

I. INTRODUCTION

A. Purpose and Organization of the Plan

In 1989, the Washington State Legislature passed the Waste Not Washington Act (SHB 1671) and made several major amendments to state law. As a results of these changes, state law now requires waste reduction and source separated recycling to become the fundamental strategies for solid waste management in Washington State and it establishes a statewide goal to achieve a fifty percent recycling rate by 1995.

The purpose of this plan is to ensure that that government does its part to implement the state's waste management priorities. As required by Section 53. of the Waste Not Washington Act (RCW 70.95C) this plan defines an aggressive program to reduce and recycle the solid and hazardous wastes that are generated at their facilities and to ensure that state agencies and institutions increase the use of recycled paper by fifty percent by July 1, 1993.

Due to the magnitude of the wastes they produce and the thousands of people that are associated with them, state government facilities can make a major contribution to preserving and protecting the environment. Along with reducing the amount of waste that state facilities create, implementing waste reduction and recycling programs at state facilities has the potential to create a new generation of state employees, students, facility residents, and visitors who will learn to practice waste reduction and recycling and carry it to the communities where they live.

Chapters II. and III. of this plan describe Washington state's new waste management priorities and state government's role in implementing them. Chapter III also characterizes the types of wastes generated by state government facilities, and discuss the benefits of implementing programs at state facilities. The relationship between this plan and other efforts including the G.O.L.D. (Government Options to Landfill Disposal) Committee and the Hazardous Waste Reduction Act are discussed in Chapter IV. The requirements of this plan are defined in Chapter V. which establishes goals for state government and identifies six objectives and associated strategies, or actions which should be carried out. Following each strategy, roles and responsibilities and required plan elements are defined.

B. Summary of Plan Requirements

The primary requirement of this plan is for all state government agencies and institutions with more than twenty employees to write a waste reduction and recycling plan for their facilities which is based on the goals and associated actions defined by the G.O.L.D. Plan. As defined by 70.95C RCW, the G.O.L.D. plan applies to all branches of state government including state agencies, prisons, Universities, Colleges, Community Colleges, Courts, offices of elected and appointed officials, and administrative departments.

In order to develop plans, agencies and institutions are required to complete evaluations of their facilities. The primary purpose of the evaluations is to determine where waste reduction and recycling efforts should be targetted so that programs can be designed that are specific to the facilities which they apply to.

This plan establishes the following goals for state government facilities:

1. *To annually reduce the solid and hazardous wastes generated by Washington state government facilities.*
2. *By 1995, to recycle 50% of the solid wastes that are generated by state government facilities, and to annually increase the recycling rate thereafter.*
3. *To conserve natural resources and reduce environmental degradation by annually increasing the use of products that are reusable, recyclable, made with recovered materials, and are nontoxic; and by increasing the use of recycled paper and paper products at all state facilities to fifty percent by July 1, 1993.*

These goals are to be incorporated into the waste reduction and recycling plans that will be developed by state agencies and institutions.

The target dates that have been established are as follows:

April 1, 1991	Facility characterizations are completed
August 1, 1991	Plans are completed and submitted to Ecology
November 1, 1991	Plan reviews are completed by Ecology
	Plans are finalized and implementation begun within thirty days of receiving plan approval
September 1, 1992	First annual report is submitted to General Administration

C. Planning Process

This plan was developed by a multi-agency group called the G.O.L.D. Advisory Board which was formed in January, 1989 by the Department of Ecology (Ecology) and the Department of General Administration (GA). The Department of Ecology's Office of Waste Reduction, Recycling, and Litter Control coordinated the development of the plan in cooperation with the Department of General Administration.

The G.O.L.D. Advisory Board included fifteen members from state agencies, universities, and community colleges located throughout the state. It was staffed by the Department of Ecology and chaired by Les James, from the Department of Social and Health Services.

The Board is an extension of the G.O.L.D. Committee which was created in 1988 by a proclamation from Governor Gardner. Tasked with increasing waste reduction and recycling at state government facilities, the G.O.L.D. Committee established recycling coordinators at over sixty state agencies, created Washington Waste Not Month, and began the creation of a "Buy Recycled" program within GA. This plan builds on these efforts and incorporates many of the 1988 recommendations of the G.O.L.D. Committee.

In order to develop this plan, the G.O.L.D. Advisory Board held eight monthly meetings between February and October, 1989. As a result of these meetings, the Board decided that state agencies and institutions should develop individual waste reduction and recycling plans using the guidance provided G.O.L.D. and the results of facility characterizations.

D. Plan Implementation

To incorporate waste reduction and recycling into the management, operations, and purchasing practices of Washington state government will require the full participation of state employees, facility residents, students, and visitors to Washington's state parks and other public facilities.

The strategies defined by this plan describe the actions that should be taken and who is responsible for taking them. Primary responsibility for implementing this plan is given to individual state agencies and institutions by requiring them to develop programs for their facilities that fully incorporate the goals, objectives, and strategies defined by this plan.

Implementation of this plan is an ongoing process that does not end with the completion of state agency plans. It may require initial financial investments. It will undoubtedly require the continual exchange of information between state facilities, the ongoing interest of facility residents, the ability to identify and address barriers which arise, and the commitment to pursuing change.

Although primary responsibility for developing and implementing programs rests with the individual state agencies, this plan identifies several support roles which are to be provided by the Department of Ecology and the Department of General Administration. The manual accompanying this plan defines the technical assistance and additional resources which are available to assist state agencies and institutions with their waste reduction and recycling efforts.

