

Resolution No. 98-2728C, For the Purpose of Expressing Council Intent to Amend the Urban Growth Boundary to Add Urban Reserve Areas 51, 52, 53, 54, and 55 to the Hillsboro Regional Center Area.

**Metro Council Meeting
Thursday, December 17, 1998
Council Chamber**

BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF EXPRESSING) RESOLUTION NO 98-2728BC
COUNCIL INTENT TO AMEND THE)
URBAN GROWTH BOUNDARY TO) Introduced by Councilors McLain and
ADD URBAN RESERVE AREAS 51, 52,) Morissette
53, 54, AND 55, TO THE HILLSBORO)
REGIONAL CENTER AREA)

WHEREAS, The Metro Council designated urban reserve areas in Ordinance No. 96-655E, including Urban Reserve Areas 51, 52, 53, 54, and the portion of 55 outside Metro's jurisdictional boundary; and

WHEREAS, ORS 197.298(1)(a) requires that land designated as urban reserve land by Metro shall be the first priority land for inclusion in the Metro Urban Growth Boundary; and

WHEREAS, the Metro Council has initiated a series of legislative amendments to the Urban Growth Boundary, including this resolution for lands outside the Metro jurisdictional boundary; and

WHEREAS, notice of hearings was published and mailed in compliance with Metro Code 3.01.050(b), (c) and (d); and

WHEREAS, a series of hearings was held before the Council Growth Management Committee on October 6, 13, 20 and 27, and before the full Metro Council on November 10, 12, 16, 17, 19 and December 3, 1998; and

WHEREAS, notice of Proposed Amendment for Urban Reserve Areas 51, 52, 53, 54, and a portion of 55 consistent with Metro Code and ORS 197.610(1), was received by the Oregon

Department of Land Conservation and Development at least 45 days prior to the December 3, 1998 final hearing; and

WHEREAS, the staff report for this area was available at least seven days prior to the December 3, 1998 final hearing; and

WHEREAS, the Metro Council considered all the evidence in the record, including public testimony in October, November, and December, 1998 hearings to decide proposed amendments to the Urban Growth Boundary; and

WHEREAS, conditions of approval are necessary to assure that the urban reserve area added to the Urban Growth Boundary is used to meet the need for housing consistent with the acknowledged 2040 Growth Concept; and

WHEREAS, Metro Code Section 3.01.065(f)(1) provides that action to approve a petition including land outside Metro shall be by resolution expressing intent to amend the Urban Growth Boundary if and when the affected property is annexed to Metro; now, therefore,

BE IT RESOLVED:

1. That the Metro Council, based on the ~~findings indicated~~ staff report and process in Exhibit B, attached herein, hereby expresses its intent to adopt an ordinance amending the Urban Growth Boundary to add land in Urban Reserve Areas 51, 52, 53, 54, and the portion of 55 outside the Metro jurisdictional boundary as shown on Exhibit A, within 30 calendar days of receiving notification that the property outside the jurisdictional boundary has been annexed to Metro, provided such notification is received within six (6) months of the date on which the resolution is adopted.

////

2. That the Metro Council approves and endorses the request by the owners of the land and electors residing on the land that the subject property be annexed to Metro.

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

Jon Kvistad, Presiding Officer

ATTEST:

Approved as to Form:

Recording Secretary

Daniel B. Cooper, General Counsel

i:\r-o\r98ursa2.c
(12/10/98)

DISCLAIMER: Unlike some areas added to the Metro Urban Growth Boundary (UGB) adopted by the Metro Council by Ordinance, this area is currently outside the Metro jurisdictional boundary. The Metro Council acted on December 17, 1998 to adopt a Resolution of intent to move the UGB to include this area. Formal adoption of an expansion of the UGB can only occur after the land is annexed into the Metro jurisdictional boundary.

Resolution #98-2728 c
Urban Reserve #52

Non-First Tier
Outside Metro Boundary


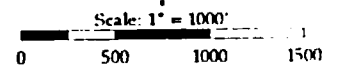
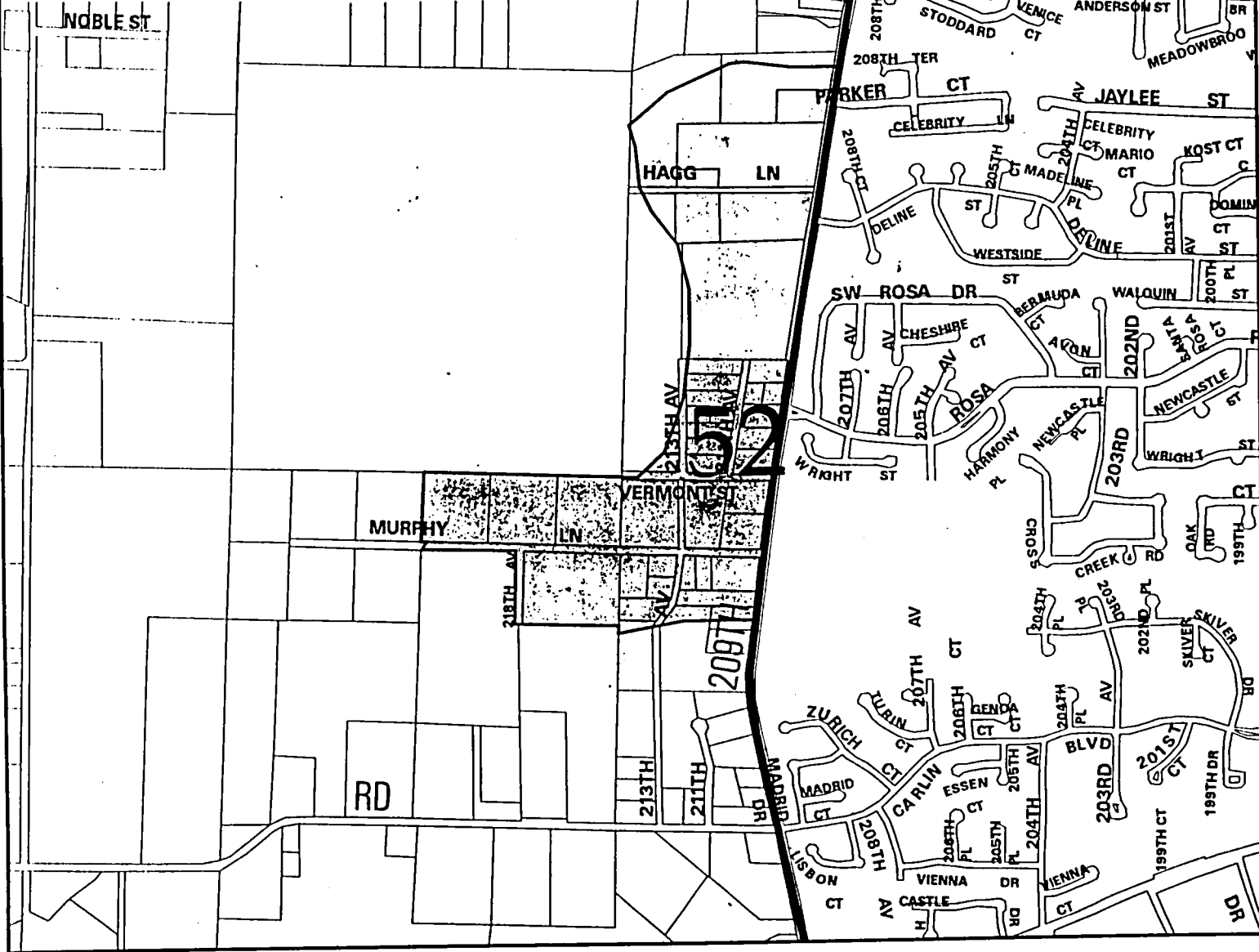
- Area Considered by Council
- First Tier Urban Reserve
-  Urban Growth Boundary

Exhibit A 2 of 5

The information on this map was derived from digital data on a 30 meter GIS. Care was taken on the creation of this map. Metro cannot accept any responsibility for errors, omissions, or inaccuracies in coverage. There are no warranties, expressed or implied, including the necessity of most hardware or software for a particular purpose, accompanying this product. However, Metro will not be liable for any errors which may be present.



METRO
600 NE Grand Ave.
Portland, OR 97232-2736
Voice 503 797-1742
FAX 503 797-1909
Email dro@metrodot.or.us



DISCLAIMER: Unlike some areas added to the Metro Urban Growth Boundary (UGB) adopted by the Metro Council by Ordinance, this area is currently outside the Metro jurisdictional boundary. The Metro Council acted on December 17, 1998 to adopt a Resolution of intent to move the UGB to include this area. Formal adoption of an expansion of the UGB can only occur after the land is annexed into the Metro jurisdictional boundary.

Resolution #98-2728^c
Urban Reserve #53

Non-First Tier
Outside Metro Boundary




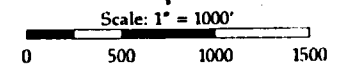
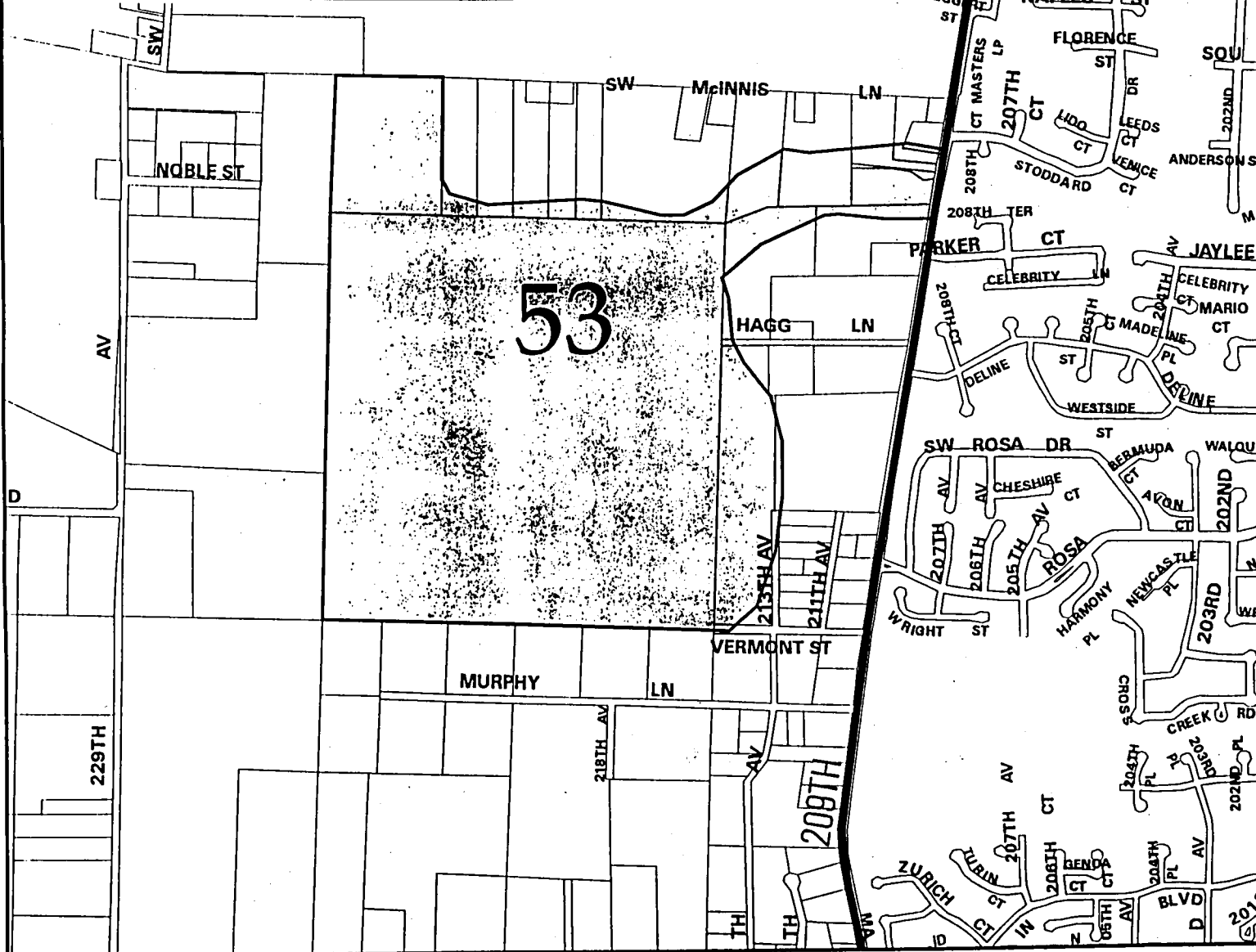
-  Area Considered by Council
-  First Tier Urban Reserve
-  Urban Growth Boundary

Exhibit A 3 of 5

The information on this map was derived from digital databases on Metro's GIS. Care was taken in the creation of this map. However, we cannot accept any responsibility for errors, omissions, or positional accuracy. There are no warranties, expressed or implied, including the warranty of merchantability or fitness for a particular purpose, accompanying this product. However, notification of any errors will be appreciated.



METRO
600 NE Grand Ave.
Portland, OR 97232-2736
Voice 503 797-1742
FAX 503 797-1909
Email drc@metrodet.org



DISCLAIMER: Unlike some areas added to the Metro Urban Growth Boundary (UGB) adopted by the Metro Council by Ordinance, this area is currently outside the Metro jurisdictional boundary. The Metro Council acted on December 17, 1998 to adopt a Resolution of intent to move the UGB to include this area. Formal adoption of an expansion of the UGB can only occur after the land is annexed into the Metro jurisdictional boundary.

Resolution #98-2728 c
Urban Reserve #54

Non-First Tier
Outside Metro Boundary




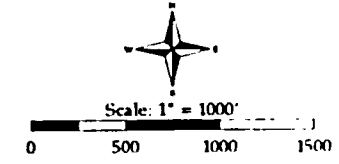
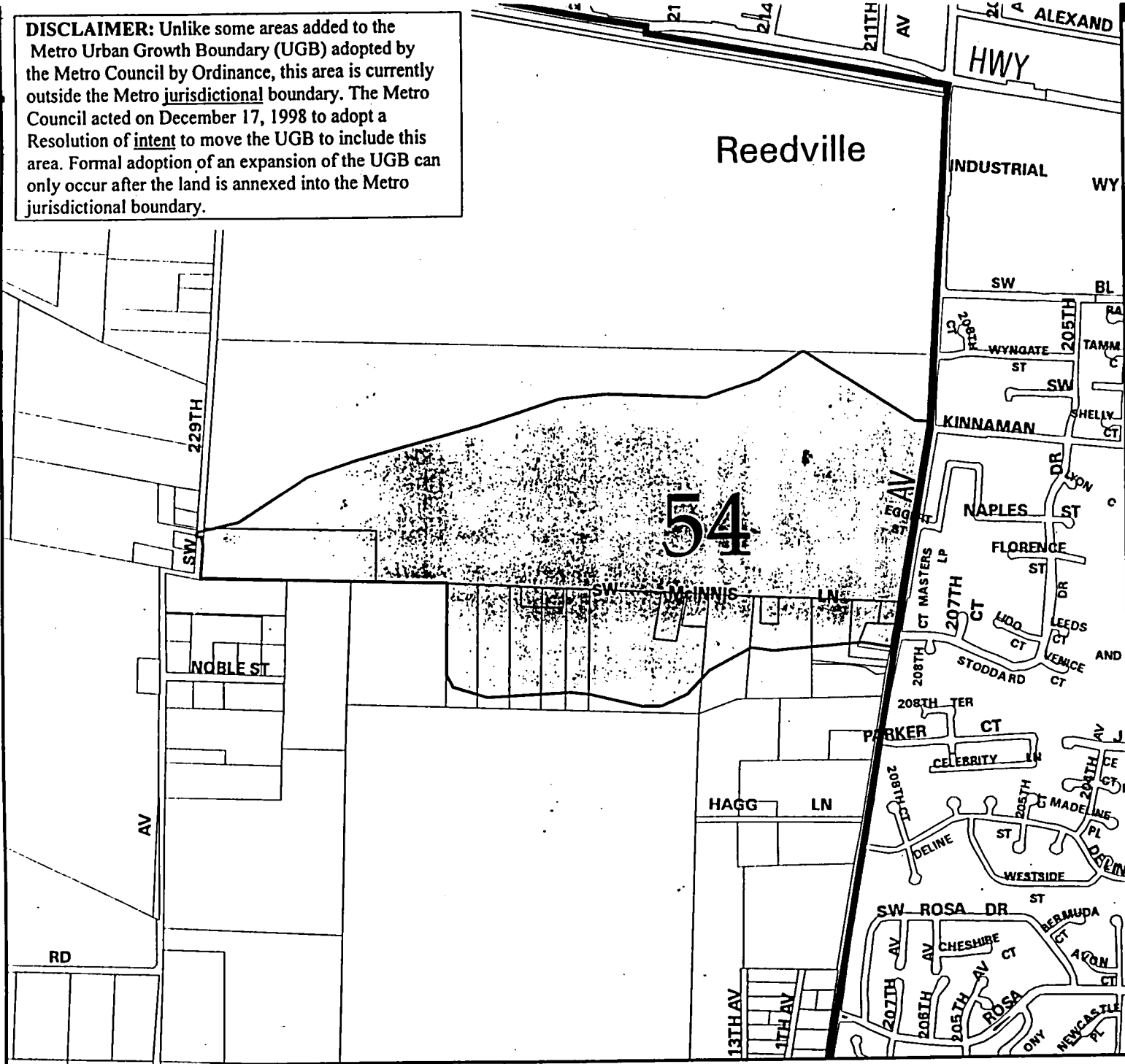
-  Area Considered by Council
-  First Tier Urban Reserve
-  Urban Growth Boundary

Exhibit A 4 of 5

This information on this map was derived from digital databases on Metro's LIS. Can not take on the creation of this map. Metro cannot accept any responsibility for errors, omissions, or post-creation accuracy. There are no warranties, expressed or implied, including the warranty of merchantability or fitness for a particular purpose, accompanying this product. However, Metro's liability in any event will be approved.



METRO
600 NE Grand Ave.
Portland, OR 97232-2736
Voice 503 797-1742
FAX 503 797-1909
Email drc@metrodotus



DISCLAIMER: Unlike some areas added to the Metro Urban Growth Boundary (UGB) adopted by the Metro Council by Ordinance, this area is currently outside the Metro jurisdictional boundary. The Metro Council acted on December 17, 1998 to adopt a Resolution of intent to move the UGB to include this area. Formal adoption of an expansion of the UGB can only occur after the land is annexed into the Metro jurisdictional boundary.

Resolution #98-2728 c
Urban Reserve #55
(Partial)

First and Non-First Tier
Outside Metro Boundary




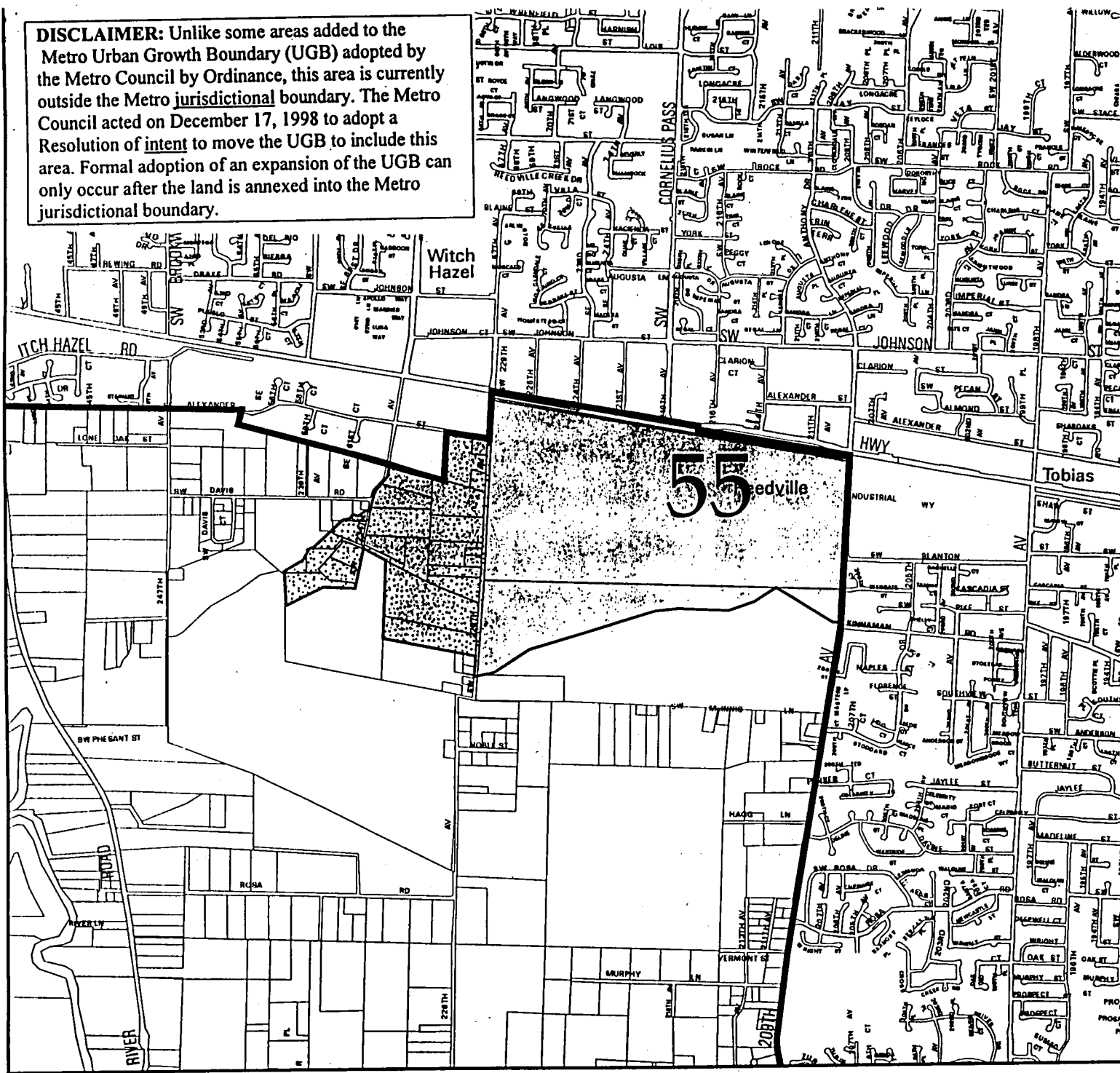
-  Area Considered by Council
-  First Tier Urban Reserve
-  Urban Growth Boundary

Exhibit A 5 of 5



The information on this map was derived from digital databases on Metro's GIS. Care was taken in the creation of this map. Metro cannot accept any responsibility for errors, omissions, or positional accuracy. There are no warranties, expressed or implied, including the warranty of merchantability or fitness for a particular purpose, accompanying this product. However, notification of any errors will be appreciated.



