

Sludge is Sludge is Sludge: The Illusion of Safety  
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The controversy over how we on Martha's Vineyard can best handle our sewage is part of a huge but little known national problem: the production of sludge by the sewage treatment plants. In an attempt to deal with this vast and growing problem, the federal Environmental Protection Agency decided in 1993 to promote aggressively the "recycling" of sewage sludge--recently renamed "biosolids"--as "fertilizer" for use on food crops around the country. Recently, pelletized sewage sludge from Boston Harbor has come to the Vineyard and, at some Island nurseries, is for sale in bags labeled "natural organic fertilizer." In fact, those who promote the use of sewage sludge as a fertilizer are deceiving the public. To be sure, sludge from municipal wastewater treatment plants has human excrement in it, which is a potential fertilizer; but sludge also has all the wastes from industry and consumer life which have gone down the drain. Very many of these are hazardous to life. To call this sludge "fertilizer" is tantamount to calling a soup "food" which, though it contains some meat and vegetables, also contains a bit of lead, a little arsenic, and perhaps hundreds or even thousands of other toxic organic and inorganic materials whose impact ranges from carcinogenic to teratogenic (birth defect inducing), to some which mimic hormones in horrendous ways just now beginning to be understood. The lead might have been useful had it been kept out of the soup. So even might the arsenic and the other heavy metals. Some materials such as dioxin are useful nowhere, are destructive to life at the level of parts per trillion, and industrial processes that use or create them should be prohibited. But, with such notable exceptions, every material in its place has its use. Mixed together all are rendered at the best useless and at the worst lethal.

It is a further deception to imply that the right combinations of regulations and technology can somehow "fix" sludge deriving from central sewage treatment plants; that is, can somehow make sludge safe for recycling into life--bacteria, plants, animals (including, of course, us). This is not possible: what goes down drains is unpredictable. What goes into the sewer--from hour to hour, from week to week, from month to month--cannot be known. What is extracted from the wastewater can neither be predicted nor monitored to an extent even remotely adequate. No one can know what will come out of the treatment system into the sludge at any given moment. How can regulations be designed or enforced to protect our health and lands from a contaminated material where the contaminants can't be predicted? And, if they, the professionals, can't know what's in sludge, how can we accept its use as fertilizer? Today the sludge may contain an unusually high dose of mercury or lead; tomorrow it may get a load of organic chemical wastes from the semiconductor industry, which will include PCBs and dioxins; on Thursday, because of heavy rains, it will be inundated with non-point source cadmium from road run-off. And this is the "fertilizer" the Environmental Protection Agency wants us to grow our food on. They are willing to risk our land, our livestock, our health--and who knows what for the future--to solve the appalling problem of what to do with sludge

laden with industrial wastes. Are we going to use the eaters of food grown on sludge-applied land as the guinea pigs for a determination of the "risks and benefits" of this practice? Sludge cake (the industry and regulators' term), however named, however regulated, is a recipe for catastrophic disruption of the food chain and the chain of life. EPA's 503 regulations are meaningless as a mechanism for protecting land, people, and other life forms from the hazards of sewage sludge. Any fine tuning of these regulations is worse than a waste of time, since it will serve only to enhance the illusion that "the problem is being solved by professionals."

It is of course true that our species has gone far already toward fundamental disruption of the metabolisms of living organisms, including humans. In defense of land application of sludge, it is often cynically said that, "This stuff's out there all over the place anyway"-- "this stuff" referring to the dioxins and heavy metals headed for the soil and our food supply. Yes, it's out there already: all human milk in this country contains dioxin--and there are no un-hazardous levels of dioxin. But, far from justifying further systematic disruption of the metabolic processes of life, the awful fact of ambient toxification is reason for extraordinary focus on both the causes of the trouble and on the fundamental change in behavior necessary to the way we treat all matter--what we call "waste" included.

#### What to Do Now

Prevention, rather than inevitably futile attempts at "cure," is the form any positive change must take. And separation at the source is the only way to begin to prevent the trouble now caused by this ill-mixed mess of matter. But what should and can be done to carry out a prevention-rather-than-cure approach? And what, moreover, is to be done about the sludge that is being produced now?

First, stop the creation of more sludge: don't sewer communities that are not already sewered, since this technology, besides being the most expensive, will overall degrade more than protect the environment--and will unceasingly produce sludge. Communities need to take the political initiative to insist that failing septic systems must be fixed up by on-site technologies. Many options exist for on-site remediation of failing or polluting septic systems. These should be funded by the Clean Water Act, whose public funds are presently only available for sewers.

Second, sludge which is still being produced by existing treatment plants should either be isolated in secure storage or processed through the use of advancing technologies such as gasification. Both of these strategies have the advantage of minimizing--rather than maximizing, as is the case with land-application--the contact of sludge with life.

But won't these alternatives to land application be more expensive?

It should at once be noted that nothing could be more expensive than the laying of sewer pipes and the futile "treatment" of the polluted water carried in them, and the further futile "treatment" of the sludge created by the first round of "treatment." So, avoiding

sewers to begin with is the first serious act of cost saving. There is no question, on the other hand, that dealing with existing sludge in a way which will in fact protect the forms of life will certainly be more expensive than the Alice-in-Horrorland trick of calling sludge "fertilizer" and spreading it on the land. This is awkward for government, from municipal to federal, since the unsuspecting public (which is most people) has already paid the "piper" and is disinclined to pay any more money for any more "treatment" of anything related to sewage. EPA has placed a 20 year limit on the spreading of sludge on farmland. Then they plan to assess the "risks and benefits." Does this suggest that the Agency really believes this practice to be sustainable? Any time a regulatory agency suggests that a "risk/benefit" analysis be done, it is likely a maneuver to get the public to assume more risk than they might otherwise knowingly do. A glance at the rapidly growing list of farms which have already paid substantial costs in loss of livestock, loss of human health, devaluation of land, and contamination of aquifers readily demonstrates that the touted "benefits" are eclipsed by the "risks."

It is unconscionable to use life this way. The future of our children is at stake. The future of the great multifarious web of life on Earth is at stake.