



Inspiring Recycling Behavior Through Community Engagement

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About Recycle Colorado

Recycle Colorado is a registered 501(c)(3) nonprofit organization. We are an action-oriented and member-driven organization that works on projects that are tangible, actionable and measurable related to infrastructure and end markets for material recovery, reuse and manufacturing. We also work to advance both local and state policy that supports keeping valuable material resources out of our landfills.

Our goal is to ensure more than 50% of Colorado's current waste stream is diverted to reuse/remanufacturing or compost by advancing infrastructure, end markets and policies in waste reduction, recovery and diversion. We accomplish this through ongoing programs which include Councils, Round Tables, Action Projects, Policy Advocacy, and Annual Conference and Meeting.

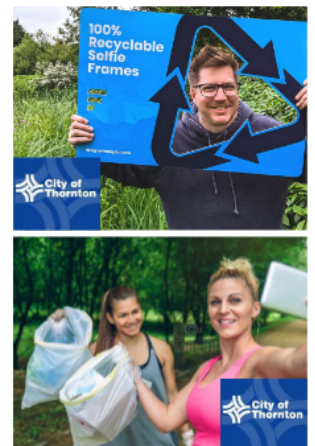
Swire Coca-Cola Grant

The Coca-Cola Foundation, the independent philanthropic arm of The Coca-Cola Company, is committed to a charitable giving strategy that makes a difference in communities around the world. In 2021, The Coca-Cola Foundation contributed \$109.2 million to approximately 350 organizations globally, with 16.1 million dollars going to fund recycling programs.

Swire Coca-Colais one the largest bottling partners in North America and is a member of Recycle Colorado, as well as serving on the Board of Directors. We care for our planet and we are committed to minimize the impact of our business on the environment. We design our packaging for its complete life cycle. We aim to collect every package and recycle packaging whenever possible.

Thornton, Colorado

“City of Thornton is committed to respecting and preserving the earth and its environment for future generations. To do its part, the city of Thornton has implemented a number of measures to increase the efficiency of its facilities and systems. The mission of the Environmental Services Division is to provide our customers with a convenient, economical, and dependable trash/recycle collection service while protecting public health and the environment. The City provides trash/recycling service to over 31,000 homes in Thornton and offers several programs and waste diversion events throughout the year for our residents. The Environmental Services Division collected over 5,600 tons of curbside recycling last year and an additional 912 tons with special programs. When opportunities arise, such as being able to partner with Recycle Colorado, for projects that will hopefully help to educate residents and possibly increase recycling rates in the community, we jump at them.”



Overview of Project

Recycle Colorado partnered with Swire Coca-Cola, and the City of Thornton to use a grant funded by The Coca-Cola Foundation to try to increase recycling rates by motivating people through an interactive social media campaign. The campaign dates were from January 2022 through June 2022, using a unique marketing campaign designed to reach the community via digital media. Our intent was to create memorable recycling messages which educate, inform, engage, and ultimately change behavior that could be replicated throughout the state. The focus area for this recycling marketing campaign was aluminum and plastic containers.

Recycle Colorado completed a marketing campaign that delivered messages to motivate interest in recycling to increase participation in recycling activity in the City of Thornton from January 2022-June 2022 (12.4%), as compared to the diversion rates of January 2021 - June 2021 (12.3%). According to the Environmental Protection Agency, the nationwide recovery rate for recycling is at 36%, and according to the 4th Annual State of Colorado Recycling Report, Colorado's rate is at 16%.

The results of using these types of recycling messages are to change behavior and take the program and, if successful, replicate it throughout the state. Improving the recycling rate in Colorado will have numerous benefits that start with the environment and continue far beyond. Having business modes of circularity already established locally, our state can quickly provide a more reliable and robust feedstock of valuable materials back into the hands of manufacturers, while providing room for additional infrastructure to develop, and new workforce opportunities.

