BEFORE THE COUNCIL OF
THE METROPOLITAN SERVICE DISTRICT

FOR THE PURPOSE OF APPROVING DISTRIBUTION OF AN RFP FOR A PERSONAL SERVICES CONTRACT TO ASSIST IN ACCELERATION OF THE RLIS PROJECT	)))))	RESOLUTION NO. 90-1262A Introduced by Rena Cusma, Executive Officer

WHEREAS, The Metropolitan Service District has embarked upon development of a Regional Land Information System (RLIS), covering the Portland metropolitan area, for the purpose of serving information needs of regional planning, member jurisdictions, citizenry, and the business community; and

WHEREAS, The Council of the Metropolitan Service District is seeking to accelerate the production schedule of RLIS to bring it into full operation by July of 1991; and

WHEREAS, There are funds available in the current fiscal year budget to contract for personal services to accelerate the RLIS implementation schedule and the drafted budget for FY90-91 includes a line item for a contract to continue these same services into FY90-91; and

WHEREAS, Section 2.04.033 (b) of the Metro Code requires that the Council must approve the proposal document for certain contracts, including multi-year contracts, and provides for waiver of the requirement that Council approve the awarded contract and authorize the Executive Officer to execute the contract; and

WHEREAS, The proposal document is for a contract not identified on the contract list attached to the adopted budget and is therefore an "A" contract and designated for Council review; and

WHEREAS, the Council has reviewed the Request for Proposals and related documents; now, therefore,

BE IT RESOLVED,

That the Executive Officer be authorized to issue an RFP for a personal services contract not to exceed $165,000 to assist in development of the RLIS digital mapping database and Council waives the requirement that it approve the contract, authorizing the Executive Officer to do so, subject to final adoption of the fiscal year 1990-1991 budget, and that the initial contract shall not exceed $165,000.

ADOPTED by the Council of the Metropolitan Service District this 10th day of May, 1990.

Tanya Collier, Presiding Officer

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STAFF REPORT

CONSIDERATION OF RESOLUTION NO. 90-1262 FOR THE PURPOSE OF APPROVING DISTRIBUTION OF AN RFP FOR.A PERSONAL SERVICES CONTRACT TO ASSIST IN ACCELERATION OF THE RLIS PROJECT

Date: May 8, 1990 Presented by Andy Cotugno/Dick Bolen

FACTUAL BACKGROUND AND ANALYSIS

This RFP is to retain a contractor to assist Metro staff in development of the RLIS database. This work was termed the *RLIS accelerated scenario* during the FY90-91 budget process and $150,000 is included for funding contractual services.

It is possible to begin the contractual work this fiscal year, using $15,000 of M&S monies originally budgeted to pay PGE for transfering their data to our computer system. During contract negotiations we were able to eliminate this charge when PGE agreed to absorb the cost. Therefore, this RFP is for a multi-year contract, not to exceed $165,000.

The RFP states that the work will span the fiscal years and that the porton of the work to be conducted in FY 90-91 is subject to Metro Council approval.

As part of the RLIS pilot project, work tasks were defined, time requirements determined, and alternative production schedules developed. The report documenting the results proposes the *accelerated scenario* as a means of shortening the production time-line by ten months.

The contractual work involves preparation of the PGE parcel base maps for inclusion in Metro's ARC/INFO system. This map layer requires the greatest amount of labor to develop,, involving lot line editing and entering tax lot numbers. The RFP also asks for quotes on development of the zoning layer, in the event that the quote to develop the parcel base layer does not exceed the $165,000 limit. There is a slim chance of this occuring but any opportunity to expedite RLIS is worth pursuing.

The RFP also requires that the majority of the contract work be done at a site in the Portland Metropolitan area in order that Metro staff may inspect work in progress.

EXECUTIVE OFFICER'S RECOMMENDATION

The Executive Officer recommends adoption of Resolution No. 90-1262

METRO

2000 S.W. First Avenue
Portland, OR 97201-5398
503/221-1646

Memorandum

Date: May 3, 1990

To: Metro Council

From: Jessica P. Marlitt,
Council Analyst

Regarding: RESOLUTION NO. 90-1262, APPROVING DISTRIBUTION OF AN RFP FOR A PERSONAL SERVICES CONTRACT TO ASSIST IN ACCELERATION OF THE RLIS PROJECT

The Intergovernmental Relations (IGR) Committee will consider Resolution No. 90-1262 at its May 8, 1990 meeting. To assist the Transportation Department in issuing the RLIS Request for Proposals as soon as possible, the Presiding Officer has allowed Resolution No. 90-1262 to be scheduled for Council consideration on May 10, 1990.

Following the May 8 meeting, the IGR Committee report will be available by noon, Wednesday May 9.

If you have any questions regarding Resolution No. 90-1262, please contact Regional Planning Supervisor Dick Bolen, who heads up the RLIS project, at extension 184.

jpmfour
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METRO

2000 S.W. First Avenue
Portland, OR 97201-5398
503/221-1646

Request for Proposals (RFP)

for Spatial Data Conversion

I. Introduction

The Data Resource Center (DRC) of the Metropolitan Service District (Metro) is seeking firm fixed-price proposals and timelines from firms specializing in Geographic Information Systems (GIS). The work requires use of their expertise in ARC/INFO software to assist Metro in converting digital quarter-section base maps obtained from Portland General Electric's Intergraph CAD system to ARC/INFO format. Proposals will be due on May 21, 1990 PST, in Metro's business offices at 2000 S.W. First Avenue, Portland, OR 97201-5398.

II. Background/History of Project

Metro is in the process of developing a parcel level GIS covering 544 square miles in the urban portion of the Portland metropolitan area. The accompanying report titled Regional Land Information System, RLIS, Pilot Project describes detailed project elements, production methods, and time lines.

This work is scheduled for completion in fiscal year 1990-91. However, the budget for FY90-91 has not received final approval and it will be necessary to segment the proposal into two parts -- work to be completed before July 1 and the remaining to be conducted in FY90-91. Funds available in the current fiscal year will support about 10% of the total work.

The following fiscal year, GIS coverage is expected to be expanded beyond the urban areas into the rural parts of the region, covering an additional 830 square miles. Metro's intent to expand coverage into rural areas in FY91-92 is not part of this RFP process but is presented as background information.

III. Proposed Scope of Work/Schedule

Metro desires to have the following work performed:

A. Convert 1,500 PGE Intergraph quarter-section maps to ARC/INFO format. These data can be provided to contractor in either Intergraph

binary form or as ASCII coordinate files. The following graphic elements are to be imported from the PGE files:

- streets (double line)
- street names
- lot lines
- section boundaries
- section labels
- section corners
- railroads
- railroad names
- county boundaries
- streams and creeks
- rivers and lakes
- water names

B. Edit quarter-section lot lines to be consistent with the most current county tax maps (supplied by Metro) maintaining the positional accuracy of the PGE map files. The PGE street right-of-way widths will not be edited to be consistent with the tax maps. This conversion process will produce a topologically structured land base with parcels as polygons. The editing functions can be accomplished using either Intergraph or ARC/INFO systems, provided that the final product is delivered to Metro in ARC/INFO format.

C. Affix Tax Lot numbers from county tax maps to ARC/INFO quarter-section maps (Metro has developed an AML for this purpose). In section IV D, this funtion is specified to be quoted as a seperate unit cost, in the event that it is necessary to reduce costs by reducing the scope of work. Metro will provide the tax lot numbers in digital format.

D. Digitize the zoning maps of the cities and counties in the coverage area, following the procedure outlined in the Pilot Project report. Metro will provide the hard copy zoning maps. This is an optional item to be quoted seperately.

D. Deliver completed digital maps to Metro in ARC/INFO format on Hewlett-Packard 32-track tape cartridge or 9-track tape. Metro will conduct quality control examinations on the digital maps as they are delivered and return for correction those found to contain errors at a rate greater than 2% per quarter-section.

E. The rate of delivery should be no less than 125 completed quarter-sections per month, requiring 12 months to complete the work.

F. Continuation of the contract to perform this work into the 1990-91 fiscal year is subject to approval by the Metro Council. Therefore, proposals should not exceed $20,000 in expected costs before July 1, 1990.

IV. Qualification/Experience

The successful proposer must demonstrate evidence of ability to perform the required work, including examples of similar projects and references to contact.

A Proposal Analysis Group of Metro staff will independently read, review and evaluate each proposal. Selection will be made on the basis of the criteria listed below, and as depicted on the Proposal Evaluation Matrix contained herein. The firms submitting proposals shall include with their proposal statements on the following:

A. Qualifications

1. Description of personnel education and expertise.
2. Number of full-time staff and number to be allocated to this project.
3. Description of photogrammetric and GIS hardware/software.
4. Historical and present day description of company.
5. Contractor must conduct a majority of the work delineated in the scope of work (sec. III) at a site within the Portland Metropolitan area, in order that Metro's project manager may conduct on-site inspections of work in progress.

B. Experience and References

1. Date of ARC/INFO software installation.
2. State experience with ARC/INFO and converting data from CAD systems.
3. List of all ARC/INFO modules currently being used.
4. References specifically pertaining to GIS projects, with emphasis on those employing ARC/INFO.

C. Delivery Schedule

1. Production time lines.

D. Cost

Provide unit costs per map section (1 square mile) and seperate unit costs for the following:

a. affixing tax lot numbers to ARC/INFO section maps.

b. developing the zoning layer

V. Quality of Proposal

Quality of each submitted proposal will be evaluated based on:

A. Completeness of Technical Proposal response.
B. Completeness of Cost/Price Proposal response.

V. Project Administration

Metro's Project Manager is Richard Bolen and all inquiries should be directed to him. Alan Holsted should be contacted if Richard Bolen is not available.

VI. Proposal Instructions

A. Submission of Proposals

Three (3) copies of the proposal shall be furnished to Metro addressed to:

Richard Bolen
Data Resource Center
Metropolitan Service District
2000 S.W. First Avenue
Portland, OR 97201-5398

B. Deadline

Proposals will not be considered if received after 5:00 p.m. PDT, May 21, 1990. Postmarks are not acceptable.

C. RFP as Basis for Proposals

This RFP and attachment represent the most definitive statement Metro will make concerning information upon which proposals are to be based. Any verbal information which is not contained in this RFP will not be considered by Metro in evaluating the proposals. All questions relating to the RFP or the project must be submitted in writing to Richard Bolen. Any questions which, in the opinion of Metro, warrant a written reply or RFP amendment will be furnished to all parties receiving a copy of this RFP. Metro will not respond to questions received after May 21, 1990.

D. Subconsultants; Disadvantaged Business Program

A subconsultant is any person or firm proposed to work for the prime consultant on this project. Metro does not wish any subconsultant

selection to be finalized prior to contract award. For any task or portion of a task to be undertaken by a subconsultant, the prime consultant shall not contract with a subconsultant on an exclusive basis.

In the event that any subconsultants are to be used in the performance of this agreement, consultant agrees to make a good faith effort, as that term is defined in Metro's Disadvantaged Business Program (Section 2.04.160 of the Metro Code) to reach the goals of subcontracting seven percent (7%) of the contract amount to Disadvantaged Businesses and five percent (5%) of the contract amount to Women-Owned Businesses. Consultant shall contact Metro prior to negotiating any subcontracts. Metro reserves the right, at all times during the period of this agreement, to monitor compliance with the terms of this paragraph and Metro's Disadvantaged Business Program.

VII. Proposal Contents

The proposal should contain not more than fifty (50) pages of written material (excluding biographies and brochures, which may be included in an appendix), describing the ability of the consultant to perform the work requested, as outlined below:

A. Transmittal Letter -- Indicate who will be assigned to the project, who will be project manager, and that the proposal will be valid for ninety (90) days.

B. Approach/Project Work Plan -- Describe how the work will be done within the given time frame and budget. Include a proposed work plan and schedule.

C. Staffing/Project Manager Designation -- Identify specific personnel assigned to major project tasks, their roles in relation to the work required, percent of their time on the project, and special qualifications they may bring to the project.

Metro intends to award this contract to a single firm to provide the services required. Proposals must identify a single person as project manager to work with Metro. The consultant must assure responsibility for any subconsultant work and shall be responsible for the day-to-day direction and internal management of the consultant effort.

D. Experience -- List projects conducted over the past five years similar to the work required here. For each project, include the name of the contact person, his/her title, role on the project, and telephone number. Identify persons on the proposed study team who worked on

each project, and their respective roles. Include resumes of individuals proposed for this contract.

E. Cost/Budget -- Present the proposed cost of the project and the proposed method of compensation. List hourly rates for personnel assigned to the project, total personnel expenditures, support services, and subconsultant fees (if any). Requested expenses should also be listed.

F. Exceptions and Comments -- To facilitate evaluation of proposals, Metro wishes that all responding firms adhere to the format outlined within this RFP.

Firms wishing to take exception to, or comment on, any specified criteria within this RFP are encouraged to document their concerns in this part of their proposal. Exceptions or comments should be succinct, thorough and organized.

VIII. General Proposal/Contract Conditions

A. Limitation and Award -- This RFP does not commit Metro to the award of a contract, nor to pay any costs incurred in the preparation and submission of proposals in anticipation of a contract. Metro reserves the right to accept or reject any or all proposals received as the result of this request, to negotiate with all qualified sources, or to cancel all or part of this RFP.

B. Contract Type -- Metro intends to award a personal services contract with the selected firm for this project.

C. Billing Procedures -- Proposers are informed that the billing procedures of the selected firm are subject to the review and prior approval of Metro before reimbursement of services can occur. A monthly billing, accompanied by a progress report, will be prepared for review and approval.

D. Validity Period and Authority -- The proposal shall be considered valid for a period of at least ninety (90) days and shall contain a statement to that effect. The proposal shall contain the name, title, address, and telephone number of an individual or individuals with authority to bind any company contacted during the period in which Metro is evaluating the proposal.

IX. Evaluation of Proposals

Once each member of the Proposal Analysis Group has independently read and rated each proposal and completed a proposal evaluation matrix form, a composite rating will be developed which will indicate the Group's collective ranking of the highest rated proposals, in descending order. At this point, the Proposal Analysis Group will request benchmarks from the top ranked proposers. Benchmarks must be submitted to Metro within six (6) working days after notification. At this point, the Proposal Analysis Group may conduct interviews with only the top ranked firms, usually the top three, depending upon the number of proposals received. The Proposal Analysis Group will conduct all subsequent negotiations and will make a recommendation for the contract award.

SPATIAL DATA CONVERSION REQUEST FOR PROPOSALS
(RFP)
AUTOMATION OF ENVIRONMENTAL COVERAGES AND UTILITIES

PROPOSAL EVALUATION MATRIX

Maximum Points: 100

FIRM:_____

			MAXIMUM POINTS	SCORE
1.	Qualifications.		25	_____
2.	Experience with similar projects.		20	_____
3.	Delivery Schedule.		15	_____
4.	Cost of Services.		15	_____
5.	Overall quality and completeness of proposal.		5	_____
		Subtotal	80	
6.	Benchmarks*		20	_____
		Total	100	

What are the three primary reasons you have for recommending this firm?

_____

_____

_____

* Considered only for those selected for benchmarks

What are the three primary reasons you have for rejecting this firm?

_____

_____

_____

General Comments/Clarifications/Questions:

Name of Evaluator _____Date_____

_____

_____

_____

References for:_____

IMPORTANT: Proposers shall provide references on this form only.