Primary responsibilities given to the Department of General Administration include:

- Implementing the G.O.L.D. Plan
- Developing a buy recycled program and communicating procurement policies
- Developing model contracts for state facilities to use
- Encouraging waste reduction and recycling ideas through the Brainstorm program;
- Incorporating recycling into new state governments facilities
- Increasing awareness through Washington Waste Not Month
- Developing, through the G.O.L.D. committee, an awards program

Primary responsibilities given to the Department of Ecology include:

- Providing technical assistance for facility evaluations and plan development
- Increasing communication among state facilities and between state facilities and the communities where they are located
- Identifying product substitutions that could replace certain products currently used
- Developing reporting guidelines for state agencies and institutions

II. NEW PRIORITIES FOR WASHINGTON STATE

A. The Results of New Legislation

Over the past several years, the Washington State Legislature has revised the management strategies and subsequent responsibilities related to solid and hazardous materials. These changes define a new set of priorities which emphasize reducing waste at the source. Secondly, they extend responsibility for waste reduction and recycling to all sectors of the public, including Washington state government, the business community, local governments, and citizens.

The primary legislation that is responsible for these changes includes:

SSB 4245 Hazardous Waste Priorities
1983

Establishes priorities for managing hazardous waste and directs Ecology to promote their implementation.

SHB 1340 Creation of the Office of Waste Reduction
1988

Establishes the Office of Waste Reduction and Recycling within the Department of Ecology (amends 70.95C RCW).

SSB 6466 State Government Procurement of Recycled Products
1988

Requires the Department of General Administration to develop a weighting factor to give preference to products made from recovered materials. GA has drafted, and is in the process of finalizing rules which would give a ten percent price preference to products made from recovered materials (amends 43.19 RCW).

SHB 1671 The Waste Not Washington Act
1989

Makes waste reduction and source separated recycling the top two strategies for solid waste management and establishes a statewide goal of recycling 50% of Washington's solid waste by 1995. (amends numerous laws including 70.95.010 RCW which regulates solid waste management).

SHB 2390 The Hazardous Waste Reduction Act
1990

Establishes a statewide policy goal to reduce the generation of hazardous waste by 50% by 1995 and requires large hazardous waste generators and hazardous substance users to prepare reduction plans. (Amends 70.95C RCW).

Priorities for Solid Waste Management

The priorities for solid waste management apply to the collection, handling, and management of solid wastes. As defined by 70.95.010 RCW, these priorities are;

1. Waste reduction;
2. Recycling, with source separation of recyclable materials as the preferred method;
3. Energy recovery, incineration, or landfill of separated waste;
4. Energy recovery, incineration, or landfilling of mixed waste.

These priorities were established in response to the legislature's findings that:

- (1) *"Continuing technological changes in the methods of manufactured packaging, and marketing of consumer products, together with the economic and population growth of this state, the rising affluence of its citizens, and its expanding industrial activity have created new and ever mounting problems involving disposal of garbage, refuse, and solid waste materials resulting from domestic, agricultural, and industrial activities.*
- (2) *Traditional methods of disposing of solid wastes in this state are no longer adequate to meet the ever increasing problem. Improper methods and practices of handling and disposal of solid wastes pollute our land, air and water resources, blight our countryside, adversely affect land values, and damage the overall quality of our environment.*
- (3) *Consideration of natural resource limitations, energy shortages, economics and the environment make necessary the development and implementation of solid waste recovery and/or recycling plans and programs."* (70.95.010 RCW).

Priorities for Hazardous Substance Management

Washington state's priorities for managing hazardous substances also identify waste reduction as the most cost effective and environmentally sound way to manage hazardous substances. These priorities are defined by 70.95C RCW, which emphasizes that when implementing these priorities, facilities should avoid shifting risks from one part of a process, environmental media, or product to another.

1. Hazardous substance use reduction;
2. Waste reduction;
3. Recycling;
4. Treatment

B. The Role of State Government

The Waste Not Washington Act defines state government's role in waste reduction and recycling by requiring state government facilities to :

" Set an example by implementing aggressive waste reduction and recycling programs at their workplace and by purchasing products that are made from recycled materials and are recyclable " and to "...undertake an aggressive program designed to reduce and recycle solid and hazardous wastes produced in the operations of state buildings and facilities to the maximum extent possible," and to " ..use maximum efforts to achieve a goal of increasing the use of recycled paper by fifty percent by July 1, 1993" (70.95RCW).

Due to the magnitude of the wastes it produces and the potential to serve as role models, state government has a definite role to play in waste reduction and recycling. Over 300,000 people are associated with state government facilities which are dispersed throughout Washington's thirty nine counties. These facilities encompass a broad range of operations including offices, hospitals, prisons, laboratories, parks, educational institutions, auto shops, residence halls, cafeterias, print shops, and photo laboratories.

Along with the critical services provided by these facilities over 300 tons of solid waste are generated each day and over 200 tons of hazardous waste are created each year. Most of the solid wastes that are not recycled end up in municipal landfills. Although some of the hazardous waste is the result of hazardous waste cleanups, much of it is generated by routine practices such as parts cleaning, laboratory research, and equipment maintenance. Once generated, this waste must then be managed at a great expense to the facility and the environment.

C. Environmental Benefits and Cost Savings

Along with making Washington State government a leader in waste reduction and recycling, the actions required by this plan will result in significant cost savings to the State of Washington. Realizing these environmental benefits may require an initial investment in the form of equipment, training, and personnel. The extent of resources needed by state agencies will vary considerably. Factors influencing this include the size of the agency, the number and location(s) of its supporting facilities, the types and quantities of wastes produced by the facility, and whether or not portions of a program are already in place.