Objective and Scope of Project

Inspiring recycling behavior via community engagement was our main objective. This project was an exploration of innovative ways to find the most effective approach for motivating people to recycle beverage containers, with a special focus on aluminum and plastic. This was accomplished by continuing our partnership with the City of Thornton. The 6-month online messaging rotated monthly, had both English and Spanish versions, and was centered around outreach and education efforts, as well as an ultramodern Call-to-Action for the community to connect on and ramp-up participation month over month by inviting them to post pictures of themselves engaged in recycling actions.

The most vital outcome was the development and refinement of effective and memorable messages that could result in increased recycling of beverage containers. If completely successful, the increased recycling activity could be reflected in an increase in the overall diversion rate for the City of Thornton.

Schedule

Project/Program Timeline: Picture This: Inspiring Recycling Behavior

November - December 2021

- Establish marketing and design to produce up to 5 messages in English and Spanish
- Set a timeline for execution of campaign
- Gather baseline data

January - June 2022

- Rollout messaging on monthly timeline
- Digital data collection monitored on a weekly basis
- Director communicated with city staff at each message change, providing material that encourages engagement, and awareness

July - August 2022

- Receive and compile tonnage data
- Analysis of data generated.
- Prepare final summary report

August 2022

- Submit final report to Coca-Cola Foundation, highlighting successes, challenges, and best practices
- Publish approved report to Recycle Colorado website and make available to public

Methodology

A new digital media tool was used to get the attention of the community by connecting mobile devices using an Interactive photo mosaic. The photo mosaic is designed to develop and grow organically, as people post photos to it, which builds momentum and engagement, uses earned media and is shareable.

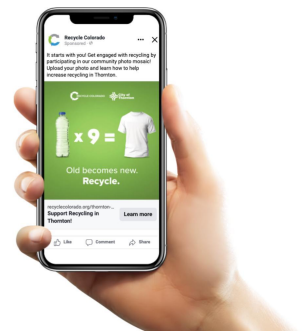
During this process, a person is able to participate by turning their photos into action. A photo of them recycling is taken and submitted online and is included with other photos and makes up the interactive mosaic.

Previous projects using the photo mosaic have demonstrated the following:

- On average, visitors spend 5.5 minutes exploring the mosaic
- Individual activations have reached 200,000+ submissions
- 50,000+ Facebook likes, and 1M+ unique views
- Single photos shared 200+ times to help spread the word

These are features of every project utilizing the Mosaic (including this one):

- Pop-in and pop-out animation showcasing individual photos
- Search the mosaic by name or keyword



- Click to reveal hashtags, sharing, and more
- Engaging social & viral sharing incentives: locations, 'Where's Waldo?', trending
- Accessible from any mobile or desktop browser

Our paid social media campaigns on Facebook and Instagram generated significant awareness among Thornton residents. People were prompted to go from the paid ad to the photo mosaic page on Recycle Colorado's webpage. Once on the page, they were asked to post a photo of themselves actively placing recyclable into a recycling container to the photo mosaic. This page also provided a link to the City of Thornton's recycling information page on the City of Thornton website. This was a way to reach the people that used their mobile devices everyday and are in a position to recycle.

Messaging:

The Interactive Photo Mosaic messaging utilized visuals that incorporated an array of cultures, diverse socio-economic imagery, and recognizable community landmarks.