1. Firm Name_____
   Contact_____
   Title _____
   Mailing Address_____
   Phone_____

2. Firm Name_____
   Contact_____
   Title _____
   Mailing Address_____
   Phone_____

3. Firm Name _____
   Contact_____
   Title _____
   Mailing Address_____
   Phone_____

4. Firm Name_____
   Contact_____
   Title _____
   Mailing Address_____
   Phone_____

5. Firm Name_____
   Contact_____
   Title_____
   Mailing Address_____
   Phone_____

ATTACHMENT "B"
(2-03-00)

REQUEST FOR ADVERTISEMENT - BID/RFP

RFP Title: RLIS Digital Mapping Contract

escription of Work: A personal service contract ~~not to~~ to assist in development of the RLIS digital mapping database

pening Date: May 21, 1990

re-bid, Pre-proposal Conference: ____ Yes, X No

If yes, date / /

roposed Dates of advertisement: ~~B~~ May 9th, 1990

ublications to be used: DJC, Skanner

xpenditures in future fiscal years: /X/ Yes, / / No.

f yes, state fiscal years and amount. 1990-91 = $150,000

1989-90 = $15,000

BE/WBE Goals = / / Requirement does not apply. Exempted from the requirement by the DBE/WBE Liaison Officer

/X/ Do apply 7 % DBE, 5 % WBE

ontract Type = / X / Type A. Bid/RFP must be reviewed by the Contract Review Board per Metro Code 2.04.032.

/ / Type B. Bid/RFP does not need to be reviewed by the contract Review Board per Metro Code 2.04.032.

O CONTRACT INITIATORS

/ The above referenced Bid/RFP is a Type B. Contract. You may proceed to dvertise and release Bid/RFP documents.

/ The above referenced Bid/RFP is a Type A. Contract. You may proceed to dvertise and release Bid/RFP documents on / /.

ontracts Administrator Date

White, Contracts Copy; Yellow, Council Copy; Pink, Dept. Copy)

INTERGOVERNMENTAL RELATIONS
COMMITTEE REPORT

RESOLUTION NO. 90-1262, FOR THE PURPOSE OF APPROVING DISTRIBUTION OF AN RFP FOR A PERSONAL SERVICES CONTRACT TO ASSIST IN ACCELERATION OF THE RLIS PROJECT

Date: May 9, 1990 Presented by: Councilor Devlin

COMMITTEE RECOMMENDATION: At the May 8, 1990, Intergovernmental Relations Committee meeting, Councilors Bauer, McFarland and myself voted unanimously to recommend Council adopt Resolution No. 90-1262A as amended. Councilors Gardner and Ragsdale were excused.

COMMITTEE DISCUSSION/ISSUES: Transportation Department Director Andy Cotugno and Regional Planning Supervisor Dick Bolen presented the resolution which approves issuance of Request for Proposal (RFP) documents for a contract to accelerate implementation of the Regional Land Information System (RLIS).

During this year's FY90-91 budget review process, $150,000 was included in Transportation's budget for an FY90-91 contract to accelerate RLIS implementation. However, Transportation now has an additional $15,000 to begin the contract this year. The $15,000 came from Materials and Services funds budgeted to pay Portland General Electric for transferring their data to RLIS, for which PGE later agreed to absorb the cost.

At the Committee meeting, Mr. Cotugno and Mr. Bolen handed out a revised Resolution No. 90-1262 which added language to waive the final contract from Council approval, consistent with Metro Code Chapter 2.04.033 (b):

> "At the time of Council approval of the ... Request for Proposal documents, the Council may waive the requirement of Council approval of the contract and authorize the Executive Officer to execute the contract subject to any conditions, consistent with Council contracting authorities as described herein, specified by the Council at the time of the waiver."

The Committee agreed with including the waiver provision in order to ensure the contract could be executed and work initiated by the start of June. No additional issues or questions were raised about the resolution or RFP documents.

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Exhibit A to
Res. No. 90-1263
for Council Meeting
5/10 90

WASHINGTON COUNTY SOLID WASTE MANAGEMENT

CONCEPT PLAN

April 4, 1990

Prepared for

WASHINGTON COUNTY SOLID WASTE SYSTEMS DESIGN STEERING COMMITTEE

Prepared by

McKeever/Morris, Inc.
812 S.W. Washington, Suite 1110
Portland, Oregon 97205
(503) 228-7352

In association with

Washington County Environmental Services

and

Metropolitan Service District Planning and Development Staff

TABLE OF CONTENTS

FIGURES

TABLES

APPENDICES

A. Minutes of Washington County Solid Waste Systems Design Steering Committee Meetings

B. Background Information on Three Transfer Station Alternatives

C. Summary of Metropolitan Service District Flow Control Ordinance

D. Legal memos on Metro Franchise Procedures

E. Metro Ordinance Relating to Public-Private Ownership Decisions

F. Background Material on Solid Waste Facilities Proposed by Hauling Industry

WASHINGTON COUNTY
SOLID WASTE MANAGEMENT CONCEPT PLAN

I. INTRODUCTION

The Washington County Solid Waste Management System Concept Plan documents the first major phase of a solid waste planning process which began in Washington County in November, 1989. The planning process is being conducted by Washington County local governments in partnership with the Metropolitan Service District (Metro) and the franchised solid waste hauling industry in the County. A 19 person Washington County Solid Waste Systems Design Steering Committee comprised of representatives from the Washington County Board of Commissioners, the local governments within the County, the Washington County Hauler's Association, and three Metro Councilors oversees all project activities. Staff support is provided jointly by Washington County and Metro.

This Concept Plan was unanimously adopted by the Steering Committee at its April 2, 1990 meeting. The Concept Plan establishes the general policy framework on which the Steering Committee prefers to base the future solid waste system in Washington County. Subsequent phases of the solid waste planning process will include: additional technical analysis to help refine the policy issues in the Concept Plan and resolve outstanding policy issues; the development of a System Plan to more specifically identify the nature of the future solid waste system in the County; and the initiation of the procurement process to site and construct solid waste facilities identified as needed in the System Plan.

This planning process is being conducted consistent with Policy 16 of Metro's Regional Solid Waste Management Plan, which states:

> "16.0 LOCAL GOVERNMENT SOLUTIONS POLICY
>
> The implementation of the solid waste management plan shall give priority to solutions developed at the local level that are consistent with all plan policies.
>
> 16.1 Each local government shall exercise its responsibilities for solid waste solutions in its area, in ways consistent with the regional plan.

16.2 Each city and county shall provide appropriate zoning to allow planned solid waste facilities or enter into intergovernmental agreements with others to assure such zoning. Whether by outright permitted use, conditional use or otherwise, appropriate zoning shall utilize only clear and objective standards that do not effectively prohibit solid waste facilities."

The Concept Plan is organized as follows:

- Description of the planning process which will be used to develop the Washington County solid waste system.

- Description of current solid waste facilities in Washington County and current and projected waste streams in Washington County by sector and type of waste.

- Presentation of major policy issues and Steering Committee selections of preferred policy options; and

- Description of needed facilities and programs for a complete Washington County solid waste management system.

This Concept Plan was prepared by McKeever/Morris, Inc., consultants to Washington County, together with Metro and Washington County staff under the oversight of the Steering Committee. Minutes of Steering Committee meetings are included in Appendix A.

II. PLANNING PROCESS

A. Steering Committee

The Steering Committee, which is chaired by Washington County Commissioner Steve Larrance, is comprised of the following people and organizations.

Steve Larrance, Washington County, Chairman
Don Hamburg, Hauling industry
John Walker III, Hauling industry

Bob Peterson, Hauling industry
Marion Garbarino (alternate), Hauling industry
Richard Devlin, Metro Councilor
Larry Bauer, Metro Councilor
Mike Ragsdale, Metro Councilor
John Atkins/Larry Cole, Beaverton
Jerry Taylor, Cornelius
Clifford Clark, Forest Grove
Shirley Huffman, Hillsboro
Lenore Akerson, King City
Jim Rapp, Sherwood
Patrick Reilly/Liz Newton, Tigard
Jeanne L. Percy, Durham
Steve Stolze/Catherine Clark, Tualatin
Tom Barthel, Wilsonville
Bill Gildow, County Solid Waste Advisory Committee

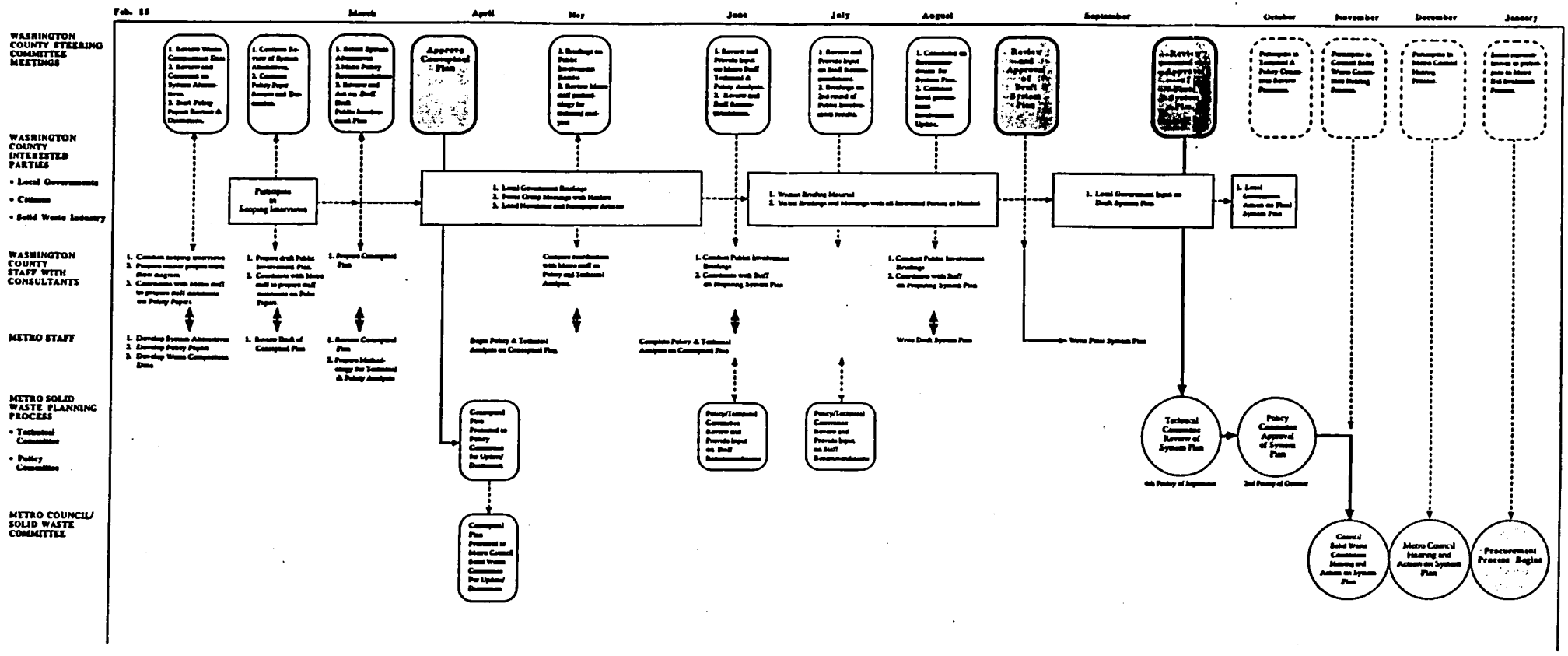
B. Work Plan

The Steering Committee is following the planning process outlined in the Work Flow Diagram, Figure 1 on the following page. The process identifies the roles of all of the major interested parties in developing the Washington County solid waste system , including the County's Steering Committee, each of the Washington County local governments, the local hauling industry, citizens, Washington County and Metro staff and consultants, Metro's Solid Waste Policy and Technical Committees, the Metro Council Solid Waste Committee, and the Metro Council.

Important milestones in the planning process include the Steering Committee's approval of the Concept Plan by early April, 1990, the Steering Committee's approval of a System Plan by September, 1990, and the beginning of the facilities procurement process by Metro in January, 1991.

AS MAN GEMENT PLANNING PROCESS

March 28, 1990



C. Public Involvement Plan

One of the goals of the planning process is to develop consensus among all of the interested parties for both the Concept Plan and System Plan. In order to assist in developing such a consensus the Steering Committee has developed a series of public involvement activities with local governments, the private hauling industry, citizens, and Metro. These activities are summarized below.

1. Washington County Local Government Public Involvement

   a. (Early March) Complete consultant scoping interviews with remaining local governments.

   b. (April-May) Provide first-round of briefings to all local government elected bodies to explain the local planning process and the Concept Plan.

   c. (June, July, early August) Provide brief (1-2 page) written materials explaining progress and results of technical analysis. Work with local government Steering Committee members so that they can field questions and identify issues of concern. If the technical analysis indicates that there is reason for the System Plan to be substantially different than the Concept Plan then verbal briefings may be necessary. Also, there may be some local governments that prefer verbal briefings to a written update on the technical analysis.

   d. (Late August, early September) Provide second-round of briefings to all local government elected bodies to explain and gather input for the Steering Committee on the Draft System Plan. At least one Steering Committee representative in addition to the local representative will attend each of these briefings to demonstrate the importance of the Draft System Plan and the Steering Committee's support for the Plan.

   e. (Late September) Appear before each local government elected body to request passage of a resolution of support for the Steering Committee's Final Draft System Plan. Steering Committee participation in these presentations will occur if there are major changes between the draft and final System Plan, or if there are difficult political situations in any of the local governments.

2. Private Hauling Industry

   a. (March) Complete scoping interviews.

   b. (Throughout Project) Conduct focus group meetings with private hauling industry at key points during the process to ensure that there is clear communication between their industry and the planning process and that their concerns are being understood and addressed throughout the process.

3. Citizen and Business Interests

   a. (Throughout Project) Prepare brief written updates on project progress for publication through the existing network of local government newsletters and local newspapers. In addition to substantive project information the articles should inform people of the Steering Committee's deliberations, provide a name and phone number at the County to contact if anyone wishes to be put on the mailing list for Steering Committee meeting materials, and indicate that verbal project briefings are available to organizations with an interest.

   b. (Throughout Project) Steering Committee members and staff will keep eyes and ears open throughout project to identify particular organizations or key interests in a community which are beginning to show an active interest in this issue. If this interest emerges the project's general approach will be to provide avenues for the concerns of these organizations and the needs of the project to be mutually understood and appreciated as early in the process as possible.

4. Metro

   a. (Throughout Project) Metro staff and Washington County staff will work as a coordinated team throughout the project.

   b. (Throughout Project) The work flow diagram (see Figure 1) identifies several key points in the project when Metro's Policy and Technical Committees, the Metro Council's Solid Waste Committee, and the Metro Council will be involved in reviewing and ultimately acting on project recommendations. The Steering Committee will be directly represented at all of these meetings.

III. EXISTING CONDITIONS AND WASTE GENERATION FORECAST

This section of the Concept Plan identifies existing solid waste facilities in Washington County, existing waste streams, and provides a forecast for future waste streams through the year 2010. This information will help to identify the number and types of solid waste facilities which will be needed in the County.

A. Existing Solid Waste Facilities

The following list contains those solid waste facilities that are currently in operation within the County. This list does not include the home offices for each of the existing franchised haulers.

1. Forest Grove Transfer Station

    - Receives mixed wastes from those companies owned by Ambrose Calcagno and several western Washington County garbage haulers.
    - Provides a limited facility for self-haulers.
    - Hauls to Riverbend landfill in Yamhill County.
    - Has facilities for source separated recyclable materials.

2. Hillsboro Landfill (Minter Bridge Road, Hillsboro)

    - Receives select wastes from entire Metro region.
    - Currently receives all other non-putrescibles from Metro area (includes yard debris).
    - Has facilities for source separated recyclables.
    - Currently operating under renewable five year permits by DEQ to a maximum of 20 years.
    - Has facilities for self-haul - non-putrescibles.
    - Provides limited-post collection material recovery.

