



**The Recycling
Partnership**
Solving for Circularity

State of Louisiana Residential Recycling Access and Infrastructure

Calendar Year 2022



Introduction

Residential recycling looks different from community to community, and state to state. With over 9,000 local recycling programs and a mix of curbside and drop-off options, The Recycling Partnership (The Partnership) knows that access for all Americans is crucial to the recycling stream. Packages and materials enter the home, residents recycle if they have access, and those recyclable materials get collected and sorted, then make their way into the supply chain as recycled content. But without access, those materials cannot be collected and put back into the circular economy.

With that in mind, The Partnership identified Louisiana as an area with vast potential and opportunity to improve access and capture more recyclable materials. Research into Louisiana's recycling sector in calendar year 2022 informed The Partnership about residential recycling access and infrastructure in the state. During this research, The Partnership spoke with stakeholders throughout Louisiana and the Gulf Coast to better understand the residential recycling sector in the region, and to identify regional challenges that have stunted the development of a more robust system, such as the impacts of hurricanes on processing capacity, and the operation and growth of municipal programs.

The most important takeaway from the research is the incredible opportunity that is available in Louisiana to not only support the development of a more robust residential recycling system but to collect the hundreds of thousands of tons of recyclables that are currently being landfilled.

The following report presents the result of The Partnership's research and analysis of the residential recycling system and infrastructure in Louisiana and identifies the opportunities available to increase residential recycling access and capture more recyclables that are currently being landfilled.

Key Takeaways



There are significant opportunities for new recycling access across the state.



There is a need for consistent and increased outreach and education.



The Gulf Coast region contains one of the best collection of end markets in the United States for all varieties of recyclable materials.



MANY RECYCLABLE MATERIALS GENERATED IN LOUISIANA HOMES ARE BEING LANDFILLED DUE TO LIMITED OR A LACK OF RECYCLING ACCESS.

Louisiana – Methodology

Initial research into recycling access and infrastructure in Louisiana was done through phone calls, e-mails, Zoom, and as many in-person meetings as could be scheduled. The Partnership met with statewide stakeholders, parishes, municipalities, material recycling facilities (MRFs), brokers of recyclable materials, and non-profit organizations to understand and document the recycling system in Louisiana.

Public recycling access research focused on municipal and parish recycling programs. The Partnership attempted to speak with all 64 parishes and any municipality with a population of 2,000 or over, regardless of if they did or did not have a recycling program. The purpose of this broad research was to understand not just how much residential recycling access exists in Louisiana but also to understand the barriers to public recycling access. It is important to note that throughout the initial data gathering, it became clear that there were no on-premises public multifamily recycling programs in Louisiana and for this reason, the following report is focused primarily on single-family household access.^{1,2}

After the initial data collection period of this research, The Partnership analyzed the data gathered. Data analysis utilized the recently released 2020 Census data to calculate occupied single-family households which served as the basis of the analysis. The results of the research and analysis of Louisiana’s public recycling access and infrastructure research are presented in the following report.

Louisiana – Recycling Overview

Louisiana, located in the Gulf Coast region of the United States, hosts an estimated 50 residential recycling programs (either drop-off or curbside). All the public residential recycling programs accounted for in this report are “owned” by the parish or municipality or function through public-private partnerships.

Primary Funding Sources	<ul style="list-style-type: none">- local sales/use taxes- monthly collection fees paid by residents to participate- included in existing utility fees for other services
Operated By	<ul style="list-style-type: none">- contracted recycling collection companies- public-private partnerships

Utilizing aggregated data from waste composition, recycling, and capture studies done by The Partnership and calendar year 2022 market reports, The Partnership estimates that households in Louisiana generate a total of 706,000 tons of recyclables annually, with single-family households generating an estimated 574,000 tons or 81 percent of that total.³ At the time of this report, these 706,000 tons represent an estimated market value of roughly \$28 million.⁴

It is important to note that the Louisiana Department of Environmental Quality (LDEQ) does not have a recycling department, or a position dedicated to overseeing and supporting residential recycling in the state. All operating recycling programs accounted for in this report are the result of the work of dedicated municipal or parish employees. The Partnership was pleased to see the work undertaken by the municipal or parish employees and volunteers to further their residents’ access to public recycling services.

¹ “Multifamily recycling” is recycling collection from locations with numerous households, such as apartments, townhomes, condominiums, or generally any property with five or more habitable units.

² “Single-Family household” is a common parameter of service delivery in municipal recycling programs and is generally defined as occupied housing with between 1 and 4 dwelling units.

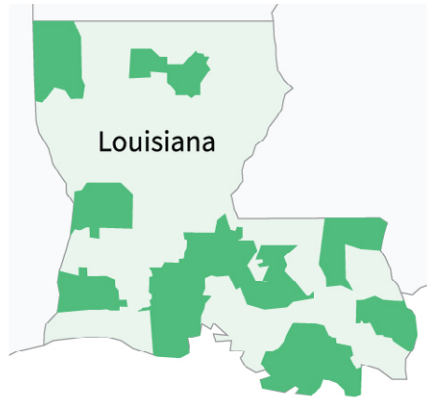
³ Tonnage totals presented in this report may not sum due to rounding. Total tonnage estimates are estimated assuming every pound of curbside material is collected and processed for market.

