WATER RESOURCES IMPACT

LANDFILL AND LANDSPREADING HAZARDS

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A variety of human activities affect the quality of our surface and ground waters, but none are so poorly understood as the effects of where we dump municipal, industrial, and agricultural wastes. It is an “out of sight, out of mind” issue for most urban dwellers, since we tend to view the issue as simply household garbage, picked up weekly to go to a landfill “somewhere else.” Urban citizens aren’t even aware of the generation and disposal of industrial waste, much less the fact that their local sewage plant produces an “end product” of sludge that must be disposed of somehow. This issue opens a window on the mysteries of where all of this waste is going, the hazardous and unregulated compounds in it, and its effects on our soil, water, and food.

FEATURE ARTICLES

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Recounts a fascinating history of how we have dealt with waste through the ages, the associated regulations adopted to deal with some waste problems, and what is yet to be done.

7 Landspreading Hazardous Wastes in the United States ... Laurel E. Phoenix
Explores the mostly hidden transfer of industrial and sewage plant wastes from urban to rural areas and the consequences of these unregulated compounds being applied to agricultural lands.

11 Pharmaceuticals and Personal Care Products in Biosolids ... Sara C. Monteiro and Alistair B.A. Boxall
Identifies many of the medicines and other chemical compounds found in sewage sludge and how these compounds interact with the environment they are spread on and the plants and animals that come in contact with them.

14 Livestock Manure Management in the American Pacific Islands ... Carl I. Evensen
Highlights the unique problems of manure management on small islands with high rainfall and limited land for manure landspreading.

18 Effects of Animal Waste Spreading on Ground Water and Challenges for Water Resources Education ... Kevin Masarik
Describes the relationship of declining rural well water quality to landspreading sewage sludge and livestock manures, and the growth of more rural wells being drilled as some agricultural land is converted to residential use.

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