### **ORDINANCE NO. 427**

AN ORDINANCE ADOPTING THE PROPOSED CITY OF WILSONVILLE WASTEWATER COLLECTION SYSTEM MASTER PLAN ALONG WITH THE WASTEWATER COLLECTION SYSTEM MAP AS A COMPONENT OF THE CITY'S COMPREHENSIVE PLAN; REVOKING AND REPLACING THE SEWER SYSTEM MASTER PLAN, ADOPTED ON MAY 3, 1982; AND AMENDING COMPREHENSIVE PLAN POLICY 3.1.5 REGARDING SEWER LINE EXTENSIONS AND SERVICE.

WHEREAS, the Community Development Director has prepared the <u>Wastewater</u> <u>Collection System Master Plan</u> and map and presented said Plan and map, along with a staff report, to the Planning Commission on January 10, 1994; and

WHEREAS, the Wilsonville Planning Commission adopted Resolution No. 94 PC 06 and recommends that the City Council adopt the <u>Wastewater Collection System Master Plan</u> and map after holding a public hearing on this matter in accordance with the procedures set forth in the Comprehensive Plan and the Wilsonville City Code; and

WHEREAS, the Commission also recommends that the City Council modify Comprehensive Plan Policy 3.1.5 to require that the cost of line extensions and services be the responsibility of the developer/property owner and that all line extensions shall conform to the <u>Wastewater Collection System Master Plan</u> and the City's Public Work Standards; and

WHEREAS, after providing due notice as required by City Code and State Law, a public hearing was held before the City Council on March 7, 1994, at which time the Council considered the recommendation of the Planning Commission and City Staff, gathered additional evidence and afforded all interested parties an opportunity to present oral and written testimony to the Council; and

WHEREAS, the City Council has carefully considered the public record, including all recommendations and testimony, and being fully advised.

NOW, THEREFORE, THE WILSONVILLE CITY COUNCIL ORDAINS AS FOLLOWS:

### Section 1. DETERMINATIONS AND FINDINGS

(a) The Wilsonville City Council hereby adopts and incorporates by reference the facts and findings contained in the <u>Wastewater Collection System Master Plan</u> and the staff report that has been prepared by Mr. Eldon Johansen,

Community Development Director, and is identified as "Exhibit A", and the Planning Commission's Resolution No. 94 PC 06 which is identified as "Exhibit B". The Exhibits, along with the public testimony, clearly supports a finding that it is necessary to adopt a new and updated Sanitary Sewer Plan that meets the present and future needs of the citizens and business community of the City of Wilsonville.

- (b) The City Council finds that the adoption of the <u>Wastewater</u> <u>Collection System Master Plan</u> is necessary to help protect the public health, safety and welfare of the municipality by insuring that there will be adequate capacity within the City's wastewater system.
- (c) The Council hereby repeals the <u>Sewer System Master Plan</u> and the Capital Improvement Plan that was adopted by Resolution No. 217 on May 3, 1982.
- (d) The City Council modifies and amends Comprehensive Plan Policy 3.1.5 to read:

The cost of all line extensions and individual services shall be the responsibility of the developer and/or property owner seeking service. When a line is to be extended, the City may authorize and administer formation of a Local Improvement District (LID). All line extensions shall conform to the City Wastewater Collections System Master Plan, urbanization policies and Public Works Standards. For parallel sewer lines and lift stations, the developer and/or property owner may, subject to City approval, meet his/her responsibilities by paying systems development charges which include the costs of the collection system.

(e) The City Council finds that adoption of the <u>Wastewater Collection</u> System Master Plan and map is in compliance with Statewide Planning Goal 11 - <u>Public Facilities and Services</u> - which requires cities and counties to address the public facility needs in their comprehensive plans. Legislation enacted in 1983 specifically requires the city, since we have an UGB (Urban Growth Boundary) containing more than 2,500 population, to prepare public facility plans for sewer, water and transportation facilities that include a rough cost estimate for the facilities involved.

### Section 2. DIRECTIVE TO THE PLANNING DIRECTOR

(a) The City Council directs the Planning Director to amend and replace Comprehensive Plan policy 3.1.5 with the new policy adopted by the

Council in Section 1 (d) of this Ordinance. The Wastewater Collection System Master Plan and map replaces the former Sewer System Master Plan, map and Capital Improvement Plan that was adopted in 1982. The Master Plan shall be identified as a supplement of the City's Comprehensive Plan and, in the case of any conflicts, the new Master Plan shall take precedence over any earlier plan or policy.

#### EFFECTIVE DATE OF ORDINANCE Section 3.

This Ordinance shall be declared to be in full force and effect thirty (30) days from the date of final passage and approval.

SUBMITTED to the City Council at a regular meeting thereof on the 7th day of March, 1994, at which time the Ordinance was continued to March 21, 1994. It was read for the first time at a regular meeting thereof on the 21st day of March, 1994, and scheduled for second reading at a regular meeting of the Council on the 4th day of April, 1994, commencing at the hour of 7:00 p.m. at the Wilsonville Community Development Annex.

VERA A. ROJAS, CMC/AAE, City Recorder

ENACTED by the City Council on the 4th day of April, 1994, commencing at the hour of 7:00 p.m., at the Wilsonville Community Development Annex.

VERA A. ROJAS, CMC/AAE, City Recorder

GERALD A. KRUMMEL, Mayor

Terrel B. Brun

SUMMARY of Votes:

Mayor Krummel AYE

Councilor Lehan

AYE

Councilor Hawkins

\_AYE\_

Councilor Benson

AYE

Councilor Sempert

AYE

### CITY OF WILSONVILLE CITY COUNCIL NOTICE OF HEARING 94PC06

Notice is hereby given that the WILSONVILLE CITY COUNCIL will hold a public hearing on MONDAY, MARCH 7, 1994, at 7:00 p.m. at 8445 SW Elligsen Road, City Hall Annex, Wilsonville, Oregon, or to such other place to which the CITY COUNCIL may adjourn.

The application submitted by the City Staff requests that the City Council adopt the

WASTEWATER COLLECTION SYSTEM MASTER PLAN AND MAP AS AN ELEMENT OF THE COMPREHENSIVE PLAN; REVOKE AND REPLACE THE PLAN ADOPTED ON MAY 3, 1982 AND AMEND COMPREHENSIVE PLAN POLICY 3.1.5.

The site is CITY WIDE in Wilsonville, Oregon. The Planning Commission recommends that the <u>CITY OF WILSONVILLE WASTE WATER COLLECTION SYSTEM MASTER PLAN</u> be adopted.

The applicable review standards are set forth in STATEWIDE GOALS:

GOAL 1: Citizen Involvement GOAL 2: Land Use Planning

GOAL 11: Public Facilities and Services

SECTION III: Public Facilities and Service of the City of Wilsonville Comprehensive Plan

Copies of the review standards are available from the Planning Department located at 8445 SW Elligsen Road. All testimony and evidence shall be directed to the applicable criteria or the person providing testimony shall state which other criteria they believe applies to this application.

A complete copy of the <u>CITY OF WILSONVILLE WASTE WATER</u> <u>COLLECTION SYSTEM MASTER PLAN</u> is available for inspection seven days prior to the hearing. Copies may be provided at the cost of ten cents per page.

Inquiries pertaining to this hearing may be made by contacting Eldon Johansen, Community Deverlopment Director, at 682-4960. Public testimony, oral and written, regarding this application will be accepted at the hearing. Written statements are encouraged and may be submitted prior to the hearing date.

NOTICE OF PROPOSED ACTION
Must be sent to DLCD 45 days prior to the final hearing
See OAR 660-18-020

Jurisd	iction <u>CITY OF WILSON</u>	VILLE
Date M	ailed 1/21/94 Local	File Number 94 PCOG
· Date S	et for Final Hearing on Adoption	
••		Month Day Year
Time a	nd Place for Hearing 1:00 F	
		SW EUGSEH RD.
Type o	f Proposed Action (Check all the	nat apply) WILSONVILLE, OR.
	omprehensive Land Use lan Amendment Regulation	New Land Use on AmendmentRegulation
Please	Complete (A) for Text Amendment	s and (B) for Map Amendments
A.	Summary and Purpose of Proposed acterms and stating "see attached	ction. Avoid highly technical
A)	prbove city of will	GHVILLE WASTE WATER
	pluéction system N	IBSTER PLAN. THE SITE
t5	CITY WIDE.	
<del></del>		•
		•
		•
В.		e Following (For each area to sheet if necessary. Do not use
	Current Plan Designation:	Proposed Plan Designation:
Ha	Current Zone:	Proposed Zone:
	Location:	
	Acreage Involved:	
	Does this Change Include an Ex	ception? Yes No
•	For Residential Changes Please Density in Units Per Net Acre:	Specify the Change in Allowed
	Current Density:	Proposed Density:

NOTE: If more copies of this form are needed, please contact the DLCD office at 373-0050, or this form may be duplicated on green paper. Please be advised that statutes require the "text" of a proposal to be sufficient. Proposed plan and land use regulation amendments must be sent to DLCD at least 45 days prior to the final hearing (See OAR 660-18-020).

\* FOR DLCD OFFICE USE \* \* # Days Notice DLCD File Number



30000 SW Town Center Loop E Wilsonville, Oregon 97070 FAX (503) 682-1015 (503) 682-1011

# NOTICE OF DECISION (RECOMMENDATION TO CITY COUNCIL)

Project Name: Wastewater Collection system Master Plan File No. 94PC06
Applicant/Owner City of Wilsonville
Recommended Action: Adoption of Wastewater Collection System Master Plan and map as an element of the Comprehensive Plan; revoke and replace the plan adopted on May 3, 1982 and amend Comprehensive Plan Policy 3.1.5.
Property Description:
Map No: Site Size:
Address:
Location: CITY WIDE
On January 10, 1994 at the meeting of the Planning Commission the following recommendation and decision was made on the above-referenced Proposed Development Action:
XX ApprovalApproval with ConditionsDenied
This decision has been finalized in written form and placed on file in the City records at the Wilsonville City Annex this 17th day of January, 1994 and is available for public inspection. The date of filing is the date of the decision. The City Council will publish Public Hearing Notices and hold further Public Hearings on this matter.
XX Written decision is attached
Written decision is on file and available for inspection and/or copying

For further information, please contact the Wilsonville Planning Department at Community Development Building, 8445 S.W. Elligsen Rd or phone 682-4960.

FILED 1-17-94 sh

"Serving The Community With Pride" -

### WILSONVILLE PLANNING COMMISSION

### **RESOLUTION NO. 94 PC 06**

A RESOLUTION RECOMMENDING THAT THE WILSONVILLE CITY COUNCIL ADOPT THE COMMUNITY DEVELOPMENT DIRECTOR'S PROPOSED CITY OF WILSONVILLE WASTEWATER COLLECTION SYSTEM MASTER PLAN AND MAP AS AN ELEMENT OF THE COMPREHENSIVE PLAN; REVOKE AND REPLACE THE CITY'S SEWER SYSTEM MASTER PLAN, ADOPTED ON MAY 3, 1982; AND AMEND COMPREHENSIVE PLAN POLICY 3.1.5 REGARDING SEWER LINE EXTENSIONS AND SERVICE.

WHEREAS, the Community Development Director prepared the <u>Wastewater Collection System Master Plan</u> and map. together with a report to the Planning Commission, and then submitted said Plan, Map and Report to the Planning Commission in accordance with the procedures set forth for Plan Amendments in the Comprehensive Plan; and

WHEREAS; the <u>Wastewater Collection System Master Plan</u> was presented to the Planning Commission for their review and approval at their regularly scheduled meeting held on January 10, 1994, after due notice of the public hearing was provided and published in accordance with State Law and the procedures set forth in the Wilsonville Code; and

WHEREAS; the Planning Commission has carefully considered all testimony and evidence, including the proposed Plan, Map and Report, and afforded all interested parties an opportunity to be heard on this subject.

NOW, THEREFORE, BE IT RESOLVED that the Wilsonville Planning Commission does hereby recommend that the Wilsonville City Council adopt an Ordinance that will repeal the <u>Sewer System Master Plan</u>, including the Capital Improvement Plan, that was adopted by Resolution No. 217 on May 3, 1982; adopt the proposed <u>Wastewater Collection System Master Plan</u>, along with the

findings, map and report that was prepared by Mr. Johansen, Community Development Director; and modify Comprehensive Plan Policy 3.1.5 to read:

The cost of all line extensions and individual services shall be the responsibility of the developer and/or property owner seeking service. When a line is to be extended, the City may authorize and administer formation of a Local Improvement District (LID). All line extensions shall conform to the City Wastewater Collections System Master Plan, urbanization policies and Public Works Standards. For parallel sewer lines and lift stations upgrades, the developer and/or property owner may, subject to City approval, meet his/her responsibilities by paying systems development charges which include the costs of the collection system.

Helen Burns, Acting Chair

Helen Burns

Wilsonville Planning Commission

Attest:

Sally Hartill, Planning Secretary

with Randall that it has to be renegotiated. We have started the design of the lift station now and are geared up to do it if necessary but we will have to renegotiate with Randall.

Attorney Kohlhoff reviewed the development agreement with Randall, and the requirement for a developer to contribute to the cost of installing the lift station as well as the situation with the high school.

Chair Burns closed the Public Hearing at 8:47 p.m.

Mr. Sorensen stated this has been advertised as an amendment to the Comprehensive Plan. It will be readvertised prior to the City Council hearing. We have to state the criteria including the amendment to any Comprehensive Plan policies. The change in language that has been noted doesn't change the intent of the final policy enough it shouldn't cause a problem. We will take whatever the Planning Commission recommends and readvertise prior to going to the City Council. The recommendation will be reduced to written form and Resolution for signature and will include the suggested change to the plan language.

Chair Burns called for a motion.

- Commissioner Sloan moved for approval of the amendment to the Master Plan, including language changes as discussed, for the Wastewater Collection System Plan as presented at this meeting. Changes to the wording are: (1) Delète the word "major" on the second line so sentence reads "When a line is to be extended......" and (2) add the words "costs of the" so sentence reads ....." by paying systems development charges which include the costs of the collection system."
- Commissioner Spicer seconded the motion. The motion passed unanimously, 6-0.
- Chair Burns requested that when this is published in the paper it might be a diplomatic time to remind people that they do not have to hook up to the sewer until the line passes within 300 feet of their property.
- Mr. Sorensen stated that the specific language changes will probably be put into the paper and we will provide this transcript and request from Chair Burns to the City Council for their review.

After discussion and clarifying questions, the consensus of the Commissioners was to defer the document for review and action at the February meeting to allow the Commissioners time to study the document. Mr. Vann referred questions on the document to the finance director. He asked for input from the Commissioners.

