

T-3.4
SWANA TECHNICAL POLICY

OWNERSHIP OF MUNICIPAL SOLID WASTE MANAGEMENT SYSTEMS

I. INTRODUCTION

Local government has the responsibility for the management of all municipal solid waste generated within its jurisdiction. In exercising that responsibility local government must:

- establish legal authority for that responsibility
- have waste flow control
- plan for an integrated municipal solid waste management system
- determine which portions of the integrated municipal solid waste system will be owned and operated by public forces and which shall be owned or operated by private forces
- establish a process to assure oversight of those portions under direct ownership or operational responsibility of private forces
- oversee and guide the implementation of the developed plan
- assure that all appropriate local, state, and federal regulations are met

Planning, ownership, operation; these three issues are essential in assuring environmentally sound and economical integrated municipal solid waste management (IMSWM) systems. The resolution and implementation of each of these issues must be determined by local government. This policy paper addresses the issue of ownership. Other SWANA position papers address the other two issues.

II. DISCUSSION

A. The Municipal Solid Waste Stream

Municipal solid waste is composed of the following major solid waste streams:

- residential solid waste - those solid wastes generated by single and multi-family dwellings
- commercial solid waste-those solid wastes generated by commercial activities (offices, retail and wholesale outlets, government offices, etc.)
- industrial-those solid wastes (office and shipping activities, non-hazardous wastes, etc.) which are non-process related

In addition, MSW frequently is composed of a number of other solid waste streams:

- vegetative wastes (horticultural, lawn service, nursery related wastes, etc.)
- biomedical wastes (hospitals, health care facilities, veterinary clinics, medical/veterinary laboratories, etc.)

- street and catchment basin wastes
- hazardous wastes from small businesses and industries which fall below state, provincial, federal regulated levels.

Solid wastes which may be a part of, but frequently are not a part of MSW, include:

- sludge
- construction and demolition wastes
- hazardous wastes regulated under hazardous waste regulations
- septic tank pumpings
- liquid wastes
- discarded automobiles
- many others

Even if they are not in certain states or provinces, a part of MSW, these wastes may appear in MSWM and at MSWM systems and facilities. Therefore, these wastes must be included as part of an integrated municipal solid waste management plan.

B. The Municipal Solid Waste Management System

The municipal solid waste management system (MSWMS) is composed of the following unit operations (actions - steps - methods - processes - facilities):

- waste reduction/generation
- collection
- transfer
- recovery/recycling
- composting
- combustion (incineration or waste-to-energy)
- disposal

Each of these unit operations is the direct result of an action on the part of an individual or enterprise. These actions result in the generation of solid waste. It then falls to local government to plan and assure the necessary operations to remove and manage these solid wastes from their point of generation. Local government must then assure that there is a system to move these through the management cycle. Finally, local government must assure that there is capacity to process and utilize, where possible, these wastes.

1. Waste Reduction/Generation

Local government has limited ability to impact on the amount of solid waste generated. Local government must however take whatever steps are necessary to meet state/provincial/federal mandated waste reduction requirements. To protect human health and the environment local government can and must dictate storage procedures and any preparation necessary to make solid wastes generated suitable for subsequent management. In addition, local government through waste flow control must have the ownership of those wastes, which it exercises management

responsibility over, in order to assure that it is managed consistent with an integrated municipal solid waste management plan. Ownership is also necessary in order to market these wastes as recovered materials or as an energy source.

2. *Collection*

Local government can and must determine how all municipal solid waste generated within its jurisdiction is collected. This is to assure the protection of human health and the environment. Collection services can be done by either public or private forces or a combination of these forces.

3. *Transfer*

Transfer stations serve as an integrated part of a solid waste system. Transfer stations are utilized to receive collected solid waste and to disperse solid waste to treatment, processing, combustion and landfill facilities. Local government must make the determination of the need and sites for transfer facilities; who should own these facilities; and who should operate such facilities.

4. *Recycling/Recovery*

The recovery of recyclable materials from the MSW stream occurs in a number of steps:

- at commercial and industrial sites
- at the curbside in residential areas
- within multi-family dwellings
- at drop-off facilities
- at central processing facilities
- prior to processing, combustion, disposal

Issues which local government must face in planning for the recovery/recycling portion of an integrated MSWM system include:

- changing demands on the system which result from fluctuating market conditions for recyclable materials recovered from the solid waste stream
- the relationship of existing and future commercial and industrial owned/operated solid waste recycling efforts and how any local government recycling initiatives interact and relate to these efforts
- recovery of materials from the MSW stream not currently addressed by commercial and industrial activities
- ownership and operation of curbside recycling and multi-family dwelling recycling systems
- ownership of drop-off facilities
- ownership and operation of central processing facilities

5. *Composting Facilities*

There are two major portions of the MSW stream which offers the opportunity for composting:

- vegetative wastes (yard, horticultural, nursery, lawn service wastes, etc.)
- organic portions of the MSW stream

In planning for an integrated municipal solid waste stream, local government must determine if composting should be part of the system; how these wastes will be collected; who will own the composting facilities; who will operate those facilities; and who will utilize or manage the end product.

