

BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF AMENDING)	RESOLUTION NO. 98-2620A
CONTRACT #920101 WITH GEONORTH,)	
INC. TO UPGRADE THE COMPUTER)	Introduced by Mike Burton,
SOFTWARE FOR THE RECYCLING)	Executive Officer
INFORMATION CENTER'S CALL)	
TRACKING SYSTEM)	

WHEREAS, the Council adopted the Budget for Fiscal Year 1997-98 and the FY 1997-98 through FY 2002-03 Capital Improvement Plan (CIP); and

WHEREAS, Regional Environmental Management and Growth Management Services have sufficient funds to finance the requested computer update for the Recycling Information Center; and

WHEREAS, Metro has executed an agreement with GeoNorth, Inc. to develop desktop mapping applications for several Metro departments, including the Recycling Information Center's telephone response system; and

WHEREAS, the Recycling Information Center's software and hardware is in need of upgrading to utilize current computer technology to increase productivity while reducing computer support and maintenance costs; and,

WHEREAS, the adopted CIP presents all capital improvement projects with a total cost in excess of \$50,000 which Metro plans to undertake over a five-year period; and,

WHEREAS, the computer upgrade for the Recycling Information Center was not included in the adopted CIP because it did not qualify as a capital project at the time; and,

WHEREAS, as a result of this amendment, the computer upgrade for the Recycling Information Center does qualify as a capital project because the total capital cost exceeds \$50,000; and,

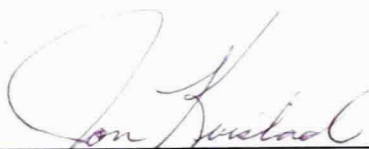
WHEREAS, the FY 1998-99 through FY 2002-03 CIP should be amended to include the computer upgrade for the Recycling Information Center; now, therefore,

BE IT RESOLVED,

1. That the Metro Council hereby approves extending contract #920101 to June 30, 1999 and amending the contract to upgrade the Recycling Information Center's call response system at a cost of \$54,820; and,

2. That the FY 1998-99 through FY 2002-03 CIP is amended to include the computer upgrade for the Recycling Information Center as shown in Exhibit 'A' to this resolution.

ADOPTED by the Metro Council this 23RD day of April, 1998.


Jon Kvistad, Presiding Officer

Approved as to form:


Daniel B. Cooper, General Counsel

CAPITAL PROJECT REQUEST Project Request: RIC Computer Upgrade

TYPE OF PROJECT: <input type="checkbox"/> NEW <input type="checkbox"/> EXPANSION <input checked="" type="checkbox"/> REPLACEMENT		DEPARTMENT/DIVISION: REGIONAL ENVIRONMENTAL MANAGEMENT				TYPE OF REQUEST: <input checked="" type="checkbox"/> INITIAL <input type="checkbox"/> CONTINUATION <input type="checkbox"/> REVISION		DATE: APRIL 20, 1998	
SOURCE OF ESTIMATE: <input type="checkbox"/> BASED ON DESIGN <input type="checkbox"/> PRELIMINARY <input checked="" type="checkbox"/> ACTUAL BID DOCUMENTS		PROJECT START DATE: MAY 1998		PROJECT COMPLETION DATE: JULY 1998		DEPARTMENT PRIORITY:		PREPARED BY: DENNIS STRACHOTA	
PROJECT ESTIMATES:									
	PRIOR YEARS	1998-99	1999-2000	2000-01	2001-02	2002-03	BEYOND 2003	TOTAL	
CAPITAL COSTS:									
PLANS & STUDIES									
LAND & RIGHT-OF-WAY									
DESIGN & ENGINEERING									
CONSTRUCTION									
EQUIPMENT/FURNISHINGS (HARDWARE)									
PROJECT CONTINGENCY									
1% FOR ART									
OTHER (SOFTWARE DEVELOPMENT)									
TOTAL									
	\$20,000								\$20,000
	39,820	\$15,000							54,820
	\$59,820	\$15,000							\$74,820
FUNDING SOURCE:									
FUND BALANCE									
GRANTS									
G. O. BONDS									
REVENUE BONDS									
OTHER									
TOTAL									
	\$59,820	\$15,000							\$74,820

<p>PROJECT DESCRIPTION/JUSTIFICATION:</p> <p>Upgrade the hardware and software for computer system that serves REM's Recycling Information Center (RIC). The existing system uses expensive UNIX hardware and software that is based on seven-year old technology that will not be supported by the vendor after April 1, 1999, and is not compatible with Metro's Windows-based network system. The RIC handles more than 100,000 calls annually from people seeking answers to recycling, disposal and various waste prevention strategy. This computer system provides RIC staff with the capability to access databases quickly to respond to callers immediately.</p>	<p>ANNUAL OPERATING BUDGET IMPACT:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>PERSONAL SERVICES COSTS</td> <td style="text-align: right;">(\$700)</td> </tr> <tr> <td>MATERIALS & SVCS. COSTS</td> <td></td> </tr> <tr> <td>CAPITAL OUTLAY COSTS</td> <td></td> </tr> <tr> <td>OTHER COSTS (REVENUES)</td> <td></td> </tr> <tr> <td style="text-align: right;">NET ANNUAL OPERATING COSTS</td> <td style="text-align: right;">(\$700)</td> </tr> <tr> <td>ANNUAL RENEWAL & REPLACEMENT CONTRIBUTION</td> <td style="text-align: right;">\$16,200</td> </tr> <tr> <td>FIRST FULL FISCAL YEAR OF OPERATION:</td> <td style="text-align: right;">1998-99</td> </tr> <tr> <td colspan="2">FUND(S): SOLID WASTE REVENUE AND PLANNING FUNDS</td> </tr> </table>	PERSONAL SERVICES COSTS	(\$700)	MATERIALS & SVCS. COSTS		CAPITAL OUTLAY COSTS		OTHER COSTS (REVENUES)		NET ANNUAL OPERATING COSTS	(\$700)	ANNUAL RENEWAL & REPLACEMENT CONTRIBUTION	\$16,200	FIRST FULL FISCAL YEAR OF OPERATION:	1998-99	FUND(S): SOLID WASTE REVENUE AND PLANNING FUNDS	
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REGIONAL ENVIRONMENTAL MANAGEMENT COMMITTEE REPORT

CONSIDERATION OF RESOLUTION NO. 98-2620A, FOR THE PURPOSE OF AMENDING CONTRACT #920101 WITH GEONORTH, INC. TO UPGRADE THE COMPUTER SOFTWARE IN THE RECYCLING INFORMATION CENTER'S CALL TRACKING SYSTEM

Date: April 21, 1998

Presented by: Councilor McFarland

Committee Recommendation: At its April 21 meeting, the Committee considered Resolution No 98-2620 and voted 2-0 to send the resolution, as amended, to the Council with a do pass recommendation. Voting in favor: Councilor McFarland and Chair Morissette. Councilor Washington was absent.

Committee Issues/Discussion: Dennis Strachota, strategic policy analyst, presented the staff report. He noted that the purpose of the resolution was to amend an existing contract to upgrade the software used by the Recycling Information Center's call tracking system. This need intensified when Metro was notified that vendor for the hardware required to operate the existing software will no longer support this equipment after April 1999.

He indicated that the committee members had been provided with an amended "A" version of the resolution that would include the proposed project in the adopted Capital Improvement Plan because it's total cost now exceeds \$50,000. As originally prepared, the total capital costs did not exceed \$50,000, but last-minute changes in the scope of the project increased the total cost to \$54,820.

Councilor Morissette asked if the project was just an addition to the CIP, or if it's inclusion would result in the elimination of any other CIP projects. Strachota responded that the project was not competing for other funds and that no projects would be eliminated as a result of the inclusion of this project.

**EXECUTIVE SUMMARY
RESOLUTION 98-2620
CONTRACT WITH GEONORTH TO UPGRADE RECYCLING
INFORMATION CENTER COMPUTER SOFTWARE**

PROPOSED ACTION

- Passage of Resolution 98-2620 would authorize Metro to amend contract no. 920101 with GeoNorth, Inc. to upgrade the computer software in the Recycling Information Center and also to amend the FY 1998-99 through FY 2002-03 adopted CIP to include this computer upgrade.

WHY NECESSARY

- The existing system uses expensive UNIX hardware and software and is based on seven-year old technology developed with programming tools that date from the mid-1980s.
- Upgrading the software will allow the system to run in the Windows environment and will eliminate costly hardware and software maintenance contracts.
- This would also bring the full set of office productivity tools to the RIC staff and improve email access.
- Metro has received word that Hewlett Packard will stop supporting the hardware required by the existing software after April 30, 1999.

ISSUES/CONCERNS

- The computer system in the Recycling Information Center is used to respond to nearly 100,000 residents of the region who call the Center each year.
- It is important to upgrade the software to current computer technology to maintain the effectiveness of this popular customer service and public outreach program, while reducing computer support and maintenance costs.
- Support for the new hardware and software will be provided by Metro's Information Services Division. Application support will continue to be provided by the Data Resource Center.
- The computer upgrade originally did not qualify as a capital project because capital costs did not amount to \$50,000. With this contract amendment, the upgrade does qualify as a capital project, and hence, the resolution also amends the adopted CIP for FY 1998-99 through 2002-03.

BUDGET/FINANCIAL IMPACTS

- The cost to develop the new software is \$54,820. The funds are budgeted in the 1997-98 and 1998-99 budget.

