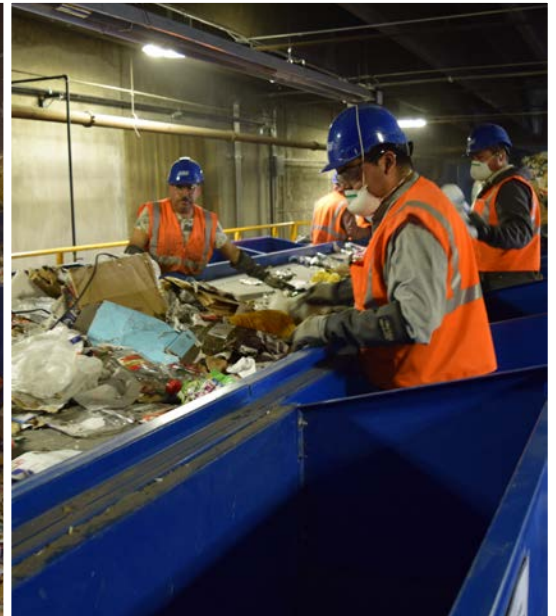


CASE

# Recycling capacity in Chicagoland gets a significant boost from Lakeshore Recycling Systems' Heartland material recovery facility



## SUMMARY

**BORROWER** LAKESHORE RECYCLING SYSTEMS (IL)

**PORTFOLIO AREA** SORTATION

**CLF LOAN** \$1.5M

**TOTAL PROJECT** \$8.5M  
with co-investment from Comerica Bank

## OVERVIEW

An increase in residential single stream material leads to a bottleneck in MRF capacity in the Chicagoland region and a significant expense for Lakeshore. An upgrade of an existing MRF increases throughput from 20 tons/day to 20 tons/hour, with increased revenue opportunities and savings at Lakeshore’s Heartland MRF.

## BEFORE/AFTER

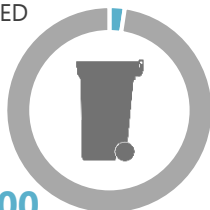
The cost of recycling material collected (20+% of COGS) was weighing down Lakeshore’s profitability. Tip fees at other MRFs were approaching \$50/ton; disposal at landfill cost \$20/ton in tip fees.

Since opening, the Heartland facility has been generating nearly \$100/ton in revenues from commodity sales. Operating costs/ton (including disposal of residue) are approximately \$50/ton, making Lakeshore’s **net operating profit at Heartland nearly \$50/ton**. In addition, the broader operations benefit from transportation and tip fee savings. Expanding the Heartland facility required total project investment of \$8.5M, of which CLF provided \$1.5M at a below-market interest rate, and Comerica Bank provided additional financing and MRF business model expertise.

## KEY METRICS

■ Progress as of Aug 2016 ■ Projected by 2025

TONS  
DIVERTED



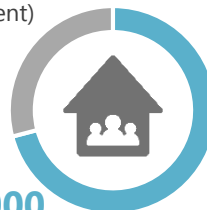
**25,600**  
1,073,000

GHG AVOIDED  
(MTs)



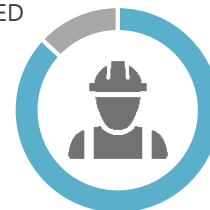
**72,500**  
3,030,000

HOUSEHOLDS  
(equivalent)



**200,000**  
282,000

JOBS  
CREATED



**100**  
115

**REPLICABILITY** Lakeshore’s model is replicable with the right operator

**Why it works:** *Lakeshore is a best-in-class operator with a relatively atypical model that we believe others should emulate:*

- **Established success with pure play model:** Lakeshore’s model is predicated on not having a landfill, and is therefore not “conflicted” over inexpensive disposal costs. The company has successfully managed other MRFs in the area prior to the Heartland facility.
- **Integrated operations:** Lakeshore operates residential and commercial hauling services, MRFs, C&D recycling, and an organics program, creating leverage across businesses and greater opportunity for diversion. Heartland is co-located with the C&D operation, providing additional leverage.
- **Significant market share:** Lakeshore controls nearly one-third of the region’s material, ensuring sufficient volumes.
- **“Good Neighbor” to local operators:** Lakeshore attributes its success, in part, to its ability to maintain excellent working relationships with local private operators and municipalities alike; most are located within 20 miles of its facility.