Due to this variability, this plan does not identify the total funding needs associated with implementing the programs required by this plan. Instead, it requires all agencies, as part of plan development, to identify and budget for the resources needed for plan implementation and it requires the Department of Ecology to work with the Office of Financial Management to ensure that these needs are fully supported (Objective 1., Strategy 1C.).

The Results of Product Reuse

The state saves approximately \$50.00 every time an office employee recharges their laser printer cartridge through GA's Office Systems Support Center. These cartridges can be recharged several times and then turned in to be recoated and reused rather than landfilled. (Laser Connection, 1989).

Washington State government spends millions of dollars each year on printing and xerographic papers. If documents were always printed or photocopied on both sides of the paper and if paper that is printed on only one side was reused (either for draft prints or note pads) thousands of dollars would be saved.

Several state agencies operate a hazardous materials exchange program where facilities personnel list hazardous materials which they no longer need, but which may be of use to another facility. If listing programs were expanded, state facilities could reduce purchase and disposal costs.

The Results of Existing Recycling Programs

In 1988, over 50 tons of solid waste was reported as having been recycled by employees and students at state facilities, resulting in over \$ 142,000.00 in avoided disposal fees (GA.1988). This actual amount of materials that were recycled, and the subsequent disposal savings are much greater than this because this figure includes only those state entities that reported to the Department of General Administration.

The results of a recent audit conducted at Spokane Community College concluded that 75% of the solid waste generated is recyclable and that if all of this waste was recycled, the avoided disposal costs coupled with anticipated income from recycling would result in a net savings of over \$2,500.00/year to the College (Zwerneman, David. 1990).

As a result of its Campus Recycling program, Eastern Washington University saved over \$15,000.00 in transport and solid waste disposal fees during the 1988-1989 school year. This savings results from capturing only an estimated 6% of the recyclable materials generated by the Campus. Thus as their program expands, the savings are likely to increase (EWU, 1989.).

III. EXISTING CONDITIONS

A. Size and Organization of State Government

Washington state government encompasses a diversity of functions which are all related to providing a service to the people of Washington state. These services include defining public policies and laws, incarcerating people, transporting people, managing natural resources, providing social and health services, educating students, and providing recreational opportunities to the citizens and visitors of Washington state.

The organizations that provide these services are generally categorized as offices of elected officials, major departments, autonomous commissions, and support agencies. These include over 25 major departments, six universities, one state college, and twenty seven community colleges. The facilities represented by these organizations include hundreds of offices and student residence halls, over 13 prisons, automotive shops, laboratories, and over two hundred state parks (OFM, 1989. The Department of Information Services, 1990).

Over 300,000 state government employees and college students are associated with these facilities and the number is likely to increase as the state population continues to grow. By the year 2010, there may be an additional 5,000 state employees. (Office of Financial Management. July, 1988.) Along with increasing the number of state employees, population increases and other factors are likely to increase the number of visitors to state parks, the inmate population at state prisons, and student populations at the state's colleges and universities.

Unless waste reduction and recycling is fully incorporated into all state government facilities, this growth will inevitably increase the amount of solid and hazardous wastes that are generated by state government. Secondly, due to the high turnover and mobility of the people associated with state government facilities, educating facility residents will be critical to ensuring that the waste reduction and recycling programs are fully incorporated into facility operations.

B. Solid Waste Generated

Washington State government facilities generate a cumulative total of over 310 tons of solid waste each day. Facilities located in King, Pierce, Snohomish, Spokane, and Thurston counties account for almost seventy percent of this amount (See Table 1).

Paper (approx. 50%) and organic materials such as food waste, lawn and garden debris, and construction materials (over 20%) account for an estimated 70% of the solid waste that are generated by state government facilities.

Table 1. on the following page illustrates the estimated quantities of solid waste that are generated by state government facilities each day. It is broken down into two categories of state facilities; state government and higher education. The higher education category includes all state universities, state colleges, and community colleges. All other state facilities are included in the state government category. As shown the table, facility populations, and consequently solid waste generation, is the highest in the more urbanized counties. In King county and Thurston county alone, over 140 tons of solid waste are generated each day. In the smaller counties state employees and facility residents often account for a significant percent of the population.

Many state agencies, universities, and community colleges currently have some form of a recycling program in place. As a result of these programs over 3,000 tons of paper, 500 tons of cardboard, and 17 tons of aluminum cans were recycled by state employees, students, and other facility residents during 1988 (GA, 1988). This figure represents minimum values because there is currently no comprehensive program to track the types and quantities of materials that are recycled by state government facilities.

According to the results of the Best Management Practices Study that was conducted for the department of Ecology, approximately seventy percent of the total solid waste that is generated by government facilities is recyclable. For state government facilities paper (54%) and organic debris (23%) account for almost ninety percent of the recyclable materials that are generated. Similarly, at educational institutions paper (48%) and organic waste (35%) account for the majority of recyclable materials generated.

The actual type of materials that are generated and that are recyclable varies depending on numerous factors including the function of the facility, where it is located, what types of markets exist for the material, and other factors. For instance, state prisons and group homes produce more food waste than the average governmental facility because they house and feed numerous people each day. State government facilities that manufacture goods, such as the Monroe prison which makes garments, produce atypical wastes (such as cloth and nylon scraps in the case of Monroe) as a result of their manufacturing process. At this same facility, a recent waste audit concluded that over twenty five percent of the total wastestream was cardboard boxes. This number is triple the estimated percentage of solid waste which cardboard accounts for in a typical government office (Sundal, Waste Audit Recommendation. June, 1989. Best Management Practices Study. January, 1989). Thus actual percentage contributions vary considerably depending on the type of facility.