⁴ Market value estimation made from CY 2022 regional commodity data as reported by RecyclingMarkets.net.

Residential Recycling Access⁵

The initial results of The Partnership’s research into public residential recycling access in Louisiana are presented in Figure 1 and Figure 2 (below).

Figure 1: Residential Recycling Access



The distribution of single-family recycling access across Louisiana can be seen in Figure 1, areas of access are indicated by the green shaded areas. Note that there are large areas of the state that do not have access to public residential recycling services. Out of the roughly 190 municipalities and parishes surveyed for this report, 45 offer residential recycling programs with 5 offering both curbside and drop-off recycling to all or select areas within the parish or municipality, resulting in a total of 50 public residential recycling programs. Figure 2 provides a detailed breakdown of the type and number of public residential single-family recycling programs in Louisiana.

Figure 2: Residential Single-Family Recycling Programs in Louisiana

Recycling Program Type	Number of Recycling Programs
Curbside	23
Drop-Off - Staffed	21
Drop-Off - Unstaffed	6

General residential recycling “access” is defined in this report as the availability of curbside or drop-off services to a household. Specifically, single-family curbside access in this report indicates that a single-family household has organized curbside recycling services available to them by their municipality or parish directly or through its contracted hauler, i.e., it is provided automatically, or they must opt-in. Single-family drop-off access would indicate that a household has a drop-off available to them provided through their municipality or parish. It does not indicate that the drop-off is adequate or convenient for the household. The Partnership did account for double counting of single-family households with drop-off access by removing those single-family households that also had access to a curbside recycling program.

⁵ Data presented in this report was gathered from several sources including in-person meetings, phone calls, e-mails, websites, etc. The Partnership has made every attempt to verify the data presented in this report across multiple sources.

Figure 3: Single-Family Recycling Access

Recycling Program Type	Number of Single-Family Households	Percent of Single-Family Households*
Curbside	430,000	32%
Drop-Off - Staffed	367,000	27%
Drop-Off - Unstaffed	127,000	9%
No Public Access	417,000	31%

*Numbers will not sum to 100% due to rounding

As illustrated in Figure 3, an estimated 924,000 single-family households in Louisiana have access to a public residential recycling program with the remaining 417,000 single-family households lacking access to a public residential recycling program. It is important to note that The Partnership’s research did not identify any publicly offered multifamily recycling programs, this lack of service excludes the estimated 411,000 multifamily households in the state from being able to participate in a recycling program.

Of the single-family households with access to public recycling programs, an estimated 430,000 have access to a curbside recycling program and 494,000 have access to a drop-off program (either staffed or unstaffed).

Equitable Access

The Partnership’s best practice when looking at residential recycling access is that households have access to recycling services that are equal to their garbage services. The Partnership believes that equitable and informed access is the best way in which to develop a high-functioning recycling system. Equitable and informed recycling access happens when the recycling service is provided in a manner that is equal to garbage services, and households receive education and engagement to understand why, how, and when to recycle. Essentially, a household can utilize their recycling service as easily and knowledgeably as they utilize their garbage services.

In a curbside program, equitable access would mean that a resident has the use of a recycling cart in the same manner as a garbage cart with on-going educational information about what is and what is not recyclable allowing the resident to understand fully how to correctly utilize both their recycling and garbage services. A curbside program where residents need to call to “opt-in” to a recycling program separate from their trash program is not considered equitable curbside access.⁶ Opt-in programs are frequently seen in Louisiana’s largest cities.

Equitable access is also possible in a drop-off program. Having equitable access to a drop-off program would mean that a resident can self-haul their recyclables to a designated place that also accepts garbage.

Table 4 (below) illustrates the current equitable access to public residential recycling programs in Louisiana. It is estimated that only 16 percent of single-family households have access to equitable publicly offered recycling services.

Figure 4: Current Equitable Access

Program Type	Single-Family Households
Curbside - Automatic	153,000
Drop-Off - Staffed	79,000
Drop-Off - Unstaffed	—

⁶ “Opt-In” recycling collection is a community recycling collection program that requires some level of household action or engagement to initiate curbside recycling pick-up.

Investments in collection systems to provide households equitable access can drastically increase the participation rate, which subsequently increases the overall amount of recycling that is collected.

Figure 5: Potential Equitable Access

Program Type	Single-Family Households
Curbside - Automatic	970,000
Drop-Off - Staffed	187,000
Drop-Off - Unstaffed	15,000

Currently, an estimated 970,000 single-family households automatically receive garbage collection at the curb through their parish or municipality whereas only 137,000 single-family households receive recycling automatically through their parish or municipality. This illustrates the significant opportunity to expand recycling services and shows that curbside services are viable in the majority of the state.

