



**SOLID WASTE
AUTHORITY**
BALDWIN COUNTY

Impact of Recycling on Manufacturing in Alabama

The Solid Waste Disposal Authority of Baldwin County



BaldwinCountySWDA.org | 15093 Landfill Dr. Summerdale, AL 36580 | 251.972.6878

The Solid Waste Disposal Authority of Baldwin County

- The SWDA provides weekly Garbage Collection Service to more than 50,000 customers.
- Assists more than 2,800 customers weekly at the landfills and transfer station
- Process and/ dispose of more than 7,600 tons weekly
- Provide Recycle Drop-off Locations throughout the county and process material
- Began curbside recycling in June 2025





Baldwin County MRF

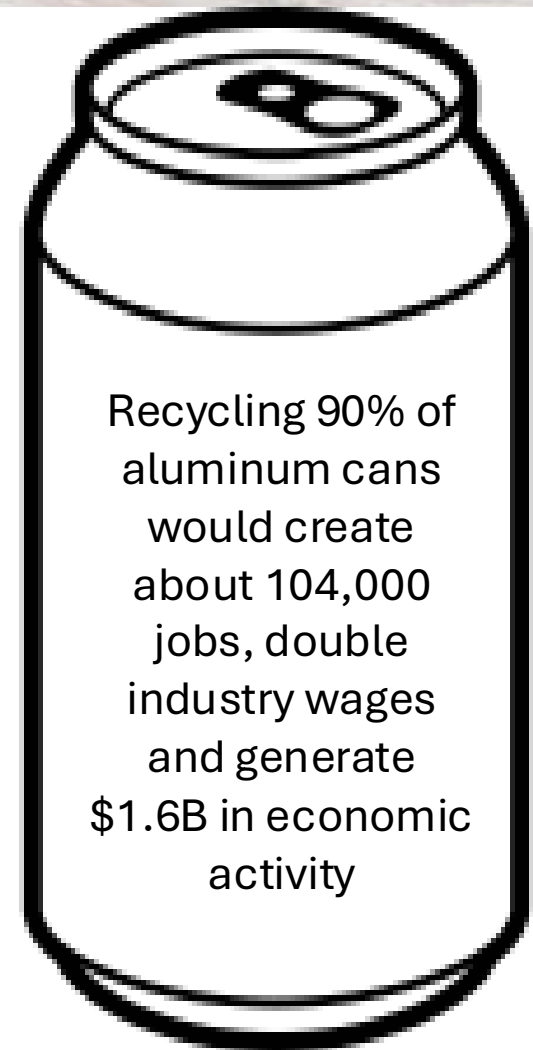


- 62,000 square foot facility
 - 12,000 Administrative and Educational Facility
- Medium size MRF that can process up to 10 tons per hour and up to 40,000 tons per year.

Novelis



- Novelis' \$4.1 Billion rolled aluminum plant being built in Bay Minette is projected to be completed in late 2026.
- Initial Capacity is 660,000 tons
- Feedstock 25 billion cans annually.



Pure (Primary) Aluminum vs. Recycled (Secondary) Aluminum



Pure Aluminum

- Energy Intensive
- High Electrical Use
- Environmentally Detrimental
 - Large Amounts of CO2 leak into the atmosphere during extraction

