



METROPOLITAN SERVICE DISTRICT  
527 S.W. HALL ST., PORTLAND OR. 97201, 503/221-1646

## A G E N D A -- REGULAR COUNCIL MEETING

Date: December 3, 1981  
Day: Thursday  
Time: 6:30 PM - Informal Discussion  
7:30 PM - Regular Council Meeting  
Place: Council Chamber

CALL TO ORDER

ROLL CALL

1. Introductions.
2. Written Communications to Council.
3. Citizen Communications to Council on Non-Agenda Items.
4. Consent Agenda:

Coordinating Committee Recommendations:

- 4.1 Resolution No. 81-289, For the Purpose of Confirming the Appointment of the Deputy Executive Officer.

5. Ordinances:

- 5.1 Public Hearing on Ordinance No. 81-122, For the Purpose of Establishing a New Rate for St. John's Landfill and Amending Code Section 4.06.010 and Ordinance No. 81-106. (First Reading) (7:35)\*
- 5.2 Ordinance No. 81-121, For the Purpose of Amending the Regional Waste Treatment Management Plan and Submitting the Plan for Recertification. (Second Reading) (7:50)\*

6. Reports:

- 6.1 Executive Officer's Report. (7:55)\*
- 6.2 Committee Reports. (8:10)\*

ADJOURN (8:25)\*

\*Times listed are approximate.



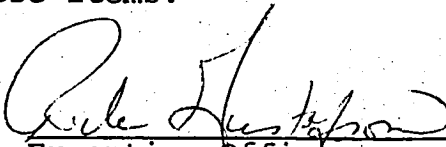
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### C O N S E N T A G E N D A

The following business items have been reviewed by the staff and an officer of the Council. In my opinion, these items meet with the Consent List Criteria established by the Rules and Procedures of the Council. The Council is requested to approve the recommendations presented on these items.

  
\_\_\_\_\_  
Executive Officer

- 4.1 Resolution No. 81-289, For the Purpose of Confirming the Appointment of the Deputy Executive Officer.

A G E N D A   M A N A G E M E N T   S U M M A R Y

TO: Metro Council  
FROM: Executive Officer *WLB*  
SUBJECT: Confirming the Appointment of the Deputy Executive Officer

I. RECOMMENDATIONS:

- A. ACTION REQUESTED: Recommend approval of the attached Resolution for the purpose of confirming the appointment of Don Carlson, a candidate for the position of Deputy Executive Officer.
- B. POLICY IMPACT: The recommendation is consistent with the Personnel Rules, which require Council to confirm this position.
- C. BUDGET IMPACT: The FY 1982 Metro budget includes funds to support this position.

II. ANALYSIS:

- A. BACKGROUND: Article 2, Sec. 8 E of the Metro Personnel Rules requires confirmation by a majority of the Council of a candidate considered for the position of Deputy Executive Officer prior to appointment. This position was approved in the FY 1982 budget and provides support to the Executive Officer in administering Metro's interal organization and in the formulation of policy.
- B. ALTERNATIVES CONSIDERED: Over 100 applications were received for this position and interviews took place over a three-month period. After preliminary screening, several candidates were interviewed by a Committee consisting of Rick Gustafson, Executive Officer, Councilor Mike Burton, and Dick Davis, Assistant Vice President, Pacific Northwest Bell.

The Committee agreed that Don Carlson met the necessary criteria and would work effectively with the Executive Officer, the Council and Metro staff.

- C. CONCLUSION: Approve the appointment of Don Carlson as Deputy Executive Officer.

RG/srb  
4542B/283  
11/09/81



**METROPOLITAN SERVICE DISTRICT**  
527 SW HALL ST., PORTLAND, OR. 97201 • 503/221-1646

an equal opportunity employer

**Recruiting for:**

DEPUTY EXECUTIVE OFFICER

095

**SALARY:**

\$33,717-\$41,091

**DUTIES:**

Under the general direction of the elected Executive Officer and subject to pertinent laws and Council policies, directs Metro's internal organization and assists the Executive Officer and Council in the formulation of policy. Performs the Executive Officer's functions in his/her absence.

**QUALIFICATIONS:**

Knowledge of: work planning techniques; urban planning techniques; local, state and federal planning laws; finance and budget, grant and general management techniques; personnel administration; and political decision-making process.

Ability to: work effectively with a political decision-making body; create and innovate alternative solutions to problems facing a political decision-making body; manage a diversified organization operation involving the management of work programs, budgets and personnel; carry out the policies and programs of a policy setting body; work effectively with subordinates, the Executive Officer, Council and other elected officials, representatives of other governmental agencies, business and civic groups and the general public in carrying out the work of the agency; interrelate with all levels of public officials and speak and write effectively.

Possession of a Bachelor's degree in Urban Planning, Economics, Business, Public Administration or similar field and six years of experience in a high level management position with experience in organizational management and operations, personnel and labor relations, public budgeting and finance, and public relations or a Master's degree and four years of experience in a related field.

\* Subject to change after cost of living adjustment is determined.

**SUPPLEMENTAL  
REQUIREMENT:**

All applicants are required to submit a brief written statement in response to the following three questions as a part of the application form:

1. Please describe your administrative experience and style of management.
2. Please describe your experience in working with the private sector on projects or matters involving development.
3. Please describe your experience in working for the public sector or working with officials of the public sector.

**APPLY:**

Deliver completed application form to the Personnel Officer, Metropolitan Service District, 527 S.W. Hall Street, Portland, OR 97201.

**LAST FILING DATE:**

Open until a sufficient number of applications are received. Recruitment may be closed without further notice.

SW:cjv

BEFORE THE COUNCIL OF THE  
METROPOLITAN SERVICE DISTRICT

FOR THE PURPOSE OF CONFIRMING THE )  
APPOINTMENT OF THE DEPUTY )  
EXECUTIVE OFFICER )

RESOLUTION NO. 81-289  
Introduced by the Council  
Coordinating Committee

WHEREAS, The Personnel Rules adopted by the Council require that the Council confirm the appointment of a candidate to the position of Deputy Executive Officer; now, therefore,

BE IT RESOLVED,

That the appointment of Don Carlson is confirmed by a majority of the Metro Council.

ADOPTED by the Council of the Metropolitan Service District  
this \_\_\_\_\_ day of November, 1981.

\_\_\_\_\_  
Presiding Officer

RG/srb  
4542B/283  
11/09/81

# Donald E. Carlson

Address: 6555 SE 34th Avenue  
Portland, OR 97202

Telephone: 771-7623 (home)  
229-5307 (work)

Date of birth: February 25, 1941

Marital status: Married Darlene M. Kroll  
June 18, 1963  
Two children - Leslie 16  
Christopher 12

## EDUCATION

Syracuse University, Maxwell School of Citizenship & Public Affairs,  
Syracuse, New York. Masters Degree in Public Administration, 1964.

Linfield College, McMinnville, Oregon. B.A. in Political Science, 1963.

## EMPLOYMENT

Portland Metropolitan Area  
Local Government Boundary  
Commission, Portland, Oregon

Executive Officer (Jan. 1973 - present).  
Director of 11 member citizens' commission  
appointed by Governor. Achieved  
significant staff work at minimal budgeted  
cost by effectively utilizing CETA program,  
motivating staff. Directed agency in  
period of rapid expansion in workload  
involving a 2½ fold increase in proposals.  
Responsible for administration of state  
statutes governing boundary changes, for  
preparation and execution of agency budget,  
and for hiring, training, and termination  
of employees.

Portland Metropolitan Area  
Local Government Boundary  
Commission, Portland, Oregon

Administrative Analyst (Jan. 1970 -  
Dec. 1972). Researched and wrote staff  
reports on proposals; drafted Commission  
Final Orders; prepared documents for  
distribution to state legislators and  
local government officials.

Portland Metropolitan Study  
Commission, Portland, Oregon

Research Associate (March 1968 - Dec. 1969).  
Principal staff analyst to Commission.  
Staffed Intergovernmental Cooperation  
Committee during successful merger of  
City of Portland and Multnomah County  
Health Departments.

Bureau of Governmental Research  
and Service, University of  
Oregon, Eugene, Oregon

Research Assistant (August 1964 - Feb. 1968).  
Director of Bureau's Portland City  
Hall Office. Provided information and  
assistance to local government officials  
and agencies in Portland Metropolitan Area.