3. Lakeside Reclamation (Vandermost Road)

    - Receives select wastes from entire Metro region.
    - Currently receives all other non-putrescibles from Metro area (includes yard debris).

- Receives solid waste from haulers only.
- Landfill life expectancy, under current methods of operation, is approximately seven years.
- Provides limited-post collection material recovery.

4. Grimm's Fuel (Pacific Highway)

   - Receives yard debris
   - Receives other woody wastes.
   - Processes material by composting for resale.
   - Receives both public haul and commercial loads.

5. Far West Fibers Recycling (Hwy 217 and Denny Road)

   - Receives source separated materials from both commercial and public self-haulers.
   - Essentially a high grade facility

6. Hillsboro Reload Facility

   - Receives mixed wastes from Hillsboro Disposal Company only.
   - Reloads and transports to Riverbend Landfill in Yamhill County.

7. USA Yard Debris Processing Facility

   - Receives self-haul yard debris and processes for field application (with TSD sludges).

8. Weyerhaeuser Recovery Facility

   - Receives office paper (secondary fiber).

The map on the following page (Figure 2) identifies the territories of the existing franchised haulers in the County.

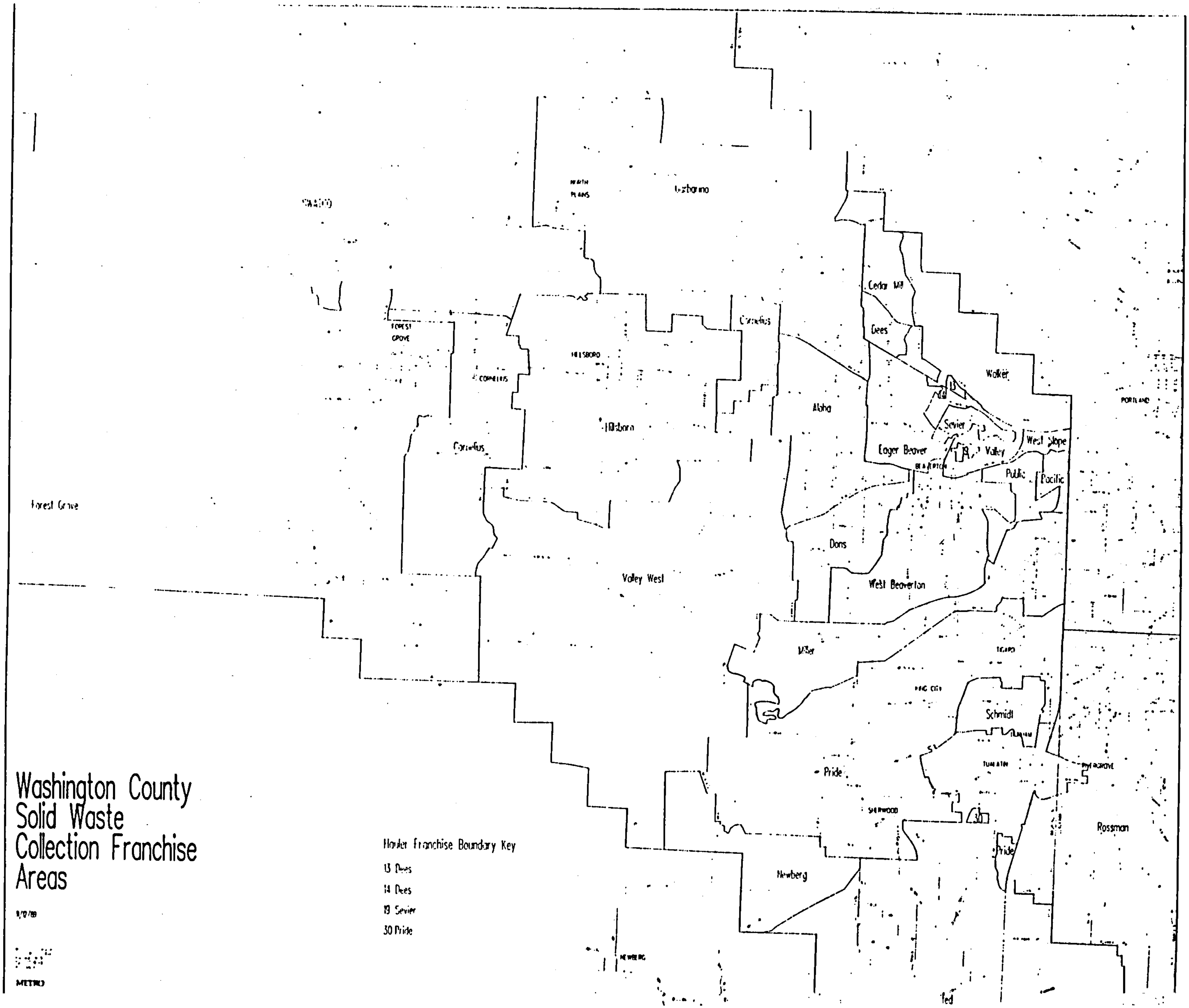

Washington County
Solid Waste
Collection Franchise
Areas
Hauler Franchise Boundary Key
13 Dees
14 Dees
19 Sevier
30 Pride
METRO
Garbarino
NORTH
PLAINS
Cedar Mill
Dees
Cornelius
FOREST
GROVE
HILLSBORO
CORNELIUS
Walker
Aloha
Hillsboro
Sevier
West Slope
Eager Beaver
Valley
BEAVERTON
Public
Pacific
Cornelius
Forest Grove
PORTLAND
Dons
Valley West
West Beaverton
Miller
TIGARD
KING CITY
Schmidt
DURHAM
TUALATIN
Pride
SHERWOOD
Rossman
Pride
Newberg
NEWBERG

Figure 2

B. Waste Generation in Washington County

Metro's Planning and Development staff has calculated a waste generation forecast for Washington County through 2010. The forecast has been developed to reflect generation projections for the following waste streams:

- Select Waste

  Construction/demolition debris
  Land clearing debris
  Non-hazardous industrial sludges
  Sewage sludge and grit

- Yard debris

- Household Hazardous Waste

- High Grade Waste

- General Purpose Waste

The narrative below outlines the methodology used to develop the forecasts for these distinct waste streams.

1. Select Waste

Region-wide waste generation data for the four select waste sub-streams listed above was generated for the Select Waste Planning Project. This data was used as the basis for the Washington County Select Waste forecast. Only the four select waste sub-streams were forecasted because it was determined that only these types of materials would be measurable amounts within the County. The other select waste sub-streams are related principally to heavy industrial activities which are not prevalent in Washington County.

In order to forecast how much of these select wastes will be generated in Washington County, the regional forecast data was divided by Washington County's regional population percentage through 2010.

2. Yard Debris

Region-wide data for yard debris generation was produced for the regional yard debris planning project. This data was used as the basis for the Washington County yard debris forecast.

The forecast for Washington County projects the amount of yard debris generated in the County that is available to be processed in addition to that which is currently processed or landfill. Therefore the base numbers reflect a 36-percent reduction due to recycling activities at existing yard debris processors; and, a 12-percent reduction for on-going home composting and burning of yard debris.

The methodology used to develop a yard debris forecast for the County was as follows:

A. The annual regional population and employment forecast was used to forecast the growth rate of yard debris generation region-wide.

B. Washington County's portion of the total generated region-wide was based on its percentage of the region's total population, as forecasted through 2010.

C. An assumption was made that Washington County will reach a recycling rate of 75-percent of the yard debris generated in the County by 1993.

D. An assumption was made that 50-percent of the residual yard debris would be disposed of at limited purpose landfills within the County. The remaining residual would be incorporated with other mixed waste and would be disposed of through the transfer station system designed to manage general purpose waste.

3. Household Hazardous Waste

Based on past semi-annual household hazardous waste collection events, it is anticipated that 815 fifty-five gallon barrels of household hazardous waste will be collected within Washington County in 1990. This number was used as the basis for forecasting the amount if household hazardous waste collected in Washington County through 2010. It should also

be noted that the forecast is a collection forecast rather than a generation forecast because household hazardous waste is a sub-set of the general purpose waste stream. Special management of the material is dependent upon voluntary collection and delivery of the material to collection facilities.

The methodology used to develop a household hazardous waste forecast for Washington County included the following:

1. 815 barrels of household hazardous waste was used as a base collection number for 1990.

2. Household hazardous waste is a sub-stream of the residential waste stream.

3. In order to convert barrels to tons of household hazardous waste, an average weight of 220 lbs. per barrel was assumed. The weight accounts for the fact that the barrels often contain high percentages of absorbent packing material which make the barrels secure for disposal.

4. High Grade Waste

High-grade waste is defined as loads which contain at least 90-percent recyclable material. These loads are generated within the non-residential waste stream.

The methodology used to develop a high grade waste forecast for Washington County was as follows:

A. The amount of non-residential waste generated in the County through 2010 was calculated as part of the total waste generation forecast for the County.

B. An assumption was made that 10-percent of all non-residential waste could be captured in high-grade loads. This 10-percent figure represents the total amount of waste which would be captured in high grade loads.

C. Based on the definition of high grade load, 90-percent of the waste captured in high grade loads would be recovered from the waste stream.

D. The residual waste from the high grade loads is returned to the general purpose waste stream for handling and disposal.

5. General Purpose Waste Stream

General purpose waste is defined as the portion of the waste stream which is processed through transfer stations and disposed of in general purpose landfills.

The general purpose waste forecast for Washington County includes all wastes which are not defined as select waste, yard debris, household hazardous waste, or high grade waste plus the residuals from the yard debris and high grade waste streams.

Tables summarizing the existing and forecast waste streams in the County follow.

WASHINGTON COUNTY SOLID WASTE BREAKDOWN

YEAR	TOTAL RESIDENTIAL WASTE	TOTAL NON-RES. WASTE	TOTAL WASH. CO. SELECT WASTE	TOTAL RECOVERABLE YARD DEBRIS	TOTAL HOUSEHOLD HAZARDOUS WASTE	TOTAL RECOVERABLE HIGH GRADE WASTE	TOTAL L.P. LANDFILL RESIDUAL YARD DEBRIS	TOTAL GENERAL PURPOSE WASTE	TOTAL WASTE GENERATED
1990	142,247	163,204	69,763	0	90	14,688	23,538	197,372	305,451
1991	146,285	174,188	71,694	980	92	15,677	24,016	208,014	320,473
1992	150,321	185,172	73,648	1,019	95	16,665	24,978	219,087	335,493
1993	154,357	196,156	75,628	27,501	97	17,654	12,732	216,902	350,513
1994	158,395	207,140	77,685	28,548	100	18,643	13,217	227,343	365,535
1995	162,432	218,124	79,740	29,609	102	19,631	13,708	237,765	380,556
1996	166,469	229,108	81,963	30,685	105	20,620	14,206	247,998	395,577
1997	170,507	240,091	84,241	31,774	107	21,608	14,710	258,157	410,598
1998	174,543	251,075	86,547	32,878	110	22,597	15,221	268,265	425,618
1999	178,579	262,059	88,880	33,997	113	23,585	15,739	278,324	440,638
2000	182,617	273,043	91,241	35,129	115	24,574	16,263	288,337	455,660
2001	186,654	284,025	93,778	36,276	118	25,562	16,794	298,150	470,679
2002	190,690	295,010	96,346	37,437	120	26,551	17,332	307,914	485,700
2003	194,728	305,994	98,944	38,613	123	27,539	17,876	317,627	500,722
2004	198,764	316,976	101,572	39,803	125	28,528	18,427	327,284	515,740
2005	202,802	327,961	104,231	41,007	128	29,516	18,985	336,896	530,763
2006	206,839	338,945	107,134	42,226	130	30,505	19,549	346,240	545,784
2007	210,875	349,928	110,070	43,459	133	31,494	20,120	355,527	560,803
2008	214,912	360,912	113,040	44,707	135	32,482	20,698	364,762	575,824
2009	218,949	371,897	116,044	45,990	138	33,471	21,292	373,911	590,846
2010	222,986	382,880	119,081	47,562	141	34,459	22,019	382,604	605,866

Table 1

WASHINGTON, MULTNOMAH AND CLACKAMAS COUNTY POPULATION FORECASTS

YEAR	Total Mult. Co. Population	Total Clack. Co. Population	TOTAL WASH. CO. POPULATION	Total Population	WASH. CO. % OF TOTAL POPULATION
1987	562,997	253,404	278,307	1,094,708	25.42%
1988	565,721	257,545	283,887	1,107,153	25.64%
1989	568,458	261,753	289,579	1,119,790	25.86%
1990	571,209	266,030	295,385	1,132,624	26.08%
1991	573,973	270,377	301,308	1,145,657	26.30%
1992	576,750	274,795	307,349	1,158,894	26.52%
1993	579,541	279,285	313,511	1,172,337	26.74%
1994	582,345	283,848	319,797	1,185,990	26.96%
1995	585,163	288,487	326,209	1,199,858	27.19%
1996	587,994	293,200	332,749	1,213,944	27.41%
1997	590,839	297,991	339,421	1,228,251	27.63%
1998	593,698	302,861	346,226	1,242,785	27.86%
1999	596,570	307,809	353,168	1,257,548	28.08%
2000	599,457	312,839	360,249	1,272,545	28.31%
2001	602,358	317,951	367,472	1,287,781	28.54%
2002	605,272	323,146	374,840	1,303,258	28.76%
2003	608,201	328,426	382,356	1,318,983	28.99%
2004	611,144	333,793	390,022	1,334,959	29.22%
2005	614,101	339,247	397,842	1,351,190	29.44%
2006	617,072	344,790	405,819	1,367,681	29.67%
2007	620,058	350,424	413,955	1,384,437	29.90%
2008	623,058	356,150	422,255	1,401,463	30.13%
2009	626,073	361,969	430,721	1,418,764	30.36%
2010	629,102	367,884	439,357	1,436,343	30.59%

Table 2

SELECT WASTE PROJECTIONS FOR WASHINGTON COUNTY

YEAR	Constr/Demo Debris	TOTAL WASH. CO. CONSTR./DEMO. DEBRIS	Land Clearing Debris	TOTAL WASH. CO. LAND CLEARING DEBRIS	Industrial Sludges	TOTAL WASH. CO. INDUSTRIAL SLUDGES	Sewage Grit	TOTAL WASH. CO. SEWAGE GRIT	TOTAL WASH. CO. SELECT WASTES
1990	241,000	62,862	18,500	4,825	2,700	704	5,300	1,382	69,763
1991	246,000	64,698	18,500	4,865	2,700	710	5,400	1,420	71,694
1992	251,000	66,567	18,600	4,933	2,700	716	5,400	1,432	73,648
1993	256,000	68,461	18,600	4,974	2,700	722	5,500	1,471	75,628
1994	261,000	70,377	18,700	5,042	2,800	755	5,600	1,510	77,685
1995	266,000	72,318	18,800	5,111	2,800	761	5,700	1,550	79,740
1996	271,600	74,447	18,960	5,197	2,700	740	5,760	1,579	81,963
1997	277,200	76,603	19,120	5,284	2,700	746	5,820	1,608	84,241
1998	282,800	78,785	19,280	5,371	2,700	752	5,880	1,638	86,547
1999	288,400	80,994	19,440	5,460	2,700	758	5,940	1,668	88,880
2000	294,000	83,229	19,600	5,549	2,700	764	6,000	1,699	91,241
2001	300,000	85,606	19,880	5,673	2,700	770	6,060	1,729	93,778
2002	306,000	88,011	20,160	5,798	2,700	777	6,120	1,760	96,346
2003	312,000	90,445	20,440	5,925	2,700	783	6,180	1,792	98,944
2004	318,000	92,907	20,720	6,054	2,700	789	6,240	1,823	101,572
2005	324,000	95,393	21,000	6,183	2,700	795	6,300	1,855	104,231
2006	330,800	98,155	21,200	6,290	2,700	801	6,360	1,887	107,134
2007	337,600	100,944	21,400	6,399	2,700	807	6,420	1,920	110,070
2008	344,400	103,766	21,600	6,508	2,700	813	6,480	1,952	113,040
2009	351,200	106,621	21,800	6,618	2,700	820	6,540	1,985	116,044
2010	358,000	109,507	22,000	6,729	2,700	826	6,600	2,019	119,081