Scale: 1" = 2000'
0 500 1000 1500



METRO
600 NE Grand Ave.
Portland, OR 97232-2736
Voice 503 797-1742
FAX 503 797-1909
Email drc@metrodot.or.us

3.01.060 Exceptions to Hearing Officer Decision

(a) Standing to file an exception and participate in subsequent hearings is limited to parties to the case.

(b) Parties shall have 20 calendar days from the date that the proposed order and findings are mailed to them to file an exception to the proposed order and findings of the hearings officer with the district on forms furnished by the district.

(c) The basis for an exception must relate directly to the interpretation made by the hearings officer of the ways in which the petition satisfies the standards for approving a petition for a UGB amendment. Exceptions must rely on the evidence in the record for the case. Only issues raised at the evidentiary hearing will be addressed because failure to raise an issue constitutes a waiver to the raising of such issues at any subsequent administrative or legal appeal deliberations.

(Ordinance No. 92-450A, Sec. 1)

3.01.065 Council Action On Quasi-Judicial Amendments

(a) The council may act to approve, remand or deny a petition in whole or in part. When the council renders a decision that reverses or modifies the proposed order of the hearings officer, then, in its order, it shall set forth its findings and state its reasons for taking the action.

(b) Parties to the case and the hearings officer shall be notified by mail at least 10 calendar days prior to council consideration of the case. Such notice shall include a brief summary of the proposed action, location of the hearings officer report, and the time, date, and location for council consideration.

(c) Final council action following the opportunity for parties to comment orally to council on the proposed order shall be as provided in Code section 2.05.045. Parties shall be notified of their right to review before the Land Use Board of Appeals pursuant to 1979 Oregon Laws, chapter 772.

(d) Comments before the council by parties must refer specifically to any arguments presented in exceptions filed according to the requirements of this chapter, and cannot

not defined under ORS 255.012, the returns of the election shall be made to the county clerk. The clerk shall canvass the votes for members of the district board and issue certificates of election to the number of persons, equal to the number of board members named in the petition for formation, receiving the highest number of votes. [1971 c.727 §29; 1975 c.647 §1; 1983 c.350 §7]

198.830 Petition for formation by all landowners in proposed district. (1) If the owners of all real property within an area desire to form a district, they may sign and present a petition to the county board. The petition shall contain the information required by ORS 198.750 to 198.775 and shall be verified by the affidavit of one of the petitioners that the petitioner believes that the signers of the petition comprise all the owners, at the time of the verification, of all the land included within the proposed district. If members of the district board are generally elected to office, the petition shall also state the names of persons desired as the members of the first board and an acceptance in writing by each agreeing to serve as a member of the board.

(2) The county board shall approve the petition for formation of the district if it finds:

(a) That the owners of all the land within the proposed district have joined in the petition; and

(b) That, in accordance with the criteria prescribed by ORS 199.462, the area could be benefited by formation of the district.

(3) If formation is approved, any election required by ORS 198.810 to 198.825 shall be dispensed with. After the hearing on the petition, if the county board approves the petition, it shall enter an order creating the district. If the district board members generally are elected, the persons nominated by the petition and accepting nomination as members of the board shall constitute the first board of the district. [1971 c.727 §30]

198.835 Order for formation of district in single county; order for exercise of additional function by county service district; contents of order. (1) The county board may initiate the formation of a district, to be located entirely within the county, by an order setting forth:

(a) The intention of the county board to initiate the formation of a district and citing the principal Act.

(b) The name and boundaries of the proposed district.

(c) The date, time and place of a public hearing on the proposal.

(2) An order initiating the formation of a county service district may require dissolution, subject to a determination of public need for continued existence of the county service district as provided in ORS 451.620. The fiscal year in which dissolution will occur, not later than the 10th fiscal year after the date of the order, shall be specified.

(3) If any part of the territory subject to formation of a district under this section is within a city, the order shall be accompanied by a certified copy of a resolution of the governing body of the city approving the order.

(4) A county board that also serves as the governing body of a county service district established to provide sewage works may initiate a proceeding to authorize that county service district to also provide drainage works by adopting an order setting forth the information specified in subsection (1) of this section. The order must be accompanied by resolutions consenting to the additional function that are adopted by the governing bodies of not less than 70 percent of the cities located within the boundaries of the county service district. [1971 c.727 §31; 1987 c.504 §7; 1987 c.510 §1; 1989 c.374 §2]

198.840 Notice of hearing. Notice of the hearing set by the order shall be given in the manner provided by ORS 198.800 except that the notice shall state that the county board has entered an order declaring its intention to initiate formation. The hearing and election on the proposal, and election of board members, shall be conducted as provided by ORS 198.800 to 198.825. [1971 c.727 §32]

198.845 Costs. The county shall bear the cost of formation or attempted formation of a district under ORS 198.835 to 198.845. However, if a district is formed, the district shall reimburse the county for any expenses incurred by the county in making necessary preliminary engineering studies and surveys in connection with the formation of the district. [1971 c.727 §33]

(Annexation)

198.850 Annexation petition or resolution; delayed effective date for certain annexations. (1) When the electors of an area wish to annex to a district, they may file an annexation petition with the county board. Before the petition is filed with the county board, it shall be approved by indorsement thereon by the board of the affected district and by any other agency also required by the principal Act to indorse or approve the petition.

(2) ORS 198.800 to 198.820 apply to the proceeding conducted by the county board and the rights, powers and duties of peti-

tioners and other persons having an interest in the proceedings.

(3) In lieu of a petition, annexation may be initiated by resolution of the district board, or of the county board. Proceedings may also be initiated by any other public agency if authorized by the principal Act. If proceedings are initiated by the district board or another public agency, a resolution setting forth the matters described by ORS 198.835 shall be filed with the county board. The proceeding thereafter shall be conducted as provided by ORS 198.835 to 198.845. An annexation initiated by the district board may include an effective date which is not later than 10 years after the date of the order declaring the annexation. [1971 c.727 §34; 1991 c.637 §5]

198.855 Annexation election; annexation without election when petition signed by all landowners or by majority of electors and owners of more than half of land. (1) If the annexation petition is not signed by all the owners of all the lands in the territory proposed to be annexed or is not signed by a majority of the electors registered in the territory proposed to be annexed and by the owners of more than half of the land in the territory and an election is ordered on the proposed annexation as provided by ORS 198.815, the county board shall order an election to be held in the territory and the county board also shall order the board of the affected district to hold an election on the same day, both elections to be held for the purpose of submitting the proposed annexation to the electors. The district board shall certify the results of the election to the county board. The order of annexation shall not be entered by the county board unless a majority of the votes in the territory and a majority of the votes in the district are in favor of the annexation. If a majority of the votes cast in both elections do not favor annexation, the county board by order shall so declare.

(2) Two or more proposals for annexation of territory may be voted upon at the same time. However, within the district each proposal shall be stated separately on the ballot and voted on separately and, in the territory proposed to be annexed, no proposal for annexing other territory shall appear on the ballot.

(3) If the annexation petition is signed by all of the owners of all land in the territory proposed to be annexed or is signed by a majority of the electors registered in the territory proposed to be annexed and by the owners of more than half of the land in the territory, an election in the territory and district shall be dispensed with. After the hearing on the petition, if the county board

approves the petition as presented or as modified or, if an election is held, if the electors approve the annexation, the county board shall enter an order describing the boundaries of the territory annexed and declaring it annexed to the district. [1971 c.727 §35; 1987 c.818 §5]

198.860 Effect of annexation order. After the date of entry of an order by the county board annexing territory to a district, the territory annexed shall become subject to the outstanding indebtedness, bonded or otherwise, of the district in like manner as the territory within the district. [1971 c.727 §36]

198.865 [1971 c.727 §§37, 38; 1979 c.316 §7; repealed by 1983 c.142 §1 (198.866 and 198.867 enacted in lieu of 198.865)]

198.866 Annexation of city to district; approval of annexation proposal; election.

(1) The governing body of a city may adopt a resolution or motion to propose annexation to a district for the purpose of receiving service from the district. Upon adoption of an annexation proposal, the governing body of the city shall certify to the district board a copy of the proposal.

(2) The district board shall approve or disapprove the city's annexation proposal. If the district board approves the proposal, the district board shall adopt an order or resolution to call an election in the district. The order or resolution of the district board shall include the matters specified in ORS 198.745. In addition the order or resolution may contain a plan for zoning or subdistricting the district as enlarged by the annexation if the principal Act for the district provides for election or representation by zone or subdistrict.

(3) The district board shall certify a copy of the resolution or order to the governing body of the city.

(4) Upon receipt of the resolution or order of the district board, the governing body of the city shall call an election in the city on the date specified in the order or resolution of the district board.

(5) An election under this section shall be held on a date specified in ORS 255.345 that is not sooner than the 90th day after the date of the district order or resolution calling the election. [1983 c.142 §2 (enacted in lieu of 198.865); 1993 c.417 §1]

198.867 Approval of annexation to district by electors of city and district; certification; effect of annexation. (1) If the electors of the city approve the annexation, the city governing body shall:

(a) Certify to the county board of the principal county for the district the fact of the approval by the city electors of the proposal; and

CITY OF HILLSBORO SOUTH URBAN RESERVES
CONCEPT PLAN TESTIMONY AND FINDINGS

RECEIVED
DEC 10 1998
11:30 am
METRO SERVICE DISTRICT
OFFICE GENERAL COUNSEL

Introduction.

This testimony and proposed findings are submitted by the City of Hillsboro and the other proponents of amending the urban growth boundary to include the property designated in the *City of Hillsboro South Urban Reserve Concept Plan (Hillsboro Concept Plan)*. This document provides the necessary findings to demonstrate compliance with all applicable state and Metro criteria for approval of the *Hillsboro Concept Plan* and adoption of a legislative amendment of the urban growth boundary. These findings supplement the findings in a related matter, which findings are incorporated herein. Those findings are those relating to Metro Code 3.01.020(a) and (b)(2) in Metro Ordinance No. 98-788C (urban growth boundary change for portion of Urban Reserve 55).

The property covered by the *Hillsboro Concept Plan* includes Urban Reserve Areas 51-55, as previously designated by the Metro Council in Ordinance No. 96-655E, adopted March 6, 1997. The relevant findings from that document are attached hereto and incorporated herein. Despite the urban reserve status of the property proposed for inclusion in the urban growth boundary, these findings demonstrate that the property satisfies all applicable urban growth boundary amendment criteria without consideration of the property's urban reserve status.

The standards applicable to a legislative urban growth boundary amendment are set out at Metro Code ("MC") 3.01.020, which, in turn, implements the requirements of Statewide Planning Goals 14 and 2, Part II. There are a number of inter-related criteria for justifying an urban growth boundary amendment. In general, these approval factors can be grouped into standards related to the reasons or need for the urban growth boundary expansion, alternatives to the expansion in general or adding the specific property in particular, consequences of allowing urban uses of the property in question, and compatibility of those uses with nearby land uses.

The need to expand the urban growth boundary in general comes from Metro's obligations under ORS 197.296(4) and ORS 197.299(2). These statutes require Metro to inventory buildable land within the urban growth boundary, analyze housing need by type and density and determine the amount of needed buildable land to accommodate housing needs for 20 years. Once this determination is made, Metro may then either amend the urban growth boundary or adopt new measures to increase housing density to satisfy this need, or it may take both actions.

These statutory mandates alter the justification for an urban growth boundary amendment normally required by state administrative regulations. If a local government follows the steps set out in ORS 197.296, and determines that additional buildable land is needed, it is obliged to either expand the urban growth boundary or increase housing densities, or both. ORS 197.296(4). This statutory mandate presumably obviates the need to separately justify the urban growth boundary change based upon: Goal 14, factors one and two and MC 3.01.020(b)(1)(2); Goal 2, Part II (c)(1); OAR 660-04-0010(1)(c)(I); OAR 660-04-0020(2)(a); OAR 660-04-022(1)(a); and, OAR 660-014-0040(3)(a).

Similarly, because ORS 197.296(4) allows a local government to either expand its urban growth boundary or increase housing densities, or both, to meet its buildable land needs, it can choose to expand the urban growth boundary without adopting new measures to increase density.

Because of this, there is a limited need to consider regulatory alternatives to the urban growth boundary expansion under any analysis of alternatives.

The following justification, then, may prove too much. All potential approval criteria are referenced as a precaution. OAR ch. 660, division 14 applies only if the rule's applicability to "establishment of new urban development on undeveloped rural land" is construed to include amendment of an urban growth boundary.

Finally, the limited time to comply with the statutory mandate and the unresolved challenge to Metro's urban reserves decision creates practical constraints on the justification for all of the urban growth boundary amendments. Logically, an urban growth boundary expansion would await resolution of the challenges to the urban reserve designations. A predicate urban reserve decision obviates the need for full justification of the urban growth boundary change under local and state criteria.

It is not possible to completely recast the urban reserve decision and examine all of the potential expansion lands around the existing urban growth boundary and still meet the statutory deadlines under ORS 197.299. Thus, it is reasonable to assume that the areas under regional consideration for urban growth boundary amendments are those designated as urban reserves and that, alternatively, subregional justifications for urban growth boundary expansion have become more cogent.

Need and Reasons for the Urban Growth Boundary Amendment.

Applicable Criteria.

ORS 197.296(4): "If the determination required by subsection (3) of this section indicates that the urban growth boundary does not contain sufficient buildable lands to accommodate housing needs for 20 years at the actual developed density that has occurred since the last periodic review, the local government shall take one of the following actions:

(a) Amend its urban growth boundary to include sufficient buildable lands to accommodate housing needs for 20 years at the actual developed density during the period since the last periodic review or within the last five years, whichever is greater."

ORS 197.732(1)(c)(A), Goal 2, Part II(c)(1) (a) and OAR 660-04-020(2)(a): "Reasons justify why the state policy embodied in the applicable goals should not apply": The exception shall set forth the facts and assumptions used as the basis for determining that a state policy embodied in a goal should not apply to specific properties or situations including the amount of land for the use being planned and why the use requires a location on resource land."

OAR 660-04-0010(1)(c)(i): "Reasons justify why the state policy embodied in the applicable goals should not apply (This factor can be satisfied by compliance with the seven factors of Goal 1+.)"

OAR 660-04-0022(1): "For uses not specifically provided for in subsequent sections of this rule or OAR 660, Division 14, the reasons shall justify why the state policy embodied in the applicable goals should not apply. Such reasons include but are not limited to the following:

(a) There is a demonstrated need for the proposed use or activity, based on one or more of the requirements of Statewide Goals 3 to 19; and either

(b) A resource upon which the proposed use or activity is dependent can be reasonably obtained only at the proposed exception site and the use or activity requires a location near the resource. An exception based on this subsection must include an analysis of the market area to be served by the proposed use or activity. That analysis must demonstrate that the proposed exception site is the only one within that market area at which the resource depended upon can reasonably be obtained; or

(c) The proposed use or activity has special features or qualities that necessitate its location on or near the proposed exception site."

OAR 660-014-0040(3)(a): "(a) That Goal 2, Part II(c)(1) and (c)(2) are met by showing the proposed urban development cannot be reasonably accommodated in or through expansion of existing urban growth boundaries or by intensification of development at existing rural centers;"

Goal 14, Urbanization factors one and two: "Demonstrated need to accommodate long-range urban population growth requirements consistent with LCDC goals" and "Need for housing, employment opportunities and livability."

MC 3.01.020(b): "For legislative amendments, if need has been addressed, the district shall demonstrate that the priorities of ORS 197.298 have been followed and that the recommended site was better than alternative sites, balancing factors 3 through 7.

"Factor 1: Demonstrated need to accommodate long-range urban population growth. [The code details a process for developing a 20-year forecast of population and employment needs, a demand for urban land, an examination of surplus land, review of land outside the present urban growth boundary to determine best suited areas, and a determination that the need cannot be met within the urban growth boundary.]

"Factor 2: Need for housing, employment opportunities and livability may be addressed under either subsection (A) or (B) or both as described below.

"(A) For a proposed amendment to the urban growth boundary based upon housing or employment opportunities the district must demonstrate that a need based upon an economic analysis can only be met through a change in the location of the urban growth boundary. For housing the proposed amendment must meet an unmet need according to statewide planning Goal 10 and its associated administrative rules. . . .

"(B) To assert a need for a urban growth boundary amendment based on livability, the district must:

(i) factually define the livability need, including its basis in adopted local, regional, state, or federal policy;

(ii) factually demonstrate how the livability need can best be remedied through a change in the location of the urban growth boundary;

(iii) identify both positive and negative aspects of the proposed urban growth boundary on both the livability need and on other aspects of livability; and

(iv) demonstrate that, on balance, the net result of addressing livability need by amending the urban growth boundary will be positive."

Region-wide need and compliance with ORS 197.296.

The Metro Council adopted the *Urban Growth Report* on December 18, 1997 by Resolution No. 97-2559B, consistent with its obligations under ORS 197.296(3) and ORS 197.299(1). The *Urban Growth Report* identified an urban growth boundary capacity deficit of land for 29,350 to 32,370 dwelling units and 2,900 jobs.

This analysis has been updated through the *Urban Growth Report Addendum* and the *Urban Growth Boundary Assessment of Need*. These studies conclude that the projection of need for urban growth boundary expansion in the *Urban Growth Report* remains consistent with more current data. Moreover, additional expansions of the urban growth boundary may be necessitated by loss of development land because of the listing of the lower Columbia River steelhead as a threatened species under the Endangered Species Act and the development of Metro's Fish and Wildlife Habitat planning.

Because of the directions of state law, then, Metro must expand the urban growth boundary to include additional land to include sufficient buildable lands to accommodate housing needs for a twenty year period. The issue becomes where to expand the boundary consistent with the requirements of state law. This locational decision is guided by a variety of factors. But in the context of addressing the subregional need in the Hillsboro area for a better jobs/housing balance, the alternative areas are those adjacent to the western urban growth boundary and within close proximity to the significant employment areas in the Industrial Sanctuary, Hillsboro Town Center and along the Westside Light Rail.

The prioritization of land to be included in this urban growth boundary amendment are established in ORS 197.298. The South Hillsboro sites qualify as first priority under that statute, pursuant to ORS 197.298(1)(a), because the sites have been designated as urban reserve land by Metro. Alternatively, in the absence of that urban reserve designation, these sites can also be justified for inclusion in the urban growth boundary amendment, pursuant to ORS 197.298(3)(a) and (c). As discussed below in response to MC 3.01.020(b)(2), the specific type of land need under ORS 197.298(3)(a) justifying the inclusion of the South Hillsboro property is the need to address the growing jobs/housing imbalance in the subregional area. Alternatively, inclusion of the property is also justified under ORS 197.298(3)(c), because including the so-called St. Mary's property is necessary in order to provide the adjoining exception land with urban services in a manner that will achieve maximum efficiency of land uses in the area. The basis for this maximum efficiency finding is set out in response to MC 3.01.020(b)(6) below, as well as Metro's findings adopted in support of the original urban reserve decision, which are attached hereto and incorporated herein.

Subregional need for expansion of the Hillsboro urban growth boundary to remedy jobs/housing imbalance (ORS 197.298(3)(a)).

Factor 1, noted above, addresses the establishment of the regional need justifying an expansion of the boundary. Consistent with ORS 197.296 and MC 3.01.020(b)(1), the *Urban*

Growth Report has established the regional need to expand the boundary to include enough land that is suitable and available to accommodate the development of around 32,000 housing units. The Factor 2 "need" can be addressed and satisfied by demonstrating a subregional need that justifies the specific properties being included in the urban growth boundary amendment. The subregional need justifying the inclusion of the South Hillsboro properties can be based individually or cumulatively on housing, employment opportunities, and/or livability. The primary subregional justification, however, is based on both the regional need analysis established in the *Urban Growth Report* and the subregional need to improve the jobs-housing balance in the Hillsboro Regional Center area under ORS 197.298(3)(a).

