PNCWA Sustainability and Biosolids Webinar Series

Title: *Biosolids Biochar to Concrete: Case Studies, Lessons Learned, and Value Propositions*

Date: July 22, 2026

Time: 11:00 AM – 12:00 PM

Description:
For municipalities and biosolids managers, the option of installing pyrolysis brings the inevitable question of where does the biochar go and will there be demand. Bioforcetech's OurCarbon biosolids biochar has been utilized in concrete and the built environment in various contexts since 2021, and lessons learned from the deployment of this material have shown the benefits of this supply chain. Signals from scientific studies have also shown the incredible carbon storage potential of materials like biosolids biochar that give new reasons for architects and engineers to incorporate these materials. This session will provide a full overview of the pyrolysis process, how it affects biosolids, and the unique characteristics of the biochar that results from such a process. Next, the presentation will dive into details on the ability for biosolids biochar to uniquely replace aggregates in structural concrete, with data points on strength over time and case studies from projects provided. Data from third party labs will be shown for the entirety of the presentation ranging from LCA's conducted to concrete break data and formulation results. Finally, special attention will be given to a recent study published by UC David highlighting the carbon storage potential of the built environment that illustrates the opportunity for materials like biosolids biochar to be integrated into buildings as a final storage site for carbon.

Agenda:

- 11:00 AM -Introduction
- 11:05 AM – Presentation
- 11:45 AM – Q&A Session

Presenter:
Name: Garrett Benisch
Company: Bioforcetech Corporation
Position: Chief Development Officer
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Bio: Garrett Benisch is Chief Development Officer at Bioforcetech Corporation, a Bay Area company with a proprietary biological drying and pyrolysis process. Garrett has been developing OurCarbon®, a biochar made from biosolids, for various markets ranging from concrete to fashion since 2020. Garrett sits on various industry groups advocating for urban carbon removal, and is a member of the ASTM sub-committee developing specifications for biochar use in concrete.