WASTE MANAGEMENT POLICIES AFFECTING DECISION MAKING AT THE LOCAL LEVEL

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Local decision makers must have a comprehensive understanding of federal statutes and acts because federal legislation is likely to have a direct impact on local initiatives. There are numerous acts that have at least a peripheral impact on local decision makers as they struggle to reach workable solutions to the solid waste crisis at the local level. Figure 1 shows the chronology of the major federal environmental legislation and some implications of each act as well as subsequent amendments.

Figure 1. Major Federal Environmental Legislation

1965	Solid Waste Disposal Act
•	First federal legislation passed to improve solid waste disposal methods
•	Amended in 1970 by the Resource Recovery Act
1970	Resource Recovery Act
•	Focused on recovery processes for materials and energy
•	Basically nonregulatory
1976	Resource Conservation and Recovery Act (RCRA)
•	Required states to develop solid waste management plans
•	Encouraged reducing and recycling
•	Prohibited open dumps and established guidelines for sanitary landfills
•	Began "cradle-to-grave" management of hazardous wastes
•	Amended in 1984 by the Hazardous and Solid Waste Amendments Act
1976	Toxic Substances Control Act
•	Expanded federal regulation of industrial and commercial chemicals
•	Required premarket testing of potentially dangerous chemicals for toxicity
1980	Comprehensive Environmental Response, Compensation, and Liability Act (Superfund)

The Resource Conservation and Recovery Act (RCRA) probably had the most profound impact on the states. It required states to develop solid waste plans and move toward a more comprehensive treatment of the solid waste problem than had ever been attempted before. The states, in turn, handed down new requirements — often more restrictive than the federal guidelines — to local jurisdictions.

Planners and decision makers at the local level must consider the political, institutional and economic conditions that exist in their community. Many states have state guidelines that direct local communities to meet specific goals and objectives. State legislation, on the other hand, often restricts how local communities can meet the state goals. All of these institutional factors constitute the policy framework within which the local communities must operate. As Charles Abdalla points out, "Public policy is a vehicle that shapes and directs human actions to achieve defined societal goals." If one of those defined societal goals is a quality environment, then waste management becomes a primary focus for institutional decison makers. The challenge becomes particularly acute when state policies conflict with local needs and resources. An example of this type of mismatch is when states require waste management plans to be developed within an inappropriate boundary. For example, requirements for county plans may be problematic for rural areas in which economies of scale are best realized at the regional level.

Regionalization

Regionalization may, for example, be ideally suited for the development and ultimate success of a waste-to-energy facility. Intergovernmental agreements may be necessary to ensure an adequate supply of waste to the plant and to design the most efficient transportation routes throughout the area. Regional planning may also benefit landfills, composting and recycling programs.

Communities pursuing regional waste management approaches need policies that support the creation of regional organizations for financing and managing purposes. Authorities, special districts, nonprofit public corporations, multicommunity cooperatives, and intergovernmental agreements are all different types of structures that may be created to support economies of scale and multijurisdictional cooperation when implementing regional waste management projects. Many government planning books can explain how to set up these structures.

Incentives

Waste management is a problem that involves human behavior. Affecting human behavior in a positive way can have a positive impact on environmental quality. Whether we are talking about litter control, waste volume reduction, or small-quantity generators of hazardous waste, we must look carefully at policies that impact human behavior. As individuals strive to obtain maximum utility from each decision they

make, they need to have incentives to encourage behavioral change. These incentives can be an integral part of the local policy structure. The methods implemented at the local level and supported at the state level can have a profound effect on the volume of waste material that is landfilled as opposed to that which is recovered for energy or remanufacturing. Probably the most satisfactory method, in terms of incentives to change behavior, is a volume-based user fee. Unfortunately, user fees are not widely used when structuring waste management programs. Some other, less satisfactory, options for financing waste management at the local level are analyzed below:

Property Tax

A portion of the property tax revenue is used to cover the cost of waste management at the local level. This method hides the true cost of waste management from the consumer. There is no feedback loop to consumers that they are generating an increasing volume of solid waste and thereby contributing to a problem. This method does nothing to support behavioral change.

