MSW Recycling Protects Groundwaters: Reply to "Recycling is Garbage"

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In his June 30, 1996 article entitled "Recycling Is Garbage" published in the New York Times Magazine and also published in part in the July 14, 1996 Sacramento Bee Forum, John Tierney, writer for the magazine, asserted that, "the simplest and cheapest option is usually to bury garbage in an environmentally safe landfill." Tierney also asserted, "Today's landfills for municipal trash are filled mostly with innocuous materials like paper, yard waste and construction debris."

The assumption that new, lined landfills are environmentally safe is, in fact, erroneous. In one important aspect, groundwater pollution monitoring, they are even worse than the unlined "sanitary" landfills that preceded them, since they cannot be reliably monitored to detect groundwater pollution before widespread pollution occurs. Today's municipal solid waste (MSW) leachate, even with extensive waste diversion, contains a large number of hazardous and deleterious chemicals that can render groundwater unusable for domestic water supply purposes.

"Dry tomb" landfills of the type being developed today attempt to isolate wastes using plastic sheeting and compacted soil-clay layers (liners) to keep the wastes dry and to collect any leachate (garbage juice) generated within the landfill. The major "improvement" over classical sanitary landfills offered by US EPA Subtitle D landfills of the type used is postponement of groundwater pollution by a few years to decades, or possibly a hundred years or so. But this "improved" landfilling approach gives the public a false sense of safety that something permanent is being done in managing the solid wastes, when it is not.

It is widely acknowledged that such liners deteriorate over time and ultimately fail to prevent moisture, which generates leachate, from entering the landfill. Keeping garbage dry will require maintenance and periodic replacement of the cap in perpetuity, **not** just for the 30 year period arbitrarily set by federal law. What is being accomplished by today's landfills is the transference of the economic, public health, and other burdens associated with landfill-caused groundwater pollution to future generations. It also postpones the pressure on society and regulatory agencies to develop and implement MSW management approaches that provide truly long-term protection of public health, groundwater resources and environmental quality.

State of California Water Resources Control Board regulations (Title 23, Chapter 15) have, since 1984, required that the landfilling of municipal solid wastes be conducted in landfills that will protect groundwaters from impaired use for as long as the waste in the landfill will be a threat.

The waste in today's dry tomb landfills will be a threat effectively forever. Unfortunately, even though California has some of the most protective regulations for landfilling in the U.S., the Regional Water Quality Control Boards have been implementing these regulations in such a way as to allow the construction of landfills that only postpone groundwater pollution. There is an urgent need to get the Regional Water Quality Control Boards to implement Chapter 15 regulations so that groundwater pollution will be prevented for as long as the waste in landfills remains a threat.

Today's landfilling regulations evolved from a technology that was developed in the early 1980's. They are badly out of date. RCRA, the national solid waste management legislation, urgently needs to be updated to develop landfills that will protect groundwater from all impairment from landfilled wastes for as long as the wastes in the landfill represent a threat. Landfilling is the cheapest option for managing our discarded resources/waste only if the costs of perpetual maintenance and the associated groundwater pollution--future superfund sites--are ignored. This is a subsidy that is being extracted from future generations.

Contrary to the statements made by Tierney, recycling protects groundwater quality by reducing the need for new landfills and the inevitable groundwater pollution associated with them. Additional information on the problems with today's landfills and on how landfills can be developed to protect groundwaters from nonrecyclable, nonreusable wastes is available from G. Fred Lee at PH: (916) 753-9630; email gfredlee33@gmail.com.

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