As seen in Figure 5, if single-family households in Louisiana had equitable access to public residential recycling services, the number of single-family households with access to public residential curbside recycling would increase to 970,000, increasing access by an estimated 833,000 single-family households.

Residential Curbside Recycling Programs

Out of the 50 public residential recycling programs in the state, 46 percent of them are variations of curbside service and the remaining are variations of drop-off service. While curbside service is the most popular type of public residential recycling program in the state when compared to staffed or unstaffed drop-off programs, it only provides access to one-third of the single-family households and the majority of the programs are designed with significant barriers to participation.

Figure 6: Residential Curbside Collection

	Percentage of Single-Family Households		Percentage of Single-Family Households		Percentage of Single-Family Households
Automatically Provided	10%	Opt-In: No Extra Fee	21%	Opt-In: Extra Fee	0%
Cart	1%	Cart	20%	Cart	0%
Bin	9%	Bin	1%		
Bag	0%				

As seen in Figure 6, public residential curbside recycling programs in Louisiana vary in container type, and how single-family households are provided the service.

Most single-family households in Louisiana with public residential curbside recycling services have access through an opt-in format at no extra fee. As mentioned previously, an opt-in format requires that the household call to essentially sign up for the recycling program and receive service. It is important to note that for a household to call and sign up for a recycling program, they need to be aware that they have access to a recycling program.

In Louisiana, The Partnership found that outreach surrounding public residential recycling programs was very limited, allowing The Partnership to assume that in some cases it was likely residents were unaware of the recycling program available to them. Additionally, the seemingly simple act of calling to request a recycling cart is a significant barrier for people. Through The Partnership’s national behavior research, it was found that 86 percent of Americans value recycling as a public service, but generally, extremely low participation rates are seen in opt-in systems. This suggests that the barrier of opting in is significant enough to prevent a large portion of households in an opt-in program from participating.

In addition to the opt-in system, 10 percent of single-family households are automatically provided curbside service. Automatically provided curbside service is a best management practice and where programs see the best participation around the country, however, almost all of these homes with this service in Louisiana are provided small 14–18-gallon bins rather than a 65- or 95-gallon cart for recycling. The Partnership advocates for cart-based service because the automated nature of collection is more efficient and cost-effective for program operations and carts provide more adequate volume for a household’s recycling material.

Residential Curbside Accepted Materials and Tonnage

Curbside programs in Louisiana all utilize a single-stream collection format allowing residents to put accepted recyclables in one container. Materials accepted vary across programs with all public residential curbside programs accepting cardboard, mixed paper, PET, HDPE, aluminum cans, and steel cans. Other materials such as glass or aseptic containers are accepted in some programs but are not generally accepted statewide.

Current tons collected through curbside programs in Louisiana are unknown due to incomplete data at the state, parish, and municipal levels. Figure 7 provides estimates utilizing regional data applied to Louisiana.

Figure 7: Estimated Single-Family Curbside Tonnage⁷

Commodity	State of Louisiana Total Single-Family Generation - 100% Participation	Curbside Access Single-Family Generation - 100% Participation	Curbside Access Single-Family Capture - 43% Participation	Curbside Access Single-Family Material Not Currently Collected
Cardboard	85,000	27,000	10,000	17,000
Mixed Paper	183,000	59,000	15,000	44,000
Aseptics & Cartons	5,000	2,000	-	2,000
PET	38,000	15,000	3,000	12,000
HDPE	19,000	6,000	2,000	4,000
Other #3 - #7 Plastics	23,000	34,000	6,000	28,000
Aluminum Cans	15,000	5,000	1,000	4,000
Aluminum Foil	5,000	2,000	-	2,000
Steel Cans	15,000	5,000	1,000	4,000
Glass	95,000	31,000	1,000	30,000
All Commodities	574,000	184,000	46,000	138,000

⁷ Estimates are made utilizing aggregated data from waste composition, recycling, and capture studies done by The Partnership and participation data provided by cities in Louisiana. Estimated materials may not sum to the total in All Commodities due to rounding.

As seen in Figure 7, The Partnership can estimate that roughly 574,000 tons of recyclables are generated annually by all single-family homes in Louisiana. Of those single-family households that have access to curbside recycling, The Partnership estimates that roughly 184,000 tons would be recycled annually assuming every single-family household with curbside access used it perfectly (100 percent participation and 100 percent capture of recyclable materials). Applying the estimated state-wide participation and capture rate, The Partnership can estimate that annually 46,000 tons of recyclables are currently being collected in Louisiana's curbside recycling programs, meaning 138,000 tons are lost to landfill every year from the homes with curbside access.⁸ It is important to note that the estimated curbside access tons presented in Figure 7 do not account for the variability of acceptable materials across programs, and for this reason, likely overestimate the amount of material currently being collected in Louisiana's curbside recycling programs. The loss of recyclable material at the curb highlights one of the biggest short-term opportunities in the state; investing in the existing programs for big material recovery gains.