### CONSENT AGENDA:

94PC07 - City of Wilsonville Public Works Department requesting approval of a one-year Temporary Use Permit to locate a 224 square foot storage shed at the Water Treatment Plant located at 9275 S.W. Tauchman St.

Commissioner Griffin moved to approve, seconded by Commissioner Spicer. Motion passed 6-0.

Pam Emmons stated they are requesting a one-year Temporary Use Permit. They have the option of returning in six months for a renewal. It will be either dismantled or made to look elaborate where they would have to go to DRB for final setting if they decide to do that.

### PUBLIC HEARING:

94PC06 - City of Wilsonville - requesting approval of CITY OF WILSONVILLE WASTE WATER COLLECTION SYSTEM MASTER PLAN. The site is City Wide in the City of Wilsonville, Clackamas and Washington Counties.

The Public Hearing was called to order at 8:06 p.m.

Eldon Johansen, Community Development Director Mr. Johansen stated the Staff has updated this plan in-house rather than send it out to a consultant. A consultant has reviewed some of the areas. The plan was originally last done in 1981. He stated it is one of the best plans he has seen. The changes that are being made are because, primarily, we have changed the way we do things.

He stated there are two plans we work with. One is what is called the facilities plan that covers the very specific improvements made at the Waste Water Treatment Plant. We are in the process of hiring a consultant at this time to update the facilities plan, hoping to have expansion of the plant completed in calendar year 1996.

On the collection system the basic guidelines are in the Comprehensive Plan, Policy 3.1.4 and 3.1.5. The City Code also addresses the issue. Mr. Johansen explained the basins on the 1981 plan and stated the same basins are being used and the routing is basically the same and the same figures on the flows was used. He explained the flows that have caused the problems from the 1981 plan and the proposed changes. He referred to the infiltration problems that were occurring and stated the City has invested to improve the infiltration problem. Another change was to adjust

Fiscal Management (cont'd

Action postpone to Feb. meeting

CONSENT AGENDA:

One year TUP for storage shed at Water Treatment Plant

Motion to approve

PUBLIC HEARINGS

Waste Water Collection System Master Plan

Plan of 1981 updated in-house

One plan covers specific improvements Facilities to be updated

Plan follows Comp. Plan guidelines

the master plan to balance surcharge figuring the overall slope instead of each individual spot along the way. Now is a prudent time to back up from designing for what may never happen, and cut costs as much as we can. If the big developments do come in, we will have to allow for extra surcharge. To retain the capacity to serve the occasional development with the medium to higher sewer flows is by allowing the higher surcharge. If we continue to build like we are we will not have the surcharge.

Waste Water Collection System Master Plan (cont'd)

As far as financing, it is based heavily on having the developer put in the system. One recommendation is where there are existing lines that we are going to have to come in and put parallel lines in, primarily down through the Town Center area. We will probably do the parallel line on Town Center Loop West and then across (shown on map). There are a few others also. The parallel lines are caused by flow diversions after the original plan was developed. Mr. Johansen stated he wanted to use Systems Development Charges on a limited basis to cover those places where we do have to do the parallel lines. It is the only fair way of doing it. It also needs to be calculated on a drainage basin basis That is included in the last rather than a City wide basis. recommendation on the Staff memo. Right now we do not collect any Systems Development Charges for our collection system. The money we do collect goes into the Waste Water Treatment plant. This would take less than 25% of the future improvements and put them in SDC's.

Financing

On a typical sewer line when it is designed, the pipe capacity is figured from manhole to manhole. The steeper the pipe the more it will carry. By surcharging you end up with a hydraulic grade rather than a pipe grade so you can push more through. We are surcharging the pipe to cut down the construction costs. The main thing is when you put a surcharge on, the sewage flows faster.

Pipe capacity

On the SDC for the sewer, when we ask you to change the Comp Plan, this is what is being effected. We like to make the SDC's the same for everybody in the City, home, commercial or industrial, and not give an unfair advantage to anybody. Mr. Johansen explained the proposed SDC's charges. The charges would be imposed when building permits were issued. On some of the apartments and condominiums, and others, there may have to be some adjustments made. This will be evaluated by the Budget Committee.

SDC's

If a person has an existing septic, until the line is extended to within 300 feet of an existing home that is on a septic tank, they would not have to hook to the system. They would not pay until they hooked up. If somebody is already on the line, they would not pay again.

Existing users of septic systems not required to hook to the system

Discussion followed on the Callahan Center or a future arboretum center.

Mr. Johansen stated there is presently not a plan for that. If there are any proposed annexations, part of the fiscal plan is to do a fiscal impact analysis and determine what it would take to hook them it. The system now is not designed to serve anything outside

Callahan or future

PAGE 5 of 12

of the City. There may be some lines that have the capacity and | System Master Plan probably the one going to the Callahan Center does have the capacity because Dammasch paid for oversized lines through the filbert orchards south of Wilsonville Road. There is some capacity there, but it is a case by case basis on any additions to the urban growth boundary.

Dammasch is included. However, the connection has not been activated vet. With the news that they may close, there is a pretty hefty sewer systems development charge that we expect them to pay. Callahan is not presently tied to the line. The line is in, (Mr. Johansen showed the location on the map). Presently the sewage is processed through their trickling filter. It is ready to connect, but we will not allow them to connect until they pay the Systems Development Charge which is about \$100,000.

Discussion followed on the treatment plant at Dammasch which is currently treating flows from Callahan and Dammasch. It is a trickling filter going into a creek. It is a very efficient trickling filter. It goes into a creek that has zero flows so there is no dilution. The creek goes into the Willamette.

Commissioner Coppersmith stated he has had reports from citizens who live by the creek south of Wilsonville Road who state it is terrible. Attorney Kohlhoff stated DEQ and Mental Health is in charge there. DEQ is the regulatory agent responsible. One of the reasons the City determined the annexation should go forward was that they felt it was an urban service - the hospital - and it should be connected to urban services and be part of the City. As a part of that there was an agreement made when the Callahan Center was sold off - we weren't party to the agreement between the state and the Callahan center as to who would pay and who would share it but in fact, did require that the sewer lines be there and be installed and they hook up to the City's sewer. At the same time they had to pay all of the regular costs anybody else would have to pay. Attorney Kohlhoff stated he understands a check should be forthcoming soon from the State of Oregon or whoever is responsible in their deal to pay us the money.

Commissioner Coppersmith asked about the Callahan Center being fully operational and not under our system as was one of the Conditions of Approval. Mr. Johansen stated it is a condition they hook up before they get a final occupancy permit. Commissioner Coppersmith stated they are occupying.

Charlotte Lehan, City Councilor, stated that the sewage treatment plant at Dammasch is fully operational. Its only problem is that the creek has too low a flow a couple of months of the summer where it doesn't meet DEQ guidelines. If people are complaining about trash in the creek, it doesn't come from Dammasch. What comes out of the sewage treatment plant at Dammasch is clear water. It is the salinity that is too high because of the water softeners they have to add because they use deep well hard water. It has no effect on the Willamette. It is not untreated sewage.

Waste Water Collection (cont'd)

Dammasch paid for oversized lines

Dammasch

SDC charges due

Currently using effecient trickling filter

Callahan Center under our system?

Dammasch's sewage treatment plant is fully operational

Mr. Johansen stated when the Capital Improvements Plan is published in final, he needs to put into the Master Plan the sub element of the Comprehensive Plan - the first three columns (from Table ) whether it is SDC eligible, whether it is paid for, and the comments on how the funds are shared is information needed in dealing with the budget. The table as printed is in too much detail so when we finally publish this we will probably knock off the last half of the chart. If we do decide to do part of our waste water collection system with SDC, Mr. Johansen stated he recommends that only be \$698,000 out of a collection system (not audible)....approximately 25%, the rest to be either local improvement districts or the developers pay.

Waste Water Collection system master Plan (cont'd)

Funding continued

For the change in the Code that is included in the recommendation, he is suggesting that we put in four parallel sewer lines and lift station upgrades that the developer and/or property owner may, subject to City approval, meet his responsibility by paying systems development charges which include a collection system. When this is really needed, prior to 1991, there was a collection system component in the SDC.

Recommended changes

Commissioner Griffin asked if an LID would only be put on major lines.

Mr. Johansen stated there could be some of the minor lines included in an LID. If an LID includes streets and water, we may very well pick up some of the minor lines, too. Commissioner Griffin referred to the wording "major" line in the last paragraph.

LID

Attorney Kohlhoff stated you have to show in a local improvement district that the line has special benefit and if it is a smaller line it may only benefit a property as opposed to all of those in the area of benefit. Generally you have the hook up to the major line. He stated we want to have as much flexibility as possible.

Discussion followed on the wording "major" line, and the wording of the last paragraph.

Mr. Sorensen made note that not only was the Sewer Master Plan update done in house by the Engineering Department, namely Eldon, but the map and graphics were produced in house also off of our computer system which is an attribute we haven't had before.

Master Plan update was an "in-house" effort

Chair Burns stated this is a very comprehensive document that has been put together with your visuals.

Mr. Johansen stated we need to make sure that whenever we need to go to more advanced systems, that the Master Plan will allow us to do it without ripping anything out to do it.

Master Plan needs to allow ability to go to more advanced plan when necessary

Chair Burns asked about the lift station shown on the map west. Mr.

Johansen stated at the present time there is one there now and we will have to do some pumping down there forever. Discussion followed on the proposed lift station that is the responsibility of Randall. Mr. Johansen stated that before Randall does their multi
responsibility/high

Lift station/Randall responsibility/high school PAGE 7 of 12

PLANNING COMMISSION MEETING MINUTES JANUARY 10, 1994

family, they are required to upgrade the lift station at Memorial Park. If they develop before the high school is occupied then we can have them do it. If they develop after the high school is occupied then the City will have to put it in. There is an agreement with Randall that it has to be re negotiated. We have started the design of the lift station now and are geared up to do it if necessary but we will have to re negotiate with Randall.

Waste Water Collection System Master Plan (continued)

Randall agreement

Attorney Kohlhoff reviewed the development agreement with Randall, and the requirement for a developer to contribute to the cost of installing the lift station as well as the situation with the high school.

Chair Burns closed the Public Hearing at 8:47 p.m.

Mr. Sorensen stated this has been advertised as an amendment to the Comprehensive Plan. It will be re advertised prior to the City Council hearing. We have to state the criteria including the amendment to any Comprehensive Plan policies. The change in language that has been noted doesn't change the intent of the final policy enough; it shouldn't cause a problem. We will take whatever the Planning Commission recommends and re advertise prior to going to the City Council. The recommendation will be reduced to written form and Resolution for signature and will include the suggested change to the plan language.

Amendment to Comprehensi<sup>\*</sup> Plan

Chair Burns called for a motion.

Commissioner Sloan moved for approval of the amendment to the Master Plan, including language changes as discussed, for the Wastewater Collection System Plan as presented at this meeting. Changes to the wording are: (1) Delete the word "major" on the second line so sentence reads "When a line is to be extended......" and (2) add the words "costs of the" so sentence reads ....." by paying systems development charges which include the costs of the collection system."

Motion to approve with Changes to wording

Commissioner Spicer seconded the motion. The motion passed unanimously, 6-0.

Motion passes unanimously

Chair Burns requested that when this is published in the paper it might be a diplomatic time to remind people that they do not have to hook up to the sewer until the line passes within 300 feet of their property.

Commissioner request to City Council

Mr. Sorensen stated that the specific language changes will probably be put into the paper and we will provide this transcript and request from Chair Burns to the City Council for their review. We will highlight this request.

Written Communications:

### WRITTEN COMMUNICATIONS:

Wilsonville Road interchange

Eldon Johansen reviewed the letter from Bruce Warner of ODOT dated December 14, 1993 regarding the interchange at Wilsonville Road.

PAGE 8 of 12



30000 SW Town Center Loop E Wilsonville, Oregon 97070 FAX (503) 682-1015 (503) 682-1011

## COMMUNITY DEVELOPMENT DEPARTMENT MEMORANDUM

DATE:

February 25, 1994

TO:

Arlene Loble, City Manager

FROM:

Eldon Johansen

**Community Development Director** 

RE:

Wastewater Collection Systems Master Plan

The Sewer System Master Plan and the Capital Improvement Plan dated April, 1981 were adopted by Council Resolution Number 217 on May 3, 1982.

Since the April, 1981 plan was adopted, there have been several changes with a potential impact on line sizes. A summary of the changes is as follows:

- Sixty-five percent of the flows from Tektronix and Mentor Graphics (Basins BE-3A and BE-3B) were diverted from the Burns-West line (ultimately Seely Ditch Trunk sewer) to the Canyon Creek line when the Mentor Graphics campus was constructed.
- A bypass valve and an alternate route for sewage flows has been constructed west of the Thunderbird Mobile Club to relieve capacity problems.
- Infiltration problems which were significant in 1981 have been significantly reduced.
- Flows from industrial and commercial areas have been below master planning figures.
- The City has annexed Dammasch Hospital and the Wagner property.

Comprehensive Master Plan policies concerning the wastewater collection systems are as follows:

Comprehensive Plan - Policy 3.1.4 page 18

The City shall require all future urban level development to be served by the City's sanitary sewer system.

'Serving	The	Community	With	Pride'
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Comprehensive plan - Policy 3.1.5 page 18

The cost of all line extensions and individual services shall be the responsibility of the developer and/or property owner(s) seeking service. When a major line is to be extended, the City may authorize and administer formation of a Local Improvement District (LID). All line extensions shall conform to the City Sewer Master Plan, urbanization policies and Public Works Standards.

City code requirements concerning services as applied to Stage II approval are as follows:

### City Code Book - 4.139 (4-c) page 169

That the location, design, size and uses are such that the residents or establishments to be accommodated will be adequately served by existing or immediately planned facilities and services.

In FY1992-93, CH2M-Hill, a consulting engineering firm, performed a preliminary analysis of the Burns-West area, the proposed United Disposal site and vicinity and the proposed Wilsonville High School area (Annex G). This analysis used planning figures from the 1981 Sewer Master Plan and system records to compare flows with pipe capacity. Follow-up analysis by staff with support from David Evans and Associates indicated that the Master Plan planning figures for industrial and commercial property were above current experience and that the system records needed to be modified to account for flow diversions.

Staff has subsequently updated systems records and prepared the Wastewater Collections Systems Master Plan.

The Wastewater Collection System Master Plan includes the following:

Section 1. Executive Summary

2. Background

3. Determination of flows

4. Determination of pipe capacities

5. Determination of additional requirements

6. Capital Projects list

Annex A Maps

B-H Flow calculations and Alternatives

### Primary features and conclusions that are included in the Plan are as follows:

It retains the sewer capacity to serve the occasional development with medium to high sewer flows by allowing surcharge for the high flows.