Linfield College,  
McMinnville, Oregon

Instructor (Sept. 1967 - Jan. 1968).  
Taught course entitled, "Introduction to  
Public Administration".

#### PROJECTS AND ACTIVITIES

Currently elected member of Board of Directors of the Eastmoreland  
Neighborhood Association.

Manager, 1978 Mt. Hood Little League Senior Girls All Star Softball  
Team.

Group facilitator, Creative Initiative Foundation, non-profit  
educational foundation, 1970 - 1977.

#### PROFESSIONAL AFFILIATIONS

American Society for Public Administration, Oregon Chapter.

Western Governmental Research Association, State Representative 1976-77.

References available on request



September 2, 1981

Rick Gustafson  
Executive Officer  
Metropolitan Service District  
527 SW Hall Street  
Portland, Oregon 97201

Dear Rick:

Thanks for the information regarding application requirements for the Deputy Executive Officer position. Please find attached my response to the questions listed in the "Supplemental Requirements" section of the announcement.

I look forward to further discussing this position with you in the near future. If you need additional information, please let me know.

Sincerely,



Donald E. Carlson  
6555 SE 34th Avenue  
Portland, Oregon 97202

SUPPLEMENTAL REQUIREMENT

Donald E. Carlson

September 2, 1981

1. Please describe your administrative experience and style of management.

My administrative experience began immediately after graduate school when I accepted a position as Research Assistant with the Bureau of Governmental Research and Service with the University of Oregon. I was placed in charge of the Bureau's Portland office and had the responsibility to set up the office, hire and supervise a part-time secretary and establish a work program. The purpose of the office was to conduct research projects of interest to local government in the Portland metropolitan area and through partial funding from the League of Oregon Cities to provide research assistance to the Portland City Commissioners. Projects initiated and conducted by me led to the following Bureau publications:

Municipal Water and Sewerage Service in the Tri-County Area,  
Bureau of Governmental Research and Service, University of Oregon, 1965.

Local Intergovernmental Cooperation in the Tri-County Area,  
Bureau of Governmental Research and Service, University of Oregon, 1966,

In addition, in response to requests from the former City Commissioner of Public Works, Bill Bowes, I conducted projects which led to publication of the following memoranda:

"Memorandum on the Municipal Regulation of Manned Newstands and Newspaper Coin Boxes", Bureau of Governmental Research and Service, 1965.

"Memorandum on Underground Utility Placement Patterns and Use of Precast Structures in Underground Utility Construction", Bureau of Governmental Research and Service, 1967.

My next work experience was with the Portland Metropolitan Study Commission. While I did not have any direct supervisory role over personnel, I did have responsibility for managing the work of the Commission's Intergovernmental Cooperation Committee. The work of this citizens' committee led to the successful contractual merger of the City of Portland and Multnomah County Health Departments. We also instigated the merger of the City and County Planning Departments. Memoranda prepared by me for this committee included:

"Report of the Chairman of the Intergovernmental Cooperation Committee on Proposed Merger of City and County Health Departments," Portland Metropolitan Study Commission, March 7, 1968.

"Additional information on City of Portland and Multnomah County Planning Commissions and Departments," Portland Metropolitan Study Commission, May 8, 1968.

"Differences between the City and County in the Functional Area of Planning and Zoning," Portland Metropolitan Study Commission, August 8, 1969.

"Alternatives for Merging or Consolidating City and County Planning Commissions and Staffs," Portland Metropolitan Study Commission, October 7, 1969.

My principal administrative experience has been gained with the Portland Metropolitan Area Local Government Boundary Commission. As Executive Officer for the past 9 years, I have been responsible for managing the Commission's program. Specific responsibilities have been the recruitment, hiring, and supervision of staff which has varied in size from 4 to 8 persons; preparation and implementation of the Commission's work programs and budget; development of policies and procedures for smooth and expeditious processing of boundary changes; preparation and lobbying for the Commission's legislative program; representing the Commission at various meetings of citizens and civic groups.

Accomplishments include: hiring and training of core staff of four people which has an accumulated experience of 37 years with the Commission; handling a 2 1/2 fold increase in case load with core staff and no increase in processing time and improving the quality of the staff reports; reduction in number of governmental units in the Portland Metro area under the Commission's jurisdiction from approximately 300 in 1969 to 120 in 1981; initiating or assisting on the following special projects:

National Study of Two Tiered Metropolitan Government.

Sponsored by the National Academy of Public Administration Foundation. Supervision of the grant application entitled "Proposal to participate in a National Study of Two Tiered Metropolitan Government." Supervision of the on-site interviews of the national selection panel. June 1975 to December 1975. Effort culminated in selection of Portland Metropolitan area for \$100,000 study grant and eventual establishment of Tri-County Local Government Commission.

The Oak Lodge Study Sponsored by the Portland Metropolitan Area Boundary Commission. Supervision of a study of local government services and structure in the Oak Lodge area of Clackamas County. Study conducted by two member professional

staff in conjunction with local citizens committee. Numerous reports prepared and printed. September 1977 to November 1978.

The Cedar Hills Study. Conducted by the Portland Metropolitan Area Boundary Commission at the request of the Cedar Hills Homes Association. Supervision of a study of fiscal, organizational and service impacts of annexation to the City of Beaverton. Study conducted by two member staff in conjunction with a local citizens' committee. Numerous reports prepared and printed. June 1979 to October 1979.

The North Clackamas-Milwaukie Consolidation Study. Conducted by the Portland Metropolitan Area Boundary Commission at the request of the North Clackamas Special Districts. January 1980 to March 1980.

My most recent focus has been on the survival of the Boundary Commission. We have managed to keep processing proposals in a timely and orderly fashion and withstand gubernatorial and legislative efforts to abolish the Commission. Local government and legislative support has been mustered to retain the Commission as a viable agency. I am now in the process of managing the transition of the Boundary Commission from a state funded state agency to a locally funded state agency.

\* \* \* \* \*

One of the most rewarding and valuable experiences in my years with the Boundary Commission has been the professional relationship I have enjoyed with the commissioners, both as a group and individually. I have worked for approximately fifty commissioners with different backgrounds and points of view. I have been well received, and my work appreciated and praised. The Commission has certainly not always followed staff recommendations, but they have always been provided with accurate and complete information with which to make a decision. We have respected one another and worked hard to achieve fair and rational public decisions. They have been supportive and loyal through the most trying times.

My management style is largely based on two basic principles, one external and the other a personal characteristic. It has been my experience that people want something meaningful to do. I personally want to make a difference, make a positive contribution in my work, and so do most people. I think this is a basic fact which should be understood by all managers. In addition, a personal characteristic of mine is that I like people. I respect them, their individuality, different points of view. I trust them.

In managing the affairs of the Commission, I encourage my individual staff members to identify with the goals and purpose of the Commission. This has been done by giving them opportunities to explain the work of the agency to individuals and groups, by assigning cases to them which they are totally responsible for, including active participation with the Commission at public hearings.

I encourage staff members to participate in decisions which affect the agency. I value highly good dialogue with staff. This is particularly important in policy decisions or interpretations of statutes which will affect staff recommendations to the Commission.

I encourage staff members to assume greater amounts of responsibility in their particular area of work. I encourage them to make the most of their specific job so they will continue to "grow" in and with the agency.

I assign work through consultation with staff and monitor it closely. When errors or omissions are made, I require the staff to make corrections or to "dig a little deeper" for maximum learning. When a job is well done, I give positive reinforcement.

I attempt to be open and accessible to my staff for advice and critique. If something is bothering someone, I want it expressed and discussed and a resolution reached. When personnel problems or behavior patterns occur which are detrimental to the functioning of the agency, I attempt to confront the matter directly with those involved. I will give a person a chance to correct the behavior and improve the situation.

I expect my staff to be rigorous in their tasks and to always give their very best.