A recent report prepared for The Department of Ecology concluded that if markets are not developed for high volume, low value materials such as mixed waste paper and yard waste (which account for the majority of waste generated by state facilities), then the state's 50% recycling goal will not be reached, regardless of how effective the collection and processing programs are (Matrix, 1980). This finding emphasizes the fact that state facilities have an important role to play by reducing the generation of mixed waste paper and yard waste that they produce, and secondly, by assisting with market development by purchasing products,

markets

Table 1. Solid Waste Generated at State Facilities

COUNTY	TOTAL STATE EMPLOYEES	ESTIMATED LBS SW/DAY	HIGHER ED POPULATION	EST. LBS SW/DAY	TONS GENERATED PER DAY
Adams	30	158	-	-	0.08
Asotin	74	390	-	-	0.19
Benton	327	1,723	-	-	0.86
Chelan	672	3,540	3,744	4,992	4.27
Clallam	806	4,246	3,013	4,017	4.13
Clark	1,403	7,391	10,292	13,723	10.56
Columbia	30	158	-	-	0.08
Cowlitz	480	2,529	2,269	3,025	2.78
Douglas	50	263	-	-	0.13
Ferry	32	169	-	-	0.08
Franklin	450	2,371	6,205	8,273	5.32
Garfield	22	116	-	-	0.06
Grant	404	2,128	2,619	3,492	2.81
Gig Harbor	435	2,292	1,321	1,761	2.03
Island	144	759	-	-	0.38
Jefferson	162	853	-	-	0.43
King	8,633	45,477	79,322	105,763	75.62
Kitsap	1,207	6,358	3,419	4,559	5.46
Kittitas	290	1,528	7,236	9,648	5.59
Klickitat	163	859	-	-	0.43
Lewis	546	2,876	5,569	7,425	5.15
Lincoln	63	332	-	-	0.17
Mason	799	4,209	-	-	2.10
Okanogan	298	1,570	-	-	0.78
Pacific	232	1,222	-	-	0.61
Pend Orielle	26	137	-	-	0.07
Pierce	6,218	32,756	15,771	21,028	26.89
San Juan	29	153	-	-	0.08
Skagit	838	4,414	2,787	3,716	4.07
Skamania	48	253	-	-	0.13
Snohomish	2,296	12,095	15,952	21,269	16.68
Spokane	4,077	21,477	30,218	40,291	30.88
Stevens	290	1,528	-	-	0.76
Thurston	22,688	119,517	7,008	9,344	64.43
Wahkiakum	13	68	-	-	0.03
Walla Walla	1,066	5,616	3,096	4,128	4.87
Whatcom	417	2,197	12,067	16,089	9.14
Whitman	124	653	19,972	26,629	13.64
Yakima	1,743	9,182	5,646	7,528	8.35
TOTALS	57,625	303,560	237,526	316,701	310.13

such as insulation and compost, that are made out of these waste materials.

Along with the status of markets for recycled materials, the condition of Washington's landfills emphasize the need to increase recycling efforts at state government facilities. Twenty one of Washington's 39 counties have twenty or fewer years of remaining disposal capacity in their existing landfills. Of these 21, over half of them have less than five years of remaining landfill space. Along with this reduced landfill capacity, many state facilities are facing increased costs for landfill disposal. Between 1986 and 1989 tipping fees doubled at ten of Washington's municipal landfills. (Ecology, Solid Waste Tipping Fee Survey, July, 1989). This trend is likely to continue due to the costs associated with operating and closing landfills.

Notes for Table 1.

1. These figures are estimates of the total solid waste that is **generated** by state facilities. The actual amount of waste that is **disposed** is less due to materials that are recycled. Although several agencies and universities track their solid waste disposal/recycling rates, a comprehensive list for all state facilities does not currently exist. This information will eventually be generated through the annual G.O.L.D. reports that are required by this plan.
2. The estimated number of state employees was derived from information supplied by the Department of Personnel. This figure represents the total number of full time state employees and does not include seasonal, part time employees, or faculty associated with state colleges, community colleges, and universities. Depending on how the term "state employees" is defined, this figure will vary considerably. The 1989 Data Book prepared by the Office of Financial Management (OFM) defines 77,138 as the total population for the annual average of full time equivalent employees (OFM, 1989).
3. The higher education population provided in column four includes full and part time faculty and full time students attending the state universities, community colleges, and state colleges located in the counties that are listed in column one.
4. The generation figures represent a **minimum** quantity because they do not include populations represented by prison inmates, state hospitals and group homes, state park visitors, or seasonal state employees.
5. The tons estimate is based on the assumption that the average government employee generates 0.59 tons/year (or approximately 5.27/lbs/day and that the average student generates 0.12 tons/year (or approximately 1.33/lbs/day) (R.W. Beck, 1988. Olsen, 1988, and EPA, 1989).
6. Sources: Council of President's Office, 1989; Department of Personnel computer printout, June, 1989; Krohn and Associates, Washington Education Directory, 1989; Matrix Management and R.W. Beck, Volume 1., 1988; State Board for Community College Education, 1989

C. Hazardous Waste Generated *Educational need*

Although paper is the most visible waste product of state government facilities, hundreds of state facilities and associated worksites generate hazardous waste. As with solid waste, the types and quantities of hazardous wastes that are generated, are directly related to the functions of the facility that creates them.

During 1988, ten community colleges, three universities, and five state agencies reported generating over 200 tons of hazardous waste. The majority of these wastes were solvents (1,1,1-Trichloroethane, petroleum naphthalene, paint thinner, and spent scintillation fluid) used lab packs containing corrosive, ignitable, or flammable wastes such as pesticides, reactive cyanide/sulfide, and other materials. Other reported wastes include used photographic chemicals, batteries, and mercury. These wastes and associated waste quantities most likely represent minimum quantities of wastes because they do not include wastes that are not reported. (Ecology, Hazardous Waste Database. Misko, personal communication. July, 1990).