The contract amendment will be funded as follows:

- \$42,500 for RIC computer support in the adopted FY 97-98 DRC budget. Due to time contracts, a portion of the \$42,500 may be a carryover to FY 98-99.
- \$7,320 savings from maintenance of RLIS solid waste databases in the adopted FY 97-98 REM budget
- \$5,000 under Contracted Professional Services in the proposed FY 98-99 REM budget.

Overall, the new system will result in a savings of \$2,050 over the next three years.

STAFF REPORT

RESOLUTION NO.98-2620 FOR THE PURPOSE OF AMENDING CONTRACT #920101 WITH GEONORTH, INC. TO UPGRADE COMPUTER SOFTWARE FOR THE RECYCLING INFORMATION CENTER'S CALL TRACKING SYSTEM.

March 6, 1998

Presented by: Richard Bolen,
Data Resource Center Manager

PROPOSED ACTION

Adoption of this resolution will amend a current contract with Geonorth, Inc., to revamp the RIC call tracking computer application to run in the Windows environment. The current application uses expensive UNIX hardware and software. The new application will take advantage of major advances which have been made in the Windows operating environment and will be designed to enhance the RIC's commitment to provide regional information related to recycling, reuse, hazardous waste disposal and other important environmental issues.

BACKGROUND

This new system will replace an existing computer system that is based on seven-year-old technology developed with programming tools that date from the mid-1980s. The contract to develop the existing Recycling Information Center system, written in 1991, called for a system that includes the following modules:

- Call Tracking - provides a map and information such as the names, locations and hours of the nearest recycling and solid waste disposal facilities for requested materials. Each call is recorded in a database for statistical reporting.
- General Information Files - allows quick query and access to information files for call takers.
- Statistical Reporting. Data derived from the call information database is used to provide monthly, quarterly and annual reports, which can be summarized by geographical area, media code or material. These reports measure the effectiveness of the program.
- Mailing list management - the call system constructs mailing lists and labels based on caller requests for promotional and educational mailers that the RIC offers.
- Inventory journal - tracks inventory of brochures, packets and other publications.
- Workshop registration - allows call takers to register callers in workshops.

A system was developed using the best geographic information system (GIS) software available at the time. This old system requires costly annual hardware and software maintenance fees. There is also a need for frequent problem solving on the part of in-house technical assistance, which is costly in terms of time to Metro staff.

In July 1997, an RFP was issued for development of desktop mapping applications. The purpose of the RFP was to select a vendor who would prepare applications for several departments at Metro including Regional Environment Management (REM), the Data Resource Center (DRC), a division of the Growth Management Services Department, and Metro Recycling Information, a division of the REM Department. The RIC call tracking system was mentioned as a possible application. Contract No. 920101 with Geonorth, Inc. was signed on October 29, 1997 and includes a mapping program on Metro's intranet and external web page. The contract allowed for amendments that would add separate tasks. Fees for each task are determined based on particular project requirements. The RIC call tracking system will be one of these separate amendments to the existing Geonorth contract. It will incorporate the above modules and all current functionality.

The proposed RIC call tracking system has several advantages:

- Moves to low cost Windows workstations.
- Will have the look and feel of the Windows environment, making it easy to learn.
- Brings the full set of office productivity tools to the RIC.

- Improved e-mail access.
- Easy to convert a portion of the RIC application to the Internet at some future date.
- Adds ability to use other Windows ActiveX controls (mailing labels, e-mail & FAX).
- Allows use of a modern relational database for data storage and report generation.
- Eliminates annual hardware & software maintenance agreements.
- Reduces RIC training costs.

A new system which uses standard state of the art PC hardware and software components will bring about a cost-effective solution that minimizes internal staff maintenance and training costs while enhancing usability and data delivery options.

We are asking for a multi-year contract to expire on June 30, 1999.

BUDGET IMPACT

The amount for this amendment is \$54,820. This amendment will be funded as follows:

- \$42,500 for RIC computer support in the adopted FY 97-98 budget. Due to time constraints, a portion of the \$42,500 may be a carryover to FY 98-99.
- \$7,320 savings from maintenance of RLIS solid waste databases in the adopted FY 97-98 budget.
- \$5,000 under Contracted Professional Services in the proposed FY 98-99 budget.

Overall, the new system will have a savings of \$2,050 over the next three years.

EXECUTIVE OFFICER RECOMMENDATION

The Executive Officer recommends approval of this resolution.

Before the Metro Council

FOR THE PURPOSE OF AMENDING)	RESOLUTION NO. 98-2620
CONTRACT #920101 WITH GEONORTH, INC.)	
TO UPGRADE THE COMPUTER SOFTWARE)	Introduced by Mike Burton,
FOR THE RECYCLING INFORMATION)	Executive Officer
CENTER'S CALL TRACKING SYSTEM.)	

WHEREAS, the Council adopted the Budget for Fiscal Year 1997-98; and

WHEREAS, Regional Environmental Management and Growth Management Services have sufficient funds to finance the requested computer update for the Recycling Information Center; and

WHEREAS, Metro has executed an agreement with Geonorth, Inc. to develop desktop mapping applications for several Metro departments, including the Recycling Information Center's telephone response system; and

WHEREAS, the Recycling Information Center's software and hardware is in need of upgrading to utilize current computer technology to increase productivity while reducing computer support and maintenance costs.

BE IT RESOLVED,

The Metro Council hereby approves extending contract #920101 to June 30, 1999 and amending the contract to upgrade the Recycling Information Center's call response system at a cost of \$54,820.

ADOPTED by the Metro Council this _____ day of _____, 1998.

Jon Kvistad, Presiding Officer

Approved as to form:

Daniel B. Cooper, General Counsel

PERSONAL SERVICES AGREEMENT

THIS AGREEMENT is between Metro, a metropolitan service district organized under the laws of the State of Oregon and the 1992 Metro Charter, located at 600 NE Grand Avenue, Portland, Oregon 97232, and GeoNorth, Inc., referred to herein as "Contractor," located at Suite 101, 3330 Arctic Blvd., Anchorage, Alaska 99503.

In exchange for the promises and other consideration set forth below, the parties agree as follows:

1. Duration. This personal services agreement shall be dated and effective on the last signature date below and shall remain in effect until and including June 30, 1998, unless terminated or extended as provided in this Agreement.
2. Scope of Work. Contractor shall provide all services and materials specified in the attached "Exhibit A -- Scope of Work," which is incorporated into this Agreement by reference. All services and materials shall be provided by Contractor in accordance with the Scope of Work, in a competent and professional manner. To the extent that the Scope of Work contains additional contract provisions or waives any provision in the body of this Agreement, the Scope of Work shall control.
3. Payment. Metro shall pay Contractor for services performed and materials delivered in the amounts, manner and at the times specified in the Scope of Work for a maximum sum not to exceed Thirty Thousand and no/100 dollars (\$30,000.00).
4. Insurance. Contractor shall provide METRO with a certificate of insurance complying with this article and naming METRO as an insured within fifteen (15) days of execution of this Contract or twenty-four (24) hours before services under this Contract commence, whichever date is earlier.
 - a. Contractor shall purchase and maintain at the Contractor's expense, the following types of insurance, covering the Contractor, its employees, and agents:
 - (1). Broad form comprehensive general liability insurance covering bodily injury and property damage, with automatic coverage for premises, operations, and product liability. The policy must be endorsed with contractual liability coverage; and
 - (2). Automobile bodily injury and property damage liability insurance.
 - b. Insurance coverage shall be a minimum of \$500,000 per occurrence. If coverage is written with an annual aggregate limit, the aggregate limit shall not be less than \$1,000,000.
 - c. Metro, its elected officials, departments, employees, and agents shall be named as ADDITIONAL INSURED. Notice of any material change or policy cancellation shall be provided to Metro 30 days prior to the change or cancellation.
 - d. Contractor, its subcontractors, if any, and all employers working under this Agreement that are subject employers under the Oregon Workers' Compensation Law shall comply with ORS 656.017, which requires them to provide Workers' Compensation coverage for all their subject workers. Contractor shall provide Metro with certification of Workers' Compensation insurance including

employer's liability. If Contractor has no employees and will perform the work without the assistance of others, a certificate to that effect may be attached, as Exhibit B, in lieu of the certificate showing current Workers' Compensation.

e. If required by the Scope of Work, Contractor shall maintain for the duration of this Agreement professional liability insurance covering personal injury and property damage arising from errors, omissions, or malpractice. Coverage shall be in the minimum amount of \$500,000. Contractor shall provide to Metro a certificate of this insurance, and 30 days' advance notice of material change or cancellation.

5. Indemnification. Contractor shall indemnify and hold Metro, its agents, employees and elected officials harmless from any and all claims, demands, damages, actions, losses and expenses, including attorney's fees, arising out of or in any way connected with its performance of this Agreement, or with any patent infringement or copyright claims arising out of the use of Contractor's designs or other materials by Metro and for any claims or disputes involving subcontractors.

6. Maintenance of Records. Contractor shall maintain all of its records relating to the Scope of Work on a generally recognized accounting basis and allow Metro the opportunity to inspect and/or copy such records at a convenient place during normal business hours. All required records shall be maintained by Contractor for three years after Metro makes final payment and all other pending matters are closed.

7. Ownership of Documents. All documents of any nature including, but not limited to, reports, drawings, works of art and photographs, produced by Contractor pursuant to this Agreement are the property of Metro, and it is agreed by the parties that such documents are works made for hire. Contractor hereby conveys, transfers, and grants to Metro all rights of reproduction and the copyright to all such documents.

8. Project Information. Contractor shall share all project information and fully cooperate with Metro, informing Metro of all aspects of the project including actual or potential problems or defects. Contractor shall abstain from releasing any information or project news without the prior and specific written approval of Metro.