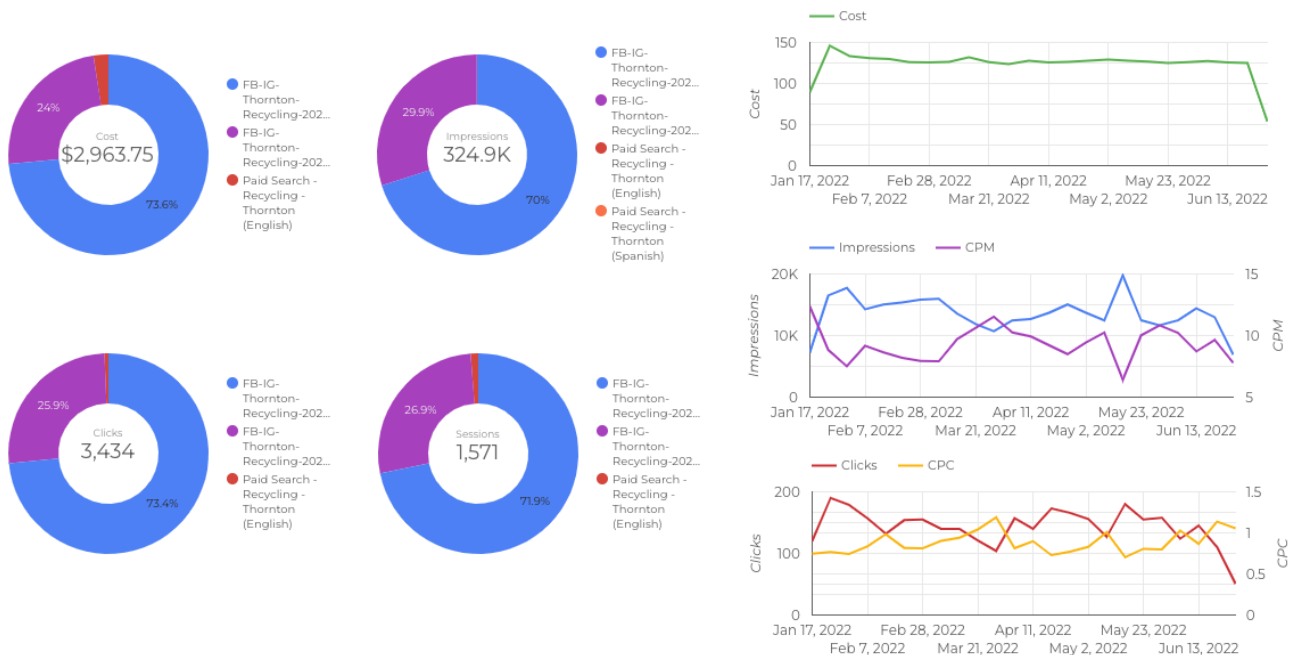
This recycling community engagement campaign showcased a diversity and inclusion Call-to-Action component that showcased people of the community to come together through a mosaic take away piece initiative usable in their community social marketing, national campaigns, print, online, and other media platforms.



The Coca-Cola Grant was awarded to Recycle Colorado to initiate a campaign to monitor the recycling habits of the Thornton community with a focus on aluminum and plastic containers. Our ads were created in both English and Spanish with a message designed to help recyclers understand the life cycle of two types of containers. The ad is posted on Social Media and Google Ads to a targeted audience throughout Thornton as well as their website. In one example design above, the message describes how a number of plastic containers become t-shirts. The designs are sponsored by and approved by Recycle Colorado and the City of Thornton. Once a person clicks on an ad picture/link, they would be taken to the Mosaic photo submission page where they can upload their recycling photo.

Once the ads were uploaded we monitored the data for Mosaic submissions and our marketing reach to see what a viewer clicked on and where they went. Our team noticed that we received strong awareness and engagement with the ads, but fewer people took the next step and submitted a photo to the Mosaic. The results (below) were significant enough to determine people were interested in learning more about the recycling program rather than submitting a photo to the mosaic.

Our paid social media campaigns on Facebook and Instagram generated significant awareness among Thornton residents (nearly 325,000 impressions and 3,400 clicks), but despite the interest in engaging with the ads, people did not take the additional step of uploading their own recycling photos to the community photo mosaic. This demonstrates the social media campaigns were effective at getting people’s attention, but not effective at prompting them to upload a photo to the mosaic. We do not have data to know whether this engagement increased recycling behavior because people were not posting evidence of their recycling actions in response to the Mosaic campaign.