The hazardous waste disposal contract recently developed by GA provides another indication of the significant quantities of hazardous wastes generated by state facilities and the subsequent disposal needs they face. Scheduled to become effective in January 1991, the contract covers an estimated 20,700 gallons of solvents; 2,000 gallons of solvent contaminated oil, 4,000 gallons of paint; 1,000 gallons of antifreeze, thousands of pounds of lab packs, and is estimated to cost 1/4 - 5 million dollars, not including major cleanups of unknown waste quantities. The estimated quantities of wastes requiring disposal and the associated costs may vary considerably from actual amounts and are approximate estimates only. (Invitation for Bid Contract Number 130-89. Van Hall, personal communication).

The contract requires the contractor to manage the hazardous wastes in accordance with the priorities established by state law and the particular properties of the waste. Following waste reduction, the state's first priority, these priorities are: waste recycling, physical/chemical/biological treatment, incineration, solidification/stabilization, and landfill. (70.105.150 RCW).

In response to the need for hazardous waste cleanup funding and improved environmental management at state facilities, the Department of General Administration created the State Environmental Task Force in March, 1989. As part of their report, the Task Force documented the consequences of improper hazardous waste management at state government facilities. These include spending \$30,000 on hazardous waste disposal at one facility because liquid chemical wastes were mixed instead of segregated for reuse and recycling. At another facility, solvents contaminated a public drinking supply and may cost millions of dollars to clean up. At another site, wastewater from a vehicle maintenance shop contaminated nearby soils and cost approximately \$100,000 to cleanup.

As stated by the report, these problems could have been avoided if state facilities had the

resources needed to create a "pro-active commitment to environmental protection supported by the necessary funding for increased staff; training, operational support, and site cleanup." (State Agency Environmental Task Force Draft Report, July, 1990).

E. State Government Procurement

The types of wastes generated by state government facilities are directly related to the types of products that are used. By avoiding certain types of products, state government can generate less waste, generate waste that is more recyclable, and in many cases, save money by avoiding future disposal or hazardous waste cleanup costs.

Along with achieving waste reduction through procurement choices, state government can modify its purchasing practices to support the market development of products that are made from recovered materials. Complete recycling includes collecting the materials, transporting them, and transforming them into a usable product that is sold to consumers. Without accomplishing the final step, making and selling products out of recycled materials, recycling is doomed. Thus in order to fully contribute to recycling efforts, state government facilities must increase the purchase of products that are made from recycled materials.

Federal Procurement Guidelines

Comprising approximately 20% of the GNP, federal, state, and local governments have a lead role to play in creating markets for recycled products (National Recycling Coalition, 1990). This role is recognized in recent guidelines developed by the Environmental Protection Agency (EPA) pursuant to the Resource Conservation Act of 1976 (RCRA).

To date, EPA guidelines exist for five types of products; paper and paperboard products, fly ash in cement and concrete, lubricating oils, retread tires, and building insulation. Under certain circumstances they require "procuring agencies" to purchase recycled products, to redesign bid specifications to eliminate bias against recycled products, and to develop tracking and certification programs.

Procuring agencies are defined by EPA as all federal agencies and any state or local agencies that use appropriated federal funds and buy more than \$10,000 a year of a designated item, or that use a portion of federally appropriated funds towards the purchase of goods. EPA is encouraging a broad interpretation of this definition which would make most state agencies subject to the purchasing guidelines (Lauris Davies, EPA Region 10, personal communication).

Although the guidelines have stimulated the markets and inspired many state and local governments to develop procurement programs for products made from recycled materials, they have not been fully incorporated into the purchasing practices of Washington State government and may not be sufficient to create a strong buy recycled program in Washington state government. The guidelines only require the purchase of the recycled product if the cost is the same as a comparable virgin products, and in some cases, the standards and specifications associated with them may be too broad, (or in the case of compost, nonexistent), to ensure market development of recycled products which incorporate post consumer materials.

Purchasing Authorities in Washington State Government

The Department of General Administration is the primary purchase authority for Washington State government. As defined by 43.19.190 RCW, GA is responsible for purchasing goods and services, establishing purchasing policies, and delegating purchasing authorities. GA provides this service through the Office of State Procurement which sets up state contracts and operates the Central Stores warehouse where products are stocked.

purchasing Coupled with these broad authorities are several exemptions which provide some facilities with varying degrees of independence from GA. The legislature is fully exempt from GA's policies, the State Printer purchases all printing papers (43.78 RCW), colleges and universities purchase their own "specialized equipment, instructional, and research material," and GA delegates additional purchase authorities to many state agencies and colleges, particularly for items which may be very specific to the particular institution.

Although many facilities purchase certain items independently from GA, they remain subject to the policies that GA establishes. In 1988, the state legislature passed SSB 6466 which requires GA to develop a weighting factor that would give a preference to products that are made from recovered materials. The rules which GA has drafted to implement this law would provide for a 10% price preference to products made from recovered materials (See Appendix). Because it is considered a state policy, this preference is required to be implemented by all state agencies with few exceptions. Support for the preference is provided by The Waste Not Washington Act which amended 43.19 RCW to allow for the preferential purchase of products that are made from recovered materials or products that may be recycled or reused.

Types of Purchases Made by State Government

Central Stores supplies over 800 products to state governments facilities and political subdivisions. These products include office supplies, paper and forms, janitorial supplies, tools, and food service items. Along with purchasing through Central Stores, state facilities - and in some cases other political subdivisions - purchase products from over 300 state contracts that are negotiated by GA. By consolidating purchases, state government can generally achieve a better price and associated contract terms.