The *Residential Market Evaluation* ("RME"), dated November 18, 1998, prepared by Hobson Johnson & Associates is incorporated herein. It provides expert evidence demonstrating that it is necessary to include the South Hillsboro area in the urban growth boundary in order to accommodate both the subregion's share of the regional need and also to address the specific subregional need for more residential land in order to maintain a favorable ratio of jobs to housing for the area during the next 20 years and beyond. When the Metro Council designated the South Hillsboro Urban Reserve Areas, it did so based on its determination that the land was needed for urbanization in order to correct the projected growing imbalance between jobs and housing in that subregional area. The updated RME presented with the *Hillsboro Concept Plan* confirms the same analysis and conclusion that justified the urban reserve designations for Urban Reserves 51-55.

The RME concludes that there are 870 acres of vacant buildable residential land in the Hillsboro region. That area includes Hillsboro, Forest Grove, Cornelius and portions of unincorporated Washington County. It is the area shown in Metro's "Region 2040 Recommended Alternative Technical Analysis."

Based on the density assumptions in the *Urban Growth Report*, and assuming implementation of the *2040 Growth Concept Plan* designations and increase in capacity due to redevelopment, the vacant and redevelopable land will support approximately 11,725 dwelling units. This is sufficient to meet the allocation of dwelling units assigned by Metro through 2006. An additional 18,500 dwelling units are necessary to meet the 2020 allocation (70,875 households).

The RME provides persuasive expert evidence that supports the following:

- The area studied in the RME is consistent with the RUGGO and 2040 Growth Concept map delineation for the Hillsboro Regional Center area. Moreover, it is consistent with the suggested study area in OAR 660-020-0030(4)(a), in that it includes a regional center and a population of at least 100,000. Moreover, it does not overlap with the designated Beaverton Regional Center area that was studied in the related RME prepared by Hobson Johnson & Associates for that regional center area.
- The RME projects that there is capacity inside the urban growth boundary in the Hillsboro Regional Center area to accommodate an additional 11,725 housing units. That capacity projection takes into account all of the infill, redevelopment, rezoning opportunities and other assumptions and requirements called for in the Functional Plan and other related land use policies and standards. The RME's analysis is based on that very optimistic assumption, even though the evidence indicates that in all likelihood fewer housing units than that will ultimately be built within the existing urban growth boundary.

- Metro's *Urban Growth Report* and other planning documents, as well as the best up-to-date evidence, concludes that there will be a need to accommodate an additional 30,250 housing units in the greater Hillsboro area by 2020. That means that, in order to accommodate the subregion's share of the regional growth, land capable of accommodating about 18,525 housing units must be added to the urban growth boundary in the subregional area as soon as possible in order to meet the requirement in ORS 197.296 to maintain a 20-year supply of buildable land at all times.
- In addition to the projected need to accommodate about 30,250 additional housing units between 1998 and 2020 in the Hillsboro Regional Center area, the UGR and the other evidence analyzed in the RME projects that there will be employment growth of about 87,000 jobs in the subregional area during this same time period. Based on the projected housing and job growth, the resulting jobs/housing ratio in 2020 will be 2.08, which would be a substantial increase over the current ratio of 1.59 jobs to each housing unit. The RME establishes that 1.50 is a reasonable ratio for defining the optimal jobs/housing balance the Hillsboro region should strive to maintain.
- As noted in the RME, the geographic distribution of employment growth throughout the region is not just a function of land availability. As a result, the most efficient and reliable way in which to correct a jobs/housing imbalance is to create additional housing opportunities near existing and emerging employment areas. Therefore, the RME concludes that land capable of accommodating an additional 46,000 housing units (not just 30,250 units) must be added to the Hillsboro Regional Study area by the year 2020 in order to maintain an optimal jobs/housing ratio of 1.50.

The *Hillsboro Concept Plan* projects that these urban reserve areas will support approximately 8,600 dwelling units. This is consistent with the projections made in the *Productivity Analysis*. Thus, the addition of this land to the community's urbanizable lands will alleviate some of the projected jobs/housing imbalance and satisfy some of the projected future need for additional dwelling units in the Hillsboro region.

Livability need to expand the urban growth boundary to allow for planned community.

The region is committed to particular growth and development forms. Under Metro's *2040 Growth Concept* it is the policy of the region to: focus upon the development of centers and corridors to seek greater land use efficiencies in development and redevelopment; develop a multimodal transportation system, create a jobs-housing balance at the regional, central city, centers and community levels, preserve green spaces, and enhance redevelopment in areas of substandard incomes and housing. Metro Resolution No. 94-2040-C, adopting the *2040 Growth Concept Plan*.

Most of these policies can be achieved through redevelopment of the areas within the urban growth boundary. Greater densities at existing town and neighborhood centers and at new station area planning areas will result in efficient use of land and the satisfaction of these standards.

But given the need to expand the urban growth boundary to comply with the buildable lands supply mandate of ORS 197.299(2)(a), there are livability consequences in expanding the urban growth boundary in a number of partially developed exception areas. This scenario contrasts with

the option of a significant expansion of the urban growth boundary onto a 1500 acre site, capable of being developed as a planned community.

Expansion of the urban growth boundary to include all of the adjacent exception areas in the western portion of the urban growth boundary will be insufficient to meet the subregional need for more housing. This is true whether the need is the 2017 housing targets for Hillsboro, Forest Grove and Cornelius, or the greater need for land to rectify the projected jobs/housing imbalance.

A larger type of urban growth boundary expansion allows creation of mixed use town and neighborhood centers. It allows the location of employment centers near residential areas, reducing the use of automobiles. It allows planning of the development patterns for the area, preservation of natural resource areas and property needed for schools and other governmental uses. A planned community can assure that jobs/housing balance is attained. A mixed residential community permits a range of different kinds of housing to be developed simultaneously. A number of different housing markets, including affordable housing, can be addressed in terms of household size, age of the head of household, incomes and lifestyles.

Moreover, the significant value added by inclusion of a large tract into the urban growth boundary justifies significant exactions and dedications. With a planned community a local government can exact open space around waterways and wetlands and dedication of property for school sites, roads, and civic centers.

By contrast, increasing densities in a number of exception areas will not enhance or create town and neighborhood centers. Annexation of several exception areas of partially developed land will not allow creation of new places of employment near residential land. It will not permit significant exactions from a limited number of property owners for open space and public uses.

Thus, assuming that a substantial urban growth boundary change is needed, livability factors affect the type of urban growth boundary change needed. A large urban growth boundary expansion for a planned community comes at some considerable costs. This quantity of land is not available in the Metro area without the conversion of agricultural land to urban uses. The impacts on road systems are more acute with concentration of development in one area, as opposed to a diffusion of impacts caused by the alternative scenario. Generally speaking, emphasizing redevelopment in centers over development of new areas of undeveloped land is a key strategy in the *2040 Growth Concept*.

But, on balance, these costs are offset by the positive attributes of developing a planned community in order to satisfy long-term buildable land needs. It will be immensely cheaper to service a single area with new sewers, water supply and stormwater management system than to retool these systems in a variety of areas. One reason for the strong support of the City of Hillsboro for the Hillsboro South urban growth boundary change is the cost differential on the provision of facilities and services, as contrasted with a more diffuse number of urban growth boundary expansions. *Compare*, urban reserve serviceability costs for Urban Reserves 53, 54, and 55 (approximately \$9,400 per dwelling unit) with Urban Reserves 61 – 65 (\$11,443, \$27,984, \$98,219, \$16,385, and \$14,309 respectively per dwelling unit). Thus, it is likely that the cost of housing will be cheaper in a planned community, than would be the case by infilling existing exception lands. Moreover, a planned community allows maximum protection of natural resources. Indeed, a planned community meets the policy aims of the *2040 Growth Concept* as stated on pages 6 – 7 of that policy.

Creating higher density centers of employment and housing is advantageous for several reasons. These centers provide access to a variety of goods and services in a relatively small geographic area, creating a[n] intense business climate. Having centers also makes sense from a transportation perspective, since most centers have an accessibility level that is conducive to transit, bicycling and walking. Centers also act as social gathering places and community centers, where people would find the "small town atmosphere" they cherish.

There is no question that the region has rejected development of new expansion areas at the expense of redevelopment and infilling of the existing urban area. But given the need to expand the urban growth boundary to meet statutory obligations and the particular needs for additional residential land in the Hillsboro area and the quantity of that need, livability factors suggest that these needs will best be satisfied by an urban growth boundary expansion of sufficient size to create a planned community that satisfies the urban design requirements of the *2040 Growth Concept Plan*.

Effect of Urban Reserve Plan requirement and compliance on livability determinations and need.

The Metro Code reflects a preference for expansion of the urban growth boundary onto planned community land. MC 3.01.012(e) generally requires an urban reserve plan as a precondition for expansion of the urban growth boundary. While adoption of an urban reserve plan is not a barrier to complying with statutory mandates under MC 3.01.012(e)(2), MC 3.01.015(e) prefers land subject to an urban reserve plan as a priority in ranking potential urban growth boundary expansions.

The Urban Reserve Areas at issue are soon to be regulated by the *Hillsboro Concept Plan*. The *Hillsboro Concept Plan* is being considered for recommendation by the Hillsboro Planning Commission and will shortly be considered by the Hillsboro City Council as an amendment to the Hillsboro Comprehensive Plan. The *Hillsboro Concept Plan* is the most sophisticated and complete urban reserve plan presently under review and the only plan being actively considered as an amendment to a local comprehensive plan.

Thus, MC 3.01.020(b)(1)(A), (B), (C) and (F) quoted above have all been addressed and satisfied with the adoption of the *Urban Growth Report* by Resolution 97-2559B. Subsections (1)(D) and (E) establish that Metro must choose the most suitable lands to bring inside the urban growth boundary in order to meet the need established by the *Urban Growth Report* and the deadline imposed by ORS 197.299(2). Subsection (1)(E), along with MC 3.01.015(e), provide that the most suitable lands for inclusion in the urban growth boundary are those for which urban reserve conceptual plans have been completed. The Metro Council is required to include such lands in a legislative amendment of the urban growth boundary before including any properties that have not prepared and completed that level of pre-planning. The preparation of concept plans, in accord with MC 3.01.012(e), provides the best evidence of a property's suitability for expansion. The South Hillsboro Urban Reserve Concept Plan addresses and satisfies all of the pre-planning requirements of MC 3.01.012(e) and thus is justified for inclusion in this legislative amendment of the urban growth boundary.

Conclusions.

There are three components to the justification of the need to expand the urban growth boundary in this subregion. First, an urban growth boundary change is needed in order to comply

with the requirements of ORS 197.295 – ORS 197.299. A component of the determined need for additional residential land can be allocated to the western portion of the region based on its allocation of 2017 housing targets in the *Urban Growth Management Functional Plan*.

Second, it is reasonable to increase the allocation of additional buildable land to this subregion in order to address the projected jobs/housing imbalance. An additional 27,500 households are needed in this subregion in order to balance the supply of jobs and housing as of 2020. This affects the allocation of buildable land added to meet the ORS 197.299 mandate. Within the mandate of adding land for approximately 32,000 dwelling units during 1998 and 1999, it makes sense to allocate approximately 10,000 dwelling units to the lands around Hillsboro's portion of the urban growth boundary.

Finally, to meet this need for an additional 10,000 dwelling units through urban growth boundary expansions in this area, there is a preference for land which can be developed as a planned community. Given that the need cannot be satisfied through expansion of the urban growth boundary onto exception areas alone, and that a conversion of resource land to urban uses is necessary in any event, there is a need for an expansion of land sufficient in size to accommodate much of the need and allow an urban design to meet *2040 Growth Concept Plan* policies.

Alternatives to Expansion of the Urban growth boundary.

Applicable Criteria.

ORS 197.296(4): "If the determination required by subsection (3) of this section indicates that the urban growth boundary does not contain sufficient buildable lands to accommodate housing needs for 20 years at the actual developed density that has occurred since the last periodic review, the local government shall take one of the following actions:

(a) . . .

(b) Amend its comprehensive plan, functional plan or land use regulations to include new measures that demonstrably increase the likelihood that residential development will occur at densities sufficient to accommodate housing needs for 20 years without expansion of the urban growth boundary."

ORS 197.732(1)(c)(B), OAR 660-004-0010(c)(B)(ii) and Goal 2, Part II (c)(2): "Areas which do not require a new exception cannot reasonably accommodate the use;"

ORS 197.298: "Priority of land to be included within urban growth boundary. (1) In addition to any requirements established by rule addressing urbanization, land may not be included within an urban growth boundary except under the following priorities:

(a) First priority is land that is designated urban reserve land under ORS 195.145, rule or metropolitan service district action plan.

(b) If land under paragraph (a) of this subsection is inadequate to accommodate the amount of land needed, second priority is land adjacent to an urban growth boundary that is identified in an acknowledged comprehensive plan as an exception area or nonresource land. Second priority may

include resource land that is completely surrounded by exception areas unless such resource land is high-value farmland as described in ORS 215.710.

(c)

(d) If land under paragraphs (a) to (c) of this subsection is inadequate to accommodate the amount of land needed, fourth priority is land designated in an acknowledged comprehensive plan for agriculture or forestry, or both.

. . . .

(3) Land of lower priority under subsection (1) of this section may be included in an urban growth boundary if land of higher priority is found to be inadequate to accommodate the amount of land estimated in subsection (1) of this section for one or more of the following reasons:

(a) Specific types of identified land needs cannot be reasonably accommodated on higher priority lands;

(b) Future urban services could not reasonably be provided to the higher priority due to topographical or other physical constraints; or

(c) Maximum efficiency of land uses within a proposed urban growth boundary requires inclusion of lower priority lands in order to include or to provide services to higher priority lands.

MC 3.01.020(b)(1)(E): "The district must find that the identified need cannot reasonably be met within the urban growth boundary consistent with the following considerations:

(i) That there is not a suitable site with an appropriate comprehensive plan designation;

(ii) All net developable land with the appropriate plan designation within the existing urban growth boundary shall be presumed to be available for urban use during the planning period;

(iii) Market availability and level of parcelization shall not render an alternative site unsuitable unless justified by findings consistent with the following criteria: [presumed availability during planning period of urban growth boundary unless precluded by legal impediments; developed parcels unavailable unless improvements of low value; more than one ownership is suitable unless current pattern or level of parcelization makes land assembly unfeasible]."

MC 3.01.020(c)(1): "The land need identified cannot be reasonably accommodated within the current urban growth boundary"

OAR 660-004-0020(2)(b): "Areas which do not require a new exception cannot reasonably accommodate the use:

(A) The exception shall indicate on a map or otherwise describe the location of possible alternative areas considered for the use, which do not require a new exception. The area for which the exception is taken shall be identified;

(B) To show why the particular site is justified, it is necessary to discuss why other areas which do not require a new exception cannot reasonably accommodate the proposed use. Economic factors can be considered along with other relevant factors in determining that the use cannot reasonably be accommodated in other areas. Under the alternative factor the following questions shall be addressed:

(i) Can the proposed use be reasonably accommodated on nonresource land that would not require an exception, including increasing the density of uses on nonresource land? If not, why not?

(ii) Can the proposed use be reasonably accommodated on resource land that is already irrevocably committed to nonresource uses, not allowed by the applicable Goal, including resource land in existing rural centers, or by increasing the density of uses on committed lands? If not, why not?

(iii) Can the proposed use be reasonably accommodated inside an urban growth boundary? If not, why not?

(C) This alternative areas standard can be met by a broad review of similar types of areas rather than a review of specific alternative sites. Initially, a local government adopting an exception need assess only whether those similar types of areas in the vicinity could not reasonably accommodate the proposed use. Site specific comparisons are not required of a local government taking an exception, unless another party to the local proceeding can describe why there are specific sites that can more reasonably accommodate the proposed use. A detailed evaluation of specific alternative sites is thus not required unless such sites are specifically described with facts to support the assertion that the sites are more reasonable by another party during the local exceptions proceeding."

OAR 660-014-0040(3)(a): "(3) To approve an exception under this rule, a county must also show:

(a) That Goal 2, Part II(c)(1) and (c)(2) are met by showing the proposed urban development cannot be reasonably accommodated in or through expansion of existing urban growth boundaries or by intensification of development at existing rural centers;"

Introduction.

The subject property is comprised of Urban Reserves 51-55. Therefore, the subject amendment need not be accompanied by findings demonstrating compliance with Factor 6. Moreover, pursuant to ORS 197.298, the site is considered first priority land, and is to come into the urban growth boundary prior to other lands. The Metro Council adopted Ordinance 96-655E (the urban reserve decision) in March, 1997. Because the urban reserve decision is currently on appeal to LUBA, these findings demonstrate compliance with the agricultural land retention provisions of ORS 197.298 and MC 3.01.020(b)(6).

Under Metro's acknowledged code, a legislative amendment to the urban growth boundary (urban growth boundary) requires the Council to apply and balance factors 3 through 7, as listed in MC 3.01.020(b). First, it must be emphasized that the MC 3.01.020(b), like the Goal 14 factors from which they were derived, are factors that must be balanced. See MC 3.01.020(b) ("For legislative amendments, if need has been addressed, the district shall demonstrate that the priorities of ORS 197.298 have been followed and that the recommended site was better than the alternative sites,

balancing factors 3 through 7.”) *See also* RUGGO 24.2 (“Criteria for amending the urban growth boundary shall be derived from statewide planning goals 2 and 14, other applicable goals, and relevant portions of the RUGGOs”); *Halverson v. Lincoln County*, 82 Or App 302, 728 P.2d 77 (1986) (requiring balancing of Goal 14 factors).

In some cases, application of each locational “factor” of MC 3.01.020(b) will lead to contradictory results. For example, application of factor 6 may favor including a parcel of heavily parcelized exception land with steep slopes, while application of factor 3 may indicate that this same exception land does not lend itself to “orderly and economic provision [of] public facilities and services.” In such cases, the two factors essentially balance (or cancel) each other, and the local government must look towards the other two factors, along with relevant portions of the acknowledged RUGGOs, to resolve the conflict.

Similarly, state law requires that when the statewide goals are applied to a decision, the goals must be given equal weight. ORS 197.340.

Factor 6 generally establishes a preference for expanding urban development into areas which are not useful for agricultural or forestry uses because of their soil types, or because the land has previously been parcelized and developed in a fashion which makes it unlikely that agricultural or forestry uses would ever resume on these lands. Metro Code 3.01.020(b)(6) states:

Compliance with ORS 197.296(4)(b) and regulatory alternatives.

As noted above, ORS 197.296(4) allows a choice of means to satisfy the projected need for buildable lands, expanding the urban growth boundary, adopting new density measures, or both. A decision to amend the urban growth boundary need not be justified by lack of regulatory alternatives. Even still, Metro has meticulously reviewed the region’s buildable land supply and assumed an aggressive redevelopment and infill rate in the projections made in the *Urban Growth Report* and *Urban Growth Report Addendum*. The *Urban Growth Management Functional Plan* allocates to each jurisdiction substantial housing targets to attain within the existing urban growth boundary. These ambitious targets allow little room for additional residential development, sufficient to obviate or minimize the need for the urban growth boundary expansions.

Based on the August, 1998 *City of Hillsboro Compliance Report*, the City of Hillsboro has adopted regulatory measures to increase housing densities. The City adopted new zoning for the light rail station areas that includes high density residential zoning, minimum residential densities, minimum floor area ratios, accessory dwelling unit provisions and other measures to increase infilling and higher residential densities. The City will be amending its Development Code to establish minimum residential densities and allow accessory dwelling units. Hillsboro currently has comprehensive plan provisions that require new residential development to attain a density of 10 units per acre and a 50/50 single family/multifamily split. The City is incorporating the applicable 2040 Growth Concept design types into its Comprehensive Plan.

The City of Hillsboro has determined that it can meet its Functional Plan new dwelling target of 14,812 new dwelling units by 2017 through the existing zoning, relying upon development in its mixed use areas. The City has limited vacant and redevelopable land in its Inner and Outer Neighborhoods.

It is not feasible, then, to take zoning measures beyond those prescribed in the *UGM Functional Plan* and those already taken by the City of Hillsboro to significantly increase the number of new dwelling units that can be accommodated within the Hillsboro urban growth boundary. The City has upzoned nearly all of the land along the new Westside Light Rail Line, including the downtown core area. These measures will allow the City to accommodate 14,896 new dwelling units, slightly more than its target.

Alternatives within the Urban growth boundary.

The *City of Hillsboro Compliance Report* determines that the City has barely sufficient land to meet its 2017 jobs target of 58,247 jobs, established by the *UGM Functional Plan*. The City's Industrial Sanctuary no longer has vacant sites available for new, high tech campus industrial users. Undeveloped portions of the existing campus industrial uses are being held in reserve for future expansion. Notwithstanding these factors, the City is relying upon the Industrial Sanctuary lands to generate nearly 30,000 jobs. An additional 13,305 jobs can be accommodated within the station community planning areas.

