REPURPOSE AGGREGATES

Roadmap

- Our Story
- Meeting CDE
- Plant Technology
- Plant Capabilities
- Products
- Applications / End Use
- Value Proposition / Reasons to Invest
- Q&A

OUR COMPANY STORY

The Growth Of An Innovation Campus

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TIMELINE

1965

Harford Minerals was founded as Harford Industrial Sands, and earned a reputation for its specialization in supplying sand to the golf course industry. Over the years, the company shifted its focus to heavy industrial reclamation and recycling.

2014

Under new ownership, Harford Minerals made renewed investments in concrete recyling operations, becoming one of the largest industrial recycling campuses in Maryland.

2020

Harford Minerals began conversations to establish an ongoing public-private partnership with the Maryland Port Administration, which has been springboarded by a grant in January 2021 to begin testing dredge material from the Port of Baltimore for innovative reuse in the aggregates and concrete industries.

2021

Harford Minerals announced its partnership with CDE Global, with whom Harford Minerals developed a wet processing plant to expand recycling and reuse operations. With completion of the plant at the end of 2021, Harford became the first organization in the region to create a new life cycle for industrial sand & aggregates.

2022

Plant operations are in full effect, producing materials that represent the newest venture for Harford Minerals: Repurpose Aggregates, a sustainable line of sands, stones, clay, top soil, bricks, and blocks that will expand sustainability best practices in the Mid-Atlantic region.

Aggregate Shortage: Facts

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- Virgin aggregate is extracted faster than it can be replace
- Aggregate extraction exceeds fossil fuel extraction globally
- Sand is the most consumed natural resource after water
- Not all sand is useful, desert sand is too smooth and round from wind erosion to be bound for construction use
- Global sand usage has tripled over the last 20 years due to increased construction
- These factors will soon cause a spike in virgin sand cost
- Sand extraction is harmful to the environment, destroying marine life, causing erosion, weakening coastlines / increasing flooding, and contaminating fresh water supplies

HOW DID WE MEET CDE?

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March 2020 - Introduced to CDE at ConExpo

Dec 2020 - First container of equipment arrives at plant site

May 2022 - Plant commissioned

July 2020 - CDE partnership begins

March 2021 - Construction begins

August 2022 – Ribbon Cutting

CDE | REPURPOSE AGGREGATES

BUILDING A SUSTAINABLE FUTURE

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- Our goal at Repurpose Aggregates is to create a new sustainability and innovation-focused ecosystem within the aggregate industry.
- 95% of the material processed by Repurpose Aggregates is diverted from landfills.
- Our facility is projected to divert 2,800 tons of carbon from our atmosphere per year, equivalent to planting 134,000 trees.

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Our Feed Material

- At Repurpose Aggregates, we strive to change the perception of the leftover or discarded material from construction, demolition, and excavation activities often regarded as unusable or unstable.
- This material typically consists of concrete, brick, and/or dirt.

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Our products meet quality standards for performance, best practices, and sustainability. We produce quality products within regulatory requirements that support a number of industries. Repurpose Aggregates' product offerings will expand as we develop new innovative reuse and repurposing applications, including:

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- Incorporating dredged material into lightweight aggregates
- Manufacturing sand, stone, bricks, and concrete blocks
- Producing manufactured topsoil
- Creating fill for construction projects

End Use Applications

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- Concrete Blocks
- Pathways & Flooring
- Retaining Wall Blocks
- Pipe & Cable Bedding

- Road Base & Finished Asphalt
- Drainage Stone
- Clean Stone Layer
- Layer Under Geotextile

ADVICE FOR SOMEONE PLANNING TO INVEST IN A WASTE RECYCLING PLANT

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SmartCities

Europe is far ahead of the US when it comes to sustainability. European cities serve as the benchmark for material recycling and circular economies.
Two examples:

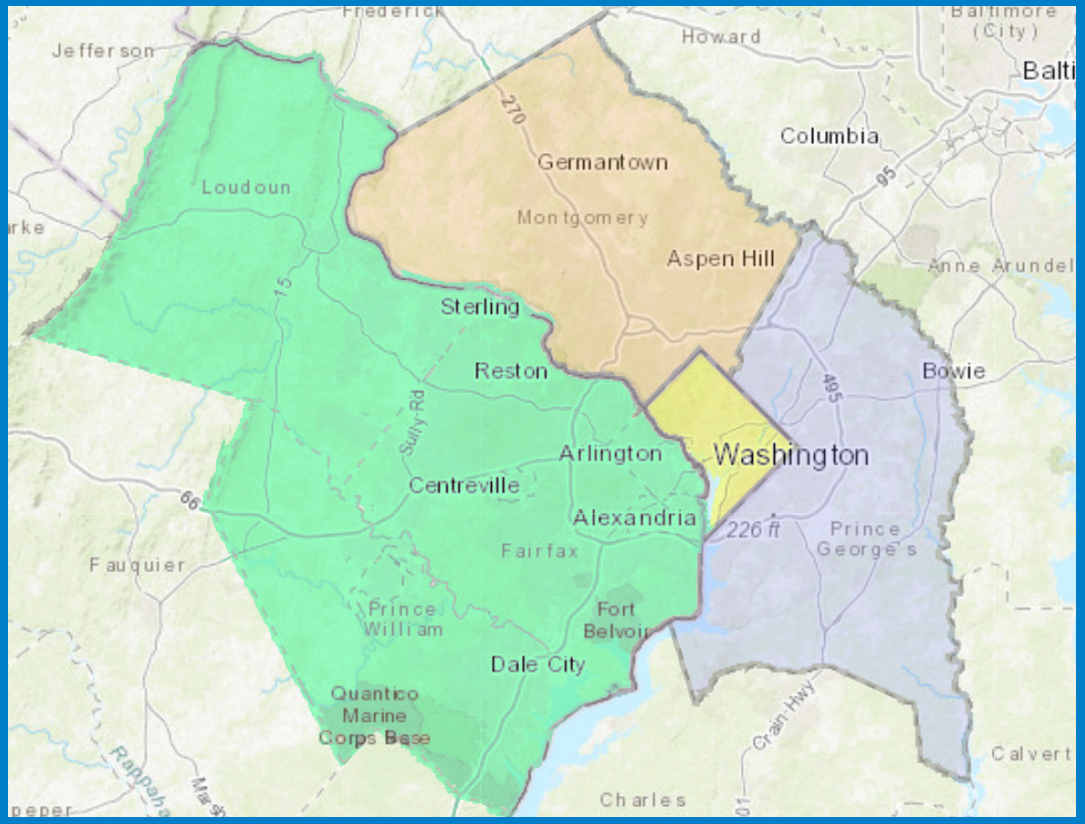
1) They incentivize recycling through enforcing landfill dumping surcharges
2) They surround their major cities with several recycling plants

- Using the example snapshot on the right as a benchmark, in the UK, Liverpool (population of 920k) and Manchester (population of 2.8m) combine for a population of 3.7M people and 11 mid-sized CDE recycling systems to service their waste production. This extrapolates to a demand of 2.9 CDE recycling plants per 1 million people.

SmartCities

In the Greater Washington Metropolitan Area there is a population of approximately of **5.83 million people** (Northern VA (Green): 3.16M, Washington D.C (Yellow): 672,000, Prince George's County (Purple): 947,000, and Montgomery County (Orange): 1.05M).

The DMV's population size requires between 17-18 CDE recycling plants in the area to be aligned with the UK.



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QUESTIONS?

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THANK YOU!