The types of contracts negotiated by GA include mandatory, conditional, and convenience contracts. The majority of the contracts are mandatory (state agencies are required to purchase from them) and conditional (requires state agencies to purchase from them unless they can demonstrate that they can achieve a better contract elsewhere). Convenience contracts are usually designed upon the request of an agency and generally serve only one agency.

These contracts offer hundreds of different types of products and are a reflection of the diverse services performed by state institutions. Products represented by the contracts include vehicles, tires, and other automotive supplies; office equipment such as photocopy machines and calculators; plastic bags and food utensils; cardboard boxes; cleaning compounds and detergents; paints; fuel; canned foods; janitorial services; disposable diapers; lab chemicals; pesticides; hospital supplies; and uniforms.

Another major purchasing area is food and food service items for state facilities. In 1988, over \$27 million was spent on food and associated labor costs for state institutions. During this same year, the total amount of money spent on food service programs at state institutions was approximately equal to the total annual operating costs of the Department of Wildlife, the Department of Agriculture, the Evergreen State College, and the Vocational Rehabilitation program within the Department of Social and Health Services. (The Efficiency Commission, 1989).

The top ten categories of products purchased by state government in 1979, as determined by the amount spent on the product, accounted for over 54 million dollars. These products are listed below. Although the cost of these products has likely increased, the top categories have probably remained the same due to the fact that the functions of state agencies have not changed significantly. (U.S. Department of Commerce National Bureau of Standards, March, 1981).

Top Ten Types of Products Purchased by State Government in 1979

1. Liquid and solid fuels
2. Automobiles, trucks, and buses
3. Radio equipment
4. Office supplies, including paper and paper products
5. Photographic supplies
6. Lumber and wood materials
7. Furniture
8. Hospital and medical supplies
9. Paint, general and highway
10. Word processing equipment

Types of Recycled Products Currently Available

Over the past several years, the Office of State Procurement has increased the availability of recycled products from almost none to seven. Products with recycled content that are currently available from Central Stores or state contracts include highway paint, reflective glass beads, aluminum coils, xerographic paper, adding machine tape, toilet tissue, and paper towels (Department of General Administration, Office of State Procurement. July, 1990).

def. of recycled
{ The state printer has dramatically increased the use of recycled paper to the point where an estimated 80% of all print jobs are published on recycled paper. In most cases, the cost of the recycled paper has proven to be less than, or comparable to, that of similar virgin papers. For the first time ever, all legislative bills and state letterhead are printed on recycled paper. (Morton, personal communication, 1990).

Although the efforts of GA and the Department of Printing have significantly increased the use of recycled paper products, such efforts are limited by the lack of a well defined procurement policy for Washington state government. Many state agencies are not aware of the recycled products that are available through GA or the State Printer, others are skeptical of their performance or believe that buying recycled products will always cost more, and several are frustrated by the lack of products available and are purchasing them independently. (Emmett, results of phone survey. July, 1990. Benson, Report on Activities. May, 1990, and Waste Not Western, Winter, 1990).

Without a state procurement policy which is supported by full implementation of the bid preference for recovered materials, current beliefs and subsequent actions may continue to hamper efforts to increase the purchase of recycled products. Secondly, until the purchase of alternative products is encouraged, most agencies will continue to purchase products that may be toxic, disposable, or nonrecyclable when other functionally equivalent and more environmentally sound products may be available.

IV. RELATIONSHIP TO OTHER EFFORTS

This section discusses the relationship between this plan and previous efforts of the G.O.L.D. Committee. In addition, it summarizes the requirements of the Hazardous Waste Reduction Act, which applies to certain state agencies, and suggests a method for coordinating the requirements of the Act with those of this plan.

Other efforts related to the G.O.L.D. Plan include the potential establishment of an Environmental Services Program within the Department of General Administration and the Pacific Energy Institute's development of a model waste reduction and recycling program for community colleges. The Environmental Services Program, which was a recommendation of the Environmental Task Force created by GA, would provide state agencies with increased assistance to comply with their environmental responsibilities and to clean up hazardous waste sites on state properties. In addition, the Department of General Administration has created an Office of Motor Vehicle Services. This Office is responsible for establishing policies, procedures, and standards for all state agency and higher education motorpools. It will be working to incorporate waste reduction and recycling into state motorpools, to increase fuel efficiency, and to reduce the air emissions created by state vehicles. The community college project being completed by the Pacific Energy Institute will create a handbook for community colleges and conduct a workshop during April, 1991. Along with the G.O.L.D. program, these efforts will help to incorporate waste reduction and recycling into state government facilities.

A. The G.O.L.D. Program

In February 1988, Governor Gardner launched an initiative to increase waste reduction and recycling at state facilities. The three elements of the Governor's initiative included:

1. Creating the G.O.L.D. Committee and directing them to examine methods to increase the state's purchase of recycled products and compost, to design incentive programs, to encourage reuse of state surplus properties, and to identify other methods of increasing waste reduction and recycling.
2. A request that each state office minimize the use of styrofoam products.
3. A request that each state agency, including regional and district offices, evaluate waste reduction and recycling efforts and design an effective program.

As a result of G.O.L.D.'s efforts and the initiative taken by state employees and students, many state agencies began recycling programs or increased the effectiveness of existing programs. Secondly, through its report to the Governor, G.O.L.D. prepared the first summary of state government programs, assembled suggestions from state employees, and established a series of recommendations.

accomplishments

The G.O.L.D. plan incorporates many of the recommendations made by G.O.L.D. and state employees in the 1989 G.O.L.D. report. The suggestions that have been incorporated into this plan and the status of previous G.O.L.D. recommendations are summarized by Figures 1. and 2., respectively.

