

**UNION COUNTY
SOLID WASTE MANAGEMENT PLAN**

Fulfilling The Requirements of
The Solid Waste Management Act
of 1991

Prepared for:
Union County Solid Waste
Management Board

July 1, 1994

TABLE OF CONTENTS

OPEN LETTER FROM THE SOLID WASTE MANAGEMENT BOARD.....	i
<u>PART I</u>	
EXECUTIVE SUMMARY.....	ES 1-14
<u>PART II</u>	
INTRODUCTION	
CHAPTER I	Description of the Solid Waste Region..... I 1-14
CHAPTER II	Analysis of the Current Solid Waste Management System for the Region..... II 1-15
CHAPTER III	Growth Trends, Waste Projections, and Preliminary System Structure..... III 1-19
CHAPTER IV	Waste Reduction..... IV 1-13
CHAPTER V	Waste Collection and Transportation..... V 1-6
CHAPTER VI	Recycling..... VI 1-9
CHAPTER VII	Composting, Solid Waste Processing, Waste-to-Energy, and Incineration Capacity..... VII 1-3
CHAPTER VIII	Disposal Capacity..... VIII 1-7
CHAPTER IX	Public Information and Education..... IX 1-5
CHAPTER X	Problem Wastes..... X 1-10
CHAPTER XI	Implementation: Schedule, Staffing and Funding..... XI 1-5
CHAPTER XII	Allocation of Implementation Responsibilities: Plan Adoption and Submission..... XII 1-2
CHAPTER XIII	Flow Control and Permit Application Review.... XIII 1-2
<u>PART III. APPENDICES</u>	
APPENDIX A.	Legal Documents and Regional Organization A 1-10
APPENDIX B.	Documentation for Adjusting the Base Year B 1-10
APPENDIX C.	Public Participation Activities..... C 1-10
APPENDIX D.	Review by Appropriate Municipal or Regional Planning Commission D 1-10

SOLID WASTE MANAGEMENT BOARD
UNION COUNTY REGION

April 14, 1994

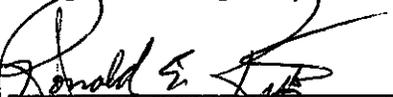
To Whom It May Concern:

We, the undersigned members of the Union County Solid Waste Management Board, feel compelled to address an issue that has been of concern to us for the past several months as we prepared the 10 year plan for the citizens of Union County. We feel the citizens of Union County can not afford to operate a Class I landfill without significant marketing of space to outside sources. Failure to do so, will raise the tax rate dramatically.

We did not have the autonomy to develop the plan in accordance with our desires to keep the impact on the citizens to a minimum. As we tried to explore the many avenues that could be taken, the County Commission continued with the processes and recommendations of its landfill committee, severely limiting our options. Therefore, we developed a plan that was limited in scope and inconsistent with some of the steps we might have initiated.

Working under what we felt were the constraints placed upon us, we submit this plan, secure in the knowledge that review and changes may be made in the future.

Respectfully,



Ronald E. Kitts, Chairman



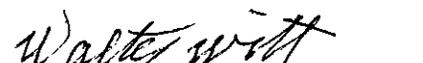
W. VonSchipmann, Secretary



Joe Painter



Paul Bowman, Vice-Chairman



Walter Witt



Denny Bates

Bill Keck

wvs.

**UNION COUNTY SOLID WASTE
MANAGEMENT PLAN**

**Time Frame for Plan
Submittal to the State**

1. FIRST DRAFT TO SOLID WASTE MANAGEMENT BOARD..... FEBRUARY 24, 1994
2. COMMENTS BACK FROM SOLID WASTE MANAGEMENT BOARD.... MARCH 24, 1994
3. FINAL DRAFT PRESENTED TO THE BOARD..... APRIL 28, 1994
4. PUBLIC HEARING--
URGE COUNTY COMMISSION ATTENDANCE..... MAY 16, 1994
5. ALL CHANGES INCORPORATED, PRINTED, BOUND FOR
FINAL COUNTY COMMISSION APPROVAL..... JUNE 13, 1994
6. SUBMITTAL TO THE STATE..... JUNE 27, 1994
7. ABSOLUTE DEADLINE FOR SUBMITTAL TO THE STATE..... JULY 1, 1994

EXECUTIVE SUMMARY

"...It is declared to be the policy of the State of Tennessee, in furtherance of its responsibility to protect the public health, safety, and well-being of its citizens and to protect and enhance the quality of its environment, to institute and maintain a comprehensive, integrated, state-wide program for solid waste management..." [T.C.A. 68-31-813, Section 3].

INTRODUCTION

In an effort to better safeguard the health and welfare of its citizens, the State of Tennessee promulgated the Solid Waste Management Act of 1991. The Act requires the formation of solid waste management regions which in turn formulate long-term strategic plans for handling and reducing local solid wastes. The County Commission of Union County, on September 22, 1992, adopted a resolution to form a single-county planning region and empowered the County Executive to appoint a Solid Waste Board that would address the County needs and prepare a ten-year Plan to meet those needs. This report is the culmination of over one year's work to bring Union County into full compliance with the Act. The Plan has been approved and formally adopted by the Board and the County Commission and will be diligently implemented and annually updated to meet all statutory requirements.

The Act required the nine Development District offices to prepare a Needs Assessment for each municipality, or county that:

- (1) outlined the existing solid waste management system;
- (2) identified system needs and improvements necessary over the next ten years;
- (3) and recommends a preliminary outline for a rational method of dealing with the anticipated needs of the region.

The East Tennessee Development District prepared a Needs Assessment for Union County that fulfilled all three requirements and provided the nucleus for this Plan. In addition to using the data gathered for the Needs Assessment, this Plan was formulated based on actual solid waste generation data, population and economic growth projections from the University of Tennessee Sociology Department, and any additional information needed to meet statutory requirements.

The Statutory Authority requiring preparation of the Plan and describing its content is found in the following sections of the Tennessee Code Annotated: T.C.A. Sections 68-211-813(c); 68-211-814(a); 68-211-814(b)(6); 68-211-815; 68-31-851(b); 68-211-861(f); 68-211-842; 68-211-871(a) & (b); and indirectly, in 68-211-866(b); and 49-7-121.

COUNTY DEMOGRAPHICS AND REGIONAL FORMATION

Union County is a rural, upper East Tennessee county approximately 223.6 square miles in area. The County is essentially bisected by Norris Lake and has no Interstate or U.S. Highways within its boundaries. There are three incorporated areas in the county; the City of Maynardville, the City of Luttrell, and the City of Plainview. Neither of the three is populated enough to qualify as an urban area by U.S. Census Bureau standards. The County is basically agrarian with a small industrial base anchored by Clayton Homes.

According to the University of Tennessee Department of Sociology, the Union County population is expected to grow at an average annual rate of 1.5 percent between 1990 and 1999, then the rate of growth will decrease. The estimated 1993 total population is 14,334 with a final population of 16,676 at the end of the planning horizon (2003). According to the U.S. Department of Commerce, in 1990 approximately 20 percent of the total population

was employed in non-agricultural sectors and the median income was \$9,843. Chapter I of the detailed plan presents a more comprehensive analysis of the county population.

Union County has a very small industrial base. The two largest employers are Clayton Homes and Tenn-Luttrell Mining. The County has developed two industrial parks and is in the process of developing a third. The availability of suitable plant sites and improvements in facilities is expected to increase the industrial capacity of the county. This growth is necessary if Union County is to prosper.

Each county in East Tennessee tends to be fiercely independent and typically elects to act autonomously whenever possible. Union County did solicit opinions from the contiguous counties when deciding on formation of the planning region and the other County Commissions indicated the desire to operate alone. The Union County Commission preferred formation of a single-county region also. However, the County Executives did agree to add clauses to the region formation resolutions that will allow multi-county regions to form, by amendment, at a later date.

REGIONAL NEEDS

Union County currently operates a model, Class I landfill that is scheduled for closure prior to October 1, 1996. A new facility is needed to meet the needs of the county well beyond the planning horizon of this Plan. In addition, solid waste collection in the county is minimal, at best. The County needs to provide its residents with a comprehensive collection system that meets or exceeds the guidelines of the Solid Waste Management Act.

To be in total compliance with the Act, Union County needs to formulate a plan and provide facilities for handling and disposal of household hazardous wastes; as well as used oil, tires, and

batteries; demolition materials; and other segregable wastes. Some of these wastes are handled effectively now; however, a more aggressive and concerted effort, both public and private, will safely remove these elements from the daily solid waste stream in Union County.

As part of this Plan, Union County needs to establish educational programs that will increase awareness of statutory and environmental goals aimed at providing a healthier and more sound environment. These programs must reach children, adults, industry and businesses alike. Only through education and changed behavior patterns can this Plan be implemented successfully.

Union County needs a comprehensive plan that addresses both the physical and fiscal handling and disposal of all generated solid wastes. Through proper planning the waste stream can be managed to achieve the State-mandated 25 percent reduction, by weight, in generated wastes. Of paramount importance is the formulation of an adequate plan that does not become an unnecessary economic burden upon the county residents.

This Plan is formulated based on projections of data over the 10 year planning horizon (1994-2003); however, it is flexible enough that changes will be allowed and can be documented in the annual update reports to the Governor's State Planning Office.

REGIONAL GOALS AND OBJECTIVES

The ultimate objective of this plan is total compliance with the requirements of the Solid Waste Management Act of 1991. While the Act outlines certain goals that must be met; i.e. waste reduction, collection services, disposal capacities, etc., it is the prerogative of each planning region to choose the specific ways to attain those goals.

The Union County Solid Waste Management Board has identified several goals or objectives that will be achieved by implementing the provisions of this plan. Following is a list of these goals:

-- There must be a long-range plan formulated to provide guidance and facilities to physically handle and dispose of the solid wastes generated in Union County for the next ten years. At the same time, the Plan must be economically viable without becoming an unnecessary burden on the populace.

-- Union County has plans to permit, operate, and maintain a first-rate, Class I landfill that meets or exceeds all EPA and State guidelines for new facilities in operation after October 1, 1996. The Board has recommended that the County Commission proceed with plans to purchase properties adjoining the county-owned property. The additions could increase the available airspace well beyond the capacity projected as necessary to meet the needs of Union County. The County could sell the excess capacity and have a source of revenues that is currently nonexistent. The landfill operation is planned to be revenue generating to help defray the costs of disposal while attempting to maintain direct County funding at present levels. The sale of any excess capacity would go a long way towards realizing that goal.

-- The State has defined the minimum level of service that is necessary to provide adequate collection to all county residents. The regulations require either 90 percent household collection or a calculated number of convenience centers. Union County will provide two satellite convenience centers, as well as a center at the landfill, to handle the household disposal needs of the more remote residents of the County.

-- Union County will provide facilities for a broad-based resource recovery and recycling program aimed at attaining or

exceeding the mandated 25 percent waste reduction target. Waste diversion, where possible, will be an integral part of the plan also. A formal structure to the recycling effort will aid the County in assessing the success or failure of its recycling program goals. A well organized resource recovery and recycling program can also be a source of revenue for landfill operations.

-- There is a need to provide controlled and environmentally safe locations for the collection and disposal or temporary storage of household hazardous wastes, as well as used oil, old tires, and batteries.

-- There is a definite need to develop or institute educational programs, both school and community oriented, that will increase awareness and use of the various solid waste facilities and programs and that will emphasize individual responsibility for creating and maintaining a clean environment. Education will be pivotal in the success or failure of the Plan.

-- A successful plan will utilize the resources available through other State, local, or regional organizations, i.e., KAB, RMCET, etc. The Plan will provide guidelines for the coordination of education, recycling, and community clean-up programs allowing for efficient use of these resources.

SYSTEM ELEMENTS IN THE REGIONAL PLAN

The centerpiece of this plan will be the new landfill. It will be designed and operated to meet or exceed all State and Federal guidelines, and it will provide an abundance of excess capacity that can be monitored and possibly sold to reduce the per capita costs associated with landfill operations that will ultimately be borne by the County. The solid waste volume required

by the County over the next ten years, including any present or anticipated contractual quantities -- "processed" contaminated soils and lime processing wastes -- is projected to be 890,680 cubic yards. The anticipated disposal capacity of the new landfill will provide 2.3 times the needed volume (see Chapter III).

Should Union County choose, and assuming a suitable buyer could be contracted with, the sale of this excess capacity could reduce the per-ton operating costs to the citizens of Union County. Sale of the excess capacity would be fiscally responsible to all residents of Union County. An evaluation of the prevailing market conditions should be performed when establishing future tipping fees.

Union County currently has a convenience center located at the operations and maintenance building at the landfill. The formula used in the Convenience Center Rule requires a minimum of one convenience center in the county. To best meet the needs of the County, the Solid Waste Management Board has recommended two satellite convenience centers, in addition to the one at the landfill. One convenience center is planned for the Paulette/Big Ridge area of the County and the other is to be sited in the Sharps Chapel area. Actual sites have not been identified; however, the centers will be sited, built, and operational by January 1, 1995. Union County has applied to the State for available grant monies earmarked for siting and development of the convenience centers.

A resource recovery and recycling facility will be centrally located at the landfill. Appropriate materials will be separated and collected until sufficient quantities are accumulated for sale to recycling markets. Each satellite convenience center will have appropriate "green boxes" for specific recyclables which will be taken to the landfill facility on an as-needed basis. Above-ground storage tanks will be provided at each convenience center for used automotive fluids. The tanks will be pumped periodically by Industrial Waste Oil of Knoxville. Tires and batteries are

currently segregated and collected at the landfill. This practice will be continued and expanded. Union County will participate in the State-sponsored Mobile Household Hazardous Waste Collection Program by providing a site and County employee for a Haz-Waste Roundup once a year.

Education is the weakest but most vital link in the chain of elements that will result in a successful plan. The best intentions, the best and most convenient facilities, the most well-thought-out plan, will not work if the populace is not made aware of the individual responsibility for making this plan work. Citizens will not utilize the facilities and services provided if they don't know the facilities exist. The local consortium, Partners for Clean Communities (part of the national Keep America Beautiful program), has specific programs aimed at educating the adult population. From informational talks offered to civic and business groups to billboards, pamphlets, and advertising, they aggressively promote good solid waste management practices on an individual basis. They also promote and sponsor educational programs in the local schools designed to increase the awareness and sense of responsibility that members of the younger generations must have towards the environment. Partners for Clean Communities works with the educational establishment by training teachers in the use of available curricula that can be integrated into daily classes to reach the most people with our limited resources.

The County will promote and encourage greater individual participation in residential collection services provided by private haulers. This can be achieved through advertising and education. Imposition of a by-the-bag disposal fee will make commercial collection an attractive alternative for many residents who currently "haul their own" for free disposal.

COORDINATION OF NEW PROGRAMS AND THE OLD SYSTEM

Union County is planning a landfill expansion that will adhere to new State and EPA regulations and guidelines. The new facility will open by mid-1995, prior to closure of the existing landfill, so there will be no period where disposal capacity is not available. The new facility is being designed to accommodate waste diversion and encourage recycling.

The new facility will be better suited for monitoring of the incoming waste flow. New, electronic digital scales have been installed at the landfill entrance that will allow a more accurate quantification of the actual wastes presented for disposal. The new convenience center at the landfill is designed to promote resource recovery and recycling efforts. A clean and organized facility will encourage practical application of the goals of the advertising and educational programs. Similar facilities at the satellite convenience centers will be an added inducement to recycle appropriate materials.

Efforts to reduce "problem" or hazardous wastes will be increased by providing centrally located facilities for the collection of used automotive fluids, tires and batteries. Many residents have expressed a willingness to use the facilities if they are available. Household hazardous wastes will be collected during an annual event for safe disposal by licensed contractors. Disposal via the daily waste stream will be discouraged through advertising and education.

Towards the efforts at reducing operational and maintenance costs of the plan and landfill, the new landfill will have a large, excess capacity that could be sold to generate additional revenues. Several options have been investigated, but firm commitments by either the County or the ultimate user have not been made.

As part of the diversion efforts, the landfill is being

designed to specifically segregate Class I and demolition wastes. A large proportion of the current incoming wastes is comprised of demolition materials. A concerted effort at recycling and demolition waste diversion could well exceed the 25 percent waste reduction target.

County residents will be more likely to participate in collection and waste reduction efforts if the collection facilities are convenient and located where the most residents can easily use them. The ultimate siting of the convenience centers will be chosen to reach the most potential users. The centers will be designed to present a neat appearance and provide easy access to the disposal facilities.

Through Partners for Clean Communities and other educational resources, local school teachers and administrators will be encouraged to attend ongoing workshops designed to enhance existing curricula focusing on solid waste management practices. These programs will then be integrated into the daily school schedules.

Daily operations of the convenience centers and the landfill will be by contractual agreements whereby the County will sub-contract with operators for rates fixed by the hour (for convenience center personnel) or by a percentage of the tipping fees per ton of waste (for the landfill operator). All operations contracts will be written for a minimum duration of one year and a mutually agreed upon maximum length of time. All disposal fees; whether contract, industrial, commercial, or residential, will be paid to the County. The County will then disburse funds to the operators as required by the individual contracts.

The County will be constantly focused on increasing public awareness of solid waste problems and solutions. Through repetitive advertising in the local media and poster and billboard campaigns all segments of the population will be continuously reminded about the importance of the individual participation

required to effectively manage our solid wastes. The household hazardous waste collection events will be promoted as whole-family participation activities. More civic organizations and local businesses will be asked to become involved in adopt-an-area or adopt-a-highway programs. As local awareness increases, neighborhoods will be encouraged to organize individual litter clean-up weekends. In addition to the Keep America Beautiful programs aimed at the school-aged segment of the population, there are several options available for reaching the adult population.

It cannot be emphasized enough that successful implementation of this plan will result only with the participation of a well-informed public. It must be stressed to the general public that the amount of solid wastes must be reduced and that the problems associated with solid wastes must be solved. Good solid waste management is not exclusively the responsibility of local or regional governments; each and every citizen has a responsible part in the total effort. The County can provide the facilities, education, and information, but the citizens must put forth the effort.

IMPLEMENTATION SCHEDULE

The Solid Waste Management Act of 1991 not only provided guidelines by which the planning regions are to meet specific goals such as waste reduction, a minimum level of collection services, adequate disposal capacity, etc., but the Act established specific target dates for achieving those goals.

The first, and most important date, July 1, 1994, is the absolute deadline for formal adoption of a comprehensive plan by the planning region and submittal of the plan to the Governor's State Planning Office for approval.

No specific date is mandated for starting educational programs; however, fifteen Union County teachers and school administrators participated in a 1993 summer workshop that introduced various solid waste curricula that could be used in the schools. In addition, the current landfill operators, Johnny and Becky Munsey, have been invited to give presentations to several classes. The educational programs in Union County have a good start; they just need to be enhanced, more organized, and broad-based to reach the entire county population, child and adult alike.

The convenience centers are to be sited and operational by January 1, 1995. This will ensure prompt provision of the minimum adequate level of collection service.

The annual 25 percent reduction in solid wastes disposed of in the Class I landfill must first be achieved in the year ending December 31, 1995. Through source reduction, recycling, and waste diversion, Union County will meet, if not exceed, the specified target.

The State of Tennessee has mandated that all unlined sanitary landfills will cease operations prior to October 1, 1996 and meet State closure requirements within 180 days thereafter. Prior to that deadline, Union County will have permitted and be operating a new facility adjacent to the existing landfill. The new landfill is expected to begin operations in mid-1995. This will provide adequate overlap to allow closure of the existing facility well in advance of the deadline.

ESTIMATE OF SYSTEM 10-YEAR COSTS

Union County has been investigating the feasibility and economics of expanding the landfill operations for several years. The following table was prepared for the Union County Solid Waste Management Board as a preliminary estimate of the costs that can be

expected to be incurred should Union County decide to fully develop the property it now owns and the adjoining Capps property. It is important to note that the costs and revenues presented are based on an anticipated 12-year landfill operational life (not the 10-year timeframe of this plan) and were developed for planning purposes only. Included in the estimate are funds for capital improvements outside of the actual landfill property. These improvements are listed under Landfill Development as waterline extension and road improvements. A more detailed analysis of anticipated costs and revenues is presented later in this report.

**Table 1 ESTIMATED COSTS AND QUANTITIES FOR THE NEW UNION COUNTY
LANDFILL TOTALLY DEVELOPED OVER 12 YEARS.**

This analysis was prepared assuming a landfill life of 12 years and the total development of the airspace available over the 31.9 acre site footprint (includes the Capps property).

<u>EXPENSES</u>		<u>UNIT COST</u>	<u>TOTAL DEVELOPMENT COST</u>	<u>ANNUAL BASIS</u>
1.0 LANDFILL DEVELOPMENT				
A. Pre-development Activities				
Permit Application		L.S.	70,600	5,880
Waterline Extension		L.S.	66,700	5,558
Road Improvements		L.S.	83,300	6,942
Purchase Capps Property		L.S.	80,000	6,667
B. Site Development				
Access Road		L.S.	25,000	2,080
Initial Site Grading	31.9 acres	1,000/acre	31,900	2,660
Excavation Total	1,029,000 cy		0	0
adjusted	954,300 cy	1.00/cy	954,300	79,525
Sediment Pond		L.S.	25,000	2,083
Monitoring Wells	2	10,000 ea	20,000	1,667
Clay Liner Blanket	102,000 cy	1.50/cy	154,350	12,863
HDP Liner	1,389,000 sf	0.65/sf	903,240	75,270
Sand/Gravel	139,000 tons	8.00/ton	1,112,000	92,667
Leach Collection	31.9 acres	9,500/acre	303,050	25,254
Engineering & Lab	12 years	25,000/year	300,000	25,000
SUBTOTAL				<u>344,116</u>
2.0 LANDFILL OPERATIONS				
Operators, St. Tax	12 years	460,000/year	5,520,000	460,000
3.0 Closure of proposed Landfill				
Closure	12 years	L.S.	500,000	41,670
Post-Closure Maintenance	42 years	50,000/year		<u>35,700</u>
SUBTOTAL				<u>77,370</u>
4.0 Closure of Existing Landfill				
Closure	12 years	L.S.	192,000	16,000
Post-Closure Maintenance	30 years	43,000/year	1,290,000	<u>43,000</u>
SUBTOTAL				<u>59,000</u>
5.0 Collection				
Convenience centers	3	53,000	159,000	13,250
Personnel & Misc.		15,000		45,000
Transportation	10 bx./center	6,000/month		<u>72,000</u>
SUBTOTAL				<u>130,250</u>
TOTAL				<u>1,070,730</u>
REVENUE				
General Fund	58,000	L.S.		58,000
Residential commercial	2,000 tons	23.00/ton		46,000
Residential Conv. center	5,000 tons	23.00/ton		115,000
Industrial/Commercial	3,000 tons	23.00/ton		69,000
Out of County Wastes	34,350 tons	23.00/ton		<u>790,000</u>
TOTAL				<u>1,078,050</u>

CHAPTER I
DESCRIPTION OF THE
MUNICIPAL SOLID WASTE REGION

Statutory Requirements:

In the case of a single region, that county should state specific reasons why it failed to adopt a multi-county option. [T.C.A. Sections 68-31-815(b)(12), 68-31-813(a)-(e) and 68-31-814(b)(1) and (15)].

GENERAL DESCRIPTION OF THE REGION

In considering several planning strategies for the 10-year Solid Waste Management Plan (SWMP), the County Commission of Union County elected to form a single county region. The conterminous county occupies 223.6 square miles (143,104 acres) in the foothills of the Cumberland Mountains and lies 15 miles due north of Knoxville.

The majority of the county is rural. However; three cities have chosen to incorporate -- Maynardville, Plainview, and Luttrell -- neither of which have populations large enough to qualify as urban by U.S. Census Bureau Criteria.

Union County is crossed from southwest to northeast by four valleys; Hickory Valley, Raccoon Valley, Little Valley, and Clinch Valley. The valleys separate several major topographic features -- Clinch and Lone mountains; and Chestnut, Copper, and Hinds Ridges. The principal physiographic feature is Norris Lake which virtually

bisects the county and has contiguous shorelines with Big Ridge State Park and the Chuck Swan Wildlife Management Area.

Below is a tabulation of estimated total land areas according to major land use:

Table 1 COUNTY AREA BY LAND USE

<u>Commercial</u>	<u>Residential</u>	<u>Industrial</u>	<u>Recreation</u>	<u>Agriculture</u>	<u>Public</u>	<u>Forest</u>
75 acres	5,295	215	24,330	55,825	12,310	45,090
0.05%	3.7%	0.15%	17.0%	39.0%	8.6%	31.5%

RATIONALE FOR FORMATION OF A SINGLE-COUNTY REGION

By statute, as cited above, the Solid Waste Management Act [T.C.A. Section 68-211-815(b)(12)], requires that specific reasons be enumerated explaining why Union County failed to adopt a multi-county regional plan. Initially there were two impediments to formation of a multi-county region. In conception, the County Commission of Union County was steadfastly desirous of operating autonomously. This rationale is prevalent in East Tennessee as is evidenced by the Planning Regions Map (exhibit 1) and is the basis of the second impediment. No commissions of any contiguous counties were interested in forming a multi-county region.

However; the County Executives and some county commissioners do have an understanding of the operational characteristics and costs associated with a 10-year Plan that follows State guidelines

and they realized that there is a great potential for savings by operating in concert with other counties. To that end, the County Executives agreed to add clauses to their region formation resolutions that allow amending of those resolutions should two or more counties wish to reconsider and form a multi-county region.

INSTITUTIONAL STRUCTURE

Currently there are seven appointed members of the Union County Solid Waste Management Board (the Board). Copies of letters confirming their appointments are in Appendix C. Below is a list of the Board members as of December 1993, along with their duties, representation, and terms of appointment:

<u>Member</u>	<u>Duty</u>	<u>Represents</u>	<u>Term</u>
Ronald E. Kitts	Chairman	County Resident	6 years
Paul Bowman	Co-Chairman	City Resident	4 years
Wm. Von Schipmann	Sec./Treas.	Mayor, Plainview	4 years
Denny Bates	Member	Mayor, Luttrell	2 years
William Keck	Member	County Resident	2 years
Joe Painter	Member	County Resident	2 years
Walter Witt	Member	County Resident	2 years

The presence of City and County representatives on the Board permits coordination between the Board and local governmental bodies. The County Executive attends monthly Board meetings on a

regular basis which does encourage an exchange of information between the Board and County Commission during the planning process. In addition, the Board Chairman is a regular attendee of County Commission meetings and has been called upon, at various times, to formally present Board proposals to the County Commission. The monthly board meetings are scheduled for the third Thursday of each month and advertised in advance. The public is encouraged to attend and, at times, participation has been lively. Minutes of the meetings are included as part of Appendix A.

In an effort to ensure greater community involvement in the planning and decision process, each Board member formally requested the appointment to a Solid Waste Advisory Committee of at least one private citizen from that Board member's jurisdiction. The Advisory Committee members assisted in data collection and proposed various planning options in the areas of; public education, collection and reduction plans, waste flow characterization, and landfill operations. The Committee members provided a community-minded and individual perspective on all aspects of the 10-year Plan. As of December 1993, the committee numbered twelve members and they are: Wanda Cox, Lewis Demarotti, Kathleen Graves, Patricia Hooper, Len Johnson, Randall Merritt, Becky Munsey, Phil Ruth, Shannon Seals, John Smith, Lindy Turner, and Andrae Vance. There is no formal term of appointment for Advisory Committee members and upon acceptance of the appointment, each member was sworn in by the Board Chairman.

DEMOGRAPHICS

According to U.S. Census Bureau projections (based on 1990 Census data) the estimated population of Region is noted on the following page,

Name of the Region: UNION COUNTY
Regional Area: 223.6 square miles
Regional Population: 14,334 (1993)

The data presented in the following tables was gathered and analyzed by the East Tennessee Development District, except where noted, and is based on projections of 1990 Census data.

Table 3 Average Population Density

<u>Region (county)</u>	<u>Area (sq. miles)</u>	<u>1993 Population</u>	<u>Average Density Pop./sq. miles</u>
Union	223.6	14,334	64.1

There are no incorporated areas within Union County that qualify as Urban according to criteria established by the U.S. Census Bureau.

Table 4 Urban/Rural Population Distribution (1993 Projection)

<u>Region (county)</u>	<u>Urban Population</u>	<u>%</u>	<u>Rural Population</u>	<u>%</u>
Union	0	0.0	14,334	100

The total county population is very evenly balanced between male and female with the 80 percent between the ages of 5 and 64.

Table 5 Distribution of Regional 1990 Population by Sex and Age

<u>Age</u>	<u>Total</u>	<u>Male</u>	<u>%</u>	<u>Female</u>	<u>%</u>
0 - 4	954	483	50.6	471	49.4
5 - 17	2,715	1,396	51.4	1,319	48.6
18 - 44	5,780	2,896	50.1	2,887	49.9
45 - 64	2,734	1,368	50.0	1,366	50.0
65+	1,511	627	41.5	884	58.5
<u>County Total</u>	13,694	6,767	49.4	6,927	50.6

Of the 8,583 Union Countians over the age of 25, approximately 46 percent have graduated high school or pursued some form of post secondary education.

Table 6 Distribution of Population by Education (Age ≥ 25)

<u>Education</u>	<u>Number</u>	<u>%</u>
Less than 9th Grade	2,889	33.7
9th-12th Grade, no diploma	1,783	20.8
High School Graduate	2,550	29.7
Some College, no degree	798	9.3
Associate Degree	181	2.1
Bachelor's Degree	273	3.2
Post Graduate/Professional Degree	109	1.3
<u>County Total</u>	8,583	100.0

The total number of households identified by the 1990 Census in Union County was 4,932. This averages out to 2.8 persons per household. Below is a breakdown of county population by housing type and occupancy rate.

Table 7 Distribution of 1990 Population by Housing and Occupancy

	<u>Total Persons</u>	<u>Total Units</u>	<u>By Owner</u>	<u>By Renter</u>
Single Family				
Detached	9,153	3,302	2,799	503
Attached	86	31	20	11
Multi-Family				
2	74	34	11	23
3-4	119	50	2	48
5-9	143	73	1	72
10-19	62	38	1	37
20-49	0	0	0	0
50 +	0	0	0	0
Institutional	121	NA	NA	NA
Mobile Home/Trailer	3,713	1,326	1,051	275
Other	223	28	51	27

Population growth projections for all Tennessee counties are compiled and analyzed by the University of Tennessee, Department of Sociology. They project a population increase of 16.4 percent for Union County between 1990 and 2000. However; after 2000, the county is anticipated to experience a decline in population for at least two decades. This is attributed to an expected overall reduction in the size of the average family and a limited amount of new construction.

Table 8 Population Projections, 1993-2003

<u>Year</u>	<u>Projected Population</u>	<u>Change</u>	
		<u>Number</u>	<u>%</u>
1993	14,334	216	1.5
1994	14,554	220	1.5
1995	14,776	222	1.5
1996	15,002	226	1.5
1997	15,232	230	1.5
1998	15,465	233	1.5
1999	15,701	236	1.5
2000	15,939	238	1.5
2001	16,153	214	1.3
2002	16,462	214	1.3
2003	16,676	214	1.3

1990 Census Population: 13,694

Source: University of Tennessee, Department of Sociology

A steady growth in population will put an increased demand on the waste collection and disposal services currently provided in the county. While there is no county-wide collection service, one private hauler does provide residential -- and some commercial -- collection and transportation services for a nominal fee (this will be further discussed in Chapter II). Union County is in the process of permitting a major expansion to the currently operating landfill that will very adequately handle the county's waste disposal needs for the next ten years. Also, a new convenience center is located upon entrance to the landfill; and as well, two satellite convenience centers will be provided for county residents who do not wish to use a disposal service. The integration of provided services is further discussed in Chapter III.

REGIONAL ECONOMIC ACTIVITY

Union County is a rural county with a limited industrial base. The county is however, in the Knoxville MSA. There are 71.8 miles of State and U.S. Primary Highways in Union County, no Interstates, and one major rail route does run through the county with Norfolk Southern serving a terminal in Luttrell.

The basic economic activity of Union County is summarized in the following tables.

Table 9 Basic Economic Information for the Region

Region (county)	1990 Pop. ¹	MSA County (y/n)	Total Employ ²	Total Earnings ²	Per Capita Income ²	Percent Below the Poverty Line ³
Union	13,694	y	3,498	\$135,481,000	\$9,843	21.3

Source: ¹ University of Tennessee, Department of Sociology
² Bureau of Economic Analysis, U.S. Dept of Commerce
³ 1990 Census

Employment in Union County can be evaluated as agricultural and non-agricultural. The base year of 1990 was used in the Union County Solid Waste Needs Assessment prepared for the county by the East Tennessee Development District. All numbers presented in the following tables were compiled using 1990 as the base year (unless otherwise noted).

As of 1990, the total employment within the county was 3,498, split between agricultural employment of 813 and non-agricultural employment of 2,685. Non-agricultural employment can be divided into several sectors which are tabulated below.

Table 10 Total Non-Agricultural Employment by Sector (1990)

<u>Sector</u>	<u>Number Employed</u>	<u>%</u>
Manufacturing	1,120	41.7
Construction	187	7.0
Trade	366	13.6
Finance, Insurance and Real Estate	81	3.0
Services	396	14.7
Transportation, Communication, & Public Utilities	94	3.5
Government	430	16.0
Other	11	0.4
Totals	2,685	100.0
<i>Source: Bureau of Economic Analysis, U.S. Department of Commerce</i>		

In addition, industrial employers can be evaluated by employment class size as indicated in the following table:

Table 11 Industrial Employers by Employment Class Size

Industry	Employment Class Size						
	All Firms	1-4	5-9	10-19	20-49	50-99	100-249
Ag Services, Forestry, Fisheries	2	1	1	0	0	0	0
Mining	1	1	0	0	0	0	0
Construction	10	8	1	1	0	0	0
Manufacturing	13	5	0	1	2	4	1
Transportation, Communication, Utilities	6	6	0	0	0	0	0
Wholesale Trade	7	2	3	2	0	0	0
Retail Trade	39	27	9	2	1	0	0
Finance, Insurance, & Real Estate	6	4	1	0	1	0	0
Services	23	18	3	1	0	1	0
Total	117	82	18	7	4	5	1

Source: U.S. Department of Commerce, County Business Patterns, 1989. Tennessee

There are no major institutions (e.g. colleges, penal institutions, group homes, etc.) in Union County that house more than 100 persons. However; there is one major health care facility, Wariota Health Care in Maynardville, with 68 beds. Using Waste Management, Inc. figures, it is estimated that Wariota generates 62 tons of waste per year. This waste is hauled offsite

by BFI and is incinerated. At the present, no other facilities, with more than 50 beds, are planned in the long-term future for Union County.

Total revenues generated by Union County result chiefly from property and sales taxes. There is one municipality (Maynardville) in Union County with a population greater than 1,000. The total assessed property value of Maynardville was \$4,526,169 in 1990, but with no effective tax rate, the City generated 0 revenues. Union County, on the other hand, generated \$1,730,697 in 1993 property tax revenues and \$538,320 in sales tax revenues. At present, the county does not levy a wheel tax.

Table 12 COUNTY REVENUE SOURCES

<u>TAX BASIS</u>	<u>ASSESSED VALUE</u>	<u>EFFECTIVE TAX RATE</u>	<u>GENERATED REVENUE</u>
Maynardville	\$4,526,169	0.00	0
Union County	\$256,000,000	2.50	\$1,730,697
County Sales Tax	0		\$ 538,320
County wheel tax	0	0.00	0
TOTAL			\$2,269,017

Revenue for funding the current solid waste management program in Union County comes from a General Fund appropriation in the annual amount of \$58,000. There are other sources of funds used directly for landfill operations that will be discussed in Chapter VIII. With the installation of new scales at the landfill and a new tipping fee set by County Commission, a better system for generating and increasing revenues will be implemented. These

factors will be discussed further in Chapter VIII.

According to U.S. Department of Commerce and University of Tennessee figures, Union County is expected to experience a very modest increase in employment during the ten-year span covered by this plan. However, Union County is expected to experience sizeable growth in population over the same period. Combined, these two factors will result in a sizeable increase in the waste volumes that Union County will have to handle. The following chapters will analyze and propose a cohesive plan that will guide Union County in efficiently handling the solid wastes generated over the next 10 years while complying with all State and Federal requirements.

CHAPTER II

**ANALYSIS OF THE CURRENT
SOLID WASTE MANAGEMENT
SYSTEM FOR THE REGION**

Statutory Requirements:

"...(E)ach plan submitted by a municipal solid waste region shall include the following:...(2) a current system analysis of: (A) waste streams, including data concerning types and amounts generated; (B) Collection capability, including data detailing the different types of collection systems and populations and areas which receive and do not receive such services; (C) disposal capability, including an analysis of the remaining life expectancy of landfills or other disposal facilities; (D) costs, using a full-cost accounting model developed by the State Planning Office; including costs of collection disposal, maintenance, contracts, and other costs; and (E) revenues, including cost reimbursement fees, appropriations, and other revenue sources." [T.C.A. Section 68-31-815(b)(2)]

Supporting data for this section is drawn from the ETDD District Needs Assessment prepared for Union County in 1992 and an analysis of actual records kept at the currently operating landfill.

All data used to generate the quantities analyzed in this section were collected for calendar year 1991 and based on accurate records kept by operators between July 1 and December 31. Quantities presented as annual include estimates for the first six months of 1991. Where tons is the unit of measurement, a conversion factor of 4 yd³ equals 1 ton was used.