Sales Tax

As pointed out in the *Decision-makers Guide to Solid Waste Management*, (United States Environmental Protection Agency), a sales tax is particularly attractive in regions with high recreational and tourist trade. Although the waste stream is at greatest volume when tourist activity is highest, there may be a shortfall at certain times of the year when revenues are needed to support a composting program that operates year round. Again, this type of revenue support does not provide a feedback loop to the waste generator with a signal that more or less waste has an impact on the pocket book.

Municipal Utility Tax

In some cases this may cause a double tax for some large companies that must pay the utility tax and also contract with private haulers due to large volumes of waste material they generate. For smaller generators, including homeowners, this method does not provide information about quantities generated and again does nothing to affect human behavior.

Special Tax Levies

If state statutes give local jurisdictions the power to levy special taxes there may be some flexibility for the local unit of government to adjust revenues in order to build more efficient systems to handle waste in a more environmentally sound manner. However, in some states (Michigan being one of them) a referendum is required before local units of government can be asked to raise revenues for state-mandated programs. Depending on how the special tax is enacted, it may or may not provide a feedback loop to the generator of waste material.

User Fees

There are many ways a user fee can be implemented. A uniform user fee may not have any more impact on generator behavior than a tax-supported program. But a volume-based user fee can indeed have an effective impact on the behavior of the individual generator of solid waste. This type of program provides direct feedback to the generator that more garbage means higher bills and less garbage means lower bills. And if, in addition to increased costs for each container of garbage, there is no charge for bags of clean source separated recyclables, the consumer (i.e., the garbage generator) gets the clear message that it pays to reduce the volume of materials that must be treated as waste.

Some possible negative consequences of this type of program can be the illegal disposal of waste in order to avoid the extra volume charges. In this case, stiff penalities for illegal dumping can deter generators from using this method to avoid waste pickup charges. Another challenge for communities that have many low-income families is a method for providing an essential service at a reasonable cost to all citizens.

Rewards

As reenforcement for the volume-based user fee, a reward system can be enacted to provide a cash reward to families that are discovered to have no garbage in their bag of recyclables and/or not recyclables in their garbage container. In most cases this program runs like a random lottery. The reward needs to be substantial, $200-$500 per family, and implemented at least once a month. A method for generating the revenue to support this program can come from a portion of the tipping fees charged at the landfill or at the waste-to-energy plant. In fact, a portion of tipping fees can support various educational and incentive programs focused on behavioral change.

Cooperative State Policies

State policies can either support or undermine local policies and programs. In most cases state policies are strongly affected by local needs and are compatible with the wishes of local decision makers. In those cases in which state policies are incompatible with local programs, a change should take place, particularly if the goal of the local program is to improve environmental quality to a greater degree than the state policy would indicate. In some instances the long-term impact of the state policy is not known and local decision makers must bring the incompatibility issue to the attention of state lawmakers.

Conclusion

There are many state and local policies that affect the state of waste management and the effectiveness of programs needed to maintain and improve environmental quality. A few of those have been mentioned above. In recent years a number of academic scholars have focused their

expertise in economics, financial planning, political science and public policy on the waste management field with positive results. We now realize that waste management is not only an environmental problem and often a great financial burden on communities, but it is also a political and public policy challenge for state and local officials — one that cannot be put on the shelf for later but must be dealt with immediately with a perspective on the future.

REFERENCES

Abdalla, Charles. "Solid Waste Management: A Public Policy Perspective." *National CES Solid and Hazardous Waste Management Workshop Proceedings*, ed. C. Fridgen. East Lansing MI: Waste Management of North America and Michigan State University Cooperative Extension, 1989.

Fridgen, Cynthia, ed. *National CES Solid and Hazardous Waste Management Workshop Proceedings*. East Lansing MI: Waste Management of North America and Michigan State University Cooperative Extension, 1989.

United States Environmental Protection Agency. *Decision-Makers Guide to Solid Waste Management*. Washington DC: EPA/530-SW-89-072, Nov. 1989.