Table 3

YARD DEBRIS PROJECTIONS FOR WASHINGTON COUNTY

YEAR	Residential Yard Debris	Commercial Yard Debris	Total Regional Yard Debris	TOTAL WASH. CO. RESIDENTIAL YARD DEBRIS	TOTAL WASH. CO. COMMERCIAL YARD DEBRIS	TOTAL WASH. CO. RECOVERABLE YARD DEBRIS	TOTAL WASH. CO. RESIDUAL YARD DEBRIS	TOTAL WASH. CO. G.P. LANDFILL RESIDUAL	TOTAL WASH. CO. L.P. LANDFILL RESIDUAL	TOTAL WASH. CO. YARD DEBRIS GENERATION
1990	117,332	63,178	180,510	30,600	16,477	0	47,076	23,538	23,538	47,076
1991	121,133	65,226	186,359	31,858	17,154	980	48,032	24,016	24,016	49,012
1992	124,934	67,272	192,206	33,134	17,841	1,019	49,955	24,978	24,978	50,975
1993	128,734	69,319	198,053	34,427	18,537	27,501	25,464	12,732	12,732	52,964
1994	132,536	71,366	203,902	35,738	19,243	28,548	26,433	13,217	13,217	54,981
1995	136,338	73,413	209,750	37,066	19,959	29,609	27,416	13,708	13,708	57,025
1996	140,139	75,469	215,598	38,413	20,684	30,685	28,412	14,206	14,206	59,097
1997	143,939	77,506	221,445	39,777	21,418	31,774	29,421	14,710	14,710	61,195
1998	147,740	79,553	227,293	41,159	22,162	32,878	30,443	15,221	15,221	63,321
1999	151,642	81,599	233,141	42,559	22,916	33,997	31,478	15,739	15,739	65,475
2000	155,342	83,646	238,988	43,976	23,680	35,129	32,527	16,263	16,263	67,656
2001	159,143	85,693	244,836	45,412	24,453	36,276	33,589	16,794	16,794	69,865
2002	162,944	87,739	250,683	46,866	25,235	37,437	34,664	17,332	17,332	72,101
2003	166,746	89,786	256,532	48,337	26,028	38,613	35,753	17,876	17,876	74,365
2004	170,548	91,833	262,381	49,827	26,830	39,803	36,854	18,427	18,427	76,657
2005	174,349	93,880	268,229	51,335	27,642	41,007	37,970	18,985	18,985	78,977
2006	178,149	95,927	274,076	52,861	28,463	42,226	39,098	19,549	19,549	81,324
2007	181,951	97,974	279,925	54,405	29,295	43,459	40,240	20,120	20,120	83,699
2008	185,752	100,021	285,773	55,966	30,136	44,707	41,395	20,698	20,698	86,102
2009	189,642	102,116	291,757	57,573	31,001	45,990	42,584	21,292	21,292	88,574
2010	194,648	104,811	299,459	59,540	32,060	47,662	44,039	22,019	22,019	91,600

Table 4

HIGH GRADE WASTE PROJECTION FOR WASHINGTON COUNTY

YEAR	Wash. Co. Non-Resident Waste	Total Recoverable High Grade Waste	Total Residual High Grade Waste	TOTAL WASH. CO. HIGH GRADE WASTE
1990	163,204	14,688	1,632	16,320
1991	174,188	15,677	1,742	17,419
1992	185,172	16,665	1,852	18,517
1993	196,156	17,654	1,962	19,616
1994	207,140	18,643	2,071	20,714
1995	218,124	19,631	2,181	21,812
1996	229,108	20,620	2,291	22,911
1997	240,091	21,608	2,401	24,009
1998	251,075	22,597	2,511	25,108
1999	262,059	23,585	2,621	26,206
2000	273,043	24,574	2,730	27,304
2001	284,025	25,562	2,840	28,403
2002	295,010	26,551	2,950	29,501
2003	305,994	27,539	3,060	30,599
2004	316,976	28,528	3,170	31,698
2005	327,961	29,516	3,280	32,796
2006	338,945	30,505	3,389	33,895
2007	349,928	31,494	3,499	34,993
2008	360,912	32,482	3,609	36,091
2009	371,897	33,471	3,719	37,190
2010	382,880	34,459	3,829	38,288

Table 5

HOUSEHOLD HAZARDOUS WASTE PROJECTION FOR WASHINGTON COUNTY

YEAR	Total Households	Household Growth Rate	Barrels Produced	TOTAL WASH. CO. HOUSEHOLD HAZ. WASTE
1990	117,494	N/A	815	90
1991	120,828	2.84%	838	92
1992	124,164	2.76%	861	95
1993	127,499	2.69%	884	97
1994	130,835	2.62%	908	100
1995	134,170	2.55%	931	102
1996	137,506	2.49%	954	105
1997	140,841	2.43%	977	107
1998	144,177	2.37%	1,000	110
1999	147,512	2.31%	1,023	113
2000	150,847	2.26%	1,046	115
2001	154,182	2.21%	1,069	118
2002	157,518	2.16%	1,093	120
2003	160,852	2.12%	1,116	123
2004	164,188	2.07%	1,139	125
2005	167,523	2.03%	1,162	128
2006	170,859	1.99%	1,185	130
2007	174,194	1.95%	1,208	133
2008	177,530	1.92%	1,231	135
2009	180,864	1.88%	1,255	138
2010	184,199	1.84%	1,278	141

Table 6

IV. POLICY ISSUES

A. General Criteria for Facility Siting, Selection and System Options

The Steering Committee developed the following general criteria to guide decision-making on the design of the solid waste system.

1. Siting

- Function within the existing local land use regulations. The Committee acknowledges that jurisdictions participating in the local option must accommodate solid waste facilities as an acceptable use within their zoning/land use codes.

- Utilize adopted transportation plans to assure appropriate access to the site and minimize truck traffic impacts.

- Keep citizen drop-off points separate from transfer stations that accommodate professional haulers when it is determined that these two activities are not compatible.

- Consider public opinion which has favored siting facilities within areas where the waste is generated. Spread facilities throughout the georgraphic area in order to facilitate implementation and balance impact.

- Design a system that recognizes the history of local jurisdiction partnership with the haulers and their involvement in solid waste management solutions and continue to promote it.

- Siting should address the following conditions:

  Waste water disposal
  Site water runoff
  Compatibility with other neighboring uses
  Hours of operation
  Pests
  Litter
  Buffering for noise, sight, odor

2. Regional System Requirements

- Design a system consistent with the state hierarchy of reduce, reuse, recycle, recover energy and finally landfill.

- Address all facility needs in the system.

- Balance the need for duplicative facilities (reload and transfer) with cost.

- Provide levels of service for self-haul, residential and commercial haulers consistent with that provided in other parts of the region.

- System must have built-in contingencies to handle waste flows in the event of a breakdown with that provided in other parts of the region.

- System must have built-in contingencies to handle waste flows in the event of a breakdown in any component of the system (compactors).

- System must be designed to be compatible with the regional system.

B. Policy Issues and Recommendations

In addition to the general system criteria described above the Steering Committee has analyzed options for resolving ten specific policy issues and developed a recommended option or options for each of the ten issues . These policy issues, which cover a wide range of often interrelated and complex topics, are as follows:

1. Transfer Station Alternatives
2. Facility Ownership
3. Vertical Integration
4. Facility Procurement
5. High Grade Process
6. Post Collection Mixed Waste Processing and Incentives
7. Land Use Siting Process
8. Financing

9. Flow Control
10. Rate Setting

The diagram on the following page (Figure 3) shows how each of the policy issues relates to the three primary components of the solid waste system:

- collection;
- transfer; and
- disposal.

For each of the ten policy issues the next section of this document provides:

- background and analysis;
- policy options;
- selected policy options(s); and
- a brief discussion of the rationale for the selected policy option(s).

On most of the ten issues the Steering Committee reached agreement on a single policy option. In some cases the Committee determined that it would be useful to review additional information to be generated as a part of the project's technical analysis before selecting a single policy option.

1. Transfer Station Alternatives

a. Background and Analysis

The Washington County Solid Waste Steering Committee has requested that transfer station system alternatives be developed for the Washington County System so that the Steering Committee will have an adequate basis for making decisions about the number and size of transfer stations that could best serve the County.

Three transfer facility alternatives have been prepared for the Steering Committee. These alternatives are intended to illustrate potential service areas for transfer facilities to be located within the County. The alternatives include:

WASHINGTON COUNTY SOLID WASTE MANAGEMENT PLAN

SYSTEM FLOW DIAGRAM & POLICY ISSUE RELATIONSHIPS

March 19, 1990

TRANSFER STATIONS
FACILITY PROCUREMENT
SITING PROCESS
FINANCING
RATE SETTING

HIGH GRADE PROCESS
POST COLLECTION MSW PROCESSING & INCENTIVES
FLOW CONTROL

FACILITY OWNERSHIP
VERTICAL INTEGRATION

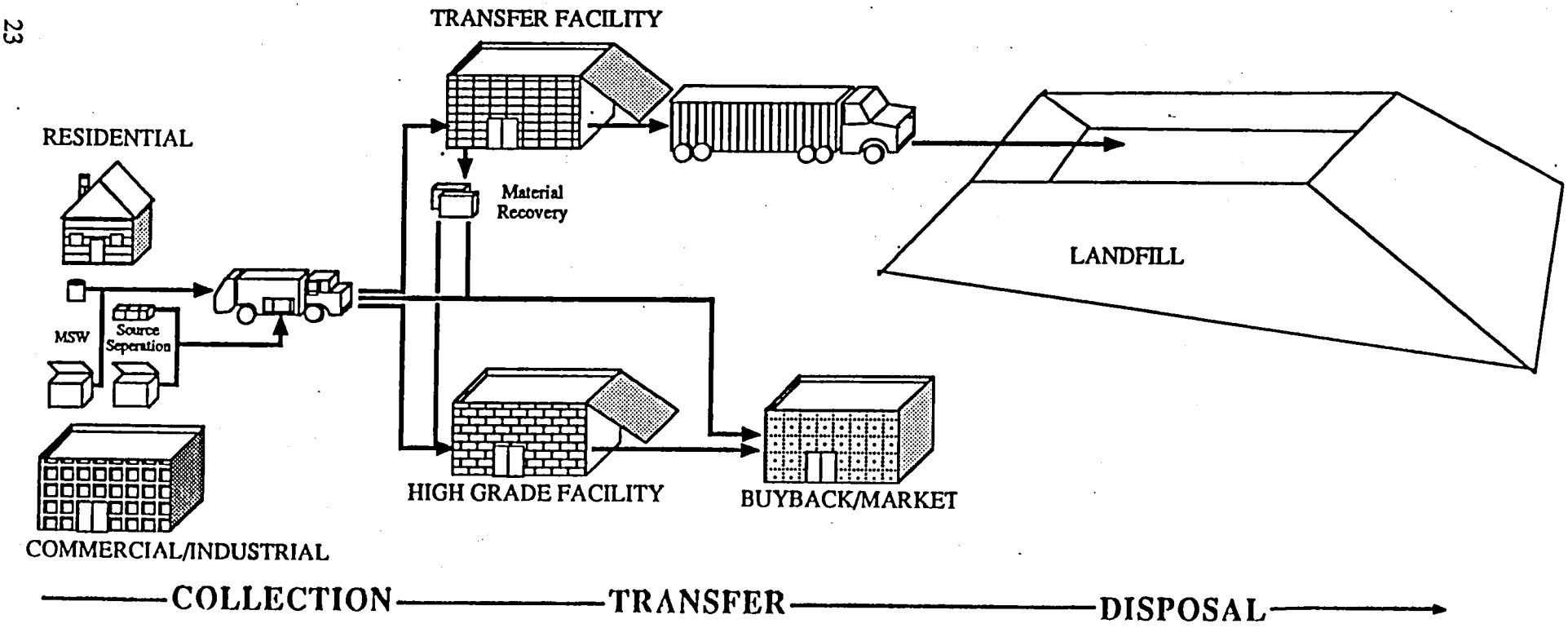


Figure 3

1. A two transfer station option which manages all of Washington County's general purpose waste, splitting service areas east and west (see Figure 4);

2. A modified Option "A" two transfer station option which is supported by the Metro East transfer station covering the "West Hills" service area to collectively manage all of the County's general purpose waste (see Figure 5); and

3. A three transfer station option which distributes volumes to west, north and south service areas to manage all of the County's general purpose waste (See Figure 6).

A three station alternative would likely require some pattern of phasing to accommodate growth from current activity levels into the proposed three facilities. Phasing will directly impact volumes at the first and second transfer facilities and, depending on their location and size, their long-term ability to operate efficiently and economically. In a three station alternative the options for phasing include:

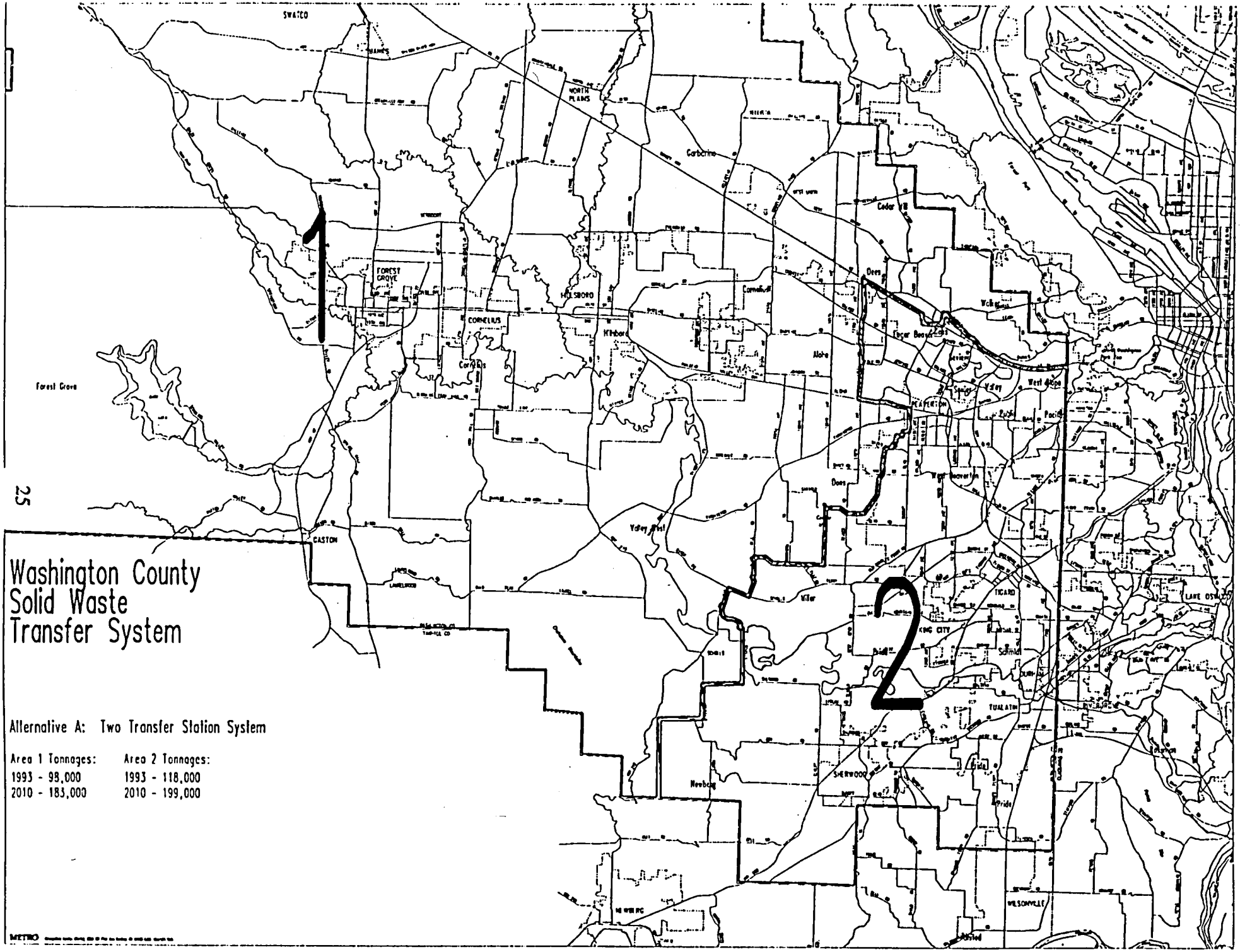
- Equal split of service area volumes at the west and the south facilities until a north facility is built.

