

status would be reported by the cities in their annual report to the County.

Residences

- *Point of purchase exhibits and information.* Develop and display exhibits and information in retail stores to educate consumers on selective shopping techniques that reduce waste.
- *Swap meets.* Sponsor citywide or community-based swap meets to encourage residents to trade or sell used goods.
- *Model programs.* Develop and publicize a model residence where waste reduction techniques have been incorporated into daily activities. A checklist might include the use of reusable sandwich boxes for school lunches, cloth diapers, solar-powered products, and landscaping and gardening practices that reduce waste. Emulation by other residents would be encouraged through a recognition program.
- *Durable shopping bag distribution.* Devise a program targeted at shoppers who do not yet use durable or reusable bags. Provide durable shopping bags containing brochures and other materials on selective shopping and other waste reduction strategies.

Businesses

- *Procurement workshops for businesses.* Conduct workshops that assist businesses in developing procurement programs that favor durable and reusable products.
- *Model programs.* Develop model programs for different types of businesses and encourage emulation by other businesses through recognition programs.
- *Waste reduction technical assistance.* Provide technical assistance to retailers and other businesses in developing waste reduction programs.
- *Product or shelf-labeling programs.* Work with retailers to develop a product or shelf-labeling program to help consumers identify types of products that reduce waste.
- *Directory of businesses/organizations employing waste reduction methods.* Develop a directory of businesses that employ waste reduction practices as a resource for other businesses planning waste reduction programs.

Government/Institutions

- *Procurement standards.* Ensure that procurement specifications for equipment, vehicles, supplies, furniture, parts, and materials provide for the systematic purchase of durable and reusable products.
- *Model programs.* Develop models for waste reduction in offices, cafeterias, parks, or other facilities. Use recognition programs to encourage widespread adoption of waste reduction practices.

(4) Collection Rate Incentives

The County and the cities would continue to implement rate incentives that encourage waste reduction and recycling and further develop variable rates to ensure substantial cost differentials between solid waste collection service levels. These incentives could include:

- Mini-can garbage service.
- A special recycling service rate for customers who do not subscribe to garbage collection service.
- Distribution of recycling costs among all rate payers.
- Substantial cost differentials between solid waste collection service levels.

(5) Waste Reduction Policy and Program Research and Development

King County would undertake a comprehensive analysis of waste reduction policies and programs implemented in other parts of the country to identify new options for augmenting the expanded programs discussed above. Areas of research could include the following:

- Review current assumptions regarding waste generation to determine whether King County's waste generation forecasting model needs revision.
- Analyze trends in manufacturing and product packaging and design to determine the types of packaging to be targeted in waste reduction programs.
- Identify excessive and non-recyclable packaging, wasteful products, unavoidable waste, and waste that could potentially be eliminated or reduced.

collection, because higher density concentrates routes, thereby increasing cost-effectiveness.

(2) Commercial Sector Waste and Recyclables Collection Systems

Commercial collection consists of the removal of recyclables and solid waste from commercial and institutional buildings and some multifamily residences. Multifamily units are typically included under commercial collection due to the number of pickups required, the size of containers used, and billing procedures (charging the landlord rather than residents). However, the Plan requirement for household recyclables collection in urban areas does apply to multifamily dwellings. Municipalities may control commercial waste collection within their boundaries, and many cities that utilize licenses and contracts to regulate residential solid waste collection also choose to regulate the commercial sector.

Most of the certificated franchises in King County collect garbage from both residential and commercial customers. Some certificates also designate particular areas or types of wastes that may be collected. Table IV.5 is a summary of companies that collect commercial waste, types of materials they collect, and their areas of operation in the County.

Most commercial recyclables collection services are arranged directly between businesses or property managers and service providers. Currently, there are few municipally sponsored commercial collection programs in the County, although many cities are evaluating their options for initiating such programs. The 1989 Plan provided for a Business Recycling Program to assist in developing collection programs for recyclables. (See Section III.B.)

c. Collection Rates for Solid Waste and Recyclables

(1) Solid Waste

Refuse collection rates vary among municipalities and franchise areas. For the most part, recent rate increases reflect the rising cost of disposal and the imposition of a moderate risk waste surcharge by the Seattle-King County Board of Health. Rates are also affected by population size and density,

size and type of commercial and industrial sectors, distance to the transfer station or disposal sites, age and size of the collection vehicle fleet, and any administrative and billing costs added by municipalities. Also, services may vary in numerous ways—free pickup of municipal garbage, length of the contract, and location of pickup, for example.