Residential Drop-Off Programs

Residential Staffed Drop-Off Program

Residential staffed drop-off sites are a popular public recycling format offered in Louisiana. A staffed drop-off program is a recycling site where residents can bring their recyclable materials that is supervised by an employee. This supervision helps to decrease contamination and increases education for residents. An estimated 42 percent of recycling programs in Louisiana are staffed drop-offs. The Partnership estimates that 367,000 of all single-family households in Louisiana have access to a publicly operated staffed drop-off site.⁹

Many of the staffed drop-off sites in Louisiana are in more rural regions of the state. Staffed drop-off sites serve as a good alternative to curbside recycling programs, especially in less dense areas where curbside services may not be feasible due to cost constraints and/or the rural nature of the region. If this is the only service available to residents for garbage, this is most likely the best service for recycling as well.

It should be noted that in Louisiana there are a number of highly functional staffed drop-off sites that collect materials source-separated and bale and broker these materials to end markets. The funds received from this direct-to-market style approach help to ensure the ongoing viability of the programs. However, there is a cost to the processing activity in terms of labor, equipment, and operations, and source-separated collection tends to have higher collection costs per ton than commingled collection.

Residential Staffed Drop-Off Accepted Materials

Staffed drop-off sites throughout Louisiana vary greatly in the materials they accept and the format in which they accept materials. For example, some staffed drop-offs are set up to accept recyclables in a single-stream format, whereas others require residents to separate materials into source-separated collection bins.

Additionally, staffed drop-off sites in Louisiana do not all accept the same materials and frequently do not accept all materials that are considered commonly recyclable. One reason for the variation of acceptable materials is the accessibility to processors and the subsequent cost to transport goods. Most source-separated drop-off programs only accept materials that they are able to directly broker to nearby facilities. Similarly, staffed drop-off programs that accept single-stream recycling rely on material processing at a Materials Recycling Facility (MRF) where materials are transported. A further discussion of end markets and processing options is included in the Recycling Infrastructure section of this report.

⁸ The Partnership believes that it is likely that the tons lost to the landfill annually are underestimated due to varied material acceptance rates across programs, however, The Partnership did not attempt to estimate access by material type.

⁹ Single-family households were assumed to have access to a drop-off program if the program was located in either their municipality or located within their parish and operated by their parish. The Partnership did account for double counting of households with access by removing those households that also had access to a curbside recycling program.

Residential Unstaffed Drop-Off Programs

In addition to the staffed drop-off programs, 12 percent of public residential recycling programs in Louisiana utilize unstaffed drop-off programs. These unstaffed programs provide access to recycling for an estimated 9 percent of single-family households in Louisiana. Unstaffed drop-off sites frequently struggle with high contamination in their recycling stream often leading municipalities or parishes to remove these sites, further decreasing public recycling access for residents. Unstaffed drop-off sites can be an important offering to a community’s residents, but tactics to successfully minimize contamination and operate the program are critical.

It is important to note that due to the unstaffed nature of these sites, disposal of unaccepted materials can be an ongoing challenge. Some success has been seen in the use of cameras and/or specific container designs to reduce the occurrence of contamination at unstaffed recycling sites.

Residential Recycling Drop-Off Tonnage Figure 8: Estimated Single-Family Drop-Off Tons¹⁰

Commodity	State of Louisiana Total Single-Family - 100% Participation	Drop-Off Access Single-Family Generation - 100% Participation	Drop-Off Access Single-Family Capture - 30% Participation	Drop-Off Access Single-Family Material Not Currently Collected
Cardboard	85,000	31,000	8,000	23,000
Mixed Paper	183,000	67,000	12,000	55,000
Aseptics & Cartons	5,000	2,000	—	2,000
PET	46,000	17,000	3,000	14,000
HDPE	19,000	7,000	1,000	6,000
Other #3 - #7 Plastics	106,000	39,000	4,000	35,000
Aluminum Cans	15,000	6,000	1,000	5,000
Aluminum Foil	5,000	2,000	—	2,000
Steel Cans	15,000	6,000	1,000	5,000
Glass	95,000	35,000	7,000	28,000
All Commodities	574,000	212,000	37,000	175,000

Figure 8 estimates the total single-family recycling drop-off tons.

As illustrated in Figure 8, it is estimated that at 100 percent participation and 100 percent capture, the residential single-family drop-off sites in Louisiana would capture roughly 212,000 tons of materials annually. Once adjusted for estimated participation and regional capture rates, the tonnage decreases to an estimated 37,000 tons annually, resulting in an estimated 175,000 tons of single-family residential recycling not currently being captured at Louisiana’s drop-off sites.

It is important to note that the estimates presented in Figure 8 likely overestimate the amount of recyclable material being currently captured at drop-off sites in Louisiana as they do not account for the variability of acceptable materials across drop-off sites.