2. Please describe your experience in working with the private sector on projects or matters involving development.

A great deal of the Boundary Commission's work deals with private individuals and companies on projects or matters involving development. Most of the boundary change proposals (as of 8/24/81 we have considered 1,750 proposals) are initiated by property owners who wish to develop their property in some manner. I have worked personally with individuals desiring to develop a single lot and representatives of large development concerns, including residential, commercial and industrial developers. My initial task usually is to clearly explain to developers the boundary change process and the difficulties they might encounter either from community groups or interjurisdictional difficulties. We are aware of whether or not the specific jurisdictions can provide an adequate quantity and quality of services. Many of these contacts occur prior to any proposal being initiated. Once a proposal is initiated, we attempt to inform a developer as soon as possible if we (staff) have concerns about the proposal. It is my point of view that any property owner or developer should have as much time as possible or opportunity to make his case to staff or the Commission. It is our responsibility to clearly state deficiencies or problems with the proposal so answers or the right information can be obtained.

Within the past two years, the staff of the Boundary Commission has served individual developers and the development community by guiding them through the boundary change portion of the development process. This is particularly true for proposals within the Urban Growth Boundary where conflicts between governmental jurisdictions and community planning groups are increasing. There are an increasing number of "turf" battles occurring which have very little to do with the proposed development but occur at the time a boundary change is proposed. I have attempted to resolve the dispute or provide information to make a decision which will assist the change to occur so development can take place in an orderly fashion. My viewpoint has shifted in the instances of proposals within the Urban Growth Boundary from that of a "regulator" to one of "helper." An example of this is my recent experience mediating a conflict between the City of Gresham and the Lusted Water District. At the request of the Metropolitan Homebuilders Association, I facilitated the negotiation of a contract between both jurisdictions which led to the withdrawal of the area under dispute from the district by the city. The city took over the lines and responsibility for serving the area but continued to buy water from the district which assures their viability. Without the amicable resolution of the dispute, a moratorium on new construction in the area would have continued much to the detriment of orderly development in the region.

3. Please describe your experience in working for the public sector or working with officials of the public sector.

Much of the answer to this question is included in the answers to the previous two questions. It should be noted that because of the nature of the boundary change process, I have come in contact with many public officials in this region. It is not unusual for the issues involved in a boundary change to cut across local, regional, state and occasionally federal levels, thus necessitating contact with officials at all points. Included are contacts with elected officials and staff. The contact with local elected officials has involved for the most part discussions of the purpose, policies and procedures of the Commission. Some contacts have been in an effort to gain local support for the continued operation of the Commission. Contacts with local, regional, state and federal bureaucrats mostly involve the garnering of information from the agency affected by a boundary change. I have dealt with EPA officials in Portland and Seattle regarding federal funding policies for sewers; Farmers Home Administration regarding funding for water systems. Our principal state agency contacts have been with DEQ, Health Division, Department of Land Conservation and Development, and the Department of Transportation. Regional agency contacts are principally Metro and occasionally with Tri-Met and the Port of Portland. We are in daily contact with local government officials regarding the services provided by specific jurisdictions. For the most part, the contacts made and relationships developed with various public officials have been good, useful and mutually beneficial.

The relationships are good, from my point of view, because I value and respect those people and institutions and the services they provide. During the past four years I also have made numerous contacts with state legislators to provide information on the purpose and function of the Commission. Again, the relationships developed have been for the most part good.

A G E N D A   M A N A G E M E N T   S U M M A R Y

TO: Metro Council  
FROM: Regional Services Committee *Q16*  
SUBJECT: Establishing Disposal Charges to be Collected at the  
St. Johns Landfill

I. RECOMMENDATIONS:

- A. ACTION REQUESTED: Recommend adoption of Ordinance No. 81-122 for the purpose of establishing disposal charges to be collected at the St. Johns Landfill. The proposed rate for commercial solid waste will increase seven percent from \$9.73 per ton to \$10.41 per ton and the proposed rate for special waste (City of Portland sewage sludge) will remain at \$9.73 per ton. The proposed rate will increase from \$3.60 to \$4.00 for cars, \$4.50 to \$5.00 for pickup trucks, \$1.76 to \$2.00 for extra yards above the minimums and no increases for tires. These rates include the Metro User Fee.
- B. POLICY IMPACT: Adoption of this Ordinance will establish new disposal rates at the St. Johns Landfill beginning January 1, 1982. The new disposal rates reflect all cost associated with operating the St. Johns Landfill except about \$700,000 remaining in the final cover fund and the cost of the 55-acre expansion which will be paid by all waste generators within Metro, through Metro's User Fee.
- C. BUDGET IMPACT: Adoption of this Ordinance will provide sufficient monies to operate the St. Johns Landfill and is consistent with the adopted 1981-82 budget. Sufficient revenue will be collected through the user fee to meet all debt service associated with the expansion of the site.

II. ANALYSIS:

- A. BACKGROUND: For the past year, Metro has maintained and operated the St. Johns Landfill. A rate analysis performed in 1980, indicated that if Metro expanded and operated the landfill the rate would be \$10.70 per ton.

As a result, Metro assumed control of the operation at St. Johns Landfill June 1, 1980. In order to continue operating the landfill and to provide sufficient time to prepare specifications for obtaining a long-term contractor, it was necessary to obtain the services of an Interim Contractor for the period June 1 to October 1, 1980.



Based on rates charged at St. Johns, when Metro assumed control, an increase in rates was required. In September, 1980, the Metro Council adopted Ordinance No. 80-100 increasing the rates effective October 1, 1980, and changed the method of charging for commercial solid waste to a weight basis effective April 1, 1981.

Concurrent with the October 1, 1980 increase Easley and Brassy/Genstar Conservation Systems - A Joint Venture (Genstar) commenced a five-year contract for the operation of the landfill. Based on an escalation clause in that contract all items increase in price annually. The projected increase for the first year is estimated to be about nine percent.

The increase in contract items as well as administrative cost, Gatehouse operations and other contract obligation are increasing faster than the projected seven percent increase in rates but the increases are partially offset because as volume increases at St. Johns Landfill the per ton rate paid to Genstar to operate the landfill decreases.

The anticipated increase in volume will result from several major changes in the Metro area solid waste system. These include a projected rate increase at Rossman's Landfill in Oregon City to \$13.50 per ton on January 1, 1982, closure of Rossman's Landfill in mid to late 1982, an increase in the digested sewage sludge from the City of Portland and the opening of the Clackamas Transfer & Recycling Center (CTRC).

- B. ALTERNATIVES CONSIDERED: Several alternatives were considered regarding both the amount of the increase and the effective date.

The first alternative is to delay an increase in the rates at St. Johns Landfill. Under this scenario it is anticipated that an even larger portion of the waste currently using the Rossman's Landfill would shift to St. Johns and other sites in or near the Metro area. This would put a greater burden on the expected lives of the other landfills while increasing the life at Rossman's. This would delay the implementation of Phase III methane gas collection system to be installed at Rossman's to control the odors in the surrounding area. It is anticipated that about 65 percent of any shift in waste away from Rossman's would go to St. Johns. If the quantities did not increase the future rate would have to be higher to recover any loss in revenues.

The second alternative is to implement a uniform rate, which is currently anticipated to coincide with the opening of the CTRC, immediately. This would have to be accomplished through the Metro User Fee, as Metro does not have authority over the base rate at Rossman's Landfill.

The Metro Code allows for inert material to be disposed free of charge if it will be used in the operation of the site. Since other types of non-inert materials are used in the operation, the no-charge policy was extended to include these materials. The proposed rates reflect this policy as it pertains to the use of dried digested sewage sludge as a final cover. The projected rate of \$9.73 for the City of Portland's sludge includes all cost to Metro to accept and dry the material from about a 16 percent solids content to about 50 percent. The difference between \$10.41 per ton for commercial solid waste and the \$9.73 for City of Portland's sludge is the anticipated savings to Metro in not having to purchase about 13,500 cubic yards of topsoil as final cover.

- C. RATE IMPACT: The proposed rate will result in an increase of about .04¢/Month in a residential customer's garbage bill for one can weekly service. The seven percent increase in disposal rates is significantly less than the rate of inflation.

For those who deliver waste to the landfill in cars, the rate will be \$4.00 per load up from the existing \$3.60 per load. Rates for pick-up truck loads will increase from \$4.50 to \$5.00 per load. This increase is about 11 percent and more accurately reflects the cost of the public receiving station.

- D. CONCLUSION: It is recommended that rates be adjusted, effective January 1, 1982, to reflect all operational cost associated with the operation of the St. Johns Landfill. The Solid Waste Policy Alternatives Committee has reviewed the proposed rate adjustments at St. Johns and unanimously recommends the adjustments effective January 1, 1982.