Current composition data has been collected for a short time and may not be representative of the typical yearly waste flow in the county. Therefore, following the guide of the ETDD; as a default, national figures for 1988 as set forth by the EPA publication, "Characterization of Municipal Solid Waste in the United States: 1990 Update" will be used as a guideline. Actual collection data will be compared with the national figures and valid adjustments made to the waste stream characterization if necessary.

WASTE STREAM CHARACTERIZATION

The solid waste received by Union County for disposal in 1991 was estimated to be 8,905 tons. This figure represents the total for the entire county, including cities and municipalities. Also, included are any wastes exported by a county entity for disposal in another county and excluded are any wastes imported from an entity outside the county.

Table 1 Solid Waste Received for Disposal in 1991

<u>Region (county)</u>	<u>Tons Disposed</u>	<u>1991 Population</u>	<u>Waste Disposed Per Capita</u>
Union	8,905	13,906	0.64

The sources of waste stream components can be defined by using the national averages. Below is a tabulation of this data.

Table 2 Distribution of Solid Waste, by Source

<u>Source</u>	<u>Quantity Tons/Year</u>	<u>Percent of Total</u>
Residential	6,234	70%
Commercial/ Institutional	890	10%
Non-hazardous Industrial	1,781	20%
Special ¹	0	0%

¹ Tennessee Solid Waste Regulations define "special waste", in general, as non-hazardous industrial solid wastes which may be buried in a landfill -- provided the generator receives consent of the operator and the State.

The Union County Needs Assessment identified quantities of certain materials that could be recycled, composted, or diverted to Class III and IV landfills after they were received at the operating Class I facility. Following is a tabulation of those quantities in tons per year.

Table 3 Divertable Wastes Presented For Disposal at the Union County Landfill in 1991

The following materials, which were presented at the Union County landfill for disposal in 1991, could have been recycled or diverted to Class III/IV facilities.

MATERIAL	<u>Yard Waste</u> (grass & leaves)	<u>Construction/ Demolition</u>	<u>White Goods¹</u>
QUANTITY (tons)	350	3,562	64

¹ white goods are discarded major appliances, i.e., washing machines, dryers, refrigerators, etc.

The EPA, in evaluating the criteria used to formulate regulatory policy, determined national percentages to be used as default values for characterizing the composition of incoming wastes where a detailed engineering analysis has not been performed. On the following page is a tabulation of the default percentages applied to the annual waste generation for Union County.

Table 4 Composition of Waste Stream

<u>Waste Category</u>	<u>National %</u>	<u>Calculated Tons</u>
Paper & Paperboard	40.0	3,562
Glass	7.1	632
Ferrous Metals	6.5	579
Aluminum	1.4	125
Other Non-ferrous Metals	0.6	53
Plastics	8.0	712
Rubber & Leather	2.5	223
Textiles	2.1	187
Wood	3.6	321
Food Waste	7.4	659
Yard Waste	17.6	1,567
Misc. Inorganic Waste	1.5	134
Other	<u>1.7</u>	<u>151</u>
Total Municipal Solid Waste	100.0	8,905

These figures should be used for estimating purposes only. Percentages in several categories will not be applicable to Union County because the county is predominantly rural. Yard waste in particular would comprise a much smaller percentage than the national average. On the other hand, wood and textile percentages would be greater than the national averages due to the nature of local industries. Other percentages that would vary greatly include Misc. Inorganic Waste and Other. There are significant quantities of "processed" contaminated soils that are disposed of in the Union County landfill, as well as the provisional acceptance of what will be a majority incoming percentage consisting of limestone processing waste from the nearby Tenn-Luttrell Mines.

There are estimates of the actual waste stream composition, but a more detailed analysis would be needed for comparison.

Union County has consistently had a problem with unmanaged

solid wastes. These are defined as wastes that are "outside" the normal collection system such as materials in roadside dumps, individual dumps, litter, etc. For estimating purposes, the University of Tennessee County Technical Assistance Service recommends using 6 lbs./person/day to calculate the total waste expected to be generated in a rural county. This figure would result in Union County generating total solid waste as follows:

$$\text{County Solid Waste (tns/yr)} = \frac{\text{1991 Population} \times \text{Per Capita Generation} \times \text{365 days Per Year}}{2,000 \text{ lbs. per ton}}$$

The results of this analysis are tabulated below.

Table 6 Potential Total Waste Generation in 1991

<u>Potential Waste Generation 1991 (t/y)</u>	<u>Actual Waste Disposed 1991 (t/y)</u>	<u>Unmanaged Waste 1991 (t/y)</u>	<u>Percent of Potential Total</u>
15,227	8,905	6,322	42%

Several of the larger industrial concerns in the county, i.e. Clayton Homes, etc., in the past did contract with large, regional waste haulers to handle their solid wastes for disposal outside the County. These companies now use the County landfill and the quantities of waste generated significantly increase the County's yearly tonnage. On the following page is a tabulation of the data obtained in one survey.

Table 7 1991 Solid Waste Generation -- by Industry

<u>Name of Company</u>	<u>Waste Generated Tons Per Year</u>	<u>Commercial Hauler</u>	<u>Where Disposed</u>
Clayton Homes	900	BFI	Anderson Co.

Several factors will contribute greatly to the total waste stream in Union County over the next ten years. There are definite increases in projected quantities due to population growth. Similarly, as the county makes some form of collection system available to all residents, most of the "unmanaged" wastes should enter the waste disposal stream. Some local industries may find it beneficial to utilize the services Union County will be able to provide.

WASTE COLLECTION AND TRANSPORTATION SYSTEMS

At present, the Union County planning region has no county or municipal provisions for the collection and transportation of solid wastes. Available waste collection is provided by private haulers. Other than paying the private hauler for the service, the only other option available is for individual transportation to the landfill.

The county did provide a primitive convenience center at the landfill entrance which consisted of a large, old truck for loading and transfer of the wastes. Individuals with quantities greater than a few bags were allowed access to the actual landfill. The

convenience center has been moved to the vicinity of the on-site landfill maintenance and operations building, where activities can be monitored more closely. Also, the truck has been replaced with several "dumpsters" that are emptied as needed. As a result, the operation is cleaner and more organized.

One private hauler currently provides collection and transportation services to residential and commercial customers in Union County. The provider is Snelson Trash Service operating out of Maynardville. They provide door-to-door collection services, for a monthly fee, to approximately 800 households and 150 businesses in the county. The operation includes five residential and two commercial routes with residential pick-up scheduled weekly and commercial pick-up once or twice a week.

With 4,932 households in Union County, more than 80 percent of the regional households have no door-to-door service provided by the existing collection system. Those that do avail themselves of the convenience center at the landfill have to travel winding, narrow roads that are very much in need of repair. These two factors combined may be major contributors to the abundance of roadside trash piles.

RESOURCE REDUCTION AND RECYCLING

The current landfill operators have been segregating certain recyclables from the incoming waste stream for several years. Until last year, an actual accounting for the quantities removed was not maintained because the recycling effort was performed at the individual initiative of the operator. However, it became evident that the cursory effort at resource recovery was producing a considerable amount of material. In 1993, 536 tons was removed from the waste stream coming to the landfill prior to it reaching the area of the landfill. The majority of the segregated material

consisted of white goods - discarded major appliances such as refrigerators, ranges, etc. Other materials included bulk loads of cardboard and some cans and plastics; but they comprised a very minor portion of the total.

Until deliberate efforts are made to segregate materials at the source of generation and when more markets are developed that will accept the recyclables, the effort required to separate all but white goods and large, bulk arrivals of recyclables has borderline economic justification.

Several of the industries in Union County have instituted their own in-house recycling programs. For the industries, removal of large quantities of materials from the waste stream reduces the direct costs of transportation and disposal. An added benefit can be the revenues generated by the sale of the materials, when or where markets exist.

A more detailed analysis of the current and projected recycling effort in Union County is addressed in Chapter VI.

COMPOSTING, WASTE PROCESSING, AND WASTE-TO-ENERGY/INCINERATION

According to information gathered for the Needs Assessment there is no indication of an organized composting effort under the aegis of Union County. Basically, in a rural and predominantly agrarian county the majority of yard wastes are handled on-property on an individual basis. However; yard wastes do comprise a very small percentage of the total waste stream volume entering the landfill.

Encouraging removal of the last vestiges of yard wastes will help the County in attaining the 25 percent reduction target. Diversion of this component from the waste stream will be attained

through school and community educational programs that increase awareness of attractive alternatives to landfilling yard wastes.

Waste processing is limited to resource recovery and recycling efforts. A more detailed analysis of the present and projected efforts is presented in Chapters IV and VI.

Union County does not burn any of its solid wastes at present but new technology may make incineration a viable option in the future. The County Commission will be encouraged to consider a small, packaged incinerator at a later date.

DISPOSAL FACILITIES

Due to the efforts and personal initiative of the current landfill operators, Johnny and Becky Munsey, Union County presently operates a model, Class I landfill on 35 acres of land off Kitts Road in the southwestern portion of the County approximately 2.5 miles west of the City of Luttrell. More specifically, as it appears on the Graveston Quadrangle Map (111-SW), the landfill lies on the Southern Flank of Copper Ridge at Latitude N36°12'10" and Longitude W 83°46'49". The landfill is situated on a 79.2 acre parcel of land owned by the County. Current operations are limited to a 10.8 acre section of the 35 acre tract that is permitted by the State for use as a landfill.

The present landfill has an estimated total remaining capacity of 90,000 cubic yards or 22,500 tons at 4 cubic yards per ton. With the expected moderate annual growth in the rate of waste disposal the landfill has enough capacity to meet Union County's needs until the new facility is operational in mid-1995.

To meet the continuing solid waste disposal needs of Union

County, the County Commission--through the County Executive--has authorized the design and permitting process for a new, state-of-the-art landfill situated on the County-owned property adjacent to the existing landfill. The new landfill will be permitted and in operation prior to of the existing facility. Pertinent data, quantities and projections are discussed in Chapters III and VIII.

COSTS AND REVENUES FOR THE EXISTING FACILITY

COSTS --

Currently, it requires approximately \$178,000 per year to operate and maintain the Union County Landfill. This is the entire annual cost incurred by Union County because the county is engaged only in operating the landfill. No other services such as pickup, recycling, or convenience centers are provided by the county.

The Needs Assessment presented the following figures for planning purposes (these figures are for planning purposes only. An analysis of anticipated actual costs is in Chapter XI):

REVENUES --

Union County presently allocates a lump sum \$58,000 budget for landfill operations directly out of the General Fund. This represents approximately 7 cents out each dollar in tax revenues. The additional \$120,000 (\$178,000 total operating costs) is generated by revenues derived from tipping fees and other

Table 8 Projected Operational Costs for 1995

	<u>1991 NEEDS ASSESSMENT</u>	<u>PROJECTED 1995 BUDGET¹</u>
County collection	N/A	\$147,165 ²
County disposal	\$158,000	\$758,105
TOTAL	\$158,000	\$906,065
No anticipated municipal collection or disposal		
¹ Cost projections from UT-CTAS (1992). Does not include transportation costs.		
² Figured for the CTAS report. Not applicable this report, Union County plans only convenience centers.		

contracted landfill services.

The tipping fee for commercial haulers was \$3.00 per cubic yard with a variable rate applied to others according to the following schedule:

Table 9 Current Residential Tipping Fees

<u>QUANTITY</u>	<u>TIPPING FEE</u>
1 to 10 bags	No charge
over 10 bags	\$3.75
full pickup	\$7.50

The County began installing new scales in July 1993 to better monitor and quantify the incoming waste stream. They became operational in December and currently monitor the weights of the waste stream only. A restructured fee schedule--based on weight--

will be implemented when this plan is adopted. See Chapter XI for further details of anticipated revenues and costs.

Union County is under contract with Domermuth Environmental Services (DES) to dispose of up to 5200 tons of "processed" soil a month. This soil is typically hydrocarbon contaminated and has been thermally treated to surpass State standards and qualify as a non-hazardous waste. Domermuth Environmental Services currently pays the County a tipping fee of \$3.00 per ton.

These three sources have adequately provided the necessary revenues for landfill operations. However; annual costs associated with meeting new State landfill standards and State requirements per this plan will escalate rapidly in the next few years. The Solid Waste Management Board has considered various options to meet expected operating expenses which are presented in Chapter III.

EDUCATION AND PUBLIC INFORMATION PROGRAMS

At present there are no organized programs in Union County to promote education and public awareness of solid waste problems and solutions so the County has no need for a coordinator/facilitator.

Although a State-formulated solid waste and recycling education curriculum is available to all interested teachers, it is left to the initiative of each teacher to utilize the program. So far, this approach has met with limited success. The parents, P.T.A., and teachers at Luttrell Elementary collect about two tons of cans per school year for recycling. At Horace Maynard High School, Mrs. DeBusk's class provides a collection point for cans and accumulates about 1 1/2 tons per school year. In an effort to promote conservation and recycling, Union County landfill operators, Johnny and Becky Munsey, have presented informative programs at several schools. They present similar discussions of

solid waste issues at local community meetings when invited.

Union County is one of 5 counties that plan on participating in the first regional Keep America Beautiful (KAB) program aimed at comprehensively educating the adult and child populations of each county. The five county KAB region includes Union, Claiborne, Grainger, Hancock, and Hawkins Counties. Details of the organization and plan are presented in Chapter IX. In parallel with other programs, the Powell Valley Electric Cooperative has agreed to establish a program to collect recyclables in all Union County Schools. Powell Valley plans to work through parent/teacher associations, school clubs, and other student groups to encourage students to separate recyclables at home and bring them to school for collection. In addition, the Munseys have an established recycling business which could be integrated with these front end programs to provide collection and end-point disposal of the recyclables.

As an adjunct to other programs the Union News Leader can be encouraged to publish articles regarding solid waste and carry recycling advertising.

All of these programs will produce minimal results unless there is concerted support from the local governments, area businesses, community organizations, and the public schools to establish a successful and continuing program.

HOUSEHOLD HAZARDOUS WASTE

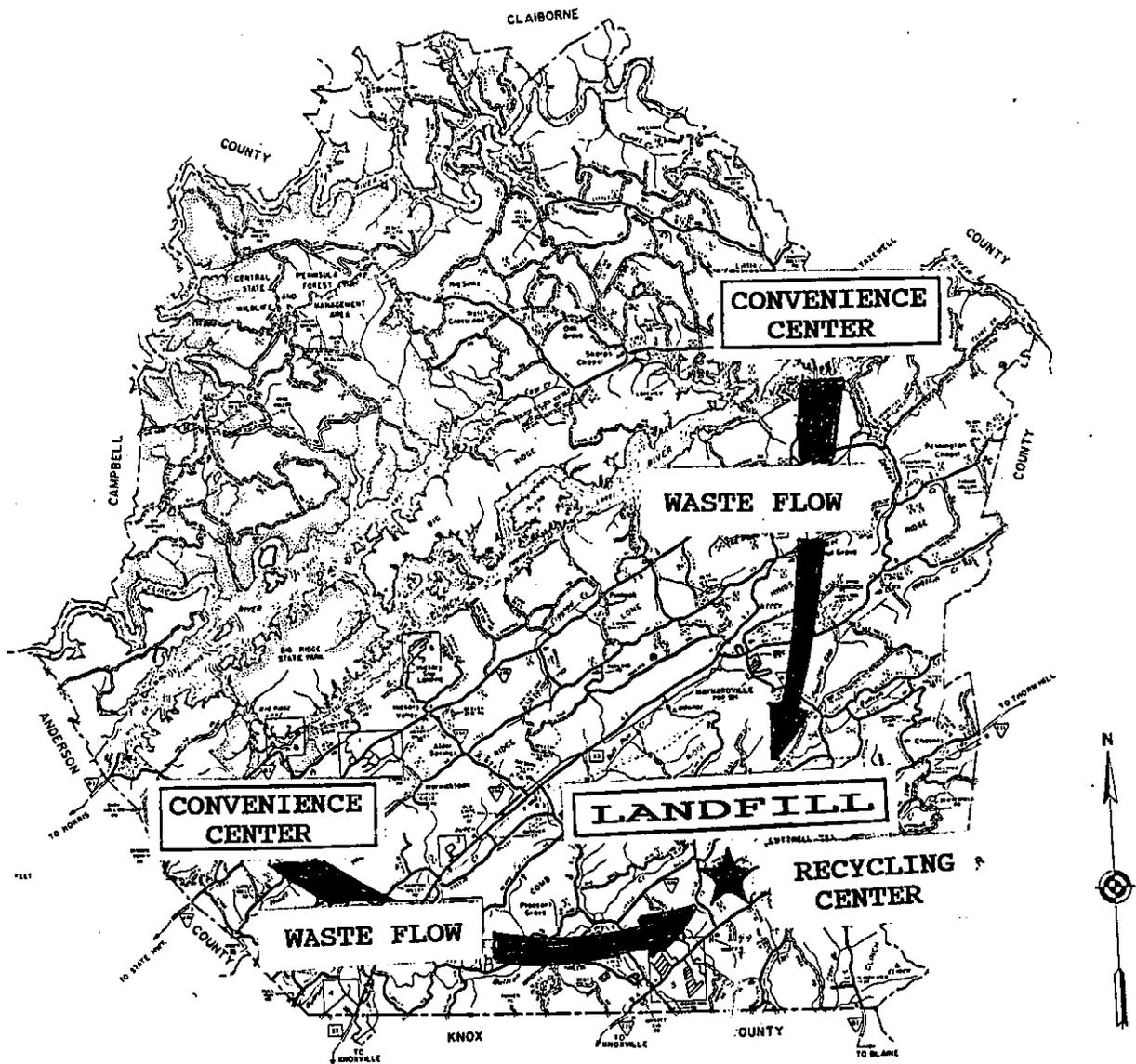
At present, no organized, county-wide program exists to encourage the collection of household hazardous wastes. Any special handling has been at the initiative of individuals. Used oil recycling is available at one state permitted location in Union County and several locations out-of-county. Auto batteries can be

taken to the landfill. Paints, thinners, and pesticides are typically accumulated until a Hazardous Waste Round-up occurs in Knox County.

In an effort to encourage safe disposal of household hazardous wastes, the State is sponsoring an annual HazWaste Roundup for each county. The details, as applicable to Union County, are further discussed in Chapter X.

TEN YEAR DISPOSAL CAPACITY ASSURANCE

The Needs Assessment indicated that Union County has no projected disposal capacity planned after 1994. The current landfill will provide the capacity necessary to meet Union County solid waste disposal needs up to the new State-mandated closure date of October 1, 1996. Prior to that date, Union County will permit and put into operation a new facility which will meet the needs of Union County well past the next ten years and provide a large, excess capacity. The facts and figures are further detailed in Chapter VIII.



GENERAL HIGHWAY MAP
UNION COUNTY
 TENNESSEE

PREPARED BY THE
 TENNESSEE DEPARTMENT OF TRANSPORTATION
 BUREAU OF PLANNING AND DEVELOPMENT
 PLANNING DIVISION
 IN COOPERATION WITH THE
 U.S. DEPARTMENT OF TRANSPORTATION
 FEDERAL HIGHWAY ADMINISTRATION



1986

UNION COUNTY
SOLID WASTE
PLANNING REGION

SOLID WASTE
FACILITIES

CHAPTER III
GROWTH TRENDS, WASTE
PROJECTIONS AND PRELIMINARY
SYSTEM STRUCTURE

Statutory requirements:

"...(E)ach plan submitted by a municipal solid waste region shall include...anticipated growth trends for the next ten-(10) year period...and anticipated waste capacity needs." [T.C.A. Section 68-31-815(b)(4) and (5)]

PROJECTED REGIONAL DEMAND

The formulation of a well managed, comprehensive plan for Union County requires a detailed and accurate analysis of anticipated growth trends that can be used to project waste generation quantities. The State defined the 10-year planning period as 1994-2003 and proposed that growth analysis follow the procedures outlined in the 1991 Needs Assessment.

REGIONAL GROWTH TRENDS AND WASTE PROJECTIONS

The Needs Assessment used 1991 as a base year for all Regional Demand Projections over the subsequent 10 year period. The projections were extended an additional two years (through 2003) using the anticipated growth percentages as defined by the University of Tennessee Sociology Department and cited in the Needs Assessment. The projected population changes are calculated in Table 8, Chapter I and re-presented here:

Table 1 PROJECTED UNION COUNTY POPULATION

<u>YEAR</u>	<u>PROJECTED POPULATION</u>
1993	14,334
1994	14,554
1995	14,776
1996	15,002
1997	15,232
1998	15,465
1999	15,701
2000	15,939
2001	16,153
2002	16,462
2003	16,676
1990 Census Pop: 13,694	

Table 1 in Chapter II is a summarization of the basic calculations used to attain the annual per capita rate of solid waste generation for Union County and is presented again below:

Table 2 PER CAPITA BASIS OF WASTE GENERATION

<u>Region (county)</u>	<u>Tons Disposed</u>	<u>1991 Population</u>	<u>Waste Disposed Per Capita</u>
Union	8,905	13,906	0.64

Following is a tabulation of the quantity of projected solid waste that will require disposal in Union County adjusted for projected population changes:

Table 3 SOLID WASTE GENERATION - POPULATION ADJUSTED

<u>YEAR</u>	<u>POPULATION</u>	<u>PER CAPITA¹ WASTE GENERATION</u>	<u>QUANTITY (tons)</u>
1994	14,554	0.64	9,628
1995	14,776	0.64	9,780
1996	15,002	0.64	9,935
1997	15,232	0.64	10,093
1998	15,465	0.64	10,253
1999	15,701	0.64	10,415
2000	15,939	0.64	10,201
2001	16,153	0.64	10,338
2002	16,462	0.64	10,536
2003	16,676	0.64	10,673

¹ tons per person per year

According to the UT Center for Business and Economic Research, the "Gross State Product" is expected to grow at a 3.2% compound annual rate between 1990 and 1999. Applying this rate to the 1991 base year generation will result in an incremental annual increase. Following is a tabulation of those increases:

Table 4 INCREMENTAL INCREASE DUE TO ECONOMIC GROWTH

<u>YEAR</u>	<u>POPULATION</u>	<u>QUANTITY (tons)</u>	<u>INCREMENT DUE TO GROWTH¹</u>
1994	14,554	9,315	313
1995	14,776	9,457	323
1996	15,002	9,607	334
1997	15,232	9,748	344
1998	15,465	9,898	355
1999	15,701	10,049	367
2000	15,939	10,201	378
2001	16,153	10,338	390
2002	16,462	10,536	403
2003	16,676	10,673	416

¹ Economic growth for Union County estimated to be 3.2 percent between 1990 and 1999.

Combining the population adjusted generation and the incremental annual economic growth increases results in the following tabulated values:

Table 5 SOLID WASTE GENERATION ADJUSTED FOR POPULATION AND ECONOMIC GROWTH

<u>YEAR</u>	<u>POPULATION ADJUSTED QUANTITY</u>	<u>INCREASE DUE TO GROWTH</u>	<u>TOTAL QUANTITY</u>
1994	9,315	315	9,628
1995	9,457	323	9,780
1996	9,607	334	9,935
1997	9,748	344	10,093
1998	9,898	355	10,253
1999	10,049	367	10,415
2000	10,201	378	10,579
2001	10,338	390	10,728
2002	10,536	403	10,939
2003	10,673	416	11,089

The State has targeted a 25 percent reduction (in tons) in the quantity of solid wastes requiring disposal by December 31, 1995, and annually thereafter. Summarized on the following table are the projected quantities of solid waste requiring disposal adjusted for population growth, economic growth, and source reduction and recycling.

Table 6 TARGET ANNUAL WASTE GENERATION - UNION COUNTY ONLY

<u>TARGETED ANNUAL WASTE GENERATION ADJUSTED FOR POPULATION AND ECONOMIC GROWTH, AND RESOURCE REDUCTION AND RECYCLING</u>				
<u>YEAR</u>	<u>POPULATION</u>	<u>WASTE REDUCTION FACTOR¹</u>	<u>WASTE REDUCTION QUANTITY</u>	<u>TARGET WASTE GENERATION QUANTITY</u>
1994	14,554	0.09	1,302	8,326
1995	14,776	0.11	1,677	8,103
1996	15,002	0.11	1,704	8,231
1997	15,232	0.11	1,731	8,362
1998	15,465	0.11	1,758	8,495
1999	15,701	0.11	1,786	8,629
2000	15,939	0.11	1,814	8,765
2001	16,153	0.11	1,840	8,888
2002	16,462	0.11	1,876	9,063
2003	16,676	0.11	1,901	9,188

¹ In tons/capita/year. Assumed waste reduction of 20% in 1994 and attained 25% reduction in 1995 and beyond.

Two "special wastes" will add large quantities of solid waste which are or will be accepted by Union County for disposal. One waste is "processed" petroleum-contaminated soils from Domermuth Environmental Services, 7828 Rutledge Pike, Knoxville, Tennessee. The County is contractually obligated to accept up to 5200 tons per month (62,400 tons/year) for disposal. A copy of the contract and the Notice of Approval, special solid waste, from the Tennessee Department of Environment and Conservation, dated January 5, 1993, regarding this "dirt" is included in Appendix C. This dirt is considered to be an "imported solid waste" because it comes from Knox County.

The second "special waste", is generated by Tenn-Luttrell Company and has not been formally approved for disposal either by the State or the County. However, this plan will assume the waste is to be disposed of in the Union County Landfill. Tenn-Luttrell estimates an average annual waste production of approximately 14,000 tons. For the purpose of these projections, it is assumed the waste will begin entering the Union County waste stream in 1995. Tenn-Luttrell estimates the quantity of waste generated will be reduced up to 50 percent; however, they are planning to add a second kiln for the process. The new Union County Landfill is being designed to accommodate this waste at an average rate of 14,000 tons per year. This figure is used in the following table.

Table 7 PROJECTED ANNUAL "SPECIAL WASTES"

<u>INDUSTRIAL PRODUCER</u>	<u>WASTE TYPE</u>	<u>ANNUAL QUANTITY</u>
Domermuth Environmental Services	"Processed" contaminated soils	62,400 tons
Tenn-Luttrell Mining	Quicklime process waste	14,000 tons

TOTAL REGIONAL DEMAND AND SUPPLY

When all growth factors and anticipated solid waste sources are combined, a total quantity of solid waste requiring collection, treatment, and disposal can be estimated for each year between 1994

and 2003. The table below represents the quantity of typical residential and commercial solid wastes that can be expected to be managed in each of the projection years.

Table 8 TOTAL PROJECTED WASTE REQUIRING LANDFILL DISPOSAL

<u>YEAR</u>	<u>PROJECTED UNION COUNTY WASTE (tons)</u>	<u>ANTICIPATED "SPECIAL" WASTE (tons)</u>	<u>EXPECTED TOTAL ANNUAL QUANTITY (tons)</u>
1994	8,326	76,400	84,726
1995	8,103	76,400	84,503
1996	8,231	76,400	84,631
1997	8,362	76,400	84,762
1998	8,495	76,400	84,895
1999	8,629	76,400	85,029
2000	8,765	76,400	85,165
2001	8,888	76,400	85,288
2002	9,063	76,400	85,463
2003	9,188	76,400	<u>85,588</u>
TEN-YEAR TOTAL			850,050

The waste volumes analyzed so far have been calculated in tons. However, the available air space in the landfill is measured in cubic yards. As mentioned in Chapter XX, the accepted tons-to-cubic yards conversion for typical solid wastes is 1 ton equals 4 cubic yards. The "special" wastes have very different conversions as tabulated below:

Table 9 "SPECIAL" WASTES CONVERSIONS

<u>MATERIAL</u>	<u>TYPICAL SPECIFIC WEIGHT</u> (lbs/cu.ft.)	<u>CONVERSION¹ CUBIC YARDS PER TON</u>
"Processed" soils	120	0.62
Quicklime process waste	65	1.14
$\frac{2000 \text{ lbs/ton}}{\text{lbs/cu.ft.}} \times \frac{1}{27 \text{ cu.ft./cu.yd.}} = \text{Conversion}^1$		

Using the conversion factors for the various solid wastes results in the following annual "special" waste quantities:

Table 10 ANNUAL "SPECIAL" WASTE QUANTITIES - in tons

<u>MATERIAL</u>	<u>ANTICIPATED QUANTITY</u> (tons)	<u>CONVERSION FACTOR</u> (cu.yd./ton)	<u>ANNUAL VOLUME</u> (cu.yd.)
"Processed" soils	62,400	0.62	38,688
Quicklime process waste	14,000	1.14	15,960
TOTAL			54,648

These solid wastes will be accepted at the landfill; however,

they will be segregable from the typical residential and commercial solid wastes requiring a Class 1 facility. The new facility will be designed and developed to provide the necessary segregating areas. Following is a tabulation of the total anticipated yearly gate volume of solid wastes (in cubic yards) projected for the landfill.

Table 11 TOTAL YEARLY GATE VOLUME OF SOLID WASTE

<u>YEAR</u>	<u>REGIONAL SOLID WASTE QUANTITY¹</u> (tons)	<u>REGIONAL SOLID WASTE VOLUME²</u> (cu.yd.)	<u>"SPECIAL" WASTE VOLUME³</u> (cu.yd.)	<u>TOTAL SOLID WASTE VOLUME</u> (cu.yd.)
1994	8,326	33,304	54,648	87,952
1995	8,103	32,412	54,648	87,060
1996	8,231	32,924	54,648	87,572
1997	8,362	33,448	54,648	88,096
1998	8,495	33,980	54,648	88,628
1999	8,629	34,516	54,648	89,164
2000	8,765	35,060	54,648	89,708
2001	8,888	35,552	54,648	90,200
2002	9,063	36,252	54,648	90,900
2003	9,188	36,752	54,648	<u>91,400</u>
TOTAL				890,680

¹Value from Table X, Chapter III.

²Conversion of 4 cubic yards per ton

³Combined "processed" soils and quicklime waste volumes

PRELIMINARY SYSTEM STRUCTURE

The elements that will form an integrated waste management system for the Union County planning region include waste reduction and diversion, recycling, and landfilling.

Approximately seven percent of the current household waste stream is eliminated from disposal at the Class I landfill through recycling programs. It is estimated that this could increase to 12 or 13 percent with implementation of the county-wide recycling programs. Demolition wastes and wood byproducts are estimated to comprise an additional 40 percent of incoming wastes. Significant portions of these components can be diverted to the Class III/IV portion of the new landfill facility.

Commercial and industrial recycling diverts a significant percentage of the county waste stream. These efforts are expected to continue and increase as coordination with this plan is realized. Also, as rising tipping fees and flow control become functional it will become more attractive economically for industries to divert large quantities of solid wastes.

Planned residential recycling, encouraged by various educational programs, will be an additional component of waste diversion in the solid waste management system.

The new Class I landfill will be designed as an integrated part of the regional plan. The satellite convenience centers will be sited for most effectiveness.

Educational programs will be instituted to increase public awareness of individual responsibility in making this Plan successful.

ANTICIPATED SYSTEM COSTS AND REVENUES

There are several options that the Union County Solid Waste Management Board has considered for proposal to the County Commission concerning operational characteristics and possible sources of revenues. Several revenue generating options are available to the County.

The current fee schedule generates no revenues for household solid waste disposal if the wastes are presented to the landfill at less than 10 bags per visit. With the siting of convenience centers and the emphasis on community use of the facilities, a very large proportion of the solid waste stream will be handled without charge if the existing fee structure is maintained. The Solid Waste Management Board has recommended to the County Commission that a per-bag disposal fee be set to tap this source of operating revenue.

At present, the county receives \$3.85 per ton (\$.85 is for State tax purposes) from Domermuth Environmental Services (DES) for disposal of its treated soils. DES has agreed to a new fee of \$4.85 per ton. At the total possible disposal rate of 62,400 tons per year, this would generate \$249,600 annually in revenues for landfill operations.

Tenn-Luttrell Mining has solicited the Union County landfill as a disposal site for 14,000 tons per year of lime processing wastes if it can be economically justified. For the purposes of this analysis, a tipping fee of \$15.00 per ton will be assumed. The actual fee will be negotiated by County Commission should Tenn-Luttrell elect to use the landfill. The \$15.00 tipping fee would generate revenues of \$210,000 annually.

The following table was prepared for the Union County Solid Waste Management Board, and presents a preliminary analysis of the quantities and estimated costs-per-ton associated with a total

development and operations plan to be implemented over a 12 year time frame, not the 10-year planning horizon of the Solid Waste Management Plan. It encompasses all anticipated solid waste activities including; landfill operations costs, closure/post-closure costs for both existing and new facilities, convenience center costs, and the costs of actually putting the landfill in the ground. It should be noted that the cost estimate includes funding for road improvements and a necessary waterline extension. Kitts Road, which leads to the landfill entrance is very narrow and heavily pot-holed. The \$83,300 allotted for improvements has been quoted for necessary widening and complete resurfacing. The waterline extension is planned to provide a continuous waterflow at the landfill and, in addition, will be used to provide water service to the residences along Kitts Road. Grant monies may be available for installation of the waterline and will be applied for when applicable.

This estimate was prepared assuming that the 5.5 acre footprint required for Union County wastes only would be developed and utilized, in its entirety. This may not be necessary or realized; however, the figures are a point of reference for analysis of other options.

Table 12 ESTIMATED COSTS AND QUANTITIES FOR THE NEW LANDFILL OVER
A 12 YEAR PERIOD -- HANDLING UNION COUNTY WASTES ONLY

This analysis was prepared assuming a landfill life of 12 years and the total development of the airspace available over the 5.5 acre site footprint designated for Union County wastes only.

<u>EXPENSES</u>		<u>UNIT COST</u>	<u>TOTAL DEVELOPMENT COST</u>	<u>ANNUAL BASIS</u>
1.0 LANDFILL DEVELOPMENT				
A. Pre-development Activities				
Permit Application		L.S.	70,600	5,880
Waterline Extension		L.S.	66,700	5,558
Road Improvements		L.S.	83,300	6,942
B. Site Development				
Access Road		L.S.	25,000	2,080
Initial Site Grading	5.5 acres	1,000/acre	5,500	460
Excavation Total	177,300 cy			
adjusted	102,300 cy	1.00/cy	102,300	8,525
Sediment Pond		L.S.	25,000	2,083
Monitoring Wells	2	10,000 ea	20,000	1,667
Clay Liner Blanket	17,700 cy	1.50/cy	26,550	2,213
HDP Liner	239,600 sf	0.65/sf	155,700	12,975
Sand/Gravel	24,000 tons	8.00/ton	192,000	16,000
Leach Collection	5.5 acres	9,500/acre	52,250	4,350
Engineering & Lab	12 years	25,000/year	300,000	25,000
SUBTOTAL				<u>93,733</u>
2.0 LANDFILL OPERATIONS				
Operators, St. Tax	12 years	250,000/year	3,000,000	250,000
3.0 Closure of proposed Landfill				
Closure	12 years	L.S.	250,000	20,830
Post-Closure Maintenance	42 years	50,000/year		<u>35,700</u>
SUBTOTAL				<u>56,530</u>
4.0 Closure of Existing Landfill				
Closure	12 years	L.S.	192,000	16,000
Post-Closure Maintenance	30 years	43,000/year	1,290,000	<u>43,000</u>
SUBTOTAL				<u>59,000</u>
5.0 Collection				
Convenience centers	3	53,000	159,000	13,250
Personnel & Misc.		15,000		45,000
Transportation	10 bx./center	6,000/month		<u>72,000</u>
SUBTOTAL				<u>130,250</u>
TOTAL				<u>589,250</u>
REVENUE				
General Fund	58,000	L.S.		58,000
Residential commercial	2,000 tons	53.00/ton		106,000
Residential Conv. center	5,000 tons	53.00/ton		265,000
Industrial/Commercial	3,000 tons	53.00/ton		159,000
TOTAL				<u>590,500</u>

The following tables present the analysis of three different cost vs. revenue schemes that can be considered current, viable possibilities for Union County. The first considers the landfill acceptance of Union County residential and commercial wastes only.

Table 13 UNION COUNTY RESIDENTIAL AND COMMERCIAL WASTE ONLY

This option considers that the landfill handle only Union County residential and commercial wastes. The annual cost is from Table 12, Chapter III.

Recommended Tipping Fee = \$26.85 per ton
 Average Annual Waste = 10,000 tons
 Anticipated Revenue = \$268,500

Total Annual Cost	\$589,250
General Fund Appropriation	<u>58,000</u>
Additional Revenues Required	\$531,250
Revenue From Tipping Fee	<u>\$268,500</u>
Additional Revenues Required	\$262,750 ¹

¹Additional monies required from General Fund Appropriations

The next table considers landfill acceptance of Union County

residential and commercial wastes along with continuing Domermuth Environmental Services (DES) wastes.

Table 14 UNION COUNTY RESIDENTIAL AND COMMERCIAL WASTE AND DOMERMUTH WASTES

This option considers that the landfill handle Union County residential and commercial wastes and includes "processed" soils from DES. The annual cost is from Table 12, Chapter III.

Recommended Tipping Fee	=	\$26.85 per ton
Average Annual Waste	=	10,000 tons
Anticipated Revenue	=	\$268,500

Domermuth Contract Fee	=	\$ 4.85 per ton
Average Annual Waste	=	62,400 tons
Anticipated Revenue	=	\$302,640

Total Annual Cost	\$589,250
General Fund Appropriation	<u>58,000</u>
Additional Revenues Required	\$531,250
Revenue From Tipping Fee	<u>\$268,500</u>
Additional Revenues Required	\$262,750
Revenue From Domermuth	<u>\$302,640</u>
Shortfall/ <u>Surplus</u>	\$ 39,890 ¹

¹Anticipated surplus

The next table considers landfill acceptance of Union County residential and commercial wastes along with continuing Domermuth Environmental Services (DES) wastes and the Tenn-Luttrell limestone wastes.