9. Independent Contractor Status. Contractor shall be an independent Contractor for all purposes and shall be entitled only to the compensation provided for in this Agreement. Under no circumstances shall Contractor be considered an employee of Metro. Contractor shall provide all tools or equipment necessary to carry out this Agreement, and shall exercise complete control in achieving the results specified in the Scope of Work. Contractor is solely responsible for its performance under this Agreement and the quality of its work; for obtaining and maintaining all licenses and certifications necessary to carry out this Agreement; for payment of any fees, taxes, royalties, or other expenses necessary to complete the work except as otherwise specified in the Scope of Work; and for meeting all other requirements of law in carrying out this Agreement. Contractor shall identify and certify tax status and identification number through execution of IRS form W-9 prior to submitting any request for payment to Metro.

10. Right to Withhold Payments. Metro shall have the right to withhold from payments due to Contractor such sums as necessary, in Metro's sole opinion, to protect Metro against any loss, damage, or claim which may result from Contractor's performance or failure to perform under this Agreement or the failure of Contractor to make proper payment to any suppliers or subcontractors.

11. State and Federal Law Constraints. Both parties shall comply with the public contracting provisions of ORS chapter 279, and the recycling provisions of ORS 279.545 - 279.650, to the extent those provisions apply to this Agreement. All such provisions required to be included in this Agreement are incorporated herein by reference. Contractor shall comply with all applicable requirements of federal and state civil rights and rehabilitation statutes, rules and regulations including those of the Americans with Disabilities Act.

12. Situs. The situs of this Agreement is Portland, Oregon. Any litigation over this agreement shall be governed by the laws of the state of Oregon and shall be conducted in the circuit court of the state of Oregon, for Multnomah County, or, if jurisdiction is proper, in the U.S. District Court for the District of Oregon.

13. Assignment. This Agreement is binding on each party, its successors, assigns, and legal representatives and may not, under any circumstance, be assigned or transferred by either party.

14. Termination. This Agreement may be terminated by mutual consent of the parties. In addition, Metro may terminate this Agreement by giving Contractor five days prior written notice of intent to terminate, without waiving any claims or remedies it may have against Contractor. Termination shall not excuse payment for expenses properly incurred prior to notice of termination, but neither party shall be liable for indirect or consequential damages arising from termination under this section.

15. No Waiver of Claims. The failure to enforce any provision of this Agreement shall not constitute a waiver by Metro of that or any other provision.

16. Modification. Notwithstanding any and all prior agreements or practices, this Agreement constitutes the entire Agreement between the parties, and may only be modified in a writing signed by both parties.

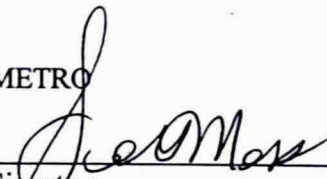
GEONORTH, INC.


Signature

Steve Colligan President
Print Name and Title

10/29/97
Date

METRO


Signature

Scott Moss
Manager, Risk & Contract Mgr.
Print Name and Title

10-29-97
Date

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**Attachment A
SCOPE OF WORK**

This attachment to the Personal Services Contract between Metro and GeoNorth, Inc., hereinafter referred to as "GeoNorth," specifies the scope of work to be performed by GeoNorth, and payment schedule.

A. GENERAL STATEMENT OF PROJECT

Metro has invested several hundred thousand dollars in a geographic information system (GIS) that is called the Regional Land Information System (RLIS). As part of Metro's plan to provide access to RLIS data to additional staff, we are purchasing the graphical and mapping software ArcView.

ArcView allows non-GIS staff to access and query spatial and socioeconomic data that are needed to support their projects and programs. This will enable more people to use the databases built and maintained by GIS personnel. ArcView has the ability to produce graphs, pie-charts, maps, and reports. It operates inside Windows Version 3.1, using existing databases such as Access. All computers using ArcView will be networked to an 11x17-color printer for output of color documents.

Additionally, Metro has purchased Visual Basic and MapObjects, an OCX that supports the development map-based applications. Metro staff intends to develop small targeted desktop mapping applications to support Metro programs. Some of these applications will be placed on Metro's external Internet site or Metro's internal Internet called "IntraMet".

Metro has recently enhanced our Web page and future plans call for placing spatially enabled query capabilities on one or more of Metro's Web pages. The two software products that Metro will be using are MapObjects Internet Map Server (IMS) and ArcView IMS.

The first application using ArcView IMS will be "Who Is My Hauler?" This is a simple application where a user types in their home address and ArcView IMS returns the name and phone number of the garbage hauler serving that address.

This application will be the prototype for numerous other address-based spatial queries, some of them using ArcView IMS and others MapObjects IMS. The decision of which IMS to use will be based on numerous factors, including but not limited to, number of expected hits per day, resources (time and money) necessary to write the application, and the applications functionality.

B. PROJECT MANAGERS

Keith Massie is Metro's contact for this project and will coordinate contractor activities.

Keith Massie
Metro
600 NE Grand Avenue
Portland, OR 97232
(503) 797-1667
(503) 797-1795 FAX
massiek@metro.dst.or.us E-MAIL

GeoNorth's project manager is:

Mark Pearson
GeoNorth, Inc.
3330 Arctic Blvd., Suite 101
Anchorage, AK 99503
(907) 562-1500
(907) 562-1502 FAX
mpearson@geonorth.com E-MAIL

C. APPLICATION DEVELOPMENT

The following is a description of the first application to be developed with the assistance of GeoNorth. There will be additional tasks requested of GeoNorth between now and June 30, 1998. Each of these tasks will be detailed in correspondence, which will become part of this contract. Given the difficulty in detailing each and every map-based application that Metro may need during the next twelve months, this format will save Metro staff time and resources.

GEOSEARCH INTERNET APPLICATION

GeoNorth will license and make modifications to its MapOptix(tm) viewer application for Metro's internal use. Under this license GeoNorth will supply Metro with all programming code, scripts, and compiled code for internal use only.

GeoNorth will make modifications to its MapOptix(tm) application to suit Metro's use as part of the general license of this product limited to the items below as "General Modifications". All other modifications will be considered to be specific modifications for Metro's use and will be performed on a time and materials basis. Metro will be provided documentation, source and compiled code for all "Specific Metro Modifications" listed below.

General Modifications

1. Modify MapOptix(tm) code to process results of up to 20 geographic layers in the MapOptix(tm) GeoSearch query function.
2. Make HTML enhancements to the MapOptix(tm) interface not to exceed eight hours.

Specific Metro Modifications

1. Metro will be provided all sources script, text, and compiled code for Metro Specific Modifications. Payment for these services will be on a time and materials basis.
2. Enhance the MapOptix(tm) report screen function to meet Metro's general needs. Estimated time is 8 hours. GeoNorth will coordinate with Metro to modify and enhance the reporting functions and print screen of the existing MapOptix(tm) interface. Other and more detailed reports may be generated at Metro's request at additional time and materials expense to this project.
3. Work with local GeoSearch Work Group (comprised of city, county and Metro staff) to make enhancements and modifications to the user interface. GeoNorth will provide technical support and programming on a time and materials basis at the direction of designated Metro Project Manager.

SECOND TASK: Recommend computer hardware to provide Web hosting services. GeoNorth will work closely with Metro staff in determining the necessary hardware configuration to support

Metro's IntraMet and eventual Internet Map-Based applications. GeoNorth will provide a turnkey solution on the hardware configuration determined necessary, including the ColdFusion software. Metro's Data Resource Center has already purchased the MapObjects IMS software and has budgeted for the ArcView IMS software.

DELIVERABLE: Computer hardware with web server and ColdFusion software installed. Metro will reimburse GeoNorth at their cost plus 10% for the hardware and software. Additionally, GeoNorth will be reimbursed at their hourly rate of \$85 for technical assistance with the software installation and configuration.

OTHER DESKTOP MAPPING APPLICATIONS

Metro will have other desktop mapping applications that will be identified during the next twelve months, and the consultant will be expected to provide programming and technical support services to assist with the completion of each application. These applications may include one or more of the following:

1. Converting Metro Recycling Information's Unix based (using Arc/Info) telephone response system to a PC based system using Visual Basic and MapObjects.
2. Enhancing the Data Resource Center's (DRC) Web pages to facilitate the delivery of map-centric products.
3. Developing an Internet-based Disaster Response system to be utilized during floods, ice, wind storms, and earthquakes.
4. Additional applications and products to be determined during the course of the contract but not to exceed the total dollar amount.

Before the implementation of additional desktop mapping applications, GeoNorth will meet with the appropriate Metro staff to review that particular's projects Tasks. Once a written Task Order and work schedule has been agreed upon, the consultant will negotiate a fee with Metro staff. The fee schedule will include hours to be worked by staff salary level as stipulate in Section 6 below. Each project will be considered separately and a fee determined based on that particular project's requirements.

D. QUALITY CONTROL

Each application developed must meet certain quality criteria before the application is accepted and GeoNorth is paid. These will include:

1. Written technical documentation for each application. The documentation will be written so that a person familiar with the technology would be able to quickly fix any problems that may arise or easily modify the application.
2. Metro and GeoNorth will jointly own all source code written for this project and will not be restricted in who or how often this code is distributed.
3. GeoNorth pre-compiled objects or dynamic libraries can be used by Metro, but Metro will not have the right to distribute these. It will be GeoNorth's responsibility to identify this code before delivery to Metro.
4. Every Avenue script and Visual Basic/MapObjects program will be clearly documented using comment lines. These comments will be numerous enough so that Metro programmer can quickly and easily understand and modify the original program. If unsure about how many comments to include, error on the side on including extra. Each script will have a header that

will have as a minimum: 1) name; 2) function; 3) programmer, 4) last date edited, 5) scripts or programs it calls or is called by, and 6) the name of the application.