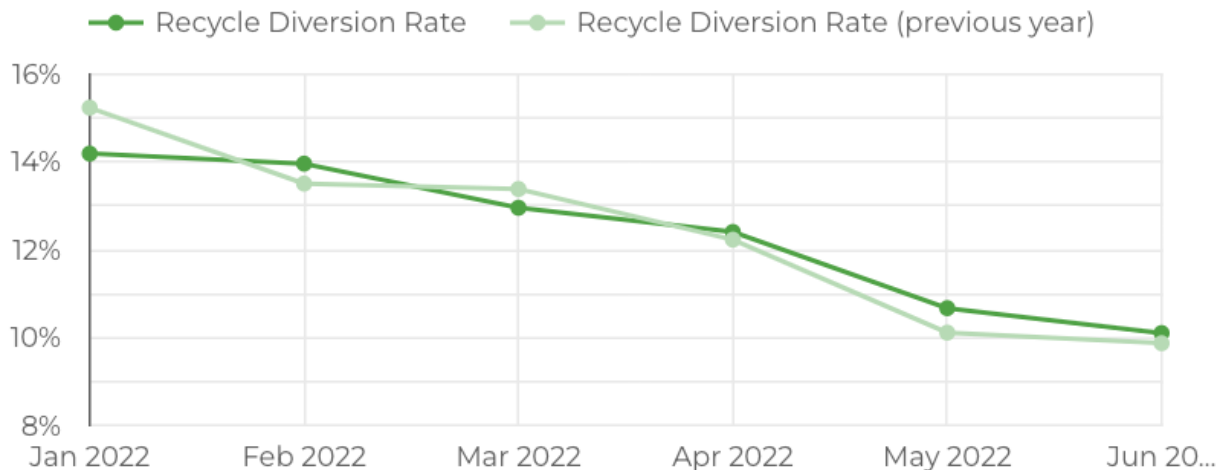
Data Collection

Data collected included:

- Weight tonnage of municipal solid waste (MWS) and recycling collected from city of Thornton to compare to 2021 year-to-date data
- Paid Media - impressions, click throughs, referral traffic to landing pages
- Social Media - engagements, shares, likes, uploads
- Owned Media - Photo Mosaic reporting

Results

City of Thornton: Recycle Diversion Rate (January - July 2022 vs. Previous Year)



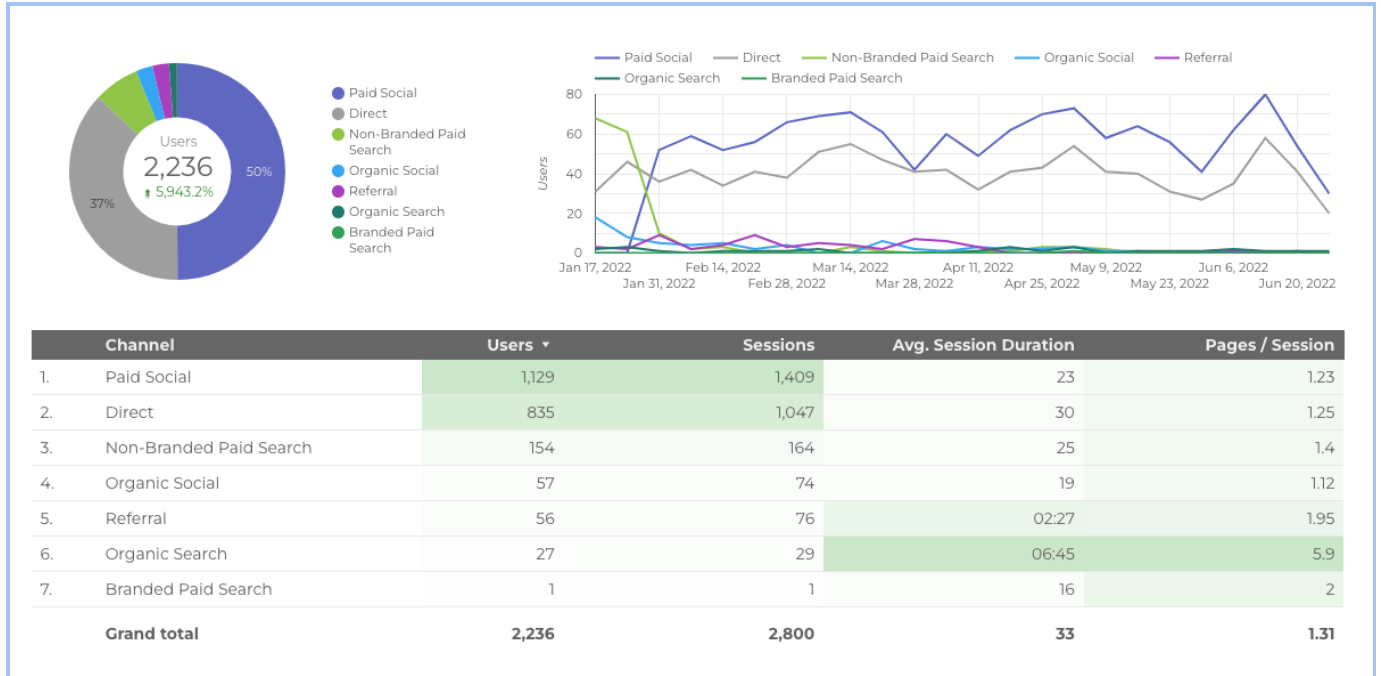
Although there may have been an increase in recycling behaviors which were undocumented as part of this project, Thornton's recycling diversion rates remain largely unchanged from the previous year of 2021.