• It provides capacity for developments with flows that are similar to existing without surcharge.

• The Capital Improvements Plan is based on continued use of local improvement districts or private funding to construct sewer lines to serve specific developments.

Although how projects are financed is not a specific part of land use planning, a
proposed change to the Capital Improvements Plan includes use of systems
development charges to fund collection system improvements which are of
benefit to a broader range of developments.

• The calculation of system development charges for the collection system improvements component could be on a system-wide basis with a cost of \$184 per equivalent dwelling unit (EDU) or could be based on benefits received by specific basins with cost per EDU varying from \$22 to \$1,051.

• It includes reduced flows from the Burns-West vicinity (Basins BE-1, BE-2, BE-3A and BE-3B) based on verified water consumption records that have been adjusted for growth.

Approval of this Master Plan does not

• Change systems development charges. That will be accomplished as part of the sewer rate and SDC study.

• Provide project approval for any specific project. This is accomplished in the budget process.

Near-Term Situation - The primary area with lack of capacity to meet near-term growth requirements is the High School area. The Memorial Park Lift Station needs to be upgraded before significant flows from the High School enter the system. In addition, the line from Parkway and Trask to the treatment plan also will need added capacity in the next few years. In addition, the lift station which will serve the proposed Fun Center needs added capacity before the Fun Center opens. There are no other areas with a near-term capacity problem.

One area that had previously been of special concern which is no longer an immediate concern is the Burns-West area. Diversion of part of the flow from Mentor Graphics and Tektronix through the Town Center area has temporarily relieved the capacity problem for the Burns-West area.

Long-Term Situation - Requirements for long-term construction are shown as with cross-hatching on the map construction requirements and total \$2,865,000 (see attached Table 27 in Section 6).

Complete copies of the draft Wastewater Collection systems Master Plan will be distributed to Council under separate cover.

### **RECOMMENDATIONS:**

Flan A Ochans

That Council adopt the attached Ordinance approving a modification of Comprehensive Master Plan Policy 3.1.5 rescinding the 1981 Sewer Master Plan and approving the 1993 Wastewater Collection system Master Plan as an element of the Comprehensive Plan.

Eldon R. Johansen, Community Development Director

ej:md

# COMMUNITY DEVELOPMENT DEPARTMENT MEMORANDUM

DATE:

January 4, 1994

TO:

Planning Commission

FROM:

Eldon Johansen

Community Development Director

RE:

Wastewater Collection Systems Master Plan

Comprehensive Master Plan policies concerning the wastewater collection systems are as follows:

Comprehensive Plan - Policy 3.1.4 page 18

The City shall require all future urban level development to be served by the City's sanitary sewer system

Comprehensive Plan - Policy 3.1.5 page 18

The cost of all line extensions and individual services shall be the responsibility of the developer and/or property owner(s) seeking service. When a major line is to be extended, the City may authorize and administer formation of a Local Improvement District (LID). All line extensions shall conform to the City Sewer Master Plan, urbanization policies and Public Works Standards.

City code requirements concerning services as applied to Stage II approval are as follows:

City Code Book - 4.139 (4 - c) page 169

That the location, design, size and uses are such that the residents or establishments to be accommodated will be adequately served by existing or immediately planned facilities and services.

The Sewer System Master Plan and the Capital Improvement Plan dated April 1981 were adopted by Council on Resolution Number 217 on May 3, 1982.

Since the April 1981 plan was adopted there have been several changes with a potential impact on line sizes. A summary of the change is as follows:

- ° Sixty-five percent of the flows from Tektronix and Mentor Graphics (Basins BE-3A and BE-3B) were diverted from the Burns-West line (ultimately Seely Ditch Trunk sewer) to the Canyon Creek line when the Mentor Graphics campus was constructed.
- ° A bypass valve and an alternate route for sewage flows has been constructed west of the Thunderbird Mobile Club to relieve capacity problems.
- o Infiltration problems which were significant in 1981 have been significantly reduced
- Flows from industrial and commercial areas have been below master planning figures.

In FY1992-93 CH2M-Hill, a consulting engineering firm performed a preliminary analysis of the Burns-West area, the proposed United Disposal site and vicinity and the proposed Wilsonville High School area (Annex G). This analysis used planning figures from the 1981 Sewer Master Plan and system records to compare flows with pipe capacity. Follow-up analysis by staff with support from David Evans and Associates indicated that the Master Plan planning figures for industrial and commercial property were above current experience and that the system records needed to be modified to account for flow diversions.

Staff has subsequently updated systems records and prepared the Wastewater Collections Systems Master Plan

The Wastewater Collection System Master Plan includes the following:

- Section 1. Executive Summary
  - 2. Background
  - 3. Determination of flows
  - 4. Determination of pipe capacities
  - 5. Determination of additional requirements
  - 6. Capital Projects list
  - Annex A. Maps
    - B-H. Flow calculations and Alternatives

### Primary features and conclusions that are included in the Plan are as follows:

- ° It retains the sewer capacity to serve the occasional development with medium to high sewer flows by allowing surcharge for the high flows.
- <sup>o</sup> It provides capacity for developments with flows that are similar to existing without surcharge.
- Or The Capital Improvements Plan is based on continued use of local improvement districts or private funding to construct sewer lines to serve specific developments.
- ° Although how projects are financed is not a specific part of land use planning, a proposed change to the Capital Improvements Plan includes use of systems development charges to fund collection system improvements which are of benefit to a broader range of developments.
- The calculation of system development charges for the collection system improvements component could be on a system-wide basis with a cost of \$184 per equivalent dwelling unit (EDU) or could be based on benefits received by specific basins with cost per EDU varying from \$22 to \$1,051.
- o It includes reduced flows from the Burns-West vicinity (Basins BE-1, BE-2, BE-3A and BE-3B) based on verified water consumption records that have been adjusted for growth.

Near-Term Situation - The primary area with lack of capacity to meet near term growth requirements is the High School area. The Memorial Park Lift Station needs to be upgraded before significant flows from the High School enter the system. In addition, the line from Parkway and Trask to the treatment plan also will need added capacity in the next few years. In addition the lift station which will serve the proposed Fun Center needs added capacity before the Fun Center opens. There is no other areas with a near term capacity problem.

One area that had previously been of special concern which is no longer an immediate concern is the Burns-West area. Diversion of part of the flow from Mentor Graphics and

Tektronix through the Town Center area has temporarily relieved the capacity problem for the Burns-West area.

Long-Term Situation - Requirements for long-term construction are shown as with cross-hatching on the map construction requirements and total \$2,865,000 (see attached table 27 in Section 6).

Complete copies of the draft Wastewater Collection Systems Master Plan are available from Margo Dillinger at the Community Development Annex.

### **RECOMMENDATIONS:**

That the Planning Commission recommend recision of the 1981 Sewer Master Plan and approval of the 1993 Wastewater Collection System Master Plan as an element of the Comprehensive Plan.

That the Planning Commission recommend approval of a modification of Comprehensive Master Plan Policy 3.1.5 as follows:

The cost of all line extensions and individual services shall be the responsibility of the developer and/or property owner seeking service. When a major line is to be extended, the City may authorize and administer formation of a Local Improvement District (LID). All line extensions shall conform to the City Wastewater Collections System Master Plan, urbanization policies and Public Works Standards. For parallel sewer lines and lift stations upgrades, the developer and/or property owner may, subject to City approval, meet his/her responsibilities by paying systems development charges which include the collection system.

Eldon R. Johansen

Community Development Director

# CITY OF WILSONVILLE

ORAFT.

# WASTEWATER COLLECTION SYSTEM MASTER PLAN

### WASTEWATER COLLECTION SYSTEM MASTER PLAN

### TABLE OF CONTENTS

- 1. Executive Summary
- 2. Background
- 3. Determination of Flows
- 4. Determination of Pipe Capacity
- 5. Determination of Additional Construction Requirements
- 6. Capital Projects List
  - A. Map
  - B. Burns West Vicinity
  - C. United Disposal Vicinity
  - D. Wood School Vicinity
  - E. Canyon Creek Vicinity
  - F. High School Vicinity
  - G. Charbonneau Vicinity
  - H. CH2M Hill Report

### WASTEWATER COLLECTION SYSTEM MASTER PLAN

### SECTION 1

### **EXECUTIVE SUMMARY**

This update of the Wastewater Collection System Master Plan builds on the following items in the 1981 Master Plan by Westech Engineering, Incorporated:

- The same drainage basins are used to calculate sewage flows.
- The same overall layout is used for the collection system.
- Wastewater generation is based on the same flows per acre.
- Pipe capacities are still based on Mannings' formula and the same friction factor.

Changes from the 1981 Master Plan are required because of the following:

- Sixty-five percent of the flows from Tektronix and Mentor Graphics (Basins BE-3A and BE-3B) were diverted from the Burns-West line (ultimately Seely Ditch trunk sewer) to the Canyon Creek line when the Mentor Graphics campus was constructed.
- A bypass valve and an alternate route for sewage flows has been constructed west of the Thunderbird Mobile Club to relieve capacity problems.
- Infiltration problems which were significant in 1981 have been significantly reduced.
- Flows from industrial and commercial areas have been below master planning figures.

Primary features and conclusions that are included in the Plan are as follows:

- It retains the sewer capacity to serve the occasional development with medium to high sewer flows by allowing surcharge for the high flows.
- It provides capacity for developments with flows that are similar to existing without surcharge.
- The Capital Improvements Plan is based on continued use of local improvement districts or private funding to construct sewerlines to serve specific developments.

- The Capital Improvements Plan includes use of systems development charges to fund collection system improvements which are of benefit to a broader range of developments.
- The calculation of system development charges for the collection system improvements component could be on a system-wide basis with a cost of \$184 per equivalent dwelling unit (EDU) or could be based on benefits received by specific basins with cost per EDU varying from \$22 to \$1,051.
- It includes reduced flows from the Burns-West vicinity (Basins BE-1, BE-2, BE-3A and BE-3B) based on verified water consumption records that have been adjusted for growth.

### **SECTION 2**

### BACKGROUND

The Wastewater Collection System Master Plan was developed by Westech Engineering in 1981. This was approved by Council Resolution No. 217, dated May 3, 1982.

Since the original Wastewater Collection System Master Plan was approved, there have been several changes that impact on the Master Plan. A summary of these changes is as follows:

The flows that were projected by the Master Plan were generally higher than the actual flows that we are experiencing. Attached is Table 1, a comparison of present day flows using the Master Planning figures as compared to the flows that are arriving at the Wastewater Treatment Plant. The master planning figures are for the average daily flows, and are approximately 6 times the flows that are actually arriving at the Treatment Plant. One of the items we need to address in this update of the Master Plan is the proper method for planning for this difference in flows so that we can provide an adequate wastewater collection system without excessive oversizing.

The industrial areas of the City are being developed with large warehouse and trucking operations in many areas. These are much less sewer intensive than were anticipated in the original Wastewater System Master Plan.

When the approval of the Stage 2 Master Plan for Mentor Graphics was granted, it included a diversion of 65% of the flows from Mentor Graphics and Tektronix into the Canyon Creek collection system which flows through Town Center to Trask and then ultimately to the Wastewater Treatment Plant. The earlier plan for this flow was to take it West to the Seely Ditch trunk sewer.

When the current rationale for the Wastewater System Development Charge was approved, it was based on only charging a systems development charge component for the Wastewater Treatment Plant and did not include any component for the collection system. With the previously mentioned flow diversion there is no incentive for parties that benefit from flow diversion to pay for sewerlines to serve developments in basins that are adversely impacted by the flow diversion. It appears that we need to include a collection system component in the wastewater system development charge. To accomplish this it is necessary to have a capital improvements plan that includes the wastewater collection system. This plan is part of the Wastewater Master Plan.

### Wastewater Flow Comparisons

PRESENT F			
Unit of	Number of	Master Planning	Average Daily
Measure	Units	Factor (per unit)	Flow (MGD)
Dwelling Units	4,693	213	1.00
Acres	260	2,200	0.57
Acres	579	5,000	2.90
Acres	2,021	800	1.62
			6.08
at Wastewater Tre	atment Plant		0.90
	Unit of Measure  Dwelling Units Acres Acres Acres	Unit of Number of Measure Units  Dwelling Units 4,693  Acres 260  Acres 579	Measure         Units         Factor (per unit)           Dwelling Units         4,693         213           Acres         260         2,200           Acres         579         5,000           Acres         2,021         800

### **SECTION 3**

### **DETERMINATION OF FLOWS**

The 1981 Wastewater Master Plan was based on the Comprehensive Plan that was in place at that time and standard planning figures for Wastewater Master Plans. The planning figures are as follows: Industrial properties 5,000 gal/acre/day; commercial properties 2,200 gal/acre/day; residential properties 100 gal/ capita/day with 2.13 residents per dwelling unit..

To begin updating the Wastewater Master Plan, Ms. Sue Johnson, of the Engineering Division of the City, worked with Jay Holtz, of CH2M Hill, to update the acreage of residential, commercial and industrial property and the number of residential dwelling units as allocated in the Comprehensive Plan for current and build-out conditions. An extraction of this information is presented in Tables 2 and 3. Also in Tables 2 and 3, staff has added the figures for Charbonneau to facilitate planning for possible modification of the Charbonneau liftstation and for future planning of the expansion of the Wastewater Treatment Plant. These had not been included in the February update by CH2M Hill since the collection system was in place.

Mr. Bruce Magnuson, of David Evans & Assoc., representing Burns West, and Staff have done a detailed study of the current wastewater flows from the developed area east of I-5 and north of Boeckman Road (Basins BE-1, BE-2, BE-3a, & BE-3b). Details concerning this area, flow determinations, and flow comparisons are included in Annex B. In determining the adjusted average current domestic flow, we used the average water consumption and adjusted this figure upward to account for future hires that could be accommodated within the current facilities and to account for firms that are working a five or six day week. These projections were used to adjust the current drainage basin flow for BE-1, BE-2, BE-3a, & BE-3b. They were also used to adjust the drainage basin flow at buildout by using these figures for the developed property and the master planning figures for the undeveloped properties.

Summaries of the current drainage basin flow and buildout drainage basin flow are attached as Table 5 & Table 6.