5. Metro will have the opportunity to test each application within 30 working days of receiving it, and will be responsible for providing verbal or written comments to GeoNorth within 30 working days. GeoNorth will then make the necessary corrections and Metro will re-test the application. Additionally, GeoNorth will be responsible for correcting any and all application errors found within 90 days of delivery of the final code.

E. PROJECT SCHEDULE

GeoNorth will begin working no sooner than September 15, 1997, and the entire project is expected to be completed by June 30, 1998.

F. TERMS OF PAYMENT

Contractor shall provide services for a maximum price not to exceed Thirty Thousand and no/100 dollars (\$30,000.00).

The maximum price includes all fees, costs and expenses of whatever nature. Each of Metro's payments to Contractor shall equal the percentage of the work Contractor accomplished during the billing period. Contractor's billing statements will include an itemized statement of unit prices for labor, materials, and equipment, will include an itemized statement of work done and expenses incurred during the billing period, will not be submitted more frequently than once a month, and will be sent to Metro, Attention Regional Environmental Management Department. Metro will pay Contractor within 30 days of receipt of an approved billing statement.

In the event Metro wishes for Contractor to provide services or materials after the maximum contract price has been reached, Contractor shall provide such services or materials pursuant to amendment at the same unit prices that Contractor utilized as of the date of this Agreement, or which Contractor utilizes to submit requests for payment pursuant to this Scope of Work, whichever prices are less. Metro may, in its sole discretion and upon written notice to Contractor, extend the term of this contract for a period not to exceed 12 months. During such extended term all terms and conditions of this contract shall continue in full force and effect.

GeoNorth will license Metro it's MapOptix(tm) interface for \$4,000 with the addition of modifications listed in the "General Modifications". Included in this \$4,000 is eight hours of GeoNorth's staff time to modify the user interface. GeoNorth estimates it will take an additional eight hours to develop a working print routine. This is not included in the initial \$4,000.

For acquiring the hardware and software, GeoNorth will be reimbursed for their costs plus 10%. This does not include staff time, and GeoNorth will be reimbursed up to four hours (at \$85 per hour) for assisting Metro with these acquisitions.

GeoNorth will be paid based on personnel performing the work at the following rates: Project Manager (\$90/hour); GIS & Database Software Engineer (\$85/hour); GIS Analyst/Programmer (\$75/hour); GIS Analyst (\$65/hour); and GIS Technician (\$55/hour).

If GeoNorth has not fulfilled any contract provisions, Metro will identify such defects, and will release the balance of funds only when such defects have been remedied. GeoNorth will submit one payment to Metro at the conclusion of this project, and payment will be made within 30 days of receipt.

Other payments may be made to GeoNorth based on additional Scopes of Work and Tasks Orders to be defined at a later date.

Amendment #1

Metro Contract #920101

Contract No. 920101 between Metro, a metropolitan service district organized under the laws of the State of Oregon and the 1992 Metro Charter, located at 600 NE Grand Avenue, Portland, OR 97232-2736, and GeoNorth Inc., referred to herein as "GeoNorth," located at 3330 Arctic Blvd., Suite #101, Anchorage, AK 99503 is amended as follows:

1. In addition to the services described in the Contract and any previous amendments or attachments to the Contract, this Attachment B, describes additional work for hire to be included with the original task order. GeoNorth agrees to perform the following services as amended by this agreement.
2. GeoNorth agrees to use Microsoft Visual Basic to develop an ESRI MapObjects application which will replace the current ARC/INFO application in the Recycling Information Center. The new application will include the functionality explained in Exhibit B-1, "Metro's Recycling Information Center Recycle Explorer." Exhibit B-2 includes the reports which are generated from the current system. This same information must be stored and reported in the new application.
3. The duration of the term of Attachment B shall be no later than June 30, 1999.
4. Metro agrees to pay GeoNorth according to the Time/Cost Estimate table on Exhibit B-1, page 7. Metro has decided not to order the Library module and to request a subset of the documentation described in Exhibit B-1. In addition, Metro will order the Layer Management Object (LMO) at a cost of \$3,000. The total amount for the work requested in this amendment shall not exceed FIFTY FOUR THOUSAND EIGHT HUNDRED TWENTY DOLLARS (\$54,820.00)

5. **Project Managers:**

Alan Holsted will serve as Metro's principal contact for this project and will coordinate contractor activities:

ALAN HOLSTED
Metro Data Resource Center
600 NE Grand Avenue
Portland, OR 97232
503 797-1594
503 797-1909 fax
holsteda@metro.dst.or.us

GeoNorth's project manager is:

KELLIE HAUGER
GeoNorth, Inc.
921 SW Washington, Suite 316
Portland, OR 97205
503 827-0827
503 827-0735 fax
khauger@geonorth.com

6. Except as expressly modified by Attachment B, all other terms of the Contract remain in force.

GeoNorth, INC.

Metro

By: _____

By: _____

Title: _____

Title: _____

Company: GeoNorth, Inc.
3330 Arctic Blvd.
Anchorage, AK 99503

Metro
600 NE Grand Ave.
Portland, OR 97232

Date: _____

Date: _____

Attachments:

Exhibit B-1

Exhibit B-2

Exhibit B-3

Exhibit B-1
Contract No. 920101
Metro's Recycling Information Center
Recycle Explorer

Introduction

Metro's Recycling Information Center (RIC) seeks to acquire a modern GIS tool which enhances the agency's commitment to provide citizens with regional information related to recycling, reuse, hazardous waste disposal, and other important environmental issues. The tool would replace an existing computer system, which is based on five-year-old technology and requires costly hardware and software maintenance fees on an annual basis. In migrating to current PC hardware and software components, Metro will obtain a cost-effective solution that minimizes maintenance and training costs while enhancing usability and data delivery options.

Software Tools

The primary software tools to be utilized for this application are Microsoft Visual Basic 5.0 Enterprise and ESRI's MapObjects 1.2. The Visual Basic programming environment is an industry standard, rapid application development (RAD) tool derived from the BASIC programming language, with object oriented extensions and support for the Component Object Model (COM). Visual Basic provides an excellent platform for building robust database applications, while maintaining an open architecture. MapObjects is a plug-in toolset for Visual Basic, which acts as a container for both GIS data and spatial-analytical functionality. In the programming vernacular, it is known as an ActiveX control. MapObjects exposes a powerful suite of GIS objects, methods and properties to the VB environment. The result is a high performance, customized and cost-effective GIS application.

Functional Synopsis

The RIC application provides Metro a mechanism to help the region dispose of waste safely and efficiently through public education. Citizens are able to call and receive accurate and timely information regarding recycling, hazardous waste disposal, waste disposal, or community outreach programs. Private citizens are educated on recycling centers close to their residence including driving directions, materials accepted, and business hours. Businesses are provided with the closest recycling center or a recycling facility offering a commercial pick-up service. In addition, a caller will be able to sign up for events, request brochures and general information. Citizens will also have the opportunity to check out literature from the RIC library. The RIC staff has the ability to generate reports detailing calls received.

The existing computer system is based on five-year-old technology and requires costly hardware and software maintenance fees on an annual basis. Migrating to a modern Windows-based application provides a tight integration with other software applications and databases, dissolves the annual maintenance costs, and provide an easy-to-use interface reducing the training cost associated with the application. In addition to the annual costs, the current system uses a Unix server that will need to be

upgraded within the next three-year period. The issues outlined above make a Windows-based application both pertinent and cost-effective for Metro's Recycling Information Center.

Application Features

A comprehensive list of application functions are presented below:

Metro Recycle Explorer

- Explorer style application provides the user a map, recycling center attribute browsing, and access to the general information files, RIC inventory and library.
- Find callers location by zip code or geocoded address.
- Intelligent map display of nearest recycle center. As well as display of other candidate recycling centers.
- Call tracking of call zip code, type (business or residential), materials, and recycle center referrals.
- Facilitate navigation through recycling centers using VCR buttons to allow movement to the first and last records, as well as next and previous.
- Ability to inform caller of jurisdiction, garbage hauler, or other information deemed relevant.
- Optionally, create a report detailing referred recycler's information to be facsimiled or electronically mailed.
- Provide a map detail screen with standard display and query functions.
- Map navigation consisting of Zoom In, Zoom Out, Pan.
- Continuous tracking and display of map scale and mouse coordinates.

General Information Files

- Add, modify, or remove general information files.
- Search by keywords for quick access to general information files.
- Optionally, print, facsimile, or electronically mail documents.

Report Generation and Mailing Labels

- Report generation with the ability to produce common monthly reports.
- Maintain complaints in database.
- Report complaints by date range with complaint location and type.
- Mailing label generation by date range, thus allowing for daily, weekly or monthly.
- Mailing label generation by hold type (event, brochure, or survey).
- Generate mailing labels for recycling centers and facilities.

Inventory Journal

- Add and delete brochures, packets, or flyer from inventory.
- Update journal database as callers request mailers/brochures

Library

- Add and delete library materials
- Generates a library material label for new materials
- Browse library content by title, subject, or author
- Allow query of library materials by title, author, or subject
- Allow check outs with name, address, due date
- Select multiple materials to be checked out
- Assign check out date and calculate due date based on check out date.
- Copy check out information for additional materials by same person.

- Generate a report library content with the option to print.
- Generate a report detailing overdue books.
- Generate overdue letters with mailing labels.