Many factors influence a diversion rate for a city, such as an increase in waste materials which are not part of the recycling stream, or changed disposal practices or an increase in new residents, etc. Based on the data collected for this single project, we cannot conclude whether the campaign made an impact on recycling diversion rates in Thornton.

Additional Digital Marketing Data

- Google Analytics

RecycleColorado.org: Google Analytics Website Traffic by Channel to Dedicated Thornton Landing Page (<https://www.recyclecolorado.org/city-of-thornton-recycling>) January 19 - July 30, 2022 vs. Previous Year)



Paid Media

- Google Ads Grant (Paid Search)
 - Key Metrics: Impressions, Clicks, traffic to landing pages

Paid Social Media

- Facebook/Instagram
 - Key Metrics: Impression, Clicks, Engagements (e.g. Likes, Comments, Shares) Uploads

While these results did not reach the loftiest goal of an increase in recycling diversion rates, they do show social media is an effective tool for communicating with Thornton residents. Recycle Colorado believes targeted paid media campaigns hold the promise of improved communication, education and engagement with residents, but adjustments to the methods used and the goals set need to be made for future projects.

There is room for improvement through valued ideas, suggestions, and recommendations for Call-to-Action efforts in future campaigns.



Conclusion

The goal originally set, to increase recycling diversion rates for the City of Thornton, was not achieved in the short, 6-month period of this social media campaign.

Recycle Colorado found the data collected reflected success in the realm of reaching and engaging people, but did not result in a change in the diversion rate or participation in uploading photos to the mosaic.

Many factors which were not studied in this project (overall waste amounts, population changes, spring yard waste collection, etc.) impacted the diversion rate and participants did not report their recycling behaviors, so it is not possible to conclude whether this campaign increased recycling behaviors or not.

There were very few who participated or even responded to our questions in the photo mosaic. These results indicate that people are inclined to spend time on the internet to find out more information about recycling, but not inclined to publish photos of themselves engaged in recycling activities.

However, the campaign did reach a large number of people, so we can conclude the messaging was successful in capturing people's attention and prompting them to click on the ad. This information can be used in designing future programs.

Messages in both English and Spanish with simple graphics which illustrated the ways in which collected materials are recycled (i.e. recycled or downcycled) into new products proved to be an effective messaging approach, which could be replicated by other Colorado communities.

Recommendations

We have several recommendations to help future Grant funded projects realize a higher success rate:

- Goals for the campaign should be tailored to the target audience and directly related to the program actions. For example, if it's a media campaign, the goal should be related to media results. If it's a diversion campaign, then there needs to be a more robust method of data collection to determine baseline diversion rates, overall waste generation, and a way to track those changes. If the goal is behavior change, then baseline behaviors need to be identified and measurable prior to the intervention intended to change those behaviors.
- Identify the specific target audience who can be influenced to change recycling behaviors and have access to recycling programs.
- "Seeding" the photo mosaic with participants known to the target audience could result in higher participation. For example, a classroom of kids or staff from a local business or elected officials posting and sharing their photos to the mosaic might inspire other people to participate.
- Encourage participating agencies, their staff and employees to get involved and help spread the word about the upcoming project and programs being conducted.
- Since video content captures and holds a viewer's attention, this would be the best

medium to engage consumers. Create a 30 sec promotional recycling video that encourages them to find out more about the recycling program on the participating city website.