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## PROBLEM/CONTEXT

Lakeshore owns and/or operates 6 facilities, with residential and commercial collections contracts covering much of the Chicagoland area, including the suburbs of Highland Park and Deerfield, and Chicago Public Schools. They also manage temporary and permanent roll-off services for large commercial properties and construction and demolition (C&D). In total, **LRS controls and processes over 2.2 million tons (32%) of Chicagoland's waste each year.**

In October 2013, the City of Chicago began implementation of single-stream, single-family residential recycling for 150,000 households. The increased tonnage has been a boon for operators like Lakeshore, yet it also led to a bottleneck in MRF capacity.

Lakeshore's trucks frequently travel to one of the area's landfills, where tip fees are \$19-20 per ton; tip fees at another transfer station are \$46-48 per ton. Despite the environmental impact of sending thousands of tons of recyclable materials to landfill, Lakeshore was also paying for the privilege. In a region where landfill tip fees mirror the national average of \$50/ton, **disposal was costing Lakeshore millions of dollars.**

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## SOLUTION

Lakeshore CEO Alan Handley sees things differently from his peers in the waste industry:

***“When I look at a landfill, I see a finite resource. Even if land is cheap and four counties dedicate space to the region's waste today, someday we'll run out. Things will have to change eventually.”***



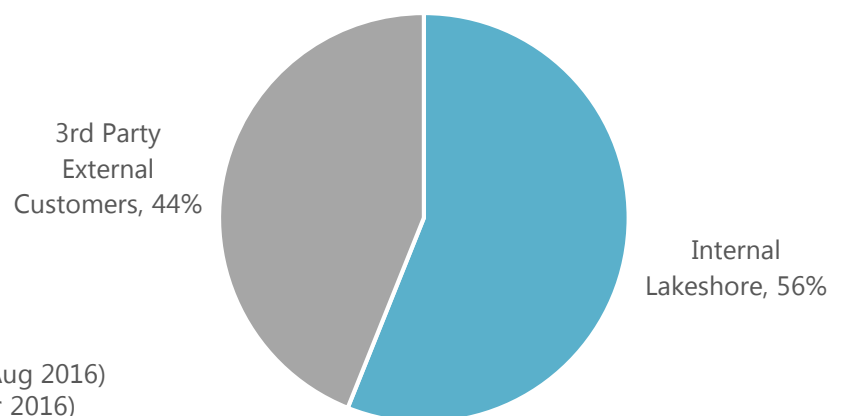
Handley's drive to do things differently led Lakeshore to find a solution for all of that material going to landfill. In 2014, Lakeshore began to look for sites to build a new state-of-the-art MRF. Eventually they landed on the Heartland facility, co-located with an existing C&D recycling facility, in Forest View. Lakeshore had local political support because city officials viewed the new MRF as an opportunity to create new jobs. Financing from the Closed Loop Fund and Comerica

## SOLUTION (CONT.)

Bank helped make the project happen. Machinex provided the design and equipment for the new single-stream plant. Previously the pre-acquisition company sorted 20 tons per day on outdated equipment. **Throughput at the new facility is 20 tons per hour.**

**Lakeshore sources** most materials from its own hauling contracts, but additional capacity has been filled by third-party haulers serving the region.

### Inbound Material, by Source



Note: Based on 3-month average volumes (Jun-Aug 2016)  
Source: Lakeshore Recycling Systems (September 2016)

When possible, Lakeshore offers rebates on commodities sales to these suppliers, generally local businesses that have long-standing relationships with Lakeshore. Because the relationships and trust were already there, the Heartland MRF can quickly source material when needed.



***“Lakeshore has a very strong management team. Everything starts at the top. Anyone in the industry knows that operationally they’re great, with a very motivated, very smart team.”***

**– PATRICK SNOW, COMERICA BANK**

**BUSINESS CASE, KEYS TO SUCCESS**

Even in a down commodities market, the investment in a new MRF has made financial sense for Lakeshore.