- The west facility takes all of the north facility volumes until the north facility is built, while the south facility operates within its fixed long-term service area boundaries.

- The south facility takes all of the north facility volumes until the north facility is built while the west facility operates within its fixed long-term service area boundaries.

Figure 7 shows existing transfer and reload facilities in the County and three sites that have been proposed by members of the private hauling industry either for new transfer stations or for an expansion of an existing station.

The three alternatives were developed using waste tonnage information for each existing hauler franchise area within the County. The preliminary boundaries of the proposed service areas were set in order to make the available tons within each alternative service area



Washington County Solid Waste Transfer System

Alternative A: Two Transfer Station System

Area 1 Tonnages:	Area 2 Tonnages:
1993 - 98,000	1993 - 118,000
2010 - 183,000	2010 - 199,000

METRO

Figure 4

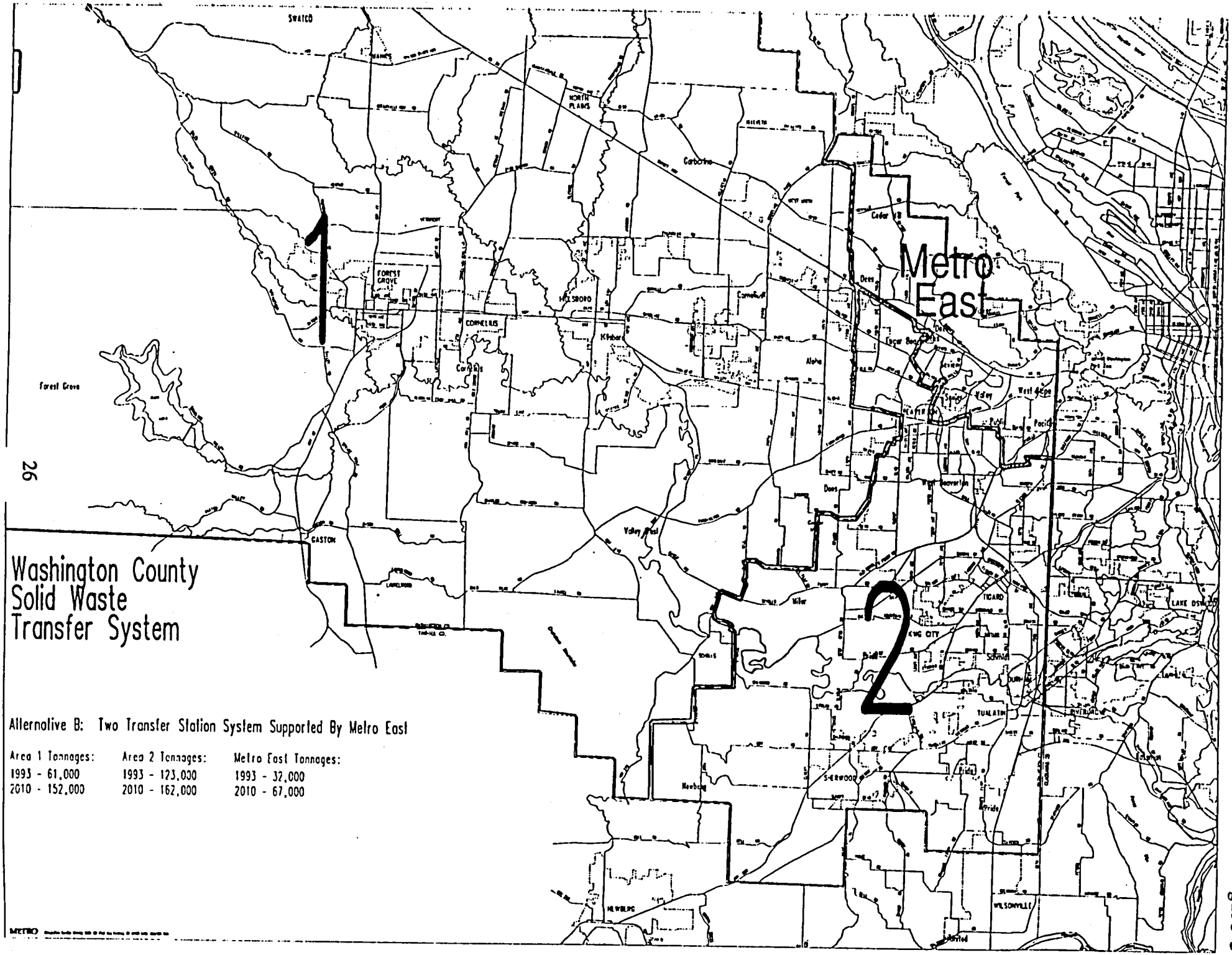

Metro East
1
2
Washington County
Solid Waste
Transfer System
Allernolive B: Two Transfer Station System Supported By Metro East
Area 1 Tonnages:
1993 - 61,000
2010 - 152,000
Area 2 Tonnages:
1993 - 123,000
2010 - 162,000
Metro East Tonnages:
1993 - 32,000
2010 - 67,000
METRO

Figure 5

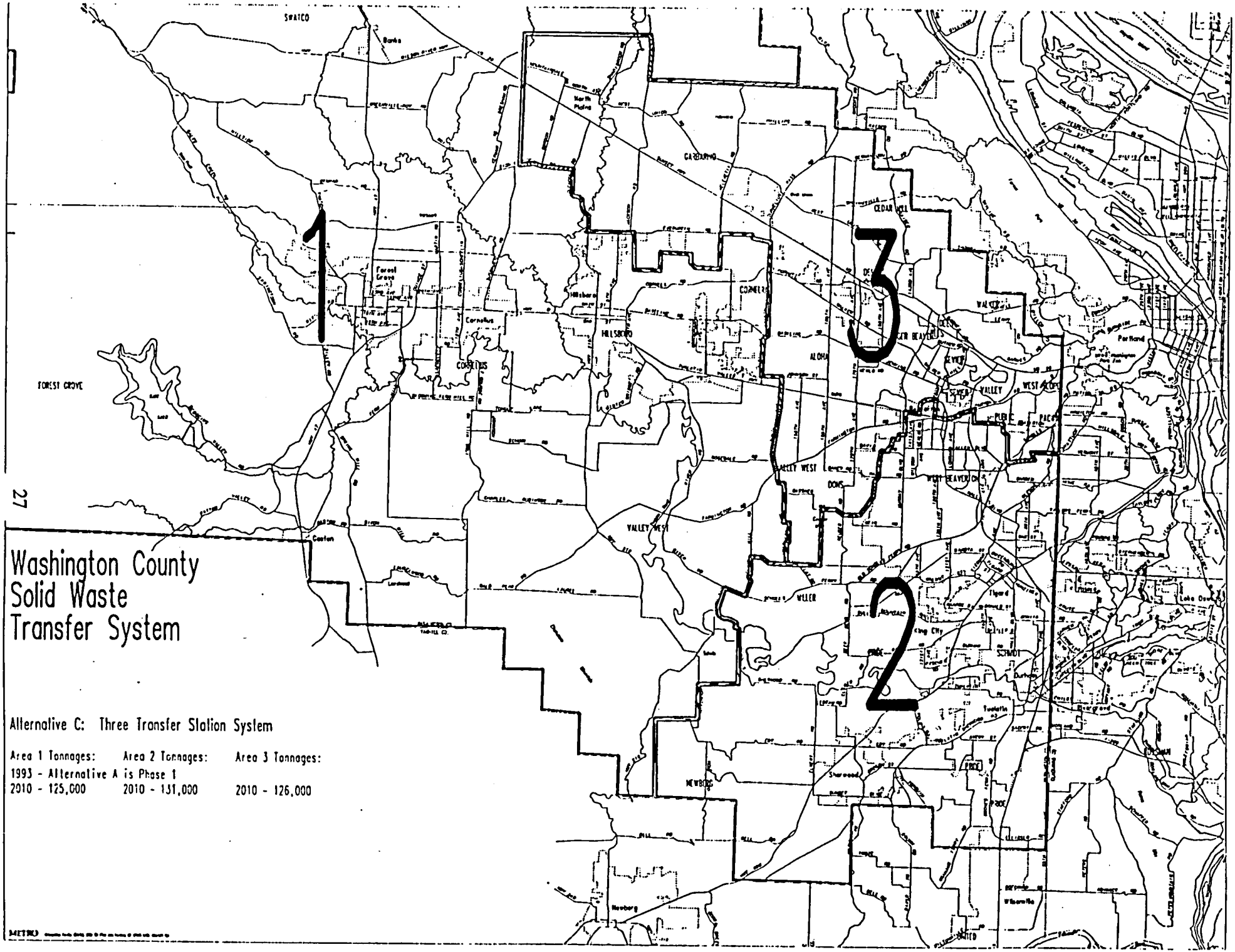
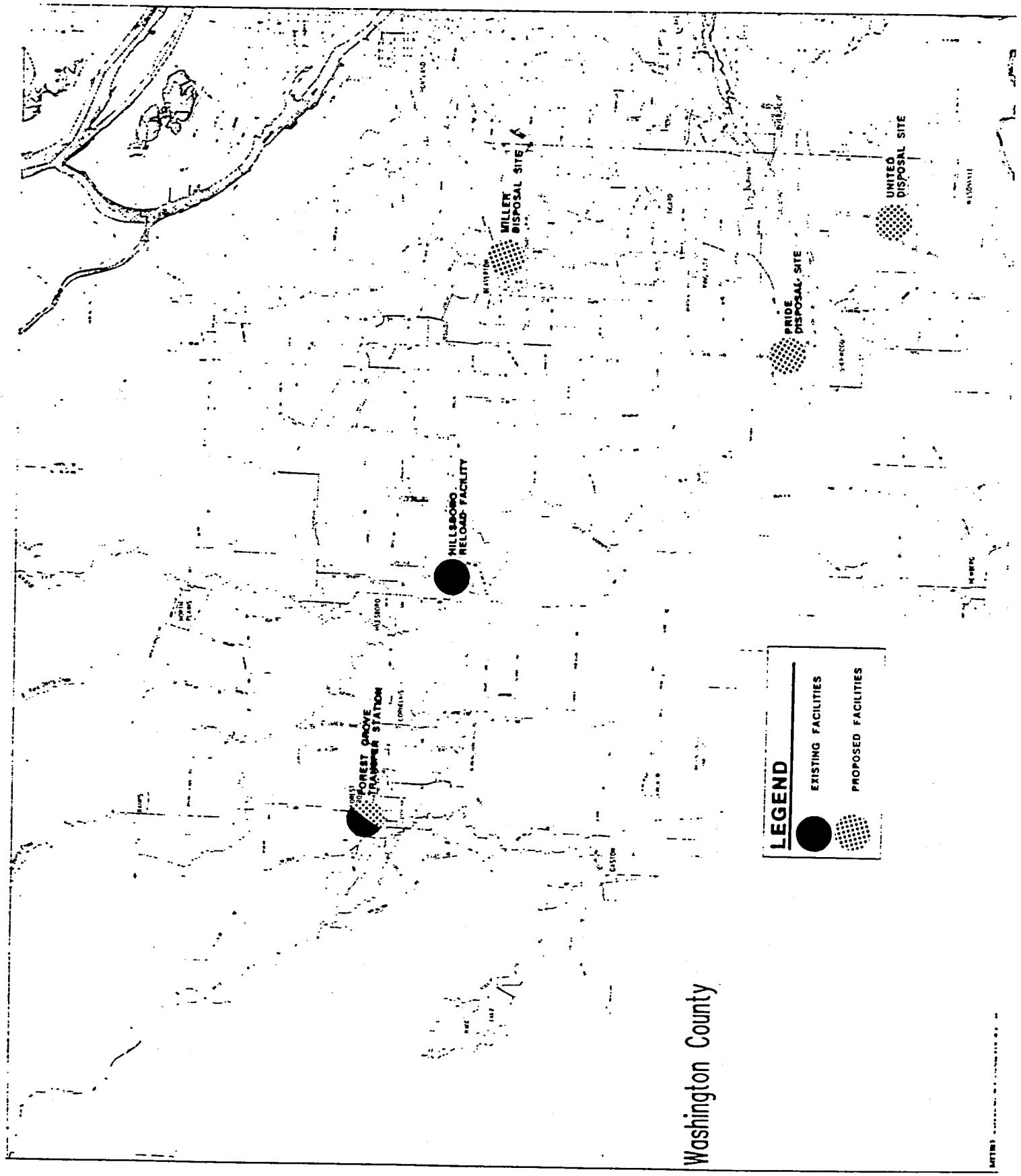

1
2
3
Washington County
Solid Waste
Transfer System
Alternative C: Three Transfer Station System
Area 1 Tonnages: Area 2 Tonnages: Area 3 Tonnages:
1993 - Alternative A is Phase 1
2010 - 125,000 2010 - 131,000 2010 - 126,000
METRO

Figure 6

Figure 7


MILLER DISPOSAL SITE
UNITED DISPOSAL SITE
PRIDE DISPOSAL SITE
HILLSBORO RELOAD FACILITY
FOREST GROVE TRANSFER STATION
LEGEND
EXISTING FACILITIES
PROPOSED FACILITIES
Washington County

approximately equal. The predicted waste tonnages in each service area are reported for the years 1993 and 2010. 1993 is the year at least a portion of the system must be operational. 2010 is the limit of the current planning horizon. (Refer to the waste generation numbers for Washington County in Section II of this plan to determine the rate of change in waste generation for the years between 1993 and 2010.)

No analysis related to haul-times within the proposed service areas, phasing of facility procurement or traffic impact was performed prior to developing the three alternatives. These detailed analyses will be conducted by Metro staff during the Technical Analysis phase of the project with review by the Steering Committee.

Metro will also provide specific information related to optimal site size for transfer stations, uniform level of service within the County, self-haul needs and system flexibility. Additional information on the development of the service area alternatives is included in Appendix B.

b. Policy Options

- Two facilities
- Two facilities with portions of Portland West Hills Service Area going to Metro East
- Three facilities with:

  - phasing option A
  - phasing option B
  - phasing option C

c. Selected Policy Options

The Steering Committee decided to recommend that Metro address the merits of all three primary transfer station alternatives in its technical analysis of the Washington County solid waste system. The Committee also decided that all three of the phasing options for the three station alternatives should be analyzed.

d. Discussion

The Steering Committee determined that the three alternative transfer station scenarios represented a broad range of possibilities, inclusive of the ideas which had been presented to the Committee by members of the Washington County hauling industry and other private interests in the County. Selection of the preferred alternative will be based on the results of technical analysis to be conducted during the next four to six months.

