

The power of the poop

It couldn't happen to a nicer citizenry

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Rather than step in it, or throw it on landfill sites, dog owners in San Francisco could soon be using their pooches' poo to generate energy for their homes, writes Dan Glaister

Is it possible to have a productive pooch? Can that faithful friend make an economic contribution to the home? Are big dogs more fuel efficient than small dogs? The answer is yes, yes and, er, quite possibly.

Imagine a future. You live in San Francisco, a progressive sort of place, hip to the beat of modern living, named after St Francis of Assisi, patron saint of animals. Your nuclear family – including dog – lives in a non-nuclear house.

"You've got solar panels on homes. Why not home-based anaerobic digestion processes?" asks Fernando Berton. Fernando is not from the future, at least not yet. He works for California's Integrated Waste Management Board. The Integrated Waste Management Board has a job to do and, as the board members often tell themselves, it's messy work but someone's got to do it.

The Integrated Waste Management Board also has a vision. It is a vision of a world – or, more specifically, a San Francisco – where landfills are obsolete and doggie bags have a whole different meaning.

The Board is charged with bringing to reality the city's self-imposed target of putting zero waste in landfill sites by 2020. On its way to meeting that target – which calls for a 75% reduction in landfill waste by 2010 – the city already recycles 60% of its rubbish.

But that reduction has led to closer scrutiny of the more resistant components of the average dustbin. A recent study found that 4% of the city's residential waste – some 6,500 tons a year – is made up of animal byproducts, a scientific term for dog shit. The dog shit rivals disposable nappies for the space it takes up on landfill sites.

So the Board came up with a plan and hired Sunset Scavenger (motto: "Life's a mess, we sort it out") to help it out. The plan is simple, inspired and at last gives some incentive to all those dog owners who fail to clear up after their best friends. Sunset Scavenger will scoop up the poop, store it, ferment it and then sell it back to its previous owners' owners.

Under the pilot plan, announced this week, Sunset Scavenger will place biodegradable bags and what are tastefully called dog-waste carts in a popular San Francisco dog park. The dog poo will then be put into a methane digester, where bacteria will eat away at it for two weeks before it turns into methane gas. The gas can then be used to power appliances such as cookers and heaters that currently run on natural gas. It can also be used to generate electricity.

"American dogs and cats produce millions of tons of waste a year, and no one knows where it's going," said Will Brinton, a worried-sounding Maine scientist. "That's really beginning to be looked at as a nightmare," he told the San Francisco Chronicle.

The poop that makes it on to a landfill site is usually encased in a plastic bag, where it remains, mummified, for years. If the poo is not picked up it remains where it falls, and dissolves into the ground on its way to joining the water supply. Some dog owners add it to garden compost, a risky approach given the pathogens present in dog poo, which are not eradicated by the low temperatures reached during composting.

Here's Fernando again. "California sends 40 million tons annually to landfill, and over half of it is organic in nature. It makes sense to look at the alternatives. If we can turn something from a waste into a resource, we should be doing that."

But Fernando, houses with their own poop machines, with Fido generating enough gas to power the fire? For that to work, Fido's output would have to be plentiful and regular. The days of the lapdog could well be numbered.