**BEFORE**

Disposal costs  
**(20+% of COGS) = (-)\$20-\$50/ton**

**AFTER**

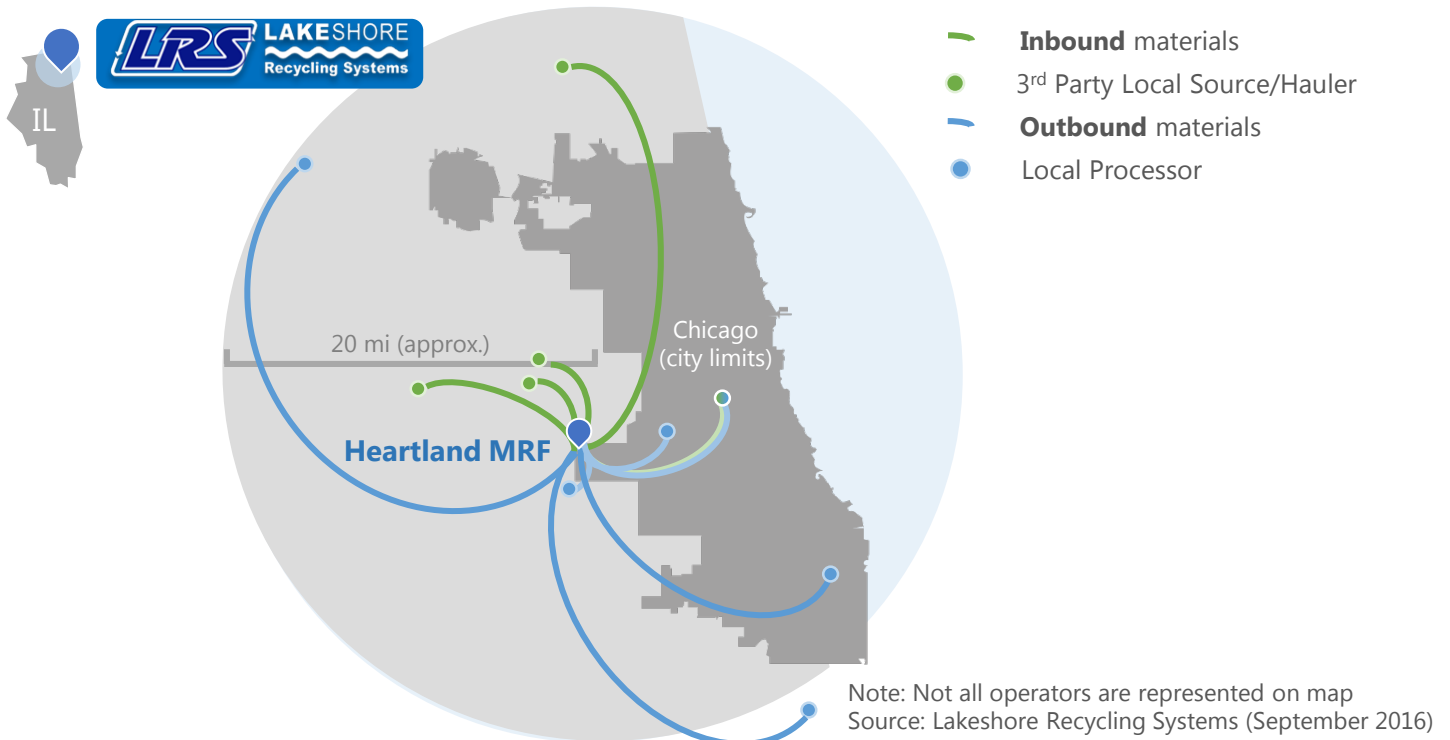
Total Project Investment: **\$8.5M**  
 CLF Loan: **\$1.5M** @ below-market interest rate

Revenue/ton: **(+) \$100/ton**

Costs/ton (including transportation and disposal of residue): **(-) \$50/ton**

Net operating profit: **\$50/ton**

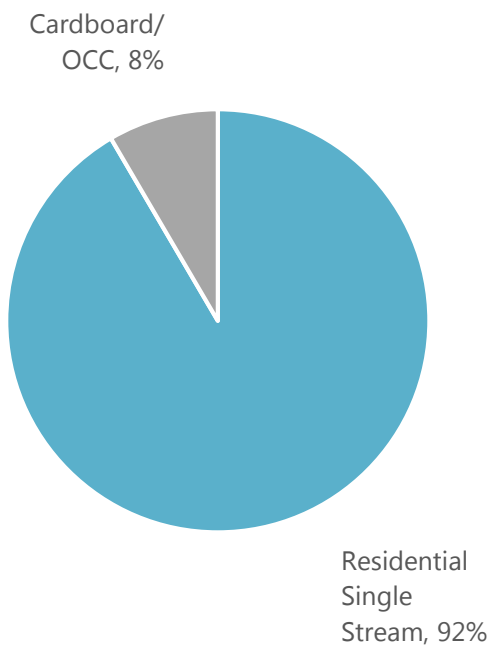
**Key to Heartland’s model** is its proximity and relationships with local upstream haulers and downstream processors. Most of Lakeshore’s customers are located within 20 miles of the MRF, which means that transportation costs can be kept low.