Database and Other Maintenance

- Access control through login accounts.
- Add recyclers by pointing at a location on the map, geocode an address, or tabular entry only. The tabular entry is appropriate for pick-up only recyclers.
- Select recycler by name or assigned number.
- Assign or modify recycler attributes.
- Move, copy or delete recyclers.
- Ability to add new materials and assign a material code.
- Add, modify, or remove media codes.

Miscellaneous

- Add and remove workshops.
- Allow callers to enroll in workshops.
- Generate mailing labels and reports for each workshop.
- Support statewide view displaying major cities, zipcodes and recycling events throughout the state. The user will be able to zoom to a zipcode and identify recycling events.

Functional Description

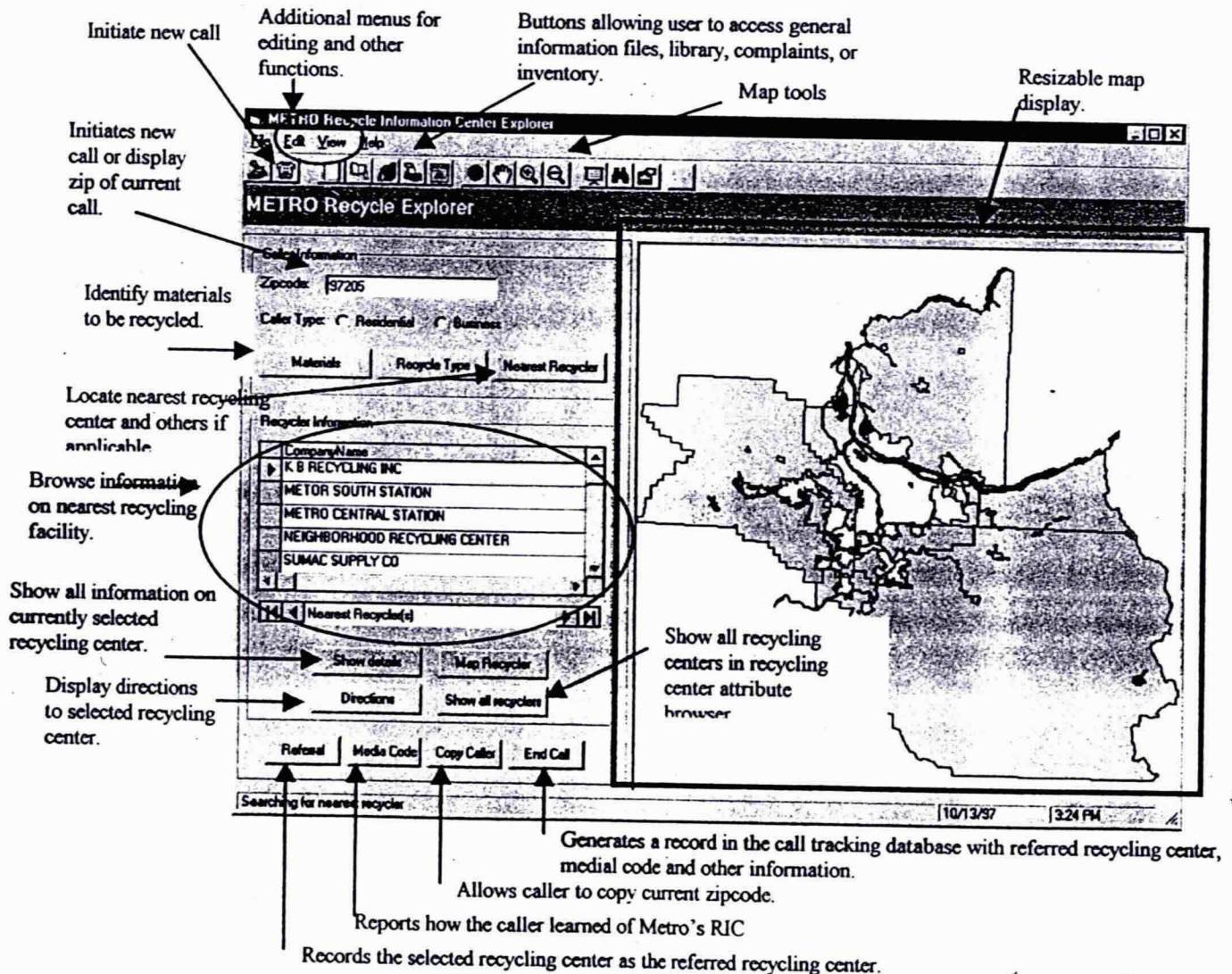
The following presents a description of the functional requirements of the application.

Explorer

The application uses a *windows explorer* graphical user interface (GUI). This approach encapsulates the primary tools and data within an intuitive framework that eliminates extraneous information. The user has the ability to alter how much information is presented as well as determine size of screen components such as the map display.

Metro Recycle Explorer

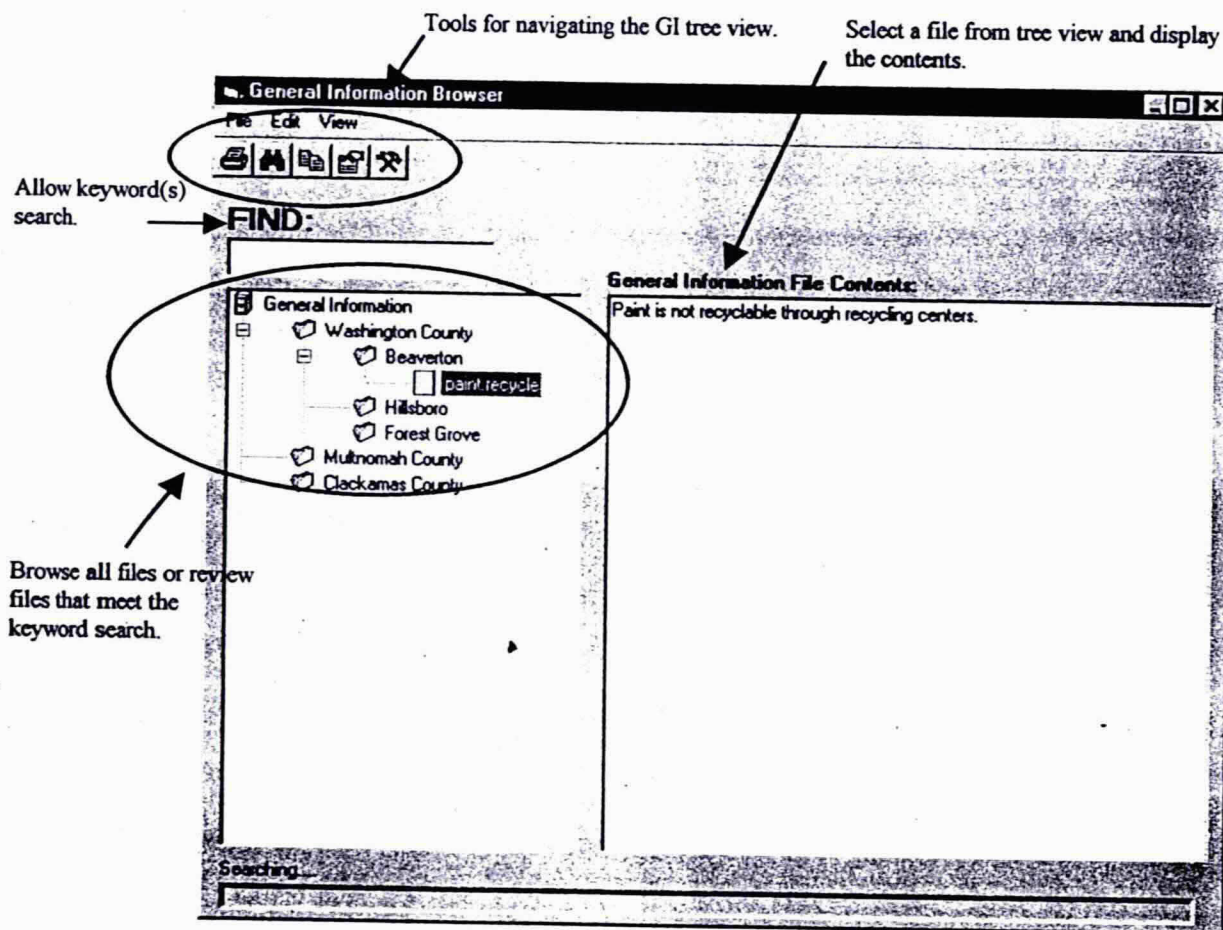
The user interface will resemble the look and feel of many other Windows application on the market today. The main window allows users to initiate a call by entering a ZIP code, select materials of interest, identify recycle type (drop off or pick up for businesses). Once the initial information is entered, the application would then determine the nearest recycling center accepting the specified materials. The nearest recycle center and, if applicable, other candidates would be displayed on the map and in the database browser window. If the recycle type is a commercial pick-up service, the recycle facility displays in the database browse window only. The following concept of the main interface will be revised and refined as the project progresses.



Upon completion of a call, the user indicates the referred recycling center/facility, media code, and other necessary components. The application checks for completeness and creates a record in the call tracking database. The user has the ability to navigate to other areas within the application during an active call thus allowing the user the ability to gather the appropriate information and efficiently support the caller's needs.

General Information Files

The General Information dialog has the same look as the Windows Explorer. The user accesses the General Information files quickly and effortlessly while maintaining the current area of interest on the main display. Using the Find input box, the user could perform keyword searches. The keyword search lists all the files containing the keyword on the left, selecting a file would display the contents of the file on the right.