TC/gl  
4485B/283  
11/19/81

BEFORE THE COUNCIL OF THE  
METROPOLITAN SERVICE DISTRICT

FOR THE PURPOSE OF ESTABLISHING )  
A NEW RATE FOR ST. JOHNS )  
LANDFILL AND AMENDING CODE )  
SECTION 4.06.010 AND ORDINANCE )  
NO. 81-106 )

ORDINANCE NO. 81-122

THE COUNCIL OF THE METROPOLITAN SERVICE DISTRICT HEREBY ORDAINS:

Section 1:

Metro Code Section 4.06.010 as amended by Ordinance Nos. 80-96, 80-100 and 81-106 is hereby amended to read:

"A base disposal rate of \$9.08 per ton of solid waste delivered is established for disposal at the St. Johns Landfill. Said rate is in addition to user fees collected at the St. Johns Landfill pursuant to Code Section 4.03.020. The minimum charge for commercial vehicles shall be one ton. The following disposal charges shall be collected by the Metropolitan Service District from all persons disposing of solid waste at the St. Johns Landfill:

VEHICLE CATEGORY	BASE RATE		METRO FEE		TOTAL RATE	
	\$/TON	\$/CY	\$/TON	\$/CY	\$/TON	\$/CY
<b>COMMERCIAL</b>						
Compacted	<u>\$9.08</u>	<u>\$2.68</u>	\$1.33	\$0.34	<u>\$10.41</u>	<u>\$3.02</u>
Uncompacted	<u>9.08</u>	<u>1.14</u>	1.33	0.20	<u>10.41</u>	<u>1.34</u>
City of Portland Sewage Sludge	8.40	6.55	1.33	0.20	9.73	6.75
<b>PRIVATE</b>						
Cars <sup>1</sup>	<u>3.55</u>		0.45		<u>4.00</u>	
Station Wagons <sup>1</sup>	<u>3.55</u>		0.45		<u>4.00</u>	
Vans <sup>2</sup>	<u>4.55</u>		0.45		<u>5.00</u>	
Pick-ups <sup>2</sup>	<u>4.55</u>		0.45		<u>5.00</u>	
Trailers <sup>2</sup>	<u>4.55</u>		0.45		<u>5.00</u>	

<sup>1</sup>Based on minimum load of two cubic yards.

<sup>2</sup>For the first two and one-half cubic yards, each additional cubic yard is \$2.00.



VEHICLE CATEGORY	BASE RATE	METRO FEE	TOTAL RATE
<b>TIRES**</b>			
Passenger (up to 10 ply)	\$0.55		\$0.55
Passenger Tire (tire on rim)	1.25		1.25
Tire Tubes	0.55		0.55
Truck Tires (20" diameter to 48" diameter or greater than 10 ply)	1.75		1.75
Small Solids Truck Tire	1.75		1.75
(tire on rim)	7.00		7.00
Dual	7.00		7.00
Tractor	7.00		7.00
Grader	7.00		7.00
Duplex	7.00		7.00
Large Solids	7.00		7.00

\*\*Cost per tire listed"

Section 2:

Ordinance No. 81-106 Section 2, (uncodified) is amended to read:

The rate established by section 1 of this ordinance shall be collected on the basis of cubic yardage delivered at times when weighing equipment is inoperable.

Section 3:

The rate increase established by Section 1 above is needed to charge users for the additional payments Metro has been obligated to pay Genstar, Inc. under its contract to operate the St. Johns Landfill. Metro's obligation to pay under that contract increased on October 1, 1981 pursuant to a price adjustment clause in the contract and the landfill users should pay this increased cost. Because each month's delay in the effective date of the new rates

will result in a revenue loss to Metro, an emergency is hereby declared to exist and the new rates established by Section 1 of this Ordinance shall be effective January 1, 1982.

\_\_\_\_\_  
Presiding Officer

ATTEST:

\_\_\_\_\_  
Clerk of the Council

TC/gl  
4481B/283

December 3, 1981

A G E N D A   M A N A G E M E N T   S U M M A R Y

TO: Metro Council  
FROM: Executive Officer *RSB*  
SUBJECT: Adoption of Amendments to the "208" Regional Waste Treatment Management Plan

I. RECOMMENDATIONS:

- A. ACTION REQUESTED: Adoption of Ordinance No. 81-121, for the purpose of amending the Regional Waste Treatment Management Plan, Chapter 3.04 of the Metro Code.
- B. POLICY IMPACT: Metro as the successor agency to CRAG, was designated by the Governor as the Section "208" Areawide Waste Treatment Management Planning Agency for the Portland metropolitan region. As such, Metro is required to review and update the "208" plan annually and submit it to the Department of Environmental Quality (DEQ) for recertification by the Governor.

In October 1980, the Metro Council adopted the plan developed by CRAG as Chapter 3.04 of the Metro Code. At that time, Metro staff were in the process of revising regional population estimates as part of the Regional Transportation Plan. It was understood that when these estimates were completed a revision of the plan would be considered. The "208" population projections are used as a basis in awarding Section "201" Sewerage Works Construction Grants within the region as well as in reviewing comprehensive plans of local jurisdictions. Revising the sewer service area population projections based on RTP projections ensures the coordination of public works planning in the region.

In addition to population projection revisions, an amendment to the Treatment System Service Area Map is proposed. This revision removes the "Study Area" classification of a number of service areas based on completed facilities plans and prior actions by the Metro Council.

- C. BUDGET IMPACT: Adoption of the proposed amendments has no impact on the Metro budget. Metro's eligibility for future "208" grants is not an issue at this time since funding for the "208" program has been cut from the federal budget.

Failure to obtain recertification from the Governor could have an impact on local "201" projects.

## II. ANALYSIS:

- A. **BACKGROUND:** In 1975, CRAG was designated by the Governor as the Areawide Waste Treatment Management Planning Agency for Washington, Multnomah and portions of Clackamas Counties pursuant to Section "208" of the Federal Water Pollution Control Act Amendments (PL92-500). As the "208" agency, CRAG initiated a \$1.8 million, two-year study to develop a plan to meet the federal goals of fishable, swimmable waters by 1983. The plan which resulted, as well as the 14 support documents, was adopted by the CRAG Board in June 1978.

In January 1979, CRAG was merged with the Metropolitan Service District to form Metro. The "208" designation was transferred by the Governor to the new agency and the planning area was reduced to conform to the new Metro boundary. Areas outside this boundary came under the jurisdiction of the DEQ. In October 1980, Metro formally adopted the CRAG "208" Plan as Chapter 3.04 of the Metro Code.

One requirement of the "208" planning process is that the plans be kept up to date and recertified annually by the Governor. (Prior to this year, there has not been a process for recertification.) The schedule for recertification is as follows:

- |            |   |
|------------|---|
| October 1  | Planning Agency submits implementation report and plan revisions to DEQ for review. |
| November 1 | DEQ submits plans to Governor's office with recommendations.                        |
| December 1 | Governor recertifies plans to the Environmental Protection Agency (EPA).            |

The amendments to the Plan being recommended at this time include:

- revision of the year 2000 population, waste flow and sludge volume projections based on new projections developed in the RTP (Amendment No. 9);
- substituting the RTP population methodology for the original methodology contained in Technical Supplement No. 1, Appendix A. (Amendment No. 10);
- removing the "Study Area" classification from the following Treatment System Service Areas:
  - USA Rock Creek
  - Hillsboro Rock Creek East
  - Hillsboro No. 1 (West)
  - Tri-City Service District
  - Inverness
  - Gresham
  - Troutdale
  - Forest Grove



(The remaining Study Areas are Happy Valley, a small area between Inverness and Gresham south of Sandy Boulevard, and a small area between Gresham and Portland Columbia Boulevard between Division and Powell.)

- B. ALTERNATIVES CONSIDERED: None. The proposed plan amendments were reviewed by the Water Resources Policy Alternatives Committee (WRPAC) on October 19, 1981. With minor changes the WRPAC unanimously approved the amendments and recommended adoption by the Metro Council.
- C. CONCLUSION:
1. Annual revision of the "208" plan is a responsibility of Metro as the designated Areawide Waste Treatment Management Planning Agency.
  2. Recertification of the plan is required to maintain eligibility of local jurisdictions for Section "201" grants.
  3. Revision of the service area population projections based on the RTP ensures consistency between sewerage construction and transportation planning.
  4. Removal of the "Study Area" classification for the Rock Creek, Hillsboro, Tri-City, Inverness, Troutdale and Gresham Service Areas is consistent with Section 3.04.06 of the Metro Code.