6. *Combustion Facilities*

Combustion facilities will be either incinerators or waste-to-energy facilities. Waste-to-energy facilities will be either RDF or mass burn technologies. Ownership and operation of these facilities is an extremely complex issue.

In development an integrated municipal solid waste plan, local government will have to determine ownership, financing, operating and marketing responsibilities.

7. *Disposal Facilities*

The ownership of disposal facilities is the most significant decision that local government will have to make in planning and implementing an integrated municipal solid waste management system. While poor operation may result in violations by recycling, composting or combustion facilities, the significance of the violation will be immediate. For disposal facilities improper operations can have long term impact long after the facility is closed. These risks must be an essential element in the determination of who should own and operate these facilities.

III. POLICY

A. Integrated Municipal Solid Waste Management Planning

Municipal solid waste must be managed based upon a local government prepared integrated municipal solid waste management plan. This plan must assess each portion of the municipal solid waste stream. This will assure that all solid wastes are accounted for and those wastes are managed to protect human health and the environment. It will also assure that there is sufficient capacity for the proper management of these wastes. Capacity will be provided through reduction, recycling, combustion and landfilling.

Ownership and operation of services, systems and facilities must also be determined in the planning process. This will assure that all solid wastes generated, recovered/recycled, processed, combusted or landfilled are done so to protect the public interests, human health and the environment. This will also assure that local commercial and industrial interests are considered.

B. Ownership of Transfer Stations

Transfer stations are an integral part of a municipal solid waste management system. The collection and transportation logistics and economics, and the ownership of the collection subsystem determine the need for transfer stations.

If the collection subsystem is publicly owned, any transfer stations that are required, due to transportation logistics and economics, would most likely be publicly owned (an exception could be a small community who collects the waste and then deposits it in a larger transfer station which may be publicly or privately owned).

If the collection subsystem is privately owned, the local government responsible for municipal solid waste management will have to establish a policy for the ownership of transfer stations within its integrated municipal solid waste management system. This policy must be based upon an analysis of the need for, and the logistics and economics of, such facilities. Based upon such an analysis, local government can then decide that the need exists, or the economic or logistical benefits justify, having the public body own the transfer capability, or the local government may decide to leave the siting, ownership and operation of transfer facilities with the same private parties responsible for collection, but within the framework of the integrated municipal solid waste management plan.

Consequently, ownership of such facilities should be based upon a local government analysis of ownership of the collection subsystem, and the need and economic or logistical benefits of such facilities.

C. Ownership of Recycling Systems and Facilities

In many local government jurisdictions there already exists recycling facilities (or they exist within economical distances from the local jurisdiction) which process and recycle some portion of the municipal solid waste stream. Future integrated municipal solid waste planning must factor into the planning process this existing capacity (and potential expansion capabilities of those facilities) and should take all appropriate steps to foster the continuation, participation and expansion of such facilities.

In order for local government to take aggressive steps in increasing the amount of municipal solid waste that is separated, processed and recycled, recycling goals, the local government must determine what policy of ownership of these facilities can best meet these goals. In establishing new facilities to accept mixed municipal solid waste or source separation materials, local government must determine how these facilities can meet their recycling goals. Economic, technical and operational analysis must be made to determine ownership.

This policy should be based upon an analysis of the existing capacity, the need for additional capacity, the ability and willingness of the existing capacity to expand to the size of the needed capacity, the ability to meet long-term needs, and the risks involved.

D. Ownership of Combustion Facilities

Ownership of combustion facilities, although not independent from the operation of the facilities, can be analyzed separately since both public and privately owned facilities can be operated privately. Furthermore, by using the full service approach (one vendor designs, constructs and operates the facility) many of the technological and operational risks can be shifted to the vendor no matter which party owns the facility.

The principal factor affecting the ownership of combustion facilities is economic. A privately owned facility can take advantage of federal tax benefits (in the U.S.) and take risks on merchant or spot markets that local government usually will not take, in order to offer lower early year tipping fees in the long-term contracts with local units of government. This early year economic advantage is offset in the later years since the private owner (rather than the local unit of government) owns the facility, and can charge market rates, which will be significantly higher than costs (especially after the initial debt to construct the facility has been retired).

Therefore, private ownership of combustion facilities obtains a short-term gain for the local government of lower early-year costs by sacrificing the longer-term economic benefits derived from ownership once the debt has been retired. Economically, the local government will be better off in the long term if it owns the combustion facility, but it must pay the price in the short term through higher initial costs.

Therefore, the local government jurisdiction must make a policy decision based upon an analysis of these costs and benefits that are weighed in terms of its own economic, political and social values.