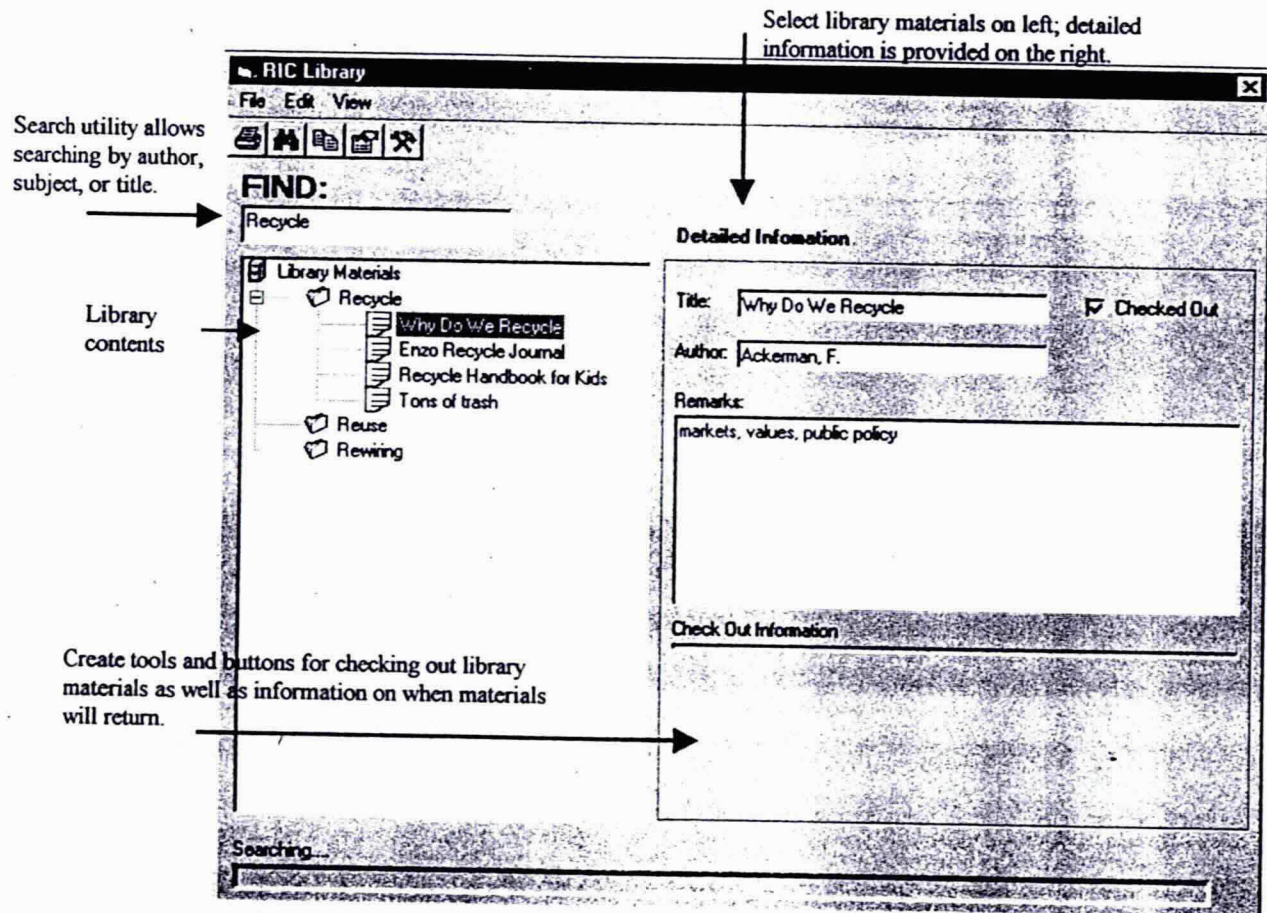
Generate Reports and Mailing Labels

The application provides an easy to use interface for report generation and mailing label generation. User has the option to produce mailing labels for all recycling centers or only recycling centers accepting a specified material. Also, mailing labels can be created for callers who have signed up for events, brochures, or seminars. The application tracks callers who have requested materials that were unavailable at the time of the call and mailing labels may be generated by requested materials.

Inventory Journal and Library

The application provides an inventory database for brochures, packets, and flyers. As callers request information, the inventory reflects the remaining quantity. Users are able to easily add and delete the contents.

A library database stores the periodicals and books maintained by RIC. Users with access rights have the ability to add, delete, and modify the library contents. A tree view interface is used to ensure a consistent interface design throughout the application. The tree view displays the contents of the library on the left, with detailed information on the right. As a selection is made on the left, details regarding its availability, subject, author, etc would appear on the right. As well as a check out process, the application creates overdue book notices, as well as mailing labels and reports.



Database and Other Maintenance

The application is equipped with tools for manipulating the recycling center database. Users with the appropriate permissions are able to add, delete, move or copy existing recycling centers. Also, users are able to modify media codes, update materials, update recycle center attributes and user account information.

Deliverables

1. An application framework consisting of a compiled MapObjects application supporting the functions listed above and the source code used to generate the application. A beta version will be delivered and installed on a Metro computer at least one month prior to project completion.
2. A professional software installation routine which facilitates the deployment of the above application to client PCs.

Time/Cost Estimates

The following table presents our estimates for programmer time and associated costs for developing this application on a time and materials basis.

Task or Expense	Hours	Rate	Cost
Kick-off meeting	4	\$75/hr	\$300.00
Database design and conversion	48	\$85/hr	\$4080.00
Metro Recycle Explorer	104	\$85/hr	\$8840.00
Call Recording and Validation	40	\$85/hr	\$3400.00
General Information Files	60	\$85/hr	\$5100.00
Report Generation & Mailing Labels	80	\$85/hr	\$6800.00
Inventory Journal	50	\$85/hr	\$4550.00
Library	50	\$85/hr	\$4550.00
Database and Other Maintenance	80	\$85/hr	\$6800.00
Miscellaneous	48	\$85/hr	\$4080.00
Installation routine	6	\$85/hr	\$510.00
Delivery and installation	24	\$85/hr	\$2040.00
Post-Install Modifications	32	\$85/hr	\$2720.00
Documentation	60	\$85/hr	\$5100.00
Total:	686	10 -17 week completion	\$58870.00

Explanation of Tasks & Expenses

- **Kick-off meeting:** This meeting will consist of a final review of the program goals and expectations; as well as a detailed discussion concerning application functionality, program flow and interface design. This meeting will be conducted in Metro's Recycling Information Center.
- **Database design and conversion:** Using the existing application and through discussions with Metro convert the ARC/INFO database to shapefiles, convert INFO data files to a Windows database, like Access. Decide the best access to the general information files, either as text files or in a database for fast query capabilities.
- **Metro Recycle Explorer:** Develop main interface to application. Including the recycling center attribute browser and the map component.

- **Call Recording and Validation:** Create the call tracking database and interface.
- **General Information files:** Develop interface for general information files including a search routine.
- **Report Generation & Mailing Labels:** Incorporate the report and mailing label functionality.
- **Inventory Journal:** Develop inventory journal for brochures, classes, etc.
- **Library:** Design library interface with check out routines.
- **Database and Other Maintenance:** Develop database maintenance interface with validation.
- **Miscellaneous:** Incorporate workshops into the application as well as the statewide display of recycling events to support statewide calls.
- **Installation Routine:** Develop a compiled installation routine that facilitates the deployment of the application on client machines.
- **Delivery and Installation:** Delivery and test install of the application and its installation routine.
- **Post-Install Modifications:** Modify as requested and finalize application based on scope.
- **Documentation:** Provide on-line help detailing the interface of the application.

Miscellaneous Notes

- **MapObjects Licensing:** Because MapObjects is an OLE tool developed by ESRI, Metro's Recycling Information Center will need to handle whatever licensing arrangements are necessary, based on the number of client seats that will be used.
- **Ownership of Code:** As per GeoNorth's existing contracts with Metro, the Recycling Information Center will own all code that is custom-developed by GeoNorth for this project. Any previously developed and machine compiled code used to support the development of this project will remain the property of GeoNorth. Metro's Recycling Information Center will have unlimited use of the code, however Metro's Recycling Information Center will not give or sell this code to any third party without prior written permission from GeoNorth.

Metro Recycling Information

Call Record Report

November 1997

	Number of calls	Percent of calls
Total calls	6606	--
Number of work days	23	--
Average per day	287	--
Types of Requests		
Drop Centers*	4016	60.79%
Pickup	187	2.83%
Curbside**	452	6.84%
Markets	60	0.91%
Reuse	54	0.82%
Purchase/buy recycled	88	1.33%
Information	1222	18.50%
Mailings	298	4.51%
Calls from businesses	283	4.28%
Hauler information***	515	7.80%
Illegal dumping	18	0.27%
Source of Calls		
Clackamas County	1081	16.36%
East Multnomah County	239	3.62%
Washington County	799	12.10%
City of Portland	3365	50.94%
Out of region	119	1.80%
Out of state	34	0.51%
Unknown	958	14.50%
Inquiries by Material		
Antifreeze	86	1.30%
Aseptic containers/milk cartons	9	0.14%
Batteries	26	0.39%
Christmas trees	4	0.06%
Fill material	105	1.59%
Garbage	1358	20.56%
Glass	69	1.04%
Hazardous waste		
Business hazardous waste	79	1.20%
Household hazardous waste	832	12.59%

Pesticide alternatives	9	0.14%
Special waste****	90	1.36%
Home composting	148	2.24%
Metals		
Aluminum	43	0.65%
Appliances	202	3.06%
Scrap Metal	242	3.66%
Tin cans	29	0.44%
Miscellaneous	348	5.27%
Motor oil	89	1.35%
Paper		
Cardboard	115	1.74%
Magazines	69	1.04%
Mixed waste paper	116	1.76%
Newspapers	66	1.00%
Office paper	24	0.36%
Phone books	174	2.63%
Plastics	603	9.13%
Tires	95	1.44%
Wood products		
Pallets	3	0.05%
Wood	179	2.71%
Yard debris	681	10.31%

*Drop centers includes transfer stations and recycling depots.