Table 15 UNION COUNTY RESIDENTIAL AND COMMERCIAL WASTES, DOMERMUTH WASTES, AND TENN-LUTTRELL WASTES

This option considers that the landfill handle Union County residential and commercial wastes, includes "processed" soils from DES, and includes limestone wastes from Tenn-Luttrell Mining.

Recommended Tipping Fee	=	\$26.85 per ton
Average Annual Waste	=	10,000 tons
Anticipated Revenue	=	\$268,500
Domermuth Contract Fee	=	\$ 4.85 per ton
Average Annual Waste	=	62,400 tons
Anticipated Revenue	=	\$302,640
Tenn-Luttrell Contract Fee	=	\$15.00 per ton
Average Annual Waste	=	14,000 tons
Anticipated Revenue	=	\$210,000
Total Annual Cost		\$620,500 ¹
General Fund Appropriation		<u>58,000</u>
Additional Revenues Required		\$562,500
Revenue From Tipping Fee		<u>\$268,500</u>
Additional Revenues Required		\$294,000
Revenue From Domermuth		<u>\$302,640</u>
Shortfall/ <u>Surplus</u>		\$ 8,640
Revenue From Tenn-Luttrell		<u>\$210,000</u>
Surplus		\$218,640

¹This figure includes 1/3 of the landfill development costs (1/3 of \$93,733) shown on Table 12, Chapter III. The Tenn-Luttrell waste requires Class I disposal but must be segregated in its own area. Therefore, additional development costs must be accounted for.

The figures arrived at in these three analyses indicate that landfill operations for Union County alone can be an economical venture assuming the continued participation of the two contracted industries.

The Solid Waste Management Board has recommended that the County should definitely purchase the Capps property. This would give the County a large volume of excess capacity that could be selectively (the County's option) negotiated for and sold either now or in the future. The Board has also recommended that County Commission consider the purchase of the Damewood-Frazier-Mynatt property. They are willing sellers and have approached the County as such. The Damewood-Frazier-Mynatt property would significantly increase the total disposal capacity -- in addition to the capacity increase due to the Capps property. The resultant, combined capacity could be sold as a very large revenue source; if a willing buyer could be found and assuming the County wants to pursue such an option.

Both properties would provide major additional excess capacity should the County decide to buy the parcels. At the same time, purchase of the Capps property would remove a very large impediment to an orderly and smooth design and development of the new landfill. Purchase of the Damewood-Frazier-Mynatt property could be considered only if a need for the excess capacity could be established. However, if there was no identifiable, solid waste disposal need for the additional capacity made available by the property purchase, the property should be considered as an investment.

EVALUATION CRITERIA FOR THE REGION

The various components of the solid waste management system will be evaluated in the following chapters. The evaluation

criterion will include: number and size of facilities required to meet the defined needs of the region; compliance with regulatory requirements; capital and operating costs; cost per ton of wastes; environmental impacts and public acceptance; compatibility with long-term County goals; evaluation of regional markets for recovered materials; and any other criteria identified by the Solid Waste Management Board.

CHAPTER IV

WASTE REDUCTION

Statutory Requirements:

"The goal of the state is to reduce by twenty-five percent (25%) the amount of solid waste disposed of at municipal solid waste disposal facilities and incinerators, measured on a per capita basis within Tennessee by weight, by December 31, 1995." [T.C.A. Section 68-31-861(a)]

"...[E]ach plan submitted by a municipal solid waste region shall include...a description of waste reduction activities designed to attain the twenty-five per cent (25%) reduction required by Section 25(a) [T.C.A. Section 68-31-861(a)]; and Section 14(b)10. [T.C.A. Section 68-31-815(b) (10)].

"A county or region shall have the flexibility to design its own plan and methods which take into account local conditions for attaining the waste reduction goal set by this section. This plan shall be included as a part of the county or regional plan required by Section 13 of this act." [T.C.A. Section 68-31-861(f)]

ESTABLISHING A BASE YEAR QUANTITY

The State of Tennessee has established 1989 as the base year each county or region will use for waste reduction projections [unless a specific variance is granted under T.C.A. Section 68-31-861(6)]. The University of Tennessee compiled 1989 population and solid waste data for every county in the region in a report entitled "Managing Our Waste: Solid Waste Planning in Tennessee," published February 1990. Analysis of the UT data as presented in the Needs Assessment resulted in a 1989 Waste Disposal Per Capita

figure of 0.43 tons/capita/year for Union County. (See table below).

Table 1 1989 BASE YEAR PER CAPITA WASTE GENERATION RATE

<u>REGION (COUNTY)</u>	<u>TONS¹ DISPOSED</u>	<u>1989 POPULATION</u>	<u>WASTE DISPOSAL PER CAPITA</u>
Union	5,504	12,900	0.43

¹Landfill operators were not required to keep records until July 1991 and Union County did not have scales. This figure is a best guess estimate.

1995 WASTE REDUCTION TARGET

The State has established a standard procedure for calculating the 25 percent reduction in the per capita quantity of disposed solid waste. The two step procedure is presented below:

$$\begin{array}{l} \text{Average 1989} \\ \text{per capita rate} \\ \text{(tons/person/year)} \end{array} \quad \times \quad 0.25 = \quad \begin{array}{l} \text{Target 1995} \\ \text{per capita reduction} \\ \text{(tons/person/year)} \end{array}$$

$$0.43 \quad \times \quad 0.25 = 0.1075 \quad \text{say } 0.11$$

This target per capita reduction is then multiplied by the

projected 1995 Union County population (from Chapter III, Table) to determine, in tons, the quantity of solid waste that must be reduced at the source or diverted to alternative options if the Region is to meet the statutory goal on or before December 31, 1995.

$$\begin{array}{rcl} \text{1995 Target} & & \text{1995 Reduction} \\ \text{per capita reduction} & \times & \text{1995 population} & = & \text{Target} \\ \text{(tons/person/year)} & & & & \text{(tons/year)} \end{array}$$

$$0.11 \times 14,776 = 1,625 \quad \text{Target Reduction}$$

It should be noted that the UT Center for Business and Economic Research forecasts that the "inflation adjusted gross state product will grow at a 3.2% compound annual rate" between 1990 and 1999. The total incremental increase between 1994 & 1995 is 206 tons (using 1989 as a base year projected to 1995). The 25 percent reduction applied to this portion of Union County solid wastes results in 51.5 tons. Therefore, the total 1995 target for waste reduction is:

$$1625 + 51.5 = 1,676.5 \text{ tons}$$

Total 1995 Waste Reduction Target 1,677 tons

PLANNING TO MEET THE STATEWIDE WASTE REDUCTION GOAL

State regulations mandate that the Union County Solid Waste Management Region reduce its landfilled waste by 25% in 1995 and all successive years. To that end, Union County will aggressively pursue a combined program of recycling in the residential and commercial sectors as well as diversion of applicable materials from Class I to Class III/IV permitted landfill sectors. As indicated in the previous section, the targeted 1995 reduction for Union County is 1,677 tons.

As indicated in Chapter II, less than 20 percent of the residential households elect to use a commercial collection service. The majority of the households find alternative methods for disposal of their solid waste. Some ends up at the landfill, other wastes end up in illegal dumps, along the roadside, or it is taken to out-of-county facilities. By providing the planned convenience centers, and vigorously educating the public, Union County intends to capture those solid wastes that are not a part of the waste stream flow to the landfill. At the same time, the convenience centers will be equipped to encourage the separation of recyclables.

According to national averages, glass, plastics, and various metals comprise almost 25 percent of the typical waste stream, by weight. As shown in Table 4, Chapter II, applying the national

averages to the Union County waste stream would divert about 2,100 tons of recyclable materials. It is unrealistic to expect a 100 percent diversion of these wastes; however, encouraging at-the-source separation and providing collection facilities for these materials could realistically separate 30 to 40 percent. 600 to 800 tons diverted from the Union County waste stream would be a significant portion of the 1995 twenty-five percent waste reduction target.

Separation of these materials will be ineffective if they are not marketable after collection. Current markets do exist for most of the metals; however, recyclers require that glass and plastics be crushed and shredded before they will accept them. Union County is applying for State grant monies designated for the purchase of recycling equipment. The processing equipment will be centrally located at the landfill which will be the focal point of the county recycling program.

CHAPTER V

WASTE COLLECTION AND TRANSPORTATION

Statutory Requirements:

"...[E]ach plan submitted by a municipal solid waste region shall include...collection capability, including data detailing the different types of collection systems and the population and areas which receive and do not receive such services..." [T.C.A. 68-31-815(b)(2)(B)]; and "...as part of the local plan required by Section 13 of the Act, each county or multi-county municipal solid waste disposal region shall submit a plan for the adequate provision of collection services to the State Planning Office. Such plan shall identify unmet needs and shall be updated annually." [T.C.A. 68-31-851(b)].

EXISTING WASTE COLLECTION AND TRANSPORTATION SYSTEM

At present, the Union County planning region has no county or municipal provisions for the collection and transportation of solid wastes. Available waste collection is provided by private haulers. Other than paying the private hauler for the service, the only other option available is for individual transportation to the landfill.

The county did provide a primitive convenience center at the landfill entrance which consisted of a large, old truck for loading and transfer of the wastes. Individuals with quantities greater than a few bags were allowed direct access to the actual landfill. The convenience center has been moved to the vicinity of the on-site landfill maintenance and operations building, where activities can be monitored more closely. Also, the truck has been replaced with several "dumpsters" that are emptied as needed. As a result, the operation is cleaner, more organized, and more efficient.

One private hauler currently provides collection and transportation services to residential and commercial customers in Union County. The provider is Snelson Trash Service operating out of Maynardville. They provide door-to-door collection services, for a monthly fee, to approximately 800 households and 150 businesses in the county. The operation includes five residential and two commercial routes with residential pick-up scheduled weekly and commercial pick-up once or twice a week.

With 4,932 households in Union County, more than 80 percent of the regional households have no door-to-door service provided by the existing collection system. Those that do avail themselves of the convenience center at the landfill have to travel winding, narrow roads that are very much in need of repair. These two factors combined may be major contributors to the abundance of roadside trash piles.

REGIONAL NEEDS FOR COLLECTION SERVICE

Four major targets have been identified as necessary to providing adequate service that meets the needs of the region and satisfies the criteria of the Convenience Center Rule 1200-1-7.

- 1 -- all unserved areas must be addressed by January 1, 1995,
- 2 -- integrate a recycling program in to the collection system,
- 3 -- expand the collection services over the next ten years, and
- 4 -- provide a cost effective collection system.

The Solid Waste Management Board has decided that the most economical way to meet the needs of the entire Union County region is by providing convenience centers for use by residents in the more remote areas of the County. The Convenience Center Rule states that the minimum level of solid waste collection service is attained when one of the following two criteria is met:

- A. Household collection -- at least 90% of all residents have access to household collection.
- B. Convenience centers -- the minimum number of centers shall be established as follows:
1. The service area in sq. miles divided by 180
sq. miles: 223.6 divided by 180 = 1.2
 - OR
 2. The service area population divided by 12,000:
13,964 divided by 12,000 = 1.2

The minimum number of convenience centers required for the region is one (1).

Over the period covered by several monthly Board meetings, various motions were passed and then rescinded adopting from two to six centers at various locations. During the October 1993 meeting it was decided that three convenience centers would be sited in the region at the following locations:

**Sharps Chapel;
Big Ridge/Paulette;
the present Landfill.**

The satellite convenience centers will be fenced and be manned by an attendant during all hours of operation. A small building, running water, lavatory facilities, telephone, and fire extinguisher will be provided on-site for the attendant. The site will be large enough and designed to accommodate fifteen (15) "dumpster"-type containers but initially provided with ten (10) containers. There will be adequate space provided between and around the containers for access and disposal. An area will be designated for the recycling containers also.

An integral portion of the entire plan is provision of a recycling facility. The preference of the Board is to centrally

locate a household waste recycling center at the landfill convenience center; however, recycling containers will be provided at each of the satellite convenience centers as per the new State requirements. Several local businesses have provisions for storage of used automotive oils and other products until they can be collected by State certified transporters. Offers have been made to allow County residents to use these facilities should the County not provide such facilities at the convenience centers. However, Union County is in the process of contracting with Industrial Waste Oil in Knoxville for the installation of a used oil tank at the landfill and each of the satellite convenience centers. Industrial Waste Oil is a State-certified collector and transporter of used oils and will be responsible for all handling of the oils after individual deposition in the tanks. Additionally, they will provide for approved collection and transportation of used oil filters. Household hazardous wastes; i.e. paints, solvents, pesticides, etc. will be collected in annual Haz-Waste Roundups sponsored by the State. These options will be further discussed in the following chapters.

It is evident from the ETDD Needs Assessment that the current collection and disposal system must expand to meet the changing needs of the County over the next 10 years. Union County is anticipating the closure of the existing Class I Landfill by the State-mandated closure date of October 1, 1996. However, the County is in the process of permitting a large parcel of land next to the existing facility to operate a new, state-of-the-art landfill that will provide vastly greater capacity than the existing facility and will meet the needs of the County well beyond the decade-long term of this plan. The new facility will use the recently installed computerized scales, operations and maintenance building, and in-place access roads of the existing facility. The new scales will allow the County and the landfill operators to better keep track of, quantify, and monitor the solid waste flow of the County. This tracking and monitoring will play an integral role in assessing whether the County has met the State-mandated 25

percent reduction figure.

Of paramount importance, in these times of austere budgets and increasing costs, is that adequate service be provided to all residents in a cost-effective manner. The Board has realized that providing the acceptable level of services to the residents of the region is going to be an expensive undertaking over the next ten years. However; with the permitting of the new landfill and the attendant excess capacity (see details in Chapter VIII), the operating expenses for the 10-year Plan, along with post-closure maintenance and care expenses for the landfill, can be drastically reduced on a dollar-per-ton basis, if the excess capacity can be sold at a reasonable price. The Board has solicited proposals for the purchase of the excess capacity and has received favorable responses. The County and Board are currently negotiating the segregable disposal of a large quantity of industrial waste which could further reduce the per-ton costs.

ANNUAL UPDATE

The Solid Waste Management Act (specifically T.C.A. 68-211-814) requires that any solid waste collection plan adopted by a region be annually updated by that region and submitted to the State Planning Office beginning on July 1, 1995 and each July 1 thereafter. The annual update will consider and present the results of:

- Roadside dump surveys;
- Citizen complaints and their amelioration;
- analysis of viable alternative systems;
- Analysis of volumes of waste handled by the system; and,
- Any factors that may have affected or changed this plan.

The intent of the evaluation will be to verify that the

existing system adequately provides the minimum proper level of solid waste collection and disposal services as mandated by State law.

CHAPTER VI

RECYCLING

Statutory Requirements:

"...(E)ach plan submitted by a municipal solid waste region shall include...a recycling plan, including a description of current public and private recycling efforts and planned efforts to enhance recycling within the county or region." [T.C.A. 68-31-815(b)(7)]

and "Effective January 1, 1996, each county shall provide...one (1) or more sites for collection of recyclable materials..." [T.C.A. 68-31-863(a)]

"Each person or entity operating a collection site for recyclable materials shall annually report the quantities of recyclable materials collected, by type of material, to the region which shall then report...[this information]...to the State Planning Office." [T.C.A. 68-31-863(b)]

REGIONAL NEEDS FOR A COUNTY RECYCLING PROGRAM

There are four specific goals that must be met to provide a recycling program adequate to the needs of Union County residents. They are:

- 1 -- provide one or more sites to collect recyclables by January 1, 1996;
- 2 -- integrate any recycling efforts with the planned collection system;
- 3 -- maintain records on quantities and materials collected; and
- 4 -- find cost-effective markets for recyclables.

At present, Union County does not operate any public recycling programs. The current landfill operators Johnny and Becky Munsey, do operate a private recycling business, Recycling Enterprises, which does remove a considerable quantity of material from the county waste stream. Their operation diverts approximately 8

percent of the county total solid wastes and is analyzed in further detail later in this chapter.

The county intends to locate compartmental containers, "green boxes", at each of the three convenience centers for residential use. These containers will be used to segregate materials; i.e., newsprint, glass and plastics, and aluminum cans. The recyclables will be collected from each convenience center and transported to the landfill or directly to appropriate markets.

Local companies and industries in the county will be encouraged to segregate their wastes on-site, in a similar manner, for pickup and transport to appropriate markets.

Concerted recycling efforts by the public and private sectors should let Union County attain the regional 25 percent per capita reduction goal (1677 tons total) by December 31, 1995.

CURRENT RECYCLING EFFORTS IN THE REGION

As discussed in Chapter II, residential source reduction and recycling is currently limited to some individual composting of yard wastes and recycling of cans and plastic jugs at individual initiative. With no in-county collection site as a point of reference, there are no actual figures pertaining to recycled quantities. The actual quantities recycled on an individual basis are probably very small compared to the possibilities.

However, there is a sizeable recycling business in Union County at present. The current landfill operators, Johnny and Becky Munsey, own and operate Recycling Enterprises (R.E.). Recycling Enterprises is permitted by the Tennessee Division of Solid Waste Management (dated October 19, 1989) to recover from the

county waste stream all materials that can be recycled. They currently remove marketable recyclables at the landfill and provide containers at local businesses that are directly transported to marketers. In 1993, Recycling Enterprises removed approximately 700 tons of recyclables from the Union County waste stream.

The following table presents data about the solid wastes diverted at the landfill in 1993:

Table 1 CURRENT WASTE DIVERSION FROM LANDFILL

<u>WASTE DIVERTED DIRECTLY FROM THE LANDFILL in 1993</u>		
<u>Waste Type</u>	<u>Volume (tons/year)</u>	<u>Diverted To</u>
White Goods ¹	72	Southern Alloy & Metals
Metals ²	30	Southern Alloy & Metals
Mixed Aluminum ³	20	Southern Alloy & Metals
Cardboard/Paper	<u>60</u>	Paper Stock Dealers
<u>TOTAL</u>	182	
Batteries	500/year	Lynsey Battery

¹ Major Appliances, stoves, refrigerators, etc.
² Roofing, pipe, miscellaneous iron and steel
³ Lawn furniture, pots/pans, etc.

Recycling Enterprises coordinates the recycling program of the largest industrial concern in the County, Clayton Homes. Below is a tabulation of the materials and quantities recycled in 1993.

Table 2 CLAYTON HOMES RECYCLED WASTES

<u>ESTIMATE OF RECYCLED MATERIALS -- by CLAYTON HOMES</u>			
<u>MATERIAL</u>	<u>ANNUAL VOLUME</u> (tons)	<u>HANDLING METHOD</u>	<u>DIVERTED TO</u>
Cardboard	100	on-site baler	Paper stock dealers
Plastic	60	on-site baler	Paper stock dealers
Aluminum	70	containers	Southern Alloy
Metals	100	containers	Southern Alloy
Steel	50	containers	Southern Alloy
Copper wire	<u>6</u>	containers	Southern Alloy
<u>TOTAL</u>	386		
Wood wastes ¹	?	incineration	

¹ see accompanying text

Note: Clayton Homes intends to begin an in-house office paper recycling program in mid-1994.

This effort alone has resulted in a 30-40 percent reduction in the solid waste volume Clayton Homes sends to the landfill. In addition, Clayton Homes will build a State-approved burn pit to

incinerate their wood wastes. They estimate that wood wastes account for a much larger quantity of generated solid wastes than all other materials combined. When they begin burning, an additional large quantity of solid waste will be diverted from the Union County waste stream. Once the wood wastes are separable, accurate estimates of the diverted waste will be available.

In addition to Clayton Homes, Recycling Enterprises handles cardboard recycling for the following Union County small businesses:

A-1 Storage

Stowers Fireworks

33 Marine

Maynardville Furniture

Brown T.V. and Appliance

A.S.C.S. Office

The estimated total weight handled for these companies is 25 tons.

As discussed in Chapter III, Recycling Enterprises coordinates an aluminum can pick up at Luttrell Elementary School and Horace Maynard High School which combined totaled 3.5 tons of recycled aluminum in 1993. Also, through a public buy-back program Recycling Enterprises directly recycled the materials and quantities in the following table:

Table 3 WASTE DIVERTED IN BUY-BACK PROGRAM

<u>MATERIAL</u>	<u>ANNUAL VOLUME (TONS)</u>	<u>DIVERTED TO</u>
Aluminum cans	24	Southern Alloy
Mixed aluminum	14	Southern Alloy
Misc. Steel	48	Southern Alloy
Radiators	3	Southern Alloy
Copper	4	Southern Alloy
Brass	<u>4</u>	Southern Alloy
<u>TOTAL</u>	97	

All of these efforts resulted in a measureable quantity of approximately 700 tons of solid waste diverted from the county waste stream in 1993.

PLANS TO INCREASE THE REGIONAL RECYCLING EFFORT

The region of Union County will be placing two satellite convenience centers in the Big Ridge and Sharp's Chapel areas of the county, along with the convenience center at the landfill. Integrated with the operation of the convenience centers will be facilities for drop-off of residential recyclable materials. There is in-place a recycling effort with local businesses and industries.

Fundamental to the success of the recycling effort will be implementation of a sound and continuing educational program. There are plans to distribute solid waste and recycling information to students, adults, schools, civic organizations and local businesses. The area chapter of Keep America Beautiful (KAB) has already presented 15 Union County teachers with a two day seminar about encouraging recycling education as part of the educational curriculum. The Union County Business and Professional Association will be encouraged to advertise and promote greater recycling efforts on the part of members. Civic organizations will be encouraged to occasionally select speakers that will address the continuing recycling needs of the County. Local newspapers, as well as local television and radio, can carry advertising on waste reduction and recycling.

Any plan that may be adopted will only be as successful as the people are willing to make it. Greater participation will result from a better educated populace.

The 1995 waste reduction target of 1677 tons will most probably result from an approximate 30/70 split between residential and commercial recycling efforts. Union County does not have a large industrial base and efforts at industrial waste reduction have a good beginning already. As the county actually implements this Plan, local businesses will be further encouraged to explore in-house waste reduction efforts.

The following table presents the current diverted wastes and anticipated quantities of diverted wastes that will meet the 1995 State target 25 percent reduction, by sector.

Table 4 PLANNED RECYCLING IN THE REGION OF UNION COUNTY (by 1996)

<u>SECTOR</u>	<u>METHOD</u>	<u>TONS/YEAR</u>	<u>% OF TOTAL</u>
<u>Current</u>			
Residential	Drop-off	110	16
Commercial/ Industrial	In-house Waste Reduction	590	84
<u>Future</u>			
Residential	Drop-off	500	30
Commercial/ Industrial	In-house	1170	70

Efforts at residential recycling will emphasize separation of household wastes and proper disposal, either at a convenience center or the landfill. As an aid in the recycling effort, the schools will be encouraged to provide areas for containers specifically earmarked for certain recyclables. Students would then have a place to bring the appropriate materials for recycling. This would, in essence, provide an additional convenience in the recycling program.

The Union County Solid Waste Management Board is currently investigating the merits of membership in the Recycling Marketing Cooperative of East Tennessee (RMCET). Membership will enhance the cost effectiveness of the county's recycling efforts and could provide access to recycling markets that the county may not be knowledgeable of or cannot currently use.

Current markets for particular materials, such as glass and

plastics, require that the material be "processed" before they will be accepted. Glass needs to be crushed and plastics need to be shredded. The Solid Waste Management Board is applying for available State grants that will provide funds to purchase the appropriate equipment. They are also applying for grants to help fund the convenience centers. Well designed and managed centers will greatly encourage individual participation in the county recycling efforts.

CHAPTER VII

COMPOSTING, SOLID WASTE PROCESSING, WASTE-TO-ENERGY AND INCINERATION CAPACITY

Statutory Requirements:

Neither composting facilities, solid waste processing facilities, nor incineration facilities are included in the statutory list of planning requirements. However, because these facilities are viable options which may be considered in designing an integrated, regional waste management system, the Director of the State Planning Office has determined that this information is relevant, and should be included in the regional plan.

"...[E]ach plan submitted by a municipal solid waste region shall include...any other information as the Director of the State Planning Office may deem relevant..."[T.C.A. 68[-31[-815(b)(15)]].

Union County at present does not participate in any of these activities, other than private individuals composting their yard wastes.

COMPOSTING

As was discussed in Chapter II, the actual percentage of the total waste flow into the Union County landfill that is comprised of yard wastes is much smaller than national or regional averages, specifically because of the rural nature of the population.

Even though the very nature of the County -- being rural and agrarian -- tends to promote composting, a more aggressive approach will be formulated to encourage greater participation, on an

individual basis, in composting as an attractive alternative to landfill disposal. Several options have been investigated that will help achieve these goals through school and community educational programs.

The county will not only benefit from an increase in landfill volume that will be available for solid wastes that must be buried, but there will be the added benefit of using the diverted quantity of yard wastes toward meeting the State mandated 25 percent reduction in generated and landfilled solid wastes.

SOLID WASTE PROCESSING

Any solid waste processing will be limited to resource recovery and recycling, which will remove any applicable materials from the solid waste that flows into the landfill.

The present operators of the landfill have recently begun their own voluntary separation program which was discussed in Chapter VI. With a more aggressive approach to recycling and a concerted effort by the individual regions and other entities towards developing markets for the separables, other methods of solid waste processing will become more viable and attractive.

However, as with any programs that involve reduction of a population-generated material, education will be the backbone of the success or failure of a particular program.

INCINERATION

In the past, incineration has not been considered as a viable option for Union County. However, several companies have developed

small, total-package incineration units specifically designed for community or small region operations. The County Commission will be encouraged to investigate the viability of installing such a unit at the landfill in the future.

One industrial concern, Clayton Homes, was encouraged by the potential savings due to waste volume reduction made possible by burning their wood wastes. They applied for a permit, were approved to operate, and are currently building--to State standards--an on-site incineration pit. Figures and analysis of expected volume reductions are presented in Chapter IV.

If the Clayton facility is very successful, it could would provide actual data for analysis in the decision process for a county facility.

CHAPTER VIII

DISPOSAL CAPACITY

Statutory Requirements:

"Each plan submitted by a municipal solid waste region shall include [a] planned capacity assurance, including descriptions of planned or needed facilities." [T.C.A. 68-31-815(b)(6)]

EXISTING FACILITIES

Union County presently has an operational Class I Landfill that will meet the needs of the County until the planned new landfill is operational in mid-1995. New computerized digital scales were recently installed adjacent to the operations and maintenance building to better monitor the quantities of incoming solid wastes. Also, in a recent site entrance upgrade, areas were designated for the convenience center containers and anticipated recycling containers. These appurtenances will remain as an integral part of the planned new landfill.

PLANNED FACILITIES

Union County is in a unique position, in that they own additional property adjacent to the existing landfill that is perfectly suited for permitting under the new, stricter EPA and State guidelines. An added benefit is the tremendous excess capacity that the new facility can provide, over and above the needs of Union County, well past the next decade.

In anticipation of the fast-approaching closure date for the existing facility, Union County is in the process of having a new

landfill designed and permitted in late 1994 or early 1995. With start-up being an involved process, the desire is to have the new facility in operation long before the existing facility is closed.

The new landfill is planned to occupy the remainder of the County-owned property and the adjacent Capps property (see the maps on the following pages). The Capps' are willing sellers and the Board has recommended to County Commission that the property be purchased for the new landfill. Combined, the properties will have a footprint of approximately 31.9 acres and by filling the available airspace in successive lifts, is estimated to have a total capacity of 2,660,000 cubic yards. The existing facility entrance road, operations and maintenance building, scales, and convenience center will be in-place and used by the new landfill.

As discussed in Chapter III, the entire projected needs of Union County, including the sizeable volumes of industrial "special" wastes from Domermuth Environmental Services and Tenn-Luttrell Mining, will result in a ten-year disposal need of about 890,680 cubic yards. Assuming a 25 percent capacity loss due to cover and berm material displacements, the County would still have a fillable available airspace of 1,995,000 cubic yards. This would result in an excess capacity of 1,104,320 cubic yards. The new landfill will have 2.3 times the capacity necessary to provide for the needs of Union County and its current contractual industrial customers for the next decade.

Another parcel of land, adjacent to the western edge of the proposed new landfill, has been offered to the County by the three contiguous landowners. The majority of the property is owned by the Damewood family with two small slivers belonging to Frazier and Mynatt (see the maps on the following pages). They are willing sellers and approached the County first about the possible sale. It has been estimated that this property would provide an additional 1,000,000 cubic yards of capacity to the future landfill



FOOTPRINT REQUIRED FOR UNION COUNTY
RESIDENTIAL AND COMMERCIAL WASTES
ONLY FOR 12 YEAR LIFE
[5.5 acres]

KITTS ROAD

LANDFILL FOOTPRINT WITH
CAPPS PROPERTY
[31.9 acres]

LANDFILL ACCESS ROAD

OPERATIONS &
MAINTENANCE
BUILDING AND
SCALE

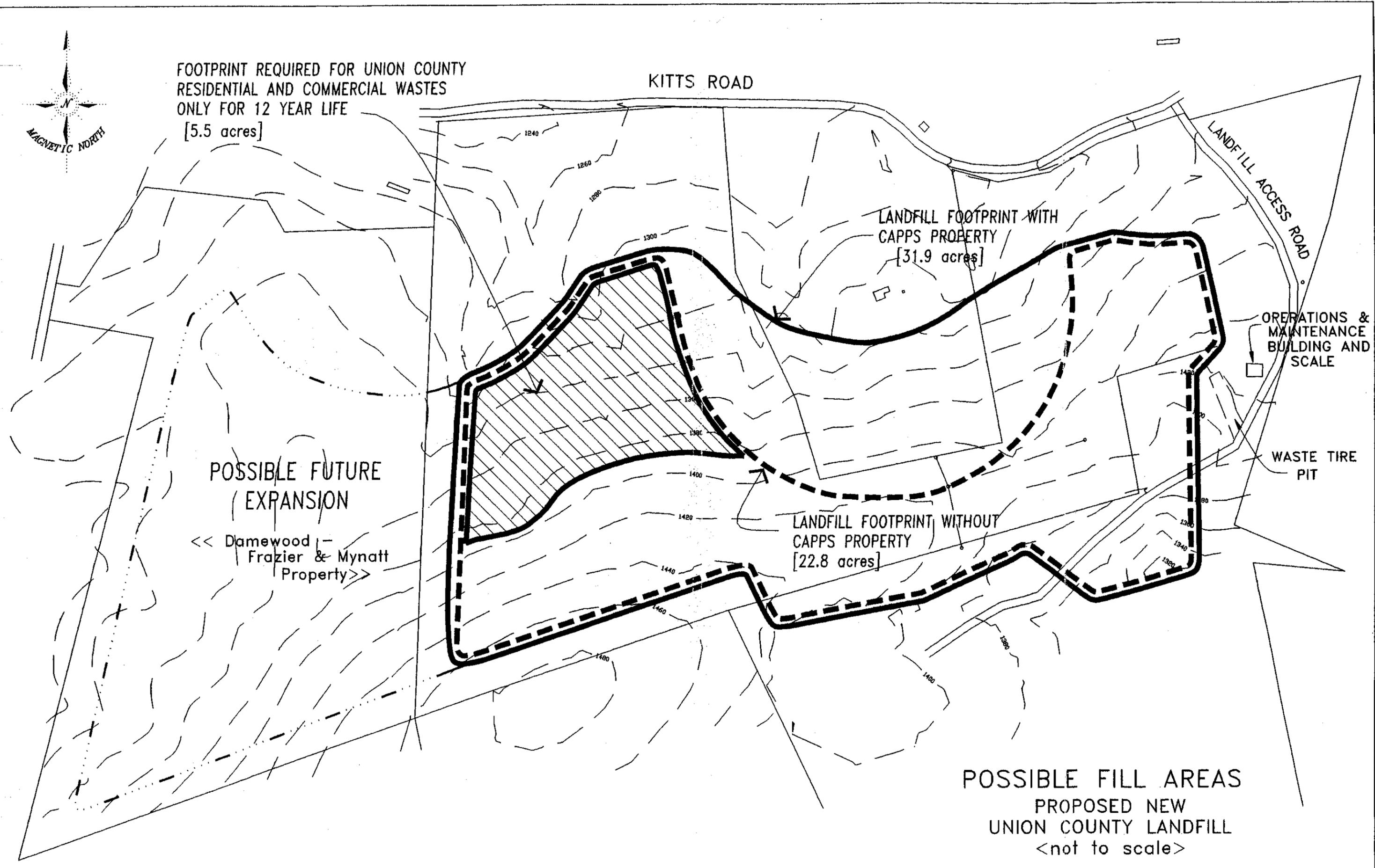
WASTE TIRE
PIT

POSSIBLE FUTURE
EXPANSION

<< Damewood -
Frazier & Mynatt
Property >>

LANDFILL FOOTPRINT WITHOUT
CAPPS PROPERTY
[22.8 acres]

POSSIBLE FILL AREAS
PROPOSED NEW
UNION COUNTY LANDFILL
<not to scale>





KITTS ROAD

LANDFILL ACCESS ROAD

Capps Property

Damewood

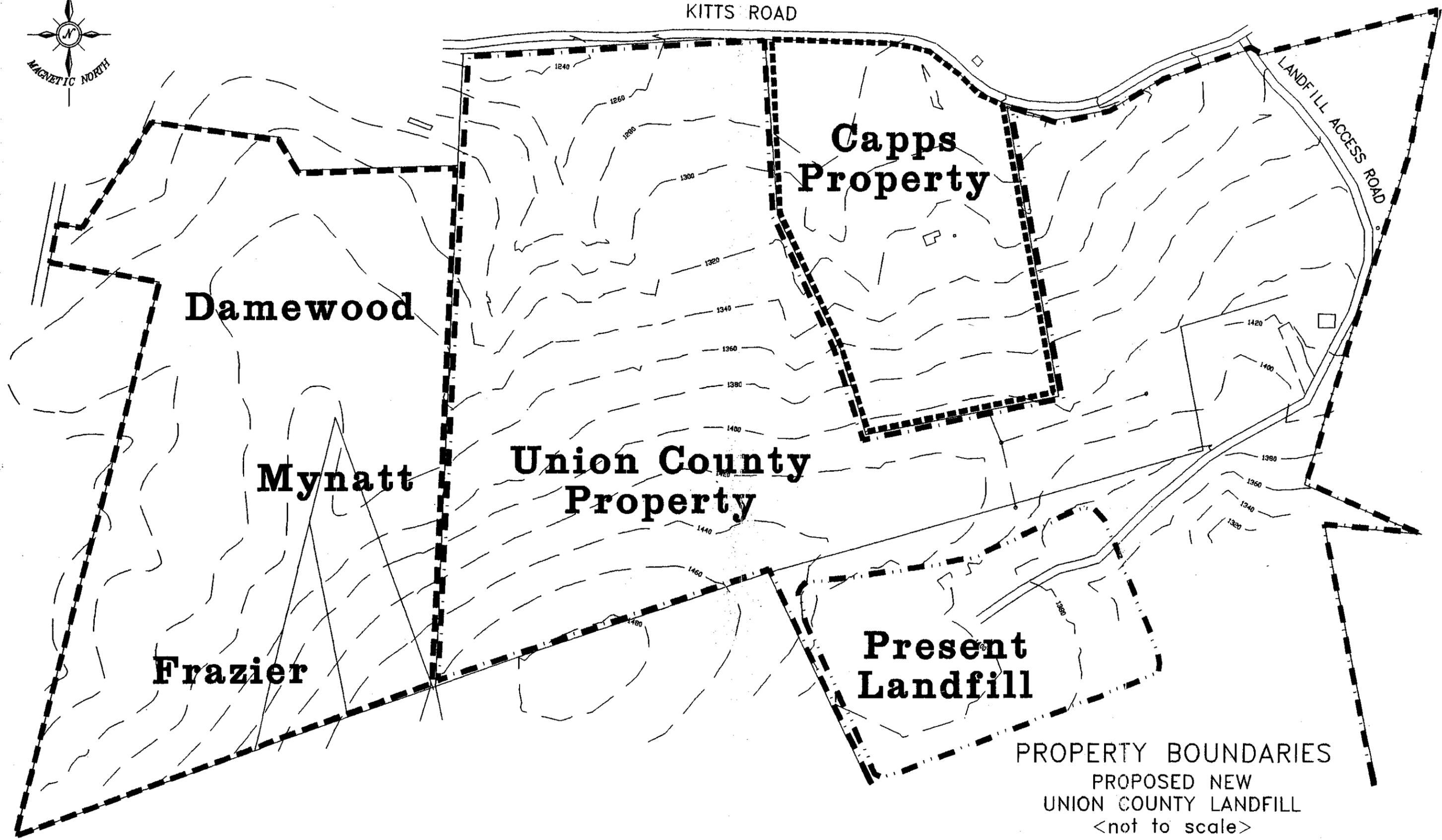
Mynatt

Union County Property

Frazier

Present Landfill

PROPERTY BOUNDARIES
PROPOSED NEW
UNION COUNTY LANDFILL
<not to scale>



operations. The Solid Waste Board has recommended to County Commission that the County purchase the property for possible future expansion of the landfill, or if the capacity should not be needed, the property would be a good investment.

The Union County Solid Waste Management Board has investigated the possibility of selling the excess capacity to help reduce the per-ton operational costs associated with this comprehensive plan. To that end, the Board issued Requests-for-Proposals to solicit any interest from disposal firms in the surrounding area. An interest was expressed by several firms, assuming the County can guarantee the necessary capacity. The analyses of capacity, costs, and revenues presented in Chapter III indicate that if the operations of the new landfill are carefully managed, the County could be very selective choosing to whom they would sell the excess capacity, if they opted to sell it at all.