JL/le  
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11/12/81



BEFORE THE COUNCIL OF THE  
METROPOLITAN SERVICE DISTRICT

FOR THE PURPOSE OF AMENDING ) ORDINANCE NO. 81-121  
THE REGIONAL WASTE TREATMENT )  
MANAGEMENT PLAN AND SUBMITTING ) Introduced by the Regional  
THE PLAN FOR RECERTIFICATION ) Development Committee

THE COUNCIL OF THE METROPOLITAN SERVICE DISTRICT HEREBY ORDAINS:

Section 1. Amendments numbered 9, 10 and 11 as set out in Appendix A and by this reference incorporated herein, are adopted and added to Part IV of the Regional Waste Treatment Management Plan beginning after page IV-8.

Section 2. This Ordinance incorporates the Findings attached as Appendix B.

Section 3. The Regional Waste Treatment Management Plan, as revised by Section 1 of this Ordinance, shall be forwarded to the Department of Environmental Quality and the Governor for recertification.

ADOPTED by the Council of the Metropolitan Service District  
this \_\_\_\_\_ day of \_\_\_\_\_, 1981.

\_\_\_\_\_  
Presiding Officer

ATTEST:

\_\_\_\_\_  
Clerk of the Council

MAH/srb  
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## APPENDIX B

### FINDINGS

(1) In 1975 CRAG was designated as the Areawide Waste Treatment Management Planning Agency for the Portland metropolitan area pursuant to Section 208 of the Federal Water Pollution Control Act Amendments (PL 92-500).

(2) CRAG conducted a \$1.8 million, two-year study to develop a "208" plan which resulted in a plan with 14 support documents which was adopted by CRAG Rule No. 78-4 dated June 22, 1978.

(3) Annual recertification of the Regional Waste Treatment Plan ("208" plan) is required to maintain Metro's designation as Areawide Waste Treatment Planning Agency.

(4) Annual recertification of the "208" plan is required to maintain the eligibility of local jurisdictions for "201" Sewerage Works Construction Grants.

(5) In order for the plan to be recertified, it must be submitted to DEQ for review and submission to the Governor. The Governor must then recertify the plan to the Environmental Protection Agency by December 1, 1981.

(6) In order that the recertification deadlines may be met, the Council finds that major revisions in the "208" plan are neither needed nor desirable at this time. The plan should be revised to reflect the year 2000 population and waste flow forecasts developed through Technical Memorandum No. 38 Appendix 1, Regional Transportation Plan Growth Allocation to the Year 2000 (Metro, 1981).

(7) Metro, pursuant to ORS 268.390, is required to prepare and adopt a functional plan to control metropolitan area impacts on water quality.

(8) The "208" plan as revised herein is consistent with the Statewide Land Use Planning Goals as is indicated by the following paragraphs.

GOAL #1 CITIZEN PARTICIPATION. The Water Resources Policy Alternatives Committee was formed to advise Metro staff and Council on technical and policy matters related to water resources management. That Committee is made up of members as follows:

- 3 Citizens At-Large
- 3 Environmental Organizations
- 1 Water Recreation Organization
- 1 Construction Industry Member
- 1 Home Builders Association Member
- 1 Water Recreation Industry Member
- 1 Clackamas County (staff)
- 1 Multnomah County (staff)
- 1 Washington County (staff)
- 1 City of Portland (staff)
- 1 Port of Portland (staff)
- 1 Cities in Washington County
- 1 Cities in Multnomah County
- 1 Cities in Clackamas County
- 1 Sanitary Districts

- 1 Soil and Water Conservation Districts
- 1 Water Districts
- 1 Clark County Regional Planning Council
- 1 Portland General Electric
- 1 Oregon Department of Environmental Quality
- 1 Oregon Department of Water Resources
- 1 Oregon Department of Fish and Wildlife
- 1 U. S. Army Corps of Engineers
- 1 U. S. Environmental Protection Agency

The Water Resources Policy Alternatives Committee has regular monthly meetings and through its "208" subcommittee provides for substantial public input in all phases of the "208" planning process.

Goal #1 has been complied with by the substantial public involvement mechanism provided by the Water Resources Policy Alternatives Committee, and the opportunities for public comment before the Committee and the Council.

GOAL #2 LAND USE PLANNING. The "208" plan was the product of a \$1.8 million two-year study which dealt extensively with the issues and problems of water quality in the region. The action taken by this ordinance carries that plan forward without major change. The present action is taken to incorporate updated long-term population forecasts.

This plan revision has been coordinated with citizens and affected governments through the Water Resources Policy Alternatives Committee.

GOALS #3 and #4 AGRICULTURAL LANDS and FOREST LANDS. This action is not inconsistent with Goals #3 and #4. Efficient provision of sewerage services within the Urban Growth Boundary (UGB) is essential to reduce premature pressures to develop rural agricultural and forest land.

GOAL #5 OPEN SPACES, SCENIC AND HISTORIC AREAS, AND NATURAL RESOURCES. The 1978 plan was adopted in part to protect waterways and fish and wildlife habitats from the dangers that may result from improper sewerage treatment. The present action carries forward the effort begun by that plan without substantive change.

GOAL #6 AIR, LAND AND WATER RESOURCES QUALITY. The central purpose of the 1978 plan carried forward by this action is the maintenance and improvement of water quality. The federal goal under which "208" plans are adopted calls for "fishable and swimmable waters by 1983." During preparation of the 1978 CRAG plan the carrying capacity of water resources and the threat to water quality posed by expected sewerage effluent loading was directly addressed and incorporated into the plan provisions. There is no sufficient information to propose substantive changes in that plan in this action for recertification.

GOAL #8 RECREATIONAL NEEDS. The plan is consistent with Goal #8 in that achievement of federal water quality goals will increase the availability of water related recreational opportunities.

GOAL #9 ECONOMY OF THE STATE. Recertification of the "208" plan is required for continued "208" planning and "201" construction funds. The continued receipt of those funds is essential to the achievement of water quality goals and the ability to service expected urban development.

GOAL #10 HOUSING. One of the key limiting factors in housing construction is the ability to collect and treat sewerage effluent. The continued planning and development of sewerage facilities will be possible if the plan is recertified.

GOAL #11 PUBLIC FACILITIES AND SERVICES. The 1978 plan was adopted to establish a framework whereby local jurisdictions, Metro and the State could plan and construct facilities for the collection and treatment of wastes. Federal statute requires the creation of such a framework so that the provision of federal funds for planning and construction of waste collection and disposal systems will be coordinated and in compliance with federal clean water mandates. This is consistent with the Goal #11 dictate "to plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development." The present action to achieve recertification carries that effort forward without substantive change.

GOAL #14 URBANIZATION. Efficient provision of urban services is essential if the planned urbanization of land within the UGB is to occur in a timely manner. Planning and construction of sewerage treatment facilities may be hampered if the "208" plan is not recertified. A detailed substantive set of amendments is not proposed. The existing plan should be recertified with updated long-term population projections so that the sewerage facilities needed to achieve Goal #14 urbanization goals will not be delayed.

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The original population, waste flow and sludge volume forecasts contained in Table 1-3 have been revised based on the 1980 census results, current governmental policies as reflected in local comprehensive plans, revised regional population and employment projections by the Federal Bureau of Economic Analysis and an update of Metro's Land Use/Vacant Land Inventory. The new year 2000 population forecasts were allocated to census tracts in a series of workshops with local jurisdiction planning staff. The census tract population forecasts were then recombined by Treatment System Service Areas. Waste flow and sludge volume forecasts were then computed based on the same methodology used in making earlier projections. This methodology used a regional average for computing waste flow and sludge volumes. These projections are intended for general areawide planning purposes and may be inconsistent with more specific facilities planning studies. In this event, the projections developed in the latter case shall take precedence. (Planning Areas which have been dropped from the Table are outside the revised Metro area-wide Planning Area.)