Staff has been very concerned about the large difference between the current master planning figures for the commercial areas and the industrial areas, as compared to the actual flows that are being experienced. To determine if this significant difference in flows would impact on construction costs, staff has calculated the build-out flows using the 213 gallon per dwelling unit per day for residential areas, 1,500 gallon per acre per day instead of the master plan figure of 2,200 gallons per acres per day for commercial development, and 2,000 gallons per acre per day instead of the master planning figure of 5,000 gallons per acre per day. A summary of the drainage basin flows at build out, with the reduced figures, is indicated at Table 6A. In the various annexes for the drainage areas, we have included a comparison of flow and capacity for the reduced flows. The overall result of this reduction in flows is that the surcharge, which would have been required to serve areas with flows of 2,200 gallons per acre per day for commercial properties, or 5,000 gallons per acre per day for industrial properties, has been very nearly eliminated. The effect on the Capital Improvements Plan was much less dramatic in that the areas in which parallel lines are required are either, in very flat areas where the sewerlines just won't carry much flow, or in areas in which the flows are very largely from residential neighborhoods which are much more stable in the comparison of existing and master planning projections.

The figures which were included on Tables 5 & 6 are for the average daily flow through the wastewater collection system. In designing a sewer pipe we designed for the peak

daily flow instead of the average daily flow. The further one would travel down the sewer collection system, the lower would be the ratio of peak flow to average daily flow since it takes longer for the sewage to arrive at any given point. The peaking factor is determined from a chart which provides the peaking factor based on the domestic flow, (Figure 2). The basic procedure is to take the domestic flow, multiply it by the peaking factor and then add the infiltration into the system to determine the flow at any particular point in the system

The sewage is routed from basin to basin through the wastewater collection system until it arrives at the Wastewater Treatment Plant. The routing for the various systems is indicated on Table 7. This shows the system locations and the basins which have been accumulated to arrive at this location.

The accumulated current flows for each of the major collection system components are shown on Table 8. The accumulated buildout flows are indicated on Table 13.

Current Development									
Drainage	Orainage Area		tial	Commercial	Industrial				
Basin	Sewered	Development		Development	Development				
	(acres)	(units)	(acres)	(acres)	(acres)				
DRT-2	95			28	67				
DRT-3	21				21				
DRT-4a	13				13				
DRT-4b	42				42				
BE-1	73		_	62	11				
BE-2	19	0			19				
BE-3a	79				79				
BE-3b	45				45				
SD-4	33				33				
SD-5	14				14				
SD-6	44				44				
SD-7	76	276	36		40				
SD-8	40	12	3	8	29				
BC-3	22	32	12	10					
BC-4	9	96	9		0				
BC-5a	5	21	5						
BC-5b	84	383	84						
BC-5c	42	324	42						
BC-6	35	36	35						
BC-7	60	397	59	1					
BT-3	<b>7</b> 7	459	77						
BT-4	65				: 65				
A-1	; 43			12	32				
PT-1	168	505	128	40					
PT-2	69	44	6	61	2				
PT-3	12	14	2	10					
RSV-1	183	878	83						
RSV-2	73	194	50		23				
Subtotal:	1,541	3,671	631	232	579				
CT 1 & 2	329	1,562	295	34	<u> </u>				
Total:	1,870	5,233	926	266	579				

Build-Out Development									
Drainage	Area	Residential		Commercial	Industrial				
Basin	Sewered	Development		Development	Development				
	(acres)	(units)	(acres)	(acres)	(acres)				
DRT-2	105			31	74				
DRT-3	71				71				
DRT-4a	43				43				
DRT-4b	52				52				
BE-1	105			69	36				
BE-2	50	60	3		47				
BE-3a	113				113				
BE-3b	65				65				
SD-4	47				47				
SD-5	28				28				
SD-6	63				63				
SD-7	107	474	40		67				
SD-8	114	19	3	39	72				
BC-3	40	125	30	10					
BC-4	124	1,492	89		35				
BC-5a	54	316	54						
BC-5b	112	789	112						
BC-5c	70	834	70						
BC-6	87	137	87						
BC-7	104	1,024	97	7					
BT-3	103	945	103						
BT-4	72				72				
A-1	; 48			13	35				
PT-1	209	868	142	67					
PT-2	76	68	6	68	2				
PT-3	34	224	19	15					
RSV-1	204	1,507	204						
RSV-2	176	598	100	<del>78</del>	76				
Subtotal:	2,476	9,480	1,159	319	998				
CT1 & CT2	329	1,608	295	34	0				
Fotal:	2,805	11,088	1,454	353	998				
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TABLE 4

NOT USED

**=** :

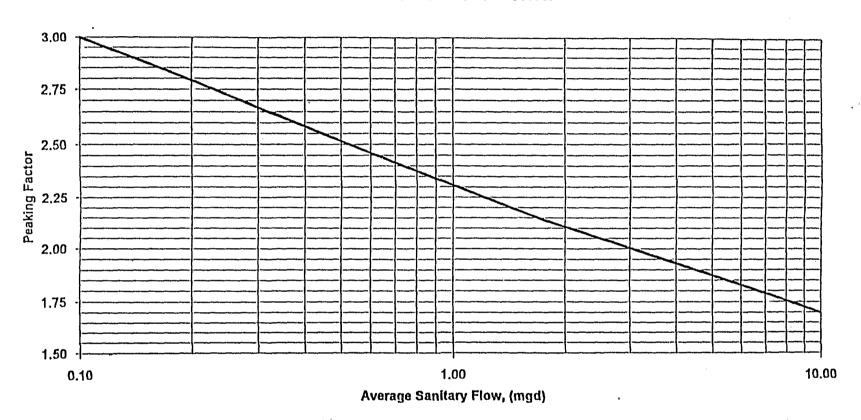
Current Drainage Basin Flow						
Drainage	Residential	Commercial	Industrial	Total Sanitary	I/I Flow	Source
Basin	Flow	Flow	Flow	Flow	(mgd)	
	(gpd)	(gpd)	(gpd)	<b>(</b> gpd)		
DRT-2		61,766	333,900	0.40	0.08	1
DRT-3			106,200	0.11	0.02	1
DRT-4a			64,800	0.06	0.01	1
DRT-4b		42,236	209,200	0.21	0.03	1
BE-1			9,312	0.05	0.06	2
BE-2			21,323	0.02	0.02	2
BE-3a		j	58,016	0.06	0.06	2
BE-3b			166,867	0.17	0.04	2
SD-4			165,550	0.17	0.03	1
SD-5			70,500	0.07	0.01	1
SD-6			219,100	0.22	0.04	1
SD-7	58,852		201,600	0.26	0.06	1
SD-8 *	2,620	17,160	143,200	0.19	0.03	1
BC-3	6,901	21,340		0.03	0.02	1
BC-4	20,533			0.02	0.01	1
BC-5a	4,409			0.00	0.00	1
BC-5b	81,600			0.08	0.07	1
BC-5c	68,927			0.07	0.03	1
BC-6+	7,583			0.03	0.03	1
BC-7	84,646	2,860		0.09	0.05	1
BT-3	97,724			0.10	0.06	1
BT-4			323,550	0.32	0.05	1
A-1		25,740	157,500	0.18	0.03	1
PT-1	107,650	88,704		0.20	0.13	1
PT-2	9,372	134,046	12,000	0.16	0.06	1
PT-3	3,025	22,792		0.03	0.01	1
RSV-1 #	186,929			0.20	0.15	1
RSV-2	41,216		113,400	0.15	0.06	1
CT-1 & CT-2**		124,800	0	0.46	0.26	3
Total	1,114,693	541,444	2,376,018	4.11	1.51	
Note: I/I Rate =	: 800gpad					
* Includes flow				Sources:	1	
+ Includes flow				1) CH2M Hill R		
# Includes flow				2) DEA & Staff		93
'* Includes 50,0	00 gal/day for	Baldock Rest	Areas	3) Staff, Augus	st, 1993	
į	[			į	<b>§</b>	

		Build-Ou	t Drainage B	asin Flow		
Drainage	Residential	Commercial	Industrial	Total Sanitary	I/I Flow	Source
Basin	Flow	Flow	Flow	Flow	(mgd)	
	(gpd)	(gpd)	<b>(</b> gpd)	(mgd)	•	
DRT-2		68,640	371,000	0.44	0.08	1
DRT-3			354,000	0.35	0.06	1
DRT-4a			216,000	0.22	0.03	1
DRT-4b			261,500	0.26	0.04	1
BE-1		57,636	201,060	0.19	0.08	2
BE-2	12,780		161,323	0.17	0.04	2
BE-3a			228,016	0.23	0.09	2
BE-3b			266,867	0.27	0.05	2
SD-4			236,500	0.24	0.04	1
SD-5			141,000	0.14	0.02	1
SD-6			313,000	0.31	0.05	1
SD-7	100,962		336,000	0.44	0.09	1
SD-8 *	4,047	85,800	358,000	0.47	0.09	1
BC-3	26,561	21,340		0.05	0.03	1
BC-4	317,881		174,500	0.49	0.10	1
BC-5a	67,351			0.07	0.04	1
BC-5b	168,014			0.17	0.09	1
BC-5c	177,642			0.18	0.06	1
BC-6+	29,266			0.08	0.07	1
BC-7	218,112	14,300	1	0.23	0.08	1
BT-3	201,370			0.20	0.08	1
BT-4			359,500	0.36	0.06	1
A-1		28,600	175,000	0.20	0.04	1
PT-1	184,841	147,840		0.33	0.17	1
PT-2	14,569	148,940	12,000	0.18	0.06	1
PT-3	47,797	32,560		0.08	0.03	1
RSV-1#	321,034			0.34	0.16	1
RSV-2	127,417		378,000	0.51	0.14	1
CT-1 & CT-2	342,504	124,800	0	0.47	0.26	3
Total	2,362,148	730,456	4,543,266	7.67	2.23	
Note: I/I Rate	= 800gpad					
* Includes flo	ow from Wilson	nville Elementa	ry School			
	w from Boeckn		ool and Wilson	ville High Scho	ol	
# Includes flo	w from Wood I	Middle School				
Sources:	l					
	Report Feb. 199	3				
2) DEA & Staf						
3) Staff, Augu	st, 1993					

==::

	Buil	d-Out Devel	opment R	educed			
Drainage	Area	Residential		Commercial	Industrial	TOTAL	1/1
Basin	Sewered	Development		Development	Development	SAN FLOW	FLOW
	(acres)	(units)	(acres)	(acres)	(acres)	(MGD)	(MGD)
DRT-2	105		1	31	74	0.19	0.08
DRT-3	71				71	0.14	0.06
DRT-4a	43				43	0.09	0.03
DRT-4b	52				52	0.10	0.04
BE-1	105			69		0.12	0.08
BE-2	50	60	3		47	0.09	0.04
BE-3a	113				113	0.18	0.09
BE-3b	65				. 65	0.24	0.05
SD-4	47				47	0.09	0.04
SD-5	28				28	0.06	0.02
SD-6	63				63	0.13	0.05
SD-7	107	474	40		67	0,23	0.09
SD-8	114	19	3	39	72	0.21	0.09
BC-3	40	125	30	10		0.04	0.03
BC-4	124	1,492	89		35	0.39	0.10
BC-5a	54	316	54			0.07	0.04
BC-5b	112	789	112			0.17	0.09
BC-5c	70	834	70			0.18	0.06
BC-6	87	137	87			0.03	0.07
BC-7	104	1,024	97	7		0.23	0.08
BT-3	103	945	103			0.20	80.0
BT-4	72				72	0.14	0.06
A-1	48			13	35	0.09	0.04
PT-1	209	868	142	67		0.29	0.17
PT-2	76	68	6	68	2	0.12	0.06
PT-3	34	224	19	15		0.07	0.03
RSV-1	204	1,507	204			0.32	0.16
RSV-2	176	598	100		. 76	0.28	0.14
Subtotal:	2,476	9,480	1,159	319	998	4.48	1.98
CT1 & CT2	329	1,608	295	34	0	0.39	0.26
Total:	2,805	11,088	1,454	353	998	4.87	2.24
	<u> </u>	i					

### PEAKING FACTOR CURVE



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Figure 2
Sewerage Planning
City of Wilsonville



## Collection System Master Plan Accumulated Flows

	ACCUMULATED FLOW						
System	Basins	System	Basins	System	Basins	System	Basins
Location	Accumulated	Location	Accumulated		Accumulated	Location	Accumulated
						T	
				<b>.</b>			AND STREET
BURNS W	EST	UNITED DISP		CANYON CR	EEK	HIGH SCHO	OOL
BW-A	BE-1	UD-A	DRT-2	ICC-A	BC-4	HS-A	BC-5A
BW-B	BE-2	UD-B	DRT-3		.65* BE-3	HS-B	BC-5B
BW-D	.35* BE-3A	UD-C	ISD-4	ICC-B	PT-1	HS-C	BC-5C
	.35* BE-B		ISD-5	-			BC-6
BW-E	BT-3	UD-D	DRT-41	lcc-c	PT-2	HS-D	BC-3
BW-4	BT-4		IDRT-4B				BC-7
					Combine		
					Canyon Creek &		
	.5* BW-E		SD-6	HS-E	High School		
			1.5™ BW-E				
			Combine Burns	ı			
			West & United	l i			
		UD-D1	Disposal				
		UD-E	SD-7				
			Combine Burns				
			West, United				
			Disposal &				
-		UD-F	Wood School				
		UD-G	SD-8				
			A-1				
		WOOD SCHOOL	L	CHARBONNEAU			
		WS-A	RSV-1	CH-A	CT-1		
			RSV-2008		CT-2		
			LEC		Baldock		
			Dammasch				