¹⁰ Estimates are made utilizing aggregated data from waste composition, recycling, and capture studies done by The Partnership, estimated participation data, and accepted materials lists. Estimated materials may not sum to the total in All Commodities due to rounding.

Louisiana Residential Recycling Overall Generation and Capture

Figure 9 estimates the overall single-family recycling generation and capture in Louisiana based on current program, participation, and capture data.

Figure 9: Louisiana Estimated Residential Single Family Recycling Generation and Capture¹¹

Commodity	State of Louisiana Total Single-Family Recycling Tons	Current Single-Family Curbside and Drop-Off Recycling Tons	Single-Family Recycling Not Captured
Cardboard	85,000	18,000	67,000
Mixed Paper	183,000	27,000	156,000
Aseptics & Cartons	5,000	-	5,000
PET	46,000	6,000	40,000
HDPE	19,000	3,000	16,000
Other #3 - #7 Plastics	106,000	10,000	96,000
Aluminum Cans	15,000	2,000	13,000
Aluminum Foil	5,000	-	5,000
Steel Cans	15,000	2,000	13,000
Glass	95,000	8,000	87,000
All Commodities	574,000	83,000	491,000

As seen in Figure 9, an estimated 491,000 tons of single-family recycling in Louisiana is being landfilled annually. Figure 10 (next page) provides estimated generation for multifamily households in Louisiana.

¹¹ Estimated materials may not sum to the total in All Commodities due to rounding.

Figure 10: Louisiana Estimated Residential Multifamily Family Recycling Generation

Commodity	Multifamily Recycling Not Captured
Cardboard	19,000
Mixed Paper	42,000
Aseptics & Cartons	1,000
PET	9,000
HDPE	4,000
Other #3 - #7 Plastics	5,000
Thermoforms	2,000
PP	3,000
Film & Flex	12,000
Rigid	4,000
Aluminum Cans	3,000
Aluminum Foil	1,000
Steel Cans	3,000
Glass	22,000
All Commodities	130,000

As seen in Figure 9 and Figure 10, an estimated total of 623,000 tons of residential recyclables are currently being generated in Louisiana and landfilled instead of recycled.¹² However, the estimated total tons currently being landfilled are likely underestimated due to variability in acceptable materials across recycling programs. A detailed discussion of recommendations to improve material capture is in the Conclusions and Recommendations section of this report.

Education and Outreach

The Partnership believes firmly in the impact of well-designed and consistently delivered educational outreach to inform residents of their recycling program, acceptable materials, and how to participate. In many cases, it was found that outreach to residents was limited or non-existent even where residents currently have recycling access. The lack of outreach is reflected in the reported low participation and high contamination rates, which have been cited by multiple municipalities as reasons to cancel their recycling programs or switch from a curbside collection format to a drop-off format.

During The Partnership's research, one municipality with a single-family curbside program did not renew its contract and instead switched to an unstaffed drop-off site, and a separate parish removed its unstaffed drop-off recycling access entirely, these two program changes represent roughly 16,000 single-family households having significantly downgraded or eliminated recycling access. Increasing educational outreach for the existing recycling programs in the state may lead to increased participation and decreased contamination as well as increased interest in recycling.

¹² Estimated materials may not sum to the total in All Commodities due to rounding.

Processing and End Market Infrastructure

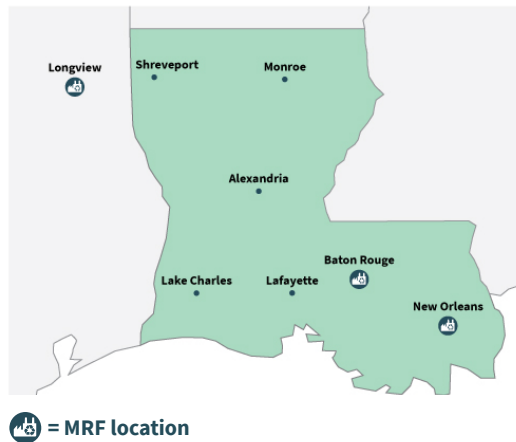
Recycling processing and end market infrastructure play an important role in supporting the development and growth of residential recycling programs. The Partnership estimates 574,000 tons of single-family recyclables are generated in the state and without more processing capacity throughout the state, there will not be an opportunity to recover this material. Without the necessary infrastructure, public recycling programs can stagnate due to high program costs and high barriers to entry in starting or sustaining a program. Many curbside programs in Louisiana struggle with the lack of existing recycling processing capacity, which can result in higher-than-average processing, transfer, and contract costs.

Balancing collection techniques is critical for a local government. Most local governments nationally move to a commingled system to take advantage of compaction and minimize transportation costs. However, without processing capacity, opportunities to commingle are limited. Nevertheless, this unique landscape has led to high-functioning staffed drop-off sites in some areas of Louisiana where communities and parishes collect source-separated recyclables. These drop-off sites bale and broker their own recyclable materials to end markets or large brokering operations essentially providing a workaround to the limited commingled processing infrastructure available. The volume from these programs coupled with transportation costs needs to be analyzed further to understand where commingling makes the most sense and where processing is needed.