The table on the following page, prepared for the Union County Solid Waste Management Board, presents a preliminary analysis of the quantities and estimated costs-per-ton associated with a total development and operations plan to be implemented over a 12 year time-frame (not the 10-year planning horizon of the Solid Waste Management Plan). It encompasses all solid waste activities including; landfill operations costs, closure/post-closure costs for both existing and new facilities, convenience center costs, and the costs of actually putting the landfill in the ground. It should be noted that the cost estimate includes funding for road improvements and a necessary waterline extension. Kitts Road, which leads to the landfill entrance is very narrow and heavily pot-holed. The \$83,300 allotted for improvements has been quoted for necessary widening and complete resurfacing. The waterline extension is planned to provide a continuous waterflow at the landfill and, in addition, will be used to provide water service to the residences along Kitts Road. Grant monies may be available for installation of the waterline and will be applied for when applicable.

Table 1 ESTIMATED COSTS AND QUANTITIES FOR THE NEW UNION COUNTY LANDFILL TOTALLY DEVELOPED OVER A 12 YEAR PERIOD.

This analysis was prepared assuming a landfill life of 12 years and the total development of the airspace available over the 31.9 acre site footprint (includes the Capps property).

<u>EXPENSES</u>		<u>UNIT COST</u>	<u>TOTAL DEVELOPMENT COST</u>	<u>ANNUAL BASIS</u>
1.0 LANDFILL DEVELOPMENT				
A. Pre-development Activities				
Permit Application		L.S.	70,600	5,880
Waterline Extension		L.S.	66,700	5,558
Road Improvements		L.S.	83,300	6,942
Purchase Capps Property		L.S.	80,000	6,667
B. Site Development				
Access Road		L.S.	25,000	2,080
Initial Site Grading	31.9 acres	1,000/acre	31,900	2,660
Excavation Total	1,029,000 cy			
adjusted	954,300 cy	1.00/cy	954,300	79,525
Sediment Pond		L.S.	25,000	2,083
Monitoring Wells	2	10,000 ea	20,000	1,667
Clay Liner Blanket	102,000 cy	1.50/cy	154,350	12,863
HDP Liner	1,389,000 sf	0.65/sf	903,240	75,270
Sand/Gravel	139,000 tons	8.00/ton	1,112,000	92,667
Leach Collection	31.9 acres	9,500/acre	303,050	25,254
Engineering & Lab	12 years	25,000/year	300,000	25,000
SUBTOTAL				<u>344,116</u>
2.0 LANDFILL OPERATIONS				
Operators, St. Tax	12 years	460,000/year	5,520,000	460,000
3.0 Closure of proposed Landfill				
Closure	12 years	L.S.	500,000	41,670
Post-Closure Maintenance	42 years	50,000/year		<u>35,700</u>
SUBTOTAL				<u>77,370</u>
4.0 Closure of Existing Landfill				
Closure	12 years	L.S.	192,000	16,000
Post-Closure Maintenance	30 years	43,000/year	1,290,000	<u>43,000</u>
SUBTOTAL				<u>59,000</u>
5.0 Collection				
Convenience centers	3	53,000	159,000	13,250
Personnel & Misc.		15,000		45,000
Transportation	10 bx./center	6,000/month		<u>72,000</u>
SUBTOTAL				<u>130,250</u>
TOTAL				<u>1,070,730</u>
REVENUE				
General Fund	58,000	L.S.		58,000
Residential commercial	2,000 tons	23.00/ton		46,000
Residential Conv. center	5,000 tons	23.00/ton		115,000
Industrial/Commercial	3,000 tons	23.00/ton		69,000
Out of County Wastes	34,350 tons	23.00/ton		<u>790,000</u>
TOTAL				<u>1,078,050</u>

This estimate was prepared assuming that the entire 31.9 acre footprint would be developed and utilized, in its entirety. This may not be necessary or realized; however, the figures are a point of reference for analysis of other options. The large, excess capacity available in the proposed new landfill may be an inducement to formation of a multi-county Solid Waste Management Region should surrounding counties find individual operations extremely costly and should Union County agree to such arrangements. In the event such changes are agreed to, the arrangements and required modifications to this plan will be documented in the appropriate annual update.

Regardless of the many options that Union County will have after the new landfill is permitted and in operation, the capacity required to meet the solid waste disposal needs of the County is assured well beyond the time-frame of this plan.

CHAPTER IX

PUBLIC INFORMATION AND EDUCATION

Statutory Requirements:

"...[E]ach plan submitted by a municipal solid waste region shall include...a description of education initiatives aimed at business, industry, schools, citizens, and others, which address recycling

"...[E]ach solid waste regional plan shall include an education program to assist adults and children to understand solid waste issues, management options and costs, and the value of waste reduction and recycling." [T.C.A. Section 68-31-842]

EDUCATION AND INFORMATION PROGRAMS

Prior to 1993, Union County had no established recycling or solid waste education programs. Local media; including the Union News Leader, The Knoxville News Sentinel, and local radio and television stations, occasionally present news stories covering solid waste. Although intermittent, this coverage is the only consistent source of information concerning area solid waste issues. Even then, only a small portion of the information and educational needs of the area are met.

To implement an effective and successful Solid Waste Management Plan, more broad-based goals and objectives must be established and attained. As an environmental necessity, the consuming public -- both child and adult alike -- must develop an increased awareness of, and sense of responsibility for, reducing solid waste generation. Public habits and lack of awareness are two of the roots of the problems associated with solid wastes and

only through education can the public help solve those problems. A more informed and environment-conscious public can be created by:

- Stressing the recycling of solid wastes for new products and composting as environmentally good.
- Encouraging the multiple use of products whenever possible before they are discarded.
- Altering purchasing and consumption habits which can greatly reduce the solid wastes requiring disposal. Smart shopping can reduce the amount of solid wastes.
- Reviewing individual disposal practices to ensure that solid wastes are not "just discarded" to become environmental pollutants, but are safely landfilled.
- Exploring individual lifestyle changes that can be more environmentally friendly.

Individual segments of the Union County populace can be targeted for different programs to meet various educational goals. A very large proportion of the community can be educated about solid waste management issues by concentrating on five groups:

- School children (pre-school, elementary, secondary, and college)
- Business and industry (through business and industry associations and the Chamber of Commerce)
- Government officials (the County Commission, city councils, sheriff's department, planning offices)
- Civic groups (AmVets, church groups, garden clubs)
- the at-large community (residents from all walks of life)

A coordinated effort is required to most effectively reach these groups. As part of the national Keep America Beautiful campaign organization, five local counties -- Claiborne, Grainger, Hancock, Hawkins, and Union -- have formed Partners For Clean Communities (PCC). Partners For Clean Communities initiated or was

involved in several programs pertaining to solid waste management education in 1993:

-- A major section of the annual Union County Professional and Business Association "Business Fair" was used to focus business awareness on reducing what goes into the waste stream. The Fair also provided contact with other adults in the community.

-- Partners For Clean Communities, along with the Clinch Powell Resource Conservation and Development Board, sponsored a training session for elementary and secondary teachers in the five county area. The session trained teachers in the use of KAB curricula on solid waste management. Fifteen Union County educators attended and were encouraged to disseminate the information throughout the schools.

-- Keep America Beautiful is designated as the organization that will assist the Union County Highway Department in meeting the educational goals funded under the TDOT Litter Grant for 93-94.

-- The local UT Extension Agent, Andrae Vance, has agreed to let her office be a point of contact between Partners For Clean Communities and the community adult population. She is also helping local businesses in better managing their waste streams.

-- Partners For Clean Communities has a media outreach agenda realized through the local newspapers and public service announcements on the community cable access channel.

Partners For Clean Communities is intent on disseminating information to a broad base of the county population. The focus of the information will be finding and using alternatives to disposal of solid wastes in a Class I landfill and eliminating practices that can harm or denigrate the environment. This will include source reduction, recycling, litter abatement, and illustration of the harmful effects of illegal burning and dumping.

Within the schools, established environmental curricula, such as those offered by Keep America Beautiful or through the Tennessee Department of Education's Project SWEEP, and locally oriented programs and speakers, can easily meet the needs of most students. Providing in-school containers for certain recyclables will encourage the practical application of what is being taught. To complement the curriculum, the current landfill operators, Johnny and Becky Munsey, will be encouraged to continue and increase their current assembly and class presentations at the local schools.

Advertising and other public awareness programs will be integral parts of the educational plan targeted at the Union County adult population. Along with the environmental advantages of composting and resource recycling, the harmful effects of uncontrolled disposal of used oils, batteries, antifreeze, etc. will be stressed. The locations of the used oil recovery sites will be vigorously advertised and the public will be ardently encouraged to use the facilities to their fullest capacity.

A series of conferences, as well as workshops, will be offered to the commercial and industrial sector as well as elected officials and the public-at-large. These programs will provide information on waste reduction, recycling, local services, and current issues in solid waste management. The Tennessee Valley Authority has an exceptional video presentation in "Rural America: The Solid Waste Issue Hits Home." The University of Tennessee Solid Waste Management Institute can recommend excellent speakers and sources of information. The objective will be to present the most current literature and discuss solutions to local solid waste management problems. The local media will be integral in advertising and reporting on the events.

In concert with the educational programs for the schools and adult community, a series of award programs will be initiated. These programs will seek to honor those individuals, groups, and businesses exhibiting real progress in improving Union County

through better solid waste management practices. At present, several businesses and organizations participate in the adopt-a-highway program. Formal recognition of exceptional performance would enhance participation.

Implementation of the information and education plans will be coordinated by Partners For Clean Communities. They employ a full-time staff and have numerous volunteers. Partners For Clean Communities will also be responsible for preparing quarterly evaluation reports to be presented to the Union County Solid Waste Management Board. Those reports will be summarized in the annual report to the State.

Necessary funding will result from a combination of State grant monies, donations, recycling revenues, and a small percentage of the waste disposal fees. The State plans to make grant monies available after each plan is approved and advises that the typical grant will be \$7,500.

Implementation of the school and community programs, as well as membership in Partners For Clean Communities began prior to 1993 and are ongoing and evolving. When this plan is adopted and approved, annual updates for the Solid Waste Management Board will become integral parts of the overall annual reports submitted to the State beginning in 1995 and each year thereafter.

CHAPTER X

PROBLEM WASTES

Statutory Requirements:

"...(E)ach plan submitted by a municipal solid waste region shall include...a plan for the disposal of household hazardous wastes; [T.C.A. 68-31-815(b)(8)]

"...Each county...shall provide a service site and shall advertise...the day(s) and hours and location where the household hazardous wastes will be collected...[and]...furnish at least one (1) person...who will assist...[at the] collection unit." [T.C.A. 68-31-829].

"...Effective January 1, 1995, no municipal solid waste disposal facility or incinerator shall accept for disposal any whole waste tires, lead acid batteries, or used oil..." [T.C.A. 68-31-866(a)]

"...By January 1, 1995, each county shall provide at least one (1) site to receive and store waste tires, used automotive oils and fluids, and lead-acid batteries...[and]...shall sell and/or cause the transfer of the recyclable materials...to a commercial recycler or a regional receiving facility..." [T.C.A. 68-31-866(b)]

"...(E)ach plan submitted by a municipal solid waste region shall include...any other information as the Director of the State Planning Office may deem relevant to the implementation of the Act." [T.C.A. 68-31-815(b)(15)]

As cited in the above excerpts from the Solid Waste Management Act, four problem wastes are specifically identified. The Union County Planning Region must describe how each of the four wastes will be handled to comply with State requirements.

Additionally, even though not addressed by the Act, litter prevention and remediation programs are incorporated into this plan as enhancements to existing efforts.

The District Needs Assessment identified no available data concerning household hazardous wastes, waste tires, used oils, or lead acid batteries that are currently in the Union County waste stream. However, these materials are banned from landfills after 1994 and plans for their collection and final disposition are addressed in the following pages.

HOUSEHOLD HAZARDOUS WASTES

There are three primary goals necessary to meeting the needs of Union County concerning household hazardous wastes. They are:

- identify an appropriate temporary collection site,
- vigorously promote each collection event through advertising, education, and media awareness, and
- provide a County representative at the site to assist during each collection event.

Several potential sites have been identified in the county which could be used as temporary staging areas for the collection, sorting, packaging, and transportation of household hazardous wastes. The Tennessee Department of Environment and Conservation has issued a "Policy Guide on County Responsibilities...1993" concerning household hazardous waste collection which establishes minimum requirements for the temporary sites. Locations in Union County that can meet the criteria without modification are:

**the Maynardville High School parking lot, or
the Hensley's Food Center parking lot.**

Since the Food Center parking lot is not owned by the County, arrangements would have to be made to lease or rent space. The preferable site is the High School parking lot. Seven to fifteen days prior to any collection event, the household hazardous waste collection contractor will be invited to inspect the site to finalize plans for the event and notify the County about any site deficiencies.

Following is a list of site criteria as identified by the

State of Tennessee:

Table 1 COLLECTION SITE CRITERIA

Convenient location
Access via paved roads
Paved working area (100 ft. x 100 ft. min.)
Accommodate at least 15 cars
Clean water source
Restroom facilities
Telephones
110 electric outlet

The State of Tennessee sponsors a Household Hazardous Waste Collection Service and makes it available to all eligible counties. Each county applies to the Department of Environment and Conservation for a one-day event each year and only needs to provide a site and one assistant. All costs of collection and disposal are paid for by the State of Tennessee. The County must submit a written request for the service on any open weekend and must identify the site location in the request. If any of the site criteria are impossible to meet, they must be identified in the application. In addition, the County will provide at least one container for collection of nonhazardous household wastes at each event and provide appropriate disposal of those wastes.

Advertising of each event will begin at least two full weeks prior to the event and daily during the week of the event. Local newspapers will advertise the date, hours of collection, and location of the event. Specifics of the ads will include; a list of acceptable items, a list of items excluded from the program, and only 110 pounds of materials will be accepted from each household. The ad will also indicate that all costs of the event are paid by the State of Tennessee.

During the year, the County will provide educational materials and pamphlets concerning household hazardous wastes to the general public. In addition, similar materials will be made available by the collection contractor and the State during the event. Support and promotion of the Household Hazardous Waste Program will be through schools, businesses, and civic organizations. The better informed the general public is, the more successful the collection effort will be.

The County will provide a representative on-site during the event to safeguard any County property used by the contractor. The site representative will also rectify any problems that may occur during the event and will oversee the use of the nonhazardous waste containers. He will also assist the collection contractor in the event of an emergency. Phone numbers and addresses of appropriate authorities will be kept on site and the site representative will be responsible for notifying them, if necessary.

Below is a tabulation of estimated program costs to be borne by the County for utilizing the Household Hazardous Waste Collection Program.

Table 2 HOUSEHOLD HAZARDOUS WASTE COLLECTION COSTS

<u>Program Element</u>	<u>Program Cost</u>
High School site	\$ 0.00
Non-haz containers	\$ 150.00 (2 and disposal)
Advertising	\$ 100.00 (newspaper, etc.)
Site Representative	\$ 50.00 (\$5/hr @ 10 hours)
TOTAL	\$ 300.00

The State will provide the Collection Service once each year to each county. Progress of the program will be reported to the State and include types and amounts of wastes collected as well as the number of people served. The County will submit the annual report to the State Planning Office as required in T.C.A. Section 68-211-863(b).

WASTE TIRE HANDLING

Provisions for handling and temporary storage of waste tires include a waste tire storage site located at the Union County Landfill. The site provides capacity to store approximately 10,000 tires. A total of 6,080 tires were sold in Union County during the 92/93 fiscal year (calculated from the waste tire disposal fee paid into the Solid Waste Management Fund each year. Source: Tennessee Department of Revenue, 1993). The existing site provides more than adequate capacity for temporary storage at the current discard rate.

The site consists of an easily accessible, State-approved, waste tire pit and was constructed as an integral part of the landfill operations and is operated as such. The State provides various grants, up to \$5,000 each, for the construction and maintenance of waste tire facilities. Union County will pursue one or more of these grants after the plan is approved.

Shredding operations have already occurred at the Union County facility. Since 1992, approximately 15,000 tires have been shredded at the landfill. When an adequate supply of tires is accumulated (approximately 5,000) the State sends a tire shredding contractor to the site. Currently, the shredded tires are taken to the landfill for disposal. However, as new uses for the waste material are identified, recycling will become a viable

alternative. The anticipated membership in RMCET may provide additional outlets for the generated waste.

Union County, in conjunction with the State, will continue to inventory illegal tire piles or dumps and estimate the quantities in each. The County will participate in enforcement actions to clean up the identified illegal sites, as well as pick-up individual tires, as part of the litter prevention program. Information on illegal tire disposal will be an integral portion of the educational programs discussed in Chapter IX.

Operational costs of the storage site, vector control, and shredding operation support will continue as daily activities of the on-site landfill operator.

WASTE OIL

Currently, waste oil and other used automotive fluids are typically handled in Union County on an individual basis by temporary disposal at local service stations. Snelson's Trash Service has a State-approved disposal tank, but its availability is not widely advertised. No estimate is available on the quantity of oil recovered in 1993.

As part of the recycling effort proposed in the plan, oil collection storage tanks will be provided at each of the three planned convenience centers. These centers will be in operation by January 1, 1995. In addition, Mr. Snelson has offered public use of his disposal facility. The County will encourage proper disposal through vigorous educational and information efforts that increase public awareness. Disposal site locations will be prominently advertised.

Industrial Waste Oil in Knoxville will provide a 300 gallon tank, or 55-gallon drums, at each site, pump them on an as-needed

basis, and provide a quantity receipt, at no charge to the County. They require a signed agreement that only certain fluids will be disposed of and that they have exclusive pumping rights; however, the service is provided free to the County. Industrial Waste Oil will also accept, for a nominal fee, and are State-certified transporters of used oil filters which they collect in 55-gallon containers that meet State requirements for containment and labeling. They will also accept antifreeze in properly labeled 55-gallon drums.

In addition, the State of Tennessee has in place a grant program that is designed to help Solid Waste Planning regions fund the costs of providing a safe facility for individual disposal of waste oils and other automotive fluids. The grant is available for purchase of an approved holding tank, provision of a suitable pad for the tank, equipment to crush used oil filters, test kits for oil contaminants, and funds for educational programs. Union County has applied for grant monies for all but the tank purchase.

The County will also encourage the individual disposal of waste oil and automotive fluids at the scheduled household hazardous waste collection events to be held each year.

LEAD ACID BATTERIES

Lead acid batteries are currently separated from the waste stream at the landfill when identified. In 1993, approximately 500 batteries were recovered. However, the recovery effort can be improved. A small portion of each convenience center will be dedicated to battery storage for collection. and the public will be encouraged to bring old batteries to the household hazardous waste collection event.

LITTER

The County will continue to operate its roadside cleanup efforts under the State-funded litter prevention program. The current program is administered under the County Highway Department.

Union County will begin enforcing the State "tarp" law more vigorously. To that end, the Board has recommended that a \$5.00 fee be imposed on all violators of the "tarp" law. The fee would be assessed to any party presenting material for disposal at the landfill if it is loose or uncovered above bed-level of the presenting vehicle. The fee would be collected at the scales and specifically designated for the litter control program.

Several business and civic organizations are participating in the Adopt-a-Road beautification efforts in Union County. They select several weekends during the year during which all roadside litter is collected and disposed of. A greater participation will be encouraged through the educational and information programs.

A portion of the State litter prevention grant will be used for: public service announcements and posters, litter bags for cleanup events, litter receptacles, any information that will enhance the litter prevention program.

INFECTIOUS WASTES

As discussed in Chapter III, Wariota Health Care Facility in Maynardville is the only large-scale generator of infectious wastes in the County. Their total quantity of solid wastes was estimated to be 62 tons in 1991. They currently are under long-term contract

with Browning-Ferris Industries of Knoxville for the collection and incineration of their generated wastes.

Union County has no foreseeable need to provide facilities for handling infectious wastes. In the event flow control is adopted, provisions in the law allow for "grandfathering" of the existing contract to allow exclusion of this particular waste from the flow control provisions.

OTHER PROBLEM WASTES

As discussed in Chapter III, Union County is currently negotiating with Tenn-Luttrell Mining to provide disposal capacity at the landfill for approximately 14,000 tons of lime processing wastes per year. The material has been identified by the Tennessee Department of Environment and Conservation, Solid Waste Division, as requiring disposal in a Class I landfill. However, the material does require special handling in that it must be segregated from all other wastes and must be kept water-free at all times.

The new landfill is being designed with a designated area that will contain this waste and no others. The landfill operator will be trained in all aspects required to handle the material safely and effectively.

SCHEDULE FOR THE PROBLEM WASTE COLLECTION PROGRAM

Union County will have its first household hazardous waste collection event sometime in mid-1994. A firm date has not been confirmed by the State. An event will be scheduled at a similar time in each of the succeeding years of this plan.

Waste tire and litter collection programs are in operation, and just need to education and advertising to increase

participation. Organized waste oil and battery collection programs will begin in 1994 and again, advertising and education will greatly increase participation.

CHAPTER XI

SCHEDULE, STAFFING, AND FUNDING

SCHEDULE

As has been discussed in previous chapters of this report, Union County is ahead of, or intends to be ahead of, all State-mandated target dates for implementation of the different aspects of this Solid Waste Management Plan. Important target dates are reiterated below:

Plan submittal -- July 1, 1994. Union County will have this plan in Nashville before the final submittal date;

25% waste reduction -- December 31, 1995. At the present time, Union County is fairly far along in their plans to meet the annual 25% reduction, by weight, of waste deposited in the Class I landfill according to the base year calculations. Through education, closer waste stream monitoring and management, and the purchase of better equipment as funded through appropriate State grants, Union County anticipates meeting or exceeding the target reduction.

Minimum convenience center requirement -- December 1995. The State formula for adequate waste collection facilities recommends that Union County provide at least one convenience center for local deposition of solid wastes. Union County anticipates that the three planned facilities will be built and in operation well before the deadline.

Educational programs are already being implemented in the

schools and will be continued and strengthened. General population educational programs will begin this summer (1994) and be promoted in earnest beginning this fall.

STAFFING

The existing landfill is being operated by Becky and Johnny Munsey. If they are retained by the county to continue operations of the landfill, they would adequately perform the services they now provide on the existing landfill and the proposed new landfill. An additional operator may be needed eventually, but the Munseys will provide adequate services for the foreseeable future.

It is anticipated that one operator will be required at each of the two satellite convenience centers.

FUNDING

Union County expects the landfill operation and implementation of this plan to be funded mostly by revenues generated through the tipping fees. A small portion of the operating budget will come from the county general fund; however, the established tipping fee for current users, along with the very selective sale of the large amount of excess capacity expected with the permitting of the new landfill, could make the landfill very profitable for the county. All fees and the use of any excess capacity will be reviewed on an annual basis and adjusted according to then-current market conditions and for the benefit of Union County residents. Any adjustments will be summarized in the annual report to the State.

CHAPTER XII
ALLOCATION OF IMPLEMENTATION
RESPONSIBILITIES --
PLAN ADOPTION AND SUBMISSION

SINGLE COUNTY PLAN ADOPTION

In accordance with T.C.A. 68-31-813(b)(2), Mr. Gerald Simmons, County Executive was authorized by the County Commission of Union County to empower the necessary Solid Waste Management Board to research and formulate a Plan that would bring the Union County Planning Region into compliance with the Solid Waste Management Act of 1991 (the official County Commission Resolution for formation of the Planning Region is included in Appendix A). To that extent, the County Executive requested the services of, and formally appointed the seven Board members listed in Chapter II. Monthly public meetings were held and the efforts of the Board are summarized by this report.

After the initial draft of the report was reviewed by the Board, a preliminary final draft was adopted by the Board on April 14, 1994. This draft of the plan was then presented for public review and was opened for discussion at one advertised public meeting -- May 16, 1994. County Commissioners were encouraged to attend the meeting to discuss the plan with their constituents and the Board. Minutes of the meetings are included as exhibits in Appendix C. All discussed and agreed to changes were then incorporated in the Final Plan that was formally adopted by the Union County Commission on June 20, 1994 for submittal to the State. A copy of the adoption resolution is included in this report.

Three copies of the Plan were then submitted to the Governor's State Planning Office on June 27, 1994.

FORMATION OF A SOLID WASTE AUTHORITY

To provide for the continued efficient management of the proposals in this plan, and to assure the compliance of Union County with the statutory requirements of the Solid Waste Management Act; upon formal County adoption and State approval of this plan, the Board has requested that a Solid Waste Authority be created. This Authority will be formally adopted by resolution of the respective county and municipal governing bodies, as per the requirements of The Solid Waste Management Act of 1991 and as promulgated in Tennessee Code Annotated 68-211-903, 904, 905, and 906. The composition of the Authority will follow the guidelines established in The Act and may or may not include current members of the Solid Waste Board.

An Authority will have State-granted independence and responsibility for plan implementation and the empowerment to independently make any policy decisions necessary to assure the success of this Plan. The Authority will be created as a public instrumentality and upon creation will be granted, but not limited to, the 18 enumerated powers listed in Section 63 of the Solid Waste Management Act of 1991 and codified in T.C.A. 68-211-903, 904, 905, and 906; including all powers incidental or necessary for the performance of those powers. Refer to the Appendix for a copy of Section 63 and T.C.A. 68-211-903 to 906 referenced in these paragraphs.

CHAPTER XIII
FLOW CONTROL
AND
PERMIT APPLICATION REVIEW

FLOW CONTROL

The Solid Waste Management Act of 1991 has provisions whereby a Planning Region may exercise control over the inflow or outflow of solid wastes to any regional facility. Union County interests are applicable under T.C.A. Section 68-31-907 which allows for intra-region flow control.

Upon formal adoption and approval of this plan, Union County will implement intra-region flow control. The economic viability of this plan is projected with the assumption that all solid wastes generated in the County will be handled by the County with the County receiving all of the generated revenues. It is specifically mandated that these revenues are to be used for operations and maintenance of the landfill and the associated facilities in this plan. The one exception to the flow control provisions will be the Wariota Health Care Facility, which is currently under long-term contract with Browning-Ferris Industries of Knoxville for transportation and disposal of infectious wastes. Union County has no disposal facilities for this type of waste and does not plan any such facilities. It would be to the advantage of both the County and the Wariota Facility to maintain the existing service. All other solid wastes will be handled by Union County or its duly appointed representatives.

PERMIT APPLICATION REVIEW

The Act also requires that a Region that plans new solid waste facilities, must assure that any new facility will be integrated with this plan.

As discussed in Chapter III, the Union County Commission is currently in the process of having a new, Class I landfill designed and permitted so that operations can begin in mid-1995, prior to closure of the existing facility, and provide disposal capacity adequate for the needs of the County well beyond the time-frame of this plan. The County Commission authorized design of the new facility on suitable, County-owned property adjacent to the existing facility, and upon final design, the requisite public hearings will be held prior to submittal to the State for approval.

The new landfill is the central focus around which this plan is designed. The landfill will meet or exceed all new EPA and State of Tennessee standards for Class I facilities; appropriate approval is anticipated.

APPENDIX A

Legal Documentation and Organization of the Region

- I. To assure that the municipal solid waste region was established and is operating in accordance with T.C.A. Section 68-31-813, please provide copies of the following documents:
1. Certified copy of the resolution adopted by each county commission, establishing the region [T.C.A. Section 68-31-813(a)].
 2. Description of the administrative board for the region, including:
 - a. list of members, including the jurisdiction each represents, and term of office;
 - b. copy of the appointment letter for each member, and a record of their confirmation (resolution or minutes) by the appropriate legislative body(ies). [T.C.A. Section 68-31-813]; and
 - c. a list of the current officers of the board (1993).
 3. If the responsibilities of the planning region are to be performed by an existing Solid Waste Authority, provide:
 - a. a copy of all resolutions designating the authority as the regional administrative board [T.C.A. Sections 68-31-813(a)(2) and 68-31-815(b)(12)]
 - b. a copy of the statutes and/or resolutions creating the authority;
 - c. a list of the members of the Authority's Board of Directors, including the jurisdiction each represents, and term of office.
 4. If a multi-county region includes a municipality which lies within the boundaries of two or more counties, provide a copy of the ordinance recording that city's decision to participate in this region [T.C.A. Section 68-31-813]
 5. Description of the structure and role of Regional Municipal Advisory Committee [T.C.A. Section 68-31-813(e)], including:
 - a. a list of members, the interest each represents, and term of office;
 - b. mission statement;
 - c. summary of activities during plan development; and
 - d. probable role in implementation.
- II. To assure that the municipal solid waste region is complying with other provisions of the Solid Waste Management Act of 1991, please submit letter(s), signed by the appropriate County Executive and Mayors in the region, certifying that each jurisdiction has complied with the financial accounting requirements of T.C.A. 68-31-874(a), as amended. For municipalities, the letter of certification should indicate the name of the special revenue fund established by that city.

RESOLUTION NO. _____

A RESOLUTION
CREATING UNION COUNTY'S
MUNICIPAL SOLID WASTE PLANNING REGION

WHEREAS, the adoption of the Subtitle D landfill regulations by the United State Environmental Protection Agency and companion regulations adopted by the Tennessee Solid Waste Control Board will impact on both the cost and method of disposal of municipal solid waste; and

WHEREAS, at the urging and support of a coalition of local government, environmental, commercial, and industrial leaders, the 97th Tennessee General Assembly enacted T.C.A. § 68-211-801 et seq., titled "Solid Waste Management Act of 1991"; and

WHEREAS, with the view that better planning for solid waste will help control the additional costs that will be imposed by the new landfill regulations, help protect the environment, provide an improved solid waste management system, better utilize our natural resources, and promote the education of the citizens of Tennessee in the areas of solid waste management including the need for and desirability of reduction and minimization of solid waste, local governments in Tennessee supported and worked for the passage of this Act; and

WHEREAS, one of the stated public policies of this Act is to institute and maintain a comprehensive, integrated, statewide program for solid waste management; and

WHEREAS, as per T.C.A. § 68-211-811, the nine development districts in the State of Tennessee have completed a district needs assessment which are inventories of the solid waste systems in Tennessee; and

WHEREAS, Union County's Board of County Commissioners has given consideration to the needs assessment prepared by the East Tn. development district; and

WHEREAS, T.C.A. § 68-211-813, requires that counties in the State of Tennessee form municipal solid waste regions no later than December 12, 1992; and

WHEREAS, the Act's stated preference is the formation of multi-county regions with counties having the option of forming single or multi-county municipal solid waste regions; and

WHEREAS, the State of Tennessee will provide grant monies of varying amounts to single county, two county, and three or more county municipal solid waste regions to assist these regions on developing their municipal solid waste region plans; and

WHEREAS, the primary and prevailing purpose of the municipal solid waste regions are the preparation of municipal solid waste regional plans which among other requirements must identify how each region will reduce its solid waste disposal per capita by twenty-five percent (25%) by December 31, 1995, and a planned capacity assurance of its disposal needs for a ten (10) year period; and

WHEREAS, the development of a municipal solid waste regional plan that results in the most cost effective and efficient management of municipal solid waste is in the best interest of the citizens of Union County.

NOW, THEREFORE BE IT RESOLVED, by the Board of County Commissioners of Union County, Tennessee, acting pursuant to T.C.A. § 68-211-801 et seq., that there is hereby established a Municipal Solid Waste Region for and by Union County, Tennessee; and

BE IT FURTHER RESOLVED, that pursuant to T.C.A. § 68-211-813(a)(2), that the Board of County Commissioners of Union County, Tennessee finds and determines that Union County shall be and shall constitute a single county municipal solid waste region due to the following: Whereas the adjacent counties, which are in geographical and logistical proximity, have been contacted by Union County relative to forming a Regional Solid Waste Board and said contacted counties have not reciprocated with similar interest.; and

BE IT FURTHER RESOLVED, that pursuant to T.C.A. § 68-211-813(b)(1), a Municipal Solid Waste Region Board is hereby established to administer the activities of this Region; and

BE IT FURTHER RESOLVED, that this Municipal Solid Waste Region Board shall be composed of (odd number between 5 and 15) members; and

BE IT FURTHER RESOLVED, that pursuant to T.C.A. § 68-211-813(b)(1) 7 Board members shall be appointed by the County Executive and approved by this Board of County Commissioners and, ~~due to the fact that [unclear] (City or Town) does not provide disposal services through its own facilities by [unclear] (City or Town) or [unclear] shall have a Board member appointed by the Mayor of [unclear] and approved by the City or Town of [unclear] (repeat this clause for each City or Town within the county that qualifies) and~~

BE IT FURTHER RESOLVED, that members of the Board of the Municipal Solid Waste Region shall serve a six (6) year term except that 2 members appointed by the County Executive shall have a two (2) year term, that 2 members appointed by the County Executive shall have a four (4) year term, that 3 members appointed by

the Cou. . . . cutive shall have a six (6) year term, that ~~xxxxxxxxxxxxxx appointed by~~
~~the Mayor of xxxxxxxxxxxxxxxxx shall have xxxxxxxxxxxxx year term (repeat this for each city xxx~~
~~xxxxxx in the County xxxxxxxxxxxxx)~~

BE IT FURTHER RESOLVED, that this Municipal Solid Waste Region Board shall have all powers and duties as granted it by T.C.A. § 68-211-813 et seq. and in addition, in the performance of its duty to produce a municipal solid waste region plan, it shall be empowered to utilize existing Union County governmental personnel, to employ or contract with persons, private consulting firms, and/or governmental, quasi-governmental, and public entities and agencies and to utilize Union County's services, facilities and records in completing this task; and

BE IT FURTHER RESOLVED, that at the Municipal Solid Waste Region Board's initial organization meeting it shall select from its members a chair, vice-chair, and secretary and shall cause the establishment of a municipal solid waste advisory committee whose membership shall be chosen by the Board and whose duties are to assist and advise the Board; and

BE IT FURTHER RESOLVED, that the Municipal Solid Waste Region Board, in furtherance of its duty to produce a municipal solid waste region plan, is authorized to apply for and receive funds from the State of Tennessee, the federal government, Union County, ~~xxxxxxxxxxxxxx (City or Town)~~, and donations and grants from private corporations and foundations ;and

BE IT FURTHER RESOLVED, that Union County shall receive, disburse and act as the fiscal agent for the administration of the funds of the Municipal Solid Waste Region and the Region's Board; and

BE IT FURTHER RESOLVED, that upon the passage of this Resolution and at no later date than December 31, 1992, the County Clerk of Union County shall transmit a copy of this Resolution to the Tennessee State Planning Office.

RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF Union COUNTY, TENNESSEE, this 9th day of November, 1992, the welfare of the citizens of Union County requiring it.

Sponsor:

Burney Hutchinson
County Commissioner

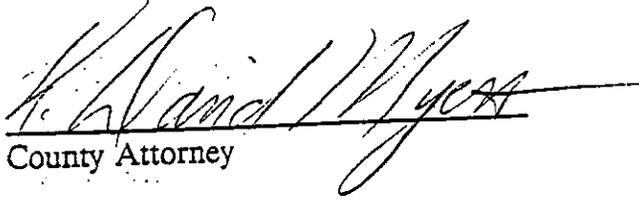
Approved:

Bernard P. Swinnow
County Executive

Attest:

Roy C. Carter
County Clerk

Approved as to form:


County Attorney

**SOLID WASTE MANAGEMENT BOARD
UNION COUNTY REGION**

BOARD MEMBERS

Chairman -- Ronald E. Kitts
P.O. Box 537
Maynardville, TN 37807

Co-Chairman -- Paul Bowman
328 Oakland Road
Maynardville, TN 37807

Sec./Treas. -- Wm. J. Von Schipmann
1817 Tazewell Pike
Corryton, TN 37721

Denny Bates
312 Front Street
Luttrell, TN 37779

William Keck
Not Available

Joe Painter
307 Warwick Lane
Maynardville, TN 37807

Walter Witt
3825 Hickory Valley Road
Maynardville, TN 37807

**SOLID WASTE MANAGEMENT BOARD
UNION COUNTY REGION**

ADVISORY COMMITTEE MEMBERS

Len Johnson

Patricia Hooper

Lindy Turner

Randall Merritt

Kathleen Graves

Shannon Seals

John Smith

Wanda Cox

Becky Munsey

Phil Ruth

Andrae Vance

Lewis Demarotti

Solid Waste Management Act of 1991
Section 63

of an authority shall be represented by at least one (1) member on the board. The members of the board shall be appointed by the county executives and municipal mayors of the participating counties and municipalities, respectively, whose appointments must be approved by the respective county or municipal governing bodies. The members of the board shall serve for terms of six (6) years or until their successors are elected and are qualified by taking an oath of office, except that the initial board shall have approximately one-third of the members with terms of two (2) years and approximately one-third of the members with terms of four (4) years, so as to stagger the terms of office.

(b) Members of county and municipal governing bodies, county executives, municipal mayors, county and municipal officers and department heads may serve as directors, but the board of directors is not required to include such members.

(c) Directors may receive compensation if provided for by the resolution approved by all of the county and municipal governing bodies participating in the authority. The resolution establishing the compensation may differentiate between municipal and county officials and department heads so as to compensate only those directors who are not an official or employee of a municipal or county government, except for reimbursement for actual expenses.

SECTION 62.