2. Facility Ownership

a. Background and Analysis

Metro's Regional Solid Waste Management Plan (RSWMP) contains specific criteria to be used for determining what form of solid waste facility ownership best serves the public interest. These criteria (see Appendix E) are to be used to guide the development of a detailed analysis which is used to justify the ownership decision for each solid waste facility decision in the region.

Public ownership of a solid waste facility typically has implied that responsibility for and control over siting, permitting, design, financing, and construction management would rest directly with Metro. Private ownership, on the other hand, has typically implied that the development tasks which include siting, permitting, design, construction and financing would rest with the private sector.

The RSWMP does not contain a policy governing the day-to-day operations of solid waste facilities. Historically, Metro has contracted the operation of Metro owned facilities to the private sector. Privately owned facilities in the region have been operated privately by the facility owner. It should be noted that the RSWMP does specify that in the case of the Metro East transfer station that if the facility were to be privately owned, Metro would operate the gate-house.

The purpose of this plan provision was to insure equity in fee collection to all haulers using the facility and to insure that any rate incentives for material recovery are applied correctly. While this policy does not directly apply to other facilities in the region, it represents a directive that the Metro Council may want to establish for other parts of the developing solid waste system. The RSWMP does not specify at what point in the facility development

process (planning or procurement) the public vs. private ownership evaluation should take place. There are advantages and disadvantages associated with both options.

For the Metro East transfer station, the analysis was conducted during the procurement phase of facility development. This allowed Metro to conduct a thorough evaluation of the criteria relative to a public ownership option (including publicly owned sites) and compare the results of the public evaluation to private sector proposals obtained through a competitive RFP process. In addition, Metro required vendors involved in the RFP process to submit project costs indicative to their proposal if it were to be purchased by Metro - (i.e., a turn-key option). This methodology resulted in the Metro Council having the best available information relative to determining facility ownership for Metro East. As a result, they selected the turn-key option whereby Metro purchases the facility and site from the private sector.

b. Policy Options

Issue 1: Type of ownership

- Option A: Public ownership
- Option B: Private ownership
- Option C: Turnkey System - private sector secures site and develops facility; Metro assumes ownership after facility is operational.

Issue 2: Timing of ownership decision

- Option A: During system planning phase
- Option B: During procurement phase

c. Selected Policy Options

The Steering Committee decided that private ownership (Issue 1, option B) should be the type of ownership for the Washington County transfer station system. Further, the Committee decided that the ownership decision should be made during the system planning phase (Issue 2, option A).

d. Discussion

The preference for a privately owned system is consistent with the recommendations of Washington County local governments since the outset of Metro's regional solid waste management planning process.

3. Vertical Integration

a. Background and Analysis

Chapter 13 of the Regional Solid Waste Management Plan contains the policies related to solid waste facility ownership. Further, Chapter 13 established the criteria to be considered for "...determining what form of facility ownership best serves the public interest." Appendix includes a copy of Chapter 13 - FACILITY OWNERSHIP.

A significant criterion in Chapter 13 in determining ownership form is:

"h. to avoid vertical integration (monopoly) of the solid waste business".

There has not been unanimity in the interpretation of this provision. Generally however, vertical integration is related to a firm's involvement in the three main aspects of solid waste handling; collection, transfer station/material recovery and land disposal.

The majority view of the Metro Council at the time of deliberations regarding the Metro East Transfer Station was that ownership or operation of both a collection and disposal business did not per se disqualify a candidate from ownership and operation of the Metro East Station. Nonetheless, it was viewed that such a candidate would have a considerable burden to demonstrate that "vertical integration" would not occur if the candidate was allowed to own and operate the Metro East Station.

The Metro Council has not had the same level of concern over vertical integration where the facility in question is owned by Metro and only operations are to be contracted out. With this kind of ownership/operation structure the issue of vertical integration is not likely to arise.

With regard to Washington County, proposals for transfer facilities made by companies that also engage in collection would likely be asked to demonstrate that vertical integration of the

solid waste system within the County would not occur as a result of the involvement of a company or companies in two of the three aspects of solid waste handling. The degree of the burden to demonstrate that vertical integration would not occur is not certain. However, it would likely be dependent upon the size of the proposed transfer facility, and the amount of waste that the company or companies making the proposal are collecting within the County. It may be advisable to propose a method to mitigate concerns of potential operational advantages which could result where haulers have a financial interest in two of the three aspects of the solid waste system in the policy recommendations for the Washington County System.

Among the potential concerns with multiple ownership are:

- protection of : system financial solvency
  access equity
  public safety/health
  liability
- avoidance of: community mistrust
  favoritism
  theft/cheating
  load misdirecting

One method to mitigate these concerns with multiple ownerships is to use a neutral gate-house keeper. Another method is through independent audits, both financial and operational. Substantial concerns have been raised regarding the efficacy of independent audits as a mitigating measure.

A further matter which requires recognition is Metro Code Section 5.01.120. This section of the Code prohibits a franchise holder from having an ownership or other interest in a business that collects residential, commercial, industrial or demolition refuse within the Metro District. Since a Washington County transfer station(s) would require a Metro franchise if privately owned, a variance of this provision would be a prerequisite to obtaining the franchise. While such a variance might be granted, no assumption can be made that such a variance would automatically be granted by Metro.

b. Policy Options

Issue 1: Vertical Integration

- Option A: Do not allow vertical integration
- Option B: Allow limited vertical integration
  - Ownership in no more than two of three major system components (collection, transfer/material recovery, disposal)
  -No outright ownership limit, but general rule that the more components of the system are owned, the more burden of proof the owner has to demonstrate the problems of multiple ownership will be controlled.

Issue 2: Mitigating Measures

- Option A: Independent gatehouse keeper
- Option B: Independent audits

c. Selected Policy Options

The Steering Committee decided that vertical integration should be allowed. The Committee further decided that the burden of proof to demonstrate that the potential problems of multiple ownership of different components of the solid waste system by one owner could be effectively controlled should be increased proportionate to the number of system components owned by a single party (Issue 1, Option B, second sub-option). On the second issue relating to mitigating measures, the Committee rejected both option A (independent gatehouse keeper) and option B (independent audits) in favor of a more inclusive and flexible option C, as follows:

> The applicant shall propose a package of measures to effectively mitigate any potential problems from vertical integration. The mitigation package shall address specific criteria which shall be developed and provided to all applicants. An independent gatehouse keeper and independent audits are examples of two approaches which could be included in a proposed mitigation package.

d. Discussion

The Steering Committee concluded that vertical integration of the solid waste system would not inherently produce substantial negative impacts. However, the Committee concluded that the potential for abuses was present in a vertically integrated system and that the applicants should be given the maximum flexibility to propose effective and creative means to control the potential problems of vertical integration. The Steering Committee will develop recommended criteria for evaluating the effectiveness of proposed mitigation packages and submit the criteria to Metro. The use of the term "independent audits" above includes operational as well as financial audits.

4. Facility Procurement

a. Background and Analysis

This section is intended to:

A. Identify the options for procuring transfer stations in Washington County.

B. Identify other policy issues which most directly relate and affect a decision regarding facilities procurement; and

C. Identify issues regarding the most appropriate time in the planning process to make a decision on facilities procurement.

All transfer stations require a Metro franchise to operate (Metro code 5.01). However, Metro has several options in implementing such a franchise.

- If the transfer stations are owned or leased by Metro then any franchises to private parties to operate the facilities must be subject to a competitive Request For Proposal (RFP).

- If private parties are to own the facilities then Metro has the option whether or not to use a competitive RFP. If Metro does not use a competitive RFP it could choose to award the franchise to a local Washington County business or it could choose not to. If Metro uses a competitive RFP it has several options, including:

1) limit proposals to existing Washington County businesses; 2) allow all businesses to submit proposals but provide a preference for Washington County businesses in the evaluation methodology; or 3) allow businesses to submit proposals and provide no preference for Washington County businesses.

Metro also has the option to award a standard five-year term franchise or a longer term franchise. If it awards a longer term franchise the Metro Council must specifically find that the facilities are "major components" of the solid waste disposal system and follow certain application procedures and approval criteria. (For a more detailed discussion of these options see memos from Metro Legal Counsel in Appendix D).

Metro's franchising procedures mean that the decision regarding the most appropriate method for facilities procurement is closely related to policy decisions regarding:

- Public versus private ownership of the transfer stations;
- Vertical integration (i.e. will Washington County haulers be allowed to own transfer stations with appropriate mitigating measures?); and
- Rate setting (i.e.will Washington County rates be different than regional rates?)

If it is determined that Washington County transfer stations should be privately owned and operated then it will be necessary to decide whether or not to award the franchises through a competitive RFP for these stations. Further, this decision will be substantially affected by whether or not Washington County haulers are eligible to own and operate transfer stations.

Two other considerations may affect the resolution of this issue. First, will the franchise be given to one entity for an entire system of transfer stations, or will separate franchises be awarded for each transfer station? Second, should the fact that there is one existing transfer station in Washington County (Forest Grove) affect the decision regarding a competitive RFP?

It may be helpful to consider at least the following criteria in making the decision regarding competitive versus non-competitive franchise.

- Which process will provide the highest quality solid waste system, now and in the future?

- Which process is the most fair and equitable to Washington County citizens, Washington County's haulers and the users of Metro's regional solid waste system?

- Which process will result in the least cost system to Washington County citizens, Washington County's haulers, and the users of Metro's regional solid waste system?

- Which process will benefit smaller sized local firms versus potentially larger, non-local firms?

- Which process has the greatest likelihood of local and regional consensus support?

B. Policy Options

Issue 1: Type of procurement process (if privately owned facilities)

- Option A: Direct franchise (non-competitive)

  - local firms only
  - non-local firms

- Option B: Competitive RFP franchise award

  - local firms only
  - preference for local firms
  - open - no preference for local firms

c. Selected Policy Options

The Steering Committee left open both options A and B pending further legal and policy analysis of the merits of the different options. The Committee also modified the options as follows:

- Option A: Direct franchise (non-competitive)

  - only local firms
  - non-local firms

  (For purposes of this Plan a local firm shall be defined as a proposal in which majority ownership and control would be held by an existing Washington County franchised hauler or an owner of an existing solid waste facility in Washington County.)

- Option B: Competitive RFP franchise award

  - local firms
  - open - no preference for local firms

d. Discussion

The Steering Committee will work with staff and legal counsel to reach consensus on whether the franchise should be competitive or non-competitive as soon as possible.

This definition has not been reviewed by Washington County or Metro legal staff. The intent of the definition is to expand the concept of "local firm" to include owners of existing facilities such as buy-back centers.

5. High Grade Process

a. Background and Analysis

This section is intended to:

A. Provide guidance for the development and maintenance of adequate high grade materials recovery processing capacity for the region.

B. Assure that the recyclable content of high grade loads is subjected to processing and recovery using the Best Available Technology (BAT)[1] and Best Available Practice (BAP)[2].

Definition

For the purposes of this document, high grade facilities are defined as:

> Material recovery facilities which receive loads of substantially uncontaminated waste which contain recyclable materials that could be recovered economically without the need for financial incentives using the BAT/BAP standards.

Specific high grade material recovery rates will be determined by a combination of economic (market demand and price, among others) technical and practice factors. The market factors will determine the type, grade and quantities of materials which can be economically recovered using the BAT/BAP standards.

[1] Best Available Technology (BAT) is defined as the most economically feasible combination of proven equipment or process technologies which will result in the highest overall recyclable material recovery rate from mixed and/or high grade loads. This includes material recovery processing technologies or equipment such as manually sorted linear or circular material processing and recovery lines, air classifiers, ballistic classifiers, density or buoyancy classifiers, size classifiers and optical classifiers. Other types of equipment or processing technology may also comply.

[2] Best Available Practice (BAP) is defined as the most economically and socially feasible combination of proven education, promotion and incentives which result in the highest overall recyclable material recovery rate from mixed waste/high grade loads through increasing the amount of material separation prior to collection. This includes combining efforts to increase public awareness and support for material separation at the source with enhanced incentives for both the public and waste collectors to perform material separation. Implementation of BAP should simplify the methods necessary to sort and prepare recyclable materials for market at high grade facilities. It should also increase the material recovery rate.

Although other materials are included in the definition of high grade wastes, recyclable paper products such as old corrugated craft (OCC), computer paper, and ledger paper constitute the greatest percentage by both weight and volume. High grade processing facilities should be designed to accommodate this waste substream.

The most essential element in the definition of high grade facilities is that materials must be received, handled and processed in basically uncontaminated form. If these materials become contaminated, their value as recyclables is greatly diminished. This requires, in addition to clean sources of high grade materials, that incoming loads not become contaminated by the equipment used at the processing facility.

Contamination is most likely to occur if the same equipment is utilized to process and recover both high grade and mixed waste loads. Because of this, equipment used to recover high grade materials should not be used to recover mixed waste loads. In practical terms, this is most easily accomplished by using or developing a functionally independent facility dedicated to processing high grade materials.

Decisions will need to be made regarding the number of high grade processing facilities, and whether to locate high grading processing facilities separate from transfer stations. It is possible that Washington County high-grade volumes will support at most only one high-grade facility.

Funding

Use of public funds is not recommended to finance or operate the high grade operation because this would amount to providing a direct public subsidy which would allow unfair competition with other existing high grade operations. Though these facilities are privately owned and operated, they are an essential element of Metro's solid waste management system and must be franchised by Metro.

The Metro Council has established a general guideline related to material recovery processing facilities for local government solutions (Washington County Solid Waste System) in adopted Resolution No. 89-1156. The Resolution states that waste reduction facility components shall be designed such that they are adequate to meet or exceed waste reduction goals and standards set in the Regional Solid Waste Management Plan (RSWMP). Specifically, the RSWMP Goal and Objectives states in part: "Goal: to develop and

implement a Solid Waste Management Plan which achieves a regionally balanced, cost-effective, technologically feasible, environmentally sound and publicly acceptable solid waste system."; "Objectives: To follow the State mandated hierarchy for waste management: reduce, reuse, recycle, recovery energy, and landfill."

The concept and process of high grade processing is relatively simple. Businesses rely on haulers to collect and remove their waste materials. Some materials such as OCC, computer and other grades of paper have a high market demand and price if they are free of contaminants. Loads which contain a high percentage of recyclable, uncontaminated materials can be disposed of by the hauler at a high grade facility at reduced or no cost. In some instances, such as when a load contains 95% - 100% recyclable material which is not contaminated, the hauler can actually sell the material to a high grade facility operator. This is referred to as a "buy back". The disposal savings or the "buy back" amount is directly related to the percentage recyclable content of the load and the relative degree of contamination. Haulers can pass their disposal savings on to customers in the form of reduced collection rates, thereby encouraging customers to source separate their waste, reducing contamination and increasing the value of the load to both the hauler and the customer.

The high grade facility operator is able to make money through two basic transactions. First, all money paid to the operator by haulers for disposal of loads is income. Secondly, the operator can sell recovered materials to brokers or direct end users, generating income. Expenditures, excluding taxes or fees, consist primarily of payments for "buy backs", facility operating expenses and residual disposal costs for any material which cannot be recycled and sold.