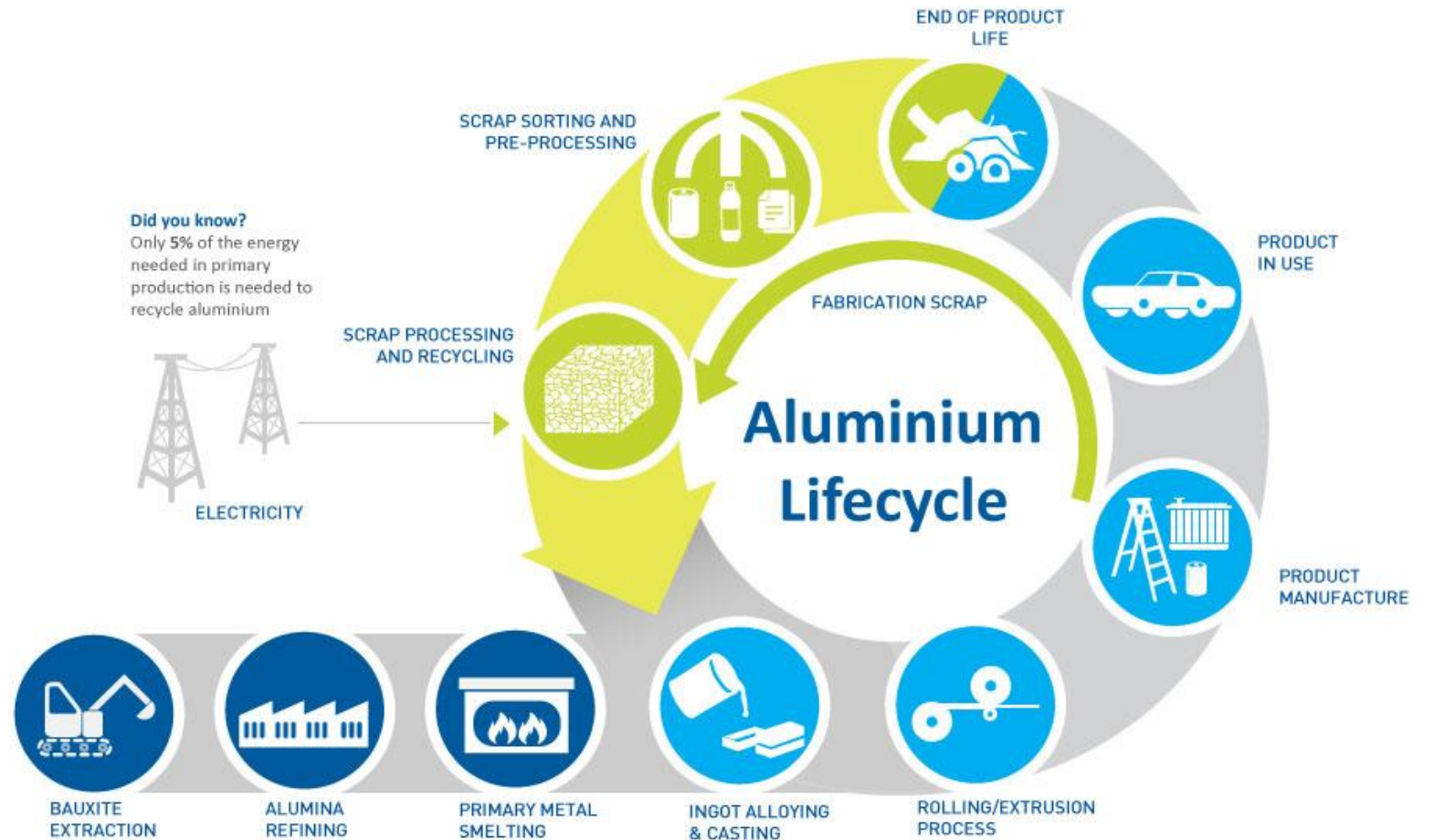


Recycled Aluminum

- **100% recyclable, 75% of all the aluminum ever produced is still in use today**
- **Maintains all its physical and mechanical properties**

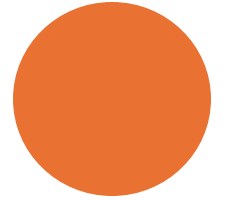


Aluminum Lifecycle



US Steel Fairfield

- 2020 began utilizing an Electric Arc Furnace (EAF)
- Capacity is 1,600,000 tons
- 80% of Feedstock comes from within 200 miles
- Historically operated integrated steel mills that used iron ore, taconite pellets, scrap metal, limestone, and coke, Fairfield's blast furnace was shut down in 2015
- EAFs is a more sustainable steelmaking technology as it results in significantly fewer greenhouse gas emissions





Virgin Steel vs. Recycled Steel

Virgin Steel

- Energy Intensive, Resource Demanding
- Negative Environmental Impacts
- Producing 1 ton consumes 6.0 MegaJoule of energy
- Focus Economics reports a virgin steel price of \$920/ metric ton



Recycled Steel

- **Best option for construction projects due to its sustainability, strength, and durability**
- **Maintains all its structural properties**
- **Saves between 60 and 74% of the energy used to make virgin steel**
- **Focus Economics reports a recycled steel price of \$415/ metric ton**