(a) The directors shall meet and organize as a board and shall elect one (1) of its members as chairman, one (1) as vice-chairman, one (1) as treasurer and one (1) as secretary and such officers shall annually be elected thereafter in like manner. The duties of secretary and treasurer may be performed by the same director. In the absence of any of the chairman, vice-chairman, secretary or treasurer, another member may be elected to fill the vacancy for the anticipated term thereof. Any action taken by the directors under the provisions of this chapter may be authorized by resolution at any regular or special meeting, and such resolution shall take effect immediately and need not be published or posted. A majority of the board of directors shall constitute a quorum for the transaction of business. The concurring vote of a majority of all the directors shall be necessary for the exercise of any of the powers granted by this chapter.

(b) Any vacancy in the board of directors shall be filled for the unexpired term by the same governing body which filled the position becoming vacant. Any member appointed to the board of directors may, for reasonable cause, be removed from his or her office in the same manner and by the same governing body as such member was appointed to the office; provided that such removal shall be preceded by a full hearing before the remaining members of the board of directors after adequate notice of such hearing, and a report of such hearing shall be forwarded to such appointing authority. "Reasonable cause" shall include, but shall not be limited to, misconduct in office, failure to perform duties prescribed by this act or other applicable law, or failure to diligently pursue the objectives for which the authority was created.

SECTION 63.

(a) Each solid waste authority created pursuant to this part shall be a public instrumentality of the county and municipal government(s) participating in its creation or participating by agreement after its creation. The authority shall have the following powers together with all powers incidental thereto or necessary for the performance of such powers:

(1) To have succession by the name given in the resolution(s) creating the authority unless dissolved as provided in this part;

(2) To sue and be sued and to prosecute and defend, at law or in equity, in any court having jurisdiction of the subject matter and of the parties;

(3) To have and to use a corporate seal and to alter the same at pleasure;

(4) To plan, establish, acquire, whether by purchase, exchange, gift, devise, lease, the exercise of the power of eminent domain or otherwise, and to construct, equip, furnish, improve, repair, extend, maintain and operate one or more projects, which projects shall be situated within the boundaries of the county or counties with respect to which the authority shall have been created, including all real and personal property, facilities and appurtenances which the board of directors of the authority may deem necessary in connection therewith and regardless of whether or not any such project shall then be in existence;

(5) To acquire, whether by purchase, exchange, gift, devise, lease, the exercise of the power of eminent domain or otherwise, any and all types of property, whether real, personal or mixed, tangible or intangible and whether or not subject to mortgages, liens, charges or other encumbrances and to hold, sell, lease, exchange, donate or convey any or all of its properties, facilities or services, whenever the board of directors of the authority shall find such action to be in furtherance of the purposes for which the authority is hereby created;

(6) To remove, receive, transport, collect, purchase, transfer or otherwise obtain solid waste for disposal or processing from any municipality, county, the State of Tennessee, the United States government or any agency thereof, the Tennessee Valley Authority, or any person and to enter into contracts, agreements or other arrangements in connection therewith;

(7) To sell, transfer, distribute or otherwise dispose of electricity, steam, or other forms of power or energy or energy producing material or any other material, product or commodity resulting from the operation of any project, facility or service of the Authority to any municipality, county, the State of Tennessee, the United States of America or any agency thereof, the Tennessee Valley Authority or any person and to enter into contracts, agreements or other arrangements in connection therewith;

(8) To make and enter into all contracts, trust instruments, agreements and other instruments with any municipality, the State of Tennessee, the United States government or any agency thereof, the Tennessee Valley Authority, or any person, including, without limitation, bonds and other forms of indebtedness and contracts for the management and operation of any project, facility or service of the authority or the treatment, processing, storage, transfer or disposal of solid waste;

(9) To incur debts, to borrow money, to issue bonds and to provide for the rights of the holders thereof;

(10) To pledge all or any part of the revenues and receipts of the authority to the payment of any indebtedness of the authority and to make covenants in connection with the issuance of bonds or other indebtedness or to secure the payment thereof;

(11) To have control of its projects, facilities and services with the right and duty to establish and charge fees, rentals, rates and other charges for the use of the facilities and services of the authority and the sale of materials or commodities by the authority and to collect revenues and receipts therefrom, not inconsistent with the rights of holders of its bonds;

(12) To apply for and accept donations, contributions, loans, guaranties, financial assistance, capital grants or gifts from any municipality, county, the State of Tennessee, the United States government or any agency thereof, the Tennessee Valley Authority, or any person for or in aid of the purposes of the Authority and to enter into agreements in connection therewith;

(13) To operate, maintain, manage, and to enter into contracts for the operation, maintenance and management of any project undertaken, and to make rules and regulations with regard to such operation, maintenance and management;

(14) To exercise all powers expressly given in this part and in the creating or amending resolutions and to establish bylaws and make all rules and regulations not inconsistent with the creating and amending resolutions or the provisions of this chapter, deemed expedient for the management of the affairs of the authority.

(15) To enter onto any lands, waters and premises for the purpose of making surveys, soundings and examinations in and for the furtherance of the purposes authorized by this act at reasonable times and with written notice to property owners;

(16) To employ and pay compensation to such employees and agents, including attorneys, accountants, engineers, architects and financial advisors, as the board of directors shall deem necessary for the business of the authority;

(17) To use in the performance of its functions the officers, agents, employees, services, property, facilities, records, equipment, rights and powers of any county or counties or municipalities with respect to which the authority shall have been created, with the consent of such county or counties, or municipalities and subject to such terms and conditions as may be agreed upon; and

(18) To exercise all powers expressly given to it and to establish and make rules and regulations not inconsistent with the provisions of this act, deemed expedient for the management of the authority's affairs.

(b) Except as otherwise provided in this part, an authority, with the concurrence of the county governing body in any county for the territory outside of municipal boundaries, and the governing body of any municipality for the territory of the municipality, may exercise exclusive jurisdiction and exclusive right to control the collection of solid waste within its boundaries and to control the disposition of solid waste collected within its boundaries;

(c) The power granted to an authority by this section shall not prevent a manufacturing firm which holds a permit from the State of Tennessee to dispose of or utilize its own solid wastes on the property of the manufacturing firm.

SECTION 64. To the extent that a region's plan permits, an authority may restrict access to its solid waste disposal facilities by excluding waste originating with persons or entities outside the region. An authority may regulate the flow of all municipal solid waste within the county or counties constituting the authority. The authority may require the disposal of any transported waste at a specific solid waste disposal facility.

SECTION 65. The authority is hereby authorized and empowered to condemn in its own name any land, rights in land, easements or rights of way situated within the territorial limits of the authority which, in the judgment of the board of directors, are necessary for carrying out the purposes for which the authority is created and such property or interest in such property may be so acquired whether or not the same is owned or held for public use by persons having the power of eminent domain, or otherwise held or used for public purposes; provided, however, such prior public use will not be interfered with by the use to which such property will be put by the authority. Such power of condemnation may be exercised in the manner prescribed by Tennessee Code Annotated, Title 23, Chapter 15, or in the manner prescribed by any other applicable statute for the exercise of the power of eminent domain.

SECTION 66. For the purpose of aiding and cooperating with an authority, any county or municipality with respect to which such authority is created may assign or loan any of its employees, including its engineering staff and facilities, and may provide necessary office space, equipment, or other facilities for the use of such authority.

SECTION 67.

(a) The authority shall have the power to issue bonds from time to time in order to accomplish its purposes. Except as herein otherwise expressly provided, all bonds issued by the authority shall be payable solely out of the revenue and receipts derived from the authority's projects or of any thereof as may be designated in the proceedings of the board of directors under which the bonds shall be authorized to be issued, including debt obligations of the lessee or contracting party obtained from or in connection with the financing of a project. Such bonds may be issued in one (1) or more series, may be executed and delivered by the authority at any time and from time to time, may be in such form and denomination and of such terms and maturities, may be subject to redemption prior to maturity either with or without premium, may be in fully registered form or in bearer form registerable either as to principal or interest or both, may bear such conversion privileges and be payable in such installments and at such time or times not exceeding forty (40) years from the date thereof, may be payable at such place or places whether within or without the State of Tennessee, may bear interest at such rate or rates payable at such time or times and at such place or places and evidenced in such manner, and may contain such provisions not inconsistent herewith, all as shall be provided in the proceedings of the board of directors whereunder the bonds shall be authorized to be issued.

(b) Bonds of the authority shall be executed in the name of the authority by such officers of the authority and in such manner as the board of directors may direct, and shall be sealed with the corporate seal of the authority. If so provided in the proceedings authorizing the bonds, the facsimile signature of any of the officers of the authority may appear on such bonds and a facsimile

Tennessee Code Annotated
Section 68 - 211 - 903 to 906

(11) "State of Tennessee" means the state of Tennessee and, unless otherwise indicated by the context, any agency, authority, branch, bureau, commission, corporation, department or instrumentality thereof now or hereafter existing.

(b) The definition of a term in subsection (a) applies to each grammatical variation of the term. [Acts 1991, ch. 451, § 59; T.C.A., § 68-31-902.]

68-211-903. Solid waste authority — Creation — Resolutions — Agreements among creating counties and municipalities — Name. —

(a) A county or any of the counties in a municipal solid waste region may create a solid waste authority, by resolution of the respective county governing bodies; provided, that opportunity shall be provided for public comment on such resolution. Any municipality, the majority of the territory of which lies within a county that is creating or participating with other counties in creating an authority, may join in creating the authority upon such terms as may be agreed upon and adopted by resolution of the respective county and municipal governing bodies. No authority may be formed unless each county governing body in the region has approved the resolution. If more than one (1) county or municipality participates in creating an authority, an agreement creating the authority shall be approved by the governing body of each county and municipality that is a party to the agreement as part of the resolution creating the authority. The resolutions creating the authority may be amended by the agreement of all of the participating governments to add or subtract participating governments or to dissolve the authority. The creating resolutions shall give the authority a name which shall identify it with the county or region. This name shall be used by the authority unless the name is amended by resolution approved by all participating counties and municipalities. Any resolutions creating, amending or dissolving an authority shall be certified by the county clerk or municipal clerk or recorder of the counties and municipalities participating in creating the authority and sent to the secretary of state.

(b)(1) Notwithstanding the provisions of this part and part 8 of this chapter requiring municipal solid waste regions to be created prior to the formation of a regional solid waste authority, any county which, by resolution of its county legislative body adopted prior to April 14, 1992, created a regional solid waste authority referencing this part and part 8 of this chapter, and which has appointed a governing board prior to April 14, 1992, is hereby authorized to operate such authority in the manner established pursuant to such statutes and resolution only within the political boundaries of any such county and political subdivisions thereof to which this section applies. Any such resolution shall have the force and effect for which it was adopted from the date of passage; provided, that all flow control provisions established pursuant to §§ 68-211-813(b), 68-211-906(b) and 68-211-907 cannot be exercised by such authority until such time as those provisions become effective as provided by general law.

(2) If such county becomes part of a multi-county region pursuant to § 68-211-813(a), then within thirty (30) days following such action such authority, in agreement with the legislative bodies of those counties included in such municipal solid waste region, may:

- (A) Continue the operation of such authority by retaining the same board of directors appointed to such authority pursuant to this subsection;
- (B) Expand such board to include representation of members from such additional counties; or
- (C) Dissolve the authority operating pursuant to this section and form a new regional authority pursuant to this part.
- (3) If such county forms a single-county region pursuant to § 68-211-813(a), then such authority may remain as an authority, authorized to operate under this part. [Acts 1991, ch. 451, § 60; T.C.A., § 68-31-903; Acts 1992, ch. 723, § 1.]

68-211-904. Board of directors — Members — Compensation. — (a) A resolution, creating or amending the resolution creating an authority for a county or approving an agreement to create an authority with other counties or municipalities, shall provide for the establishment of a board of directors to administer the activities of the authority. The authority's board of directors may be the same board as that of the municipal solid waste region or it may be a separate board. If a board separate from that of the region is chosen, the board of directors shall consist of an odd number, not less than five (5) nor more than fifteen (15) members. Each county and municipality that is a member of an authority shall be represented by at least one (1) member on the board. The members of the board shall be appointed by the county executives and municipal mayors of the participating counties and municipalities, respectively, whose appointments must be approved by the respective county or municipal governing bodies. The members of the board shall serve for terms of six (6) years or until their successors are elected and are qualified by taking an oath of office, except that the initial board shall have approximately one third ($\frac{1}{3}$) of the members with terms of two (2) years and approximately one third ($\frac{1}{3}$) of the members with terms of four (4) years, so as to stagger the terms of office.

(b) Members of county and municipal governing bodies, county executives, municipal mayors, county and municipal officers and department heads may serve as directors, but the board of directors is not required to include such members.

(c) Directors may receive compensation if provided for by the resolution approved by all of the county and municipal governing bodies participating in the authority. The resolution establishing the compensation may differentiate between municipal and county officials and department heads so as to compensate only those directors who are not officials or employees of a municipal or county government, except for reimbursement for actual expenses. [Acts 1991, ch. 451, § 61; T.C.A., § 68-31-904.]

68-211-905. Board of directors — Officers — Quorum — Vacancies — Removal of members. — (a) The directors shall meet and organize as a board and shall elect one (1) of its members as chairperson, one (1) as vice chairperson, one (1) as secretary and one (1) as treasurer, and such officers shall annually be elected thereafter in like manner. The duties of secretary and treasurer may be performed by the same director. In the absence of any of

the chairperson, vice chairperson, secretary or treasurer, another member may be elected to fill the vacancy for the anticipated term thereof. Any action taken by the directors under the provisions of this chapter may be authorized by resolution at any regular or special meeting, and such resolution shall take effect immediately and need not be published or posted. A majority of the board of directors shall constitute a quorum for the transaction of business. The concurring vote of a majority of all the directors shall be necessary for the exercise of any of the powers granted by this chapter.

(b) Any vacancy on the board shall be filled for the unexpired term by the same governing body which filled the position becoming vacant. Any member appointed to the board may, for reasonable cause, be removed from such member's office in the same manner and by the same governing body as such member was appointed to the office; provided, that such removal shall be preceded by a full hearing before the remaining members of the board after adequate notice of such hearing, and a report of such hearing shall be forwarded to such appointing authority. "Reasonable cause" includes, but shall not be limited to, misconduct in office, failure to perform duties prescribed by this part, part 8 of this chapter or other applicable law, or failure to diligently pursue the objectives for which the authority was created. [Acts 1991, ch. 451, § 62; T.C.A., § 68-31-905.]

68-211-906. Solid waste authorities — Public instrumentalities — Powers — Exclusive jurisdiction and right to control collection of solid waste within boundaries — Disposal of waste by manufacturing firms.

— (a) Each solid waste authority created pursuant to this part shall be a public instrumentality of the county and municipal government(s) participating in its creation or participating by agreement after its creation. The authority shall have the following powers, together with all powers incidental thereto or necessary for the performance of such powers, to:

- (1) Have succession by the name given in the resolution(s) creating the authority, unless dissolved as provided in this part;
- (2) Sue and be sued and prosecute and defend, at law or in equity, in any court having jurisdiction of the subject matter and of the parties;
- (3) Have and use a corporate seal and alter the same at pleasure;
- (4) Plan, establish, acquire, whether by purchase, exchange, gift, devise, lease, the exercise of the power of eminent domain or otherwise, and construct, equip, furnish, improve, repair, extend, maintain and operate one (1) or more projects, which projects shall be situated within the boundaries of the county or counties with respect to which the authority shall have been created, including all real and personal property, facilities and appurtenances which the board of directors of the authority may deem necessary in connection therewith and regardless of whether or not any such project shall then be in existence;
- (5) Acquire, whether by purchase, exchange, gift, devise, lease, the exercise of the power of eminent domain or otherwise, any and all types of property, whether real, personal or mixed, tangible or intangible and whether or not subject to mortgages, liens, charges or other encumbrances and hold, sell, lease, exchange, donate or convey any or all of its properties, facilities or

services, whenever the board of directors of the authority shall find such action to be in furtherance of the purposes for which the authority is hereby created;

(6) Remove, receive, transport, collect, purchase, transfer or otherwise obtain solid waste for disposal or processing from any municipality, county, the state of Tennessee, the United States government or any agency thereof, the Tennessee valley authority or any person, and enter into contracts, agreements or other arrangements in connection therewith;

(7) Sell, transfer, distribute or otherwise dispose of electricity, steam, or other forms of power or energy or energy producing material or any other material, product or commodity resulting from the operation of any project, facility or service of the authority to any municipality, county, the state of Tennessee, the United States or any agency thereof, the Tennessee valley authority or any person, and enter into contracts, agreements or other arrangements in connection therewith;

(8) Make and enter into all contracts, trust instruments, agreements and other instruments with any municipality, the state of Tennessee, the United States government or any agency thereof, the Tennessee valley authority or any person, including, without limitation, bonds and other forms of indebtedness and contracts for the management and operation of any project, facility or service of the authority or the treatment, processing, storage, transfer or disposal of solid waste;

(9) Incur debts, borrow money, issue bonds and provide for the rights of the holders thereof;

(10) Pledge all or any part of the revenues and receipts of the authority to the payment of any indebtedness of the authority, and make covenants in connection with the issuance of bonds or other indebtedness or to secure the payment thereof;

(11) Have control of its projects, facilities and services with the right and duty to establish and charge fees, rentals, rates and other charges for the use of the facilities and services of the authority, and the sale of materials or commodities by the authority, and collect revenues and receipts therefrom, not inconsistent with the rights of holders of its bonds;

(12) Apply for and accept donations, contributions, loans, guaranties, financial assistance, capital grants or gifts from any municipality, county, the state of Tennessee, the United States government or any agency thereof, the Tennessee valley authority or any person for or in aid of the purposes of the authority and enter into agreements in connection therewith;

(13) Operate, maintain, manage, and enter into contracts for the operation, maintenance and management of any project undertaken, and make rules and regulations with regard to such operation, maintenance and management;

(14) Exercise all powers expressly given in this part and in the creating or amending resolutions and establish bylaws and make all rules and regulations not inconsistent with the creating and amending resolutions or the provisions of this chapter, deemed expedient for the management of the affairs of the authority;

(15) Enter onto any lands, waters and premises for the purpose of making surveys, soundings and examinations in and for the furtherance of the pur-

poses authorized by this part and part 8 of this chapter at reasonable times and with written notice to property owners;

(16) Employ and pay compensation to such employees and agents, including attorneys, accountants, engineers, architects and financial advisors, as the board of directors shall deem necessary for the business of the authority;

(17) Use in the performance of its functions the officers, agents, employees, services, property, facilities, records, equipment, rights and powers of any county or counties, or municipalities with respect to which the authority shall have been created, with the consent of such county or counties, or municipalities and subject to such terms and conditions as may be agreed upon; and

(18) Exercise all powers expressly given to it and establish and make rules and regulations not inconsistent with the provisions of this part and part 8 of this chapter, deemed expedient for the management of the authority's affairs.

(b) Except as otherwise provided in this part, an authority, with the concurrence of the county governing body in any county for the territory outside of municipal boundaries, and the governing body of any municipality for the territory of the municipality, may exercise exclusive jurisdiction and exclusive right to control the collection of solid waste within its boundaries, and to control the disposition of solid waste collected within its boundaries.

(c) The power granted to an authority by this section shall not prevent a manufacturing firm which holds a permit from the state of Tennessee to dispose of or utilize its own solid wastes on the property of the manufacturing firm. [Acts 1991, ch. 451, § 63; T.C.A., § 68-31-906.]

Section to Section References. This section is referred to in § 68-211-903.

68-211-907. Exclusion or regulation of waste. — To the extent that a region's plan permits, an authority may restrict access to its solid waste disposal facilities by excluding waste originating with persons or entities outside the region. An authority may regulate the flow of all municipal solid waste within the county or counties constituting the authority. The authority may require the disposal of any transported waste at a specific solid waste disposal facility. [Acts 1991, ch. 451, § 64; T.C.A., § 68-31-907.]

Section to Section References. This section is referred to in § 68-211-903.

68-211-908. Power of condemnation. — The authority is hereby authorized and empowered to condemn in its own name any land, rights in land, easements or rights-of-way situated within the territorial limits of the authority which, in the judgment of the board of directors, are necessary for carrying out the purposes for which the authority is created, and such property or interest in such property may be so acquired, whether or not the same is owned or held for public use by persons having the power of eminent domain, or otherwise held or used for public purposes; provided, that such prior public use will not be interfered with by the use to which such property will be put by the authority. Such power of condemnation may be exercised in the manner prescribed by title 29, chapter 16, or in the manner prescribed by any other

APPENDIX B

Documentation for Adjustments to the Base Year Generation

This appendix contains documentation for adjustments to the base year generation, or variances from the waste reduction goals, as set forth in [T.C.A. Section 68-31-861(a) and (b)] and discussed in Chapter IV. If no county in the region has utilized these options, omit this Appendix.

1. Adjustment of 1989 Generation Data:

- a. a copy of the county's letter to the Director of the State Planning Office requesting an adjustment to the 1989 base line data, and setting forth reasons for the adjustment;
- b. copies of any supporting documentation;
- c. copy of a letter from the Director of the State Planning Office approving the adjustment.

2. "No Collection" Variance

- a. copy of the county's letter to the Director of the State Planning Office requesting a variance;
- b. copy of a letter from the Director of the State Planning Office granting the variance.

3. Previous Waste Reductions (1985-1989)

If the region claims credit against its waste reduction goal for waste reduction and recycling programs in 1985 through 1988, provide documentation for those reductions.

Documentation could include sales records from a public recycling center, annual reports indicating quantities handled, etc.

NO ADJUSTMENTS TO THE BASE YEAR
GENERATION WERE REQUESTED

APPENDIX C

Public Participation Activities

Document public participation activities during development of the regional plan.

1. Summary of workshops, public information meetings, informational and educational activities
2. An attendance list, and summary of the Public Hearing
3. Other (e.g., sub-committee activities).

**SOLID WASTE MANAGEMENT BOARD
UNION COUNTY REGION**

Meeting Minutes

February 18, 1993

At the request of Gerald Simmons, County Executive, David Beverly of Beverly, Gore & Associates gave a brief overview of the purpose, and responsibilities of the board as required by The Solid Waste Management Act of 1991. (T.C.A. 68-813c and 68-31-815)

In accordance with the proposed guidelines from the State Planning Office, the following officers were elected:

Chairman - Ronald E. Kitts

Co-Chairman - Paul Bowman

Secretary / Treasurer - William J. Von Schipmann

Mr. Beverly suggested that an advisory committee should be formed, and he stated that Ms. Patricia Hooper and Mr. Len Johnson were two interested parties. It was agreed by the board, that each member search out an interested person from their respective area of Union County, and present that name at the next meeting.

Preliminary discussions about convenience centers and/or countywide pick-up were held with no conclusions at this time. The consensus of opinion was that more research and facts are needed before any viable recommendations could be made. A suggestion was made that, if affordable, the following communities should be considered for convenience centers; Maynardville, Luttrell-Plainview, Paulette, Big Ridge, and Sharp's Chapel.

The stated meeting time and day was set as follows - 7:00pm on the third Thursday of each month. In compliance with the Sunshine Law, these meetings will be advertised in the Union News Leader.

Upon motion, the meeting was adjourned.

wvs.

BEVERLY, GORE & ASSOCIATES, INC.
PROFESSIONAL ENGINEERING, SURVEYING AND CONSULTING

—3517 Neal Drive • Knoxville, TN 37918—

February 3, 1993

Mr. Ronald Kitts
P.O. Box 537
Maynardville, Tn 37807

Re: Ten Year Waste Management Plan For Union County

Dear Mr. Kitts:

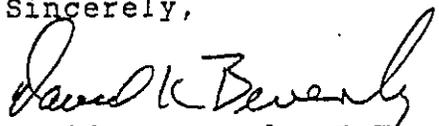
On behalf of Union County, may I extend our appreciation for your acceptance as a member of the Solid Waste Board. As you may know, Beverly, Gore and Associates, Inc. has been selected by County Court to provide consulting engineering services in the preparation of the Ten Year Waste Management Plan.

Your participation and input will be very important as we formulate a plan of action for handling the solid waste of Union County. We will have our initial board meeting on February 18, 1993 at 7:00 P.M. in the Courthouse. In order to give you some background information, I am enclosing two reports for your review:

- 1) GUIDELINES FOR PREPARATION OF A MUNICIPAL SOLID WASTE REGIONAL PLAN
- 2) UNION COUNTY SOLID WASTE NEEDS ASSESSMENT

If you have any questions, please feel free to give me a call. I look forward to meeting with you on the 18th and working together over the next several months. Thanks for your cooperation.

Sincerely,


David K. Beverly, P.E.

DKB:kh

cc: Gerald Simmons, County Executive
Board Members

BEVERLY, GORE & ASSOCIATES, INC.
PROFESSIONAL ENGINEERING, SURVEYING AND CONSULTING

—3517 Neal Drive • Knoxville, TN 37918—

February 3, 1993

Mr. Joe Painter
307 Warwick Lane
Maynardville, Tn 37807

Re: Ten Year Waste Management Plan For Union County

Dear Mr. Painter:

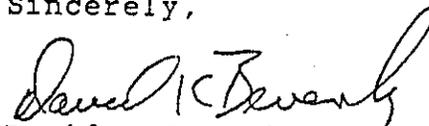
On behalf of Union County, may I extend our appreciation for your acceptance as a member of the Solid Waste Board. As you may know, Beverly, Gore and Associates, Inc. has been selected by County Court to provide consulting engineering services in the preparation of the Ten Year Waste Management Plan.

Your participation and input will be very important as we formulate a plan of action for handling the solid waste of Union County. We will have our initial board meeting on February 18, 1993 at 7:00 P.M. in the Courthouse. In order to give you some background information, I am enclosing two reports for your review:

- 1) GUIDELINES FOR PREPARATION OF A MUNICIPAL SOLID WASTE REGIONAL PLAN
- 2) UNION COUNTY SOLID WASTE NEEDS ASSESSMENT

If you have any questions, please feel free to give me a call. I look forward to meeting with you on the 18th and working together over the next several months. Thanks for your cooperation.

Sincerely,


David K. Beverly, P.E.

DKB:kh

cc: Gerald Simmons, County Executive
Board Members

BEVERLY, GORE & ASSOCIATES, INC.
PROFESSIONAL ENGINEERING, SURVEYING AND CONSULTING

—3517 Neal Drive • Knoxville, TN 37918—

February 3, 1993

Mr. William VonSchipman
1817 Tazewell Pike
Corryton, Tn 37721

Re: Ten Year Waste Management Plan For Union County

Dear Mr. VonSchipman:

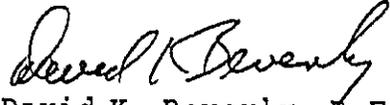
On behalf of Union County, may I extend our appreciation for your acceptance as a member of the Solid Waste Board. As you may know, Beverly, Gore and Associates, Inc. has been selected by County Court to provide consulting engineering services in the preparation of the Ten Year Waste Management Plan.

Your participation and input will be very important as we formulate a plan of action for handling the solid waste of Union County. We will have our initial board meeting on February 18, 1993 at 7:00 P.M. in the Courthouse. In order to give you some background information, I am enclosing two reports for your review:

- 1) GUIDELINES FOR PREPARATION OF A MUNICIPAL SOLID WASTE REGIONAL PLAN
- 2) UNION COUNTY SOLID WASTE NEEDS ASSESSMENT

If you have any questions, please feel free to give me a call. I look forward to meeting with you on the 18th and working together over the next several months. Thanks for your cooperation.

Sincerely,


David K. Beverly, P.E.

DKB:kh

cc: Gerald Simmons, County Executive
Board Members

BEVERLY, GORE & ASSOCIATES, INC.
PROFESSIONAL ENGINEERING, SURVEYING AND CONSULTING

—3517 Neal Drive • Knoxville, TN 37918—

February 3, 1993

Honorable Denny Bates
Mayor
City of Luttrell
Luttrell City Hall
Luttrell, Tn 37779

Re: Ten Year Waste Management Plan For Union County

Dear Mr. Bates:

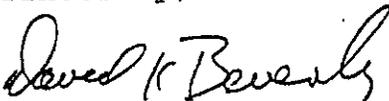
On behalf of Union County, may I extend our appreciation for your acceptance as a member of the Solid Waste Board. As you may know, Beverly, Gore and Associates, Inc. has been selected by County Court to provide consulting engineering services in the preparation of the Ten Year Waste Management Plan.

Your participation and input will be very important as we formulate a plan of action for handling the solid waste of Union County. We will have our initial board meeting on February 18, 1993 at 7:00 P.M. in the Courthouse. In order to give you some background information, I am enclosing two reports for your review:

- 1) GUIDELINES FOR PREPARATION OF A MUNICIPAL SOLID WASTE REGIONAL PLAN
- 2) UNION COUNTY SOLID WASTE NEEDS ASSESSMENT

If you have any questions, please feel free to give me a call. I look forward to meeting with you on the 18th and working together over the next several months. Thanks for your cooperation.

Sincerely,


David K. Beverly, P.E.

DKB:kh

cc: Gerald Simmons, County Executive
Board Members

BEVERLY, GORE & ASSOCIATES, INC.
PROFESSIONAL ENGINEERING, SURVEYING AND CONSULTING

—3517 Neal Drive • Knoxville, TN 37918—

February 3, 1993

Mr. Walter Witt
3825 Hickory Valley Road
Maynardville, Tn 37807

Re: Ten Year Waste Management Plan For Union County

Dear Mr. Witt:

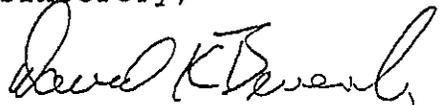
On behalf of Union County, may I extend our appreciation for your acceptance as a member of the Solid Waste Board. As you may know, Beverly, Gore and Associates, Inc. has been selected by County Court to provide consulting engineering services in the preparation of the Ten Year Waste Management Plan.

Your participation and input will be very important as we formulate a plan of action for handling the solid waste of Union County. We will have our initial board meeting on February 18, 1993 at 7:00 P.M. in the Courthouse. In order to give you some background information, I am enclosing two reports for your review:

- 1) GUIDELINES FOR PREPARATION OF A MUNICIPAL SOLID WASTE REGIONAL PLAN
- 2) UNION COUNTY SOLID WASTE NEEDS ASSESSMENT

If you have any questions, please feel free to give me a call. I look forward to meeting with you on the 18th and working together over the next several months. Thanks for your cooperation.

Sincerely,


David K. Beverly, P.E.

DKB:kh

cc: Gerald Simmons, County Executive
Board Members

BEVERLY, GORE & ASSOCIATES, INC.
PROFESSIONAL ENGINEERING, SURVEYING AND CONSULTING

—3517 Neal Drive • Knoxville, TN 37918—

February 3, 1993

Mr. Paul Bowman
328 Oakland Road
Maynardville, Tn 37807

Re: Ten Year Waste Management Plan For Union County

Dear Mr. Bowman:

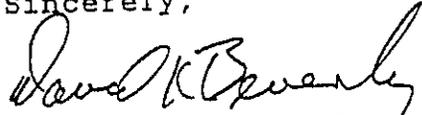
On behalf of Union County, may I extend our appreciation for your acceptance as a member of the Solid Waste Board. As you may know, Beverly, Gore and Associates, Inc. has been selected by County Court to provide consulting engineering services in the preparation of the Ten Year Waste Management Plan.

Your participation and input will be very important as we formulate a plan of action for handling the solid waste of Union County. We will have our initial board meeting on February 18, 1993 at 7:00 P.M. in the Courthouse. In order to give you some background information, I am enclosing two reports for your review:

- 1) GUIDELINES FOR PREPARATION OF A MUNICIPAL SOLID WASTE REGIONAL PLAN
- 2) UNION COUNTY SOLID WASTE NEEDS ASSESSMENT

If you have any questions, please feel free to give me a call. I look forward to meeting with you on the 18th and working together over the next several months. Thanks for your cooperation.

Sincerely,


David K. Beverly, P.E.

DKB:kh

cc: Gerald Simmons, County Executive
Board Members

BEVERLY, GORE & ASSOCIATES, INC.
PROFESSIONAL ENGINEERING, SURVEYING AND CONSULTING

—3517 Neal Drive • Knoxville, TN 37918—

February 3, 1993

Mr. Wayne Collins
781 Sharps Chapel Road
Sharps Chapel, Tn 37866

Re: Ten Year Waste Management Plan For Union County

Dear Mr. Collins:

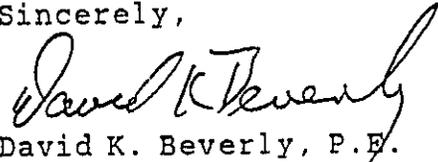
On behalf of Union County, may I extend our appreciation for your acceptance as a member of the Solid Waste Board. As you may know, Beverly, Gore and Associates, Inc. has been selected by County Court to provide consulting engineering services in the preparation of the Ten Year Waste Management Plan.

Your participation and input will be very important as we formulate a plan of action for handling the solid waste of Union County. We will have our initial board meeting on February 18, 1993 at 7:00 P.M. in the Courthouse. In order to give you some background information, I am enclosing two reports for your review:

- 1) GUIDELINES FOR PREPARATION OF A MUNICIPAL SOLID WASTE REGIONAL PLAN
- 2) UNION COUNTY SOLID WASTE NEEDS ASSESSMENT

If you have any questions, please feel free to give me a call. I look forward to meeting with you on the 18th and working together over the next several months. Thanks for your cooperation.

Sincerely,


David K. Beverly, P.E.

DKB:kh

cc: Gerald Simmons, County Executive
Board Members

**SOLID WASTE MANAGEMENT BOARD
UNION COUNTY REGION**

ADVISORY COMMITTEE MEMBERS

Len Johnson 971-6814

Patricia Hooper 922-4713

Lindy Turner 828-5927

John Schwartz 992-8994

Randall Merritt 992-5103

Kathleen Graves 992-4814

Shannon Seals 992-8095

John Smith 992-3917

Wanda Cox

**SOLID WASTE MANAGEMENT BOARD
UNION COUNTY REGION**

Meeting Minutes

February 18, 1993

At the request of Gerald Simmons, County Executive, David Beverly of Beverly, Gore & Associates gave a brief overview of the purpose, and responsibilities of the board as required by The Solid Waste Management Act of 1991. (T.C.A. 68-813c and 68-31-815)

In accordance with the proposed guidelines from the State Planning Office, the following officers were elected:

Chairman - Ronald E. Kitts

Co-Chairman - Paul Bowman

Secretary / Treasurer - William J. Von Schipmann

Mr. Beverly suggested that an advisory committee should be formed, and he stated that Ms. Patricia Hooper and Mr. Len Johnson were two interested parties. It was agreed by the board, that each member search out an interested person from their respective area of Union County, and present that name at the next meeting.

Preliminary discussions about convenience centers and/or countywide pick-up were held with no conclusions at this time. The consensus of opinion was that more research and facts are needed before any viable recommendations could be made. A suggestion was made that, if affordable, the following communities should be considered for convenience centers; Maynardville, Luttrell-Plainview, Paulette, Big Ridge, and Sharp's Chapel.

The stated meeting time and day was set as follows - 7:00pm on the third Thursday of each month. In compliance with the Sunshine Law, these meetings will be advertised in the Union News Leader.

Upon motion, the meeting was adjourned.

wvs.

UNION COUNTY
MUNICIPAL SOLID WASTE
REGIONAL PLAN

SOLID WASTE MANAGEMENT BOARD MEETING
MARCH 25, 1993

AGENDA

1. CALL TO ORDER
2. APPROVAL OF MINUTES OF LAST MEETING
3. SUMMARY INTRODUCTION
4. SELECTION OF CONSULTANT
5. DISCUSSION OF ADVISORY COMMITTEE
 - RECOGNITION OF MEMBERS
 - ROLE AND RESPONSIBILITY
6. ASSIGNMENT OF SUBCOMMITTEE RESPONSIBILITIES
 - REPORTING OF INFORMATION
 - FINANCIAL COMPLIANCE & BUDGET PLANNING
 - CONVENIENCE CENTERS/COUNTY WIDE COLLECTION
 - 25% WASTE REDUCTION
 - RECYCLING
 - SOLID WASTE EDUCATION
 - TEN YEAR CAPACITY AND SOLID WASTE MANAGEMENT PLAN
7. OPEN DISCUSSION

**SOLID WASTE MANAGEMENT BOARD
UNION COUNTY REGION**

Meeting Minutes

March 25, 1993

Chairman Ronald E. Kitts opened the meeting and noted that all members were present.

The minutes of the February meeting were read and approved.

Mr. David Beverly discussed the present land fill, giving information about the life expectancy, and the possibility that the State of Tennessee may give approval of its use until May of 1996. Mr. Beverly also informed all present that Union County has purchased additional land adjoining the present site for the purpose of expansion, contingent upon approval of the Solid Waste Management Board and/or the State of Tennessee.

There was lengthy discussion regarding the responsibilities and authority of the board. All issues were not resolved. Lindy Turner, Project Coordinator of the Clinch-Powell Resource Conservation and Development Council, was very helpful in supplying much of the information.

A motion was made by W. Von Schipmann that help be obtained to give the board the information needed, and to have a called meeting of the board when the proper help could be scheduled. The motion passed, and Mr. Von Schipmann volunteered to seek out the person or persons to help in this matter.

The members of the Advisory Committee were introduced, and upon motion, were accepted and thanked by the Chairman for their willingness to serve. The Advisory Committee members are as follows:

Mr. John Schwartz

Mr. Len Johnson

Ms. Patricia Hooper

Ms. Wanda Cox

Ms. Kathleen Graves

Mr. John Smith

The need for more members on this committee was discussed, and more volunteers will be added as found.

