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RENEWABLE ENERGY ENGINEER
PROJECT ENGINEER

TO
REPRESENTATIVE BARBARA LEE
c/o Xavier Johnson

FROM
KIMBERLY KING
Out Think The Box
PREPARE. RESPOND. ADAPT.

DATE
18 September 2018

SUBJECT
Sanitary Composting—*Everyday Brilliance for Disaster Resilience*

Dear Honorable Barbara Lee:

I hope you are well, and I hope you can indulge me. I require your assistance to...

THE ULTIMATE OBJECTIVE | Deploy a proactive, preventative, robust, resilient and redundant sanitary composting schema to ensure the general health of the citizenry, including the explosion of homelessness on the streets in East Bay Municipal Utility District's (EBMUD's) service area. Additionally, this offering will ensure environmental health is preserved. This schema has been developed using the 2018 International Association of Plumbing and Mechanical Officials (IAPMO) Water Efficiency and Sanitation Standard (WE-Stand) Guidance document—the first comprehensive codified requirements for compost and urine diversion toilet fixtures that meets/exceeds the USEPA Biosolids A, and the National Sanitary Foundation/American National Standards Institute Standard 41 (NSF/ANSI 41).

THE ASK | Adherence to the IAPMO WE-Stand requires an enabling Authority Having Jurisdiction (AHJ) for approvals. I require your assistance to obtain an AHJ. Typically, AHJ's have historically been Ministries of Health, Water, Environment, Social Affairs, Housing and Construction, Education, or a compendium and integration of the aforementioned.

According to IAPMO WE-Stand, the AHJ needs to approve the following:

- 403.2 Design and Construction Requirements
- 403.2.2 Alternative Design Systems
- 403.5 Permit
- 403.8.4.1 Leachate
- 403.9.13 Treatment, Reuse, and Disposal

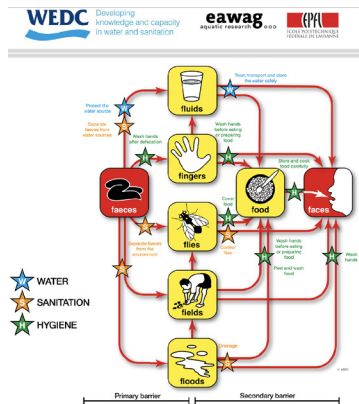
In order to be sustainable, collaborations across all ministries (national, regional, district, local and municipal) also need to actively participate.

THE WHY | Despite well known and documented health hazards of open-defecation, East SF Bay Area municipalities and cities have only been providing the exploding homeless demographic substandard, unhealthy service offerings of port-a-lets and portable hand washing stations. Not only are these units poorly managed and maintained, they also create opportunities for the promotion and promulgation of pathogens, which could lead to a catastrophic outbreak of diseases (e.g. Hepatitis A and E, Giardiasis, Dysentery, Cryptosporidiosis), along with elevated (watery) diarrheal and respiratory symptoms from increased exposure to viruses (e.g. Hepatitis E and A), bacteria (e.g. E. coli, Shigella, Vibrocholera), parasites, and protozoa (e.g. Cryptosporidium). An event like this is not unrealistic in the USA—in 1993 in Milwaukee, WI, there was an outbreak of Cryptosporidium where ~400,000 people took ill, and 100 people died.

In general, a sustainable solution requires constant dialogue will all customers who will be using this offering; this includes the homeless and housing challenged. For many years, the homeless and housing challenged in the East SF Bay Area have been all but exempted from having a voice and opportunity to be engaged on short-sighted, ineffective measures instituted by the City of Oakland officials and leadership—and as such, back in January 2018, these shortcomings have been recognized as a severe failing and “systemic cruelty” by the UN Special Rapporteur Leilani Farha.

THE OFFERING | Out Think The Box aims are to make this integrative framework for safe, sanitary, hygienic compost offering a social business by generating revenue from service offerings, added-value resource sales, training and knowledge-base transfer. This schema will also provide a needed, contingency plan service offering during natural disasters when municipal waste treatment plants are compromised, or rendered inoperable.

SEE | July 2018 6th International Dry Toilet Conference Presentation



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