coordinating efforts over larger city-sponsored recycling messages and events.
 - Spring Semester 2019: The Sustainability Project Manger reaches out to artists in the community that are vendors at the city’s annual recycled-art fair, organizations such as Keep Albuquerque Beautiful and others, to participate in the Grand Finale Event.
 - Spring semester 2019: The Sustainability Curriculum Committee finds 2 speakers to participate in the RecycleMania Event. The Sustainability Project Manager develops a schedule of presenters for the Grand Finale Event.
 - Spring Semester (February-March) 2019: The Sustainability Project Manager reaches out to Marketing and Communications Department to request news blurbs to go out during RecycleMania.
 - March 21, 2019: Grand Finale Event.
5. Resources and stakeholders involved
- \$900 fencing for audit from Physical Plant Department (M&O)
 - \$2155 for 500 stainless steel water bottles (for pledge to refill campaign) from the President’s Office.
 - 3 faculty members
 - 2 classes of students (to attend Grand Finale as mandated by instructors) from Nutrition and Biology.
 - 3 speakers (two internal, one external)
 - 3 student volunteers (and for class credit—communications)
 - 4 Waste Management Staff
 - 8 members from outside organizations such as Keep Albuquerque Beautiful (KAB) and the City of Albuquerque Open Spaces (tables with information).
 - 2 local recycled-art artists
 - 2 staff from Shipping and Receiving Department to drop off tables for event
 - Sustainability Project Manager (also one of the speakers), from Physical Plant Department (Facilities).



6. Describe the Results of this campaign component

- a. General Information: Similarly to RecycleMania 2018, the recycling bins on Main Campus were reorganized so that they were paired with trash receptacles in common areas. Upon visual inspection these bins stayed in place for the entire competition. The Physical Plant, President's Office, Marketing and Communications (MCO), and at least 3 academic departments were involved in the Grand Finale Event over logistics and to encourage student participation. Results of overall campaign were based on data collected. The data has shown a significant increase in recycling per capita. Therefore, the college community is getting better at recycling more! But, based on the data gathered during the live audit, the community is not necessarily recycling right. See below.
- b. Per Capita Increase: Similarly to the results reported in our winning 2018 Case Study, Recycling per capita increased enormously during RecycleMania 2019, especially on Main Campus. Week one, it increased by 62% on Main Campus (38 cy. in 2018 and 61.5 cy. in 2019). Week two, this increase fell to approximately 30% (44 cy. in 2018 and 57 cy. in 2019), but this increase remained consistent throughout the duration of RecycleMania, (in 2018 volumes were approximately 30 cy. for remaining weeks and in 2019 approximately 60 cy. for remaining weeks). This shows that recycling outreach has encouraged students/staff/faculty to recycle more!

Perceived Diversion Rate: Based on the visual audit of waste and recyclables used for weekly reporting (8 weeks) and the per capita recycling rates calculated above, Main Campus has an average diversion rate of 17.56%. All campuses combined have an average diversion rate (8 weeks) of 16.83%.

Real Diversion Rate: Based on the live recycling audit during the Grand Finale event, contamination rates were higher than expected (see table below). Therefore, diversion rates were several percentage points lower than expected. The contamination came from several areas and varied by campus, but the primary non-recyclable items found at all campuses were plastic liners (custodial staff), coffee cups (students/staff/faculty), foods and liquids (students/staff/faculty). At main campus, there were also ice packs, foam, plastic film and fish blood (all of which are believed to have come from the Culinary Arts Program)*. Considering that this audit was just a snapshot, a small sample, it does not give a realistic perspective of contamination rates over time.

*Even though these items came from the culinary arts program, it is unknown how they ended up in the outdoor recycling bin.