No minimum regional high grade recovery level has been established by Metro. Recovery levels at high grade facilities are currently determined by the composition of the waste stream and the type of technology utilized (BAT). Metro staff speculates that, while market factors can cause significant fluctuations in the demand for material and hence the level of recovery which is economically feasible, an efficient operation should expect to process any load which has a minimum recyclable content of 75% (i.e., residuals generated should not exceed 25%, based on incoming weight).

As a starting point, regional operations such as OPRC (specifically their facility expansion plan), can be examined to obtain a general understanding of the materials recovery process.

These facilities can also provide guidance regarding a variety of currently acceptable materials recovery technologies and practices.

b. Policy Options

Issue 1: Number of High Grade Processing Facilities

- Option A: No Washington County High-grade processing facilities (transport high-grade materials to out of County facilities)
- Option B: One Washington County High-grade processing facility

Issue 2: Location of High Grade Processing Facility

- Option A: Locate with one of the transfer stations (using dedicated equipment)
- Option B: Locate at separate site from a transfer station

c. Selected Policy Options

The Steering Committee supported a modified version of option B, Issue 1 (number of high grade processing facilities) as follows (new language underlined):

One or more Washington County high-grade processing facilities as needed.

The Steering Committee developed a third option to address the issue of where the high-grade facility(s) should be located as follows:

Locate high-grade facilities where most needed by the solid waste system.

d. Discussion

The Steering Committee concluded that the technical analysis should help determine the numbers and locations of high-grade processing facilities, and that there was no advantage to

attempting to resolve this issue at this time. The Committee also noted that it was possible that additional high-grade facilities may be needed in future years, and that the flexibility should exist to incorporate these facilities into the County's solid waste system.

6. Post Collection Mixed Waste Processing and Incentives

a. Background and Analysis

This paper is intended to:

A. Provide guidance for the development and maintenance of adequate post collection mixed waste material recovery processing capacity for the region;

B. Assure that the recyclable content of all post collection mixed waste loads is subjected to processing and recovery using the Best Available Technology (BAT)[1] and Best Available Practice (BAP)[2]; and

C. Briefly explain how Metro's material recovery incentive program functions.

Definition

For the purposes of this document, mixed waste recovery facilities are defined to be:

[1] Best Available Technology (BAT) is defined as the most economically feasible combination of proven equipment or process technologies which will result in the highest overall recyclable material recovery rate from mixed and/or high grade loads. This includes material recovery processing technologies or equipment such as manually sorted linear or circular material processing and recovery lines, air classifiers, ballistic classifiers, density or buoyancy classifiers, size classifiers and optical classifiers. Other types of equipment or processing technology may also comply.

[2] Best Available Practice (BAP) is defined as the most economically and socially feasible combination of proven education, promotion and incentives which result in the highest overall recyclable material recovery rate from mixed waste/high grade loads through increasing the amount of material separation prior to collection. This includes combining efforts to increase public awareness and support for material separation at the source with enhanced incentives for both the public and waste collectors to perform material separation. Implementation of BAP should simplify the methods necessary to sort and prepare recyclable materials for market at mixed waste facilities. It should also increase the material recovery rate.

Material recovery facilities which receive loads of mixed wastes containing recyclable materials that could be recovered economically using the BAT and BAP standards.

An integral element of this definition is the inclusion of the concept of "avoided cost" in evaluating the economic feasibility of post-collection materials recovery processing. In general, post collection mixed waste materials recovery processing will be determined by a combination of factors, including, but not limited to, the avoided cost, the market demand for recycled materials and the technical and practical feasibility of the proposed system design.

Metro Material Recovery Standards

The Metro Council has established a general guideline related to material recovery processing facilities for local government solutions (Washington County Solid Waste System) in adopted Resolution No. 89-1156. The Resolution states that waste reduction facility components shall be designed so as to meet or exceed waste reduction goals and standards set forth in the Regional Solid Waste Management Plan (RSWMP). The primary standards in the RSWMP that apply to this issue are Policies 1.0 and 1.3.

Policy 1.0:

The solid waste management system shall achieve, in an environmentally safe manner, the maximum feasible reduction of solid waste being landfilled, in accord with the State hierarchy under ORS 459.015, and through the cooperative efforts of Metro, the cities and counties, and the community.

Policy 1.3:

Metro shall support a higher system cost for waste reduction techniques over landfilling based on the State hierarchy (ORS) 459.015) in order to accomplish the maximum feasible reduction of waste to the extent it is determined to be environmentally safe, technically and economically feasible.

The Metro Council recently determined that the 25% material mixed waste recovery rate estimated to be achievable at the Metro East Transfer Station meets the RSWMP goals for

waste reduction and that the technology utilized complies with the BAT standard. This rate could be used as a guideline when determining the minimum waste reduction goal for transfer facilities in Washington County.

Mixed waste loads are estimated to comprise approximately 50% - 90% of the non-residential waste stream and 100% of the residential waste stream. The total amount of this waste in Washington County in 1990 has been estimated to be approximately 174,000 tons. All mixed wastes collected will require post collection material recovery processing. This waste stream will not include high grade materials, source separated recyclables or other types of recycling activities which remove recyclables prior to collection as mixed waste.

As noted in the policy discussion paper on High Grade Process, it may be possible to co-locate transfer and high grade facilities at the same station site. This option would only be possible if totally separate processing and recovery areas and equipment were used so that the high grade material could not come in contact with the mixed waste. Also, no public funds could be used to finance or operate the high grade portion since this would amount to a direct public subsidy of a private recycling effort and would create unfair competition with other high grade operations.

Since material recovery rates are determined by the composition of the waste stream and the type of technology utilized, no minimum material recovery rates are likely to be mandated (however, the 25% rate indicated above should act as a minimum guideline).

Instead, the system design effort should emphasize utilization of appropriate material processing and recovery elements which will comply with the BAT and BAP standards, and incorporate Metro's Regional Solid Waste Management Plan - Waste Reduction Goals. Additionally, all transfer facilities should be designed with sufficient expansion opportunities to accommodate increasing levels of post collection materials recovery processing over time.

As a starting point, the Metro East facility, currently under construction, should be examined to obtain a general understanding of the materials recovery process for mixed wastes. This facility can also provide guidance as to one acceptable mixed waste materials recovery technology. The Washington County system should achieve better or equal mixed waste material recovery results.

Incentives for Material Recovery Processing

As stated above, Policy 1.3 of the RSWMP states that Metro will support a higher system cost for waste reduction techniques. In order to implement this Policy, Metro has developed a materials recovery incentive program that encourages transfer station operators to maximize the amount of material they recover from the mixed waste stream entering the facility that would otherwise be landfilled.

Under Metro's material recovery incentive program, transfer station operators can receive a materials recovery incentive, equal to the avoided unit costs of transport and disposal, for each ton of recyclables the operator recovers from the mixed waste stream. The advantage to the operator is that an incentive is received for each ton recovered in addition to the revenues received from the sale of the recovered materials. The rationale for the program is that the unit costs for transport and disposal, which are equal to the incentive, would have been incurred by Metro if the materials had not been recovered from the waste received at the facility since the materials would have been transported and disposed.

The materials recovery incentive does not apply to the material streams listed below when they are received at a transfer facility. However, with the exception of source separated materials, the transfer station operator is paid for handling these materials (tip-fee). The operator can also retain revenues from the sale of source-separated materials and materials recovered from high grade loads, including:

A. High grade loads not assessed Metro user and transfer fees;

B. Source-separated recyclables (wastes which are recovered or recycled before they enter the mixed waste stream);

C. Source-separated yard debris;

D. Materials that are sent to a landfill, mass composter, or a facility whose primary fuel is solid waste or refuse derived.

The materials recovery incentive program was designed during development of the Metro East Station Request for Proposals. The purpose of the program was to encourage the recovery of material from mixed waste prior to disposal. The incentive is detailed in the

"1989 Metro Transfer Station Operation Agreement" for the Metro East Station. Interested parties should consult this document for the contractual application of such an incentive. The agreement is consistent with the program outlined above, except that the operator has agreed to share 20% of the revenues from the sale of recovered materials with Metro.

The incentive program is consistent with Metro's waste reduction policy (RSWMP 1.3) which states:

> "Metro shall support a higher system cost for waste reduction techniques over landfilling based on the state hierarchy in order to accomplish the maximum feasible reduction of waste to the extent it is determined to be environmentally safe, technically and economically feasible.".

The incentive is applied only to mixed waste which is intended for disposal. Some have raised the idea that the impact of the existing incentive program could be further enhanced by exploring options to pass the incentive on through the collection system as a rebate or credit for certain types of loads. One example mentioned has been mixed waste dry loads which could be easily separated at the material recovery facility. It is important to note that any application of material recovery incentives should not be used to discourage source separation or high grading programs which are more effective in maximizing the recovery of materials.

b. Policy Options

Issue 1: Standards for Material Recovery

- Option A: Set specific material recovery standards (e.g. 20%, 25%, 30%) for every facility
  - required; or
  - voluntary guidelines

- Option B: Set system-wide standards for total waste reduction (e.g. 52%) without setting a specific material recovery standard

Issue 2: Application of Material Recovery Incentives

- Option A: Use existing material recovery incentive system

- Option B: Explore enhancing existing material recovery incentives with rebates or credits passed on to the collection system

c. Selected Policy Options

The Steering Committee amended and left open both options A and B on Issue 1 (standards for material recovery). The Issue and options were amended as follows:

Issue 1: Standards Goals for Material Recovery

- Option A: Set specific material recovery standards goals (e.g. 20%, 25%, 30%) for every facility
  - required; or
  - voluntary guidelines

- Option B: Set system-wide standards goals for total waste reduction (e.g. 526%) without setting a specific material recovery standard goal

The Steering Committee developed a third option to address the issue of application of material recovery incentives (Issue 2) as follows:

Explore enhancing existing material recovery incentives in a manner which:

- will promote high levels of recycling/source separation in the collection system as the primary goal;

- provide adequate accountability to promote high levels of both material recovery and recycling/source separation; and

- be sufficiently flexible to quickly adapt to changing market conditions and unique local circumstances.

d. Discussion

It was determined that issues surrounding material recovery goals and incentives are some of the most complex to address in the development of a solid waste system. The Steering Committee wishes to develop a system which promotes the highest levels of recycling and source separation as feasible, and requests assistance from Metro and Washington County staff and the local hauling industry to determine how material recovery goals and incentives can best help to develop and implement such a system. The Steering Committee has formed a Subcommittee to develop recommendations on incentives and rates. The Committee intends to reach consensus on recommendations on the incentive issues as soon as possible.

7. Land Use Siting Process

A. Background and Analysis

The Regional Solid Waste Management Plan provides a framework to guide the siting of solid waste facilities in Chapters 15 - 18. Policies have been adopted in the Plan which state that "Each city and county shall provide appropriate zoning to allow planned solid waste facilities or enter into intergovernmental agreements with others to assure such zoning. Whether by outright permitted use, conditional use or otherwise, appropriate zoning shall utilize only clear and objective standards that do not effectively prohibit solid waste facilities."

This section focuses on the land use siting process from the following perspectives:

- What level of land use approval is needed prior to procurement?
- What criteria and standards must be met in the siting of facilities?
- What options are available to assure equity in the land use process?

Timing of Land Use Approvals

Washington County and Metro need to determine what level of local land use approval is required for a solid waste facility prior to procurement. Two separate tracks are available. First, Metro and/or Washington County could undertake a process to identify the best site(s) for needed regional solid waste facilities and secure all land use permits. This approach requires a very comprehensive and public site search and evaluation process. Earlier Metro

efforts to site a transfer station in Washington County using this approach have been unsuccessful.

A second approach requires that the private sector identify suitable sites and secure local land use approval as a condition of submitting a bid to own/operate a facility. The private sector approach would focus on identification of an acceptable site which meets minimum threshold criteria. Local land use approval could involve either a tentative approval (subject to Metro award of franchise), or full local land use approval.

If the "private sector" approach to the land use process is used, complexities may arise if multiple sites are being evaluated under the land use procedures of different jurisdictions. Local communities may look for a regional context to evaluate the site-specific proposals. Additionally, the timing of the land use approval process in different jurisdictions could have a significant impact on ultimate siting decisions.

Criteria and Standards

The Regional Solid Waste Management Plan recognizes solid waste solutions developed at the local level that are consistent with the Regional Plan. Successful implementation of local solutions will depend in part on local zoning ordinance provisions which provide clear and objective criteria and standards for siting solid waste facilities.

The land use siting criteria used by Metro in the evaluation of bids for the Metro East Transfer and Recycling Center provide a possible starting point for criteria that Washington County may want to implement for transfer stations. The evaluation criteria are briefly summarized below:

1. *On-Site Characteristics*

   Site characteristic well-suited for the use. No on-site conflicts with wetlands, floodplain, geotechnical conditions, or other physical characteristics of the site.

2. *Utilities*

   Needed utilities (sewer, water, power) are available and of adequate capacity to accommodate the facility.

3. *Land Use Permits*

The bidder can demonstrate that all needed land use permits *(local, state, federal)* have been obtained, or can be obtained by _____*(insert date).*

4. *Traffic Capacity of Primary Access Routes*

The local government has determined that primary access routes to the site have adequate built or planned capacity for the traffic type and load.

5. *Transportation Access for Collection Vehicles and Self-Haulers*

Access to the site allows commercial haulers and the public to travel primarily on interstate highways and arterials.

6. *Land Use Impacts Along Access Routes*

Adverse land use impacts are minimal along the primary access route(s) between the closest interstate highway and the site.

7. *Land Use Impacts on Adjacent Uses*

The facility is compatible with conforming land uses within 500 feet of on-site activity, and/or impacts are mitigated through buffering, screening, and/or enclosure of facilities.

Metro is currently in the process of preparing a model solid waste facility siting ordinance for local governments in the region. The model ordinance will address a variety of solid waste facilities, with the exception of energy recovery facilities and general purpose landfills. It is anticipated that standards will be tailored to the specific operational characteristics of each type of facility.

Metro's schedule for preparation of the model ordinance parallels the Washington County schedule for development of a system plan. It may not be in the County's interest to "reinvent the wheel" in developing standards for solid waste facilities. Washington County

and its cities may choose to monitor and participate in the model ordinance project concurrent with the development of a system plan.

What Options Are Available to Assure Equity?

The principle of equity may be important to the development of a system plan for Washington County which is supported by all of the member jurisdictions. Each jurisdiction in Washington County must assume a role and responsibility for the implementation of a sub-regional solid waste system. Jurisdictions which have local facilities on-line, should not be transformed into regional facilities by default.

The development of a model ordinance may provide opportunities to "level the playing field" between different jurisdictions in Washington County. Additionally, the Concept Plan provides a framework for a conscious focus on equity issues.

b. Policy Options

Issue 1: Timing of securing local land use permits

- Option A: Require all permits to be obtained prior to submittal of proposal
- Option B: Do not require all permits to be obtained prior to submittal of proposal, but give a preference to proposals which have obtained permits.
- Option C: Allow private firms to obtain permits after being awarded the franchise.

Issue 2: Land Use Siting Standards

- Option A: Evaluate comparative land use impacts of proposed facilities by how well the facility meets the existing land use standards of the "host" local government.

- Option B: Washington County local governments jointly develop uniform land use standards and apply them to comparative land use impacts of proposed facilities.

- Option C: Use Metro Model Solid Waste Ordinance to evaluate comparative land use impacts of proposed facilities.

c. Selected Policy Options

The Steering Committee supported a modified version of options B and C for Issue 2 (land use siting standards) as follows:

> All Washington County local governments shall implement land use standards which provide for siting of solid waste facilities on the basis of clear and objective standards. The Committee strongly recommends that Washington County local governments implement these standards as soon as possible.