Given its allocation of future employment and the limited buildable land within the City of Hillsboro, it is not feasible to redesignate industrial land for residential uses in order to achieve a better jobs/housing balance. The City has generated 12,086 jobs within the past four years. The 2017 job target is an extrapolation of this employment generation rate. Given the concentration of industry and employment in Hillsboro, and the spinoff employment generated by these existing businesses, it would not be prudent to limit this employment potential and reconfigure the region's allocation of new employment. Moreover, Hillsboro has an ample supply of water for new industry and has clear understandings on responsibilities for public services and facilities with other service providers, in contrast with many areas of Clackamas County. There are limited alternative locations for significant new employment.

It is not necessary to re-justify the jobs needs determinations made in the *UGM Functional Plan*. It is not practical to recast the allocation of jobs to Hillsboro at this point and there may be problems in finding land for that employment elsewhere. Given the allocation, however, it is not practical to re-plan and re-zone existing industrial land to residential uses.

The City of Forest Grove does not offer an alternative source of land for housing. According to the *Forest Grove Compliance Plan Assistance Report*, Forest Grove has insufficient vacant land to meet its 2017 dwelling unit target of 2,873 residences, falling short by 1,035 dwelling units. Forest Grove also has a 2017 jobs target of 5,488 jobs, and will fail to provide land for 753 jobs. Although there are redevelopment options to attain these targets, there is not any land to meet the housing targets of another jurisdiction.

Cornelius has an ambitious dwelling unit target of 1,019 units and a jobs target of 2,812 jobs. Cornelius has added on 157 dwelling units since 1994, and at that rate will fall short of its dwelling unit target. According to the *Cornelius Compliance Plan Assistance Report*, Cornelius will fall short of its housing target by 208 dwelling units. Metro foresees that there is a potential for an additional 91 dwelling units. Even so, there is not any land to meet the additional housing demand for Hillsboro or to correct the subregional jobs/housing imbalance.

Type of land to satisfy need.

Based on the above findings, the type of land needed to satisfy the residential and livability needs, is an expansion of land sufficient in size to accommodate much of the need and allow an urban design to meet *2040 Growth Concept Plan* policies. The size should be that which would allow siting of a majority of the 10,000 dwelling unit need and sufficient to allow development of a planned community meeting the *2040 Growth Concept Plan* policies. Based on the *City of Hillsboro South Urban Reserve Concept Plan*, addition of Urban Reserves 51 – 55 will meet this need.

General analysis on lack of alternative sites to satisfy residential and livability need.

The urban reserve areas studied for initial designation as part of Metro's urban reserve decision included a number of alternatives in the areas around Hillsboro. Urban Reserves 56 – 60, located around the cities of Forest Grove and Cornelius, together could house 2,640 dwelling units, an insufficient amount of housing to meet the subregional need. None of these urban reserves contain a sufficient amount of buildable land to lay out a mixed use planned community. Urban Reserve 58 is 527 acres, but only 275 acres are buildable.

Former Urban Reserves 62, 64 and 65 are large urban reserves located to the north and northeast of Hillsboro. All contain significant amounts of agricultural land. Urban Reserves 64 and 65 are large tracts with substantial amounts of unbuildable land. Urban Reserve 62 is a 692 acre tract, with 590 acres of resource land, and 409 acres of buildable land. It has space for 4,089 dwelling units. This tract is sufficient in size to allow for a planned community. This tract is immediately adjacent to the Industrial Sanctuary and does not adjoin any residential neighborhood. It is better situated for industrial use because of this proximity. There are no buffers or barriers separating Urban Reserve 62 from agricultural lands to the north and west. Its development could encourage the premature conversion of these resource lands to urban uses.

Based on the urban reserves studied by Metro previously, there are no alternative locations in the Hillsboro region to expand the urban growth boundary to add land sufficient in size to accommodate 5,000 or more dwelling units to be developed in a planned community.

Alternative areas available to satisfy need (specific analysis).

This analysis and findings supplements those contained in the exceptions land report prepared by Glen Bolen, which is incorporated herein. They are based, in part, upon the *Alternative Site Analysis for Urban Reserve Sites 51 – 55 (Alternative Site Analysis)* attached hereto and incorporated herein. The following analysis justifies the urban growth boundary change under ORS 197.298(3)(a) as well as under the Metro Code.

Under MC 3.01.020(b)(6)(A)(i), the first priority for inclusion into the urban growth boundary are "rural lands excepted from statewide planning Goals 3 and 4 in adopted and acknowledged county comprehensive plans." *See also* ORS 197.298(1)(a), OAR 660-04-0020(2)(b).

Approximately half of the total acreage of Urban Reserves 51-55 is exception land. These properties were designated as exception lands in 1986, and are documented in the Washington County Rural/Natural Resources Framework Plan as exception areas #93 and 94. Therefore, inclusion of approximately half of the total area of Urban Reserves 51-55 is justified under the first sentence of MC 3.01.020(b)(6)(A)(i).

Inclusion the remaining acreage in resource use is justified under the second sentence of MC 3.01.020(b)(6)(A)(I), which states that "small amounts of rural resource land adjacent to or surrounded by those "exception lands" may be included with them to improve the efficiency of the boundary amendment." This efficiency-enhancing provision is similar to the "maximum efficiency" exception to the priority system created for the designation of urban reserves. See ORS 197.298(3)(c), OAR 660-21-030(4)(c). Resource lands included pursuant to this sentence is limited to "the smallest amount of resource land necessary to achieve improved efficiency." MC 3.01.020(b)(6)(A)(I).

The demonstrated need for housing in the Hillsboro region, including the special land need (jobs/housing imbalance) cannot be met by including only exception lands in the urban growth boundary. To comply with factor 6, these findings, and the *Alternative Site Analysis*, detail why other sites with less impact on higher priority resource lands are unavailable, unsuitable, or insufficient in quantity to satisfy a particular need which justifies An urban growth boundary expansion. The reasons why the Washington County exception areas are not sufficient to meet the demonstrated need are listed below. Exception lands not adjacent to the existing urban growth boundary are considered and rejected first. Second, exception lands in the Hillsboro region adjacent to the existing urban growth boundary are considered for their ability to meet the current unmet housing need.

1. Exception Lands Not Adjacent to Existing Urban growth boundary.

Of the existing exception lands in Washington County, most are not adjacent to the existing urban growth boundary. These exception areas are not suitable because they do not meet the requirements of the RUGGO and the *2040 Growth Concept*. Although nothing specifically requires that proposed urban reserve areas be adjacent to the present urban growth boundary, as a practical matter, only adjacent lands allow for efficient urban expansion, maximum connectivity, proximity to regional and town centers, and compact urban form.

Exception lands greater than one full mile from the present urban growth boundary were not studied for inclusion in the urban growth boundary under the *Alternative Site Analysis*, because they could not comply with the *2040 Growth Concept* and the RUGGO mandate of a compact urban form, and would not promote the orderly and economic provision of urban services as required by Statewide Goal 11, and Goal 14, Factor 3. Urban development in these areas would have negative impacts on the environment, specifically air quality, resulting from increases in vehicle miles traveled. In addition, urban expansion in these areas would have a greater impact overall farm practices in the area. Finally, state law reflects the general policy that urban expansion should be focused on adjacent lands. When selecting urban reserve areas, OAR 660-21-030(2) requires local governments to study adjacent lands before including lands further than ½ a mile from an existing urban growth boundary.

2. Exception Lands Adjacent to Existing Urban growth boundary.

As detailed in the *Alternative Site Analysis*, exception areas adjacent to the present urban growth boundary in the Hillsboro region are not a reasonable alternative to the lands included in the South Hillsboro urban reserve concept plan. The *Alternative Site Analysis* demonstrates that none of the adjacent exception areas could provide enough housing units, either individually or cumulatively, to meet the special land need in the Hillsboro region. These exception areas are designated as AF-5

and AF-10 on the Washington County Rural/Natural Resources Plan Map (Side 2). The primary reasons that these exception lands were rejected as reasonable alternatives is summarized below.

Some of the adjacent exception areas within this category are located within green corridors, as designated on the acknowledged 2040 Growth Concept Map. These areas could not be brought into the urban growth boundary without violating Regional Urban Growth Goals and Objectives (RUGGO) 22.3.3 and 26.1, which require "separation of communities."

In addition, many of these exception lands are located on lands with steep slopes (over 25%), FEMA 100 year flood plains, or other environmental constraints. These lands are not suitable for urban development because they are not efficiently served, because they cause damage to the environment and, in some cases, are hazardous to human health. Moreover, RUGGO subgoal II.4 (the 2040 Growth Concept), which lists certain steeply sloped and flood-prone lands as unbuildable. See 2040 Growth Concept Maps: (Slopes) and (Environmentally Constrained Lands). Additional reasons exist in some cases. For example, lands in the flight path of the Hillsboro Airport were excluded from consideration, in part because it would be imprudent to develop these lands to the density levels required in either Inner or Outer Neighborhoods under Metro 2040 Growth Concept.

Exception areas which form peninsulas of high-priority land protruding out into areas of productive farmland are also excluded from consideration because urbanizing these areas will result in a major incursions into the surrounding EFU lands. Transportation problems are compounded on these sites, because collector street are invariably funneled through the thin strip of land connecting the exception area with the urban growth boundary. This violates RUGGO Goals II.i, II.3.iii, 19.I, 19.iv, 19.v, 19.vii and RUGGO Objectives 19.2.2 and 3.1 because it does not allow for interconnectivity or an integrated transportation network. Moreover, providing services through the narrow strip of land in these exception area violates RUGGOs 18.I, 18.ii. and 18.v because of its inefficiencies. These inefficiencies arise because developing into thin fingers of exception land requires large quantities of trunk and collection lines while on providing a few localized connections. It is more efficient to have as many local connections to water, sewer, and roads as possible, thereby reducing the overall amount of these services that must be built. Therefore, if roads, water mains, and sewage pipes are going to be extended any distance to reach the higher priority exception land, then maximum efficiency is achieved by also allowing local connections along the full length of the trunk lines.

In some cases, the addition of these peninsulas to the urban growth boundary would create islands of non-urban land surrounded by the urban growth boundary. In all cases, adding peninsulas of exception land would create a greater percentage of land where prime farmland is contiguous to urban development. These farmlands become more vulnerable to trespass, vandalism, and other impacts of urban development. Choosing options which increase the amount of farmland contiguous to urban uses contravenes RUGGO 16.3, which requires Metro to "protect and support the ability for farm and forest practices to continue." In addition, such an approach is inconsistent with Objective 1.7 (Urban/Rural transition) from the Regional Framework Plan, and violates RUGGO Goal II.i, which makes achieving a compact urban form a Metro goal.

Finally, the vast majority of the existing exception areas are highly parcelized and the lots are predominately in separate ownership. This situation inhibits the ability to consolidate parcels into larger blocks of land which could provide housing densities consistent with the 2040 Growth Concept and RUGGOs. These lands are difficult to master plan, do not have enough large vacant

lots that are readily usable as schools, parks, and town centers, and do not have well structured transportation networks.

In the appeal of the urban reserve decision currently before LUBA, the primary petitioners (DLCD/ODOT/1000 Friends of Oregon /Farm Bureau) argued that Metro erred by rejecting certain adjacent areas as alternatives to the inclusion of resource land such as URA 54/55. The petitioners argued that even if each individual exception area site could not provide any significant number of housing units, that Metro erred by not considering them in combination. However, given the demonstrated need for 32,000 housing units, combined with the special land need for the Hillsboro region, the demonstrated need for housing would not be met even if the other adjacent exception areas outside of the South Hillsboro urban reserve concept plan were included into the urban growth boundary.

Even so, Metro is taking a broader view of how development should occur, by seeking to regulate and steer growth via the *2040 Growth Concept*. In part, this means developing new town centers, corridors, main streets and neighborhood centers. This type of integrated, development could not occur on lands that are heavily parcelized and in separate ownerships. None of the heavily parcelized areas mentioned by the petitioners in the appeal of the urban reserve decision could be effectively or realistically master planned. These areas could at best be subdivided on a piecemeal, haphazard basis. Rather than form communities with integrated transportation networks, and well designed neighborhoods with adequate parks, schools, and other public services, relying on a few exception areas to meet the land development need only results in the creation of small housing subdivisions. However, when developed in conjunction with limited quantities of larger vacant land, exception areas which might normally be of little development value to the region can be integrated into a highly productive and workable development plan. The South Hillsboro urban reserve concept plan is a good example of how this principle can work.

3. Secondary Lands.

MC 3.01.020(b)(6)(A)(ii) requires Metro to give second priority to secondary lands, as defined by the state. The term "secondary lands" is a term of art, which is no longer part of the Oregon land use system. The term is not defined by statute. In fact, ORS 215.304(1) prevents LCDC from "adopting or implementing any rule to identify or designate small-scale farmland or secondary land." Thus, there can exist no lands adjacent to the Metropolitan Portland urban growth boundary that can be defined as secondary lands.

4. Secondary Agricultural Resource Lands.

In the event that there are not sufficient secondary lands to meet the demonstrated need, MC 3.01.020(b)(6)(A)(iii) requires Metro to give third priority to secondary agricultural resource lands, as defined by the state. The term "secondary agricultural resource lands" is not defined under state law. With regard to property in the Willamette valley, LCDC defines "agricultural land" as those lands with class I-IV soils, as identified by the NRCS. "High-value farmland" is agricultural land that contains soils that are prime, unique, class I or class II, or which contain certain crops, such as orchards. Quite possibly, the reference to "secondary agricultural resource lands" in MC 3.01.020(b)(6)(A)(iii) is intended to mean all agricultural lands not considered to be "high-value" under state law.

Washington County is one of two counties that designated certain lands as "marginal" under ORS 197.247 and ORS 215.288(2). Most of lands county's "marginal" lands are zoned AF-5 and AF-10 and are in exception areas. These lands have been rejected as viable alternatives to Urban Reserves 51-55, as discussed above and in the alternative site analysis. Lands zoned AF-20 can also be considered "marginal" lands under the county's comprehensive plan. However, they are also considered EFU lands for purposes of ORS 215.213-215.337 under the county code. See CDC 340-1 and 344.1. Therefore, AF-20 lands do not fit the definition of secondary agricultural resource lands.

No matter how the term "secondary agricultural resource lands" is defined, there are no significant quantities of these lands adjacent to the Metropolitan Portland urban growth boundary that could provide both sufficient housing to met the demonstrated special land need in the Hillsboro region and comply with the RUGGOs.

There are only two major concentrations of AF-20 land in the region that are contiguous to the present urban growth boundary. The first occurs in the area directly west and north-west of downtown Hillsboro. These lands are not suitable for expansion of the urban growth boundary because they are designated as rural reserves, and because they are located within green corridors, as designated on the acknowledged 2040 Growth Concept Map. These areas could not be brought into the urban growth boundary without violating Regional Urban Growth Goals and Objectives (RUGGO) 22.3.3 and 26.1, which require "separation of communities."

The only other significant concentration of AF-20 land is located directly south of Cooper Mountain. As noted in the alternative site analysis, it is part of the Beaverton - Washington Square Regional Center area as shown in Metro's Region 2040 Recommended Alternative Technical Appendix. Therefore, this area will not contribute to improving the jobs-to-housing ratio or decreasing VMTs in the Hillsboro regional center area.

The area, more commonly known as "Cooper Mountain," is shown on the exception area map and Washington County's Rural/Natural Resource Plan as "Exception Area 97." Except for three large undeveloped tax lots, the area is a densely developed rural residential area. The approximately 489 acre area was heavily parcelized with 80 percent of the lots in separate ownership at the time Washington County granted the exception. Review of the county's Rural/Natural Resource Plan shows that the area has become even more parcelized since the exception was granted. Only a few lots on the southern border of the exception area remain undeveloped. The developed portion of exception area #97 is fully improved and cannot provide a significant number of new housing units to satisfy Hillsboro's special land need. Development of Cooper Mountain has been fairly recent and the potential for substantial redevelopment and infill is remote. Thus, the developed portion of exception area #97 cannot reasonably accommodate the special land need identified for the Hillsboro area.

Under the soil classification system used by the Natural Resource Conservation Service (NRCS), any given soil type will be represented in a number of different soil "classes," depending on the slope of the land where it is found. For example, Cascade Silt loams may be class III if found on lands with a slopes of 0-20%, but will be class IV if found on land with slopes of 20-60%. As a general rule, many of the lowest quality soil classes will be found on lands with the steepest slopes. Thus, MC 3.01.020(b)(6)(A)(iii) has the unintended effect of favoring lands (greater than 25% with steeper slopes for urban development. However, at it extreme, these steeply sloped lands are deemed unbuildable under the 2040 Growth Concept.) Even considering areas with slopes somewhat less

than 25%, the costs associated with building in these areas makes them inappropriate for the higher density development required under the 2040 growth concept. As the September 1998 Productivity Analysis demonstrates, areas with steeper slopes invariably require greater expenditures for provision of urban services. This, in turn, contributes to higher housing costs, which, in turn, compounds local governments abilities to provide affordable housing consistent with Statewide Planning Goal 10, ORS 197.295-197.307, and RUGGO Goal II.iii, and Obj. 17.

5. Primary Forest Resource Lands.

The fourth priority for inclusion into the urban growth boundary includes primary forest lands, as defined under state law. MC 3.01.020(b)(6)(A)(iv). Under OAR 629-24-101(21), "forest lands" are defined as "land for which a primary use is the growing and harvesting of forest species." Statewide Planning Goal 4 defines forest lands as those "lands acknowledged as forest lands as of the date of adoption of this goal." Lands zoned for exclusive forest uses are designated as Exclusive Forest and Land Conservation Land Use District (EFC) in the Washington County Rural/Natural Resources plan. To the extent that there are any lands adjacent to the existing urban growth boundary in the Hillsboro region that meet this definition, there are no significant amounts of forest land that could provide enough housing units to alter the region's current jobs to housing imbalance.

6. Primary Agricultural Resource Lands.

The fifth and last priority goes to primary agricultural resource lands, as defined by the state. Resource lands included in URA sites 51-55 are the logical choice over other similar resource lands. As Metro has already found, the exception areas in the South Hillsboro area cannot be provided with urban services without incorporating the resource lands within the subject area.

Second, when deciding between otherwise similar parcels of resource land, it is appropriate to consider whether the new urban growth boundary will create more (or less) direct contact between urban uses and high-value resource land. This so-called "edge effect," represents the reality that the greatest incompatibilities between urban and rural farm arises arise from parcels that are contiguous to one another. Therefore, inclusion of the resource land in the South Hillsboro concept plan is preferred over inclusion of any other properties designated as "primary agriculture resource land" under state law. *See generally* RUGGO Objectives 16 and 22.

6. Specific Findings on Alternatives.

- ORS 197.298

The subject property is in an urban reserve. Therefore, it is first priority land pursuant to ORS 197.298(a).

In the alternative and in the event that the urban reserve status of any portion of the subject property is reversed or remanded by the Land Use Board of Appeals, based on the *Residential Market Evaluation* and the *Alternative Site Analysis*, the area has a specific land need for housing which cannot be reasonably accommodated on any higher priority lands. The inclusion of lower priority lands within the area of the proposed amendment is justified to provide maximum efficiency of land uses within the urban growth boundary. Therefore, the urban growth boundary amendment satisfies ORS 197.298(3)(a) and ORS 197.298(3)(c).

- ORS 197.732(1)(c)(b), OAR 660-004-0010(c)(b)(ii) and Goal 2, Part II (C)(2)

Based on the *Residential Market Evaluation* and the *Alternative Site Analysis*, there are no areas which would not require an exception which could reasonably accommodate the proposed use. Therefore the incorporation of any lands requiring an exception is justified pursuant to the above criteria.

- OAR 660-040-0020(2)(b)

The *Alternative Site Analysis* satisfies the requirements of OAR 660-004-0020(2)(b) as it has provided a thorough description of possible alternative areas. The *Alternative Site Analysis* discusses the reasons why other areas which should not require a new exception cannot reasonably accommodate the proposed use. Specifically, based on the *Alternative Site Analysis*, the proposed use and the specific land need cannot be reasonably accommodated on non-resource land or land already irrevocably committed to non-resources. Based on the record in this case and the record of decision in Metro Ordinance 96-655E, there is not sufficient land that is already irrevocably committed to non-resource uses to satisfy the special land need for the area or to accommodate for the proposed use.

Consequences of Expansion of the Urban growth boundary to Include the Hillsboro South Urban Reserves.

Applicable Criteria.

ORS 197.732(1)(c)(C), MC 3.01.020(c)(3), OAR 660-04-0010(1)(B)(c)(iii) and Goal 2, Part II(c)(3): "The long term environmental, economic, social and energy consequences resulting from the use at the proposed site with measures designed to reduce adverse impacts are not significantly more adverse than would typically result from the same proposal being located in areas requiring a goal exception other than the proposed site;"

OAR 660-04-0020(2)(c): "The long-term environmental, economic, social and energy consequences resulting from the use at the proposed site with measures designed to reduce adverse impacts are not significantly more adverse than would typically result from the same proposal being located in other areas requiring a Goal exception. The exception shall describe the characteristics of each alternative areas considered by the jurisdiction for which an exception might be taken, the typical advantages and disadvantages of using the area for a use not allowed by the Goal, and the typical positive and negative consequences resulting from the use at the proposed site with measures designed to reduce adverse impacts. A detailed evaluation of specific alternative sites is not required unless such sites are specifically described with facts to support the assertion that the sites have significantly fewer adverse impacts during the local exceptions proceeding. The exception shall include the reasons why the consequences of the use at the chosen site are not significantly more adverse than would typically result from the same proposal being located in areas requiring a goal exception other than the proposed site. Such reasons shall include but are not limited to, the facts used to determine which resource land is least productive; the ability to sustain resource uses near the proposed use; and the long-term economic impact on the general area caused by irreversible removal of the land from the resource base. Other possible impacts include the effects of the proposed use on the water table, on the costs of improving roads and on the costs to special service districts."