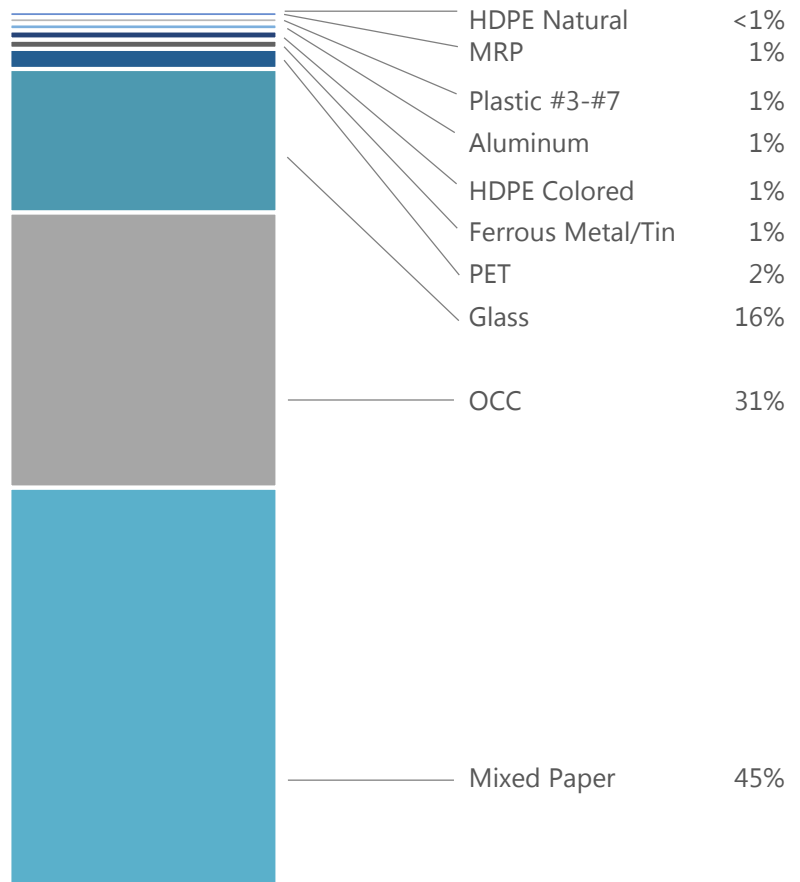
**KEYS TO SUCCESS (CONT.)**

Lakeshore is continuously optimizing the Heartland MRF to recycle all that it can, which means that the team must regularly scrutinize the inbound materials mix coming from third-party sources and outbound commodities pricing. As of August 2016, they've been able to maintain **average revenue of approximately \$100/ton on outbound sales of commodities**, with 92% of inbound material being single stream. Unlike other facilities around the country, they are keeping glass in the single stream mix, which they are able to sell to a nearby glass processor.

**Inbound Material, by Material Stream**



**Outbound Commodities by Material \***



\* Additional commodities sold, but not shown above (< 1%): Aseptic Packaging, Film Bales

Note: Analysis based on 3-month average volumes (Jun-Aug 2016)  
 Source: Lakeshore Recycling Systems (September 2016)

## RESULTS, LOOKING AHEAD

Opening the Heartland facility was a proud moment for the Lakeshore team. (Read more in their [Spring 2016 newsletter](#).) In the first few months of operations, Lakeshore has quickly increased tonnage and achieved profitability, processing more than 300 tons a day. This expanded facility has added over 100 Cook County jobs.

Heartland is projected to divert more than 110,000 tons per year. By 2025, that will mean **more than 1 million tons out of landfills.**

Lakeshore has also continued to expand its operations, securing contracts with nearby cities, becoming the first organics recycler in the state, and opening another C&D facility north of Chicago. In October 2016, *Recycling Today* featured Lakeshore as its [cover story](#), highlighting the successes of this innovative recycling enterprise.



All photos courtesy of Lakeshore Recycling Systems

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