	CNM Main	Montoya	West Side
Perceived diversion based on 8 week of visual inspection %	17.56%	14.79%	16.46%
Contamination results of audit on March 21, 2019	30.00%	25.00%	14.30%
Less Contam. %	139.05 cy	8.8 cy	5.6 cy
Actual Recycling	324.45 cy	26.7 cy	33.9 cy
Effective Diversion	12.29%	11.13%	14.13%

Pledge to Refill and overall participation: The pledge to refill a reusable bottle, rather than purchasing single-use plastics was signed by approximately 200 students, which is great, but 100 less students than during the 2018 RecycleMania Grand Finale. However, there were 2 classes of students whose instructors made it mandatory to participate in both years 2018 and 2019 (approximately 60 students total both years). This means that the college, overall, is participating less in recycling events. Regardless, this activity draws in approximately 140 more students than would have otherwise participated.*

*Each of the 3 seminars had 30-40 students on average and the tables counted and average of 30 students. This means that the water bottle refill pledge attracted the most students into the event (200 signatures).

7. What would you do differently in the future?

It is the opinion of the Sustainability Project Manager that RecycleMania standards are created before the next RecycleMania campaign, based on what has worked well. This will allow for the development and tracking of independent variables beyond baselines, as well as a means to effectively measure results. Examples of permanent standards (beyond weekly tracking of waste and recyclables) are pairing of recycling and trash bins (and removing extra bins), custodial trainings and recycling audits. This is to guarantee that these practices occur on an annual basis at the very least. It is the opinion of the Sustainability Project Manager that the recycling audits need to happen more than once, with the goal of 3 minimum, and that this practice should also be a standard practice of the RecycleMania campaign. It is the opinion of the Sustainability Project Manager that RecycleMania and recycling best practices (in general) need more support from faculty and staff so that participation is higher among the entire campus community; it is currently unclear how to tackle this particular issue. The Sustainability Project Manager has also



recommended that since the bin reorganizations have proven successful at boosting recycling volumes per capita, that the next step is adding permanent educational signage to communal areas around campus to create recycling/waste “stations”. This will enforce permanent locations of bins, so that they remain placed side-by-side, and the added educational signage will help reduce contamination. The request has been heard and funding has been granted for a signage project (which will be a variable to consider for next year’s campaign).

8. What advice would you give to another college that wanted to do a similar effort?

Be transparent! Recycling audits are critical at developing real figures and baselines from which to move forward. In light of the global situation on recycling (China), these numbers are increasingly important. Getting early buy-in from college waste haulers, Maintenance and Operations Department, and individual instructors is necessary for an audit to occur. Additionally, buy-in from institutional leaders is also necessary to raise awareness over the entire campus community about the importance of Reducing, Reusing and Recycling. Buy-in is often made possible through showing hard data that comes from real efforts to reveal real recycling habits. Start with an honest baseline and move forward!

9. Photos and Graphics



Photo Credit: Laila Amerman, Waste Management.



Tony Baca, art made from recycled tin. Photo Credit: Molly Blumhoefer



Contamination! Photo Credits: Laila Amerman, Waste Management.

News Link Articles

CNM Goes for Green in RecycleMania!

Get ready to ramp up your recycling efforts as CNM participates in a national competition while educating community on the importance of recycling and sustainability. [Read More.](#)





https://www.cnm.edu/news/cnm-goes-for-green-in-recyclemania?utm_source=cnm_newslink&utm_medium=email&utm_campaign=newslink

CNM Off to Great Start in RecycleMania

We're in week two of the National [RecycleMania Competition](#). Waste Management has collected waste and recycling data from all campuses to determine diversion rates for week one. Diversion rates show how much trash we have avoided putting into the landfill because of our recycling efforts. Main Campus is leading CNM campuses with an 18.6 percent diversion rate, which is better than last year's pace. Montoya Campus is second at 15 percent; Advanced Technology Center 13.9 percent; Westside Campus 13.3 percent; Rio Rancho Campus 12.5 percent; South Valley Campus 8.3 percent. Way to go CNM! Keep on recycling!

Grand Finale

https://www.cnm.edu/about/sustainability/recycling-at-cnm-and-recyclemania?utm_source=cnm_newslink&utm_medium=email&utm_campaign=newslink