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İ	- #	CU	RRENT FLO	ows """	A SEC MARKS NO		l 🕠 . Se
The gray contract of	1-2-				PEAK	1/1 :	TOTAL PEAR
SYSTEM	PIPE	BASINS .	SANITARY	PEAKING	SAN FLOW		FLOW
LOCATION	NUMBER	ACCUM.	FLOW(MGD)		(MGD)	(MGD)	(MGD)
		7.000	1 2011,11102)	17.0.0.1	(WICO)	(WGD)	(MGD)
<del></del>			BURNS WES	T FLOWS-CURF	RENT	ļ	<u> </u>
BW-A	BW-37 TO 30	BE-1	0.05	,3	0.15	0.08	0.23
BW-B	BW-29 TO 21		0.02	, ,	0.10	0.04	
	SUBTOTAL		0.07	3	0.21	0.12	
BW-D	BW-20 TO 17	35%BE-3A	0.02			0.03	0.00
		35%BE-3B	0.06			0.02	
	SUBTOTAL		0.15	2.89	0.43	0.17	0.60
BW-E	BW-16 TO 9	ВТ-3	0.13	2.00	0,40	0.08	0.00
	SUBTOTAL	10.0	0.25	2.8	0.70		0.95
	1005/01/12		0.125	2.0	0.70	0.125	
BW-F	BW-8 TO 1	BT-4	0.32			0.06	
	SUBTOTAL		0.445	2.52	1 10	0.185	1,31
UD-D1	UD-28 TO 26	DRT-2	0.443	٤,32	1.12	0.183	1,01
<u> </u>	100 20 10 20	SD-4	0.17		· · · · · · · · · · · · · · · · · · ·	0.04	······································
<del></del>	+	DRT-3	0.11	<del></del>		0.04	
		DRT-4A	0.06			0.03	
<del></del>	<u> </u>	DRT-4A	0.00			0.03	
	<u> </u>	SD-5	0.07			0.02	
		SD-6				0.02	
	SUBTOTAL	30-0	0.22 1.81	2.15	3.89		4.52
UD-E	UD-25 TO 17	SD-7	0.26	2.13	3.09	0.09	4.52
OD-E	ISUBTOTAL	30-7	2.07	2,1	4.35		5.07
UD-F	UD-16 TO 12	RSV-2 OOBASN	0.15	2,1	4.55	0.06	3.07
OL-P	100-10 10 12	RSV-1	0.13			0.16	
		LEC	0.02			0.03	
<u> </u>		DAMMASCH	0.02			0.09	
	SUBTOTAL	DAMMAGGIT	2.52	2.05	5.17	1.06	6.23
UD-G	UD-11 TO 1	SD-8		2.001	3.17	0.09	0.20
<u> </u>	100-11 10 1	A-1	0.19			0.03	
<del></del>	CURTOTAL	A-1	0.18 2.89	2.04	5.90	1.19	7.09
<del></del>	SUBTOTAL		2.09	2.04	5.90	1.13	7.00
<del></del>		<u></u>	INCED DICE	OCAL ELOWS (	NUDDENT		
LID A	LID SC TUDU			OSAL FLOWS-C		0.08	1.11
UD-A	UD-56 THRU	DRT-2	0.4	2.58	1.03	0.00	
	UD-54	DOTA				0.02	
UD-B		DRT-3	0.11			0.02	
OLIDTOT:	UD-44				4.00		1.38
SUBTOTAL			0.51	2.51	1.28	0.1	1.30
UD-C	UD-43 THRU	SD-4	0.17			0.03	
	UD-33	SD-5	0.07			0.01	4.04
SUBTOTAL			0.75	2.4	1.80		1.94
<u> </u>	UD-32 THRU	DRT-4A	0.06			0.01	<u></u>
<u></u>	UD-29	DRT-4B	0.21			0.03	
		SD-6	0.22			0.04	
		.5*BT-3 FLOW	0.125	2.25		0,125	3.42
SUBTOTAL			1.365		3,07	0.345	

*** **********************************	***************************************	1 'CU	RRENT FLO	DWS	- 1	į	1400
		7-30 k		L	PEAK	1/1 5	TOTAL PEAK
SYSTEM	PIPE	BASINS	SANITARY	PEAKING	SAN FLOW		FLOW
LOCATION	NUMBER	ACCUM.	FLOW(MGD)	FACTOR	(MGD)	(MGD)	
						, , , , ,	<u> </u>
			CANYON CR	EEK FLOWS-CU	RREM"	BASIN T	RANSFER
CC-A	CE-23 to 16	.7*BC-4	0.03	3	0.09		
		65% OF BE-3	0.15	2.9	0.44	0.1	0.54
Subtotal:	<u> </u>		0.18	2.8	0.50	0.11	0.61
CC-A1	CE-15 to 10	.5*PT-1	0.1			0.07	
Subtotal:			0.28	2.67	0.75	0.18	0.93
СС-В	CE-9 to 8	.5*PT-1	0.1			0.06	
Subtotal:			0.38		0.98	0.24	1.22
cc-c	CE-7 to 1	PT-2	0,16			0.06	
Subtotal:			0.54	2.5	1.35		1.65
HS-E	HS-7 to 1	PT-3	0.03			0.01	
		BC-7	0.09			0.05	
		BC-3	0.03			0.02	
		BC-6	0.03			0.03	
		BC-5	0.15			0.1	
TOTAL:			0.87	2.35	2.04	0.51	2.55
			HIGH SCHOO	L FLOWS-CURP			RANSFER
HS-A	HS-31 to 25	BC-5A	0		0.00	0	0.00
		.3*BC-4	0.01			0	
			0.01	3	0.03	0	0,03
HS-B	HS-24 to13	BC-5B	0.08			0.07	
Subtotal:			0.09	3	0.27	0.07	0.34
HS-C	HS-12 to 9	BC-5C	0.07			0.03	
	ļ	BC-6	0.03			0.03	
Subtotal:			0.19	2.8	0.53		0.66
HS-D	HS-8	BC-3	0.03			0.02	
<u></u>		BC-7	0.09			0.05	4.00
Subtotal:	<u> </u>		0.31	2.58	0.80	0.2	1.00
HS-E		USE CANYON C	REEK SPREAD	SHEET			
l	1	DOV.4		OL FLOWS-CUP	HENT	0.40	
WS-A	WS-8 to 1	RSV-1	0.2			0.16	
		RSV-200B	0.15			0.06	
	<u> </u>	Living Enrichm				0.03	
<u></u>	:	Dammasch	0.08		1.10	0.09	4 47
SUBTOTAL			0.45	2.5	1.13	0.34	1.47
UD-F & Downst	ream - See BUF	INS-WEST					
			<u> </u>				
				AU FLOWS-CUP			
СТ	CT-1	CT1&CT-2	0.458	2.55	1.17	0.26	1.43
	<u> </u>						
BE-1, BE-2, BE-	3A &BE-3B AT			JUSTED			
	<b>IOTHER BASINS</b>	SAT MP VOLUME	S				

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## <u>TABLES 9 - 12</u>

NOT USED

1,21		Acc.	BUILD-C	UT FLO	ws		
Lake:		-	Sanitary		Sanitary		Total Peak
System		Basins	Flow	Peaking	Flow	I/I Flow	Flow
Location	Pipe Number	Accumulated	(MGD)	Factor	(MGD)	(MGD)	(MGD)
	<u> </u>						
		BURNS WEST					
BW-A	BW-37 TO 30	BE-1	0.19		0.53	0.07	0.60
BW-B	BW-29 T0 21	BE-2	0.17			0.04	
	SUBTOTAL	<u></u>	0.36	2.63	0.95	0.11	1.06
BW-D	BW-20 T0 17	35%BE-3A	0.08			0.03	
	ļ	35%BE-3B	0.09			0.02	
	SUBTOTAL		0.53	2.52	1.34	0.16	1.50
BW-E	BW-16 TO 9	BT-3	0.2			0.08	
	SUBTOTAL		0.73		1.75		1.99
	<u> </u>	0.5*8W-E	0.365			0.12	
BW-F	BW-8 TO 1	BT-4	0.36			0.06	
	SUBTOTAL		0.725	2.4	1.74		
UD-D1	UD-28 TO 26	DRT-2	0.44		]	0.08	
		SD-4	0.24			0.04	
		DRT-3	0.35			0.06	
		DRT-4A	0.22			0.03	
		DRT-4B	0.26			0.04	
		SD-5	0.14			0.02	
		SD-6	0.31			0.05	
	SUBTOTAL		3.05	2.01	6.13	0.62	6.75
UD-E	UD-25 TO 17	SD-7	0.44			0.09	
	SUBTOTAL		3.49	1.95	6.81	0.71	7.52
UD-F	UD-16 TO 12	RSV-2 OOBASN	0,15			0.06	
		RSV-1	0.34			0.16	
		DAMMASCH	0.08			0.09	
		LEC	0,02			0.03	
	SUBTOTAL		4.08	1.92	7.83	1.05	8.88
UD-G	UD-11 TO 1	SD-8	0.47			0.09	
		A-1	0.2		[	0.04	
	SUBTOTAL		4.75	1.89	8.98	1.18	10.16
		UNITED DISPO	SAL FLOW	S-BUILD-	OUT		
UD-A	UD-56 THRU	DRT-2	0.44	2.55	1.12	0.08	1.20
	UD-54						
UD-B	UD-53 THRU	DRT-3	0.35		1	0.06	
	UD-44						
SUBTOTA	\L_		0.79	2.36	1.86	0.14	2,00
UD-C	UD-43 THRU	SD-4	0.24			0.04	
	UD-33	SD-5	0.14			0.02	
SUBTOTA	\L		1.17	2.25	2.63	0.20	2.83
UD-D	UD-32THRU	DRT-4A	0.22			0.03	
	UD-29	DRT-4B	0.26			0.04	
		SD-6	0.31			0.05	
		.5°BT-3FLOW	0.365		i	0.12	
·SUBTOTA	\L		2.325	2.05	4.77	0.44	5.21
		NS WEST FLOW					

			000000	01115	Towns	<del></del>	
CC-A	CE-22 to 45	CANYON			7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	<b>  • • • • • • • • • • • • • • • • • • •</b>	
CC-A	CE-23 to 16	.7°BC-4	0.35				0.99
0	<u> </u>	65% OF BE-3*			The state of the s		0.92
Subtota			0.66		1,62		1.79
CC-A1	CE-15 to 10	.5*PT-1	0.17			0.09	
Subtota	<del></del>		0.83		1.97		2.23
CC-B	CE-9 to 8	.5*BT-1	0.16			0.08	
Subtota			0.99		2,28	0.34	2.62
cc	CE-7 to 1	PT-2	0.18			0.06	
Subtota			1.17	2.25	2.63	0.40	3.03
HS-E	HS-7 to 1	PT-3	0.08			0.03	
		BC-7	0.23			0.08	
		BC-3	0.05			0.03	
		BC-6	0.08			0.07	
		BC-5	0.42			0.19	
TOTAL:			2.03		4.26		5.06
		m BasinBE-3 bas d-out reduce from					•
			HIGH SCH	OOL FLO	WS-BUILD	-OUT	
				BASIN TRA			
HS-A	HS-31 to 25	.3*BC-4	0.15			0.03	
	110 01 to 25	BC-5A	0.05			0.04	
Subtotal	<del>!</del> -	100-07	0.03	2.8	0.56	0.07	0.63
HS-B	HS-24 to 13	BC-5B	0.17		0.50	0.09	
Subtotal		150-35	0.17		0.93		1.06
HS-C	HS-12 to 9	BC-5C	0.18	2,32	0.30	0.06	
113-0	113-12 10 9	BC-6	0.08			0.07	
Subtotal	<u> </u>	DC-0			1.54		1.80
	HS-8	PC 0	0.63	2.43	1.34		1.00
HS-D	103-0	BC-3	0.05			0.03	
Outstatel	<u> </u>	BC-7	0.23		0.44	0.08	0 = 1
Subtotal		110-0110	0.91	2.35		0.37	2.51
HS-E		USE CANYON C	REEK SPRE	AD SHEE	<u> </u>		
		WOOD SCHOO	I FLOWS	BUIL D-OL	r i		
WS-A	WS-8 to 1	RSV-1	0.34	101FD-00	· <del>·</del>	0.16	
W3-M	1473-0 (0 1	<del></del>				0.06	
	<del> </del>	RSV-200B	0.15			0.03	
	ļ	LEC	0.02		·		
<u> </u>	<u> </u>	DAMMASCH	0.08			0.09	4 70
SUBTOTA	\ <u> </u>	<del>  </del>	0.59	2.45	1.45	0.34	1.79
		<del>  </del>	CHARBON	NEAU FL	OWS-BUIL	D-OUT	
T	CT-1	CT1&CT-2	0.47	2.55	1.20	0.26;	1.46
		-1, BE-2, Be-3A					
	erty at MP ra		, a DE-30	at actua	14163		
Seiter high	city at IVIT (d)	.00		1	1	<u>.</u>	

		11.3		7 4	·	: L	2.51				٠				*	4					. "			· *				1	1.0	
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- 1	-	were an	** ** ***											~ -																

# <u>TABLES 14 - 17</u>

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## NUMES WESTERN PIPE CAPACITIES

#### **SECTION 4**

#### **DETERMINATION OF PIPE CAPACITIES**

Pipe capacities of the system were calculated based on the Mannings' formula. This formula was also used in development of the 1981 Plan. This formula uses the slope of the pipe, the diameter of the pipe, and a friction factor to determine the flow. For the City system we have used a friction factor of .013

In the calculation of pipe capacity, the Staff has gone a couple of steps past the normal procedure which is used in developing a collection system master plan. Because of the small segments of relatively flat sections of the pipe that are down stream of steeper sections of the pipe, we have allowed selective surcharging to determine a combination capacity for selected sections of pipe as indicated in Table 18. For example, the slope in pipe BW-2 would allow a pipe capacity of 2.40 MGD. By allowing for limited surcharging we could have an overall pipe capacity in segments BW-1 through BW-4 of 2.98 million gallons per day.

Because of the very significant difference between the accumulated current flows, as calculated using master planning figures, and the actual flows that are arriving at the Wastewater Treatment Plant, we are using the limited surcharge at buildout to help minimize construction cost while maintaining the capability of providing service for potential desirable development with high sewage flow.

Pipe capacities within the collection system are indicated on Tables 19 through 23. These capacities are for the pipes that currently exist or are under construction. In the separate detailed analysis of each of the primary collection system components, we have also calculated the required additional pipe capacity to serve the remainder of the properties to be developed within the city.