OAR 660-14-0040(3)(b): "That Goal 2, Part II(c)(3) is met by showing the long-term environmental, economic, social and energy consequences resulting from urban development at the proposed site with measures designed to reduce adverse impacts are not significantly more adverse than would typically result from the same proposal being located on other undeveloped rural lands, considering:

(A) Whether the amount of land included within the boundaries of the proposed urban development is appropriate, and

(B) Whether urban development is limited by the air, water, energy and land resources at or available to the proposed site, and whether urban development at the proposed site will adversely affect the air, water, energy and land resources of the surrounding area."

Goal 14, Urbanization factors three, five and six: "Orderly and economic provision for public facilities and services," "environmental, energy, economic and social consequences," and "retention of agricultural land as defined, with Class I being the highest priority for retention and Class VI the lowest priority."

MC 3.01.020(b)(3): "Factor 3: Orderly and economic provision of public facilities and services. An evaluation of this factor shall be based upon the following:

(A) For the purposes of this section, economic provision shall mean the lowest public cost provision of urban services. when comparing alternative sites with regard to factor 3, the best site shall be that site which has the lowest net increase in the total cost for provision of all urban services. In addition, the comparison may show how the proposal minimizes the cost burden to other areas outside the subject area proposed to be brought into the boundary.

(B) For the purposes of this section, orderly shall mean the extension of services from existing serviced areas to those areas which are immediately adjacent and which are consistent with the manner of service provision. For the provision of gravity sanitary sewers, this could mean a higher rating for an area within an already served drainage basin. For the provision of transit, this would mean a higher rating for an area which could be served by the extension of an existing route rather than an area which would require an entirely new route."

MC 3.01.020(b)(5): "Factor 5: Environmental, energy, economic and social consequences. An evaluation of this fact shall be based upon consideration of at least the following:

(A) If the subject property contains any resources or hazards subject to special protection identified in the local comprehensive plan and implemented by appropriate land use regulations, findings shall address how urbanization is likely to occur in a manner consistent with these regulations.

(B) Complementary and adverse economic impacts shall be identified through review of a regional economic opportunity analysis, if one has been completed. If there is no regional economic opportunity analysis, one may be completed for the subject land.

(C) The long-term environmental, energy, economic, and social consequences resulting from the use at the proposed site. Adverse impacts shall not be significantly more adverse than would

typically result from the needed lands being located in other areas requiring an amendment of the urban growth boundary.”

MC 3.01.020(b)(6): “(6) Factor 6: Retention of agricultural land. This factor shall be addressed through the following:

(A) Prior to the designation of urban reserves, the following hierarchy shall be used for identifying priority sites for urban expansion to meet a demonstrated need for urban land:

(i) Expansion on rural lands excepted from statewide planning Goals 3 and 4 in adopted and acknowledged county comprehensive plans. Small amounts of rural resource land adjacent to or surrounded by those "exception lands" may be included with them to improve the efficiency of the boundary amendment. The smallest amount of resource land necessary to achieve improved efficiency shall be included;

(ii) If there is not enough land as described in (i), above to meet demonstrated need, secondary or equivalent lands, as defined by the state, should be considered;

(iii) If there is not enough land as described in either (i) or (ii) above, to meet demonstrated need, secondary agricultural resource lands, as defined by the state should be considered;

(iv) If there is not enough land as described in either (i), (ii) or (iii) above, to meet demonstrated need, primary forest resource lands, as defined by the state, should be considered;

(v) If there is not enough land as described in either (i), (ii), (iii) or (iv) above, to meet demonstrated need, primary agricultural lands, as defined by the state, may be considered.

(B) After urban reserves are designated and adopted, consideration of factor 6 shall be considered satisfied if the proposed amendment is wholly within an area designated as an urban reserve.

(C) After urban reserves are designated and adopted, a proposed amendment for land not wholly within an urban reserve must also demonstrate that the need cannot be satisfied within urban reserves.”

Description of the environmental consequences of the Hillsboro South urban growth boundary amendment.

Based upon the technical background memoranda to the *Hillsboro Concept Plan*, fish population within the urban reserve areas exists in the lower reach of Butternut Creek and there is potential for fish to exist in the upper reaches beyond the beaver dams. With preservation of riparian vegetation, this habitat should not be significantly degraded as a result of urbanization of the area.

The wetlands within the urban reserve area are found almost entirely within the riparian zones of the stream systems, or along the small side-drainages. These include Butternut Creek, Gordon Creek and Witch Hazel Creek, and to a lesser extent, Cross Creek. Development will be set back from these drainages and wetlands. Removal of vegetation from these wetlands, however, may

reduce the filtering effect of the vegetation on absorbing sediments and toxicants from stormwater. The Butternut Creek floodplain is especially important for stormwater detention and treatment and development should be limited in this floodplain.

These wetlands and riparian areas are important wildlife habitats. The plant community along Butternut Creek and Gordon Creek includes Oregon ash, red alder, western red alder, willows and native shrubs. These areas provide cover for refuge from predators, places to perch or reset, breeding habitat and corridors for movement. The agricultural land and developed properties in the urban reserve areas have more limited habitat values

There are beaver throughout Butternut Creek. A heron rookery exists on the western border of the urban reserve area on Butternut Creek. The Hagg property to the south is used by red-tail hawks, kestrels, quail, coyote and deer. Urbanization of the area will limit its general use by wildlife.

Mitigation measures to preserve the storm drainage and wildlife values for the wetlands and streams are outlined in the July 2, 1998 memorandum from Phil Quarterman (W&H Pacific) to Wink Brooks and are incorporated herein. Adoption of these mitigation measures will make the environmental consequences of development of these urban reserves no more serious than development of alternative urban growth boundary expansion areas.

Water quality and quantity issues will be addressed in the master planning process for any development. The just mentioned mitigation measures will help assure that development will not unduly impact water quality and quantity.

Resources subject to special protection.

There are four stream corridors in the urban reserve areas. Butternut Creek originates in the Aloha area and flows through the central part of the urban reserves. It has a flat floodplain varying from 100 feet to 250 feet wide. The channel has steep banks and a small in-stream pond exists just downstream from 229th Avenue. The headwaters of Gordon Creek are located on the east portion of Urban Reserve 55. Gordon Creek occupies a narrow floodplain within an extensive riparian and forested area. Cross Creek originates in a wetland swale in the residential area just to the east of 209th Avenue. Parts of the stream have been artificially channelized and the riparian vegetation has been removed. Witch Hazel Creek starts in a residential neighborhood north of the Hillsboro South urban reserves. The channel occupies a narrow riparian corridor which widens to the south, near River Road. Like Gordon Creek, Witch Hazel Creek occupies a narrow floodplain, with dense riparian vegetation and a less meandering channel form.

As noted earlier, the stormwater detention and treatment facilities will be incorporated into the natural drainage system. The developed areas will largely avoid significant natural resource impacts, due to the protection of stream corridors as open space. The street network will include three significant crossings of riparian corridors. Sewer construction will involve temporary impacts from stream crossings.

There are three cultural and historic sites in Hillsboro South: two rows of poplar trees which once led to the Reed Farm; the Southern Pacific Railroad line, located north of TV Highway; and, farm buildings which were once part of the Hagg Farm. When the area is developed, it may be possible to preserve the poplar trees. The historic residence on the Hagg Farm burned in 1998 and

the remaining buildings may lack significance. There may be Native American artifacts in this area, which can be inventoried and protected upon development.

Description of the economic consequences of the Hillsboro South urban growth boundary amendment.

Based on the public facilities impact report in the *Hillsboro Concept Plan*, the necessary water, sewer and stormwater improvements to serve Hillsboro South will cost \$46,780,380. The on-site road improvements will cost \$32,565,000 and the off-site transportation improvements will cost \$69,900,000. The park facilities on approximately 140 acres of park lands will require the expenditure of approximately \$18 million, in addition to the costs of land acquisition. Construction of new schools will probably be well over \$200 per square foot. The *Hillsboro Concept Plan* lays out a phasing schedule for this infrastructure, as well as financing alternatives.

Based upon the July 2, 1998 technical memorandum by Cornforth Consultants on geologic hazards evaluation, within the Hillsboro South Urban Reserve Areas: the risk of unstable slopes is low; the risk of erosive soils is low; special foundation considerations will be necessary in areas of low bearing capacity soils; risks of seismic hazards can be mitigated in the design of critical structures or life-support facilities; and, seismic hazards will be of highest concerns in slopes adjoining creeks, rivers or bodies of water. Thus, the economic costs of development will be low compared to other potential areas of urban growth boundary expansion with greater constraints and natural hazards.

Addition of this area to the urban growth boundary will increase the value of property and the ultimate tax base of the City of Hillsboro. There are significant economic efficiencies from adding land to the urban growth boundary that can ultimately be annexed by the provider of public services. This allows for the orderly and economic provision of public services supported by the general fund of the City, including police, fire, emergency services, planning and other municipal services. By contrast, addition of urban reserves not contiguous or proximate to the City of Hillsboro (e.g., Urban Reserves 63, 64, and 65) will not produce this synergy.

Description of the social consequences of the Hillsboro South urban growth boundary amendment.

Development of the Hillsboro South Urban Reserves as proposed in the *Hillsboro Concept Plan* will produce a residential mixed-use community with a town center and two satellite neighborhood/main street centers. The centers will accommodate a concentration of shops, services, employment facilities, civic uses, amenities and other public and private activities. The urban centers are distributed in a manner to protect and enhance the existing natural resources of the area. This distribution provides the maximum efficiency of non-automobile transportation. Development proposed in the Concept Plan will create new neighborhoods with a strong sense of community and that are pedestrian oriented.

The area is planned in a way that dedicates 35 acres to general employment uses. Additional employment will be provided within the three centers totaling 60 acres. Approximately 2,000 jobs can be accommodated within the site. This will allow integration of employment and residential areas, minimizing the need for lengthy commuting.

The development of Hillsboro South consistent with the principles and guidelines of Metro's *2040 Growth Concept* will produce significant social consequences. The *Growth Concept* document

at page 6 notes that creating high density centers of employment and housing provides access to a variety of goods and services in a small geographic area, creating an intense business climate. These town and neighborhood centers have an accessibility level that is conducive to transit, bicycling and walking. The centers act as social gathering places and community centers, producing a cherished "small town atmosphere."

After accounting for land for streets, employment, community service and schools, parks and greenspaces, stream protection and pedestrian corridors and stormwater management, there will be approximately 850 acres available for residential uses. As planned, this will allow a variety of housing types. Multi-family housing will be concentrated around the three urban centers. Approximately 4,216 dwelling units are located in the Ladd-Reed town center. The Gordon Creek center will have around 1,892 dwelling units and the Butternut Creek neighborhood center will develop with 1,763 dwelling units. A majority of the housing types will be standard and small lot single family units. Senior housing will represent approximately 13% of the dwelling units and will be built at 39/units per acre. Approximately 55% of the units will be owner occupied and around 45% will be targeted to renter occupied households. Multi-family and attached units will be 65% of all units.

Based on the projections in the *Hillsboro Concept Plan*, around 30% of the dwelling units are expected to fall within a range requiring affordable housing at 60 to 80 percent of median income. The *Hillsboro Concept Plan* includes a range of housing densities within the single family and multi-family zones to allow for affordable ownership and rental opportunities. The need for affordable housing (i.e., one and two-bedroom units for households of two or fewer persons) can be satisfied by row housing or plex ownership opportunities in the lower density areas, and by multi-family rentals in the higher density areas. The presence of services and nearby employment will reduce the need for a car and allow more income available for housing for low-income residents.

There is currently a significant deficit of parklands in the area of the Hillsboro South Urban Reserves. All available park facilities in the vicinity of the urban reserves are for passive recreation, except for Rood Bridge Park that is under construction. Development of the entire Hillsboro South Urban Reserves as part of a coordinated plan will allow development of active and passive recreation sites. Under the *Hillsboro Concept Plan*, approximately 210 acres are designated for active recreation use. This includes a regional recreation/aquatic center in the heart of the Ladd-Reed town center, a multi-purpose community center along 229th Avenue, a community park west of River Road, five neighborhood parks, two linear parks along the BPA easement and near the regional water detention facility, natural and storm water areas in riparian areas and wetlands, and bike and pedestrian facilities. Development of the area as planned will add significant park land to serve the entire subregion. This will have positive social effects.

As noted in the *Preliminary Staff Report*, urbanization of the Hillsboro South Urban Reserves will eliminate its rural character. There may be pressure from increased urbanization to curtail farming activities and to develop additional agricultural land.

Description of the energy consequences of the Hillsboro South urban growth boundary amendment.

The urban reserve areas are expected to capture 67% of area household expenditures and support 465,000 square feet of retail and personal service related building space. Development of this area as a mixed use area will allow residents to shop in their neighborhood, reducing the need for automobile transportation and the length of marketing trips.

The Hillsboro South Urban Reserves are close to the two significant employment areas in Hillsboro, the downtown area and the industrial areas in the northeast section of the city. By rectifying the current jobs/housing imbalance, development of this area will reduce the need for long commuting trips to these workplaces. There will be significant energy savings by locating housing closer to places of employment.

By contrast, the energy costs of amending the urban growth boundary in areas most distant to places of employment are significant. Reduction in the number of miles to serve a developing area decreases fossil fuel consumption and costs and decreases the negative consequences of pollution from using automobiles.

Comparison of the ESEE consequences with the consequences of developing alternative sites.

Based on the *Metro Urban Reserve Productivity Analysis*, the serviceability costs for Urban Reserves 53 – 55 are approximately \$11,000 per dwelling unit. This estimate is based on an analysis of the costs of sanitary sewer, water, stormwater and transportation infrastructure costs. The costs per dwelling unit for Urban Reserves 51 and 52 are more expensive, \$19,826 and \$14,952 respectively. The infrastructure costs for Urban Reserves 53 – 55 are the lowest in the entire metropolitan area. Because these urban reserves are adjacent to already developed land, public facilities and services can be integrated into the existing facilities network in the surrounding urban area.

No similar level of analysis has been done to assess the costs of expanding the urban growth boundary in the Hillsboro area in other directions and onto agricultural lands. It is not likely that the costs would be cheaper. The infrastructure costs for Urban Reserves 61 – 65, alternative growth areas to the north or northeast of Hillsboro range from \$11,443 to \$98,219 per dwelling unit according to the *Metro Urban Reserve Productivity Analysis*. A large expansion onto agricultural land to the north could have comparable infrastructure costs, although the costs to upgrade Highway 26 interchanges would be extreme.

In September, 1996, as part of the *Executive Officer Recommendations – Urban Reserves, Background Data*, a ranking was made of urban reserve areas based on Urban Reserve Rule Factors 3 – 7. The factors including analysis of utilities, transportation, school proximity, efficiency of land use, environmental constraint, jobs/housing balance, agricultural retention and agricultural compatibility. The cumulative rankings for Urban Reserves 51 – 55 ranged from 51 – 78 (with the higher score indicating greater suitability). These rankings are quite comparable to alternative expansion areas onto agricultural land in the area. The proposed urban reserves around Forest Grove and Cornelius scored from 48 – 56, lower than the rankings for the Hillsboro South Urban Reserves. The rankings for former Urban Reserves 62, 64 and 65 were 54, 55 and 57 respectively. These scores are comparable to those of the Hillsboro south Urban Reserves. (Citation to the *Executive Officer Recommendations* is not intended to affirm all of the data in that report. For example, the analysis of jobs/housing balance for the Hillsboro subregion in the *Recommendations* is rejected in favor of the more specific analysis in the *Hobson Johnson Associates Report* discussed earlier.)

Based upon these ratings of the urban reserves, the environmental, social, economic and energy consequences of expanding the urban growth boundary to include the Hillsboro South Urban Reserves are no greater than the consequences of expanding the urban growth boundary onto resource lands in other locations.

The consequences of expanding the urban growth boundary onto other resource lands may be more severe than the Hillsboro South alternatives. Agricultural areas north of Evergreen Road and west of Urban Reserve 62 and east of Jackson School Road will be subject to increasing regulation to protect the Hillsboro Airport immediately to the south. Some of this area lies within the runway protection zone of the airport. *See*, OAR 660, div. 13 (airport planning rules to establish airport compatibility restrictions and use allowances).

There are only two areas adjacent to the City besides South Hillsboro (Urban Reserve Site Nos. 51-55), where there is enough land area where a 2040 planned community approximately 1,500 acres in size could be built, and where the City does not experience constraints due to 100-year floodplain designations. The first area is located north of Evergreen Road extending north to the fork of McKay Creek and east from Glencoe Road/McKay Creek to Shute Road (excluding Urban Reserve Site No. 62). This area consists of approximately 1,838 acres.

This first area is unsuitable for a 2040 planned community due to the following:

1. Most of the area is designated Exclusive Farm Use (EFU).
2. The majority of this area is surrounded by EFU farmland on three sides.
3. With the exception of the two sub-areas containing primarily rural residential development, contiguous large agricultural parcels characterize this area, as well as the surrounding area.
4. Within this area is about 252 acres of exception lands with 61 different owners. The acreage in this area is designated AF-5 (5-acre minimum lot size). These exception lands can be found in two areas. The first sub-area boundaries are Glencoe Road, the UGB and NW Evergreen Road as its southern boundary. The average lot size in this sub-area is 3.99 acres, with a range in lot size from 1 to 16 acres. The second sub-area is located north of the Hillsboro Airport and is just outside of the UGB. It is bounded by McKay Creek to the north and Sewell Road/NW 268th Ave. to the east. Lots in this sub-area range from 1 to 10 acres in size with the average lot size being 3.5 acres. Both these areas can be described as rural residential in nature. Both of these sub-areas are also surrounded by EFU agricultural uses on three sides, the only urban development located on the south side of Evergreen Road. *Due to the number of property owners and existing parcelization, both of these sub-areas would be difficult to develop as a single development area in conjunction with the larger agricultural parcels that surround them.*
5. The Hillsboro Airport -- the 2nd busiest airport in the state is located on the south side of Evergreen Road. This area is severely impacted by the runways of the Airport. In addition to existing runways, the flight path for the proposed third runway at the Hillsboro Airport would have a direct and severe impact on lands north of Evergreen Road. Because of the severe impacts due to the Airport, the majority of this area is highly unsuitable for residential development.
6. The eastern portion of this area (east of NW 278th Ave. to Shute Road) is adjacent to industrial development to the south and east, which would put residential uses next to these uses and could create land use conflicts between industrial and residential uses.
7. A Bonneville Power Administration easement runs through this area from the westernmost boundary east to Shute Road. This easement removes roughly 42 acres from potential urban development.
8. Existing water and sewer lines may be too small to serve large scale residential development and may require considerable upgrading.
9. The location of this area may entail construction of a new sewer trunk line over a great distance (about 4 miles) travelling over a circuitous route to the Rock Creek Treatment Plant.

10. Currently, there are three north-south roads that intersect with the Sunset Highway (US 26) in this area (Glencoe, Jackson School and Shute Roads). Glencoe and Shute Roads have interchanges where they intersect with US 26, whereas Jackson School Road intersects with US 26 with no interchange. An increase in population in this area of about 20,000 people would require major improvements to each of the interchanges and creation of an interchange at Jackson School Road due to the anticipated increase in the number of vehicles trying to access US 26 at these locations. An analysis of the proposed Seaport prison site – a 218-acre site located just north of US 26 between West Union and Jacobson Roads by ODOT stated that approximately \$15 million in roadway improvements were needed, with the majority of the improvements made to US 26. These improvements were based on an estimated 2,500 to 3,000 vehicular trips per day generated from the prison. For a 2040 community of 20,000 people, roughly 6,000 p.m. peak hour vehicular trips can be assumed, generating improvements easily exceeding \$15 million especially to these intersections with US 26. A planned community of this size also could require additional lanes on the Sunset Highway. Glencoe, Jackson School and Shute Roads would also need major improvements to increase capacity.
11. Existing pockets of rural residential development clearly do not inhibit agricultural uses in this area.

The second area where a 2040 planned community could be located is north of the Sunset Highway (excluding Urban Reserve Site Nos. 62, 63 and 64). The boundaries of this area would be east to the Burlington Northern RR tracks (just east of the southern portion of Dick Road), north to the Burlington Northern RR tracks and west to Groveland Road. This area is about 1,845 acres in size. See attached map.