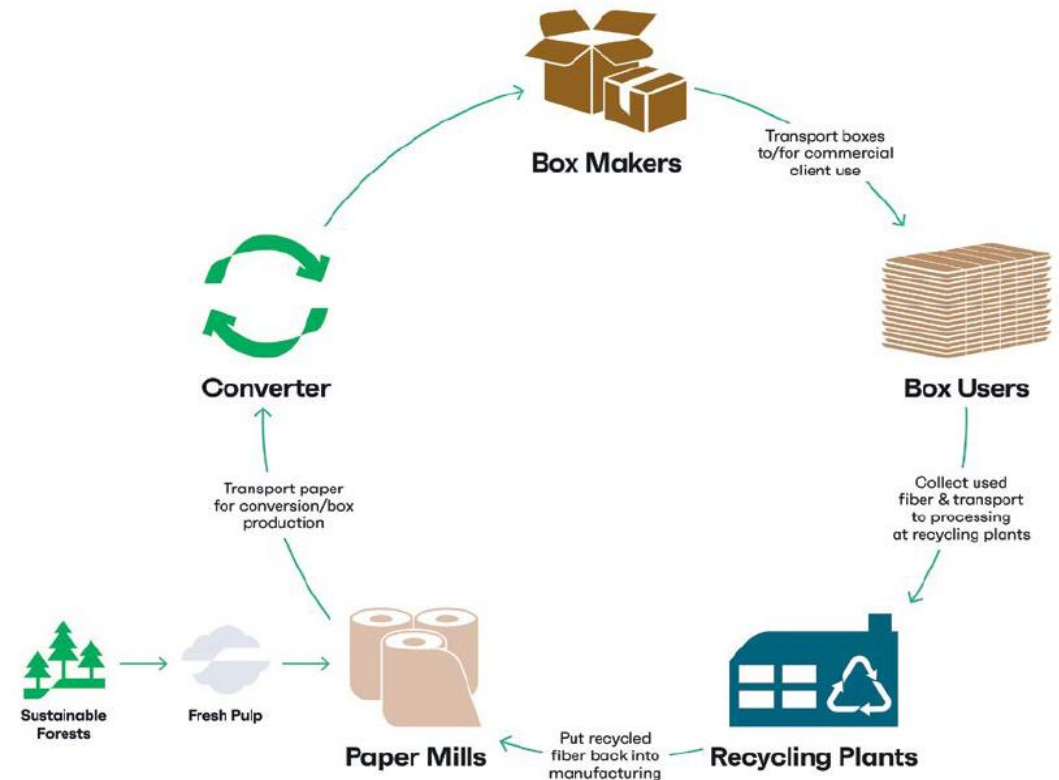
Benefits of Fiber

- Minimizes the need to harvest new trees
- Lower energy consumption, resulting in a lower carbon footprint
- Every ton of paper recovered through recycling saves 3.3 cubic yards of landfill
- Cardboard boxes are the most-recycled packaging material in the U.S. with 71-76% recycling in 2023.



Circular Life of Cardboard

- Paper Mills- Transforms fiber materials into large rolls of paper that get converted into boxes.
 - Sustainable Forests- Circularity begins in the forest, IP encourages landowners to adopt sustainable forest management practices in planting, maintaining, and harvesting forestland.
 - Fresh Pulp- supplementing recycled fiber with fresh pulp helps protect the structural integrity of boxes
- Converter- Transforms the paper from paper mills into cardboard.
- Box Makers- takes the corrugate and makes it into boxes
- Box Users- retailers, grocers, distribution centers and the like receive boxes filled with end-use products.
- Recycling Plants- International Paper collects the recycled cardboard and fiber products and transports it to a recycling plant.





International Paper



Bay Minette plant manufactures corrugated cardboard and other packaging solutions



98% of International Paper's packaging products are recyclable, reusable or compostable



Collect, Sort, and Process nearly 7 million tons of recovered paper annually



50% of manufacturing waste is diverted from landfills annually

Benefits of PET (Plastic #1)

- Near-infinitely recyclable
- Reduces energy consumption and green house gas emissions by 70%
- Wide range of products including new bottles, food containers, clothing, and automotive parts





Headquartered in Athens, Alabama

Operates 2 production lines, rPET flake, and food grade rPET pellets

Pellet capacity of 10,600 pounds per hour

Capacity of 87,600,000 Tons of flake per year

Capacity of 46,420,000 Tons of pellet per year

Benefits of HDPE (Plastic #2)

- One of the most widely recycled plastics
- Highly resistant to a wide range of chemicals
- Rigid material that can withstand impact, puncture, and abrasion





PP



Benefits of Polypropylene (Plastic #5)

- Low density makes it lighter than most plastics
- Naturally resistant to water, oils, solvents, and acids
- Can withstand temperatures up to 266-340 degrees Fahrenheit



KW Plastics



Headquartered in Troy, Alabama

World's Largest Plastics Recycler

Processes HDPE and PP

100 Million + lbs. Silo Capacity

750 Million + lbs. Processing Capacity

Alabama's Recycling Goal – 35%

- In 2024
 - Baldwin County generated 224,000 tons of MSW.
 - State of Alabama generated 5,273,500 tons of MSW
- If 35% recycled
 - Baldwin County 78,400 tons
 - State of Alabama 1,845,725 tons





Recycling Manufacturers in Alabama

- Novelis
- Indorama Ventures
- KW Plastics
- International Paper
- Ecovery
- And more!





NOVELIS- Bay Minette

- Novelis- Bay Minette
 - 1,000 Jobs and \$4.1b in Capital Investment
- Largest producer of rolled aluminum in the world
- Phase 1 and Phase 2 = 3 million SF
- Up to 6 additional phases planned



NOVELIS and Sustainability

- 75% of all recycled aluminum in the world is still in use today
 - Infinitely Recyclable
- 80-85 % of plant production from recyclable material
- Over 25 billion recycled beverage cans annually
- 100% Renewable Energy



So What?

- Sustainability matters to manufacturing
 - People (employees, customers) care
- Sustainability matters to our community (and others)
 - Target industry alignment
 - Maintaining “The Brand”
- Investments like the MRF matter



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Questions?

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