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#### **BURNS WESTERN PIPE CAPACITIES**

	BURNS W	VEST CA	APACITIE	ES
	PIPE		PIPE	PIPE
PIPE	DIAMETER	LENGTH	SLOPE	CAP
NUMBER	(INCHES)	(FEET)	(FT/FT)	(MGD)
BW-1	15	351	.0038	2.57
BW-2	15	348	.0033	2.40
BW-3	15	373	.0036	2.51
BW-4	15	66	.0280	6.99
BW-1 THRU	15	1138	.0051	2.98
BW-4				

#### BURNS WEST PIPE CAPACITIES

	BURNS	WEST C	CAPACITI	ES			BURNS V	VEST C	APACITIE	ES
	PIPE		PIPE	PIPE			PIPE		PIPE	PIPE
PIPE	DIAMETER	LENGTH	SLOPE	CAP		PIPE	DIAMETER	LENGTH	SLOPE	CAP
NUMBER	(INCHES)	(FEET)	(FT/FT)	(MGD)		NUMBER	(INCHES)	(FEET)	(FT/FT)	(MGD)
UD-1	30	334	.0018	11.25		BW-1	15	351	,0038	2.57
UD-2	30	280	.0018	11.25		BW-2	15	348	.0033	2.40
UD-3	30	310	.0037	16.13		BW-3	15	373	.0036	2.51
UD-4	30	171	.0037	16.13		BW-4	15	66	.0280	6.99
UD-5	30	120	.8000.	7.50		BW-1 THRU	15	1138	.0051	2.98
UD-6	30	10	.0040	16.77		BW-4	l			
UD-7	30	429	.0021	12.15		BW-5	12	329	.0100	2.30
UD-8	30	472	.0018	11.25		BW-6	12	415	.0092	2.21
UD-9	30	478	.0013	9.56		BW-7	12	500	.0091	2.20
UD-10	30	498	.0023	12,72		BW-8	12	498	.0088	2.16
UD-1 THRU	30	3102	.0017	10.93		BW-9	12	8	.0500	5.15
UD-10						BW-5 THRU	12	1750	.0095	2.24
UD-11	30	312	.0012	9.18		BW-9				
						BW-10	12	300	.0193	3.20
UD-12	30	144	.0009	7.95		BW-11	12	287	8000.	. 2.28
						BW-13	12	153	.0483	5.06
UD-13	30	95	.0016	10.61		BW-14	12	394	.0121	2.53
						BW-15	12	370	.0077	2.02
UD-14	30	243	.0014	9,92		BW-16	12	380	.0077	2.02
						BW-10 THRU	12	1884	.0077	2.02
UD-15	30	399	.0013	9.56		BW-16				
						BW-17	12	461	.0230	3.49
UD-16	30	246	.0017	10,93		BW-18	12	398	.0068	1.90
						BW-19	12	279	.0008	0.65
UD-11 THRU	30	1439	.0010	8.38		BW-20	12	310	.0023	1.10
UD-16					][	BW-21	12	190	.0028	1.22
UD-17	30	364	.0018	11,25	],	BW-19 THRU	12	779	.0017	0.94
UD-18	30	144	.0045	17.79		BW-21				
UD-19	30	31	.0016	10.61		BW-22	10	503	.0065	1,14
UD-20	30	469	.0007	7.01	<del></del>	BW-23	10	474	.0060	1.10
UD-21	30	281	.0000	1,68		BW-24	10	414	.0066	1.15
UD-22	30	110	.0053	19.30		BW-22 THRU	10	1391	.0062	1.12
UD-23	30	75	.0024	12.99	<del>'</del>	BW-24		- 1001	- 1000	
UD-24	30	340	.0014	9.92		3W-25	10	524	.0097	1.39
UD-25	30	315	.0018	11.25		3W-26	10	362	.0085	1.31
UD-17 THRU	30	2129	.0010	8.38		3W-27	10	398	.0041	0.91
UD-25	<del></del>				<del>-</del>	3W-28	10	527	.0060	1.10
UD-26	30	164	.0018	11.25		3W-29	10	431	.0055	1.05
UD-27	30	398	.0015	10.27		W-25 THRU	10	2242	.0067	1.16
UD-28	30	425	.0007	7.01		BW-29	<del></del>			
UD-26 THRU	30	987	.0007	7.01		3W-30	10	• 60	.0050	1.00
UD-28				<del></del>		3W-31	10	488	.0018	0.60
		<del></del>		<del></del>		3W-32	10	522	.0059	1.09
		<del></del> -		<del></del>		3W-33	10	496	.0039	0.88
		<del></del>				3W-34	10	329	.0039	0.88
						3W-35	101	352	.0062	1.12
	<del></del>	<del></del> -	<del></del>	<del></del>		3W-36	10	351	,0057	1.07
		<del></del>	<del></del>			W-37	10	347	,0037	0.86
		<del>+</del>				W-30 THRU	10	2945	.0037	0.85
					<u> </u>		10	2945	,000/	
		<u> </u>				BW-37				

# United Disposal Pipe Capacities

UNITED	DISPOSA	L CAPA	ACITIES	
	PIPE		PIPE	PIPE
PIPE	DIAMETER	LENGTH	SLOPE	CAP
UD-29	27	350	.0008	5.56
UD-30	24	350	.0008	4.06
UD-31	24	300	.0008	4.05
UD-32	24	60	.0007	3.78
UD-33	24	325	.0006	3.72
UD-34	24	325	.0008	4.06
UD-35	24	350	.0011	4.94
UD-36	24	383	.0010	4.72
UD-37	21	271	.0012	3.58
UD-38	18	488	.0038	4.19
UD-39	15	500	.0037	2.54
UD-40	15	500	.0070	3.49
UD-41	15	368	.0800.	3.73
UD-42	14	160	.0060	2.69
UD-43	14	160	.0060	2.69
UD-44	12	360	.0272	3.80
UD-45	12	498	.0201	3.27
UD-46	10	215	.0407	2.86
UD-47	10	214	.0558	3.35
UD-48	. 12	501	.0180	3.09
UD-49	15	300	.0062	3.30
UD-50	15	500	.0035	2.47
UD-51	15	389	.0037	2.54
UD-52	15	284	.0037	2.54
UD-53	15	274	.0037	2.53
UD-54	15	492	.0035	2.47
UD-55	15	408	.0032	2.35
UD-56	15	420	.0032	2.36

				<u> </u>
HIG	H SCHOO	DL CAI	PACITIE	is
	Pipe		Pipe	
Pipe	Diameter	Length	, .	Pipe Cap
Number	(Inches)	(Feet)	(Ft/Ft)	(MGD)
HS-1 Thru	See Canyor	Creek C	Capacities	
HS-7				
HS-8 Lft St				0.94
HS-8	8 Force			1.11
HS-8A	18	12	0.005	4.80
HS-8B	18	300	0.005	4.80
HS-8C	18	94	0.005	4.80
HS-8D	18	190	0.005	4.80
HS-8E	15	209	0.005	2.95
HS-8F	15	102	0.005	2.95
HS-8G	12 Force	936		2.54
HS-8 Combo				0.94
HS-9	18		0.0035	4.02
HS-10	18		0	0.00
HS-11	18	487	0.0014	2.54
HS-12	18	455	0.0014	2.54
HS-10 Thru	18	1239	0.0009	2.04
HS-12				
HS-13	15		0.0058	3.18
HS-14	12	131	0.0058	1.75
HS-15	12	161	0.0058	1.75
HS-16	12	161	0.0058	1.75
HS-17	12	165	0.0058	1.75
HS-18	12	311	0.0055	1.71
HS-19	12	391	0.0045	1.54
HS-20	12	429	0.0045	1.54
HS-21	12	154	0.0045	1.54
HS-22	12	418	0.0045	1.54
HS-23	12	218	0.0045	1.54
HS-24	12	359	0.0045	1.54
HS-25	12	281	0.0197	3.23
HS-26	12	178	0.0045	1.54
HS-27	12	500	0.008	2.06
HS-28	12	342	0.0528	5.29
HS-29	12	439	0.003	1.26
HS-30	12	292	0.003	1.26
HS-31	12	379	0.003	1.26

CA	NYON CF	REEK C	CAPACI	TIES	
				•	
	Pipe		Pipe		]
Pipe	Diameter			Pipe Cap	
Number	(Inches)	(Feet)	(Ft/Ft)	(MGD)	Pipe Numbe
HS-1	15	319	0.057	9.97	
HS-2	15	218	0.0033	2.40	
HS-3	15	500	0.0026	2.13	
HS-4	15	343	0.0027	2.17	
HS-5	15	109	0.0023	2.00	
HS-6	15	384			
HS-6 Thru	15			2.89	
HS-2					
HS-7	15	193	0.0031	2.32	
CE-1	15				
CE-2	15				CE-2
CE-3	15				CE-3
CE-4	15				CE-4
CE-5	15				
CE-6 ·	15				
CE-7	1 5				CE-7
CE-8	15				
CE-9	15				
CE-1 Thru	15	2769			CE-1 Thru
CE-9					CE-9
CE-10	15	374.1	0.0024	2.05	CE-10
CE-11	16	400	0.0024	2.43	CE-11
CE-12	16	463	0.0024	2.43	CE-12
CE-13	15	460.4	0.0024	2.05	CE-13
CE-14	12	276.6 <sup>1</sup>		3.14	CE-14
OE-15	15				CE-15
CE-16	12				CE-16
CE-17	12	268.6		<del></del>	CE-17
CE-18	12	200.7	<del></del> i		CE-18
OE-19	12	221.1			CE-19
CE-20	12	292			CE-20
CE-20	12	382.5			CE-20
CE-21	12	465			CE-21
CE-22	12	468	<del></del>		CE-22
DE-23	12	320	0.0023		CE-23
CE-24	12	320			CE-24
CE-25	12	340		<del></del>	CE-25
CE-26	12	500			ÇE-26
CE-27	12	480	0.0025		<u>ÇE-28</u> CE-27
	12	350,3	0.0025		
CF-1		500	0.0043		
CF-2	12	500.	0.0058	1.75	UT-2

# Wood School Pipe Capacities

	<del></del>			
			<u> </u>	L
WOC	D SCHOO	L CAF	ACITIES	S
		<u> </u>		
	Pipe		Pipe	
Pipe	Diameter	Length	Slope	Pipe Cap
Number	(Inches)	(Feet)	(Ft/Ft)	(MGD)
WS1	15	200	.0040	2.62
WS2	10	200	.0426	2.92
WS3	15	405	.0071	3.51
WS4	15	424	.0180	5.61
WS5	15	433	.0046	2.83
WS6	15	46	.0074	3.59
WS7	15	160	.0071	3.52
WS8	15	106	.0042	2.69

#### SECTION 5.

#### DETERMINATION OF ADDITIONAL CAPACITY REQUIREMENTS

The master planning figures that were used in development of the 1981 Wastewater Collection System Master Plan by Westech Engineering were conservative. If you use the current acreage and number of housing units developed, and the 1981 collection system master planning figures on sewage flows per dwelling unit or per acre, you would determine that our present average daily flows would be six million gallons per day. The actual metered flows at the Wastewater Treatment Plant are presently 0.9 million gallons per day. The overall figures are shown on Table 25.

There are a number of possible explanations for this difference in figures. A summary of some of the possible differences is as follows:

- 1. The industrial property in the city was estimated at five thousand gallons per acre per day of sewage flow which would be for medium to high sewage flow per acre. Presently, we have many warehouse facilities which are producing much lower sewage flows.
- 2. Our development in commercial acreages is also less sewage intense than 'projected.
- 3. Our planning figures indicate "developed property" as soon as the building permit is issued. There is probably a 10% or less acreage of each type which is presently under development but not occupied in the planning figures.
- 4. Many of the businesses build a facility which will serve a larger work force than it is presently employing.
- 5. The infiltration figure of 800 gallons per day is realistic for an older sewage system that has had significant root intrusion and deterioration of the joints. Our system is relatively new, so the infiltration is presently less than planning figures.

Mr. Bruce Magnuson of David Evans and Associates, in conjunction with Staff, prepared a very detailed report on the current sewage flows from the developed area east of Interstate 5 and north of Boeckman Road. A comparison of the adjusted flows from this area to the Wastewater Master Plan projections is indicated on Table 26. As you can see from this area the sewage flows, by type, vary from one-quarter to three-quarters of the master planning projections. By adjusted average current domestic flow in Table 26 we have adjusted the water consumption figures for additional employees that could use the facilities and to adjust to a five-day work week.

We also surveyed our 10 largest users to get an idea of the water consumption for these users so that we could insure that any modification of the master planning figures would allow for future development of commercial and industrial properties. These figures indicate that a facility such as a Holiday Inn would have sewage flows of twice the master planning volumes. They further indicate that in a high-water consumption business such as Fujimi America, Inc. the sewage flows could be up to 3-1/2 times the projected flows for industrial properties.

With current flows much lower than overall projections and with some businesses that would use higher than anticipated flows, we need to plan for adequate capacity to support sewage intensive uses without constructing lines that will have excess capacity to support

sewage intensive uses. Staff has developed this Wastewater Master Plan with an anticipation that overall flows for the City as a whole will be much lower than the current master planning figures, while flows from any specific area could be up to the master planning figures. Based on this seemingly contradictory information, Staff has developed the proposed Wastewater Collection System Master Plan on the basis that the documented lower sewage flows from the area north of Boeckman Road and east of Interstate 5, will be used as the projected flows from the developed property in this area. We also have used the master planning figures to determine flows from all other properties. In addition we have calculated the wastewater collection system plan capacities so that we would surcharge pipes when this would allow development of the drainage basin served by that pipe to master planning densities. Staff has also calculated the construction projects to only include additional construction where surcharge would not provide sufficient line capacity.

With this approach we will be able to build the lines that are required to serve undeveloped property without needlessly constructing excess capacity. We will be dependent on the Public Works Department to monitor sewage flows to determine when additional capacity is required.

The total improvements needed to provide adequate wastewater collection system capacities, using the procedure described above, is estimated at \$985,000, in summer 1993 construction costs. The total estimated construction cost to provide adequate flow capacities without any surcharge in the collection system would be an additional \$837,000. It is staff's position that this expenditure to eliminate a possible surcharge would result in a significant expenditure of funds for minimal improvement of the collection system and would severely disrupt the neighborhoods where construction was required. For this reason the construction projects for the collection system to provide adequate capacity, that are included the Capital Improvements Plan, will be limited to the \$985,000.

A detailed map of the City of Wilsonville's drainage/sewage basins and the major wastewater collection lines with current buildout and design capacities at specified planning locations on the wastewater collection system is attached at Annex A. Detailed sewage flows and capacity calculations for each of the major drainage areas are attached at Annexes B through G. Also attached at Annex H is the CH2M Hill Report.