**Curbside includes garbage and recyclables.

***Hauler information reflects inquiries about hauler service areas.

****Special waste includes items such as asbestos, railroad ties and petroleum contaminated soil.

Metro Recycling Information

Call Record Report

October 1997 vs. November 1997

	October 1997	Percent of calls	November 1997	Percent of calls
Total calls	7218	--	6606	--
Number of work days	27	--	23	--
Average per day	267	--	287	--
Types of Requests				
Drop Centers*	4183	57.95%	4016	60.79%
Pickup	221	3.06%	187	2.83%
Curbside**	424	5.87%	452	6.84%
Markets	92	1.27%	60	0.91%
Reuse	85	1.18%	54	0.82%
Purchase/buy recycled	100	1.39%	88	1.33%
Information	1535	21.27%	1222	18.50%
Mailings	299	4.14%	298	4.51%
Calls from businesses	362	5.02%	283	4.28%
Hauler information***	568	7.87%	515	7.80%
Illegal dumping	30	0.42%	18	0.27%
Source of Calls				
Clackamas County	1279	17.72%	1081	16.36%
East Multnomah County	251	3.48%	239	3.62%
Washington County	859	11.90%	799	12.10%
City of Portland	3454	47.85%	3365	50.94%
Out of region	130	1.80%	119	1.80%
Out of state	71	0.98%	34	0.51%
Unknown	1139	15.78%	958	14.50%
...				Percent
Inquiries by Material				
Antifreeze	99		86	-13.13%
Aseptic containers/milk cartons	13		9	-30.77%
Batteries	21		26	23.81%
Christmas trees	1		4	300.00%
Fill material	170		105	-38.24%
Garbage	1244		1358	9.16%
Glass	93		69	-25.81%
Hazardous waste				
Business hazardous waste	90		79	-12.22%
Household hazardous waste	1212		832	-31.35%

Pesticide alternatives	19	9	-52.63%
Special waste****	157	90	-42.68%
Home composting	159	148	-6.92%
Metals			
Aluminum	59	43	-27.12%
Appliances	300	202	-32.67%
Scrap Metal	277	242	-12.64%
Tin cans	68	29	-57.35%
Miscellaneous	455	348	-23.52%
Motor oil	118	89	-24.58%
Paper			
Cardboard	125	115	-8.00%
Magazines	71	69	-2.82%
Mixed waste paper	115	116	0.87%
Newspapers	64	66	3.13%
Office paper	20	24	20.00%
Phone books	56	174	210.71%
Plastics	647	603	-6.80%
Tires	102	95	-6.86%
Wood products			
Pallets	11	3	-72.73%
Wood	157	179	14.01%
Yard debris	410	681	66.10%

*Drop centers includes transfer stations and recycling depots.

**Curbside includes garbage and recyclables.

***Hauler information reflects inquiries about hauler service areas.

****Special waste includes items such as asbestos, railroad ties, and petroleum contaminated soil.

Metro Recycling Information

Call Record Report

November 1996 vs. November 1997

	November 1996	Percent of calls	November 1997	Percent of calls
Total calls	6077	--	6606	--
Number of work days	24	--	23	--
Average per day	253	--	287	--
Types of Requests				
Drop Centers*	3496	57.53%	4016	60.79%
Pickup	200	3.29%	187	2.83%
Curbside**	514	8.46%	452	6.84%
Markets	75	1.23%	60	0.91%
Reuse	70	1.15%	54	0.82%
Purchase/buy recycled Information	44	0.72%	88	1.33%
Mailings	1399	23.02%	1222	18.50%
Calls from businesses	288	4.74%	298	4.51%
Hauler information***	364	5.99%	283	4.28%
Illegal dumping****	426	7.01%	515	7.80%
	0	0.00%	18	0.27%
Source of Calls				
Clackamas County	913	15.02%	1081	16.36%
East Multnomah County	173	2.85%	239	3.62%
Washington County	791	13.02%	799	12.10%
City of Portland	2885	47.47%	3365	50.94%
Out of region	94	1.55%	119	1.80%
Out of state	38	0.63%	34	0.51%
Unknown	772	12.70%	958	14.50%
...				Percent
Inquiries by Material				
Antifreeze	105		86	-18.10%
Aseptic containers/milk cartons	18		9	-50.00%
Batteries	29		26	-10.34%
Christmas trees	4		4	0.00%
Fill material	98		105	7.14%
Garbage	990		1358	37.17%
Glass	98		69	-29.59%
Hazardous waste				
Business hazardous waste	74		79	6.76%
Household hazardous waste	838		832	-0.72%

Pesticide alternatives	8	9	12.50%
Special waste*****	89	90	1.12%
Home composting	53	148	179.25%
Metals			
Aluminum	55	43	-21.82%
Appliances	167	202	20.96%
Scrap Metal	227	242	6.61%
Tin cans	63	29	-53.97%
Miscellaneous	470	348	-25.96%
Motor oil	84	89	5.95%
Paper			
Cardboard	107	115	7.48%
Magazines	66	69	4.55%
Mixed waste paper	166	116	-30.12%
Newspapers	82	66	-19.51%
Office paper	36	24	-33.33%
Phone books	248	174	-29.84%
Plastics	538	603	12.08%
Tires	55	95	72.73%
Wood products			
Pallets	10	3	-70.00%
Wood	118	179	51.69%
Yard debris	-640	681	6.41%

*Drop centers includes transfer stations and recycling depots.

**Curbside includes garbage and recyclables.

***Hauler information reflects inquiries about hauler service areas.

****Illegal dumping report began in August of 1997.

Metro Recycling Information

Out of Region Report

November 1997

Total calls	119
Number of work days	23
Average per day	5

Source of Calls By County	Number of HW Calls	Number of Other Calls	Total Calls
Baker County	0	0	0
Benton County	6	2	8
Clatsop County	0	3	3
Columbia County	8	27	35
Coos County	0	2	2
Crook County	0	0	0
Curry County	0	0	0
Deschutes County	0	0	0
Douglas County	0	1	1
Gilliam County	0	0	0
Grant County	0	0	0
Harney County	0	0	0
Hood River County	0	0	0
Jackson County	0	1	1
Jefferson County	0	0	0
Josephine County	0	0	0
Klamath County	0	0	0
Lake County	0	0	0
Lane County	13	2	15
Lincoln County	0	0	0
Linn County	1	0	1
Malheur County	0	0	0
Marion County	5	4	9
Morrow County	0	0	0
Polk County	0	0	0
Sherman County	0	0	0
Tillamook County	2	0	2
Umatilla County	0	0	0
Union County	0	0	0
Wallowa County	0	0	0
Wasco County	0	0	0
Wheeler County	0	0	0
Yanhill County	10	32	42

Metro Recycling Information

Portland Call Record Report

Total Calls by Material, November 1997

Material	Drop Centers	Pickup	Curb- side	Markets	Reuse	Pur- chase	Infor- mation	Mail- ings	Calls from Business	Hauler Infor- mation	Total
Antifreeze	40	1	0	0	0	0	3	1	3	0	48
Aseptic containers/milk cartons	1	0	4	0	0	0	0	0	0	0	5
Batteries	11	0	0	0	0	0	2	1	1	0	15
Christmas trees	1	0	0	0	0	0	1	0	0	0	2
Fill material	69	1	0	0	1	0	10	0	2	1	84
Garbage	613	9	41	1	1	0	64	5	12	9	755
Glass	19	1	6	1	0	0	4	1	1	1	34
Hazardous waste											
Business hazardous waste	0	0	0	0	0	0	0	0	36	0	36
Household hazardous waste	393	10	9	0	2	5	29	35	0	0	483
Pesticide alternatives	0	0	0	0	1	1	3	3	1	0	9
Special waste*	34	1	1	0	0	0	15	2	6	1	60
Home composting	9	4	1	0	1	30	36	44	2	1	128
Metals											
Aluminum	11	1	7	6	0	0	2	0	2	0	29
Appliances	80	17	0	0	0	0	3	0	0	1	101
Scrap metal	78	21	14	14	0	0	9	0	8	3	147
Tin cans	8	0	5	0	0	0	1	0	0	0	14
Miscellaneous	97	4	2	0	14	4	70	0	14	2	207
Motor oil	27	6	2	0	1	0	4	2	7	0	49
Paper											
Cardboard	40	2	5	5	1	0	6	0	1	3	63
Magazines	27	0	11	1	0	0	3	0	1	1	44
Mixed waste paper	36	1	15	0	0	0	7	2	2	2	65
Newspapers	28	0	3	1	0	0	1	0	1	2	36
Office paper	3	8	1	0	0	0	1	2	9	0	24
Phone books	27	1	93	0	0	2	7	0	7	0	137
Plastics	248	3	20	0	2	5	48	7	8	3	344
Tires	42	1	1	0	0	0	3	0	2	0	49
Wood Products											
Pallets	1	0	0	1	0	0	0	0	0	0	2
Wood	113	1	2	0	1	3	11	3	1	2	137
Yard debris	365	17	56	0	0	3	70	8	3	23	545
Illegal dumping	0	0	0	0	0	0	10	0	0	0	10
Total	2421	110	299	30	25	53	423	116	130	55	3662

*Special waste includes items such as asbestos, railroad ties and petroleum contaminated soil.