The need for a hired consultant to assist in formulating and writing the plan was discussed, and upon motion by Mayor Denny Bates, the firm of Beverly, Gore & Associates was selected. Mr. Beverly gave no exact cost for his services at this time, but stated his intention to work within the framework of the budget of the board.

Mr. Beverly and Mr. Schwartz agreed to attend the Annual Waste Management Conference April 14/15, 1993 and upon motion the cost of the conference was approved.

The remainder of the meeting consisted of discussion of the many issues facing the board, and our need of education so we may make informed decisions that serve the citizens of Union County in a judicious and cost effective manner.

Upon motion, the meeting was adjourned.

WVS

UNION COUNTY
MUNICIPAL SOLID WASTE
REGIONAL PLAN

SOLID WASTE MANAGEMENT BOARD

APRIL 15, 1993

..... AGENDA

1. CALL TO ORDER - ROLL CALL
2. APPROVAL OF MINUTES FROM LAST MEETING
3. INTRODUCTION OF GUEST SPEAKERS
4. INFORMATION EXCHANGE FROM GUEST SPEAKERS
5. REPORT FROM SEMINAR PARTICIPANTS
6. DISCUSS GRANT APPLICATION
7. DISCUSS BUDGET
8. REPORT FROM CONSULTANT
9. DISCUSSION OF ADVISORY COMMITTEE
10. DISCUSS CONVENIENCE CENTERS
11. OPEN DISCUSSION
12. ADJOURN

ADD GILBERT

**SOLID WASTE MANAGEMENT BOARD
UNION COUNTY REGION**

Meeting Minutes

April 15, 1993

Chairman Ronald E. Kitts opened the meeting and a roll call was taken. The following members of the board were present:

Ronald E. Kitts

Denny Bates

Wayne Collins

Walter Witt

Joe Painter

Gerald Simmons, County Executive, spoke briefly about the waste management board, and the members present were sworn in by Mr. Simmons.

The minutes of the March meeting were read and approved.

The need of more information regarding waste management from outside sources was discussed, and the board is still trying to schedule speakers for that purpose.

Mr. David Beverly and Mr. John Schwartz attended the Annual Waste Management Conference in Gatlinburg on April 14th/15th and gave reports on information obtained.

Mr. Beverly reported that the difference in compliance time frames that exist between the State of Tenn. and the EPA will more than likely be resolved in a solid waste meeting in Nashville April 26th.

Mr. Schwartz reported on door to door collection and convenience centers. The different types of convenience centers and their methods of operation were explained, and a discussion by all present followed.

Mr. David Beverly explained the proposed budget and the grant application that the board needed to submit to the State, and upon motion the budget and grant application were approved.

Mr. Beverly also announced that Union County is the recipient of a \$34,000.00 grant to be used for scales at the present landfill site, and answered questions regarding placement and the sizes and types of scales being considered.

New members of the Advisory Committee were introduced, and upon motion, were accepted and thanked by the Chairman for volunteering to serve the citizens of Union County. The new members of the Advisory Committee are as follows:

Ms. Lindy Turner

Ms. Shannon Seals

Mr. Randall Merritt

The Chairman returned to the discussion of convenience centers and the number of centers needed. After lengthy discussion, a motion was made that the board propose 6 convenience centers to be located in the county. The motion passed, and the Chairman asked that possible sites be located, and that the location recommendations be made at the next meeting.

Mr. Beverly was asked about a contract defining his responsibilities and the responsibilities of the board, and he stated he would have a contract drawn up for approval of the board.

A motion was made for Beverly, Gore & Associates to be paid by the County for the months of February, March, and April for expenses and fees as consultants. The County will be reimbursed by the State upon approval of the grant application.
The motion passed.

The next meeting date was set for May 20, 1993

Upon motion, the meeting was adjourned.

UNION COUNTY
MUNICIPAL SOLID WASTE
REGIONAL PLAN

SOLID WASTE MANAGEMENT BOARD

MAY 20, 1993

. . . AGENDA . . .

1. CALL TO ORDER - ROLL CALL
2. APPROVAL OF MINUTES FROM LAST MEETING
3. INTRODUCTION OF GUEST
4. OPEN FLOOR TO NOMINEES TO ADVISORY COMMITTEE
5. REPORT FROM CONSULTANT
6. DISCUSS CONVENIENCE CENTERS
7. DISCUSS PROPOSED BUDGET LANDFILL 93-94
8. OPEN DISCUSSION
9. ADJOURN

**SOLID WASTE MANAGEMENT BOARD
UNION COUNTY REGION**

Meeting Minutes

May 20, 1993

Chairman Ronald E. Kitts opened the meeting and a roll call was taken. The following members of the board were present:

Ronald E. Kitts

Denny Bates

William Von Schipmann

Paul Bowman

Walter Witt

Joe Painter

The minutes of the April meeting were read and approved.

Chairman Ronald Kitts welcomed all those in attendance with special recognition to County Commissioner Gary England.

Ms. Ann Gilbert of the Municipal Technical Advisory Service (MTAS) spoke about the responsibilities of the board and the importance of the 10 year plan that the board is commissioned to develop. Ms. Gilbert gave an overview of our task and told of other resources available to us. Other resources are as follows;

CTAS

Center of Industrial Services

ETDD

Lewis Bumpas

Ms. Gilbert informed us of training modules that were in the formulation process by the State of Tennessee, and would be available in the near future.

Additional Advisory Committee members were nominated, and upon motion were approved. The new members are;

Ms. Vicky Munsey

Mr. Phil Ruth

Ms. Patricia Hooper of the advisory committee gave a report on the committee's recommendation on convenience centers, and placed the number at 3 centers.

Lengthy discussion followed regarding the need to educate the public about convenience centers and what grants are available to assist in funding of the centers.

Upon motion, decisions regarding the number and location of convenience centers will continue at a later date.

Mr. David Beverly of Beverly, Gore and Associates presented a letter outlining the the responsibilities of the engineering firm to the Solid Waste Board and asked that the letter be accepted as a contract. After questioning regarding the legality of a letter in lieu of a contract, Mr. Beverly stated that a letter was a commonly accepted practice and upon motion, the letter was accepted as the contract with the board.

Mr. Beverly informed the board that the bids for the new scales at the landfill would go out approximately the 1st of June, he also informed the board of a grant to Union County for a storage facility for tires at the landfill.

Upon questioning Mr. Beverly informed the board that the life expectancy of the present landfill should carry the County to early 1996 with a capacity of approximately 90 thousand cubic yards remaining. The present landfill will be legal for use until Oct. 1996.

The State has a possible new date for the deadline of the 10 year plan submittal. The new date would be June of '94, rather than Dec. of '93. The new date is subject to approval of the State Legislature.

The proposed budget for the landfill thru '96 -'97 was discussed along with tipping fees at the landfill.

A motion was made and passed that Mr. Ronald Kitts, Chairman, make a recommendation to the county commission that a tipping fee of \$26.00 per ton be set at the landfill with the advent of the new scales. This would put us in line with adjacent counties and help discourage the premature filling of our capacity from outside of the county.

Various matters were discussed with no one subject having predominance.

Upon motion, the meeting was adjourned.

**SOLID WASTE MANAGEMENT BOARD
UNION COUNTY REGION**

Meeting Minutes

June 17, 1993

Chairman Ronald E. Kitts opened the meeting and a roll call was taken. The following members of the board were present:

Ronald E. Kitts

William Von Schipmann

Wayne Collins

Walter Witt

Joe Painter

The minutes of the May meeting were read and approved.

Chairman Ronald Kitts welcomed all those in attendance.

Additional Advisory Committee members were nominated, and upon motion were approved. The new members are;

Ms. Andrae Vance

Mr. Lewis Demarotti

Ms. Andrae Vance as a representative for the advisory committee attended a conference on industrial solid waste and gave a report on the conference.

Mr. Larry Decker from the Keep America Beautiful campaign for the five county area spoke to the board, and told of their plans to help educate the public about the mandate to reduce our solid waste by 25%. Mr. Decker supplied brochures and bumper stickers to all that requested them.

Ms. Lindy Turner informed the board of efforts to market recyclables and gave information about a meeting in Knoxville July 9th, concerning recycling and invited all to attend.

Mr. Glen Coppock, Administrative Assistant to the County Executive, explained accounting procedures and the enterprise fund. Effective 7/1/93 the state requires an enterprise fund for operation of the landfill. Tipping fees with some help from the general fund, if needed, are to finance the landfill.

Ms. Patricia Hooper of the advisory committee gave a report on the plans for teacher training that are in progress. Educators will be the driving force in training the children of the county on the importance of managing our waste.

Lengthy discussion followed regarding convenience centers.

A motion was made that the boards' original motion to set the number of convenience centers at 6 be rescinded.

The motion passed after discussion.

A motion was made and passed, that as a fact gathering tool, we as a board request proposals from all interested parties in the private sector. The RFP would be for county wide pick-up, operation of the landfill, and a combination of services that could be provided.

A motion was made and passed that copies of the RFP be made available to the board members prior to being sent, so the board could review it.

Plans to collect hazardous household waste were discussed, and Ms. Patricia Hooper was selected to head a committee for formulation of a plan for the county to coordinate collection sites.

Mr. Dennis Gore of Beverly, Gore and Associates reported on the bid opening for the scales at the landfill. Wingfield Scale Co. of Chattanooga was the low bidder at a cost of \$30,995.00.

Upon motion, the meeting was adjourned.

WVS

**UNION COUNTY
MUNICIPAL SOLID WASTE
REGIONAL PLAN**

SOLID WASTE MANAGEMENT BOARD

JULY 15TH, 1993

AGENDA.....

- 1. CALL TO ORDER -- ROLL CALL**
- 2. APPROVAL OF MINUTES FROM LAST MEETING**
- 3. REPORT FROM PATRICIA HOOPER ON COLLECTION OF HOUSEHOLD HAZARDOUS WASTE...BATTERIES AND OIL**
- 4. RECYCLING IN UNION COUNTY**
- 5. INTRODUCE NEW ADVISORY BOARD MEMBER LOUIS DEMAROTTA**
- 6. DISCUSS LANDFILL BUDGET -- 1993 - 1994**
- 7. DISCUSS SCALES AND CONTAINERS AT LANDFILL**
- 8. DISCUSS RFP'S FOR APPROVAL**
- 9. REPORT FROM CONSULTANT**
- 10. ANY OTHER BUSINESS PERTAINING TO SOLID WASTE BOARD**
- 11. OPEN DISCUSSION**
- 12. ADJOURN**

SOLID WASTE MANAGEMENT BOARD
UNION COUNTY
MEETING MINUTES (JUCH)

Co-Chairman Paul Bowman called the meeting to order. Board members present were: Paul Bowman, Denny Bates, and Walter Witt. Absent were: Ronald Kitts, Wm. Von Schipmann, Wayne Collins, and Joe Painter. A quorum did not exist so the meeting mainly consisted of discussion.

Patricia Hooper spoke first informing the board that the Knox County office of Keep America Beautiful (KAB) is planning a household hazardous waste roundup this fall. They would like to coordinate this with the surrounding counties. No firm date is set as yet. Union County hazardous wastes are mainly household, not much industrial hazardous waste is generated. Batteries should be taken to the landfill. Waste oil is still a problem and the county is looking into possible collection sites. Randy Merritt said his business in Lutrell could be a collection point. Steve Snelson has a waste oil reservoir on Main Street in Maynardville that can be used as a collection point and suggested it be published in the News-Leader. The added use will help his oil recycling become viable, currently there isn't enough use for a regularly scheduled pickup.

Mr. David Beverly reiterated that the county master plan still includes plans for one convenience center (at a minimum), the location is still undetermined. K.A.B. is proposing a 34 county closed loop system for coordinating recycling and finding markets for recyclables. There may be more markets for large quantities.

Mr. John Schwartz resigned as a member of the Technical Advisory Committee. He is currently employed by Beverly, Gore & Associates. This will preclude any conflict of interest.

Discussion of the landfill budget was next on the agenda. The budget doesn't account for the coming closure & restart of the new landfill. The cost of closure is approximately \$250,000. The county may have to look into borrowing as a possibility. Mr. Beverly said the new scales should be in place within next 30 days. Scales will allow fees to be charged by the ton. The currently suggested tipping fee of \$26/ton should add revenues to the budget and is comparable to fees of surrounding area.

Mr. Beverly handed out examples of records generated by the scales computer and a layout of the scales location. The existing building will have an air conditioned office for personnel and the computer. Windows will be lowered and added to allow visual inspection of scales & entrance. The existing truck and the entrance shed will be removed. Two convenience containers are suggested beside the office building. Steve Snelson said he could supply the containers or just empty them. Discussion turned to the access road. Improving the road up to the convenience containers will help stop citizen complaints. Need to repave Kitts Road.

Everyone present agreed the scales and access road need to be done right.

Mr. Beverly handed out copies of Request For Proposals (RFP), to implement the Waste Management Plan for Union County, and suggested they be sent to Fay Portable Building in Knoxville; Santek Corporation in Cleveland; Snelson's of Maynardville; the Muncey's (current landfill operators); Browning-Ferris Industries; and Waste Management, Inc. A quorum did not exist for an official vote, but with deadlines approaching fast it was agreed the RFP needed to be sent out to solicit answers expeditiously.

A drawing showing the footprint of the newly permitted area was presented. The new area contains about 1.4 million cubic yards of air space. The county will require approximately 600,000 cy in the next 12 years. 300,000 cy will be needed for cover and site grading leaving an excess of 400,000 cy for sale. It was also noted that addition of the Capps property would add 1 million cy of capacity and the adjacent property southeast of the new area would add 1.2 million cy. Total possible air space of 3.6 million cy could attract a favorable response to the RFPs.

RFPs will be sent & hopefully answered by next Board meeting.

Without a quorum, the agenda was then opened for general discussion. County Commissioners present were Phil Ruth and Burney Hutchison. They said that at present County Commission doesn't feel money exists to operate the landfill. It was agreed that a plan must be developed to generate revenues for landfill operations. Several different approaches were discussed.

- County currently paying about \$17/ton. Proposed tipping fee of \$26/ton could generate \$90,000 or more per year.
- Cover material being trucked in can be weighed when new scales are in place. Possibly renegotiate price.
- In answer to question by Mr. Denny Bates, seven cents of every dollar in general fund goes to landfill operations.
- Possibility of a wheel tax was discussed.

Pat Hooper asked if each individual area would be permitted separately. Mr. Beverly stated the permit would apply to the entire area but the landfilling would be done in increments.

It was also asked if plans were to segregate demolition materials from regular wastes. Mr. Beverly explained Class I-IV differences and said the design would segregate wastes.

Mr. Denny Bates asked for an estimate of up front costs to start and was told approximately \$1.5 million over the first five years.

It was questioned whether Mr. Capps, adjacent property owner, was a willing seller. Landfill operators said Mr. Capps approached them indicating willingness to sell. It was informally agreed that the County Executive, Mr. Gerald Simmons, needs to approach Mr. Capps.

It was also suggested that the Solid Waste Board support County Commission on the idea of a wheel tax.

No further discussion ensued and the meeting was adjourned.

**SOLID WASTE MANAGEMENT BOARD
UNION COUNTY REGION**

Meeting Minutes

August 19, 1993

Vice-Chairman Paul Bowman opened the meeting and a roll call was taken. The following members of the board were present:

Paul Bowman

William Von Schipmann

Wayne Collins

Walter Witt

Joe Painter

The minutes of the July meeting were read and approved.

Ms. Patricia Hooper reported on the training that 15 teachers from Union County received from Keep America Beautiful, and noted that the State Dept. of Education is going to develop an education program on solid waste.

Mr. David Beverly, of Beverly Gore and Associates, gave a progress report on the installation of the scales at the landfill. The total cost of the scales will be 32.5 thousand dollars. 1.5 thousand dollars will be used for building renovation (a/c etc.) . Becky Munsey will be trained on the computerized scale and it's operation.

The convenience drop-off at the landfill was moved from the truck at the gate to cannisters at the main building.

Mr. Beverly also reported on the receipt and content of the RFPs that the board solicited.

A motion was made and passed that the RFPs and discussion of them be tabled until the Chairman, Mr. Ronald E. Kitts return from duty with the Coast Guard.

Mr. W. Von Schipmann reported on the emerging involvement of the ETDD waste management sub-committee, and their plans to host a meeting of the chairpersons of the waste management boards of all sixteen counties in the ETDD.

Upon motion the meeting was adjourned.

wvs.

UNION COUNTY SOLID WASTE MANAGEMENT BOARD
SUMMARY OF RESPONSES TO REQUEST FOR PROPOSAL

AUGUST 19, 1993

BROWNING-FERRIS INDUSTRIES (BFI)

Landfill operations:

:Not interested because of insufficient air space

Collection:

:No specific proposal; expressed general interest

WASTE MANAGEMENT (W.M.)

Landfill operations:

:Not interested because they have their own landfill

Collection:

:W.M. would build a transfer station;
County to provide 8 acres and be responsible along with
W.M. for permitting

:W.M. would provide equipment for 3 convenience centers,
County to provide 1 to 2 acres each plus site
preparation, fencing and full time attendant

:Union County responsible for landfilling cost for bulky
waste, construction debris and white goods; W.M. would
haul such items from convenience centers

:W.M. will assist with recycling

:W.M. available to perform closure activities with fee
cost to be negotiated

:W.M. to provide above described services for \$41.00 to
\$43.50 per ton

FAY PORTABLE BUILDINGS, INC. (FAY)

Landfill operation:

- :Fay would buy air space, County would develop and operate landfill
- :Fay would reserve 480,000 cubic yards of of air space for Union County use over 12 years
- :Fay would pay \$1.00/cubic yard for remaining air space
- :Fay would make monthly payments; approximately \$22,000/month for 144 months; exact amounts to be determined later
- :No cost to County for disposal of residential waste; Fay would charge for commercial waste

Collection:

- :Fay would haul from convenience centers at nominal cost; County to Construct and operate convenience centers

**UNION COUNTY
SOLID WASTE BOARD**

**AGENDA
SEPTEMBER 16, 1993**

- 1. CALL TO ORDER**
- 2. APPROVE MINUTES FROM LAST MEETING**
- 3. DISCUSS THE PROPOSED 12-YEAR BUDGET FOR SOLID WASTE BOARD**
- 4. DISCUSS RFPs, COST EVALUATION - DAVID BEVERLY**
- 5. REPORT FROM PATRICIA HOOPER ... EDUCATIONAL SYNOPSIS ON SOLID WASTE PLAN**
- 6. DISCUSS CONVENIENT CENTERS**
- 7. ANY OTHER BUSINESS PERTAINING TO SOLID WASTE BOARD**
- 8. OPEN DISCUSSION**
- 9. ADJOURN**

**SOLID WASTE MANAGEMENT BOARD
UNION COUNTY REGION**

Meeting Minutes

September 15, 1993

Chairman Ronald Kitts opened the meeting and a roll call was taken. The following members of the board were present:

William Von Schipmann

Ronald Kitts

The minutes of the August meeting were read.

Mr. Kitts announced that Wayne Collins had resigned from the board and was being replaced by Mr. Bill Keck.

Mr. Keck was introduced and welcomed as a new member of the board.

No quorum was present, so nothing could be presented that required a vote or motion.

Ms. Patricia Hooper gave a progress report on the curriculum at the Elementary school and at the High School.

A general discussion followed, and the Chairman Ronald Kitts voiced his displeasure and disappointment at the lack of commitment of the board members to attend and **participate** in the important matter of coming to a resolution of our goal of writing a solid waste plan for Union County.

The meeting was adjourned.

WVS.

Agenda
Solid Waste Board
Union County

October 21, 1993
7:00 P.M.

1. Call meeting to order
2. Roll call
3. Approve minutes from last meeting
4. Discuss landfill operation ... Daily / Weekly - David Beverly
5. Discuss options for landfill ... Union County - David Beverly
6. Discuss sending *revised* RFPs
7. Discuss Convenient Centers
8. Discuss Tipping Fee
9. Any other business pertaining to landfill
10. Adjourn

**SOLID WASTE MANAGEMENT BOARD
UNION COUNTY REGION**

Meeting Minutes

October 21, 1993

Chairman Ronald Kitts opened the meeting and a roll call was taken. The following members of the board were present:

William Von Schipmann

Ronald Kitts

Denny Bates

Joe Painter

Walter Witt

Bill Keck

The minutes of the August and September meeting were approved.

Chairman Ronald Kitts welcomed County Executive Gerald Simmons and members of the County Commission Landfill committee.

To inform the county commissioners present, Mr. David Beverly of Beverly-Gore and Associates, gave a synopsis of the present landfill operation and the alternative options that the board has been discussing the past three months.

There was a lengthy discussion about possible expansion of the landfill and the costs involved with the different sized footprints that could be used.

Mr. Kitts felt that we needed to make some definite decisions regarding convenience centers. After discussion, a motion was made and passed that all previous motions regarding convenience centers be rescinded.

a motion was made that we have three convenience centers at the following locations:

Sharps Chapel

Big Ridge/Palette

The present landfill

The motion passed.

The next item on the agenda was to set tipping fees to be recommended to the County Commission.

After discussion and input from Executive Simmons and Commissioner Seymour, the following motion was made:

Tipping fees for in county garbage ----- 20.85 per ton.

Tipping fees for out of county garbage --26.85 per ton

Tipping fee for Domeruth Corp.(processed dirt)--4.85 per ton

the motion passed.

Upon motion, the meeting adjourned.

wvs.

Mr. Kitts announced that Wayne Collins had resigned from the board and was being replaced by Mr. Bill Keck.

Mr. Keck was introduced and welcomed as a new member of the board.

No quorum was present, so nothing could be presented that required a vote or motion.

Ms. Patricia Hooper gave a progress report on the curriculum at the Elementary school and at the High School.

A general discussion followed, and the Chairman Ronald Kitts voiced his displeasure and disappointment at the lack of commitment of the board members to attend and **participate** in the important matter of coming to a resolution of our goal of writing a solid waste plan for Union County.

The meeting was adjourned.

wvs.

AGENDA

**SOLID WASTE BOARD
UNION COUNTY**

NOVEMBER 18, 1993

7:00 P.M.

1. CALL MEETING TO ORDER
2. ROLL CALL
3. APPROVE MINUTES FROM LAST MEETING
4. PROPOSAL FOR LANDFILL OPERATIONS ... BECKY MUNSEY
5. DISCUSS LANDFILL OPTIONS
6. ANY OTHER BUSINESS PERTAINING TO SOLID WASTE
7. ADJOURN

**SOLID WASTE MANAGEMENT BOARD
UNION COUNTY REGION**

Meeting Minutes

November 18, 1993

Chairman Ronald Kitts opened the meeting and a roll call was taken. The following members of the board were present:

William Von Schipmann

Ronald Kitts .

Denny Bates

Joe Painter

Walter Witt

Paul Bowman

The minutes from the September and October meetings were approved.

Ms. Becky Munsey presented proposals for consideration involving landfill operations. The proposals included flow control, a possible tarp law, and a surcharge to be put on out of county waste with a percentage being paid to the landfill operator for handling the waste.

It was pointed out that Domermuth Corp. was paying the Munseys \$1.00 per ton for handling the dirt that they brought to the landfill.

Chairman Ronald Kitts went on record stating that there could be an appearance of impropriety with that sort of an arrangement, and recommended that the county collect the fee and re-imburse the Munseys rather than the Munseys collecting from Domermuth.

Following a lengthy discussion, a motion was made that a recommendation be made to County Commission that all fees paid by Domermuth be paid to the county and the \$1.00 per ton handling fee be paid to the landfill operator.

The motion passed.

Signage at the landfill was discussed, and County Executive Gerald Simmons told the board that he would take care of the signs.

A motion was made that the landfill operator be paid by a percentage of the tipping fee by tonnage rather than being paid a set amount per year. This will be written into the plan as well as

being recommended to County Commission.

The motion passed.

Mr. Carl and Horace Damewood expressed interest in negotiation for sale of their property to the county. The property adjoins the land currently owned by the county.

Motion was made that the board recommend to the County Commission that the county purchase the Damewood property, the Capps property, and the Nellie Frazier property for expansion of the landfill, providing the aforementioned properties meet specifications as per Mr. David Beverly.

The motion passed.

Motion was made to recommend to County Commission that Mr. David Beverly be allowed to permit the area to be developed in phases, as needs demand, including any properties that may be purchased.

The motion passed.

Motion was made to skip the December meeting and have the next meeting January 20, 1994.

The motion passed.

Upon motion the meeting was adjourned.

wvs.

AGENDA

**SOLID WASTE BOARD
UNION COUNTY**

JANUARY 27, 1994

7:00 P.M.

1. CALL MEETING TO ORDER
2. ROLL CALL
3. APPROVE MINUTES FROM LAST MEETING
4. DISCUSS PROPOSAL FROM LUTTRELL LIME TO UTILIZE SPACE IN
NEW LAND FILL -- JOHN KORTZ
5. DISCUSS FINALIZATION OF SOLID WASTE PLAN -- DAVID
BEVERLY
6. ANY OTHER BUSINESS PERTAINING TO SOLID WASTE
7. ADJOURN

Agenda

Solid Waste Board Union County

February 24, 1994 7:00 P.M.

- 1. Call meeting to order**
- 2. Roll call**
- 3. Approve minutes from last meeting**
- 4. Discuss Recycling Marketing Cooperative for East Tennessee
William Von Shipmann**
- 5. Discuss finalization of Solid Waste plan
David Beverly**
- 6. Any other business pertaining to Solid Waste**
- 7. Adjourn meeting**

**SOLID WASTE MANAGEMENT BOARD
UNION COUNTY REGION**

Meeting Minutes

February 24, 1994

Chairman Ronald Kitts opened the meeting and a roll call was taken. The following members of the board were present:

William Von Schipmann

Ronald Kitts

Joe Painter

Walter Witt

The minutes from the January meeting were read and approved.

A motion was made that Union County join RMCEP. After discussion, the motion passed unanimously.

There was a general discussion regarding actions taken by the County Commission that pertain to the landfill.

There was a discussion on the viability of the board in regards to the county commission, and the lack of attendance by some of the members of the board.

Discussed oil recycling, and a motion was made that we have oil recycling tanks at each convenience center. This could be done at no cost to Union County. The motion died for lack of a second.

A motion was made that Union County apply for recycling equipment, and convenience center grants. The motion passed unanimously.

Mr. David Beverly talked about dirt from Domermuth Corp. and the paper work required, sampling of the dirt comprehensively for quality assurance, etc.

A motion was made that all supporting paper work required by the State and EPA, on all materials that are chemically or petroleum contaminated, with all required signatures and random sampling be written into the the solid waste plan. The motion passed unanimously.

Mr. David Beverly will present to County Commission the schedule of meetings for public hearings etc.

upon motion the meeting was adjourned.

AGENDA

SOLID WASTE BOARD UNION COUNTY

**MARCH 24, 1994
7:00**

- ① CALL MEETING TO ORDER**
- ② ROLL CALL**
- ③ APPROVE MINUTES FROM LAST MEETING**
- ④ DISCUSS FINAL DRAFT OF SOLID WASTE PLAN, AS PREPARED, AND
MAKE FINAL CHANGES**
- ⑤ DISCUSS UPCOMING PUBLIC HEARINGS**
- ⑥ ANY OTHER BUSINESS PERTAINING TO SOLID WASTE**
- ⑦ ADJOURN MEETING**

**SOLID WASTE MANAGEMENT BOARD
UNION COUNTY REGION**

Meeting Minutes

March 24, 1994

Chairman Ronald Kitts opened the meeting and a roll call was taken. The following members of the board were present:

William Von Schipmann

Ronald Kitts

Paul Bowman

Denny Bates

Walter Witt

Joe Painter

The minutes of the February meeting were read and approved.

A motion was made that waste oil collection facilities should be at each convenience center and the landfill. The motion passed unanimously.

A motion was made that the Solid Waste Management Board requests strongly the County Commission create a Solid Waste Authority in accordance with TCA 68-211-903,904,905,906. After discussion the motion passed unanimously.

A motion was made that the secretary draft a cover letter to place in the plan explaining actions taken by the board in the creation of the 10 year plan. The motion passed unanimously.

A motion was made that one (1) public hearing be held and the date of the hearing be set for May 16, 1994. The motion passed unanimously.

A motion was made that a recording secretary be hired for the public hearing. The motion passed unanimously.

A motion was made that the County Commission enter into a contract for a minimum of one (1) year with the landfill operator/operators. The Motion Passed unanimously.

A general discussion ensued on various house keeping items and on the number of copies that should be printed of the finalized plan.

The Damewood brothers asked if any time frame existed on the possible purchase of their property for future expansion of the landfill. After discussion, it was agreed that the language in the plan be "beefed up" to stress the importance of the recommendation to purchase said property by Union County.

A motion was made that a five (5) dollar fee be assessed to drivers of open vehicles with loose debris (unbagged) or debris above the bed level that is untarped. This is in compliance with the State tarp laws. The fee will be assessed at the scale, and funds collected will be designated to the litter control program. The motion passed unanimously.

Upon motion the meeting adjourned.

wvs

AGENDA

SOLID WASTE BOARD UNION COUNTY

**MAY 16, 1994
7:00 P.M.**

*** SPECIAL PUBLIC HEARING ***

THE TEN YEAR SOLID WASTE MANAGEMENT PLAN FOR UNION COUNTY

- ① CALL MEETING TO ORDER**
- ② INTRODUCTION OF BOARD MEMBERS AND SPECIAL GUESTS**
- ③ OVER-ALL VIEW AND PRESENTATION OF SOLID WASTE PLAN FOR UNION COUNTY
DAVID BEVERLY, FROM BEVERLY, GORE & ASSOCIATES.**
- ④ OPEN FLOOR FOR QUESTIONS AND ANSWERS**
- ⑤ ADJOURN MEETING**

UNION COUNTY SOLID WASTE BOARD

PUBLIC HEARING MAY 16, 1994

- SIGN-IN -

- 1 JOHN SCHWARTZ
- 2 Ronald Kutz
- 3 Paul Bowman
- 4 Walter W. Witt
- 5 J. J. Van Scholten
- 6 Guy England
- 7 Paul Hill
- 8 R. L. Jones
- 9 Edward E. Summers
- 10 Betty Munsey
- 11 Steve Snabson
- 12 Vera M. Kutz
- 13 Glenn K. Cook
- 14 J. M. Bailey
- 15 David W. Jett
- 16
- 17
- 18
- 19
- 20
- 21
- 22
- 23
- 24

SOLID WASTE BOARD

UNION COUNTY

SPECIAL PUBLIC HEARING

May 16, 1994

UNION COUNTY SOLID WASTE BOARD
PUBLIC HEARING

May 16, 1994

Attendees

Ronald E. Kitts

Paul F. Bowman

Walter W. Witt

William Von Schipmann

Gary England

Paul Wilson

R. L. Jones

Gerald E. Simmons

Becky Munsey

Steve Snelson

Neva M. Kitts

Glen Cooke

J. M. Bailey

David K. Myers

John C. Schwartz

David K. Beverly

Court Recorder: Laura Bultsma

1 MR. KITTS: I'll call this meeting to order. I'd
2 like to personally thank each and every one of you who have
3 come tonight, this is a public hearing for the ten year
4 Solid Waste Management Plan for Union County. Most of you
5 know who I am, I'm Ronald Kitts, serve as chairman of the
6 public Solid Waste Board for Union County. We've got Paul
7 Bowman, he's the co-chairman, and Walter Witt and William
8 Von Schipmann is the secretary/treasurer, and the Mayor of
9 Plain View, everybody knows us. We have our County Exec
10 here tonight, Gerald Simmons and we have three county
11 commissions, Gary England, Paul Wilson and Mr. Jones.

12 I'm going to turn the meeting over at this time to
13 David Beverly and John Schwartz and let them present to you
14 what we came up with the plan for the Solid Waste Management
15 for Union County.

16 MR. BEVERLY: For the record, my name is David
17 Beverly. I think everybody knows here who we all are, I
18 guess. What I'd like to do is just give a general overview
19 of the plan and what it contains, different things that are
20 in it and John Schwartz who is the person in our office that
21 has put most of the work in on these things has really
22 written the vast majority of everything that's in the plan.
23 We'll go back then and look at it a little bit more detail,
24 go through chapter by chapter, just to tell you the
25 different things that is in each chapter. Then after we

1 Gore and Associates was retained by this board to prepare
2 this plan with input from the board. Basically we took the
3 information that they provided to us and wrote the narrative
4 and prepared the little maps and tables and so forth and
5 they're in here. The highlights of the plan itself, one of
6 the major things we were trying to achieve, the 25%
7 reduction in all Class 1 waste by December of this year,
8 December 31st of this year. We present some ideas on how
9 that could be carried out here in this plan. I might
10 emphasis at this time that there's a lot of different things
11 in this plan that we even though we've addressed and we've
12 thought about the ways to carry these things out, there's
13 going to be a great effort made to implement this plan.

14 I might add too that the plan does have to be
15 amended each year by the solid waste board.

16 MR. SIMMONS: It has to do what, now, David?

17 MR. BEVERLY: The plan will have to be amended
18 each year, I believe that's the way it's worded.

19 MR. SCHWARTZ: There's a review that you have to
20 make each year and then it's open for amendment every fifth
21 year. You have to totally review the plan every fifth year,
22 but each year you're suppose to give a summary to the state
23 as to how you're proceeding with the plan and what you are
24 -- what you have accomplished or what you intend to
25 accomplish.

1 MR. BEVERLY: I stand corrected. It's reviewed
2 every year by the board and then it can be amended every
3 fifth year. Of course all of this is based on the mandate
4 that if the current landfills do not meet regulatory
5 requirements it will have to be closed down by October 1996.

6 The board is recommending that we establish
7 tipping fees that will be administered and able to fund all
8 the cost associated with the solid waste program for the
9 county. I think it has to be done in conjunction with the
10 amount of appropriations that would be obtained from the
11 general fund.

12 MR. SIMMONS: Are you on a certain page, David?

13 MR. BEVERLY: No, I'm just sitting up here
14 talking, trying to think of things that I want to say. John
15 is going to go through this thing chapter by chapter just to
16 let you know sort of what's in each chapter.

17 One of the basic premises of this plan is based on
18 the fact that the county will continue to operate a landfill
19 after the existing one forecloses. In fact, the plans are
20 now underway for the final design of that expansion of the
21 existing landfill. This might be a good time for me to
22 present a map that you'll find in your report, in your
23 booklet. The existing landfill is in this area here. This
24 is Kitts Road here at the top, the existing landfill is down
25 here. The expansion that's going to occur will be on the

1 other side of the ridge, in between Poplar Ridge and the
2 Kitts Road. There are two pieces of property you'll notice
3 here, the Capps property and the Damewood and Mynatt and
4 Frazier tracts over here. The board is recommending that
5 the county purchase those properties which will allow the
6 maximum use of this area in general. It will increase the
7 amount of total volume that will be available to be used for
8 disposal. I think that's the basic principle that the board
9 feels is very important, which is to add enough excess
10 volume beyond what we will need for Union County alone, and
11 in fact be able to market that tract.

12 MR. SIMMONS: How many acres is the Damewood,
13 Mynatt and Frazier property, David?

14 MR. WITT: 5.5 according to the amount that's in
15 here.

16 MR. BEVERLY: Now the 5.5 acres is referred to
17 that portion of the footprint that would actually be needed
18 only by Union County. In other words if we do not try to
19 market or do not have a need beyond Union County's needs we
20 won't have to expand the landfill beyond the footprint of
21 the 5.5 acres.

22 I believe in answer to your question Gerald, it's
23 about twenty-five acres. And the Capps property, which is
24 the center portion here is ten acres.

25 MR. SIMMONS: If you bought that twenty-five

1 acres, David, how many years would it expand the landfill?

2 MR. BEVERLY: Well, I think one of the purposes
3 for buying this property would be to sell the airspace
4 that's in it and then you've got to make the decision about
5 how much airspace you want to sell. We're saying just this
6 area here alone will service Union County's needs for twelve
7 years, actually, that's on the basis instead of ten years.
8 We are looking at -- John, you might need to help me with
9 some of these figures, but the total amount of air volume
10 that would be available if we include the Damewood property
11 and the Capps property and the county's own property is --

12 MR. SIMMONS: Are you talking about selling that
13 airspace to pay the expense of the landfill?

14 MR. BEVERLY: That's exactly what I'm trying to
15 say. And that's the basic principle I think the board has
16 been talking about for the past year. That's really the
17 only way they feel like it's going to be economically
18 feasible for the county to maintain the cost involved with
19 solid waste, and so it's a very intricate part of this plan
20 is to be able to do that.

21 MR. VON SCHIPMANN: If I may interject something,
22 basically the county has stated and the county commission
23 has stated that they want to have our own landfill. Well,
24 at the cost of the construction of the new landfill it's
25 almost exorbitant to the citizens of this county unless we

1 go to somewhere else and get more revenue in to help defray
2 the cost of that effort and to keep the taxes from going up
3 astronomically to pay for this. The only thing we can do is
4 to sell the airspace to someone else and it's the only
5 economically feasible way that we can use to keep from
6 settling each and every one of us with higher property
7 taxes.

8 MR. BEVERLY: One of the advantages of having a
9 landfill is that it does put the county in the driver's
10 seat, so to speak, and you can be selective with the people
11 you want to market and sell airspace to. Of course everyone
12 knows now that we're receiving soil from Domermuth Company
13 and Tenn-Luttrell has addressed the board and the county
14 commission about being able to bring some of their excess
15 material up here. Those would be very selected uses and we
16 may want to explore others as well.