**== ::** 

#### Present Flow Comparisons

	<b>.</b>				•
PRESENT	FLOW COMPA	RISONS			
	Unit of Measure	Number of Units	Master Planning Factor (Per	Average Daily Flow (MGD)	Management Champage and Champag
Residential	Dwelling Units	4,693	213	1.00	
Commercial	Acres	260	2,200	0.57	
Industrial	Acres	579	5,000	2.90	
Area Sewered	Acres	2,021	800	1.62	
Total:				6.08	
Metered Flows	at Wastewater	Treatment Plar	nt	0.90	

# BUILDOUT DRAINAGE BASIN FLOW

			Current	1 (4 (1) <b>14</b> , (1) 1 (1)	Average	• 4
		Total	Development	Undev	Current	WWMP
		Area	Area	Area	Dom. Flow	Projection
Owners	Basins	(Acres)	(Sq.ft)	(Acres)	(Gal/Day)	Gal/Acre/Day
BE-1						
	Commercial	69	62.00	7		
		TOTALS P	ER DEVELOPEL	ACRE	653	2200
	Industrial	36	11.00	25		
BE-2						
		TOTALS P	ER DEVELOPEL	ACRE	959	5000
BE-3A						
	Industrial	113	79.00	34		
		TOTALS PI	ER DEVELOPED	ACRE	592	5000
BE-3B						
	Industrial	65	45.00	20		
		TOTALS PE	ER DEVELOPED	ACRE	3152	5000

# OLD OF DRAIN SERVICON

Top 10 Water Users for the	City of Wilsonville			
Name	Gallons/Day (GPD)	Acres	GPD/Acre	-
Coca Cola	100,000	15.00	6,667	
Knight's Castle Apartments	50,577	21.00	2,408	
Tektronix	44,506	137.26	324	*
BridgeCreek Apartments	44,070	11.31	3,897	*
Payless Headquarters	41,838	45.77	914	
Mentor Graphics	39,183	89.18	439	*
Thunderbird	38,235	59.59	642	*
Hillman Properties	37,063	32.40	1,144	*
Fujimi America	36,250	2.00	18,125	
Holiday Inn	24,883	5.72	4,350	
*These companies are located	across several tax lo	ts, and the actu	al acreage	
for the water readings may	be smaller (in some c	ases significant	ly so.)	

#### CAPITAL PROJECTS

Table 27 includes the Wastewater Capital Improvements Plan for the City of Wilsonville. This project list includes new work, repair and maintenance projects for the City Wastewater Collection System and the Wastewater Treatment Plant. The projects for the collection system capacity improvements have been determined in this report. Other projects have been provided by the Public Works Department and the City Engineer.

The current Oregon Revised Statutes for Systems Development Charges is ORS No. 223.297 and succeeding sections. The systems development charges may include both an improvement fee, (which is a fee for costs associated with capital improvements to be constructed), and a reimbursement fee, (which is cost associated with capital improvements already constructed, or under construction). The calculations, which are included in the Master Plan, only apply to the improvement fee section of the systems development charges. If the city decides to impose a systems development charge, which includes reimbursement fees, we will have to go through a fairly extensive procedure to calculate the reimbursement fee. This is not included in this calculation of systems development charges.

With the inclusion of collection system components in the systems development charge calculations, we need to insure that the charges for the collection system only apply to the basins which benefit from the collection system improvements. The list of capital improvements projects identifies the basins which benefit, and Table 27A indicates how the pro ration of benefits impacts on individual drainage basins. With this approach the systems development charge for improvements would vary from \$649 to \$1,685, depending on benefits received.

If Council would decide to use the list of SDC eligible projects and to apply these costs uniformly across the undeveloped property, the SDC for capital improvements would be \$790. This calculation is indicated on Table 27B.

The source of funding for the collection system projects, includes a very significant number of projects which are listed for private funding. This is consistent with the earlier city policies of having the development community put in the infrastructure that is necessary to serve the new developments. The exception, that we have recommended in this Master Plan, is that for those collection system sewerlines which are paralleling existing lines and which serve many drainage basins, we have now included these lines in the list of projects that are eligible for systems development charges. This is necessary because of the difficulty in determining which developer should install the parallel lines at which time, and because some of these parallel lines actually benefit drainage basins from which flows have been diverted.

Another approach would be to include a much higher per cent of the collection system projects in the list of projects that are eligible for SDC funding, and to have the city assume the responsibility for constructing the lines. If this approach were used, the list of capital projects and the funding source with the SDC eligibility would be as listed on Table 28. If this approach were used, the systems development charge per equivalent dwelling unit, (if applied on an average basis) would increase from \$810 per equivalent dwelling unit, to \$1,239 per equivalent dwelling unit. The summary of the systems development charges for improvements with the increased city funding is attached at Table 28A. Staff recommends that we continue to have the private development community pay for construction of sewerlines to serve their facilities when ever feasible, and that Council approve use of the reduced city funding and the lower systems development charges for improvements.

#### Wastewater CIP Reduced SDC

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		WASTEWA	TER CIP	<del>                                     </del>	
	EST COST JUNE 93		<del></del>	FUND	
PROJECT	s's	SYSTEM	SDC ELIGIBLE	SOURCE	COMMENTS
UPGRADE TELEMETRY SYSTEM	646,000	COLLECTION	240.000	1000	ACCIO
OF GIVE TELEVISIA TO TO TELEVISION	\$46,000	CCLLECTION	\$46,000	Tacc	AREAS. REIMBURSEMENT BY PAYBACK, BUT
DAMMASCH SEWERLINE	\$160,000	COLLECTION	\$0	PVT	NO NEED TO INCLUDE IN SDC
UPDATE WW COLLECTION SYSTEM				1	UPGRADE RECUIRED BECAUSE OF
MP UPDATE COLLECTION SYSTEM	\$40,000	COLLECTION	\$40,000	SDC	SYSTEM EXPANSION.  FUPDATE PRIMARILY COVERS EXISTING
MAPPING	\$30,000	COLLECTION	so	OPER FD	SYSTEM.
CONSTR 589 FEET OF 12 INCH					
SEWER ALONG PARKWAY IN VIC OF BOECKMAN	\$57,000	COLLECTION	\$57.000	err	BENEFITS BASINS BE-1, BE-2, BE-3A
EXPAND MEMORIAL PARK LIFT	337,000	COLLECTION	\$57.000	I	BE-3A, & BE-3B BECAUSE OF BASIN
STATION	\$290,500	COLLECTION	\$30,000	OPER FD	TRANSFER.
S'LINE, WWTP TO PARKWAY &				1	BE-3A, & BE-3B BECAUSE OF BASIN
TRASK MAIN		COLLECTION	\$26,000	IPVT	TRANSFER.  [PVT FUNDS OR BY LID.
RECONSTRUCT CHARBONNEAU LIFT	3400,000	COLLONON	30	1	OPERATIONAL REQUIREMENT & NOT
STA WITH ELECTRIC MOD	\$130,000	COLLECTION	\$0	OPER FD	ELIGIBLE FOR SDC.
CONSTRUCT RIVERSIDE FORCE MAIN & LIFT STA, 1.65MGD LIFT STATION					THIS LINE CNLY BENEFITS BASIN RSV-
& APPROX 2200 FEET OF 12 INCH					2 & SHOULD BE CONSTRUCTED WITH
FORCE MAIN	\$585,000	COLLECTION	\$0	PVT	PVT FUNDS OR BY LID.
SEWER VIC OF BURLINGTON &					THE LINE ON VECNETTE BASING SE
NORTHERN RR & HILLMAN CT TO UNITED DISPOSAL SITE CN					THIS LINE ONLY BENEFITS BASINS SD- 4 & PART OF DRT-3 & SHOULD BE
BOECKMAN RD, 4100' OF 12"	\$295,000	COLLECTION	\$0	PVT	CONSTRUCTED WITH PVT FDS OR LID
					THO A STATIONAL ONLY
UPGRADE TOWN CENTER LIFT				İ	THIS LIFT STATION WILL ONLY BENEFIT THE FUN CENTER & SHOULD
STATION	\$80,000	COLLECTION	\$0	PVT	BE CONSTRUCTED WITH PVT FUNDS.
					GROWTH RECUIRED BY AREA GROWTH
SEWER, TCLW & WVILLE RD TO TCLW & TRASK, 2392 FEET OF 15				1	& BASIN TRANSFER, INCLUDE IN SDC FOR PT-1, PT-2, PT-3, BC-4, BE-1,
NCH	\$215,000	COLLECTION	\$215,000	spc	BE-2, BE-3A, BE-3B, BT-3, &BT-4.
					CONSTRUCTION REQUIRED BY AREA
SEWER, TCL & PARKWAY TO					GROWTH & BASIN TRANSFER. INCLUDE IN SDC FOR BC-4, BE-1, BE-2
CANYON CREEK NORTH OF VLAHOS, 2299 FEET OF 12 INCH	\$166.000	COLLECTION	\$166,000	ex-	BE-3A, BE-3B BT-3, & BT-4.
SEWER, CANYON CREEK SOUTH OF	\$100,000	COLLEGICIA	\$100,000		CONSTRUCTION REQUIRED TO SERVE
BOECKMAN,1960 FEET OF 10 INCH	\$118,000	COLLECTION	\$118,000	soc	BC-4. INCLUDE IN SDC FOR BC-4.
COLLECTION SUBTOTAL.		l	0000 000		
ACQUIRE ADDITIONAL LAND FOR	\$2,865,500		\$698,000	<u> </u>	REQUIRED FOR GROWTH OF SYSTEM.
MWTP	\$122,000	WWTP	\$122,000	soc	INCLUDE IN SDC FOR ALL BASINS.
			4. 454 444		RECUIRED FOR GROWTH OF SYSTEM.
MCDIFY & EXPAND WWTP CAPACITY	\$2,900,000	WWTP	\$1,450,000	HEV BUS	INCLUDE IN SDC FOR ALL BASINS.
	1				
					REQUIRED FOR GROWTH OF SYSTEM.
MWTP HEADWORKS	\$130,000	WWTP	\$130,000	SOC	RECURED FOR GROWTH OF SYSTEM.
MCCULAR BLDG, WWTP	\$85,000	wwTP	\$85,000	OPER FD	INCLUDE IN SDC FOR ALL BASINS.
					RECUIRED FOR GROWTH OF SYSTEM.
TEMP MOD FOR RBC'S AT WWTP	\$195,000	WWTP	\$195,000	OPER FD	INCLUDE IN SDC FOR ALL BASINS.
j	j				
SCC BALANCE (START OF FY)	(\$75,000)		(\$75.000)	·	
V044ID 000047104ID 1	Ī				RECUIRED FOR GROWTH OF 5"STEM.
EXPAND CPERATIONS &		1	t.		HECOINED FOR GROWING STEELS
	\$400,000	AAA/TD	eann nan '	DEV BUG	INCLUDE IN SUC FOR ACTIONS
ABCRATCRY BLDG AT WWTP	\$400.000	MVTP	\$400,000	REV EDS	INCLUDE IN SOC FOR ALL BASINS.
ABCRATCRY BLDG AT WWTP		MWTP		REV BOS	INCLUDE IN SUC FOR ALL BASINGS
	\$400,000 \$3,757,000	MWTP	\$400,000 \$2,307,000	REVEDS_	INCLUDE IN SUC FOR ALL EASING.

### Wastewater CIP Reduced SDC

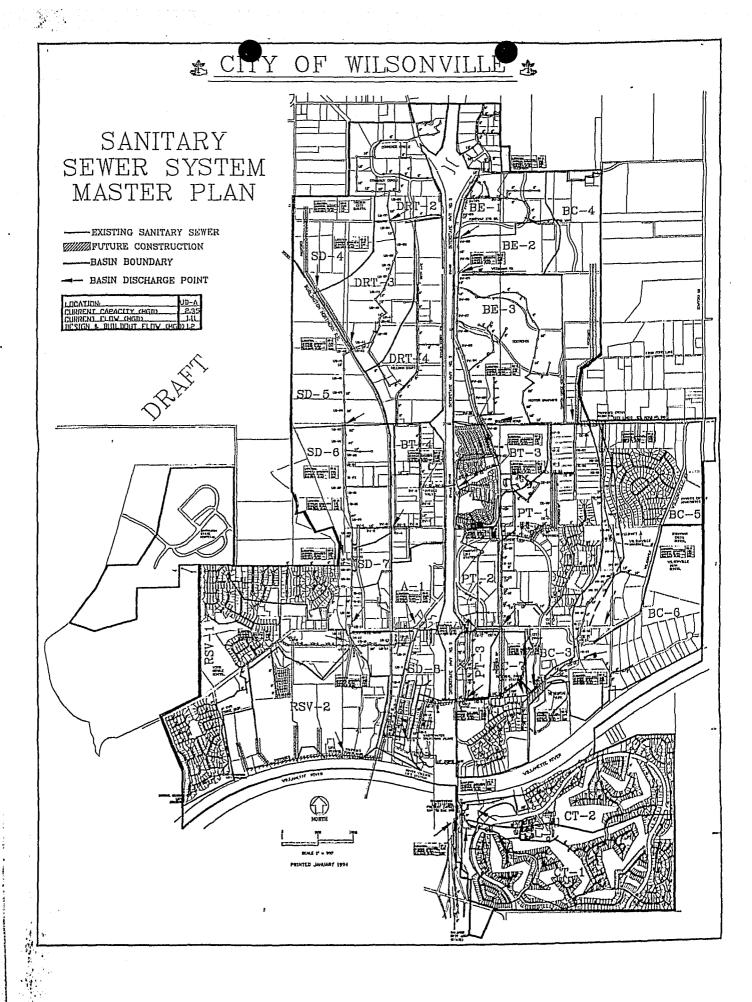
		CAPITAL P	ROJECTS W	TH SDC FUNDI	NG						
<u></u>	TOTAL	UPGRADE	UPDATE WW	SEWER ALONG	EXPAND	STINE, WWTP	  WVILLE AD TO TOLW 8	NORTH OF	CREEKSOUTHOF		
}	UNDEV	TELEMETRY	COLLECTION	PARKWAY IN VIC		TO PARKWAY	TRASK, 2392 FEET OF	VLAHOS,2299	BOECKMAN, 1960	WWTP	
BASIN	EDU	SYSTEM	SYSTEMMP	OF BOECKMAN	LIFT STATION	& TRASK	15 INCH	FEET OF 12 INCH	FEET OF 10 INCH	******	SDC/EDU
<u> </u>	==					=		1221011211011	1 1 10 10 11011	<u> </u>	SINGERO
		\$46,000	\$40,000	\$57,000	\$30,000	\$26,000	\$215,000	\$166,000	\$118,000	\$2,307,000	
ASV-2	353	353	353							353	\$629
SD-8	125	125	125							125	\$649
A-1	5	5	5				•			5	\$849
RSV-1	774	774	774			1				774	\$649
SD-7	43	43	43			<del></del>				43	\$649
BT-4	4	4	4				. 4	4		4	\$1,006
SD-6	12	12	12				***************************************			12	\$649
SD-5	9	9	9							9	\$649
DRT-4B	6	6	6							6	\$649
DRT-4A	19	<u>1</u> 9	19							19	\$649
DRT-3	32	32	32							32	\$649
SD-4	9	9	9							9	\$649
DRT-2	14	· 14	14							14	\$649
DE-1	38	38		38	38			38		38	
BE-2	37	37	37	37	37	37	37	37		37	\$1,657
BE-3A	21	21	2,1	21	21	21	21	21		21	\$1,633
BE-3B	13	13		13	13	13	13	13		13	
BT-3	166	166	166				166	166		166	
BC-4	534	534	534		534	534	534	534	534	534	\$1,351
PT-1	175	175	175				175			175	\$839
PT-2	22	22	22				22	<u> </u>	\	22	\$838
PT-3	125	125	125				125			125	\$839
BC-5A	314	314	314			\ <u></u>	\ <del></del>		ļ	314	\$649
BC-5B	179	179	179			ļ				179	\$849
BC-5C	179	179	179			{	\		<b> </b>	179	\$649
BC-6	333	333	333							333	\$649 \$0
BC-3.	0	0	0			·	<del></del>		1 <del></del>	262	\$649
BC-7	262	262	262		CONTRACTOR OF STATE AND ADDRESS OF STATE AND	-				262	\$0
CT-18CT-2	0	0	J0							2000	<del></del>
TOTAL	3,802		3,802					813		3802	
	l	12,10	10.52	522.94	46.66	40.44	189,43	204.18	220.97	606.78	L