Material Recycling Facilities

Material Recycling Facilities (MRFs) are the keystone to processing commingled materials most frequently collected in public residential recycling programs. These facilities provide the link between residential single-stream recycling collected at the curb or at drop-offs and end market facilities using recyclable materials as feedstock. The continued success of any single-stream recycling program relies on affordable access to MRFs. Figure 11 presents the MRF Map of greater Louisiana.

Figure 11: Material Recycling Facilities in Greater Louisiana¹³



As seen in Figure 11, the two main MRFs located within Louisiana are in the Baton Rouge/New Orleans metro area which is home to roughly 55 percent of the total population of the state. In addition to the two MRFs located in Louisiana, there is one MRF located close to the Texas – Louisiana border. While this Texas MRF is not located within Louisiana, it is a viable option for communities in the Northwest corner of the state.

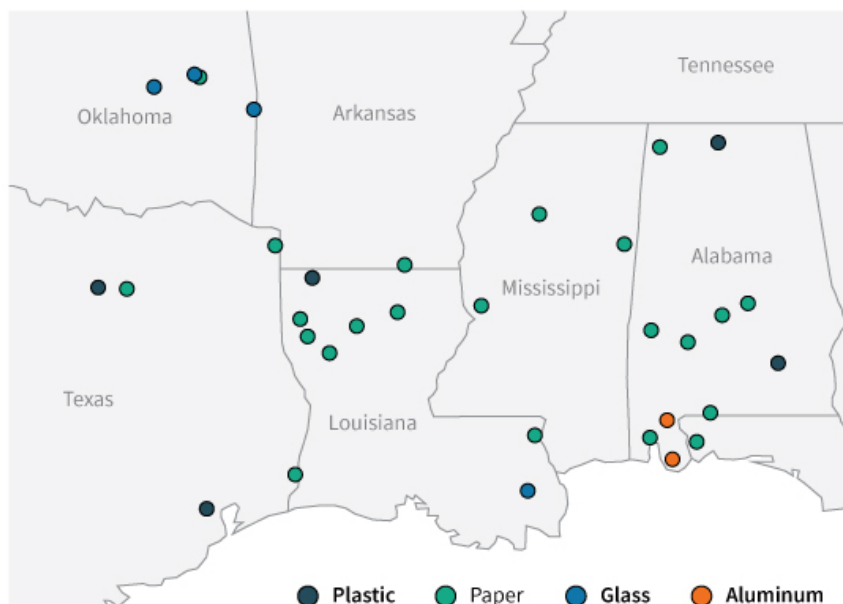
The Partnership estimates that currently Louisiana does not have enough MRF processing capacity for the state. Additionally, the geographic distribution of processing in the state limits access for many communities. While some areas in the state may not constitute an investment in a full-scale MRF, there is an opportunity for hubs that can consolidate material to transfer to larger processing facilities. MRF capacity throughout the Southeast region of the country will need to modernize and expand as recycling access increases throughout the region.

¹³ The Partnership included MRFs within 100 miles of a major Louisiana metropolitan area in this map as recyclables frequently travel across State borders to be processed.

End Markets

One of the most fascinating things about the Gulf Coast region is that it contains one of the best collections of end markets in the United States for all varieties of recyclable materials. Regions all over the United States ship recyclable products to the Gulf Coast to satisfy the region's need for feedstock. In calendar year 2022, the annual regional prices for recyclables in the Gulf Coast were frequently higher than that of the annual national average.¹⁴ Facilities in the Gulf Coast that are processing and brokering residential recyclables are at an advantage when compared to their non-regional counterparts. The Partnership estimates that there are 11 end market sites in and directly outside of Louisiana. A sampling of the Gulf Coast end markets is presented in Figure 12 (below).

Figure 12: Sample of Gulf Coast End Markets by Material Type



Granting

There is good recycling momentum in the state of Louisiana. To catalyze the needed system change in the state, the recycling industry needs to do two things: share the bright spots in the state, i.e., share the hard work and the important recycling efforts that are occurring, and catalyze change through grants. The Partnership wants to support both efforts and has identified and granted three recycling programs during this research. These three grants total over \$500,000 and will help to improve access to residents and operations in programs that serve an estimated 162,000 single-family households.

The Partnership hopes to continue this momentum and is in additional discussions with other Louisiana communities about recycling opportunities.

¹⁴ Based on summarized calendar year 2022 data from RecyclingMarkets.net

Conclusions and Recommendations

The most important takeaway from this research is the incredible opportunity that is available in Louisiana to not only support the development of a more robust residential recycling system but to collect the hundreds of thousands of tons of recyclables that are currently being landfilled. Increased investment in supporting current residential recycling program development and incubating new programs throughout the state is critical to increasing the capture of residential recycling tons.