POPULATION AND WASTEFLOW FORECASTS  
FOR SEWAGE TREATMENT SYSTEM SERVICE AREAS

<u>Service Area</u>	<u>Population</u>	<u>Waste Flow (mgd)</u>		<u>Sludge Volume (lb/day)</u>	
		<u>Dry Weather</u>	<u>Wet Weather</u>	<u>CASb</u>	<u>TFc</u>
USA Forest Grove <sup>d</sup>	26,591	2.89	4.92	14,097	
USA Rock Creek <sup>e</sup> (inc. Hillsboro W)	180,800	18.36	31.21	43,990	
USA Durham	169,534	20.04	34.07	38,617	41,703
Columbia Blvd. <sup>f</sup>	423,204	84.69	143.98	175,454	189,475
Tryon Creek	63,592	6.36	10.81	12,256	13,235
Oak Lodge SD	26,054	2.93	4.97	5,646	6,097
Tri-City SD	68,061	6.85	11.65	13,200	14,255
Wilsonville	8,240	.83	1.41	1,599	1,727
Kellogg (C.C.S.D. No. 1) <sup>g</sup>	62,203	6.25	10.63	10,244	13,006
Happy Valley	7,156	.72	1.22	1,387	1,498
Inverness	70,704	7.94	13.50	15,300	16,523
Troutdale	18,387	2.18	3.62	4,201	4,537
Gresham	107,348	11.43	19.42	22,026	23,786

- a Refer to methodology report, Regional Waste Treatment Management Plan, Revised Population, Waste Flow and Sludge Volume Projections, for explanation of base methodology used to generate the projections.
- b Conventional activated sludge process for secondary treatment - 1927 lb. of sludge produced per million gallons (dry weather flow) at influent BOD=200 mg/l and TSS=200 mg/l.
- c Conventional activated sludge process followed by tertiary filtration - 2081 lb. of sludge produced per million gallons at influent BOD=200 mg/l and TSS=200 mg/l.
- d Abnormally high organic loadings experienced during food processing season. Average daily sludge production based on CRAG projected waste loadings instead of standard influent BOD and TSS values. Factor used, based on 1977 CRAG projections is 4878 lb. of sludge produced per million gallons of influent.

- e Sludge production factor used is an average of three separate factors: Rock Creek: Chemical phosphorus removal five months each year produces excess sludge. Sludge production factor of 2159 lb./million gallons based on plant's 201 facility plan. Hillsboro W: High organic loads due to industry results in correspondingly large sludge productions (3101 lb./mg.). Sludge projections based on CRAG projected waste loadings (similar to Forest Grove).
- f Includes combined sludge production of Columbia Blvd. and Tryon plants.
- g Includes Rock Creek basin (Clackamas County).



Amendment No. 10: Technical Supplement No. 1, Appendix A  
Population Projection Methodology pp. 123-126

Adopted \_\_\_\_\_ 1981

The population projection methodology contained in Technical Supplement 1: Planning Constraints - Appendix A is hereby deleted as a support document of the Regional Waste Treatment Management Plan. Revised population projections contained in Amendment No. 9 were based on Technical Memorandum No. 38 Appendix 1, Regional Transportation Growth Allocation to Year 2000. This document shall be used in place of Technical Supplement No. 1, Appendix A as support for the Regional Waste Treatment Management Plan.

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## REGIONAL WASTE TREATMENT MANAGEMENT PLAN

### REVISED POPULATION, WASTE FLOW AND SLUDGE VOLUME PROJECTIONS FOR TREATMENT SYSTEM SERVICE AREAS THROUGH YEAR 2000

#### I. INTRODUCTION

In October 1980, the Metro Council adopted, as the Regional Waste Treatment Management Plan, the Waste Treatment Management Component of the Public Facilities and Services element of the Columbia Region Association of Governments (CRAG) Regional Plan. This plan which was developed by CRAG with a \$208 Grant from the US Environmental Protection Agency (EPA) must be reviewed on an annual basis. Revisions must be submitted to the Department of Environmental Quality (DEQ) for certification by the Governor.

One of the major components of the plan is the projection of population, waste flow and sludge volume for the individual treatment system services areas in the Metro region through the year 2000. These projections are used by the management agencies, designated in the plan, as the basis for designing future treatment system expansion.

Metro recently completed a process for revising the year 2000 population projections for the individual census tracts within its jurisdiction (see Year 2000 Growth Allocation Workshops, March-April 1981). In order to determine population projections for sewage treatment system service areas, the projections by census tract were reallocated along service area boundaries. This report briefly summarizes the methodology used for both the initial projections and for the reallocation.

#### II. METHODOLOGY

##### A. PROJECTIONS BY CENSUS TRACT

In order to ensure that population projections adequately represent local jurisdiction's expectations about the amounts and types of development they plan to accommodate, Metro hosted a series of population and employment growth workshops that were attended by planners from each jurisdiction and agency within the region. The first step in developing projections required workshop participants to decide on a forecasted total population for the entire region. This was determined by projecting the region's future economic growth in terms of its expected share of total US economic growth over the next 20 years. By multiplying forecasted employment growth by an appropriate

employment-total population ratio, a forecasted population increase was generated.

The workshop participants next allocated this 1980-2000 population growth to 20 geographic subdivisions within the region. These 20 districts follow census tract and county boundaries and divide the region into areas having similar growth related characteristics. The allocation procedure involved a multi-step process, beginning with the conversion of population numbers to housing units (since housing type restrictions control growth). The average household size in the year 2000 was estimated based on past and current trends, and the number of housing units required to accommodate the projected population determined. The total number of housing units was then adjusted to allow for a normal vacancy rate in the overall dwelling unit supply, giving a dwelling unit demand forecast.

The next step was to determine the mix of single family and multi-family units that the increase in population would require. A 50/50 split was used based on regional policy for the urban districts 1 through 16. (For districts 17 through 20, a different ratio applies, however, the service areas do not extend into these districts.)

Next, the total number of single and multi-family dwelling units were allocated to each of the 20 districts. The procedure was to analyze past growth trends for the two types of dwelling units in each district, and compare this trend line to the area's holding capacity (total number of units that can be built on available land at permitted densities). Trend lines were adjusted during the workshops, to reflect expectations of future growth. The land in each district was considered "filled up" when 95 percent of the single family and 100 percent of the multi-family holding capacity had been reached. A table was prepared listing each district, the number of single and multi-family units presently existing there, and the projected 1980-2000 increase. Total year 2000 population projections for each district were then calculated by multiplying housing units by the appropriate variables for vacancy rate and household size.

The same basic process was followed to split housing unit and population growth forecasts for each of the 20 districts into the individual census tracts within each district (see Technical Memorandum No. 38, Appendix 1, Regional Transportation Plan Growth Allocation to Year 2000, Metro, 1981).

B. SERVICE AREA POPULATION PROJECTIONS

A census tract map was overlaid with a map of the treatment system service areas to determine which census tracts fall within each service area. For tracts fully within a service area, no adjustment to the population projection determined by the process explained above was necessary. However, there were three categories where census tracts were only partially within one service area and some adjustment was necessary.

1. Service Areas on the Urban Fringe.

In these cases, only a portion of the census tract is within the service area, while the rest of the tract is outside the UGB (Service Area boundaries generally coincide with the UGB boundaries).

In order to estimate the portion of future population allocated to the service area (which is also within the UGB), the population forecast for the entire tract was multiplied by the percentage of the present population of the tract that resides within the UGB. This methodology assumes that the increase in development will be distributed throughout the tract as it has been historically. This methodology is consistent with that used by Metro's Transportation Department although it may underestimate the projected population within the service area. The idea behind the UGB is to accommodate future urban level growth within the boundary, meaning that the future proportion of total census tract growth within the UGB may be higher than the historical rate. Because the UGB is subject to amendment, however, it is impossible to predict, in any reliable fashion, how the future proportion inside the boundary will change.

Sample Calculation:

Tract 315 is partially within the Rock Creek Service District. The portion that is not within the district is outside the UGB.

Ninety percent of the total population of the tract is within the UGB.

Metro's year 2000 population projection for Tract 315 is 30,980 people.

Portion within Service District is  $(.9)30980=27882$ .

2. Census Tracts Split Between Two or More Service Areas.

The second category required allocating the population projection for the census tract between two or more service areas. The first step in this process involved estimating from Metro's land use inventory maps the percentage of both single and multi-family development presently existing in each service area (sample calculation, step 1). These percentages were multiplied by the number of each type of dwelling unit in the census tract in 1980, to give the number of units in the service area (step 2).