Figure 1.

Summary of Plan Strategies that have Incorporated the Suggestions Received from State Government Personnel Who Responded to the 1988 G.O.L.D. Survey

<u>Topic</u>	<u>Related Plan Strategy</u>
Policies and Accountability	1A-1C
o Make recycling mandatory	
o Develop a model policy on wr/recycling	
o Give supervisors the written responsibility to encourage participation in the agency's program.	
Recycling	4A-4B
o Create contracts throughout the state	
o Require collectors to document materials recycled	
o Combine recycled materials from small offices.	
o Provide state pick up of materials in areas where commercial service is not available.	
o Create a state contract for the collection of cardboard.	
o Establish local G.O.L.D. committees in cities where several agencies and institutions are located.	
o Provide recycle containers for glass, plastic.	
Education	
o Provide posters and labels to agencies	5A-5B
o Provide waste audits	1A
o Provide information available grants	NA1
o Provide a list of recyclers	NA2
o Develop educational programs	5A-5B
o Familiarize young students with recycling	NA3

NOTES: The numbers provided define the plan strategies where these suggestions, or items similar to them, have been incorporated into the plan.

NA1 Not specifically addressed in plan but will be provided as part of technical assistance and G.O.L.D. Tip Sheets.

NA2 This is provided by Ecology's 1-800-Recycle Hotline.

NA3 Addressed by a recent resolution to make waste reduction and recycling part of the state's elementary instruction programs.

SOURCE: Government Recycling and Waste Reduction. Report to the Governor, General Administration. October, 1989. The suggestions are a summary of ideas received from sixty-eight agencies and institutions who responded to the 1988 G.O.L.D. survey.

Figure 3. The Status of Previous G.O.L.D. Recommendations

- o Conduct Desk Side Pilot Projects on the Capitol Campus.
Building and Grounds will continue this effort as part of their management responsibilities for Capitol Campus program.
- o Create a hazardous materials exchange for state facilities
Incorporated into Strategy 2D. of the G.O.L.D. Plan.
- o Use recycled paper for business cards.
Expanded to require the use of recycled paper for all government documents (Strategy 3A).
- o Allow agencies to donate surplus items to charity organizations.
This was accomplished by G.O.L.D during 1988. It is expanded in the plan to require a review of state policies as they affect the ability of agencies to reuse and recycle materials. (Strategy 2F).
- o Conduct waste evaluations at state facilities
Facility evaluations will be conducted at state facilities and used to develop waste reduction and recycling programs. Facilities are expected to conduct the evaluations with assistance from the Department of Ecology as needed. (Strategy 1B).
- o Define incentives for operating recycling programs
The plan encourages agencies to maintain recycling revenues, to capture funds associated with avoided disposal costs, and to design their programs to maximize potential revenue (Strategy 4A).
- o Encourage recycling by demonstrating reduce disposal costs.
The manual accompanying the plan defines methodologies for estimating avoided disposal costs.
- o Conduct an Awareness Week during April, 1990.
The Department of General Administration conducted an Awareness Week during April, 1990. The plan suggest continuing this effort. (Strategy 5B).
- o Increase the purchase of recycled products by establishing a "Buy-Recycled" program in the Office of State Procurement.
Incorporated into this plan under Objective 3. and the strategies associated with it. A requirement for state government to procure recycled products was incorporated into the Governor's 2010 Executive Order (EO-90-06, see Appendix X).
- o Buy products with less packaging and encourage this by issuing a policy to suppliers on reduced packaging.
Incorporated into the plan under Strategies 2B. and 3A but does not include a policy statement to suppliers.

B. The Hazardous Waste Reduction Act

In 1990, the Washington State Legislature passed the Hazardous Waste Reduction Act and amended 70.95C RCW. The intent of the Act is to reduce the amount and toxicity of the hazardous wastes that are generated in Washington State.

The act applies to facilities that generate more than 2,640 pounds of hazardous waste each year or any hazardous substance users that are required to write report under Section 313 of Title III of the RCRA. Because some state facilities fall into this category, they will be required to write reduction plans.

The primary difference between the G.O.L.D. Plan the rules that have been drafted for the Hazardous Waste Reduction Act is that this plan requires all state agencies and institutions to develop waste reduction and recycling plans which address both solid and hazardous wastes while the Hazardous Waste Reduction Act applies primarily to hazardous wastes. Thus state facilities that are required to develop a hazardous reduction plan are not required to address solid waste reduction and recycling or procurement. Secondly, the rules developed for the Hazardous Waste Reduction Act may require agencies to develop a separate plan for each one of its facilities. This will be determined based on whether or not the facilities within the institution are interrelated facilities with substantially similar processes or not.

How The Hazardous Waste Reduction Act Affects State Facilities

Under the Hazardous Waste Reduction Act, any state agency or state educational institution that generates more than two thousand six hundred forty pounds of hazardous waste is required to write a reduction plan. Although the rules pursuant to this Act will also apply to hazardous substance users reporting under Section 313 of Title III of the Superfund Amendments and Reauthorization Act, this category of users include only manufacturers of hazardous substances and does not include any state agencies. The date by which the plans are to be completed is defined by the amount of hazardous wastes that are generated or the amount of hazardous substances that are used (See Table 2).

A preliminary list of state agencies and educational institutions that are required to develop hazardous reduction plans suggests that a minimum of nine agencies, and their associated facilities, may be required to develop plans. These nine state entities include: The Department of Corrections, the Department of General Administration, Department of Transportation, Washington National Guard, Seattle Community College, Spokane Community College, Washington State University, Eastern Washington University, and the University of Washington.