Lack of access to recycling collection services is one of the most notable barriers for many households in Louisiana. The high cost of curbside recycling programs and the limited number of drop-off sites scattered throughout the state have made accessing recycling collection difficult for many households. Most of the recycling generated in Louisiana households is being landfilled due to inadequate or non-existent recycling services. The Partnership believes that to support the development of a healthy recycling infrastructure, the following areas need to be considered:

- Education and Outreach
- Access to Residential Recycling Programs
- Processing and End Market Awareness
- Extended Producer Responsibility
- Statewide Granting and Technical Assistance

Education and Outreach

In Louisiana, recycling education and program outreach are very limited or non-existent. Due to this, existing recycling programs in Louisiana are struggling to improve and develop. Studies done by The Partnership's Center for Sustainable Behavior and Impact (CSBI) indicate that there is a relationship between communication and confidence in recycling programs. CSBI found that the lack of communication surrounding a recycling program indicates that there is not only a lack of awareness of the program but that there are also chronically lower levels of confidence, which can result in poor program performance. A focus on ongoing education and outreach to residents could result in an increase in participation and a decrease in contamination levels in current recycling programs.

A separate area of education and outreach should focus on elected officials and solid waste managers to inform them of the opportunity that recycling provides their constituents. There is a misconception throughout Louisiana that they cannot start residential recycling programs or recycle certain materials because there are no end markets for those materials. As discussed previously in this report, the end markets for recyclable materials in the Southeast are extensive and, in some cases, these processing issues could be solved with a MRF relationship rather than specific access to end markets. The Partnership attempted to debunk this widely accepted myth throughout the state, however, the impact of this belief on the diminished development of the residential recycling sector in Louisiana is apparent.

With 72 percent of single-family households in the state provided automatic garbage collection, automatic recycling collection could take place throughout many areas of the state. Elected officials and solid waste managers need more information on how recycling can fit into their full waste strategy and potentially reduce the cost of garbage collection contracts. An increased effort to support current programs and develop new programs throughout the state would have a significant impact on residential access to recycling collection.

Access to Residential Recycling Program

The biggest barrier to improving Louisiana’s recycling landscape is the lack of residential recycling access. With the increase of education and outreach, The Partnership believes that Louisiana can improve participation and quality in their current recycling programs, however, building new access in the state will vastly impact the amount of recyclables being taken out of the waste stream. Figure 13 (below) highlights the associated tonnage implications for providing equitable recycling access to single-family households in Louisiana.

Figure 13: Equitable Access - Single-Family Household New Annual Tons^{15/16}

Equitable Access	Single-Family Households	New Annual Tons
Opt-In Cart to Automatic/Universal Cart	158,000	32,000
Current Bin/Bag to Cart	135,000	18,000
Drop-Off to Cart	331,000	33,000
No Access to Cart	209,000	42,000
New Trucks Purchase	-	-
Improved Drop-Off Access	108,000	8,000
Total	941,000	133,000

As illustrated in Figure 13, equitable access to single-family households in Louisiana (recycling service that is equal to their garbage service) would return an estimated 133,000 tons of recyclable material annually. To achieve equitable access, Louisiana would need new carts for roughly 883,000 single-family households, an estimated 128 new collection trucks to serve this influx of participants, and the improvement of drop-off access for 108,000 single-family households.

In addition to focusing on equitable recycling access for single-family households in Louisiana, there is a significant opportunity for additional new access and new tonnage in the multifamily household sector. The Partnership estimates that to provide new access to the multifamily sector, investment would need to be made into in-home totes, on-premise recycling services, and additional collection trucks. As mentioned throughout this report, The Partnership did not find any examples of multifamily recycling access in Louisiana, representing an estimated 130,000 tons of recyclables that are currently being landfilled.

¹⁵ Opt-In cart to Automatic/Universal cart is adjusted to assume that 43 percent of single-family households with access to an opt-in service are already using it and thus, would not need a new cart.

¹⁶ New annual tons are meant to be an estimate only based on best known available data

Processing and End Markets

Private investment in MRF processing is paramount. The Partnership estimates that 11 percent (rounded) of all the residential recyclables generated in Louisiana are being recycled, resulting in 623,000 tons of residential recyclables being landfilled in Louisiana.¹⁷

The Southeast region of the state is home to 55 percent of the population, the need for increased processing capacity in this region is integral to the development of the recycling sector, however, without sufficient residential material, it is difficult to invest in a new MRF. The Partnership believes that between New Orleans's significant investment in its recycling program and collection, and the conversations The Partnership has had with regional governments, the need for investment into a modern MRF is a keystone issue to further development in this region.

Although the Southeast region is home to the majority of the population, processing locations around the state will be necessary to further the development of current programs and support the growth of new programs. Beyond traditional processing methods, there is a need for some Hub and Spoke systems. Hub and Spoke systems are effective in rural curbside or drop-off programs where materials are consolidated at a centralized transfer facility, and then sent to the nearest MRF. Rural areas of some states have been successful in adding single-stream recycling to their existing garbage transfer stations to efficiently get material to processing. Interlocal agreements to share resources to consolidate materials can keep costs manageable and combined volumes of recycling can allow for better processing rates at the MRF.