E. Ownership of Disposal Facilities

There are several factors that guide the determination of ownership of disposal facilities. These are:

- financial assurance
- capacity assurance
- fair and equitably available capacity

1. Financial Assurance

Under pending US federal regulation; a number of existing state/provincial regulations; and certainly in many future regulations, the following financial requirements will dramatically affect who should own disposal facilities:

- financial assurance for closure
- financial assurance for post-closure maintenance
- financial assurance for post-closure monitoring
- financial assurance for remediation

In all of these instances, the ability for an owner to demonstrate such financial assurance and to assure an organizational entity for the mandated post-closure period and beyond is an absolute essential factor in ownership. It is because of the difficulties of demonstrating financial assurance by both public and private entities that SWANA has recommended that the preferred financial assurance option is a trust fund.

As long as financial assurance has been demonstrated, the ownership decision can be made independent of financial assurance considerations. However, if either the public or private sector can not demonstrate, or refuses to meet, the financial assurance criteria, then the decision of ownership clearly goes in favor of the party who is willing and able to meet those criteria.

2. Capacity Assurance

Through planning, local government must assure that there is sufficient capacity for all municipal solid waste generated within its jurisdiction for a defined period of time (thirty years is preferred). Conversely, if sufficient capacity cannot be accounted for within its jurisdiction, then through outside agreements, capacity outside of its jurisdiction must be assured.

In assuring capacity, local government must assure that such capacity will remain for the benefit of the public. In assuring capacity, local government has a responsibility to assure the public that the siting of landfills is for the public good, and that their interests will be protected. Consequently, local governments must be responsible for siting all capacity permitted within its jurisdiction regardless of ownership.

In assuring capacity, local government must also assure regulatory compliance and mitigation of environmental impacts. Regulatory compliance must be strictly enforced and there should be penalties for noncompliance. Mitigation of known immediate environmental impacts should be dealt with through the state and local permitting process, and mitigation of future unknown environmental impacts is dealt with by having financial assurance.

The essence of capacity assurance is the siting and permitting of sufficient landfill capacity such that the local jurisdiction always has sufficient environmentally sound and economic disposal capacity available. This assurance of disposal capacity must be obtained through the use of an integrated municipal solid waste management plan. The use of publicly or privately owned capacity, or a combination of both, is a decision that the local jurisdiction must make through this planning process. In either case, appropriate constraints must be put in place to assure that the capacity will be available when it is needed, and that it can be replenished when required.

3. Fair and Equitably Available Capacity

Disposal facilities must equitably serve all public and private operations within its planned service area. If the disposal facility is publicly owned, this is assured since it is normally illegal for government to act in a discriminatory fashion.

If local government determines that they prefer private ownership of disposal facility capacity, then they must build into any agreement for a private facility within their jurisdiction safeguards to assure fair and equitable charges for all users of the facility. This can be accomplished in a number of ways. First, if a governmental body issues tax exempt debt to finance the facility, that governmental body can insist that a non-discrimination clause be included as part of the financing covenants that are made by the private company. Second, a non-discrimination clause can be included as part of any host community agreement between the local jurisdiction and the private company. Third, state/provincial legislation can require that such a provision be included as one of the state/provincial conditions for all disposal facilities. Fourth, through the integrated municipal solid waste management planning process, the local jurisdiction can establish a public body as a rate setting and enforcement mechanism. Additionally, these can be implemented to combinations to provide primary and backup assurance of equitable availability.

If in the planning and permitting process, potential disposal facility vendors cannot, or are not willing to meet the requirements for fair and equitable charges, the private ownership cannot occur.

IV. SUMMARY

In summary:

- Ownership of transfer stations should be based upon ownership of the collection subsystem, the need for such facilities, and the economic or logistical benefits of such facilities.
- Ownership of processing/recycling facilities should be based upon an analysis of existing capacity, the ability and willingness of the existing capacity to expand to fill the needed capacity, the ability of any proposed capacity to meet long-term needs, and the risks involved in trying to fill the perceived needs.
- Ownership of combustion facilities should be based upon an analysis of the costs and benefits as weighed by the local jurisdiction's own value system through the local political process.
- Ownership of disposal facilities should be based upon an analysis of the ability to provide financial assurance, capacity assurance, and equitable service.

The provision of municipal solid waste management is a vital service to the public. The provision of such services can be accomplished by a myriad of management and ownership arrangements. Any and all approaches can be accomplished in a manner to protect the public interest, human

health and the environment. It remains the responsibility of local government to determine how such services should be provided. It remains the responsibility of local government to decide who should own municipal solid waste management facilities.

Approved by the Executive Committee, April 6, 1991, Silver Spring, Maryland, after due review and correction by all Chapters and members of the International Board.

Approved by the Executive Committee on April 6, 1991.

Durwood S. Curling
International Secretary

Dated June 13, 1994