AVERAGE SYSTEM	S DEVELOPMENT (	CHARGE	-
PROJECTS ELIGIBLE FOR SDC FUNDING	ESTIMATED COST	EDU	SDC/EDU
COLLECTION SYSTEM	\$698,000	3802	\$184
WWTP	\$2,307,000	3802	\$607
TOTAL	\$3,005,000	3802	\$790
'			

WASTEWATER CA	APITAL IMPROV	EMENTS PR	OGRAM	<u> </u>
			1	1
PROJECT	ESTIMATED COST JUNE/93 S'S	SYSTEM	SDC ELIGIBLE	FUND SOURCE
		<del> </del>		
UPGRADE TELEMETRY SYSTEM	<del>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</del>	COLLECTION	\$46,000	
DAMMASCH SEWERLINE	\$160,000	COLLECTION	\$160,000	PVT
UPDATE WW COLLECTION SYSTEM MP	\$40,000	COLLECTION	\$40,000	sxc
UPDATE COLLECTION SYSTEM MAPPING	\$30,000	COLLECTION	\$0	OPERFD
CONSTR 589 FEET OF 12 INCH SEWER				
ALONG PARKWAY IN VIC OF BOECKMAN	\$57,000	COLLECTION	\$57,000	soc
	1			
EXPAND MEMORIAL PARK LIFT STATION	\$290,500	COLLECTION	\$290,500	OPERFD.
S'LINE, WWTP TO PARKWAY & TRASK	\$247,000	COLLECTION	\$247,000	ac
CANYON CREEK NORTH SEWER MAIN	<del> </del>	COLLECTION	\$406,000	
RECONSTRUCT CHARBONNEAU LIFT			2700,000	<del></del> -
STATION & ELECTRIC MOD	\$130,000	COLLECTION	en	OPER FD
CONSTRUCT RIVERSIDE FORCE MAIN &	0.00,000	JOCALOTION	ļ <u>3</u> 0_	0 0 11 0
LIFT STA, 1.65MGD LIFT STATION &				}
APPROX 2200 FEET OF 12 INCH FORCE				1
	• epe 000	COLLECTION	6505.000	
MAIN SEWER VIC OF BURLINGTON &	\$305,000	COLLECTION	\$585,000	181
NORTHERN RR & HILLMAN CT TO		1	}	
UNITED DISPOSAL SITE ON BOECKMAN				
RD, 4100' OF 12'	\$295,000	COLLECTION	\$295,000	PVT
UPGRADE TOWN CENTER LIFT STATION	\$80,000	COLLECTION	\$0	PVT
		1		
SEWER, TCLW & WVILLE RD TO TCLW				
& TRASK, 2392 FEET OF 15 INCH	\$215,000	COLLECTION	\$215,000	scc
SEWER, TCL & PARKWAY TO CANYON				
CREEK NORTH OF VLAHOS, 2299 FEET		}		
OF 12 INCH	\$166,000	COLLECTION	\$166,000	STC
SEWER, CANYON CREEK SOUTH OF	4.50,000	Joanna	0.00,000	-
BOECKMAN, 1960 FEET OF 10 INCH	£11g 000	COLLECTION	\$118,000	ervi
COLLECTION SUBTOTAL	\$2,865,500		\$2,625,500	
OCCLEGITOR GOSTOTAL	92,000,000	<del> </del>	32,023,300	
ACQUIRE ADDITIONAL LAND FOR WWTP	\$122,000	WYTE	\$122,000	soc
MODIFY & EXPAND WWTP CAPACITY	\$2,900,000		\$1,450,000	
MWTP HEADWORKS	\$130,000		\$130,000	
MODULAR BLDG, WWTP	\$85,000		\$85,000	
TEMP MOD FOR RBC'S AT WWTP	\$195,000	<del>/</del>	\$195,000	
EXPAND OPERATIONS & LABORATORY	9133,000	11111	3133,000	G-2170
BLOG AT WWTP	6400.000	MACE	6400.000	05/200
WWTP SUBTOTAL	\$400,000	AAAAIL	\$400,000	
	\$3,832,000	;	\$2,382,000	
TOTAL	\$6,697,500	<del> </del>	\$5,007,500	
MAXIMUM SYSTEMS DEVELO	PMENT CHARGE			ı
PROJECTS ELIGIBLE FOR SDC FUNDING	ESTIMATED COST	EDU	SDCEDU	
COLLECTION SYSTEM	\$2,625,500	3802		
WWTP	\$2,382,000	3802		
TOTAL	\$5.007.500	3802		

MAXIMUM SYSTEMS DEVELO	PMENT CHARGE			
PROJECTS ELIGIBLE FOR SOC FUNDING	ESTIMATED COST	EXU	SDC/EDU	
COLLECTION SYSTEM	\$2,330,500	3802	\$613	
WWTP	\$2,382,000	3802	\$627	:
TOTAL	\$4,712,500	3802	\$1,239	
				l



### CITY OF WILSONVILLE PLANNING COMMISSION NOTICE OF PUBLIC HEARING 94PC06

Notice is hereby given that the WILSONVILLE PLANNING COMMISSION will hold a public hearing on MONDAY, JANUARY 10, 1994, AT 7:00 P.M. AT 8445 S.W. Elligsen Road, City Hall Annex, Wilsonville, Washington County, Oregon or to such other place to which the Planning Commission may adjourn.

The application submitted by the CITY OF WILSONVILLE requests approval of:

CITY OF WILSONVILLE WASTE WATER COLLECTION SYSTEM MASTER PLAN.

The site is CITY WIDE in the City of Wilsonville; Clackamas and Washington Counties. Oregon.

Applicable criteria for this legislative change is set forth in <u>Statewide</u> Goals:

Goal I:

Citizen Involvement

Goal 2:

Land Use Planning

Goal II: Public Facilities and Services
Section III: Public Facilities and Service of the City of Wilsonville

Comprehensive Plan

Copies of the criteria are available from the Planning Department located at 8445 S.W. Elligsen Road. All testimony and evidence shall be directed to the applicable criteria or the person providing testimony shall state which other criteria they believe applies to this application. Time limits may be imposed on public testimony.

A complete copy of the <u>City of Wilsonville Waste Water Collection</u> <u>System Master Plan</u> is available for inspection seven days prior to the hearing. Copies may be provided at ten cents per page.

Inquiries pertaining to this hearing may be made by contacting Eldon Johansen, Community Development Director, at 682-4960. Public testimony, oral and written, regarding this application will be accepted at the hearing. Written statements are encouraged and may be submitted prior to the hearing date.

8445 S.W. Eiligsen Road Mail: 30000 S.W. Town Center Loop East Wilsonville, OR 97070-0220 503/882-4960 FAX: 682-7025

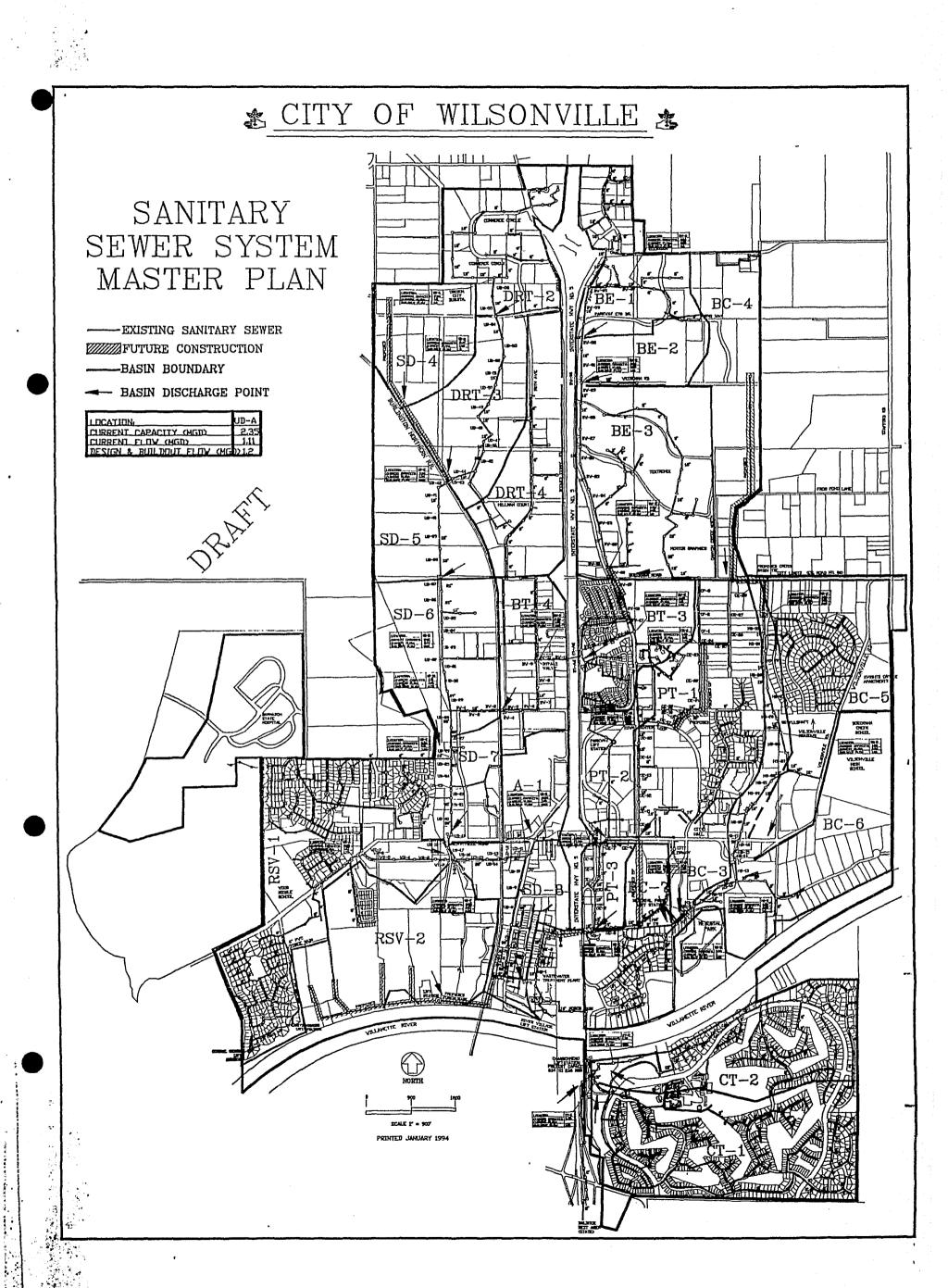
PLANNING DEPARTMENT SITE DEVELOPMENT APPLICATION AND PERMIT

File No.

Pre-App. Mo. Day Yr.

→ Final action on application or zone change is required within 120 days in accordance with provisions of ORS 227,178

A preapplication conference normally is required prior to submittal of an application. Please contact the Planning Department at 682-4960 for an appointment.



# CITY OF WILSONV

PLANNING DEPARTMENT SITE DEVELOPMENT APPLICATION AND PERMIT

8445 S.W. Elligsen Road Mail: 30000 S.W. Town Center Loop East Wilsonville, OR 97070-0220

503/682-4960 FAX: 682-7025

File No.

1/4 Sec.

Pre-App. Mo. Day Yr. Final action on application or zone change is required within 120 days in accordance with provisions of ORS 227.175

A preapplication conference normally is required prior to submittal of an application. Please contact the Planning Department at 682-4960 for an appointment.

APPLICANT – COMPLETE
Owner's Name City of Wilsonville Contact Person Eldon Thansen
Address 30000 SW Town Conterlap Address 8445 SW ELLIGSEN Rd
Wilsonville OR Wilsonville OR
Phone: 682-1011 FAX: 682-101/ Phone: 682-4960 FAX: 682-7025
Owner's Signature C. Some
Property Description: T City-Wride MapTax Lot(s)
Request approve City of Wilsonville MASTER
Plan - So Wasterster Collection System
Please attach a plot plan (scale: 1"-40') and any other documents to this application. Please review the Planning Department submittal requirements to ensure that your application is complete.
— OFFICE USE ONLY —
Staff Signature Wayse C. Sovers
Class II Class III    Class
☐ PRELIMINARY PLAT ☐ CONDITIONAL USE ☐ SIGN REVIEW
☐ FINAL PLAT ☐ VARIANCE ☐ TEMPORARY USE
[ - 프리베 Thi Ni
PLANNED DEVELOPMENT     OTHER
[ - 프리베 Thi Ni
☐ PLANNED DEVELOPMENT ☐ OTHER
SITE FINDINGS  1. Zoning: 5. Building Area
SITE FINDINGS  1. Zoning: 5. Building Area 2. Area of Lot: 6. Access to Property
SITE FINDINGS  1. Zoning: 5. Building Area  2. Area of Lot: 6. Access to Property  3. Building or Sign Height:
SITE FINDINGS  1. Zoning: 5. Building Area  2. Area of Lot: 6. Access to Property  3. Building or Sign Height: 7. Other:
PLANNED DEVELOPMENT
SITE FINDINGS  1. Zoning:
SITE FINDINGS  1. Zoning: 5. Building Area 6. Access to Property  3. Building or Sign Height: 7. Other: 4. Zone Code Minimum Setbacks: Front Side
SITE FINDINGS  1. Zoning:
SITE FINDINGS  1. Zoning: 5. Building Area  2. Area of Lot: 6. Access to Property  3. Building or Sign Height: 7. Other:  4. Zone Code Minipadm Setbacks: Front Side Rear    Approved   Denied   Approved with Conditions (see attached)    Conditions of Development
SITE FINDINGS  1. Zoning:
SITE FINDINGS  1. Zoning: 5. Building Area  2. Area of Lot: 6. Access to Property  3. Building or Sign Height: 7. Other:  4. Zone Code Minipadm Setbacks: Front Side Rear    Approved   Denied   Approved with Conditions (see attached)    Conditions of Development