This second area is unsuitable for a 2040 planned community due to the following:

1. With the exception of 2 small areas designated AF-5 and AF-10, this entire area is designated EFU.
2. Except for where this area abuts the 2 small areas designated AF-5 and AF-10 (10-acre minimum lot size), this area is surrounded by EFU farmland on all sides.
3. Within this area is a 77 acre exception area located near the intersection of Helvetia and West Union Roads. This area is designated AF-5 and has a small commercial zone near this intersection. It has 16 parcels in 14 different ownerships. Again because of parcelization and diverse ownership, it would be difficult to consolidate lots in this sub-area.
4. The existing small area of rural residential development clearly does not inhibit agricultural uses in this area.
5. There is only one east-west road that crosses the entire area – West Union Road, which would need major improvements to accommodate a 2040 planned community. Phillips Road located west of Helvetia Road connects to Old Cornelius Pass Road, which intersects with Cornelius Pass Road and then provides a connection to US 26, would also need improvements to provide an alternate east-west route.
6. Currently, only Helvetia Road intersects with the Sunset Highway (US 26) in this area. For people living in this area, the only other alternatives to accessing US 26 are via NW Jackson School Road or Cornelius Pass Road. There are interchanges where Helvetia and Cornelius Pass Roads intersect with US 26 however Jackson School Road just intersects with the Highway 26 at grade. An increase in population in this area of about 20,000 people would require major improvements to each of the interchanges and creation of an interchange at Jackson School Road due to the anticipated increase in the number of vehicles trying to access US 26 at these locations. As stated previously, an analysis of the proposed Seaport prison site by ODOT of a

much smaller site stated that approximately \$15 million in roadway improvements were needed, with the majority of the improvements made to US 26. For a 2040 community of 20,000 people, with almost three times the number of vehicular trips per day, transportation improvements would easily exceed \$15 million especially to these intersections with US 26. A planned community of this size also could require additional lanes on the Sunset Highway.

7. There are only two north-south routes in this area – Groveland Road and Helvetia Road. Both of these roads would also need major improvements to serve a 2040 planned community.
8. The southeast portion of this area adjacent to Jacobson Road abuts the City's Industrial Sanctuary. Potentially placing residential uses next to industrial uses may create land use conflicts.
9. Existing water and sewer lines may be too small to serve large scale residential development and may require considerable upgrading.
10. The location of this area may entail construction of a new sewer trunk line over a great distance (about 6 miles) travelling over a circuitous route to the Rock Creek Treatment Plant.
11. A Bonneville Power Administration easement runs through this area from Jacobson Road to the south, north past the Burlington Northern RR tracks. This easement removes about 110 acres from potential urban development.

When making a similar comparison of the suitability of South Hillsboro, South Hillsboro is more suitable for a 2040 planned community for the following reasons:

1. About 39% of the South Hillsboro urban reserves is designated EFU vs. the majority of the acreage in the other two areas being designated EFU. The majority of EFU land in South Hillsboro consists of the Sisters of St. Mary property (2 parcels) and 8 parcels ranging from 2 to 20 acres in size. The remaining acreage in this area is mainly designated AF-5, with small pockets of AF-10 and RR-5 (5-acre minimum lot size). Two parcels abutting the south side of Butternut Creek are designated AF-20 (20-acre minimum lot size).
2. The South Hillsboro area is surrounded by urban uses on three sides. The Reserve Vineyards & Golf Club separate the northern portion of the South Hillsboro area from EFU farmlands to the southwest. In the exception to this separation is small EFU parcels (most of the lots are about an acre in size or less) sandwiched between the Reserve Vineyards & Golf Club and the northern portion of the South Hillsboro area. South of Butternut Creek to Farmington Road, parcels designated AF-20 buffer this area from some small EFU parcels located on the east side of 229th Ave. These AF-20 parcels range from 0.55 to 19.55 acres in size, the exception being one 73.97 acre parcel.
3. In the South Hillsboro area, it is easier to establish clear urban expansion limits due to the increasing inability to provide sewer service downstream from the Rock Creek Treatment Plant located on the Tualatin River.
4. The South Hillsboro area is easy to serve with both water and sewer due to its proximity to the sewage treatment plant and current city limits relative to areas located adjacent to the northern limits of the city.
5. Existing rural residential development in the South Hillsboro area limits agricultural uses. The northern portion of the South Hillsboro Planning Area, west of 229th Ave. is considered exception lands, and in fact, the average lot size for lands designated AF-5 is 3.65 acres. Land designated AF-10 have also been parcelized, with an average lot size of 7.90 acres. South of the Sisters of St. Mary property abutting 209th Ave. is also designated AF-5, with an average lot size of 3.29 acres. This AF-5 area could also be considered as exception lands.

Provision of public services to the urban growth boundary expansion area.

Based on the *Hillsboro Concept Plan*, the recent enlargement of Barney Reservoir from 4000 acre-feet of storage to 20,000 acre-feet will assure adequate quantities of water for the Hillsboro area for the immediate future. Existing and planned water treatment facilities are adequate for the urban reserve areas without jeopardizing other City of Hillsboro or Joint Water Commission commitments. Recent expansion of JWC facilities is ahead of demand. There is a 42-inch water transmission line north of the urban reserve areas along TV Highway with capacity to serve the urban reserve areas. There are no known storage requirements needed to assure adequate water pressure to the urban reserve areas, although the City of Hillsboro plans to add storage to the overall system.

Sanitary treatment facilities for the area are owned and maintained by Unified Sewerage Agency. The Rock Creek Treatment Plant is immediately northwest of the urban reserve areas and can serve the area. There are two pump stations in or near these urban reserve areas, Butternut Creek and Cross Creek at 209th Avenue. Collection and transport facilities will be constructed as part of development.

Natural drainage swales, ditches and creeks form the existing stormwater drainage system in the area. The development of the Hillsboro South Urban Reserves as a whole and as part of single development plan allows significant opportunities to plan for regional detention and water quality facilities. As proposed in the Concept Plan, storm drainage and treatment facilities can be integrated into the natural drainage system and combined with wetland mitigation bank sites, riparian corridor restoration measures and other forms of habitat protection. Proposed storm water facilities in the Concept Plan include a large regional combined storm water detention and water quality site on Gordon Creek above Ettinger Pond along with various smaller detention and water quality facilities distributed proportionally throughout the area.

As noted elsewhere, there is a deficit of parkland in the area of the Hillsboro South Urban Reserves. Tualatin Hills Park and Recreation District serves approximately 150 acres in Urban Reserves 51 and 52. The remaining 1,455 acres in the urban reserve areas do not have a parks provider. Parks facilities serving this area include St. Mary's Woods Nature Park, Jenkins Estate, Noble Woods, and Rood Bridge Park.

The Hillsboro South Urban Reserve areas are presently served by Butternut and Witch Hazel Elementary Schools, Brown Middle School and Hillsboro High School. With full development, there will be the need for two or three elementary schools and a separate elementary/middle school campus. The development of the Hillsboro South Urban Reserve Areas as part of a single development plan will allow dedication of school sites and optimal location of these schools in safe settings, near other school facilities, and adjacent to compatible land.

The urban reserve area is presently served by Washington County Rural Fire Protection District No. 2 and Tualatin Valley Fire and Rescue. TVF&R has a fire station on the east side of 209th Avenue. With full development, fire and ambulance services will be provided by the Hillsboro Fire Department. This will require ultimately the relocation of the existing Brookwood station to the south side of Tualatin Valley Highway to the area at Century Boulevard and Davis Road. This station can provide fire protection during the initial phases of development, together with Tualatin Valley Fire. This relocated fire station will allow the Hillsboro Fire Department to supply first response to the South Hillsboro Urban Reserves, most SB 122 areas to the east and northeast, the

areas north of TV Highway, the Washington County RFPD No. 2 contract areas to the south and west and the western areas along TV Highway.

Police services will be provided by the Hillsboro Police Department from the emergency services complex at Century Boulevard and Davis Road. A civic center, including a recreation center and library, is planned to be located in the Ladd-Reed Town Center. Elementary school sites are planned in the mixed use areas of Gordon Creek and Butternut Creek. A middle or high school is sited in the Ladd-Reed town center.

Transportation impacts by development of the Hillsboro South urban growth boundary area.

Transportation impacts are analyzed in the *Hillsboro Concept Plan* and a July 2, 1998 transportation background memorandum authored by Dan Seeman of Kittelson & Associates. The surrounding transportation system includes: Tualatin Valley Highway (TV Highway), a regional arterial in the Washington County TSP (five lanes with paved shoulders and a designated trunk transit route); Farmington Road, a major arterial in the Washington County TSP which is planned to be widened to three lanes; River Road, a minor arterial in the Washington County TSP and with two existing and planned lanes of travel; Kinnaman Road, Blanton Road and Rosa Road, providing access to the east, are designated in the Washington County TSP as major collectors, to be improved to three lanes; Cornelius Pass Road, a minor arterial in the Washington County TSP, and planned for five lanes; 231st/234th Avenues (Century Boulevard), a potential connection to TV Highway and a designated collector in the draft Hillsboro TSP; Brookwood Avenue, a potential connection to TV Highway and a designated arterial in the draft Hillsboro TSP with planned three and five lanes of travel; 219th Avenue, a _____ in the draft Hillsboro TSP and planned for ____ lanes of travel. The draft Hillsboro TSP projects needed improvements to 219th Avenue, Brookwood Avenue, 231st/234th Avenues, Davis Road and TV Highway in the area of these urban reserves. Development of the Hillsboro South Urban Reserves will not change the functional classification of streets as presently identified in the Beaverton TSP and Washington County TSP, or as designated in the draft Hillsboro TSP.

There will likely be 5,200 additional peak hour vehicle trips generating and affecting this outside street system by full development of the South Hillsboro Urban Reserves as stated in the HSURP. TV Highway will experience a capacity deficiency in the Murray Boulevard to 10th Street section. Brookwood Avenue will experience a capacity deficiency between TV Highway and Cornell Road. The capacity deficiency on TV Highway has been identified in transportation plans prepared by Beaverton, Hillsboro and Washington County. The Beaverton TSP and the Washington County TSP recommend expanding TV Highway to seven lanes in the area of these urban reserves. The draft Hillsboro TSP recommends access management measures to forestall widening for another 20 years, but recognizes the need for widening shortly after the year 2015. Brookwood Avenue may need to be expanded to five lanes south of TV Highway in addition to its planned expansion to five lanes north of TV Highway.

Thus, TV Highway may need to be widened to seven lanes to accommodate the increased traffic generated by the Hillsboro South Urban Reserve, or a parallel east-west facility to TV Highway must be constructed to capture the equivalent demand. Two additional travel lanes of capacity will be needed in the Brookwood – 231st/234th Corridor. Development will generate a need to extend 219th Avenue and Brookwood Avenue south of TV Highway. Additional street improvements are listed in the Concept Plan.

The *Hillsboro Concept Plan* provides for an internal street network meeting the standards contained in the *UGM Functional Plan*: local streets are spaced at a minimum of 10 – 16 streets per mile; collector streets will be spaced at ¼ mile intervals; and arterials are spaced at ½ mile intervals. The system of streets includes a regional boulevard, community boulevards, community streets, minor collectors and local streets. The classification of these streets is set out in the Concept Plan.

Compatibility with Adjacent Uses.

Applicable Criteria.

ORS 197.732(1)(c)(D), MC 3.01.020(c)(2), OAR 660-04-0010(1)(c)(B)(iv) and Goal 2, Part II(c)(4): “The proposed uses are compatible with other adjacent uses or will be so rendered through measures designed to reduce adverse impacts.” “‘Compatible’ . . . is not intended as an absolute term meaning no interference or adverse impacts of any type with adjacent uses.”

OAR 660-04-0020(2)(d): “‘The proposed uses are compatible with other adjacent uses or will be so rendered through measures designed to reduce adverse impacts.’ The exception shall describe how the proposed use will be rendered compatible with adjacent land uses. The exception shall demonstrate that the proposed use is situated in such a manner as to be compatible with surrounding natural resources and resource management or production practices. ‘Compatible’ is not intended as an absolute term meaning no interference or adverse impacts of any type with adjacent uses.”

OAR 660-14-0040(3)(c): “That Goal 2, Part II(c)(4) is met by showing the proposed urban uses are compatible with adjacent uses or will be so rendered through measures designed to reduce adverse impacts considering:

(A) Whether urban development at the proposed site detracts from the ability of existing cities and service districts to provide services; and

(B) Whether the potential for continued resource management of land at present levels surrounding and nearby the site proposed for urban development is assured.

Goal 14, Urbanization factors four and seven: “Maximum efficiency of land uses within and on the fringe of the existing urban area” and “compatibility of the proposed urban uses with nearby agricultural activities.”

MC 3.01.020(b)(4): “Factor 4: Maximum efficiency of land uses within and on the fringe of the existing urban area. An evaluation of this factor shall be based on at least the following:

(A) The subject area can be developed with features of an efficient urban growth form including residential and employment densities capable of supporting transit service; residential and employment development patterns capable of encouraging pedestrian, bicycle, and transit use; and the ability to provide for a mix of land uses to meet the needs of residents and employees. If it can be shown that the above factors of compact form can be accommodated more readily in one area than others, the area shall be more favorably considered.

(B) The proposed urban growth boundary amendment will facilitate achieving an efficient urban growth form on adjacent urban land, consistent with local comprehensive plan policies and regional functional plans, by assisting with achieving residential and employment densities capable of

supporting transit service; supporting evolution of residential and employment development patterns capable of encouraging pedestrian, bicycle, and transit use; and improving the likelihood of realizing a mix of land uses to meet the needs of resident and employees."

MC 3.01.020(b)(7): "Factor 7: Compatibility of proposed urban development with nearby agricultural activities.

The record shall include an analysis of the potential impact on nearby agricultural activities including the following:

- (i) A description of the number, location and types of agricultural activities occurring within one mile of the subject site;*
- (ii) An analysis of the potential impacts, if any, on nearby agricultural activities taking place on lands designated for agricultural use in the applicable adopted county or city comprehensive plan, and mitigation efforts, if any impacts are identified. Impacts to be considered shall include consideration of land and water resources which may be critical to agricultural activities, consideration of the impact on the farming practices of urbanization of the subject land, as well as the impact on the local agricultural economy."*

Description of adjacent uses and determination of compatibility.

The nearby land uses are described in the *Hillsboro Concept Plan*, as well as in the *Preliminary Staff Report* of October 30, 1998 which is incorporated herein. The majority of adjacent land uses are residential, with commercial and light industrial uses located along TV Highway. An unincorporated residential neighborhood is located east of the site. A commercial area is located north of TV Highway and east of 209th Avenue, containing a grocery store, drug store, services, specialty shops and several restaurants. Many service oriented and specialty shops and restaurants are located further west on TV Highway. There is a Fred Meyer store north of TV Highway and west of 229th Avenue. Century High School, a retirement facility and residential neighborhoods are located north of the Fred Meyer complex. There is light industrial and commercial development south of TV Highway and west of 229th Avenue, including a multi-screen theater, building supply store and other service uses. The Tualatin River borders the western part of Urban Reserve 55, across from a USA wastewater treatment facility, the Meriwether Golf Course and Rood Bridge Park. The southern boundary is adjacent to rural residential and farm uses, as well as the Reserve & Vineyards Golf Club. These uses are depicted in Figure D of the *Hillsboro Concept Plan*.

Determination that development will not detract for ability of service providers to provide services.

The development of Urban Reserves 51 – 55 will not inhibit the provision of urban services and facilities to existing urban areas. As noted above, there is sufficient and planned water supply and treatment capacity and wastewater treatment capacity to serve the area. There will be the need to make comparable transportation improvements to accommodate growth in this area, whether the urban growth boundary is expanded or not. Similarly, additional school capacity will be needed whether the boundary is expanded here or elsewhere. Police, fire and emergency services will be provided by the City of Hillsboro and will not undercut the ability of existing service districts to provide services to their territories. No objections have been raised by service districts to this planned urban growth boundary amendment. The Hillsboro School District is supportive.

Analysis of impacts on agricultural activities on nearby EFU land: effect on land and water resources, effect on farming practices, impact on local agricultural community.

These sites are bordered on two sides by developed urban communities. The only separation of the sites from the urbanized area to the north is Tualatin Valley Highway, one of the two main state highway facilities connecting Portland/Beaverton to the Hillsboro area. On the east, the Reedville and Aloha areas have undergone significant subdivision development and other forms of urbanization over the past 20 to 25 years.

The *Hillsboro Concept Plan* reflects the use of The Reserve & Vineyards golf course as a buffer between the actively farmed areas south and southwest of the sites. The golf course land use findings (which are incorporated by reference in these findings) demonstrate that the golf course is compatible with the surrounding agricultural uses and serves as an appropriate transition between the existing urban activity to the north and east. The Reserve is a recent development, reflecting the more recent land use policies and objectives for agricultural lands which are in relative close proximity to urban areas, especially those agricultural lands under active production. With respect to the urban reserve sites under consideration, The Reserve is an excellent transitional buffer and functions as an active open space recreational use. The Reserve is primarily utilized by the Portland Metro area's urban population and has meeting and food service facilities consistent with this patronage. As a result, there is already an urban-type presence existing south and southwest of the subject urban reserve sites.

Furthermore, The Reserve & Vineyards Golf Course is not the only golf course to the west of the urban reserve sites. The Meriwether Golf Course sits on the western edge of the one mile radius, directly west of the river. The golf course consists of approximately 318 acres, and occupies most of the parcels between Rood Ridge Road to the west, the one mile boundary to the south, the river to the east, and the urban growth boundary to the north. Exclusive farm use lands being actively farmed begin to appear to the west of the golf course, but the lands within the one mile radius are in significant contrast with the active farm parcels to the west and the southwest.

The one mile radius standard under the Metro Code has greatest applicability to areas south of these urban reserve sites. Recent aerial photographs and on-site observations indicate that this area has been broken into numerous small parcels, most of which are between 1 and 20 acres. Many of these parcels are rural home sites with little or no agricultural use. They represent lifestyle choices to those people who wish to live "on acreage." The area along S.W. Grabhorn Road is characterized by one acre home sites and was specially zoned to allow development to occur at one acre minimums. None of this area is EFU land. The area south of Farmington Road is on the flanks of Cooper Mountain. Cooper Mountain has been steadily urbanized over the past 20 years. The resulting home sites have been developed in a subdivision or a planned unit development format, resulting in urban residential usage. Directly south of the urban reserve sites are three exception land areas sitting both east and west of Farmington Road. These areas are zoned AF-5 and are developed with rural home sites on approximately 1 to 2 acre residential lots.

The area south of the urban reserve sites is also developed with quarries. Accommodations between residential uses in the vicinity and the quarry operations (to the extent they are active) have long ago been structured. Because of the quarrying operations, the quarry sites are not utilized for agricultural purposes. The area bordered by Farmington Road, the UGB, Grabhorn Road, and the one mile radius line is predominantly used for mining. At least seven large parcels zoned EFC are being actively mined at the present time. The parcels being actively mined are owned by the

following companies: Electra Partners, Inc., Baker Rock (Violet Baker), Hardrock Enterprises et al., and Cobb Rock, Inc. Hardrock Enterprises also owns several parcels which are presently not being mined, but are on farm deferral and are being used for a nursery. Due to the presence of these quarries, the traffic on Farmington Road is heavily populated with trucks traveling to and from the quarries. The mining activities are well-established and are a strong indicator that the land within the one mile radius is not exclusively active farm land, but is actually heavily used for both residential and mining purposes.

The principal agricultural uses in this area are nursery operations and field crops. These types of operations exist throughout Washington County in concert with surrounding urban uses. There are numerous examples of active nursery operations immediately adjacent to subdivision development (e.g. Cedar Mill area). Therefore, there is no inherent incompatibility between this type of agricultural use and urban uses, nor is there evidence that incompatibility will exist with urbanization. For example, Farmington Nursery, located south of the urban reserve sites in the southernmost portion of the one mile radius, is completely surrounded by non-agricultural uses. It is bordered on the north by a residential subdivision in exception lands zoned AF-5, on the east by Farmington Road and the quarry operations to the east of the road, on the south by large residential lots zoned EFU, and to the west by a forested area. The forested area to the west abuts several active farms. The Farmington Nursery remains successful even though it is bordered by residential and mining uses rather than agricultural uses.

Other agricultural uses south of the urban reserve sites should not be impaired by urbanization of the urban reserve areas. Retention of these rural uses was specifically taken into account in the *Hillsboro Concept Plan*. There are very few sites in excess of 20 acres, and many of the larger sites are actually being used for mining purposes rather than farming. The larger, active agricultural lands are further south of Farmington Road.

The Butternut Creek (Hanauer) property previously was utilized for agricultural purposes. However, as shown by the 1996 agricultural analysis previously provided to Metro during the urban reserve deliberations, the Hanauer property was allowed (prior to the present ownership) to grow into an unmaintained ornamental and Christmas tree farm. Efforts to resume an agricultural use were attempted and proved unsuccessful due to the highly adverse soil conditions which resulted from the prior attempt to grow ornamental nursery stock and Christmas trees on the property, including the widespread use of herbicides. The Hanauer property is not an active agricultural use nor is there any prospect that it will be so converted. As the agricultural analysis indicates, it is extremely ineffective to attempt to restore this use. The materials submitted to Metro in the urban reserve deliberations, detailing the agricultural conditions relating to the Hanauer property, are also incorporated by reference in these findings.

