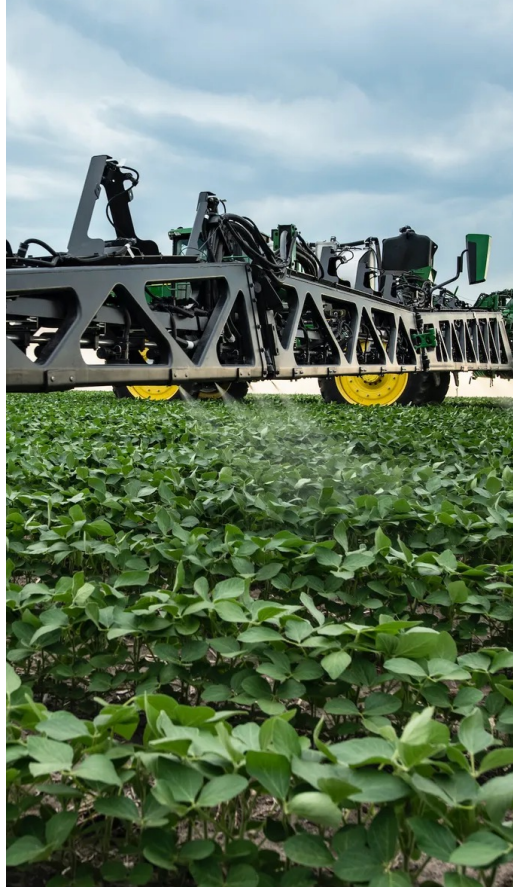
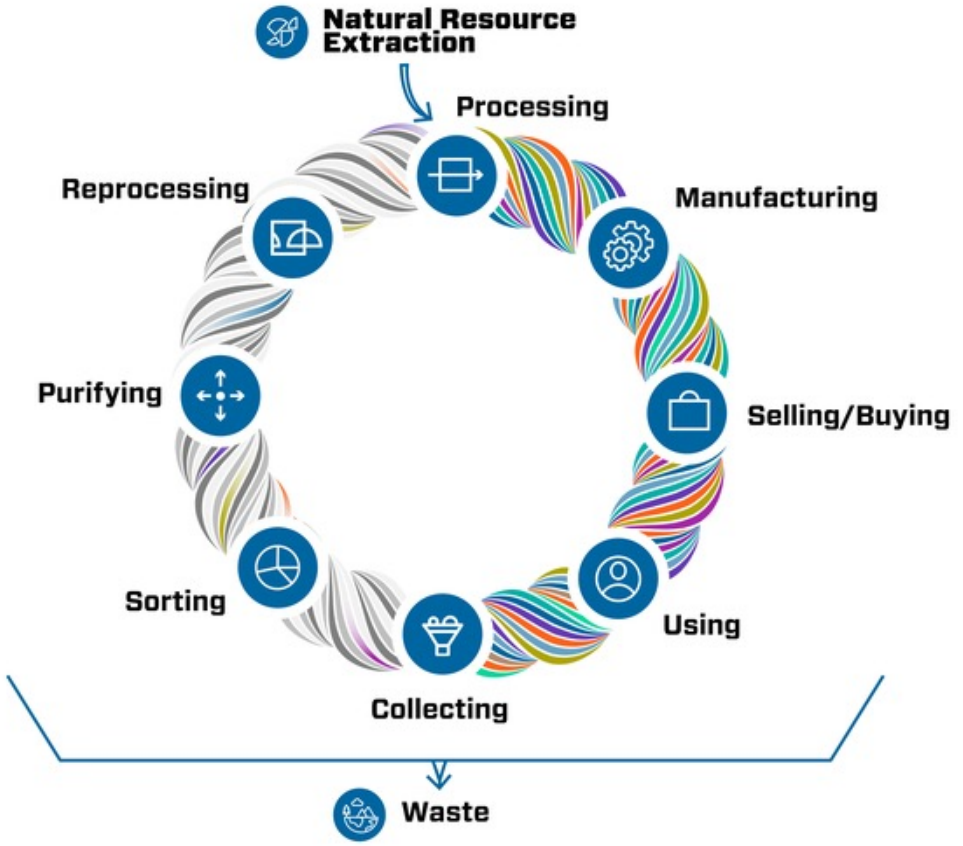


Environmental Impact

Circular Economy

Over the last decade, the concept of a circular economy has gained significant support from businesses, governments, and the public as the way forward on solving some of the most pressing environmental challenges we currently face – from climate change to ocean pollution.

Recycling process centers that focus on the circular economy can divert over 90% of waste to productive use.



