

Algae as Biofuel

Biohabitats and New York Department of Environmental Protection
New York City, New York



In an experimental system, algae first removes excess nutrients from polluted water and is then converted to biofuel.

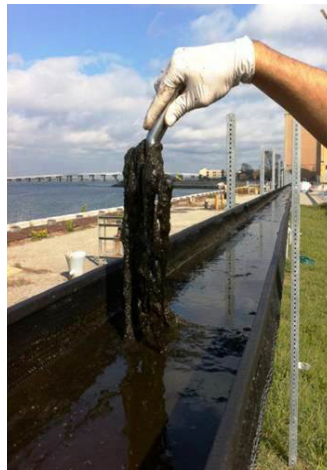
The City of New York and Biohabitats investigated the use of algae to remove excess nutrients from wastewater treatment plant effluent before it enters Jamaica Bay. Because algae remove CO₂ from water and the atmosphere while injecting oxygen into it, using algae as a natural method to address heavy nutrient loads was validated as a sound and scalable strategy. Biohabitats examined the feasibility of harvesting the algae for use as biofuel.

and carbon content, and the total biomass was estimated for the existing pilots and for the possibility of expanded efforts. This information was used to analyze the potential production of both biomass and bio-fuels. The researchers then analyzed the potential for scaling up the approach and how doing so could affect the relationship between algae and energy if these strategies were implemented at scale.

SERVICES

Research & Investigation
Construction Management
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Program Management

Algae from a pilot experiment at the City's Rockaway wastewater treatment plant and algae from an Algal Turf Scrubber® (ATSTM) system were examined for nutrient



clockwise from top: Algal Turf Scrubber®; Harvesting algae from the ATSTM; Biofuel made from New York City algae research sample