17 Back to what I was saying a moment before, it's
18 about three and a half million cubic yards, is that right?

19 MR. SCHWARTZ: In that there's 2,660,000 pounds of
20 cubic yards.

21 MR. BEVERLY: The county land.

22 MR. SCHWARTZ: No, not county land. Damewood is
23 3.7.

24 MR. BEVELER: 3.7 million cubic yards included
25 with the Damewood property. Which makes this -- which

1 starts to make it a very marketable amount of airspace for
2 someone to be interested in. If Union county wanted to go
3 with Grainger or Claiborne or some other county or whether
4 it might be BFI Waste Management that would be interested to
5 come in and make a proposal. The plan that we're working on
6 to submit to the state now is only for the footprint of the
7 area that the county now owns in addition to the Capps
8 property. Our design is, the one that we have at this time,
9 and doing -- preparing the plans and specs to include the
10 Capps property but not the Damewood property. There will be
11 one additional thing to be required, that even though the
12 design plans that we prepare, there has not been any soil
13 tested in specifically in the Capps property. That's not a
14 question necessarily as to whether or not the area can be
15 approved. We think it had core drilling done just within
16 the past two months, this whole general area. One of the
17 requirements that the state has is that they will come in
18 and drill on a 200 by 200 foot grid which requires quite a
19 bit of drilling, and we expected that all along that we had
20 good soils up there and the soil test verified that, that we
21 had generally in excess of fifty foot of good clay material
22 all through this area, and that's what they're looking for.

23 MR. SIMMONS: David, on Damewood and the other two
24 properties there, do you anticipate the same kind of soil?

25 MR. BEVERLY: Yes. That whole Copper Ridge,

1 Gerald, and everybody knows in Union County that wherever
2 they've dug into it you've seen that red clay and that's
3 what we expect to find.

4 One of the elements in the plan calls for three
5 convenient centers. One in Sharps Chapel area, one in the
6 Big Ridge area and then one at the existing landfill. We
7 currently have basically the convenient center up there at
8 the landfill now. I think many of you have seen that. We
9 have applied for a grant to put in partitioning containers
10 at the landfill that can be used for recycling: glass,
11 plastic and so forth. We are hopeful that that will be
12 funded and then that will help some with the cost of that.
13 There is also another grant that we have not applied for.
14 You have to have the sites specific when we do apply for it
15 but it is earmarked for each county so there's some question
16 as to whether we will get it or not. That's a fifty
17 thousand dollar grant to defray the cost of the actual
18 construction of the convenient centers. So all we have to
19 do to apply for that is to determine the exact location
20 where we want those convenient centers to be.

21 MR. SIMMONS: David, let me ask you a question on
22 the convenient center and if I get to asking too many
23 questions tell me to hush. The twenty-five percent
24 reduction, if we have three convenient centers, do you have
25 any idea of what percentage those convenient centers will

1 be, will it be ten percent of recycling, fifteen percent?

2 MR. BEVERLY: I don't think we've tried to break
3 that out in the plan and you really don't know, I don't
4 think, until you get those convenient centers in place and
5 how the public is going to use them. I predict and think
6 that the convenient centers are going to get used a whole
7 lot, just a whole lot. And I'm going to add this too, it's
8 sort of my own comment too about the convenient center.
9 While we're trying to establish tipping fees and will help
10 us defray all this cost, to minimize the appropriations from
11 the general fund, if a big percentage of the waste goes into
12 these convenient centers I think the county needs to
13 consider some sort of a tipping fee arrangement at the
14 convenient center. I think Knox County tried to go a
15 different way and now they are wishing they had done
16 something different.

17 MR. SIMMONS: David, that's something that Ken
18 Yeager, the County Executive for Scott County --

19 MR. BEVERLY: Knox County has been providing cost
20 on the convenient centers.

21 MR. SIMMONS: I've talked to Ken Yeager, County
22 Executive for Scott County and he told me on these
23 convenient centers that it was such a popular thing that
24 they had one in every district in that county.

25 MR. VON SCHIPMANN: That's what we had originally

1 proposed. I think if you would go through the minutes of
2 our meetings in the back, we danced all around the issue on
3 the number of convenient centers, but each time that we
4 proposed more than three we were informed that the county
5 commission would not support more than three and that's why
6 we ended up with three, because let's face it, what good is
7 the plan unless we get cooperation from the county
8 commission to do this.

9 MR. BOWMAN: I think the biggest thing is the
10 expense part.

11 MR. SIMMONS: Well, Paul, if you put in a tipping
12 fee at those places that would take care of about all of the
13 expense.

14 MR. BOWMAN: Well, you've got to have bathrooms,
15 you've got to have all these things. You've got to have the
16 property.

17 MR. WITT: And a phone too.

18 MR. VON SCHIPMANN: The main drawback to
19 establishing a tipping fee, they started to do that in Knox
20 County and then immediately caused proliferation of roadside
21 dumps and people quit using them. And our objective is to
22 clean the county up, not to litter the county.

23 MR. BEVERLY: We feel like the three convenient
24 centers absolute minimum that the county needs. Sharps
25 Chapel area is tremendously growing at this time and people

1 in that area are very deserving of a convenient center and
2 at our lower end of the county I think the people on that
3 end really need a better access way of disposing of their
4 garbage. So the landfill being in the Luttrell area, having
5 one there already, actually you're just looking at building
6 two, and we'd have three.

7 MR. JONES: Where will the sites be in the Big
8 Ridge area?

9 MR. VON SCHIPMANN: They haven't been determined
10 as of yet.

11 MR. KITTS: I've got to talk to Gerald on that.
12 I've got something working on that and I've got to talk to
13 Gerald and see what we can come up.

14 MR. SIMMONS: These have to be in effect by
15 January 1, '95?

16 MR. KITTS: Right.

17 MR. VON SCHIPMANN: They have already identified a
18 site, I believe, in Sharps Chapel area according to one of
19 the county commissioners. He said that there was a site
20 identified for that.

21 MR. BEVERLY: Also, at each of the convenient
22 centers will be an oil collection center. Used oil and
23 waste oil containers to be recycled and also one of the
24 purposes of course is to try to minimize this 25% reduction
25 is to utilize a portion of the new landfill to be designated

1 specifically for Class 3, Class 4 material which is
2 demolition material and yard waste. There is an annual
3 hazard waste collection program under way and we'll have
4 collection points and the state will bring around their
5 vehicle and equipment to collect hazardous waste.

6 MR. ENGLAND: The dumpsters that sits at the
7 convenient center, will they belong to the county or will
8 they be somebody contracted to the dumpsters and trucking it
9 to the landfill. Will that be the county or will that be
10 the contractors, or have you all gone into that.

11 MR. BEVERLY: That's not been determined.

12 MR. VON SCHIPMANN: Whichever would be most
13 economically feasible. You know, if we could save money by
14 letting somebody contract to do that that would be the more
15 sensible thing to do than for us to purchase and then have
16 somebody hand picked.

17 MR. BEVERLY: In Chapter 3 page 14, there is a
18 table here that does identify some of the cost we've
19 estimated for the convenient center and we've estimated an
20 actual one time construction cost of \$53,000 per center, and
21 we'll break that up for \$15,000 per year for personnel for
22 each one.

23 MS. KITTS: What page is that?

24 MR. SCHWARTZ: The last page of Chapter 3.

25 MR. BEVERLY: You can see there on an annual basis

1 we've estimated \$13,000, \$45,000 and \$72,000 annual cost for
2 the convenient center or a subtotal of \$130,000 per year for
3 the convenient centers and that's based on the three.

4 While we're talking about this particular table,
5 there's also another one. This table here was based on the
6 5.5 acre tract that we utilized just for Union County waste
7 only and we sort of did a what if comparison and said if we
8 were able to be able to utilize all the additional airspace
9 and sell the addition airspace, we worked up a cost
10 comparison of that. And I was looking for that, it's
11 probably on back in the report.

12 MR. SCHWARTZ: It's in the Executive Summary, Page
13 14.

14 MR. BEVERLY: One of the things and I think this
15 graphically points it out, down in the revenue section, if
16 we try to go it alone and not incorporate any other waste we
17 may be looking at tipping fees in the range of \$53.00 a ton
18 to cover all the cost. Whereas, if we utilize all the
19 airspace available, that could be used to more than cut it
20 in half. And all that depends on how much airspace we do
21 actually sell or somewhere in between. So it gives us a
22 pretty wide range of flexibility there to play with the
23 amount that we have to charge on our tipping fees, according
24 to how much airspace and how we address it and try to go
25 after that market.

1 Back in Chapter 3 also there's a couple of tables
2 after on pages 15 and 16, that again is a what if situation,
3 if we were able to sell some of that waste to some of the
4 other folks, what the indications of that would be.

5 One of the things that the board felt was very
6 important in the overall plan since we are talking about
7 expanding the landfill is to take care of the citizens that
8 live in the vicinity of the landfill and this table of cost
9 here does include a dollar amount in there for water line
10 extensions and for road improvements. Clayton Townsend and
11 I got together and discussed what he felt was pertinent to
12 beef up the road over there. He's given me an estimate of
13 \$83,300 which would in essence re-blacktop all the way from
14 Tazewell Pike, across Kitts Road, down to Archer Road.

15 MR. SIMMONS: What was that amount David?

16 MR. BEVERLY: \$83,000. And we also have a dollar
17 amount in there of \$66,000 that could be utilized for water
18 line extensions around Kitts Road and then possibly up Wolf
19 Road. And it's also been discussed about trying to utilize
20 some of these CBDG applications to also extend water in
21 those areas. But that was an important consideration that
22 the board wanted to include was to beef up the roads,
23 improve the roads and to provide water to the citizens in
24 the immediate area.

25 One of the key elements in the program also is

1 education. And I think it's very critical for all of us,
2 not just the youngsters in the elementary and high schools
3 but also the citizenry in large, and we've gone into some
4 detail about that in the report. One of the I think most
5 important recommendations that the board has made is that a
6 solid waste authority be established. A solid waste
7 authority is different from the solid waste board in that
8 the authority would have the responsibility to run the solid
9 waste program as a business, to set tipping fees, to hire
10 personnel, to go after markets that are available. Do all
11 those things that it would take to make that a viable
12 business, if you will, on behalf of the county, and we've
13 addressed that in there also.

14 Another element that we put in there was to
15 enforce the state tarp law and we've given some incentives
16 for people to do that, in order to control the litter that
17 goes -- in other words, a truck going to the landfill needs
18 to be covered with a tarp. If it has loose material that's
19 going to fly out all over the roadside as it goes up through
20 there.

21 I think those are the high spots of the report in
22 general. I think it would be helpful maybe if John took a
23 few moments just to give you a bird's eye view of what is in
24 each of these different chapters so it might help you as you
25 look at this or review it later and then we can open up to

1 some more questions.

2 MR. SCHWARTZ: For the record my name is John
3 Schwartz. The format of the report is basically mandated by
4 the state. If you look at the table of contents, there are
5 three parts. The Executive Summary which essentially just
6 goes through and spends about a page, a page and a half,
7 reviewing what has been done in detail in all the chapters.
8 Then you've got Part Two, which is the detailed plan going
9 through each and every one of the items that the state has
10 said have to be included in the plan and then there are
11 appendixes in the back which include the legal
12 documentation, the original organization, there is an
13 appendix in there for documentation of Adjusted Base Year,
14 we did not adjust our base year because there was no need
15 to. Public participation activities, there are minutes from
16 all of the board meetings and the appointments and then the
17 final appendix is the review by Appropriate Municipal or
18 Regional Planning Commission. On two pages behind that
19 there is the time frame that David had mentioned earlier and
20 on June 13th we are going to come in front of the county
21 commission to seek approval or disapproval of this plan and
22 when we do that there will be a formal letter or formal
23 resolution that says that they do or do not adopt that and
24 it will be signed by all the commission members and that
25 will have to be included as a part of this plan. That's

1 essentially why we're going for June 13th for the final
2 approval, to incorporate any changes that anybody has the
3 desire to tell us that we need and to get that final county
4 approval or disapproval. But I believe the plan will,
5 regardless of whether the county commission does or does not
6 accept the plan, it will have to be submitted to the state
7 because as of July 1st the county is liable for some pretty
8 hefty fines unless by that date there is some sort of a plan
9 on file with the state.

10 MR. SIMMONS: John, is that whether the county
11 commission approves it or not?

12 MR. SCHWARTZ: Whether the county commission
13 approves the plan or not. The county is required by the
14 Tennessee Code to have a plan submitted to the state as of
15 July 1st, 1994, and when we submit this to the county
16 commission there will be a resolution that they will all
17 sign that will say that they do or do not approve it,
18 regardless, the plan will be submitted to the state over
19 their objections, if so be. Just to cover the county from
20 being legally liable. There are some pretty hefty fines.

21 MR. VON SCHIPMANN: The fine criteria is anywhere
22 from five thousand to a maximum of ten thousand dollars per
23 day for noncompliance of funds withheld from the county so I
24 think it's imperative that we get it into the state by the
25 deadline.

1 MR. BEVERLY: Let me ask a question just for
2 logistics here, basically our firm was hired by this board
3 to prepare this plan from their instructions, I guess my
4 question is if we come here June the 13th and county
5 commission says we will approve it if these changes are
6 made, we get our directions from the board as far as this
7 report is concerned, so I'm asking the board, what am I
8 instructed to do at that point?

9 MR. KITTS: Comment?

10 MR. VON SCHIPMANN: Well, the only comment I'd
11 have is we spent thirteen or fourteen months coming up with
12 this plan, it's been open on everything, minutes have been
13 supplied to County Executive, if anybody has any -- most of
14 the motions that we have past have been presented to the
15 county commission, now whether they have failed to listen or
16 chooses to ignore is up to the county commission, however,
17 my feelings are that unless they can come up with a better
18 plan we were commissioned to do this and we have spent a
19 considerable amount of time on our own to do this over the
20 past fifteen months, and for somebody just to read through
21 it and criticize is very easy, but I would like -- before I
22 would consider changing anything I would have to see some
23 viable alternatives.

24 MR. BEVERLY: Well, you understand the jest of my
25 question. As long as the county commission understands

1 professionally where we are coming from, we are to answer to
2 the board as far as this report is concerned.

3 MR. KITTS: I think that probably to resolve this
4 we should be at the county commission meeting on June 13th
5 and then we can interact with any of their comments and
6 probably -- possibly be able to resolve anything.

7 MR. VON SCHIPMANN: Along those lines, I was
8 called last week by a member of this board who's not here
9 tonight and said that county commission was all upset about
10 our plan, they weren't going to approve it, they didn't like
11 anything that was in it, which to me seemed very strange
12 since they didn't have a copy of it. How they could have
13 already made that decision before they saw the plan, and
14 that's what I was told that this gentleman had heard here in
15 the courthouse. Like I say, I commend all of you who have
16 come tonight to show the interest to come, I can't say the
17 same thing for those who failed to come and who have failed
18 to pay any attention to it, to what has taken place. It's
19 been available, the information at any time where we stood
20 in the form for minutes, I've made sufficient copies to pass
21 out at every meeting, I've passed every citizen in the
22 crowd, to me it's kind of disheartening and sad that even
23 tonight on our own board there are only four out of the
24 seven members here and only three of the fifteen members of
25 the county commission, which shows a total lack of interest

1 as far as I'm concerned.

2 MR. SIMMONS: Mayor, I don't know who told you
3 that and I don't want to know who told you that but --

4 MR. VON SCHIPMANN: That's why I didn't say any
5 names.

6 MR. SIMMONS: -- but I have not had a county
7 commissioner, not a person tell me yea or nay about this
8 plan because they don't know about it.

9 MR. VON SCHIPMANN: That's what I couldn't
10 understand.

11 MR. BOWMAN: I agree with Ronald on the thing, I
12 think we should all be at the county commission meeting and
13 we're all working for the same thing and I think any problem
14 with it can be resolved, whether it can or can't it's going
15 to have to go in like David said, it's going to have to be
16 in there, there's no time to make up another one. So it's
17 going to have to go into the state July 1st no matter what,
18 so we're all working for the same thing and I think it can
19 be resolved if there needs to be changes.

20 MR. WITT: I'd like to say a few words in regard
21 to David's question. I'm a hundred percent hooked on what
22 he said about it. I think the board needs to decide tonight
23 what we're going to expect Beverly to do at the county
24 commission meeting, whether they accept or reject. I myself
25 think we've spent a lot of time on it. There's been a --

1 the county commission has been advised on all these things
2 that have come up at different times and like he said,
3 there's only three of them that showed up here tonight, and
4 myself, I feel like we need to go with this plan we've got.
5 If they want to approve or disapprove, it'll be up to them,
6 let them change it if they want to change it.

7 MR. SIMMONS: If they don't like what you've got
8 tell the ones that don't like it to come up with another
9 one.

10 MR. WITT: If it's an order I'll make a motion
11 that we go by the plan we've got.

12 MR. KITTS: I have a motion, do I have a second?

13 MR. VON SCHIPMANN: I'll second that motion.

14 MR. KITTS: All in favor say I.

15 (The board all say I.)

16 MR. BEVERLY: If we may let us labor through this
17 thing that John started so we -- and then we can open up for
18 some more discussion. I think it's important on the record
19 that we go through these chapters just to let people that
20 might read the manuscript from this public hearing tonight
21 be able to know what's in the plan.

22 MR. ENGLAND: The motion that you all just made
23 and approved says that we can't change anything in here,
24 period. If we want to change one little thing we've got to
25 vote the whole plan down, I think you ought to amend that a

1 little bit in case somebody does want to change something.

2 MS. KITTS: You've got a very good point.

3 MR. VON SCHIPMANN: Would these amendments be
4 capricious or would they have weight behind them or would
5 they have, you know, we've spent fifteen months coming up
6 with these things. We've tried to follow the guidelines of
7 the county commission on what we have been told they -- by
8 Mr. Simmons and by David Beverly who has spoken to the
9 members of the solid waste board or the landfill committee
10 on the county commission and we have tried to fulfill those
11 desires. Basically, my own self I thought we were better
12 off to contract to someone else to haul all the trash out of
13 the county, I think it would have been cheaper than what
14 it's going to cost us. That's my own opinion, however, I
15 went along with what the county commission wanted in their
16 desires as far as wanting to have a Class 1 landfill here in
17 the county.

18 MR. KITTS: I think basically, Gary, we're not
19 trying to be real hard nosed but we have, all as individuals
20 invested a lot of our own time free to the county since
21 February of last year. We've met and we've tried to solicit
22 the aid of the county commissioners or public officials or
23 just the public in general into developing this plan. And
24 maybe at the eleventh hour it's hard to make a lot of
25 changes.

1 MR. ENGLAND: I commend all of you for all the
2 work you've put into it and, you know, I'm glad you all did
3 it because that saves us a lot of time and everything, we
4 could probably never have agreed on a plan anyway, so you
5 know how that goes. What I'm saying is the way that you
6 made the motion there and everything nothing could be
7 changed unless you vote the whole plan down.

8 MR. WITT: If I understand it right this meeting
9 is public review, the public is suppose to be here and any
10 changes they wanted made was supposed to be made tonight, is
11 my understanding.

12 MR. JONES: Did he not also leave it open till --

13 MR. VON SCHIPMANN: David recommended that,
14 however, that in effect as far as I was concerned when he
15 made that recommendation negates us even having a public
16 hearing because then it becomes a private hearing and rather
17 than public and open to the public to express their
18 acceptance or nonacceptance of anything that would come up
19 outside of a public hearing.

20 MR. BEVERLY: I made that comment and
21 recommendation because most public hearings that I'm
22 familiar with do have a period of time after the public
23 hearing to receive comments from the public.

24 MR. VON SCHIPMANN: But doesn't that normally
25 entail a second public hearing afterwards to go over these?

1 MR. BEVERLY: Not necessarily. For instance, the
2 public hearings I've been involved with -- when we have the
3 plans prepared for the new landfill expansion, we'll have a
4 public hearing and there will be comments that will be
5 received for some period of time after that that would then
6 be reviewed by the state themselves. I may represent that
7 that's all the public hearings I'm familiar with do, that's
8 only my recommendation. I think the board needs to decide.

9 MR. KITTS: Let me ask you gentlemen this, would
10 you be willing --

11 MR. VON SCHIPMANN: To amend your motion?

12 MR. KITTS: -- well, would you be willing to after
13 county commission meets on it. They may approve it, you
14 know, they may approve it but say they came up with some
15 changes that they feel like is necessary, I think we should
16 probably be open minded enough maybe to look at them and
17 consider them. If we feel like they're not in line then we
18 can say no, you know, we don't think those changes are
19 necessary.

20 MR. VON SCHIPMANN: Would this be prior to the
21 county commission voting on it that we would do this, which
22 would necessitate another meeting of us, you know, of this
23 board?

24 MR. SCHWARTZ: Let me ask you something, David
25 had mentioned that we leave this open for public comment

1 until I think he said June 6th.

2 MR. BEVERLY: The 6th of June.

3 MR. SCHWARTZ: If within that time we get anything
4 that is a substantial change what would preclude calling us
5 together.

6 MR. VON SCHIPMANN: Who determines what's
7 substantial though. What may be minor to them may be
8 substantial to us, you know, we need to draw some
9 guidelines.

10 MR. SCHWARTZ: Well, at that point in time I'm
11 sure that you all are in touch with Gerald at one time or
12 another. If Gerald gets a comment of some sort he can
13 contact one or the other of you -- one or several of you and
14 then it's your choice. I'm sure that you all talk to each
15 other other than just the one time a month on this and if
16 you feel that there is something substantial then you can
17 call a meeting.

18 MR. VON SCHIPMANN: I would prefer any comments to
19 be in writing rather than verbal, and that way everyone gets
20 the same interpretation rather than everyone interpreting
21 and the comment being changed as it went from one mouth to
22 ear.

23 MR. SCHWARTZ: I understand that. I totally
24 prefer to have something in writing also. From the
25 standpoint of Gerald getting the comments, if he gets in

1 touch with one, two or several of you and says there's a
2 substantial comment here.

3 MR. BOWMAN: I agree that it should be maybe left
4 open till then.

5 MR. WITT: Well, I done what I done to give David
6 an answer, but see it's done caused a lot of conflict here.
7 I'll withdraw my motion and get it off.

8 MR. KITTS: Why can't we just meet jointly with
9 the county commission on the 13th of June and we can say yea
10 or nay, whichever, and then --

11 MR. VON SCHIPMANN: We can't work it out there.

12 MR. KITTS: You don't think so?

13 MR. VON SCHIPMANN: No. I mean they can't decide
14 on the name of a street unless they --

15 MR. BOWMAN: Well, we're all working for the same
16 thing I think.

17 MR. SCHWARTZ: No, but the authority to yea or nay
18 this plan is you alls. You could go to that county
19 commission meeting and discuss with them why they have these
20 objections, why they have these substantial changes,
21 substantial or minor changes, and then if you can hammer
22 them out or get a -- resolve them to your satisfaction then
23 they can be incorporated into the plan, if not, then they
24 don't have to be incorporated into the plan. That is the
25 whole purpose of the board.

1 MR. BEVERLY: Mr. Chairman, does this board not
2 need to meet after the county commission meets on the 13th
3 to give us the final instructions to submit as is or with
4 any incorporated changes which have been suggested either by
5 county commission or by public comments that may have been
6 received?

7 MR. BOWMAN: We'll have to after the 13th because
8 it goes into the state on the 1st of July.

9 MS. KITTS: You don't have a whole lot of time to
10 make changes.

11 MR. VON SCHIPMANN: The reason I bring this up
12 about substantial or who determines what's a substantial
13 change or a minor change, we spent thirty minutes dissecting
14 one paragraph on page ES7 that took out a set tipping fee
15 and it was my contention that we should not have a set
16 tipping fee in here that we would be locked into because the
17 market may change as soon as the -- as everyone else is
18 coming into the same -- playing the same game by the same
19 rules. If everyone else were to all of a sudden have their
20 tipping fees set at \$40.00 and we had ours set at \$26.00,
21 all the businesses of course would come to us but we would
22 be loosing money in comparison to other counties, and that's
23 why -- and to me some of the people thought that was a minor
24 thing that I was arguing the point on, but to me it's a
25 fairly major thing because it could conceivably cost this

1 county millions of dollars over a ten year period.

2 MR. KITTS: How do you gentlemen feel about
3 meeting on Thursday, June 16th, at 7:00 o'clock and then we
4 can charge Mr. Beverly with what we decide at that time
5 after the county commissions meeting.

6 MR. VON SCHIPMANN: When is this now?

7 MR. KITTS: It'll be Thursday, June 16th. We can
8 made a decision at that time after we hear what their
9 comments are. In other words ,if they want a change and we
10 don't want a change, at that time we can have David either
11 send a plan as we prepared it, you know, to the state.

12 MR. VON SCHIPMANN: If we were to do that Walter
13 needs to, by rule of order, he needs to withdraw his motion.

14 MR. WITT: I've done withdrewed it. I've done
15 done that.

16 MR. KITTS: So that will resolve that. We can do
17 it that way, don't you think?

18 MR. SIMMONS: At our last county commission
19 meeting, if you fellows remember, we agreed that we would
20 discuss this solid waste plan and then if they felt like
21 that there were any changes that needed to be done that we
22 would come back on the 27th and approve it, approve the
23 plan. That's what we discussed. I don't think there will
24 be many.

25 MR. VON SCHIPMANN: I really don't think there's

1 anything in this plan that will be objectionable. There is
2 one thing and that is on the -- that probably would create
3 more questions than anything in my opinion and that would be
4 the establishment of a solid waste authority, to decide what
5 to do. However, all of you that are on the county
6 commission may want to think about the fact that that would
7 take it out of the political realm, it would no longer be
8 the county commissions fault of who did this or that, it
9 would be just like the school board has done this or that,
10 you know, it would be an entity like the school board or,
11 you know, it's a little different situation than having the
12 county commission who holds that authority accountable,
13 however, and the public of course could also, but the public
14 would not be holding the county commission accountable as
15 such for any decisions made. To me it just took it out of
16 the political realm is the reason that we were suggesting
17 that.

18 MR. KITTS: If you don't care let's let John go
19 ahead and finish making his presentation and then we'll open
20 the floor up for some more discussion.

21 MR. SCHWARTZ: On the first major section of the
22 report is the Executive Summary. Essentially what it does
23 is it's a basic overall review of what's in the body of the
24 report. The introduction on the first couple of pages just
25 quotes that Tennessee Code that authorizes the preparation

1 we say in our report, fiercely independent, and they want to
2 do things their own way. So East Tennessee has the
3 preponderance of the single county planning regions.
4 There's one two county region and then the ones in the green
5 are multi-county regions, going anywhere from three counties
6 to ten counties.

7 Further on in the Executive Summary there is a
8 summarization of the regional needs, what is necessary to
9 implement in, and this is just a brief couple of paragraphs
10 going over what's necessary to make Union County comply with
11 the Solid Waste Management Act. Then the next section are a
12 series of the goals that are further elaborated on, further
13 in the body of the report.

14 Going through specifically in sort of a checklist
15 order of what the state requires that there be a long range
16 plan over the ten year period. The next little section is
17 talking about the idea that Union County is going to operate
18 a new landfill and we're in the process of permitting it.
19 Giving them an idea of what our plans are for the next ten
20 years for our deposal needs. The next little section deals
21 with the convenient center. There's a formula that the
22 state uses to mandate the minimum number of convenient
23 centers that each one of the regions have to have. This
24 sort of summarizes that. There's a whole chapter later on
25 in the report that goes into detail on that.

1 The next little section is talking about the 25%
2 waste reduction. That's by weight that we have to achieve
3 by December 31st, 1995. They also require us to address
4 household hazardous waste, used tires, used oil. That is
5 summarized further in here and probably the most important
6 part of the whole plan to make the plan work is the
7 educational aspect, because we can provide the best
8 facilities, we can provide all the convenient centers we
9 want to, if we do not have an educated population that knows
10 that they are there, how to use them, what recycling means
11 and how it's going to help the county, all of the efforts is
12 going for nothing, it's going to go to waste.

13 In a lot of the literature that I've been reading
14 that's been coming across our desks and stuff, most of the
15 counties are starting to realize that the educational aspect
16 -- that the state is really pushing the educational aspect.
17 In all of the grants that we're applying for, the used oil
18 grant, the recycling equipment grant, all of them gives
19 specific breakdowns in their respective areas. But all of
20 them have education. They've got a major portion of each
21 one of the grants is educational purposes, literature,
22 pamphlets, meetings, whatever. The education is going to be
23 the key to making this work or not work.

24 The next section is system elements in the
25 regional plan. It goes through and talks about the -- there

1 again, the landfill capacity, the convenient center
2 locations which have not been set yet but the time table for
3 their being implemented, the resource recovery, the
4 recycling facilities and once again education. If you read
5 through the plan you're going to notice that that's getting
6 pounded, just about in every chapter the idea that the
7 education is a very important part of this. The state
8 requires a sort of an outline as to how we're going to
9 integrate whatever the new proposals are in this plan with
10 what we have. That's the next section in the Executive
11 Summary. It goes through and talks about the new scales
12 that have been put into the landfill facility to better
13 monitor the waste.

14 We can have a better idea of telling the state,
15 hey, we did meet the 25% goal. Because if we don't have
16 accurate records as to what's going in and what we're
17 pulling out of it then there's really no way we can tell the
18 state. And a lot of the counties, Knox County, whether
19 their large, little, the planning regions, they are all
20 really worried about reaching this 25% goal, and it looks --
21 from the figures and from the possibilities it looks like
22 Union County may be one of the premiere counties for
23 actually meeting that goal. We may stand out as an example
24 to the state. If we stand out as an example to the state
25 we'll be a national example also. Because while this is a

1 state mandated program it is also in the offices of the
2 Environmental Protection Agency. So there is potential for
3 Union County really standing out in this.

4 There's a section again on the household hazardous
5 wastes, used automotive oils and then the next section goes
6 through a little bit of the educational program, the teacher
7 programs that have already been in place in the schools, the
8 recycling programs that Becky and Johnny Munsey have
9 instituted. Their educational programs going into the
10 schools and giving the lectures and things to the kids.
11 Operations, general operations and then the next section is
12 implementation schedule. The state wants to know when do we
13 intend to meet some of the target dates that they have set.
14 The first one being the submittal of this plan on July 1st
15 of this year, which we intend to do. The next one is the
16 siting of the convenient centers, the annual 25% reduction,
17 when it's suppose to be met and a definitive statement as to
18 whether we intend to meet these. That's all included in
19 that section.

20 Then there is -- they want an estimate of the ten
21 year cost of the plan. When we started with the board we
22 had done a life span study for the board on a twelve year
23 basis and that's where we came up with this table in the
24 Executive Summary page 4. The data has already been gone
25 over and we just went ahead and used these figures in the

1 report rather than doing it over the ten year mandate.

2 After the Executive Summary we go into what they
3 call the detailed part of the plan. Chapter 1 is a
4 description of the solid waste region. That's basically
5 going through ETDD, East Tennessee Development District, was
6 mandated by the state to prepare a demographic and
7 physiographic and population study of the needs of Union
8 County and that had to be incorporated into this plan so it
9 was mandated by the state so that we could use it for this
10 plan.

11 Going through here there is a general description
12 of the region, giving the area, major cities, major valleys,
13 the physiographic makeup of the county. Here again, the
14 next section is rationale for formation of a single-county
15 region. Why Union County choose to be a single county
16 region. And essentially it's because nobody else around us
17 really wanted to -- everybody wanted to have their own
18 county region and Union County included, so that elaborates
19 that for the state. That is required.

20 At the beginning of each chapter there is a little
21 list of the major statutory requirements and at the
22 beginning of Chapter 1 that was the main statutory
23 requirement of Chapter 1, why we failed to adopt a
24 multi-county region. The next section in the chapter is the
25 institutional structure. There is a table here with the

1 members of the board. And gives some of the
2 responsibilities and how information was transferred between
3 the board, between county commission and to the engineering
4 firm to prepare the report. They also wanted to know what
5 kind of public participation was involved in the formulation
6 of the plan. In here we list the -- if we provide for the
7 appointment of what they call a Solid Waste Advisory
8 Committee, which each one of the members of the board was
9 suppose to solicit the help of individual county residents
10 to help give input as to what they deemed was necessary,
11 what they felt was good, what they felt was bad about the
12 report, they collected a lot of the data that was used to
13 analyze the specific aspects of the plan, there's a list of
14 their names as of December 1993 and gives a general overview
15 of some of the things that they were involved with.

16 Demographics, this is just a breakdown of area,
17 the population by age, by sex, by housing and occupancy,
18 there is a population projection. If we're going to design
19 for the capacity of the landfill and what we're going to do
20 in the next ten years we had to have some handle on the way
21 Union County was going to grow.

22 Regional economic activity, essentially the total
23 earnings for the county population, a per capita income,
24 breakdown on of non-agricultural versus agricultural
25 employment, the industrial employers in the county and how

1 many people they employ. These all were formulated by the
2 Department of Commerce at the UT Sociology Department and
3 East Tennessee Development District. There is a basic
4 overview of what the county generates, the way tax revenues,
5 what kind of revenues the county is looking at to assure
6 operation of the plan and the operation of the county.

7 The next chapter is Chapter 2. Analysis of the
8 current solid waste management system, in other words, what
9 do you have in place now. This is essentially an overview
10 of the waste stream that we currently have. Union County,
11 the tons of waste that was projected. Because we did not
12 have an actual engineering study of what was generated in
13 the county, there are certain default parameters that EPA
14 and the state has adopted that can be applied to the county
15 population to come up with these figures. That's how a lot
16 of these figures are arrive at.

17 Distribution of solid waste by source, these again
18 are by the default values because we did not have an actual
19 study where we sat down for a year and had somebody go
20 through the trash and actually decide what the make up was.
21 Divertable Wastes presented for disposal at the Union County
22 Landfill in 1991, there are base years that the state has
23 mandated that we use for the waste stream characterization
24 they require in 1991. That way there is equity among all of
25 the counties.

1 For our waste reduction they mandate a different
2 year which we'll get into later on. It's 1989. That's
3 because some of the background work for this had been
4 started before the Solid Waste Management Act was actually
5 formulated.

6 The next page, Chapter 2, page 4, is a table that
7 shows what those default values that EPA has set for waste
8 stream characterization. This is what they assume on a
9 national average the waste stream is. We do say down in the
10 text that some of these are not true for Union County
11 because they're not for -- we're a rural agrarian county, we
12 will have a larger production of yard wastes, wood, other
13 waste that normally a large metropolitan area would not
14 have, so it would influence these figures. But by
15 elaborating on those further down in the text we can sort of
16 jockey backwards and forwards as to how we use these default
17 values because we do not have an actual handle on what the
18 value were in 1991, and that's the base here that everything
19 is set on.

20 The next page shows the -- there again we're using
21 default values. CTAS or the county technician advisory
22 service over at the University of Tennessee has estimated
23 that a typical figure to use for waste generation is six
24 pounds per person per day. And if you take the county
25 population, multiply it by that, divide by two thousand

1 pounds you get an average potential waste generation of
2 fifteen thousand tons per year. The actual waste that they
3 quantify was 8,905 times per year which meant that there
4 were 6,300 tons that they were estimating that was going
5 somewhere that we need to try to capture back into the waste
6 stream and that's what a lot of the recycling and the
7 convenient centers are hoping to take advantage -- we hope
8 that they will take advantage of those and capture the
9 majority of that waste. The waste that you find at the
10 roadside dumps and just laying in the ditches along the
11 roads and the little hollows.

12 We go through and elaborate a little bit about
13 what some of the industrial wastes are in the county,
14 Clayton Homes in particular, they estimate 900 tons per year
15 of waste generation. That's a sizeable amount. And further
16 on in the report we get into the recycling. We break that
17 down into what the component parts are and how it's playing
18 into the recycle aspects that we have right now.

19 Waste collection and transportation systems,
20 that's just an overview of what is in place. And here
21 again, the next section gets into the resource reduction and
22 recycling. There's a whole chapter further on in the report
23 that we'll get to in a little bit that talks about the
24 resource recovery, recycling and what the plans are. What
25 the board has essentially chosen to take as the direction

1 for Union County to meet these goals, this 25% reduction and
2 to get these valuable materials out of the waste stream and
3 being just buried in the landfill over there.

4 There's going to be an effort essentially in the
5 education aspect to promote composting. We have very little
6 waste processing right now from the standpoint of actually
7 taking it and using it for another purpose. Waste energy
8 incineration, while not right now considered a viable option
9 they are options that are being left open on in the report.
10 There are -- as new technologies evolve there are smaller
11 packages that you can buy that can be helped to reduce your
12 volumes. That's one of the good things about the annual
13 update that has to be done on the report and the five year
14 review, an in depth review every fifth year, as to what may
15 need to be changed about the plan, what's good about the
16 plan, what's bad about the plan and what new aspects can be
17 added to the plan.

18 The next section, disposal facilities, it
19 describes where the current landfill is in depth, gives some
20 of these areas and volumes that are available. The next
21 section is just a basic overview of the costs and revenue
22 for the existing facility. Right now it's estimated that it
23 cost about \$178,000 per year to operate and maintain the
24 Union County landfill, of that \$78,000 approximately comes
25 from the general fund. The rest of it is gotten through the

1 various fees that are collected at the landfill and from
2 other programs. I'll just explain this a little bit more,
3 these next few tables --

4 MR. SIMMONS: John, may I say something on that?

5 MR. SCHWARTZ: Yeah.

6 MR. SIMMONS: I have some county commissioners
7 that believe, and I don't know how we can ever change them,
8 but they think that you don't need to charge people a
9 tipping fee because they're already paying for the operation
10 of that landfill. And I've explained to them that only
11 \$78,000 is all the tax money that's going into operating
12 that landfill, and all the other revenue coming in is from
13 Domermuth, Steve Snelson and other people that dump there,
14 you know. But that's the reason they're against it, they're
15 saying that people are already paying for it. They're not
16 paying for it.