As climate change increases, landfills continue to be the third largest human-made source of methane emissions, spewing the equivalent of more than 20 million cars of CO2 emissions per year in the United States. Landfills are also a significant emission source of "forever chemicals" linked to a range of public health issues.

Problem Drivers

Raw materials are running out, and the adoption rate for recycled materials is still too low. The main issues are:

- The very high and unsustainable rate that raw materials are excavated versus the finite amount of material in the earth
- Limited number of local landfills and each has a regulated maximum fill capacity under local permits
- The construction industry's longstanding practice for handling CDE waste is disposal or dumping in local landfills
- CDE waste has a stigma of being unsuitable or unusable as a result of pollutants and contaminates
- The cost of reuse (or recycling) has generally been considered either as (i) cost prohibitive, (ii) not a budget priority for the business, or (iii) out of the business's core competency

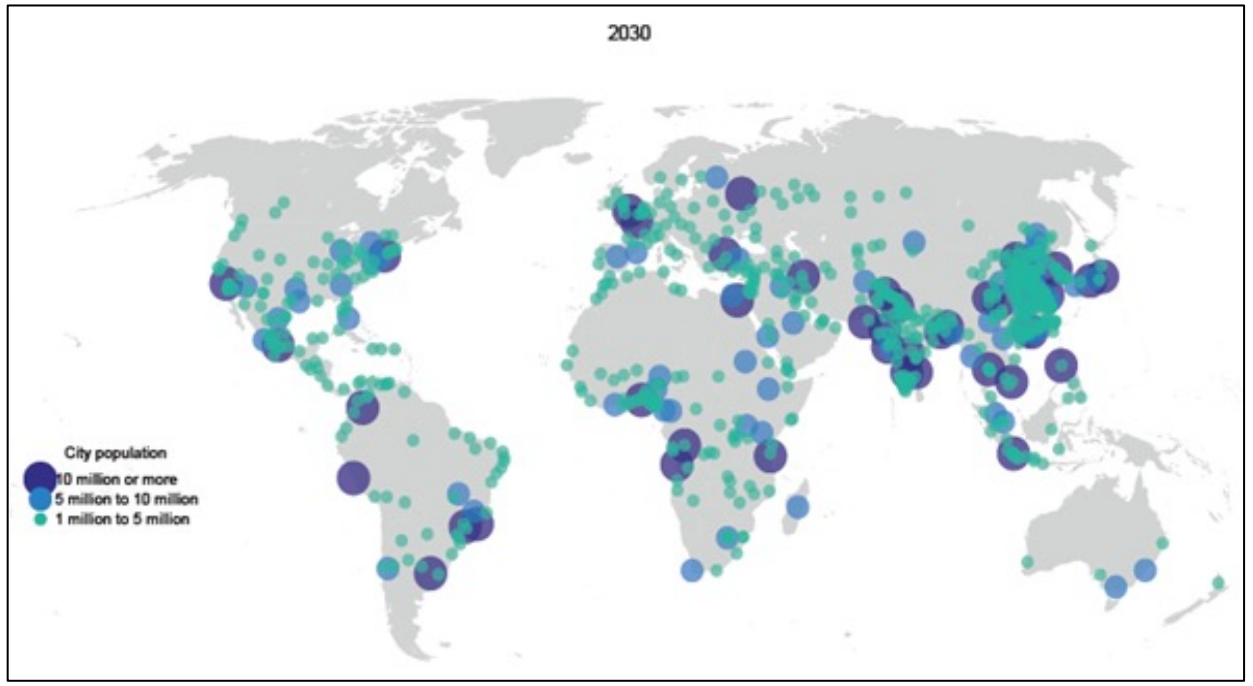
Harford Mineral's goal is to combat these pressing issues, and provide alternate solutions to the future needs of local development and sustainability.

Growing Infrastructure Needs

The amount of city and urban construction has increased dramatically as the number of cities with one million people has grown worldwide:

2000 – 371 Cities
2018 – 548 Cities
2030 – 706 Cities Projected

This growth is a driver of the increased use and dependency on raw materials, yet also highlights the growing need for waste recycling and reuse. The latter is the sustainable path and future of the industry.



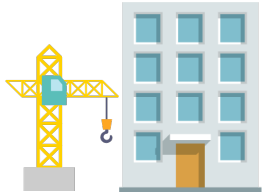
**United Nations, The World's Cities in 2018 – Data Booklet*

The requirement for materials to build out this infrastructure for this growth will no doubt increase proportionately:

**Source: United States Geological Survey (USGS)*

+3,000 ft. of highway
28,000 tons
of crushed rock

+3,000 ft. of railway
2,204 tons
of aggregate



1 High-Rise Building
1,102 tons
of aggregate per floor

1 Single Family Home
121 tons of aggregate
264 gallons of concrete