During the urban reserve deliberations, there was no evidence contradicting any of the materials submitted by the property owners describing the adverse agricultural circumstances existing on the property. The Hanauer property is in close proximity to the Sisters St. Mary's property. To the extent that either of these properties is incorporated into the UGB, this will be a significant influence over the level of agricultural usage which could feasibly occur on the other property. Metro recognized this at the time that both of these large properties were included in the urban reserves. Because these two parcels are the two largest parcels within this general area, they are most heavily impacted by agricultural use (or lack thereof) on the other property. During the public process relating to the consideration of the *Hillsboro Concept Plan*, there was no information submitted which indicated that adverse consequences to agricultural uses would result

from inclusion of these sites in the UGB. This is indicative of the significant level of parcelization, the relative lack of agricultural operations, and the existing home site pattern which exists in the areas south of the urban reserve sites.

Goal 14, Factor 7 and MC 3.01.020(b)(7), require the local government to consider the "[c]ompatibility of the proposed urban uses with nearby agricultural activities." Compatible is not intended to be an absolute term meaning no interference or adverse impacts of any type with adjacent uses. ORS 197.732(2).

"Agricultural activity," as used in Factor 7, corresponds with the term "farm use" as defined in ORS 215.203(2)(a). "Farm use" is defined as "the current employment of land for the primary purpose of obtaining a profit in money by raising, harvesting, and selling crops." Farm use also includes the use of land for "obtaining a profit in money by stabling or training equines." Thus, conflicts can exist only where farm use is actually occurring. Conflicts will not be present simply because adjacent lands are zoned for agricultural use.

The *Farm Impact Analysis* describes the types of agricultural activities generally within a mile of the subject property. The evidence demonstrates that there is very little agricultural activity in the vicinity of the subject property. As noted earlier, a "Farm Impact" study was conducted in 1991 for the Reserves & Vineyards Golf Course which is located immediately to the southwest of St. Mary's. That study examined all the parcels in the vicinity of the proposed golf course which includes all the properties in the vicinity of St. Mary's. Of the 33 parcels located along Butternut Creek and along 229th Avenue, 25 are improved with dwellings. Only eight of these parcels are in farm tax deferral. This indicates that the majority of the owners along 229th Avenue are not seeking a profit from their land through growing crops.

There are 13 houses along McInnis Lane in the Washington County exception area along the southern border of the subject property. Of these, only seven are in farm tax deferral. Four of the parcels along McInnis Lane are owned by the McInnis family and are used together to grow hay to feed their horses. There is no evidence that the McInnis family derives a profit from stabling or training horses.

The Reserves golf course is approximately 370 acres located immediately to the southwest of the St. Mary's property. Originally approved for 330 acres, the golf course has recently acquired 42 additional acres which the hearings officer, in his findings of fact, called the only farm parcel adjacent to the golf course. Although state statute allows for golf courses on EFU land, a golf course operation is not an agricultural use and is more consistent with urban activities than with rural farming.

There are only a few parcels in the vicinity of the subject property which have the potential for farm use. One is a parcel of EFU land farmed by an individual who farms portions of property. That parcel is approximately 20 acres and is located directly to the west of the southwest corner of the St. Mary's property. There are a few other parcels nearby which are planted in grass or hay that may also support agricultural activities. To the south of the subject property, larger parcels, which appear from aerial photos to be in farm use, become more common.

ORS 197.732 and OAR 660-04-020 state that the term compatible "is not intended as an absolute term meaning no interference or adverse impacts of any type with adjacent uses." The potential impact from adjacent housing on the nearby agricultural uses will be limited to traffic

congestion which can be mitigated. Potential nuisances from the adjacent farms on housing uses, such as dust and pesticide spraying, will be minimal because there are very few farming operations in the area. These considerations also bear on compliance with OAR 660-04-020(2)(d) which calls for compatibility with other adjacent uses. The only other adjacent uses besides the ones already discussed are the residential and commercial uses that exist inside the urban growth boundary to the north and east of the property. The uses proposed for the area will be similar to those uses, and through site design and traffic control improvements, the site will be made compatible with those urban uses. The future use of the area for residential and related urban purposes will be compatible with nearby agricultural activities and other adjacent uses.

Because it is located in an urbanized area, and because there are no active farm operations -- as that term is applied pursuant to ORS 215.203(2)(a) -- in the general vicinity, the future development of the subject property will not have any adverse impacts on surrounding properties that cannot be mitigated as part of the master-planning process.

Maximum efficiency of land uses within and on the fringe of the urban area: ability to be developed with features of an efficient urban growth form.

One of the principal advantages of inclusion of the South Hillsboro Urban Reserves within the urban growth boundary is its ability to be developed as an efficient planned community. If the area is developed as required by the *Hillsboro Concept Plan*, there will be a residential mixed-use community with a town center and two satellite neighborhood/main street centers. The centers will accommodate a concentration of shops, services, employment facilities, civic uses, amenities and other public and private activities. This distribution provides the maximum efficiency of non-automobile transportation. Development proposed in the *Hillsboro Concept Plan* will create new neighborhoods with a strong sense of community and that are pedestrian oriented.

As noted above, this type of a planned community can be accommodated better through addition of Urban Reserves 51 – 55 to the urban growth boundary than other alternatives around the Hillsboro area. The development densities will be comparable to the urban design of existing neighborhoods to the east and north. The Reserves & Vineyards Golf Course will operate as a buffer between Hillsboro South and agricultural lands to the south and west. Addition of these urban reserves is less likely to result in the conversion of additional resource lands than intrusions into resource lands to the north or west of Hillsboro.

Conclusions.

Consistency with Approval Criteria.

Based on the above analysis and findings, an amendment to the *Hillsboro Comprehensive Plan* to add the *Hillsboro Concept Plan* is justified under Goals 2 and 14 and MC 3.01.012(e). Amendment of the urban growth boundary to add Urban Reserves 51 – 55 is also justified under the relevant criteria. There is a need for a significant amount of urban land in the Hillsboro area to comply with ORS 197.296 and ORS 197.299, to correct a grow jobs/housing imbalance and to allow an urban design and arrangement of land uses consistent with the *2040 Growth Concept*. This need cannot be met by expanding the urban growth boundary to include existing exceptions lands. The consequences of expanding the urban growth boundary to include this land are no more severe than the consequences of expanding the boundary onto other resource lands. Finally, the land uses

allowed in this urban growth boundary expansion are not incompatible with nearby and adjacent land uses.

Alternative Justifications and Severability of Findings.

These findings and conclusions are severable. They are made to justify several alternative bases for approval of the *Hillsboro Concept Plan* and addition of Urban Reserves 51 – 55 to the urban growth boundary. Should any particular finding be determined on review to lack evidentiary support or be inconsistent with other findings, it should be disregarded and severed from the analysis. In the event of any inconsistency between these particular findings and those contained in any Metro general findings on the legislative amendment criteria, the general findings shall control.

K\28483\00300\TJS\TJS_0204U

Agenda Item Number 9.8

Resolution No. 98-2729C, For the Purpose of Expressing Council Intent to Amend the Urban Growth Boundary to Add Urban Reserve Areas 39, 41, 42, 61 and 62 in the West Metro Subregion.

**Metro Council Meeting
Thursday, December 17, 1998
Council Chamber**

BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF EXPRESSING) RESOLUTION NO 98-2729C
COUNCIL INTENT TO AMEND THE)
URBAN GROWTH BOUNDARY TO) Introduced by Councilors McLain, Morissette,
ADD URBAN RESERVE AREAS 39, 41,) McFarland, and Washington
42, 62, and 63 IN THE WEST METRO)
SUBREGION)

WHEREAS, The Metro Council designated urban reserve areas in Ordinance No. 96-655E, including these Urban Reserve Areas 39 plus seven acres to the west of 39, 41, 42, 62, and 63; and

WHEREAS, ORS 197.298(1)(a) requires that land designated as urban reserve land by Metro shall be the first priority land for inclusion in the Metro Urban Growth Boundary; and

WHEREAS, the Metro Council has initiated a series of legislative amendments to the Urban Growth Boundary, including this resolution for lands outside and inside the Metro jurisdictional boundary; and

WHEREAS, notice of hearings was published and mailed in compliance with Metro Code 3.01.050(b), (c) and (d); and

WHEREAS, a series of hearings was held before the Council Growth Management Committee on October 6, 13, 20 and 27, and before the full Metro Council on November 10, 12, 16, 17, 19 and December 3, 1998; and

WHEREAS, notice of Proposed Amendment for these Urban Reserve Areas 39, 41, 42, 62 and 63 consistent with Metro Code and ORS 197.610(1), was received by the Oregon

Department of Land Conservation and Development at least 45 days prior to the December 3, 1998 final hearing; and

WHEREAS, the staff report for these areas was available at least seven days prior to the December 3, 1998 final hearing; and

WHEREAS, the Metro Council considered all the evidence in the record, including public testimony in October, November, and December, 1998 hearings to decide proposed amendments to the Urban Growth Boundary; and

WHEREAS, conditions of approval are necessary to assure that these urban reserve areas added to the Urban Growth Boundary are used to meet the need for housing consistent with the acknowledged 2040 Growth Concept; and

WHEREAS, Metro Code Section 3.01.065(f)(1) provides that action to approve a petition including land outside Metro shall be by resolution expressing intent to amend the Urban Growth Boundary if and when the affected property is annexed to Metro; now, therefore,

BE IT RESOLVED:

1. That the Metro Council, based on the process indicated in Exhibit B, attached herein, hereby expresses its intent to adopt an ordinance amending the Urban Growth Boundary to add land in Urban Reserve Areas 39 plus seven acres to the west of 39, 41, 42, 62 and 63 outside and inside the Metro jurisdictional boundary as shown on Exhibit A, within 30 calendar days of receiving notification that the property outside the jurisdictional boundary has been annexed to Metro, provided such notification is received within six (6) months of the date on which the resolution is adopted.

/////

2. That the Metro Council approves and endorses the request by the owners of the land and electors residing on the land that the subject property be annexed to Metro.

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

Jon Kvistad, Presiding Officer

ATTEST:

Approved as to Form:

Recording Secretary

Daniel B. Cooper, General Counsel

i:\r-o\r2729c.doc
12/11/98

Resolution #98-2729 c
Urban Reserve #39

First Tier
Outside Metro Boundary




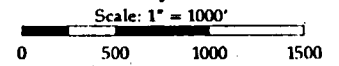
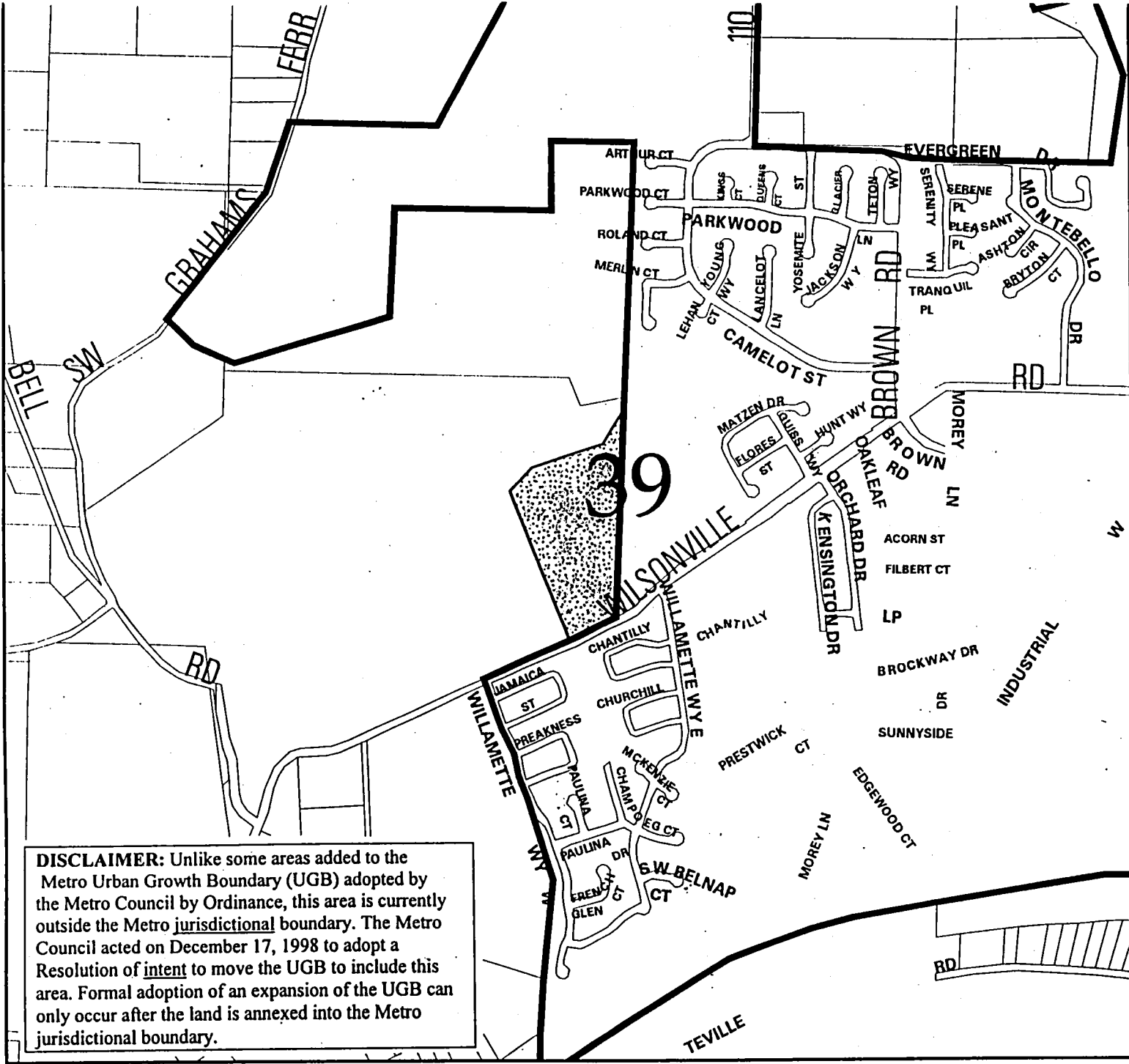
-  Area Considered by Council
-  First Tier Urban Reserve
-  Urban Growth Boundary

Exhibit B 1 of 4

The information on this map was derived from digital databases on Metro's GIS. Care was taken in the creation of this map. Metro cannot accept any responsibility for errors, omissions, or positional accuracy. There are no warranties, expressed or implied, including the warranty of merchantability or fitness for a particular purpose, accompanying this product. However, notification of any errors will be appreciated.



METRO
600 NE Grand Ave.
Portland, OR 97232-2736
Voice 503 797-1742
FAX 503 797-1909
Email drc@metrodst.or.us



DISCLAIMER: Unlike some areas added to the Metro Urban Growth Boundary (UGB) adopted by the Metro Council by Ordinance, this area is currently outside the Metro jurisdictional boundary. The Metro Council acted on December 17, 1998 to adopt a Resolution of intent to move the UGB to include this area. Formal adoption of an expansion of the UGB can only occur after the land is annexed into the Metro jurisdictional boundary.

DISCLAIMER: Unlike some areas added to the Metro Urban Growth Boundary (UGB) adopted by the Metro Council by Ordinance, this area is currently outside the Metro jurisdictional boundary. The Metro Council acted on December 17, 1998 to adopt a Resolution of intent to move the UGB to include this area. Formal adoption of an expansion of the UGB can only occur after the land is annexed into the Metro jurisdictional boundary.

Resolution #98-2729c
Urban Reserve #41
(Partial)

First Tier
Outside Metro Boundary




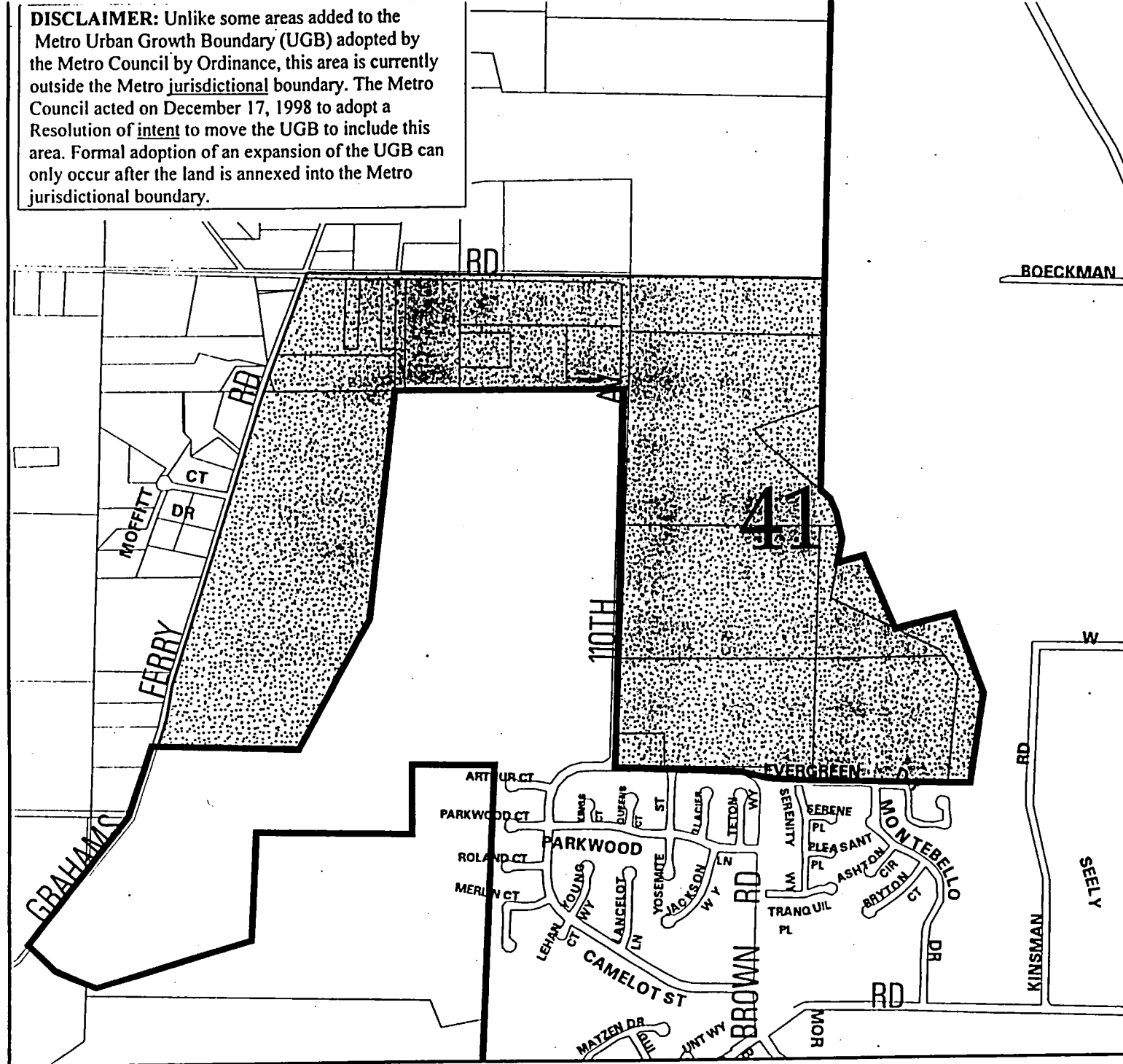
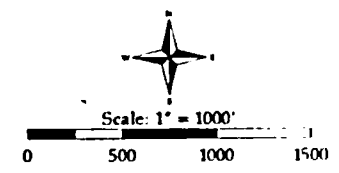
-  Area Considered by Council
-  First Tier Urban Reserve
-  Urban Growth Boundary

Exhibit B 2 of 4



The information on this map was derived from digital data from Metro's GIS. Care was taken in the creation of this map. It does not constitute any responsibility for errors, omissions, or outdated information. There are no warranties, expressed or implied, including the accuracy of measurements or fitness for a particular purpose, accompanying this product. However, notification of any errors will be appreciated.



METRO
600 NE Grand Ave.
Portland, OR 97232-2736
Voice 503 797-1742
FAX 503 797-1909
Email drc@metrodot.or.us

Resolution #98-2729^C Urban Reserve #42

Non-First Tier
'Partially Within' Metro Bounda




-  Area Considered by Council
-  First Tier Urban Reserve
-  Urban Growth Boundary

Exhibit B 3 of 4

The information on this map was derived from digital databases on Metro's GIS. Care was taken in the creation of this map. Metro cannot accept any responsibility for errors, omissions, or positional accuracy. There are no warranties, expressed or implied, including the warranty of merchantability or fitness for a particular purpose, accompanying this product. However, notification of any errors will be appreciated.