The Steering Committee developed and selected a fourth option on Issue 1 (timing of securing local land use permits) as follows:

> Applicants must document that it is feasible to secure the necessary land use permits to site and construct the proposed facility. Any site with an existing land use permit(s) may submit a copy of the permit(s) as documentation of feasibility.

d. Discussion

One way for an applicant to demonstrate that they have communicated with the relevant local government(s) and that they have a site for which local land use permits can in fact be secured is for the applicant to have completed the pre-application process and prepared a report and site plan which indicate that the proposed structure can successfully meet all of the conditions and concerns of the local government. This process should not be interpreted as guaranteeing local permit approvals for the project, as it does not require the local decision makers (e.g. hearings officer, planning commission, elected officials) to have ruled on the project prior to submittal of the application.

The Steering Committee concluded that all local governments in the County would need to comply with the requirement in Metro's Solid Waste Management Plan to adopt clear and objective siting standards for solid waste facilities. The issue of how those standards should be developed (e.g. Washington county local governments working together or through Metro's model solid waste ordinance development project) was left open at this time.

8. Financing

a. Background and Analysis

Three basic financing options are available:

- Metro financing
- Private financing
- Local government financing

Metro Financing

Metro has in place a mechanism which guides all system finance decisions. Metro's Master Bond Ordinance 89-319 establishes a framework for financing the region's solid waste system capital needs. The purpose of the ordinance is to provide the structure for issuing debt which will be secured by solid waste system revenues.

The Master Bond Ordinance obligates Metro to deposit all gross solid waste system revenues into the Solid Waste Revenue Fund, and places repayment of bonded debt as first priority.

Appended to Ordinance 89-319 is a Flow Control Ordinance. The Flow Control Ordinance is intended to ensure that sufficient quantities of solid waste will be disposed through the system each fiscal year to maintain revenues necessary to comply with terms of the Master Bond Ordinance. The Flow Control Ordinance exempts source separated recyclables.

The Master Bond Ordinance defines the issuance for two types of bonds: Project Bonds and System Bonds. The division between System and Project Bonds allows Metro the flexibility to encourage private participation in developing needed regional waste reduction facilities (projects), while at the same time protecting Metro's credit and financial flexibility on system facilities that do not include other public or private participants.

1. Metro Project Bonds

The Riedel Compost Project is the first project financing to take place under the Master Bond Ordinance. In this private-public cooperative project, bond proceeds are loaned to Riedel, the builder and operator of the compost facility.

The project bonds are not backed by Metro: financing of the facility will not involve revenues of the regional solid waste system. However, Metro is supporting this waste reduction project by using both its authority as a public agency to issue revenue bonds. Bonds for this project are backed by the credit rating of the vendor and the revenues of the facility. Metro is also assisting the Compost Project by guaranteeing a minimum waste flow to the facility.

Metro's practice is to provide project financing only for recycling or waste reduction facilities.

Since the Tax Reform Act of 1988 has eliminated the ability of investors to deduct interest from revenue bond investments as of January 1990, Project Bond financing is not as attractive an option as it was when Metro sponsored the issuance of bonds for the Reidel Compost Facility in November 1989.

2. Metro System Bonds

The Metro East Transfer Station is an example of system financing. System bonds are secured by a trust estate, which is comprised of all system revenues and reserves. Additionally, system bonds are backed by all other property and assets which have been financed with other system bond issues.

3. Metro Subordinated Debt

Through Master Bond Ordinance 89-319, Metro has the ability to finance system facilities and assist in the financing of private components of the solid waste system. This can be through system financing, for facilities which will be owned by Metro, or project financing, in which Metro issues revenue bonds for a privately-owned and operated facility. A third option allows Metro to issue project bonds or enter into system contracts through subordinated debt.[1] Metro's ability to enter into subordinated debt is outlined in the Master

Bond Ordinance, Article II, section 205, (f) (ii) and (iii).

Metro's practice is to provide system financing only to facilities which are, or will become Metro owned facilities.

Private Financing

A privately-financed transfer station in the Metro region would not have a guaranteed flow of waste. However, Metro proposes to outline service area boundaries in Washington County in which the flow of waste destined for disposal in a general purpose landfill would be directed to a specific transfer facility within each service area. But, since Metro has ultimate flow control authority, the cost of private financing for a transfer facility would probably be greater than public financing.

Local Government Financing

If private interests intend to seek public capital for financing transfer stations, they may want to examine all options, including governmental units other than Metro. Washington County, which has taxing authority and maintains a favorable bond rating, theoretically could be a source of assistance.

b. Policy Options

Issue 1: Types of Financing

- Option A: Metro Financing

  - System Bonds
  - Project Bonds
  - Subordinated Debt

- Option B: Private Financing

- Option C: Local Government Financing

c. Selected Policy Options

The Committee decided to continue analyzing the merits of all of the financing options described above at this time. However, the Metro project bonds and subordinated debt (portions of option A), and the local government financing (option C) should be conceptually treated as joint public/private financing systems rather than solely public financing systems.

d. Discussion

The Committee generally agreed that more information on all of the financing options was needed before it was possible to select the best option. The Committee asked staff to provide additional information as soon as possible for all financing options, with particular emphasis on the joint public/private options. The Committee's recommendation on this issue will be developed during the summer.

9. Flow Control

a. Background and Analysis

Metro enacted the "flow control" ordinance in November, 1989. Three purposes are served by the ordinance:

A. The ordinance creates a mechanism to control the unauthorized flow of solid waste to facilities outside the Metro System;

B. The ordinance provides a method for balancing flows to facilities by directing haulers (as necessary) to particular facilities; and,

C. Waste flows to Metro facilities can be guaranteed as a critical element for financing and assuring that bond payments are met.

A more detailed description of the flow control ordinance is included in Appendix C.

[1] Subordinated debt: any bonds, notes or other obligations which are secured by a pledge of net system revenues which is subordinate in all respects to the original pledge of net system revenues made in conjunction with prior issue of system bonds.

In practice, the Metro Council has not guaranteed a tonnage (flow of waste) to any part of the solid waste disposal system (transfer stations, etc.) This position has been taken to ensure that Metro maintains the ability to respond to innovations in operating procedures or advances in technology that can lead to increased waste reduction. Guarantees of flows of waste have been reserved only for facilities where the primary purpose is waste reduction/recovery, such as the Riedel mixed waste composter.

While Metro is not in a position to guarantee flows of waste to disposal facilities, it is possible to develop a system in which "predictable" flows of waste to facilities exist. The means to achieve predictable waste flows would consist of identifying service areas for proposed transfer stations based on estimated tonnages available per service area. Identification of appropriate service areas should include an assessment of volumes and types of wastes generated in the service area and haul times. These factors will give an indication of the financial stability based on waste volumes available which can be predicted for a facility within a designated service area.

Summary:

No assumption should be made that Metro will assure a flow of waste to Washington County transfer stations. While it is in Metro's authority to direct waste to a Washington County transfer station(s), there are current policy related issues (as stated above) that argue against making such a guarantee.

b. Policy Options

Issue #1: Flow control

- Option A: Guarantee flow of all waste within a service area to a facility
- Option B: Guarantee minimum tonnages of waste to a facility
- Option C: Guarantee minimum revenue to a facility

c. Selected Policy Options

The Steering Committee supported a modified version of option A. The option was amended to read as follows:

Franchised haulers will send all waste destined for a transfer station or general purpose landfill to the assigned transfer station within their service area. Service areas shall be determined to assure the long-term economic viability of each of the transfer stations.

d. Discussion

Options B and C relating to tonnage and revenue guarantees were not selected because of the potential for both of these approaches to indirectly discourage source separation and recycling. The fundamental purpose of guaranteeing service areas, however, is similar to that of guaranteeing tonnages or revenues: to provide sufficient stability to a facility operator to secure long-term financing. The service area guarantee is an important issue because it probably will be necessary to secure long-term financing for the stations.

10. Rate Setting

a. Background and Analysis

The proposed 1990-91 rate structure for regional solid waste disposal incorporates some significant policy shifts and implications. These proposed policy shifts affect Metro's approach to User Fees, the Regional Transfer Charge and to "Base or Disposal Fees".

User Fees

Presently, all solid waste entering Metro owned or privately owned facilities is subject to a set User Fee of $4.25 per ton. Excluded from this assessment are source separated recyclables coming into recycling facilities and high grade loads entering processing facilities.

The proposal before the Council is that a two-tier User Fee be created, the lower tier fee being imposed on non-Metro facilities, this tier reflecting general administrative costs, and Waste Reduction and Planning Program costs to Metro's system as a whole. The higher tier fee would include administrative costs and certain fixed costs exclusive to Metro's transfer system. Both the lower and higher tier fees would be imposed at Metro's facilities.

It is also proposed that the lower tier fee be imposed on waste received at franchised processing facilities to reflect proper cost recovery for benefits received by implementation of Metro's Waste Reduction Programs.

Regional Transfer Charge

The Regional Transfer Charge (RTC) currently pays for the operation of transfer facilities owned, operated or franchised by Metro. The Regional Transfer Charge will reflect proposed policy changes that will:

A. Shift fixed costs such as personnel and materials costs and prorated fund transfers into the User Fees;

B. Make the RTC tonnage sensitive so that this rate program sufficiently funds expenses regardless of tonnage fluctuations; and,

C. Have this fee only be applied at Metro owned and/or operated facilities and excludes the St. Johns Landfill since the RTC refers only to transfer station operation.

Base or Disposal Fee

This fee pays for the transportation to and disposal of waste at either the St. Johns Landfill or the Gilliam County Landfill. Haulers that direct waste to St. Johns or use transfer facilities that transfer waste either to St. Johns or Gilliam will be charged this fee. Proposed policy shifts would include:

Make the exclusive purpose of the fee to pay for the full costs of landfilling the region's waste. These costs included transport and disposal (tip fee) costs at the two landfills. No fixed operational or administrative costs would be included in the fee.

Convenience Charge

This charge, presently imposed only at Metro South Station reflected the benefit of using a transfer station rather than taking the waste to the St. Johns Landfill. Changes to the currently policy include:

Elimination of this charge since St. Johns Landfill is scheduled to close and the proposed rate structure does not recognize a benefit of this kind in a system of transfer stations.

Rate Implications for Washington County:

The rates outlined above provide the means for paying the costs of operating the regional system. New facilities in Washington County will be part of the regional system. Therefore, these system charges may be collected, according to the policies stated above, on waste delivered to Washington County facilities.

Policy 11.1 of the Regional Solid Waste Management Plan states that: "while the base rate will remain uniform throughout the region, local solid waste management options may affect rates". Therefore, if the cost to the region of adding a system of transfer stations in Washington County is different than the rest of the region, then the cost differential will need to be internalized in Washington County rates.

Other Issues:

Some have raised concerns that the rate and incentive system is weighted toward the recovery end of the system, and that there is a need to provide better incentives for users and haulers to increase recycling and source separation.

It is possible that interim subsidies may be required to mitigate the impacts of fluctuating markets for recycled products.

b. Policy Options

Issue 1: Rate uniformity

- Option A: Uniform regional rates
- Option B: Different rates for Washington County

Issue 2: Rate incentives

- Option A: No change in current rate structure to promote recycling and source separation
- Option B: Change rate structure to provide more incentive for recycling and source separation

c. Selected Policy Options

The Steering Committee decided to leave open the issue of whether rates should be uniform throughout the region (Issue 1, option A) or be different in Washington County (Issue 1, option B) pending the conclusion of technical analysis on the system which will be conducted later this spring and summer. On Issue 2, rate incentives, the Committee adopted a modified version of option B as follows (amended language underlined):

> Explore a changed rate structure to provide more incentive for recycling and source separation.

d. Discussion

The issue of rate uniformity is complex. Additional technical information will help the Steering Committee to make a decision on this issue. It is understood that the Steering Committee will explore the issue of modifying the existing rate structure to provide greater incentives for recycling, but that there is a possibility that the pursuit of this option will not be successful. If an effective, practical rate structure to promote more recycling cannot be developed the existing rate structure will be used. The Subcommittee on incentives described earlier will be developing a recommendation on this issue for Committee action as soon as possible.

V. NEEDED FACILITIES AND PROGRAMS

The following solid waste facilities must be part of any system developed in the "Metro" region.

A. Resource Recovery and Transfer Facility (see discussion in Section IV) The make-up of each facility should include the following capabilities or considerations:

1. Self-Haul - The system must provide for those wishing to haul their own garbage. There are some alternatives, however, it is assumed that each facility will be capable of providing this service.

2. Compactors - Not only is this the most efficient way of moving garbage, it is a requirement for all garbage going to the Gilliam County Landfill. The

system must be designed with at least one compactor and a backup. It is proposed that each Resource Recovery and Transfer Facility should be equipped with a compactor unit. This would also allow each to back-up the other.

The garbage that is transferred to Riverbend Landfill is not required to be compacted, but it could be.

3. Staging Areas - The system must provide truck staging areas for transfer trucks used to transport waste from County transfer stations to the Gilliam County Landfill.

4. Material Recovery Processing Equipment - A means must be provided at each transfer station to recycle as much of the incoming mixed waste as possible. Several ways of accomplishing this are available. They all, however, take up considerable space in the facility and are expensive.

5. Hazardous Material Storage - Hazardous material found in the waste disposed at the transfer site must be removed from the compaction and transport system. A means must be provided to store small quantities until they can be moved to the appropriate location.

B. High Grade and/or Recycling Center(s) - A facility(s) needs to be included that is designed for processing very "clean" loads with low residue.

1. Handling Residue - Any material that doesn't fit into the processing scheme, must be divided out, collected, stored and transported.

2. Capital vs Labor Intensive - All materials entering the facility require a certain degree of processing. A system that requires a large initial capital expenditure usually is automated, requiring large amounts of machinery. Conversely, a labor intensive system would replace much of the machinery with a pick line. While this type of system would be cheaper to start up, it may end up costing more over time.

C. Household Hazardous Material Drop Site - The Washington County system will need to provide a facility for the public to drop off household hazardous waste.

1. Such a site could be combined with a transfer-resources recovery facility or could be operated in conjunction with a fire station.

2. A portable disposal system is a possibility for a second site (the first site would be a permanent location in accordance with HB 3515).

D. Yard Debris - Since yard debris is now a principal recyclable material, it must be collected, removed from the waste stream and processed for reuse.

1. Washington County has developed a DEQ approved plan which establishes the use of five drop off sites, regional processor and grinding facilities strategically located around the County.

2. The scheduling of curbside collection will be evaluated through a comprehensive study of this 1990 implemented collection and processing system. Product acceptance in the market place must be a major consideration.

E. Select Waste - Because of the expense and/or difficulty in hauling this material to the Gilliam County Landfill it is expected that it will be disposed of locally. The material is non-putrescible so presents lesser problems in landfilling. Materials that fall into this category are:

1) Construction/Demolition/Demolition Debris
2) Petroleum Contaminated Soils
3) Asbestos
4) Sewage Residual and Grit
5) Non-Hazardous Industry Sludge

F. Waste Reduction Programs - The County's residents, business, hauling industry and local governments will need to work together to implement a coordinated and effective recycling program in order to minimize to the maximum extent feasible the amount of waste which needs to be processed at transfer stations and eventually sent to a landfill.

APPENDICES

A. Minutes of Washington County Solid Waste Systems Design Steering Committee Meetings

B. Background Information on Three Transfer Station Alternatives

C. Summary of Metropolitan Service District Flow Control Ordinance

D. Legal memos on Metro Franchise Procedures

E. Metro Ordinance Relating to Public-Private Ownership Decisions

F. Background Material on Solid Waste Facilities Proposed by Hauling Industry

Available Upon Request- Not included in this document