

[Blue Planet Systems](#), offers a game-changing alternative to conventional concrete production, paving the way to fight climate change, reduce supply chain shortages, and build more low-embodied buildings in the Bay Area and beyond. Blue Planet's patented mineralization technology is one of the only known scalable methods for capturing and permanently sequestering billions of tonnes of CO₂. Blue Planet's process can use dilute CO₂ from any source, at any concentration, and turn it into valuable building materials to enable carbon capture at a profit. Blue Planet is currently perfecting its process at its demonstration plant in Pittsburg, CA, with carbon captured from its neighbor Calpine's power plant. Blue Planet intends to scale to a production model by 2026.

Blue Planet technology combines waste carbon dioxide with calcium oxide sourced from waste concrete and other geomasses, to manufacture synthetic limestone aggregate that permanently stores carbon in new buildings and infrastructure. Each tonne of Blue Planet's aggregate permanently mineralizes 440 kg of CO₂. The company projects that up to 20 billion tons of CO₂ per year could be removed using Blue Planet's aggregate if the global concrete industry adopted Blue Planet's technology.



By establishing investment partnerships with large industry players such as Calpine, Holcim, Chevron, and Mitsubishi, Blue Planet hopes to scale its technology to mass adoption. With 75% of the constituent parts of concrete made from aggregate, Blue Planet is uniquely positioned to substantially reduce the carbon footprint in concrete production by permanently sequestering carbon as well as using waste concrete aggregate as its feedstock. The aggregates Blue Planet develops promote the circular economy and can provide materials back to communities where the waste concrete was sourced.

As Blue Planet finetunes its processes and use cases, they continue to establish important partnerships. They are seeking new pilot projects in the Bay Area and hope to develop a pipeline of projects by working with architects, developers, and investors. Blue Planet will need to build massive scale and a network of production plants in order to achieve its ambitious environmental goals. They plan to build their first small production ready plant by the end of 2025 adjacent to their demonstration plant in Pittsburg. With market opportunities around recycled aggregate, carbon sequestering concrete aggregate, and solar reflectance to reduce albedo, Blue Planet is positioned to advance its technology and company reach into the broader built environment.

BLUE PLANET PRODUCTS

			
CaCO ₃ Aggregate	CaCO ₃ Sand	Upcycled Aggregate	Upcycled Sand
100% synthetic limestone	100% synthetic limestone	100% recycled content	100% recycled content
44% CO ₂ by mass	44% CO ₂ by mass	Significantly higher PSI concrete than RCA	Significantly higher PSI concrete than RCA
Meets ASTM C330	Meets ASTM C330	Meets ASTM C33	Meets ASTM C33
Lightweight aggregate	High reflectivity enables high albedo concrete	Reduces ecosystem destruction of quarrying	Reduces dredging of marine ecosystems