- Video Marketing - Create a video that explains the project more in depth, possibly including some people in the community and attach it to the landing page of Recycling Colorado and the participating city.
- Provide an incentive. If a monetary incentive can't be used, providing a non monetary incentive for the person(s) that participated the most, the best, been active, etc has a great potential to motivate more people to participate, but would also require additional staff time to monitor and make awards.
- Surveying the population to determine what call to action might be more appealing and then connecting the campaign to that action. For example, would the community be interested in writing letters to the editor or crafting a petition or commenting at public meetings or tabling at an event? If the survey indicated a preferred action, then the campaign could be tailored to that choice and this might result in more buy-in from the target audience.

APPENDIX

Below is the Meta Ads creative (images and copy) used for creating dynamic ads, which run on Facebook and Instagram and simultaneously test multiple combinations of options for Primary Text, Images, Headlines, and Call-to-Action Button Text.

Top performing options for each are highlighted in pink.

- **Primary Text (English - 5 options):**

- a. It starts with you! Get engaged with recycling by participating in our community photo mosaic! Upload your photo and learn how to help increase recycling in Thornton.
- b. Hey Thornton! Show us how you recycle and put your community on the map. Take a photo of what you like to recycle and upload it to our community photo mosaic.
- c. Support your community by showing us how you recycle! Take a photo of yourself recycling, upload it to our photo mosaic, and learn more about increasing recycling in Thornton.
- d. Hey Thornton! Did you know that recycled beverage containers like cans and plastic bottles can be used to create new products? Show us how you like to recycle by uploading a photo to our community photo mosaic.
- e. Submit your photo to our community mosaic and learn more about how you can help increase recycling in Thornton!

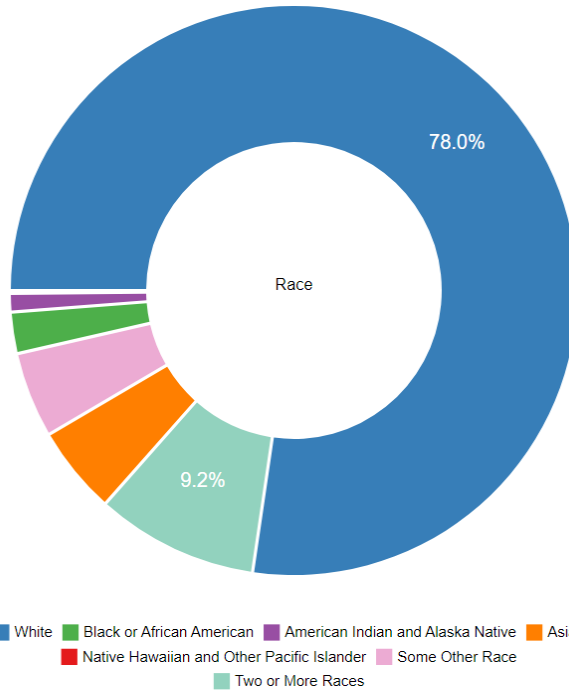
- **Primary Text (Spanish - 5 options):**

- a. Recicla hoy para un mejor mañana y un futuro más limpio. Envía tu foto al mosaico de nuestra comunidad y conoce más sobre cómo puedes ayudar a aumentar el reciclaje en Thornton.
- b. ¡Empieza contigo! ¡¡Involúcrate en el reciclaje participando en el mosaico de fotos de nuestra comunidad! Sube tu foto y entérate de cómo ayudar a aumentar el reciclaje en Thornton.
- c. ¡Hola Thornton! Muéstranos cómo reciclas y pon a tu comunidad en el mapa. Toma una foto de lo que te gusta reciclar y súbela al mosaico de fotos de nuestra comunidad.
- d. ¿Sabías que los envases de bebidas reciclados, como las botellas de plástico, se pueden usar para crear nuevos productos? Muéstranos cómo te gusta reciclar subiendo una foto al mosaico de fotos de nuestra comunidad.
- e. ¡Apoya a tu comunidad mostrándonos cómo reciclas! Toma una foto tuya reciclando, súbela a nuestro mosaico de fotos y conoce más sobre cómo aumentar el reciclaje en Thornton.