17 MR. SCHWARTZ: No, they're not and as we get into
18 a little bit further into the report, when the new -- when
19 the existing landfill is closed and we have to operate a new
20 landfill under the strict EPA and state mandated rules and
21 regulations, they can be very expensive operations. We are
22 attempting to minimize those costs and I think we're doing a
23 pretty good job of keeping them down to a minimum. We're
24 not anywhere near on our estimates what some of the figures
25 that have been tossed around by the state in the past are

1 but they are still -- it's still a pretty costly operation,
2 but you have to do something with it.

3 MR. SIMMONS: Yes.

4 MR. SCHWARTZ: And as we're getting into later on
5 in the report there is a very good possibility for Union
6 County to really drastically reduce the cost to our citizens
7 in this disposal, but at the same time if we are very
8 careful as to who we choose and what we choose to do with
9 the excess capacity that we may have it could be a money
10 making proposition for the county.

11 The next table, Table 9, is the current
12 residential tipping fees, this is what is currently being
13 charged at the gate. We talk a little bit about as you
14 mentioned Domermuth soils coming in and what they charge
15 currently, there's a tipping fee for that. This chapter,
16 what it does is it essentially tells the state what we have
17 in place right now.

18 Education and public information programs, this is
19 a little bit of an overview of what is being done. It's a
20 good start and the plan -- the chapter further on in here
21 talks about the education plans and what we intend to do,
22 not only for the schools but for the adult population,
23 because Chapter 9 elaborates on this tremendously because
24 there again it seems that most of the literature that's
25 coming out seems to be trying to put the focus on education.

1 That we're not going to accomplish anything with this unless
2 we can educate people to use it.

3 There's a little section here about the household
4 hazardous waste, identify what we're doing with them
5 currently. And then there's a ten year disposal capacity
6 assurance. Do we anticipate that we're going to have the
7 capacity to carry out this plan for ten years? With the new
8 landfill that we are in the process of trying to permit we
9 are going to have a tremendous amount of capacity. As a
10 matter when you take into account the Domermuth soils, at
11 their maximum the Union County expected generated wastes and
12 Tenn-Luttrell has approached the county with the idea of
13 getting rid of a major portion of it's lime wastes in the
14 county landfill. There are still 2.3 times the capacity
15 that we would need for all of those combined, which leaves
16 us about, I think the total is 890,000 tons -- 890,000 cubic
17 yards. We will have an additional 1.2 million cubic yards
18 of airspace that could be sellable and the county could be
19 very selective to whom they would sell it to and it could be
20 very profitable.

21 MR. SIMMONS: Now, John, that is if we buy this
22 other property.

23 MR. SCHWARTZ: That is if you buy the Capps
24 property.

25 MR. SIMMONS: Just the Capps property?

1 MR. SCHWARTZ: Just the Capps property. That does
2 not include the Damewood, Mynatt, and Frazier property over
3 there, that is just this one right here.

4 MR. VON SCHIPMANN: As an example Gerald, the City
5 of Johnson City has opened a Class 1 Solid Waste Landfill
6 facility in the middle of the city, they've contracted with
7 BFI, through their contract with BFI, BFI has repaved the
8 streets and everything. They've really gained from it with
9 their contract with them. You know, we can write a very
10 lucrative contract. Everybody has to get rid of waste and
11 we're all going to be under the same stipulations.

12 MR. SIMMONS: The question has come up, what after
13 twelve years? If we keep letting Domermuth putting the dirt
14 in there and then we let Tenn-Luttrell put the dirt in
15 there, just with the Capps property now, are we still saying
16 ten to twelve years?

17 MR. SCHWARTZ: Ten to twelve years with the Capps
18 property, including the Tenn-Luttrell and the Domermuth
19 soils, we're going to have 890,000 cubic yards of space.
20 With the Capps property we're talking 2.6 million cubic
21 yards of space. We are going to have tremendous excess
22 capacity. Union County is going to average about ten
23 thousand tons or about forty thousand cubic yards a year.
24 It would take us quite a long time at 40,000 cubic yards a
25 year to use the 1.2 million.

1 MR. SIMMONS: If you bought the Capps property
2 John, in my terms, are we talking about 15 to 20 years with
3 the Capps property?

4 MR. SCHWARTZ: For total development?

5 MR. SIMMONS: No, I'm talking about if we permit
6 selling airspace to Tenn-Luttrell and Domermuth and other
7 places, are we still talking about -- if we buy the Capps
8 property maybe 15 or 20 years of lifetime.

9 MR. SCHWARTZ: You could be talking about -- just
10 running the figures through my head real quickly, you could
11 probably be talking 25 to 30 years. If you're just talking
12 about the Domermuth, the Tenn-Luttrell and Union County's
13 needs.

14 MR. BEVERLY: What we need to do in the out years,
15 5 years, 10 years from now, is decide how much revenue we
16 need to come in to supplement our own sources of revenue and
17 make a decision about how much this excessive capacity we'll
18 have and try to market it. And then we can sort of play
19 with the amount of number of years we want out landfill to
20 last. So it's a matter of reaching some balance point
21 there, an equilibrium where we're satisfied with the cost
22 we're having to pay versus the number of years that it's
23 going to last.

24 MR. SIMMONS: Do you anticipate maybe in 15 or 20
25 years down the road, I don't know what the state will come

1 going to cost each year, maybe as to how much you want to
2 sell year. If you've got one large enough you've got the
3 option to where you can sell enough that you won't have to
4 raise taxes to support the landfill.

5 MR. SCHWARTZ: There's another aspect of it too,
6 as more and more counties fall out of the landfill business
7 as their facilities dry up, or close down, as the space
8 becomes more and more valuable, whatever Union County can
9 hold in reserve becomes that much more valuable. And
10 eventually there may be a use for it. And at that time
11 Union County has got the ball in their court, they're not
12 playing somebody else's ball game. It would be a tremendous
13 investment.

14 MR. KITTS: The Damewood Brothers have been here
15 two or three meetings wanting -- interested in selling the
16 property, they're wanting to sell it. I don't know whether
17 the county can negotiate a price with them or not, but
18 that's the reason it should be seriously considered.

19 MR. VON SCHIPMANN: Also, like right now I think
20 county commission, if my memory serves me correct, set the
21 tipping fee at somewhere around \$26.00 a ton or \$26.87 to
22 give the state their eighty-seven cents, and as John said
23 when it becomes more valuable as other counties decide they
24 can't afford to operate a landfill, which is happening in
25 counties contiguous to Cumberland County right now, they've

1 raised their tipping fee to \$40.00 a ton, basically in order
2 to -- because we are suppose to operate as an enterprise
3 zone which means minimal funds from the general funds of the
4 county and it's supposed to be self-supporting is what the
5 regulations state. It was complicated when they explained
6 it all to us.

7 MR. SIMMONS: My opinion on that, the
8 comptroller's office, I'd say in a few years will make us do
9 that. We might -- they might let it slip to get in there
10 but that's already one of their regulations.

11 MR. VON SCHIPMANN: It is. It is a regulation
12 that it's an enterprise zone and to use minimal money from
13 the county general fund. It should be self-supporting.
14 That's the reason -- that was another of the reasons for
15 recommending buying that, to market it, to cut down on, you
16 know, property tax supporting the landfill.

17 MR. SCHWARTZ: There's another aspect of it too,
18 something you mentioned earlier about if the state is going
19 to maybe change the rules and regulations in 10, 15, 20
20 years down the road. At that point if they do, if they
21 should institute changes it would become drastically more
22 expensive. We will have a capacity to sell and a tipping
23 fee that we can set possibly to maintain or to try to
24 maintain a tipping fee lower for Union County residents.
25 Just because what you charge somebody from outside the area

1 does not mean that you have to charge Union County residents
2 the same tipping fee. So at that time with the tremendous
3 excess capacity to help keep the cost to Union County
4 residents at a lower ratio, the numbers, we could set a
5 tipping fee for outside and there again, it's not a question
6 of having to do it. It's a question of it's Union County's
7 option to if they want to and they can be very selective as
8 to who they desire to take wastes from. You don't have to
9 take it just because somebody comes in and offers it to you.
10 You can go out and you can solicit. You can set certain
11 rules. You can set certain parameters as to what you will
12 and will not accept. It's going to be totally in Union
13 County's control and we're going to have a very valuable
14 resource 10 or 15 years down the road. That's what I meant
15 when I said it could be a very lucrative investment.

16 Further on in the plan, Chapter 3, growth trends,
17 waste projections and preliminary systems structure. Most
18 of the data in this chapter was generated by East Tennessee
19 Development District using the University of Tennessee
20 Sociology Department and census data. It just goes through
21 mainly population projections, waste generation projections,
22 several different economic and growth adjustments to the
23 waste generation qualities. Table 6 is targeted annual
24 waste generated adjusted for population and economic growth
25 and resource reduction and recycling. In other words, after

1 you take into account the 25% reduction in the planning
2 horizon of 1994 to 2003, these are the estimated
3 quantities -- the last column is the estimated quantities of
4 waste that Union County will generate that needs to be
5 disposed of in the landfill.

6 There is one small section here that Mr. Von
7 Schipmann has already brought to my attention in that
8 paragraph, at the bottom of table 6, it says that there is a
9 copy of the contract and the notice of approval for special
10 solid waste granted to Domermuth Environmental Services,
11 that will be in Appendix C, I apologize for the omission.
12 I'm trying to get a good copy to put in the report.

13 The next paragraph sort of defines a little bit
14 about the Tenn-Luttrell waste and what would be necessary to
15 include it in the landfill plans and why it would have to be
16 segregated. The Table 7 is an estimated annual quantities
17 that we can expect from Domermuth and from Tenn-Luttrell.

18 Total regional supply and demand, these are tables
19 that just take the projected Union County waste, the
20 projected Domermuth and Tenn-Luttrell wastes and add them up
21 to come up with the quantity that we can expect on a yearly
22 basis and as a total over ten years. There are different
23 conversions. Typically for residential waste the state says
24 4 cubic yards per ton, 500 pounds per cubic yard. The
25 Domermuth soils have their own specific conversion on what

1 they weigh per cubic foot or per cubic yard, that's what the
2 next couple of tables go through so that we could be talking
3 actual tonnages between the different types of wastes that
4 we're talking about.

5 Going down through that it comes up that over the
6 entire ten year horizon of the plan we expect, including the
7 Domermuth and the Tenn-Luttrell waste, we expect to handle
8 890,000 cubic yards of waste. With the Capps property we're
9 talking not included cover and burn material we're talking
10 slightly right around 2 million cubic yards. So 890,000,
11 that's leaving us 1.1 million cubic yards of excess capacity
12 that we could use later on for our own use or that we could
13 selectively sell if we needed to.

14 Preliminary system structure goes through and
15 talks a little bit about the commercial industrial recycling
16 efforts that we intend to institute, educational programs,
17 and once again mentions that the new landfill will be an
18 intricate part of this plan and that the plan will require
19 the landfill be in place to be viable and be successful.
20 Anticipated system costs and revenues, this just goes
21 through and briefly talks about some of the assumptions that
22 were made in coming up with the table on page 14 where we
23 come up with some of the revenues and the actual expenses
24 and the costs of the landfill.

25 Then as David talked about earlier, the next three

1 tables shows some of the possible savings by utilizing. The
2 first table is just if we handle Union County residential
3 commercial wastes only. The annual cost of the landfill,
4 the general fund appropriation, additional revenues
5 required, the revenue from the tipping fee set at \$26.00 a
6 ton would require the county to come up with an additional
7 \$262,000 a year to operate the landfill. If we just kept
8 with Union County wastes only.

9 The next table is Union County residential and
10 commercial waste and the Domermuth wastes, going through the
11 same formulation and assuming we're going to charge
12 Domermuth \$4.00 a ton for their wastes, which I believe
13 we're already contractually obligated or they're
14 contractually obligated to pay. Union County on a yearly
15 basis would end up with a \$39,000 a year surplus, surplus.

16 The next table includes the Tenn-Luttrell wastes,
17 the anticipated Tenn-Luttrell wastes, which they say they
18 will generate and probably increase in the generation. You
19 go through the same steps, add it all up, and you come up
20 with a surplus to the county of \$218,000 a year. There's a
21 tremendous amount that can be worked backwards and forwards
22 by selling this to them. That's essentially what those
23 three tables represent.

24 MR. SIMMONS: That includes the Capps property
25 now, right, John?

1 MR. SCHWARTZ: Yes, the development costs include
2 the Capps property. And on the Tenn-Luttrell wastes, on the
3 table there, the annual costs for the development of the
4 landfill is slightly larger than the total annual costs on
5 the other two tables, specifically because the Tenn-Luttrell
6 wastes require special handling. And we added sort of like
7 a little inflation factor into that which is in the note at
8 the bottom.

9 The next page is defining where the Solid Waste
10 Management Board has recommended to the county commission
11 that they purchase the additional properties and give some
12 of the reason behind why they are -- where they have
13 recommended to the county commission to pursue that. The
14 last paragraph is just talking about how everything is
15 coming together in that chapter to meet -- what the
16 requirements of that plan are.

17 Chapter 4 is waste reduction. All of the figures
18 the state has used or has required the county to use are
19 based of 1991 values and estimates. On the base year
20 quantity they chose to use 1989, essentially because they
21 had done a number of studies before they this plan -- before
22 they were mandated by the state to do their needs assessment
23 for each one of the development areas. They had started
24 doing some of this base year generation and they did not
25 really want to change, have to go back and redo all the work

1 that had already been done, so they have chose 1989 as the
2 base year.

3 Using the 1989 base year we come up with a per
4 capita waste generation rate of .43 tons per person per year
5 versus if we use 1991 we would have had .64 tons per person
6 per year which would have given us a tremendously larger
7 amount than we have to meet on our goal of waste reduction.
8 The 1995 waste reduction target is in the following
9 paragraph. We have to reduce the wastes in 1995 by just
10 slightly over a tenth of a ton per person per year. Going
11 through all the calculations adjusted for inflation, going
12 by the state mandated equations, in 1995 we have to divert
13 or recycle 1,677 tons of waste out of the wastes, that's the
14 goal which for Union County seems to be within reach.

15 The next section briefly outlines how we intend to
16 try to meet that goal through waste diversion, recycling,
17 education, and sort of just goes through and itemizes the
18 particular aspects of the waste stream that we can pull out,
19 the glass, the plastics, the paper the cardboard, metal
20 cans, aluminum cans, household appliances, and sort of just
21 gives a basic overview to the state, the goal is attainable
22 and we have identified certain areas which we are going to
23 work to attain the goal, the 25% goal.

24 Chapter 5 is waste collection and transportation.
25 There's an overview of the existing waste collection and

1 transportation system. There's a brief mention in here of
2 Steven Snelson's trash service operation. When the data
3 that we had, and it may be different now again, you serviced
4 approximately 800 households and 150 commercial
5 establishments.

6 MR. SNELSON: Right now I'm servicing about right
7 at 1100 households and about 185 commercial accounts.

8 MR. SCHWARTZ: I believe this was based on 1992
9 data. And of that there were 4932 households identified in
10 Union County, that meant that over 80% of us then did not
11 have an organized collection service. There's a definition
12 in the following paragraph of what is needed to provide a
13 good collection service. And all the unserved areas must
14 be addressed by January 1st, 1995, integrate a recycling
15 program into the collection system, expand the collection
16 services over the next ten years, and provide a cost
17 effective collection services. Don't just exorbitantly
18 charge -- put something in place that people can't afford.

19 The next section is essentially an overview and a
20 calculation of the state requirements of the convenient
21 centers. They have a specific formula by which they say
22 they take a county population and in turn -- county
23 population or the area and you can determine how many
24 convenient centers would be required to meet the minimum
25 requirements. For Union County, using our population or our

1 area we come up with a minimum of one, but because we are a
2 rural county and the landfill is kind of centrally located
3 it would enhance the waste collection of Union County to
4 locate two satellite convenient centers. One in the Sharps
5 Chapel area and one in the Big Ridge/Paulette areas, at the
6 recommendation of the board, and that's talked about in the
7 following paragraphs.

8 MR. VON SCHIPMANN: John, the reason we, you know,
9 by nature of the term convenient center, we figured if it
10 wasn't convenient for people to get there people wouldn't
11 use it, and let's face it, it's not convenient for people in
12 Sharps Chapel to drive to the landfill at Luttrell, so
13 consequently the county has had to continually clean up
14 illegal dumps near Sharps Chapel at tremendous expense to
15 the county.

16 MR. SIMMONS: Did you say when we were first
17 started we were talking about \$53,000 for each convenient
18 center?

19 MR. BEVERLY: The one time start up and that's not
20 the total annual.

21 MR. SIMMONS: Right.

22 MR. SCHWARTZ: The next part of this chapter is
23 just going over what would be involved in the convenient
24 centers. The final part of the chapter is pertaining to the
25 annual updates. There are five specific things that the

1 maps that are shown here, and next there is a breakdown.
2 Look at that first table that's showing the anticipated
3 tipping fees and costs for development for the entire
4 landfill including the Capps property. Then just an
5 overview of what we could possibly do with the excess
6 capacity.

7 Chapter 9, public information and education, this
8 goes through and briefly describes some of the plans that
9 are in place, some of the anticipated plans, the
10 involvement, Keep America Beautiful, Partners for Clean
11 Communities and what Union County is anticipating in doing
12 in the way of possibly using some of the educational funds
13 and promoting the quarterly use of all the facilities that
14 we're planning on providing.

15 Chapter 10, problem wastes, this is essentially
16 talking about household hazardous wastes, what we're going
17 to do, the state program for coming around once a year and
18 collecting household hazardous waste. Gives some of the
19 figures of what those collections would cost. There's an
20 overview of waste tire handling, waste oil handling and the
21 facilities that are going to provide for that, lead acid
22 batteries. These are all things that had to be addressed by
23 state mandate in this plan. Our litter control, what we're
24 planning to do on litter control. Infectious wastes which
25 Union County does not have a problem with. That's already

1 handled, whatever is generated is handled outside of the
2 county on a special contract. Other problem wastes, the
3 Tenn-Luttrell Mining, Domermuth soil, schedule for the
4 problem waste collection program, just tells that
5 essentially we're already in the process of starting and
6 we're going to continue.

7 Chapter 11 is not included in here because I
8 talked with somebody at the state and they said we'd already
9 covered everything. It's funding, staffing and -- there's
10 three parts to it, scheduling, staffing and funding and that
11 was handled in other sections of the report.

12 Chapter 12, allocation of implementation
13 responsibilities -- plan adoption and submission. This just
14 is an overview of what's required for the plan and the most
15 important part in this chapter is where the board has
16 recommended the formation of the Solid Waste Authority. It
17 references the Tennessee Code and the section of the Solid
18 Waste Management Act that authorized that if it is so
19 desired to do, and copies of both the Tennessee Code
20 Annotated and the section of the Solid Waste Management Act
21 are in Appendix A. Both of those papers enumerate what the
22 responsibilities of the authority would be.

23 Chapter 13, flow control and permit application
24 review. Flow control just saying that anything that is
25 collected here in Union County will be buried here in Union

1 County. That's to protect the county because we're going to
2 use it as a revenue generator, that's to protect the county
3 from somebody coming in from outside and saying we can take
4 your waste at a cheaper rate and undercutting the county.

5 Permit application review, essentially it's an
6 overview of what we're going to do about permitting the new
7 landfill.

8 The third section of our report are our
9 appendixes. Appendix A is Legal Documentation and
10 Organization of the Region, the formation resolution of the
11 Solid Waste Board, a table of the makeup of the board
12 members, the advisory committee members and the two copies
13 of the Solid Waste Management Act and the Tennessee Code
14 Annotated. There's no base year generation for Appendix B.
15 Appendix C is Public participation activities. These are
16 all the minutes of the meetings, the letters that were
17 formally sent to the board members accepting their
18 nomination, and then Appendix D is not in here because that
19 is where the adoption by the county commission, the official
20 resolution of the county commission may adopt or do not
21 adopt the plan.

22 And that's it.

23 (Break taken.)

24 MR. BEVERLY: Let me just add one comment. Laura
25 will be able to have the manuscript from her recording here

1 have the authority to do the thing and I think it was the
2 sentiment of most of the board, they said, "Well, if the
3 county commission is going to do the thing then we're going
4 to have to take all the flak we'll let them find a new
5 board, you know." That was the sentiment I think of every
6 board member. If we were going to take the flak we wanted
7 to be in charge to call the shots.

8 MR. KITTS: Let me go into a little further detail
9 on that. You're talking about the solid waste authority.
10 We have recommended that that be part of the new plan. You
11 know, all we can do is recommend as a board. If an
12 authority is established there's some rules about who serves
13 on that authority. It may or may not be one of us sitting
14 here now. It could be somebody else.

15 MS. KITTS: I think what they're thinking is that
16 you all are going to be the authority.

17 MR. VON SCHIPMANN: No, the Tennessee codes, the
18 way it establishes it, the authority shall consists of a
19 minimum of seven members, a maximum of fifteen, they shall
20 be from all parts of the county, each municipality shall be
21 represented, municipality in the county shall be represented
22 so basically it's a broad spectrum of people from across the
23 county depending on how -- and the state actually sets up
24 the guidelines as to how it operates, as to what they're
25 responsible for. But the main thing with an authority is

1 they have the authority to do things. Just like right now,
2 the school board and the road superintendent basically act
3 in the same type of thing. You fund them so much money and
4 they've got to operate on it.

5 MS. KITTS: Who set the authority up?

6 MR. VON SCHIPMANN: The county sets up the
7 authority.

8 MR. KITTS: The county commissioners.

9 MR. KITTS: The county executive.

10 MS. KITTS: And the county commissioners.

11 MR. VON SCHIPMANN: Each city has to be
12 represented and it spells out on how it has to be formed and
13 what the length of terms are and all that type thing. The
14 states -- I've got a copy of it somewhere.

15 MR. KITTS: It may not be any one of us sitting up
16 here right now. I mean if you have a problem with any one
17 of us.

18 MR. WITT: It's right in here.

19 MR. VON SCHIPMANN: Okay, it's all in there, the
20 Tennessee Code.

21 MR. KITTS: If you'll look at that real close and
22 think real hard, you'll find that could be one of the best
23 things this county has ever done if they pursue the landfill
24 business and run it as a business. Which the states
25 mandating that they do that. I don't think there's one

1 county commissioner that has enough time to invest in a full
2 time operation of the landfill. I think it's going to have
3 to be someone the county -- when this authority is set up,
4 it's going to have to be some people that can put a whole
5 lot of time into the day to day operations of the landfill.
6 So that's something you might want to think about. Like I
7 said, this not saying that if you approve this plan that
8 that will become a part of the plan, it's recommended in
9 this plan. We're recommending that the county takes that
10 step.

11 MR. VON SCHIPMANN: Almost everything in this plan
12 -- we have no authority other than to write the plan and to
13 recommend to the county commission. Now we do have the
14 authority to submit it to the state, whether the county
15 commission accepts or rejects it, because if we fail to meet
16 the deadline then we're responsible for not meeting the
17 deadline for the county and the state law that put all this
18 in motion, you know, for Subtitle D, it's stated that if the
19 county commission refuses to write a plan or accept a plan
20 then the state would write the plan for the county and the
21 county would have to abide by whatever they wrote. Now we
22 felt that we needed a little more say so rather than to let
23 the state tell us what we're going to do here and that's why
24 all of us that are interested citizens of the county wanted
25 to do things that we thought were the best for the county as

1 a whole.

2 MR. KITTS: When you read that plan, and I'm sure
3 you'll look through it again, be sure to stress the point
4 of, when you read something don't think that if you approve
5 it it's absolutely going to be part of it, because like I
6 said everything is recommended, recommend. That's the
7 wording, recommended. That means it can or cannot become
8 actuality.

9 Does that answer your question.

10 MR. SCHWARTZ: And the plan is open to update
11 every year. The plan has to be reviewed in a small synopsis
12 of the progress of the plan, or recommend changes -- what
13 changes are recommended, has to be submitted to the state on
14 July 1st. On the fifth year a major review of the plan is
15 required, but it's open every year for an annual update.

16 MR. VON SCHIPMANN: Now, all of this is done under
17 Subtitle D of the 1991 Environmental Protection Act that the
18 US Government, you know, Congress passed, and it doesn't
19 only apply to the State of Tennessee, but it's every county
20 or whatever they call them in other states in the United
21 States, are under the same deadlines and under these same
22 things to comply with it by a certain date, it's a federal
23 due date, so we're not doing something that all the other
24 ninety counties in the state are not doing. They're all
25 doing the same thing, except those, you know, that are like

1 in Chattanooga, they're a ten county region so they're
2 writing a plan that covers ten counties.

3 MR. BEVERLY: Let me reiterate something, or a
4 comment that I'd like add, the implementation of this plan
5 is going to be a sizeable chore, and it has be to
6 implemented by someone that has the authority to implement,
7 and if the burden falls back on the county commission to
8 implement it I quite honestly don't know how you're going to
9 do that without possibly hiring someone that's like a solid
10 waste executive director or something, but somebody's got to
11 be able to grab the bull by the horns in order to implement
12 this plan and I think that would be a task the county
13 commission probably wouldn't want to have, they would
14 delegate that to somebody, whether it's to the solid waste
15 authority or whether it's a solid waste director or
16 somebody, and that's -- I think that's an important point to
17 remember.

18 MR. VON SCHIPMANN: Because there are going to be
19 day to day decisions that make it rather difficult for a
20 government body under compliance with the Sunshine Law to
21 advertise 48 hours ahead to make a decision that you needed
22 two days ago to do something.

23 MR. KITTS: DO you have any more questions?

24 MR. BOWMAN: What about you R.L?

25 MR. JONES: Sounds like you all done a fine job.

1 MR. KITTS: I would like to add one other thing to
2 this, some of the feedback that I have from individuals, I
3 think that Union County Solid Waste Plan, as it's written,
4 is probably going to be one of the better written plans to
5 be submitted to the State of Tennessee. I think that's
6 something that we'll be proud of.

7 MR. VON SCHIPMANN: I've talked to the people in
8 solid waste as AMTAS and they set -- you know, they've
9 looked over our preliminary plan prior to the final one here
10 that we'd done and they said it was the best one they'd seen
11 of all the counties in East Tennessee.

12 MR. BOWMAN: Give a lot of that credit to John and
13 David.

14 MR. VON SCHIPMANN: To John and David. And
15 there's another thing too, I'd like to say that Becky and
16 Steve have been here for every meeting we've had and they've
17 sat through and listened to us argue and hassle things back
18 and forth for fifteen months and they were probably two of
19 the most interested citizens that we have had that have
20 participated in the process.

21 MR. KITTS: Any more questions or comments? Any
22 further comments?

23 MR. ENGLAND: I'd like to say again, I'm proud of
24 you people that have taken the time to do this. It's took a
25 lot off of the county commission. I know Ronnie has put a

1 lot of time into it because I've been to Ronnie's house at
2 9:00 or 10:00 o'clock at night and he was working on this so
3 I know you all have put a lot of time into this and we
4 appreciate you.

5 MR. KITTS: Thank you. If there's not any more
6 questions or comments do I hear a motion that we adjourn?

7 MR. VON SCHIPMANN: I so move.

8 MR. BOWMAN: Second the motion.

9 (Thereupon the meeting was adjourned.)

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

CERTIFICATE

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

I, Laura Bultsma, Notary Public in and for the State of Tennessee at Large, do hereby certify that the foregoing is a true and accurate transcript of the public hearing, taken by me on the 16th day of May, 1994.

This the 22nd day of May, 1994.

Laura Bultsma

Notary Public

My Commission Expires 10/27/96.

APPENDIX D

SPECIAL WASTE PERMIT

DOMERMUTH THERMALLY-TREATED SOILS



STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
KNOXVILLE ENVIRONMENTAL FIELD OFFICE
2700 MIDDLEBROOK PIKE, SUITE 220
KNOXVILLE, TENNESSEE 37921-5602
(615) 594-6035 FAX (615) 594-6105

January 5, 1993

NOTICE OF APPROVAL
SPECIAL SOLID WASTE

Registration # SNL-47-103-0177 or
SNL-87-103-0088
Letter # 2473 (Revised)

Mr. Glenn Palmer, Marketing Representative
Domermuth Environmental Services
7828 Rutledge Pike
Knoxville, Tennessee 37914

RE: Disposal of Thermally-Treated Petroleum Contaminated Soils

Dear Mr. Palmer:

The Division of Solid Waste Management has reviewed the special solid waste information you submitted to our office in accordance with the Regulations Governing Solid Waste Processing and Disposal in Tennessee.

After reviewing the physical and chemical properties from the special waste information, the Department has determined the waste suitable for disposal in the BFI Twin Oaks Landfill or Union County Landfill. However, should the chemical or physical properties of the waste change so that the acceptability and/or handling properties could be affected, the waste must be reevaluated by the Department. The estimated quantity of waste is 200 tons per day, maximum.

In order for this waste to be properly and safely disposal of in a sanitary landfill the following procedures must be followed:

1. This approval applies only to soils contaminated with common petroleum fuel and lubricant products only. Separate special waste approval requests must be made for soils from industrial or spill sites where other contaminants are known or believed to be present. Also this approval does not apply to any residues from thermal treatment of contaminated debris or non-soil oily "special wastes" from industrial sources.
2. For each batch of soil treated, analytical results must be received, on file, and available to the Division and/or the landfill upon request, showing that the acceptance criteria for total petroleum hydrocarbons have been met. These are:

637
5781

Mr. Glenn Palmer, Marketing Representative
Domermuth Environmental Services
January 5, 1993
Page 2

Total petroleum hydrocarbons, California method, 10 ppm in the TCLP extract or 200 ppm total.
Benzene, .5 ppm in the TCLP extract or 10 ppm total.

3. Any soils meeting these criteria may be disposed of as special solid waste (i.e., spread on the working face and covered with clean soil.) Soils which appear to be primarily clay and are free of organic matter or ash debris, and contain only a minimum amount of gravel, may be used as daily cover.

If contaminated soils which have been treated are used as daily cover, soils from approved borrow sources must be used as daily cover at least twice in each week of operation, and for all intermediate cover. Treated soils may need to have moisture added to bring the moisture content close to optimum before using them as cover if they have not had sufficient exposure to precipitation after being treated to accomplish this. Use of these soils as cover subject to these conditions may continue so long as the soils work and perform as well as the normal cover soils which these landfills are using. If results prove unsatisfactory, these soils must be either mixed with soils of better and more consistent quality before using them as cover, or treated as waste.

If you have any questions or require additional assistance, please contact this office.

Sincerely,



Rick Brown
Environmental Engineer



Jack Crabtree
Field Office Manager

JPC:RSB:29049005

SW17

cc: Division of Solid Waste Management-Central Office
BFI Twin Oaks Landfill
Union County Landfill

A G R E E M E N T

COPY

This Agreement made and entered into this _____ day of March, 1993, between UNION COUNTY, TENNESSEE, acting pursuant to a resolution of its County Commission adopted on 6 March, 1993, and as recorded in Quarterly Minute Book 3, page _____, in the office of the County Clerk, hereinafter referred to as "County"; and DOMERMUTH ENVIRONMENTAL SERVICES, a corporation organized and existing under the laws of the State of _____, with its principal office at _____, hereinafter referred to as "Domermuth".

W I T N E S S E T H:

That for and in consideration of the mutual covenants and conditions herein stated and other good and valuable consideration, is hereby acknowledged the receipt and sufficiency of all of which is acknowledged by the parties, it is agreed as follows:

- 1) Domermuth may deposit up to 5200 ^{TONS} ~~cubic yards~~ per month of thermally treated petroleum contaminated soil into the County's landfill at 262 Kitts Road, Luttrell, Tennessee, however, no more than 200 ~~cubic yards~~ ^{TONS} of such soil may be placed in the landfill per day.
- 2) Domermuth shall pay to County the sum of \$3.00 per cubic yard of soil deposited with billing to be issued bimonthly on the fifteenth (15th) and thirteenth (30th) days of each month. Charges shall be due and payable by Domermuth to County upon receipt of each billing.
- 3) This agreement shall continue until terminated by either party upon fifteen (15) days written notice to the other party, however, in no event shall this agreement continue longer than _____ from date hereof. Provided, however, a breach by either party of any provision(s) of this agreement shall void same.
- 4) Each day Domermuth will provide County through its County Executive a complete copy of the manifest and laboratory analysis of each load of dirt deposited in the landfill. These copies shall become permanent records of Union County and its landfill.
- 5) All soil deposited in the landfill shall comply with all applicable rules, regulations, statutes and ordinances of the federal, state, local governments and any agencies or regulatory bodies. Domermuth shall also comply with the regulations and conditions as set forth in the notice of approval, special solid waste as issued on 21 January, 1993, by the division of solid waste management of the State of Tennessee, and any amendments,

modifications, revocations or renewals thereof.

6) Determination of the amount of soil deposited at the County landfill shall be made in the sole judgment of County.

7) No soil deposited by Domermuth shall become the property of County.

8) As above stated only thermally treated petroleum contaminated soils may be deposited by Domermuth in County's landfill, and all materials deposited must meet the specifications, conditions and guidelines as set forth in the Notice of Approval, Special Solid Waste as issued by the Tennessee Division of Solid Waste Management, letter 2473 (revised) dated January 21, 1993.

9) Domermuth and its employees shall observe the working hours, rules and policies of County's landfill.

10) Neither party shall assign, underlet, hypothecate, encumber, mortgage or pledge this agreement or any of the rights or obligations hereunder without the prior written consent of the other party and any attempted assignment, underletting, hypothecation, encumbrance, mortgage, or pledge shall be void.

11) In the event bankruptcy or state insolvency proceedings should be filed against or by Domermuth, its successors or assigns, or receivership sought or allowed against Domermuth, in any federal or state court, County may at its option immediately declare this agreement null and void, and no receiver, trustee, or other judicial officer or appointee shall ever have any right, title or interest in or to this agreement and/or any rights and obligations hereby created.

12) Notice to either party as required or allowed by this agreement shall be sufficiently given when mailed or delivery to the following addresses for each party:

County:
c/o County Executive
Union County Courthouse
Room 124
901 Main Street
P. O. Box 278
Maynardville, Tennessee 37807

Domermuth:
7828 Rutledge Pike
Knoxville, Tn. 37924

13) Waiver by County or Domermuth of a breach of any provision of this agreement by the other party shall not operate as or be construed as a waiver of any subsequent breach by the other party.

14) This agreement constitutes the complete understanding of the parties. No modification or waiver of any provisions hereof shall be valid unless executed in writing by both parties.

IN WITNESS WHEREOF, the parties have duly executed this

agreement in duplicate originals the day and year first above written.

UNION COUNTY, TENNESSEE

by _____

GERALD E. SIMMONS
County Executive
"County"

DOMERMUTH ENVIRONMENTAL SERVICES

by _____

title: _____

"Domermuth"

APPENDIX E

RESOLUTION

by County Commission of Union County
formally adopting this Plan
for the benefit of
Union County residents.

RESOLUTION NO. _____

A RESOLUTION
FORMALLY ADOPTING UNION COUNTY'S
MUNICIPAL SOLID WASTE REGIONAL PLAN

WHEREAS, the adoption of the Subtitle D landfill regulations by the United States Environmental Protection Agency and companion regulations adopted by the Tennessee Solid Waste Control Board will have an impact on both the cost and method of disposal of municipal solid waste; and

WHEREAS, the 97th Tennessee General Assembly enacted T.C.A. Section 68-211-801 et seq., titled "Solid Waste Management Act of 1991"; and

WHEREAS, one of the stated public policies of this Act is to institute and maintain a comprehensive, integrated, statewide program for solid waste management, and

WHEREAS, T.C.A. Section 68-211-813, requires that counties in the State of Tennessee form municipal solid waste regions whose primary and prevailing purpose is the preparation of a municipal solid waste regional plan for their respective regions; and

WHEREAS, the State of Tennessee provided grant monies to the Union County municipal solid waste region to assist the region in developing its municipal solid waste regional plan; and

WHEREAS, the development of the comprehensive municipal solid waste regional plan is in the best interest of the citizens of Union County; and

WHEREAS, the Union County Municipal Solid Waste Board has diligently and faithfully worked to develop and prepare the Union County Municipal Solid Waste Regional Plan for submittal to the State of Tennessee; and

WHEREAS, said Plan having been distributed for public review at various locations in the county and presented for public comments at an announced, formal Public Review Hearing; and

WHEREAS, to be in compliance with the statutory requirements of T.C.A. 68-211-813, the Union County Municipal Solid Waste Region must submit the Plan to the State of Tennessee by July 1, 1994.

NOW, THEREFORE BE IT RESOLVED, by the Board of County Commissioners of Union County, Tennessee, acting pursuant to T.C.A. 68-211-801 et seq., that the Union County Municipal Solid Waste Regional Plan be formally adopted by the county for the comprehensive management of Union County solid wastes over the next ten years; and

BE IT FURTHER RESOLVED, that upon passage of this Resolution and at no later date than June 27, 1994, the Union County Solid Waste Management Board shall transmit ten (10) copies of the Union County Solid Waste Management Plan to the appropriate office at the Tennessee Department of Environment and Conservation.

RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF UNION COUNTY, TENNESSEE, this 13th day of June, 1994, the welfare of the citizens of Union County requiring it.

Sponsor:

County Commissioner

Approved:

Bernard E. Summers
County Executive

Attest:

Roy C. Carter
County Clerk