Solid waste rates are regulated by the WUTC for haulers with franchise certificates and by cities for haulers with contracts or licenses (Table IV.3). Table IV.4 shows solid waste collection rates for suburban cities.

*** (2) Waste Reduction and Recycling (WR/R) and Rate Incentives**

Collection rates for recyclables are often included in residential solid waste rates. Consolidation of collection fees for recycling and solid waste into one bill is believed to have made residential recycling more successful because it is more efficient for haulers, more convenient for customers, and demonstrates to customers how minimizing disposal through WR/R can also reduce costs. This is particularly effective when haulers also use an incentive rate structure to encourage WR/R. Incentive rates include mini-can services, once-a-month garbage collection service, yard waste rates, and substantial cost differentials between service levels.

In 1990 the WUTC initiated a notice of inquiry on solid waste collection rate design, focusing on how to structure rates to encourage WR/R. The WUTC's current cost-of-service methodology does not produce significant incentive rate structures, but the commission is continuing to investigate this matter through workshops and public involvement. In 1991 King County worked with the WUTC to implement an incentive rate structure for household recyclables collection in urban unincorporated areas. Implementing rate incentives satisfies the requirements of the rate policy addressed in KCC 10.18.020.

2. Needs and Opportunities

The collection system is evaluated within the framework of the overall mission of the King County Solid Waste Division to protect the public health and environment through the proper management and disposal of waste. The goals for determining needs for solid waste and recyclables collection are

to make collection services available to all county residents and to ensure compatibility with WR/R programs. (See also Chapter III, Section B.)

a. Urban Solid Waste and Recyclables Collection

Most large cities maintain contracts with collectors to provide recyclables and solid waste collection for their residents; the remaining cities and towns allow franchised haulers to collect under a license or certificate. The unincorporated areas are served by franchise haulers. These services appear to be adequate. A collection system for secondary recyclables, such as appliances, furniture, food waste, mixed plastics, and bulky yard waste is needed. Residential collection vehicles generally are not equipped to handle bulky items, and residents who are unable to transport them to transfer stations or landfills must arrange special pickup. Depending on the location, this can be costly. The consequences can be illegal dumping or donations to local charities which may then be burdened with unusable furniture and appliances. (See Chapter III, Section B.)

b. Rural Solid Waste and Recyclables Collection

Solid waste collection services are available countywide; however, a comprehensive system for collecting recyclables and residential and commercial yard waste is needed in some rural areas.

c. Nonresidential Collection

Although the Business Recycling Program has been effective in providing businesses with information about how to improve WR/R activities, collection services for commercial recyclables are often unavailable or expensive. Local governments have not been given explicit authority to set service levels.

Achieving an integrated collection and billing program for nonresidential solid waste and recyclables is difficult because different statutes regulate the collection of commercial solid waste and recyclables (see Section IV.A.2.b.) The WUTC believes that because RCW 81.80 and RCW 81.77 utilize different rate-setting methods, it is inappropriate to allow a single firm with both types of authority to use income from one type of

operation to subsidize another (called "cross subsidization"). For example, solid waste collection income might be used to subsidize recyclables collection. If there are no significant increases in the volumes of recyclable materials collected in the nonresidential sector during 1992-93, King County may need to work with the WUTC to develop rate incentives, other forms of combined rates, or other means of stimulating commercial recyclables collection.

***d. Institutional and Incentive Rates**

Because the authorities and responsibilities for setting service level standards are shared among the WUTC, counties, and cities, there is a need for clear and coordinated goals in solid waste management and rate design. Aggressive recycling goals set by the state, counties, and cities need to be supported by a rate design process that allows haulers to provide WR/R incentives and recover costs associated with improving service.

The WUTC's current rate methodology calculates collection rates based on a strict adherence to a historic cost-of-service allocation model, which only allows for limited cost differentials between service levels. It is expected that as collection, processing, and disposal costs rise and as further rate incentives are established, most customers will practice more waste reduction and recycling. Rate design that includes substantial cost differentials between different service levels is needed to support these alternatives.

Current procedures and the risks and limitations imposed on cost recovery discourage haulers from investing in additional or upgraded equipment and have inhibited innovation in the area of recycling. The mechanism for providing assistance to the collection industry for service modifications to support recycling and other programs needs to be improved.

3. Alternatives

This section identifies alternatives that address the needs discussed above (Table IV.6 summarizes these alternatives). There are no unserved areas in King County—the current system fulfills the first goal of ensuring availability of solid waste collection to all county residents. However, an increased