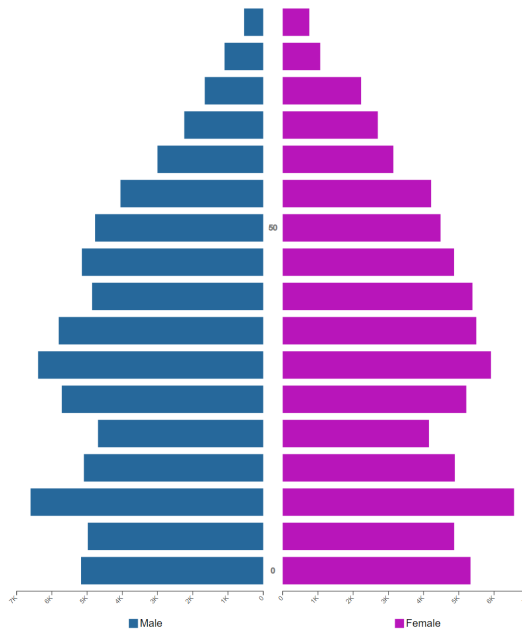
Thornton, Colorado Population 2022

146,487

Demographic by race and gender



Thornton Population Pyramid 2022



- **Images** (English and Spanish versions)



- **Headline (English - 5 options):**

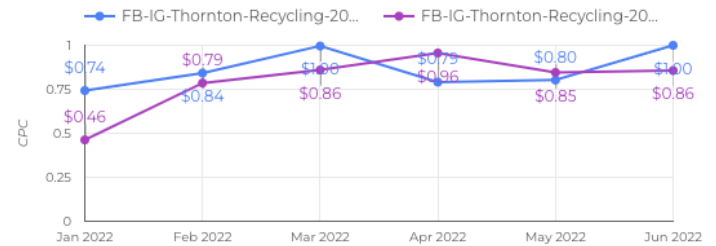
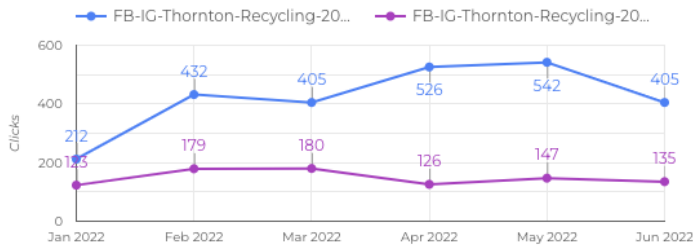
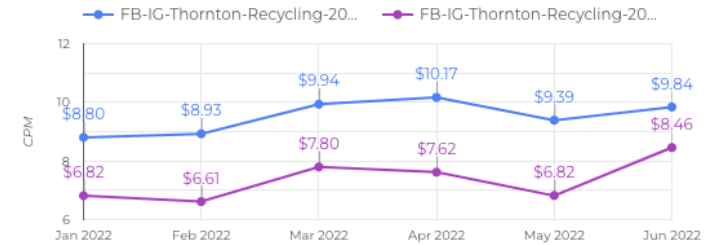
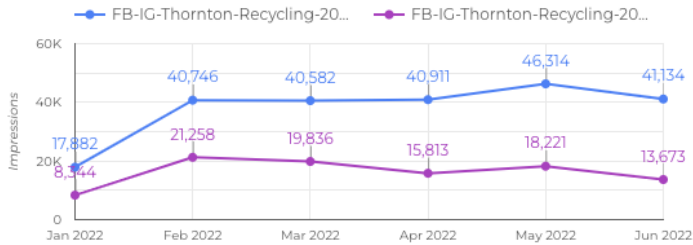
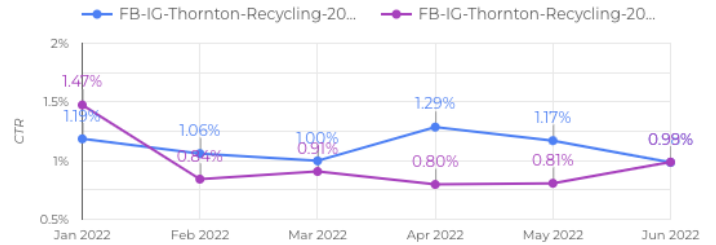
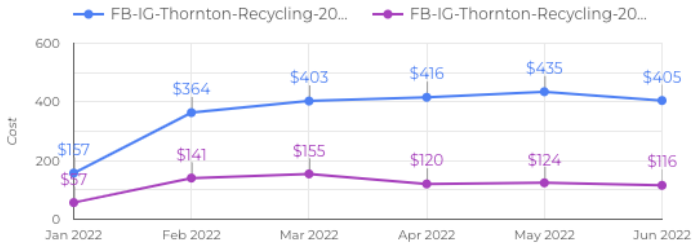
- Support Recycling in Thornton!
- Show Us How You Recycle
- Upload Your Recycling Photo
- Recycle Today for a Better Tomorrow
- Help Colorado Recycle More