Metro Recycling Information

Multnomah County Call Record Report

Total Calls by Material, November 1997

Material	Drop Centers	Pickup	Curb- side	Markets	Reuse	Pur- chase	Infor- mation	Mail- ings	Calls from Business	Hauler Infor- mation	Total
Antifreeze	7	0	0	0	0	0	0	0	0	0	7
Aseptic containers/milk cartons	0	0	0	0	0	0	0	0	0	0	0
Batteries	0	0	0	0	0	0	0	0	0	0	0
Christmas trees	0	0	0	0	0	0	1	0	1	0	2
Fill material	3	0	0	0	0	0	0	0	0	0	3
Garbage	42	1	3	0	1	0	5	0	0	1	53
Glass	6	0	1	0	0	0	1	0	0	0	8
Hazardous waste											
Business hazardous waste	0	0	0	0	0	0	0	0	0	0	0
Household hazardous waste	12	0	0	0	0	0	0	0	0	0	12
Pesticide alternatives	0	0	0	0	0	0	0	0	0	0	0
Special waste*	1	0	0	0	0	0	0	0	0	0	1
Home composting	1	0	0	0	0	5	13	18	0	0	37
Metals											
Aluminum	0	0	0	2	0	0	1	0	0	0	3
Appliances	6	2	0	0	0	0	0	0	0	0	8
Scrap metal	7	3	0	2	0	0	1	0	0	0	13
Tin cans	4	0	0	0	0	0	0	0	0	0	4
Miscellaneous	7	0	0	0	0	1	9	4	0	0	21
Motor oil	5	0	0	0	0	0	0	0	0	0	5
Paper											
Cardboard	7	0	0	0	0	0	0	0	0	0	7
Magazines	1	0	0	0	0	0	0	0	0	0	1
Mixed waste paper	4	0	2	0	0	0	3	2	0	1	12
Newspapers	4	0	0	0	0	1	0	1	0	1	7
Office paper	0	1	0	0	0	0	0	0	1	1	3
Phone books	2	1	0	0	0	0	0	0	1	0	4
Plastics	24	0	3	0	0	1	5	0	0	0	33
Tires	5	0	0	0	0	0	0	0	0	0	5
Wood Products											
Pallets	0	0	0	0	0	0	0	0	0	0	0
Wood	5	0	0	0	1	0	1	0	0	0	7
Yard debris	19	1	1	0	0	0	2	0	0	1	24
Illegal dumping	0	0	0	0	0	0	0	0	0	0	0
Total	172	9	10	4	2	8	42	25	3	5	280

*Special waste includes items such as asbestos, railroad ties and petroleum contaminated soil.

Metro Recycling Information

Washington County Call Record Report

Total Calls by Material, November 1997

Material	Drop Centers	Pickup	Curb- side	Markets	Reuse	Pur- chase	Infor- mation	Mail- ings	Calls from Business	Hauler Infor- mation	Total
Antifreeze	14	3	0	0	0	0	3	0	0	0	20
Aseptic containers/milk cartons	0	0	0	0	0	0	0	0	0	0	0
Batteries	7	0	0	0	0	0	0	0	0	0	7
Christmas trees	0	0	0	0	0	0	1	0	0	0	1
Fill material	3	0	0	1	0	1	0	0	0	0	5
Garbage	98	0	9	0	0	0	16	0	3	4	130
Glass	9	0	0	0	0	0	0	1	0	0	10
Hazardous waste											
Business hazardous waste	0	0	0	0	0	0	0	0	14	0	14
Household hazardous waste	167	1	3	0	0	2	9	24	0	0	206
Pesticide alternatives	1	0	0	0	0	0	0	1	0	0	2
Special waste*	4	0	0	0	0	0	5	1	0	0	10
Home composting	1	0	0	0	0	4	3	7	0	0	15
Metals											
Aluminum	5	0	0	5	0	0	4	0	1	0	15
Appliances	22	8	0	0	0	0	1	0	0	0	31
Scrap metal	21	5	3	6	0	0	2	0	1	1	39
Tin cans	3	0	3	0	0	0	1	0	0	0	7
Miscellaneous	14	4	1	0	4	0	19	1	3	2	48
Motor oil	19	2	0	0	0	0	1	0	1	0	23
Paper											
Cardboard	14	0	0	0	0	0	1	1	1	2	19
Magazines	6	1	6	0	0	0	1	1	0	0	15
Mixed waste paper	9	2	3	1	0	0	3	2	3	0	23
Newspapers	11	2	2	0	0	0	0	1	2	0	18
Office paper	2	3	0	0	0	0	2	0	3	2	12
Phone books	5	2	11	0	0	0	4	0	3	1	26
Plastics	87	0	7	0	0	0	17	1	4	2	118
Tires	9	0	0	0	0	0	0	0	0	0	9
Wood Products											
Pallets	0	0	0	0	0	0	0	0	0	0	0
Wood	12	0	0	0	1	0	1	0	1	0	15
Yard debris	63	7	1	0	0	0	10	0	2	0	83
Illegal dumping	0	0	0	0	0	0	6	0	0	0	6
Total	606	40	49	13	5	7	110	41	42	14	927

*Special waste includes items such as asbestos, railroad ties and petroleum contaminated soil.

Metro Recycling Information

Clackamas County Call Record Report

Total Calls by Material, November 1997

Material	Drop Centers	Pickup	Curb- side	Markets	Reuse	Pur- chase	Infor- mation	Mail- ings	Calls from Business	Hauler Infor- mation	Total
Antifreeze	11	0	0	0	0	0	1	0	0	0	12
Aseptic containers/milk cartons	2	0	0	0	0	0	0	0	0	0	2
Batteries	8	0	0	0	0	0	1	0	0	0	9
Christmas trees	0	0	0	0	0	0	0	0	0	0	0
Fill material	18	3	0	0	1	2	1	0	0	0	25
Garbage	307	1	8	0	0	0	40	0	7	5	368
Glass	10	0	1	0	0	0	2	0	1	0	14
Hazardous waste											
Business hazardous waste	0	0	0	0	0	0	0	0	18	0	18
Household hazardous waste	157	5	2	0	0	3	14	11	0	0	192
Pesticide alternatives	0	0	0	0	0	0	1	1	0	0	2
Special waste*	13	0	0	0	0	0	5	3	2	0	23
Home composting	0	0	0	0	0	4	5	2	0	0	11
Metals											
Aluminum	3	0	1	0	0	0	0	0	0	0	4
Appliances	58	5	0	0	0	0	6	3	1	0	73
Scrap metal	46	6	1	3	0	2	1	0	1	1	61
Tin cans	2	0	0	0	0	0	0	0	0	0	2
Miscellaneous	22	1	1	0	8	1	19	1	0	0	53
Motor oil	15	2	3	0	0	0	1	0	0	0	21
Paper											
Cardboard	20	2	0	2	0	0	2	1	0	3	30
Magazines	7	0	3	0	0	2	1	0	0	0	13
Mixed waste paper	12	0	4	0	0	2	0	0	0	0	18
Newspapers	5	0	1	2	0	0	0	0	0	0	8
Office paper	0	0	0	1	0	0	0	0	0	0	1
Phone books	12	0	7	0	0	0	3	1	0	1	24
Plastics	94	0	4	0	1	1	20	4	2	1	127
Tires	30	0	1	0	0	0	3	3	0	0	37
Wood Products											
Pallets	1	1	0	0	0	0	0	0	0	0	2
Wood	31	1	0	0	1	1	3	0	0	0	37
Yard debris	57	2	2	0	1	1	11	0	0	0	74
Illegal dumping	0	0	0	0	0	0	2	0	0	0	2
Total	941	29	39	8	12	19	142	30	32	11	1263

*Special waste includes items such as asbestos, railroad ties and petroleum contaminated soil.

Metro Recycling Information

Media Summary

November 1997

Codes	Clackamas County	Multnomah County	Washington County	Portland	Outof Area	Unknown	Total
1	7	3	3	28	2	0	43
2	3	0	1	14	0	1	19
3	1	0	3	5	0	0	9
4	819	196	618	2623	24	394	4674
5	22	1	19	69	0	12	123
6	7	5	7	50	0	4	73
7	61	2	10	42	0	30	145
8	0	0	4	2	0	2	8
9	147	30	122	458	5	75	837
10	2	0	0	0	0	0	2
11	0	0	1	13	1	0	15
12	1	0	2	24	0	3	30
13	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0
15	0	0	0	2	0	1	3
16	0	0	0	2	0	0	2
17	1	0	1	1	0	0	3
18	0	0	0	0	0	404	404
19	3	1	2	12	1	3	22
20	7	1	6	19	1	29	63
21	0	0	0	1	0	0	1

Media Codes

- | | |
|--|--------------------------------|
| 1 Newspaper | 12 Word of mouth |
| 2 Television | 13 Washington County Wasteline |
| 3 Radio | 14 SOLV-IT campaign |
| 4 Phone book | 15 Oregonian Inside Line |
| 5 Recyclers or haulers | 16 Magnet |
| 6 Local governments or DEQ | 17 1-800 Call(h2w or other) |
| 7 Metro Central/South tapes or brochures | 18 No response given |
| 8 Other (anything not listed) | 19 Compost Bin Distribution |
| 9 Called before/just knew of us | 20 Earth Day Events |
| 10 Direct mail piece | 21 Current campaign |
| 11 Current publication, handout | |