Extended Producer Responsibility

In Louisiana, local governments and residents bear the financial and operational responsibility for the recycling and disposal of printed paper and packaging. This is true for recycling programs across the country and why some states have passed or are considering passing extended producer responsibility (EPR) policies. EPR policies shift the financial responsibility of managing a material throughout its entire lifecycle, from design to production to disposal, onto the brands that produce the material. The fees collected through smart, well-designed EPR programs provide a sustainable funding source for residential recycling infrastructure, education, and operations in all communities — rural and urban, while simultaneously driving a circular economy, packaging innovations, and strong environmental outcomes. While EPR legislation engages producers in the design and sustainable financing of a more efficient and effective recycling system, communities retain control over their recycling programs. EPR would enable an investment in recycling that delivers benefits to communities including the creation of new jobs, a strengthened domestic supply chain for sustainable manufacturing feedstock, and millions of dollars of economic benefits, all while reducing waste, conserving natural resources, and lowering greenhouse gas emissions.

Statewide Granting and Technical Assistance

In the absence of policies like EPR, a common theme in states with relatively strong recycling system is the presence of a state office with staff and dollars to support local programs and economic development. Statewide granting and technical assistance can provide a variety of ways in which to significantly impact Louisiana's residential recycling system. In the absence of a statewide grant program run by LDEQ, The Partnership, recommends operating a public/private partnership (potentially in partnership with LDEQ) that deploys much-needed resources throughout the state. This type of program could be built with EPA SWIFR grants, and funding from the private sector. A statewide grant program would provide capital grants to improve access and processing in Louisiana, allowing for the development and growth of the recycling sector in the state.

In partnership with a statewide granting program, technical assistance to educate residents and community leaders would have a significant impact on overall understanding of and participation in the recycling sector. Part of this technical assistance could include continued communication highlighting current and future successes from granting, which would allow local governments to learn from and build on each other's successes.

The Partnership is dedicated to working with our funding base to grow a statewide fund to support Louisiana and the surrounding Gulf Coast.

¹⁷ The Partnership has not adjusted estimates to reflect the accepted material rates by program, due to this, it is likely that the percent of residential recyclables that are being captured is overestimated, and the tons of residential recyclables being landfilled is underestimated.

Appendix

Gulf Coast End Markets

End markets mapped in Figure 12 are presented below. For more complete Gulf Coast end market information please refer to the Southeast Recycling Development Council's (SERDC) [Southeast Recycling Manufacturing Map](#).

Company	Location	Material
Applegate Insulation	Monroe, LA	Fiber
Dlubak Glass	Okmulgee, OK	Glass
Essity	Cherokee, AL	Fiber
Georgia-Pacific	Brewton, AL	Fiber
Georgia-Pacific	Pennington, AL	Fiber
Georgia-Pacific	Crossett, AR	Fiber
Georgia-Pacific	Muskogee, OK	Fiber
Glass Half Full	New Orleans, LA	Glass
Greif	Shreveport, LA	Fiber
Greif	Texarkana, TX	Fiber
Indorama Ventures	Athens, AL	Plastic
Indorama Ventures	Parkway Dallas, TX	Plastic
Integrigo	Sarepta, LA	Plastic
International Paper	Riverdale, AL	Fiber
International Paper	Prattville, AL	Fiber
International Paper	Pine Hill, AL	Fiber
International Paper	Pensacola, FL	Fiber
International Paper	Campti, LA	Fiber
International Paper	Bogalusa, LA	Fiber
International Paper	Mansfield, LA	Fiber
International Paper	Columbus, MS	Fiber
International Paper	Vicksburg, MS	Fiber
International Paper	Orange, TX	Fiber
KW Plastics	Troy, AL	Plastic
Kimberly-Clark	Mobile, AL	Fiber
Novelis*	Bay Minette, AL	Aluminum
Owens Brockway Glass	Muskogee, OK	Glass
Owens Corning	Fort Smith, AR	Glass
Pratt Industries	Shreveport, LA	Fiber
Resolute Forest Products	Grenada, MS	Fiber
Reterra	Houston, TX	Plastic
Smurfit Kappa	Forney, TX	Fiber
Vulcan, Inc.	Foley, AL	Aluminum
Westrock	Hodge, LA	Fiber

Louisiana Recycling Resources

[Louisiana Department of Environmental Quality](#)

[Keep Louisiana Beautiful](#)

[Louisiana Recycling Coalition](#)

Free Resources from The Recycling Partnership

[Anti-Contamination Toolkit](#)

[State of Curbside Report](#)

[Bridge to Circularity Report](#)

[DIY Signs](#)

[Social Media Toolkit](#)

[Campaign Builder](#)

[Pay it Forward Report](#)

[Grant Programs](#)

Additional Resources

[Municipal Measurement Program \(MMP\)](#)