Next, the percentage in each service area of the total vacant land zoned for single and multi-family uses in the tract was estimated using the Metro vacant land maps (step 1). These percentages were used to give the number of the increase (1980-2000) in housing units that can be attributed to each area (step 2).

The numbers of existing and projected single and multi-family units for each service area were then added and converted to population figures by multiplying with the appropriate variables for household size (varies by district and dwelling unit type) and vacancy rate (varies by unit type) (step 2).

A small amount of institutional population (not living in residential dwelling units) is included in the census tract forecasts. This was allocated to the service areas in the last step (step 3), based upon the overall percentage of the number of people projected for each service area.

Sample Calculation:

Step 1.

• Tract 66.01 is split between Durham and Tryon Creek Service Districts. Estimates of the percentage of existing and future development within each service district are listed below:

a. Existing Development (1980)-	<u>Single Family</u>	<u>Multi- Family</u>
Durham	40%	50%
Tyron Creek	60%	50%

b. Vacant Land (1980-2000 increase)-

Durham	60%	0
Tryon Creek	40%	0

• Metro's year 2000 population projection:

Census Tract	District <sup>1</sup>	1980 <sup>2</sup>		1980-2000 <sup>3</sup>		2000 <sup>4</sup>
		SFDU	MFDU	SFDU	MFDU	POP
66.01	3	700	140	320	0	2,810

- 1 One of 20 geographic subdivisions
- 2 Total number of single and multi-family dwelling units presently existing within the tract.
- 3 Projected increase in dwelling units within the tract.
- 4 Year 2000 population projection for the tract.

Step 2.

• Population Calculation<sup>5</sup>:

<u>Durham</u>		SFDU	MFDU
1980		280	70
1980-2000		192	0
		<u>472</u>	<u>70</u>
		X .97 (vac. rate)	X .94 (vac. rate)
		X 2.428 (pers/hsehld)	X 1.6 (pers/hsehld)
		= 1,112.	= 105.
		1,112	
		+ 105	
		<u>1,217</u>	
			Total Population

<u>Tryon Creek</u>		SFDU	MFDU
1980		420	70
1980-2000		128	0
		<u>548</u>	<u>70</u>
		X .97 (vac. rate)	X .94 (vac. rate)
		X 2.428 (pers/hsehld)	X 1.6 (pers/hsehld)
		= 1,291.	= 105.
		1,291	
		+ 105	
		<u>1,396</u>	
			Total Population

<sup>5</sup> The numbers of single family and multi-family dwelling units for each service area were determined by multiplying the percentage of development within each service district by the total number of dwelling units in the census tract, e.g., Durham 1980 SFDU = .40(700) = 280.

Step 3.

Overall percentage of population projected for each service area.

2,810	(Metro Projection)
- 197	Institutional Population
<u>2,613</u>	

1,217	Durham = 46.4%
+1,396	Tryon Creek = 53.4%
<u>2,613</u>	

2,810 (.466) = 1,308 Durham's Population Share

2,810 (.534) = 1,502 Tryon Creek's Population Share

3. Census Tracts Split Between Two or More Service Areas Also on the Urban Fringe.

The third category is a combination of the circumstances in categories one and two. In this case, both of the above methodologies were combined to split these tracts. The procedure for Category #2 was followed first, splitting the entire census tract population according to the ratio of land use within the service areas. Then the Metro projection of total year 2000 population for the census tract was multiplied by the percentage of the present population that resides within the UGB (which coincides with service area boundaries); this adjusted population was then distributed to the service areas based on the overall percentage of people projected for each area.

Sample Calculation:

Population of Tract 321 is 80% within the UGB.

It is also split between the Durham and Wilsonville service areas as in previous example.

Durham	16,105	Total Population	95.6%	Overall Percentage
Wilsonville	744	Total Population	4.4%	
	<u>16,849</u>		<u>100.0%</u>	

Metro Projection for Tract 321 =	16,870	
	- 31	Institutional Population
	<u>16,849</u>	

16,870 (.80) = 13,504

Final Population:

Durham: (.956) 16,105 = 12,910

Wilsonville: (.044) 744 = 594

C. WASTE FLOW VOLUME FORECASTS

Year 2000 waste flow volume projections per service area were generated using the revised population projections and forecasts of waste flow per person (mgd in the year 2000) as determined in Technical Supplement 1, Planning Constraints Areawide Waste Treatment Management Study Appendix B (CRAG 1977).

D. SLUDGE VOLUME FORECASTS

Year 2000 sludge volume projections were generated using the revised population projections and the methodology outlined in Technical Supplement 1, Planning Constraints Areawide Waste Treatment Management Study, Appendix C, (CRAG 1977).

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WASTE TREATMENT SERVICE AREA  
 YEAR 2000 POPULATION PROJECTIONS BY CENSUS TRACT  
 OCTOBER 1981

<u>Service Area</u>	<u>Census Tract</u>	<u>Category*</u>	<u>Population</u>
#1 Forest Grove	333	1 (.80)	8,600
	331	1 (.90)	5,958
	332	1 (.95)	6,270
	329	1 (.85)	5,763
		Total	
#2 Rock Creek	326	1 (.95)	27,294
	325	1 (.95)	7,056
	324	Full	23,390
	327	1	150
	315	1 (.90)	27,882
	316	Full	36,960
	317	Full	18,460
	318	2	12,403
	310	2	4,531
	312	2	5,198
	314.02	2	725
	314.01	2	7,516
	301	2	6,461
	70	3 (.7)	2,477
	302	2	297
		Total	
#3 Durham	314.02	2	465
	314.01	2	2,374
	302	2	5,883
	313	Full	6,560
	301	2	3,909
	69	2	1,471
	303	Full	4,750
	68.02	2	2,819
	67.01	2	2,227
	66.01	2	1,308
	304	Full	9,550
	311	Full	2,290
	312	2	672
	310	2	13,399
	318	1 (.95)	5,020
	319	1 (.98)	18,865
	308	Full	15,220
305	Full	9,750	
65.01	2	4,507	

\*See Revised Population, Waste Flow and Sludge Volume Projections Methodology report for explanation of categories.

	306	Full	4,940
	309	Full	3,760
	307	Full	2,850
	203	2	10,157
	64	2	2,641
	320	1 (No Adjustment)	13,070
	321	3 (.80)	12,910
	322	1	362
	58	2	1,122
	61	2	725
	67.02	2	665
	65.02	2	805
	68.01	Full	2,850
	227	3 (.40)	1,638
		Total	<u>169,534</u>
#4 Wilsonville	321	2	594
	227	2	6,198
	228	1 (.25)	1,448
		Total	<u>8,240</u>
#5 Tryon Creek	61	2	375
	68.02	2	948
	67.02	2	1,288
	67.01	2	1,253
	66.01	2	1,502
	66.02	2	1,948
	65.01	2	293
	65.02	2	3,795
	62	2	1,205
	64.00	2	10,629
	63	Full	5,110
	203	2	8,243
	201	Full	5,260
	202	Full	5,860
	205	3 (.95)	3,947
	204	3 (.98)	11,936
		Total	<u>63,592</u>
#6 Oak Lodge	212	Full	4,710
	213	Full	5,440
	214	2	2,177
	217	2	4,879
	218	2	5,492
	219	2	1,286
	220	2	2,070
		Total	<u>26,054</u>
#7 Tri-City	205.0	2	12,992
	206	Full	6,820
	207	1 (No Adjustment)	3,750
	226	1 (.90)	19,251
	225	1 (No Adjustment)	7,180
	224	1 (No Adjustment)	4,290