The list is based on the cumulative total of waste reported by state agencies to the Department of Ecology's Hazardous Waste Data Base. The list is preliminary because the entries do not currently distinguish between cleanup wastes and those that are routinely generated. Secondly, some facilities may not have reported all of the wastes they generated.

Finally, whether or not an agency is required to develop a hazardous reduction plan is defined by the quantities of wastes that are reported by each of their facilities in future years (See Table 2). Therefore, it is feasible that some state facilities will reduce their hazardous waste generation and thus may not be required to develop a 2390 reduction plan.

Coordinating Actions Between The Hazardous Waste Reduction Act and G.O.L.D.

Figure 3., below, provides a suggested approach for coordinating actions required by the Hazardous Waste Reduction Act with the G.O.L.D. Program. The intent of the direction provided is to avoid duplication of efforts while ensuring that agencies begin the process of incorporating waste reduction into the management of their facilities.

Figure 3. Suggested Approach for Coordinating the Planning Requirements of the Hazardous Waste Reduction Act with G.O.L.D.

1. Assume that all state agencies, state universities, independent boards or commissions, and community colleges, are required to develop a waste reduction and recycling program that incorporates the guidance provided by the G.O.L.D. Plan.
2. State agencies and educational institutions are responsible for defining the types and quantities of hazardous wastes generated each year by their facilities and secondly, for defining whether or not they are subject to the requirements of the Hazardous Waste Reduction Act. Finally, agencies subject to the Act need to determine whether or not they have substantially similar facilities. This will determine how many reduction plans they are required to write.
3. State agencies and educational institutions that are required to develop plans under the Hazardous Waste Reduction Act are encouraged to begin developing the plans required by G.O.L.D. and to focus on the solid waste, procurement, and education elements of their plans.

In order to accommodate these two efforts, the final product of agencies that are subject to both should be a). a G.O.L.D. Plan that addresses all elements but hazardous waste and b). a hazardous waste reduction plan prepared using the guidance provided by the hazardous waste reduction rules.

TABLE 2. Planning Requirements of the Hazardous Waste Reduction Act

<u>Type of Generator/User</u>		<u>Plans Completed By</u>
Generators:	More than 50,000lbs in 1991	Sept. 1, 1992
Users:	Reported in 1991	
Generator:	50,000 - 7,000lbs in 1992	Sept. 1, 1993
User:	Reported for first time in 1992	
Generators:	7,000 - 2,640 in 1993	Sept. 1, 1994
Users:	Reported for first time in 1993	
Generators:	All who generated over 2,640lbs	Sept. 1
Users:	All who report during this year.	

V. CONTENTS OF THE PLAN

A. Plan Concept

This plan is designed to create a coordinated approach to waste reduction and recycling in Washington State government facilities. It establishes goals for state government facilities and defines a series of actions that all state government facilities are required to pursue.

The primary action required by this plan is for all state agencies and institutions to develop or modify programs to reduce and recycle the solid and hazardous waste they generate and to increase procurement of recycled, durable, and nontoxic products. Objectives 1. - 6. of this plan define the elements that should be incorporated into state facility programs. These elements include waste reduction, procurement, recycling, education, and tracking program results (Table 3). The manual accompanying this plan provides facilities with options for implementing the actions required by this plan and identifies resources to assist with plan development.

In order to ensure that state agencies and institutions develop a program that is responsive to the wastes it generates, the people it serves or employs, and other unique factors, this plan requires state agencies and institutions to begin program development by evaluating their facilities using a manual prepared by Ecology. The results of the evaluations, coupled with the guidance provided by this plan, are intended to provide state facilities with the basis of their waste reduction, recycling, and procurement programs.

B. Who is Subject to the Plan

This plan applies to all state agencies. For the purpose of this plan, the term state agencies includes the following:

- State Agencies
- State Universities
- Community Colleges
- State Colleges
- Offices of Elected and Appointed Officers
- Boards
- Commissions
- Councils
- Courts
- The Legislature

State agencies and institutions with fewer than twenty employees are not required to develop and submit plans but are encouraged to develop waste reduction and recycling programs based on the guidance provided by G.O.L.D.

Boards and Commissions with independent authorities are included in the definition of state agencies and institutions and are required to develop plans. Boards, commissions, committees, and other recognized groups which report to, or work in conjunction with, state agencies and institutions should be considered in the plans developed by state agencies and institutions.

C. Goals and Objectives of The Plan

The goals of this plan are designed to ensure that Washington State government is an active participant in the state of Washington's goals to recycle fifty percent of its solid waste by 1995 and to reduce the generation of hazardous waste by fifty percent by 1995. They are supported by six objectives and a series of strategies, or actions, which should be implemented in order to ensure that these goals are reached. Following the objectives listed below, each objective is described along with its associated strategies, responsibilities, and required plan elements.

The goals of this plan are:

1. *To annually reduce the solid and hazardous wastes generated at Washington State government facilities.*
2. *By 1995, to recycle 50% of the solid wastes that are generated at state government facilities, and to annually increase the recycling rate thereafter.*
3. *To conserve natural resources and reduce environmental degradation by annually increasing the use of products that are reusable, recyclable, made with recovered materials, and are nontoxic; and by increasing the use of recycled paper and paper products at all state facilities by fifty percent by July 1, 1993, and annually thereafter.*

The objectives of this plan are summarized on the following page. Table 3. describes the actions that are associated with each plan objective. They include actions aimed at reducing solid and hazardous wastes, recycling wastes, changing procurement practices so that they further resource conservation, educating state employees and facility residents, and communicating the results of the actions that are taken.