- **Headline (Spanish - 5 options):**

- ¡Ayuda a Thornton a reciclar!
- ¡Apoya el reciclaje en Thornton!
- Sube tu foto reciclando

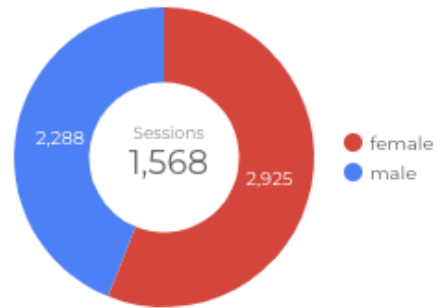
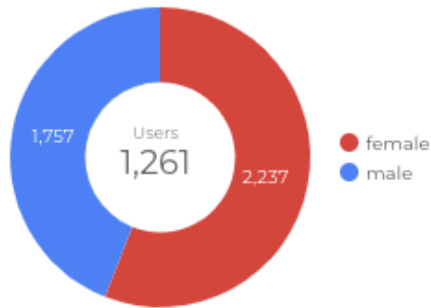
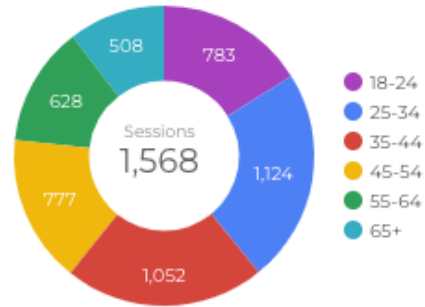
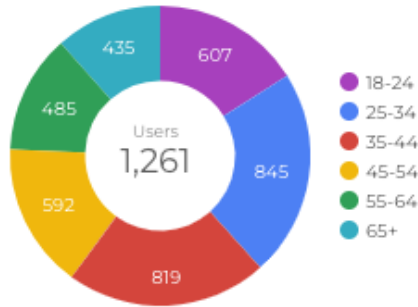
- d. Muéstranos cómo reciclas
- e. Recicla hoy para un mejor mañana
- **Call-to-Action (CTA) Button Text (English - 2 Options)**
NOTE: Meta Ads do not currently provide a Spanish CTA button text)
 - a. Learn More
 - b. Sign up

Meta Ads Analytics: Key Metrics for English and Spanish Ads on Facebook and Instagram January 19 - July 30, 2022



Google Analytics: Age and Gender of Visitors to Dedicated Thornton Landing Page
 (<https://www.recyclecolorado.org/city-of-thornton-recycling>)

January 19 - July 30, 2022



Gender / Users / Sessions						
Age	female		male		Grand total	
	Users	Sessions	Users	Sessions	Users	Sessions
18-24	350	450	258	333	607	783
25-34	466	637	382	487	845	1,124
35-44	441	561	383	491	819	1,052
45-54	335	432	259	345	592	777
55-64	270	354	215	274	485	628
65+	254	294	183	214	435	508
Grand t...	2,237	2,925	1,757	2,288	11,587	14,814