



CITY OF FORT BRAGG
REQUEST FOR PROPOSALS TO COMPLETE A
BIOSOLIDS TREATMENT AND DISPOSAL
FEASIBILITY STUDY

The City of Fort Bragg (City) is seeking proposals from qualified engineers interested in contracting with the City of Fort Bragg to prepare a Feasibility Study with a Technical Memorandum (Basis of Design) for Biosolids Treatment and Disposal at the City's Wastewater Treatment Plant.

PROJECT NEED AND DESCRIPTION

The City's preliminary goals for this biosolids treatment and disposal study are:

1. Dry biosolids (80-90%) to reduce costs associated with trucking
2. Minimize the city's reliance on outside contractors for biosolids disposal
3. Increase beneficial use of biosolids(Class A) within the City and surrounding community
4. Reduce truck traffic and the associated carbon footprint by increasing the solids content of biosolids off-hauled
5. Provide a treatment and disposal option for commercial organics and fats, oils and greases (FOG)

The City intends to award a Professional Services Agreement (PSA) to the engineering consulting firm that meets the requirements listed below and has a history of successfully performing similar services. The results of this study will be used to design and implement a Capital Improvement Project.

BACKGROUND

The City of Fort Bragg operates a wastewater treatment plant (WWTP) at 281 Jere Melo Street, Fort Bragg, CA 95437. The WWTP collects and treats approximately 350 million gallons per week of municipal wastewater, serving a population of approximately 7,000.

In 2018, the City awarded a construction contract to renovate the aging facility to current technological standards utilizing an activated sludge treatment process. Although those improvements were successful, we still have difficulty with disposal of biosolids produced from the current system. The belt filter press reduces moisture content to 15-18% solids. Two drying beds allow for additional reduction in moisture content. Incorporating equipment/technology such as a biosolids dryer would greatly condense biosolids and help minimize handling the material.

In order to identify a long-term solution, the City is seeking to explore the feasibility of adding solids drying equipment to the wastewater treatment plant process. The City is aware of several thermal drying

technologies and is interested in pursuing this technology and other alternatives to produce a Class A product.

With the increase in regulations encouraging the reuse/recycling of organic waste, such as SB1383, it is important to take into account the possibility of processing green waste with the biosolids. Processing these two types of materials together into Class A biosolids or biochar would help reduce the amount of organic waste in the waste stream and provide a material that could be used throughout the community.

SCOPE OF WORK

The scope of work for this Feasibility Study will include the following analyses:

1. **Equipment Sizing** – The selected consultant will work with the City of Fort Bragg to specify “right sized” biosolids treatment equipment/technologies that offers the technical capability to meet the City’s needs, given: 1) properties of existing effluent; 2) existing biosolids production volumes; 3) existing wastewater treatment plant operational data; and 4) other related information and data as requested.
2. **Regulatory Issues** – The consultant shall prepare an overview of the regulatory process, challenges, and costs for biosolids treatment equipment located within the California Coastal Zone. Information related to agencies which would have authority over the project, what permits would be required, what studies will need to be completed, a general timeline for the permitting process, and an overview of the primary regulatory hurdles.
3. **Biosolids Application** – The consultant will review current Federal, State, and Local requirements for Class A and Class A exceptional biosolids and Identify City properties and potential local partners that may be eligible to receive land application of class A Biosolids.
4. **Schematic design** – The consultant shall prepare a schematic design for the biosolids treatment and disposal process that emphasizes flexibility, and possibly a modular system so that the system can be increased in size as demand warrants.
5. **Technical Issues** – The selected consultant will identify and analyze the full range of technical issues surrounding this project including at minimum the following: processing existing effluent, power sourcing, plant siting analysis, connecting the equipment with the existing City wastewater treatment facility, biosolids storage, and treatment and/or disposal.
6. **Construction Cost Estimate** – The consultant shall prepare a cost estimate for the construction and/or purchase of the necessary equipment, including all hard and soft construction costs.
7. **Operating Cost Estimate** – The consultant shall prepare an operating cost estimate that provides a detailed understanding of how the biosolids treatment and disposal operation will impact maintenance and operations costs in terms of labor, supplies, material disposal, maintenance and power costs for the City’s Wastewater Enterprise.
8. **Submittal of an electronic copy of the final study.**