	223	1 (.70)	5,590
	220	2	3,210
	219	2	1,704
	221	2	2,180
	217	2	521
	218	2	573
		Total	<u>68,061</u>
#8 Happy Valley	222	3 (.85)	7,156
		Total	<u>7,156</u>
#9 Columbia Boulevard	70	2	862
	43	Full	1,110
	72	1 (No Adjustment)	3,680
	73	2	173
	29.01	Full	4,850
	29.02	Full	5,520
	29.03	2	4,509
	81.	2	312
	82.01	2	88
	82.02	2	739
	16.02	Full	3,700
	83	2	4,572
	84	Full	2,690
	92.01	2	2,383
	92.02	2	2,413
	97.01	Full	3,830
	97.02	2	4,617
	98.02	2	281
	91	Full	7,250
	89	1 (.95)	8,503
	222	2	730
	216	2	1,180
	210	2	843
	88	Full	3,400
	3.02	Full	6,530
	2.0	Full	6,810
	1.0	Full	5,760
	209	2	305
	63	2	0
	62	2	1,885
	66.02	2	3,302
	67.02	2	1,437
	61	2	940
	58	2	4,908
	68.02	2	173
	69	2	1,549
	42	Full	2,940
	41.01	Full	5,070
	41.02	Full	4,510
	40.02	Full	5,590
	40.01	Full	5,290
	39.01	Full	5,440
	39.02	Full	3,420

44	Full	430
38.01	Full	2,940
38.02	Full	3,440
38.03	Full	3,900
35.01	Full	3,440
35.02	Full	2,040
22.01	Full	550
22.02	Full	380
37.01	Full	3,890
37.02	Full	2,480
34.01	Full	2,940
34.02	Full	2,410
23.01	Full	1,930
23.02	Full	1,720
36.01	Full	3,950
33.01	Full	2,510
33.02	Full	2,700
24.01	Full	2,760
24.02	Full	3,490
36.02	Full	5,910
32	Full	4,030
31	Full	4,420
25.01	Full	4,430
25.02	Full	4,300
36.03	Full	1,890
30	Full	4,640
26	Full	2,830
74	Full	4,020
75	Full	4,380
27.01	Full	3,170
27.02	Full	3,870
28.01	Full	3,070
28.02	Full	3,610
17.01	Full	6,300
17.02	Full	4,110
16.01	Full	5,930
18.01	Full	4,250
18.02	Full	3,270
15	Full	3,410
14	Full	4,710
13.02	Full	3,090
13.01	Full	3,910
19	Full	4,850
20	Full	5,900
12.01	Full	4,780
12.02	Full	3,530
11.01	Full	1,960
11.02	Full	1,660
10	Full	5,400
9.01	Full	4,110
9.02	Full	3,990
3.01	Full	5,220
8.01	Full	4,640
8.02	Full	4,460

4.01	Full	3,590
4.02	Full	3,520
87	Full	3,940
5.01	Full	3,570
86	Full	3,080
5.02	Full	4,010
7.01	Full	4,550
6.02	Full	3,910
6.01	Full	4,130
85	Full	2,580
90	Full	5,990
59	Full	4,120
60.02	Full	2,410
60.01	Full	1,420
57	Full	2,180
56	Full	3,360
55	Full	1,580
46.02	Full	1,840
46.01	Full	2,880
47	Full	4,250
48	Full	3,490
49	Full	3,610
50	Full	700
51	Full	4,030
45	Full	1,570
52	Full	4,740
53	Full	4,470
54	Full	850
7.02	Full	4,270
21	Full	2,520

Total 423,204

#10 Kellogg (CCSD #1)

209	2	3,375
208	Full	5,340
210	2	3,647
216	2	7,290
222	2	6,811
221	2	21,580
232	1	272
218	2	2,985
215	Full	3,720
214	2	2,083
211	Full	5,100

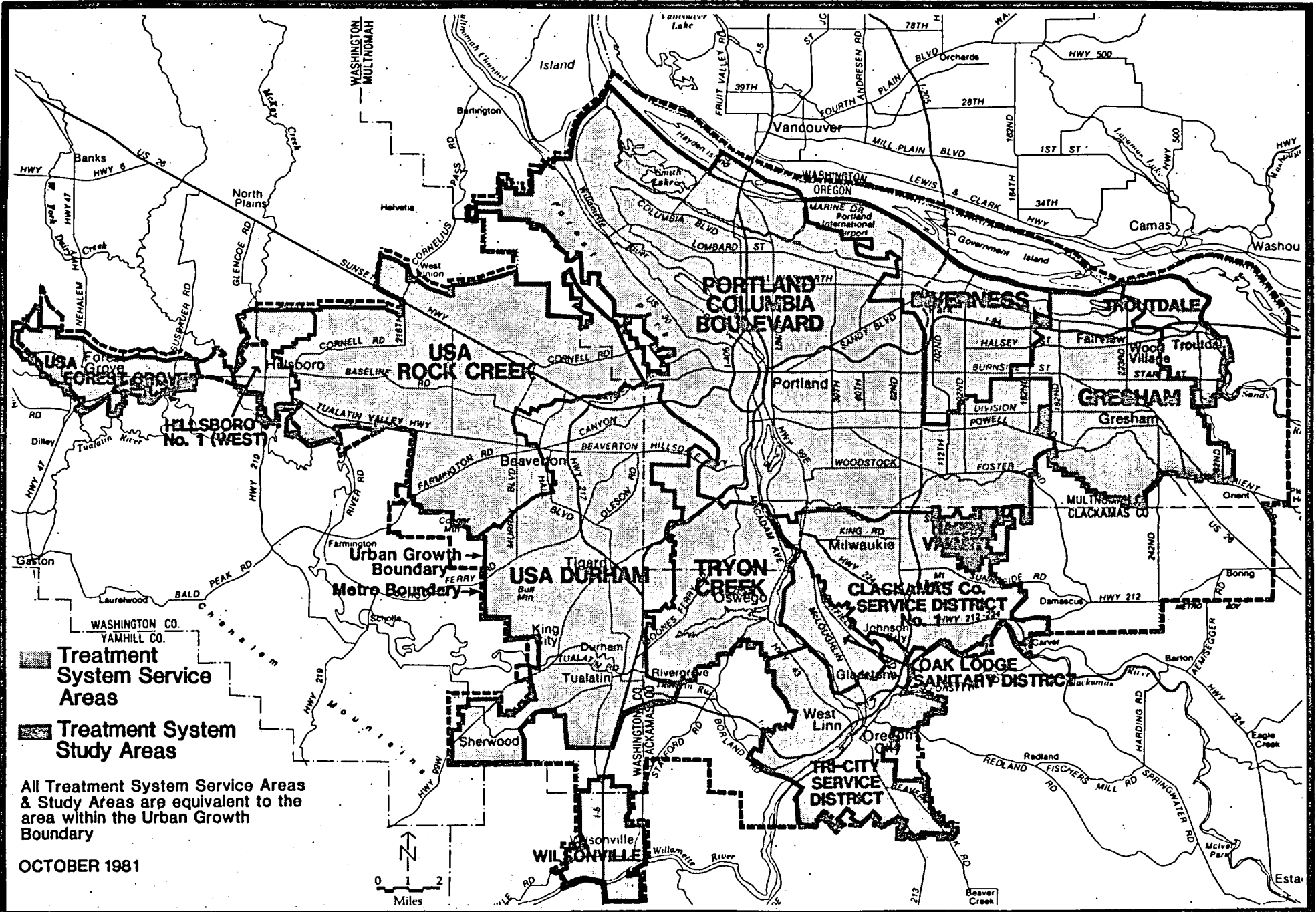
Total 62,203

#11 Inverness

73	2	1,197
79	Full	3,900
81	2	5,978
82.01	2	4,982
82.02	2	4,050
92.01	2	3,757
93	Full	6,860
94	Full	8,110
96.01	2	50

	95	Full	12,450
	102	2	52
	80.01	Full	2,820
	80.02	Full	2,730
	78	Full	1,620
	77	Full	1,760
	29.03	2	471
	92.02	2	707
	83	2	5,950
	76	Full	<u>3,160</u>
		Total	70,704
#12 Troutdale	102	2	393
	104.02	1 (.20)	639
	103	2	14,893
	104.01	2	<u>2,462</u>
		Total	18,387
#13 Gresham	102	2	4,625
	104.02	3 (.20)	341
	96.01	2	10,160
	97.02	2	3,113
	98.02	2	8,259
	99	1 (.75)	14,055
	104.01	1 (.95)	23,838
	103	2	6,987
	100	Full	13,610
	101	Full	10,080
	96.02	Full	7,780
	98.01	Full	<u>4,500</u>
		Total	107,348

SM/srb  
4136B/273



OCTOBER 1981



# TREATMENT SYSTEM SERVICE AREAS

Amendment No. 11