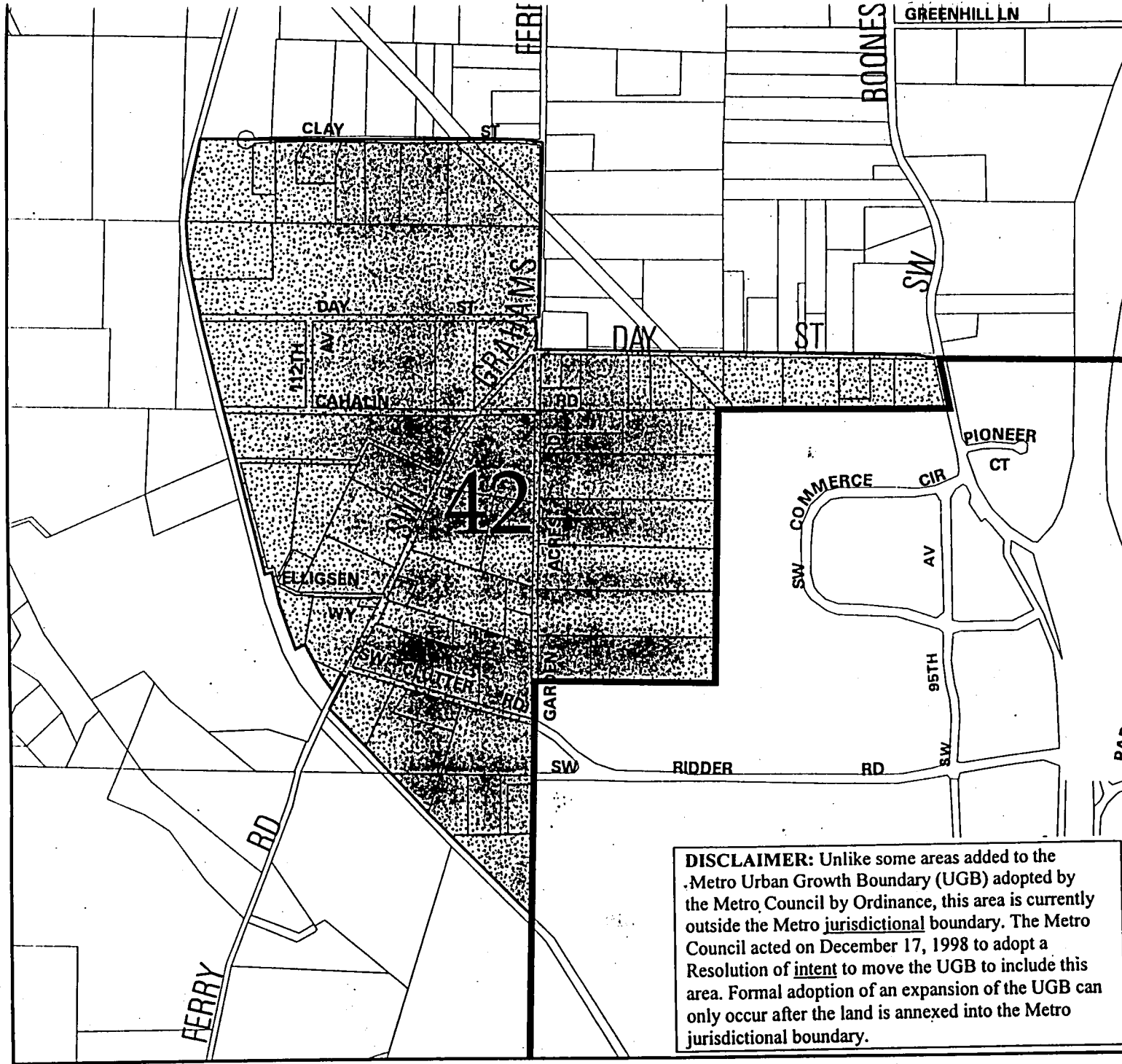
Scale: 1" = 1000'



METRO

600 NE Grand Ave.
Portland, OR 97232-2736
Voice 503 797-1742
FAX 503 797-1909
Email drc@metrodet.or.us

DISCLAIMER: Unlike some areas added to the Metro Urban Growth Boundary (UGB) adopted by the Metro Council by Ordinance, this area is currently outside the Metro jurisdictional boundary. The Metro Council acted on December 17, 1998 to adopt a Resolution of intent to move the UGB to include this area. Formal adoption of an expansion of the UGB can only occur after the land is annexed into the Metro jurisdictional boundary.



DISCLAIMER: Unlike some areas added to the Metro Urban Growth Boundary (UGB) adopted by the Metro Council by Ordinance, this area is currently outside the Metro jurisdictional boundary. The Metro Council acted on December 17, 1998 to adopt a Resolution of intent to move the UGB to include this area. Formal adoption of an expansion of the UGB can only occur after the land is annexed into the Metro jurisdictional boundary.

REGIONAL LAND INFORMATION SYSTEM

Resolution #98-2729 c
Urban Reserve #62-63
(Partial)

Non-First Tier
Outside Metro Boundary





Area Considered by Council
 First Tier Urban Reserve
 Urban Growth Boundary

Exhibit B 4 of 4

The information on this map was derived from digital data on a 1/4" = 1" scale. Care was taken in the creation of this map. We do not accept any responsibility for errors, omissions, or post-creation accuracy. There are no warranties, expressed or implied, including the necessary of use here or here in for a particular purpose, accompanying this product. However, notification of any errors will be appreciated.

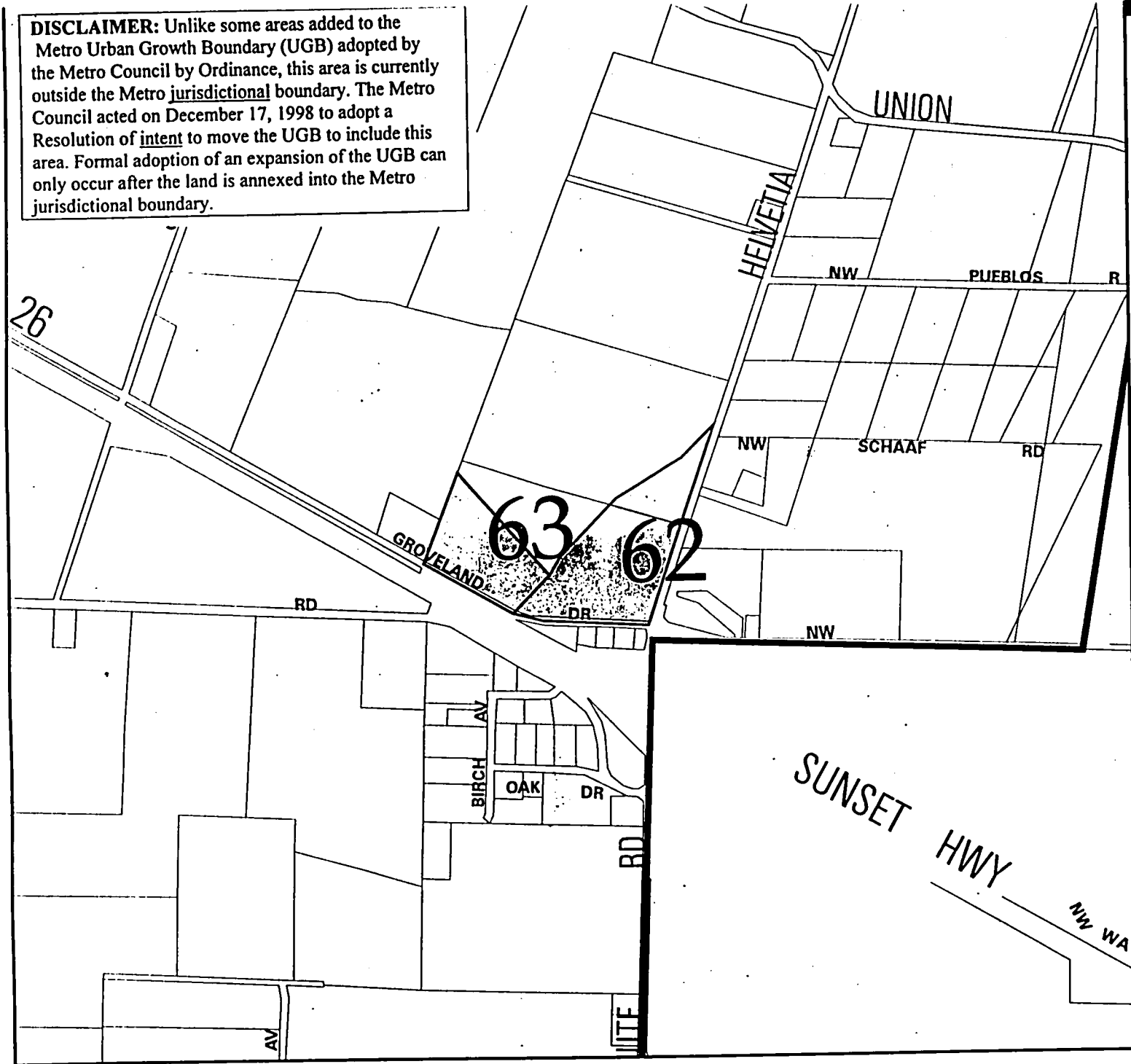


Scale: 1" = 1000'

METRO

600 NE Grand Ave.
Portland, OR 97232-2736
Voice 503 797-1742
FAX 503 797-1909
Email drc@metro.net.or.us



3.01.060 Exceptions to Hearing Officer Decision

(a) Standing to file an exception and participate in subsequent hearings is limited to parties to the case.

(b) Parties shall have 20 calendar days from the date that the proposed order and findings are mailed to them to file an exception to the proposed order and findings of the hearings officer with the district on forms furnished by the district.

(c) The basis for an exception must relate directly to the interpretation made by the hearings officer of the ways in which the petition satisfies the standards for approving a petition for a UGB amendment. Exceptions must rely on the evidence in the record for the case. Only issues raised at the evidentiary hearing will be addressed because failure to raise an issue constitutes a waiver to the raising of such issues at any subsequent administrative or legal appeal deliberations.

(Ordinance No. 92-450A, Sec. 1)

3.01.065 Council Action On Ouasi-Judicial Amendments

(a) The council may act to approve, remand or deny a petition in whole or in part. When the council renders a decision that reverses or modifies the proposed order of the hearings officer, then, in its order, it shall set forth its findings and state its reasons for taking the action.

(b) Parties to the case and the hearings officer shall be notified by mail at least 10 calendar days prior to council consideration of the case. Such notice shall include a brief summary of the proposed action, location of the hearings officer report, and the time, date, and location for council consideration.

(c) Final council action following the opportunity for parties to comment orally to council on the proposed order shall be as provided in Code section 2.05.045. Parties shall be notified of their right to review before the Land Use Board of Appeals pursuant to 1979 Oregon Laws, chapter 772.

(d) Comments before the council by parties must refer specifically to any arguments presented in exceptions filed according to the requirements of this chapter, and cannot

not defined under ORS 255.012, the returns of the election shall be made to the county clerk. The clerk shall canvass the votes for members of the district board and issue certificates of election to the number of persons, equal to the number of board members named in the petition for formation, receiving the highest number of votes. [1971 c.727 §29; 1975 c.647 §1; 1983 c.350 §7]

198.830 Petition for formation by all landowners in proposed district. (1) If the owners of all real property within an area desire to form a district, they may sign and present a petition to the county board. The petition shall contain the information required by ORS 198.750 to 198.775 and shall be verified by the affidavit of one of the petitioners that the petitioner believes that the signers of the petition comprise all the owners, at the time of the verification, of all the land included within the proposed district. If members of the district board are generally elected to office, the petition shall also state the names of persons desired as the members of the first board and an acceptance in writing by each agreeing to serve as a member of the board.

(2) The county board shall approve the petition for formation of the district if it finds:

(a) That the owners of all the land within the proposed district have joined in the petition; and

(b) That, in accordance with the criteria prescribed by ORS 199.462, the area could be benefited by formation of the district.

(3) If formation is approved, any election required by ORS 198.810 to 198.825 shall be dispensed with. After the hearing on the petition, if the county board approves the petition, it shall enter an order creating the district. If the district board members generally are elected, the persons nominated by the petition and accepting nomination as members of the board shall constitute the first board of the district. [1971 c.727 §30]

198.835 Order for formation of district in single county; order for exercise of additional function by county service district; contents of order. (1) The county board may initiate the formation of a district, to be located entirely within the county, by an order setting forth:

(a) The intention of the county board to initiate the formation of a district and citing the principal Act.

(b) The name and boundaries of the proposed district.

(c) The date, time and place of a public hearing on the proposal.

(2) An order initiating the formation of a county service district may require dissolution, subject to a determination of public need for continued existence of the county service district as provided in ORS 451.620. The fiscal year in which dissolution will occur, not later than the 10th fiscal year after the date of the order, shall be specified.

(3) If any part of the territory subject to formation of a district under this section is within a city, the order shall be accompanied by a certified copy of a resolution of the governing body of the city approving the order.

(4) A county board that also serves as the governing body of a county service district established to provide sewage works may initiate a proceeding to authorize that county service district to also provide drainage works by adopting an order setting forth the information specified in subsection (1) of this section. The order must be accompanied by resolutions consenting to the additional function that are adopted by the governing bodies of not less than 70 percent of the cities located within the boundaries of the county service district. [1971 c.727 §31; 1987 c.504 §7; 1987 c.510 §1; 1989 c.374 §2]

198.840 Notice of hearing. Notice of the hearing set by the order shall be given in the manner provided by ORS 198.800 except that the notice shall state that the county board has entered an order declaring its intention to initiate formation. The hearing and election on the proposal, and election of board members, shall be conducted as provided by ORS 198.800 to 198.825. [1971 c.727 §32]

198.845 Costs. The county shall bear the cost of formation or attempted formation of a district under ORS 198.835 to 198.845. However, if a district is formed, the district shall reimburse the county for any expenses incurred by the county in making necessary preliminary engineering studies and surveys in connection with the formation of the district. [1971 c.727 §33]

(Annexation)

198.850 Annexation petition or resolution; delayed effective date for certain annexations. (1) When the electors of an area wish to annex to a district, they may file an annexation petition with the county board. Before the petition is filed with the county board, it shall be approved by indorsement thereon by the board of the affected district and by any other agency also required by the principal Act to indorse or approve the petition.

(2) ORS 198.800 to 198.820 apply to the proceeding conducted by the county board and the rights, powers and duties of peti-

tioners and other persons having an interest in the proceedings.

(3) In lieu of a petition, annexation may be initiated by resolution of the district board, or of the county board. Proceedings may also be initiated by any other public agency if authorized by the principal Act. If proceedings are initiated by the district board or another public agency, a resolution setting forth the matters described by ORS 198.835 shall be filed with the county board. The proceeding thereafter shall be conducted as provided by ORS 198.835 to 198.845. An annexation initiated by the district board may include an effective date which is not later than 10 years after the date of the order declaring the annexation. [1971 c.727 §34; 1991 c.637 §5]

198.855 Annexation election; annexation without election when petition signed by all landowners or by majority of electors and owners of more than half of land. (1) If the annexation petition is not signed by all the owners of all the lands in the territory proposed to be annexed or is not signed by a majority of the electors registered in the territory proposed to be annexed and by the owners of more than half of the land in the territory and an election is ordered on the proposed annexation as provided by ORS 198.815, the county board shall order an election to be held in the territory and the county board also shall order the board of the affected district to hold an election on the same day, both elections to be held for the purpose of submitting the proposed annexation to the electors. The district board shall certify the results of the election to the county board. The order of annexation shall not be entered by the county board unless a majority of the votes in the territory and a majority of the votes in the district are in favor of the annexation. If a majority of the votes cast in both elections do not favor annexation, the county board by order shall so declare.

(2) Two or more proposals for annexation of territory may be voted upon at the same time. However, within the district each proposal shall be stated separately on the ballot and voted on separately and, in the territory proposed to be annexed, no proposal for annexing other territory shall appear on the ballot.

(3) If the annexation petition is signed by all of the owners of all land in the territory proposed to be annexed or is signed by a majority of the electors registered in the territory proposed to be annexed and by the owners of more than half of the land in the territory, an election in the territory and district shall be dispensed with. After the hearing on the petition, if the county board

approves the petition as presented or as modified or, if an election is held, if the electors approve the annexation, the county board shall enter an order describing the boundaries of the territory annexed and declaring it annexed to the district. [1971 c.727 §35; 1987 c.818 §5]

198.860 Effect of annexation order. After the date of entry of an order by the county board annexing territory to a district, the territory annexed shall become subject to the outstanding indebtedness, bonded or otherwise, of the district in like manner as the territory within the district. [1971 c.727 §36]

198.865 [1971 c.727 §§37, 38; 1979 c.316 §7; repealed by 1983 c.142 §1 (198.866 and 198.867 enacted in lieu of 198.865)]

198.866 Annexation of city to district; approval of annexation proposal; election.

(1) The governing body of a city may adopt a resolution or motion to propose annexation to a district for the purpose of receiving service from the district. Upon adoption of an annexation proposal, the governing body of the city shall certify to the district board a copy of the proposal.

(2) The district board shall approve or disapprove the city's annexation proposal. If the district board approves the proposal, the district board shall adopt an order or resolution to call an election in the district. The order or resolution of the district board shall include the matters specified in ORS 198.745. In addition the order or resolution may contain a plan for zoning or subdistricting the district as enlarged by the annexation if the principal Act for the district provides for election or representation by zone or subdistrict.

(3) The district board shall certify a copy of the resolution or order to the governing body of the city.

(4) Upon receipt of the resolution or order of the district board, the governing body of the city shall call an election in the city on the date specified in the order or resolution of the district board.

(5) An election under this section shall be held on a date specified in ORS 255.345 that is not sooner than the 90th day after the date of the district order or resolution calling the election. [1983 c.142 §2 (enacted in lieu of 198.865); 1993 c.417 §1]

198.867 Approval of annexation to district by electors of city and district; certification; effect of annexation. (1) If the electors of the city approve the annexation, the city governing body shall:

(a) Certify to the county board of the principal county for the district the fact of the approval by the city electors of the proposal; and

**Proposed Urban Growth Boundary Expansion
Staff Report
November 24, 1998**

**Urban Reserve Areas 62 and 63
(North Hillsboro)**



METRO

**Growth Management Services Department
600 N.E. Grand Avenue
Portland OR, 97232
503/797-1839**

Date: November 24, 1998

STAFF REPORT

PROPOSAL: Metro Legislative Amendment

URBAN RESERVE: Urban Reserve Areas (URAs) #62 and #63, North Hillsboro

APPLICABLE

REVIEW CRITERIA: Metro Code Sections 3.01.012(e) and 3.01.020.

SECTION I: SITE INFORMATION

URA #62 (non-first tier) Summary Information	
<i>Acres:</i> 54.4 (8.4 acres- urban reserve plan)	<i>Buildable Acres:</i> *27.0 (7.8 acres- urban reserve plan)
<i>EFU Acres:</i> 8.1	<i>Estimated DUs:</i> * 264 (87- urban reserve plan)
<i>Location:</i> North Hillsboro	<i>Estimated Jobs:</i> * 142 (47- urban reserve plan)
<i>County:</i> Washington	<i>Major arterials & streets:</i> Helvetia, Shute
<i>Current Zoning:</i> EFU, AF5	<i>Watershed:</i> McKay Creek

*based on 200-foot riparian buffers; DUs = Dwelling Units

URA #63 (non- first tier) Summary Information	
<i>Acres:</i> 11	<i>Buildable Acres:</i> * 7.3
<i>EFU Acres:</i> 11	<i>Est. DUs:</i> * 72**
<i>Location:</i> North Hillsboro	<i>Est. Jobs:</i> * 38**
<i>County:</i> Washington	<i>Major arterials & streets:</i> Helvetia, Shute
<i>Current Zoning:</i> EFU	<i>Watershed:</i> McKay Creek

*based on 200-foot riparian buffers; DUs = Dwelling Units

**assumes entire area will urbanize, see section IV on urban reserve planning requirements

SECTION II: BACKGROUND INFORMATION

Urban growth boundaries (UGB) establish a separation between areas of urban level development and areas dedicated to farm, forest and rural use. The Metro Council established the UGB in 1979 and the Metro Code provides several methods for amending it. Property owners and municipalities may request a locational adjustment to the UGB if the area in question is under 20 acres in size. Requests for adjustment in excess of 20 acres are considered major amendments to the UGB.

The Metro Council may also initiate changes to the UGB as legislative amendments if insufficient capacity exists within the current UGB. Metro is required by state law to assess the capacity of the land within the UGB every five years and compare it with forecasts for growth.

during the next 20 years. State law (ORS 197.296) requires that Metro maintains a 20-year land supply inside the UGB in order to accommodate projected housing need.

The Metro Council has concluded that insufficient capacity exists within the current UGB. State law (ORS 197.299) requires that at least one-half of the identified land need be added to the UGB by December 1998. The UGB must be adjusted to reflect the balance by December 1999.

Section I of this report displays a summary table of information about URAs #62 and #63. Section II, discusses the criteria specified in the Metro Code that need to be addressed for Metro Council to amend the UGB. Section III is the staff analysis of this URA as it relates to the factors outlined in Metro Code. Specific information pertaining to any completed urban reserve planning of this URA, relevant to the factors, is integrated into the factor analysis in Section III. Section IV outlines the general status of urban reserve planning in the URA.

This report contains background information and a general discussion of Metro Code requirements for URAs #62 (portion of reserve included in an urban reserve plan) and #63.

Section I of these report displays a summary table of information about the URAs #62 and #63. Section II, discusses the criteria specified by the Metro Code that need to be addressed for Metro Council to amend the UGB. Section III is the staff analysis of the URAs as they relate to the factors outlined in Metro Code and includes specific information about any urban reserve planning that is pertinent to the factors. Section IV outlines the general status of urban reserve planning in the URA.

Metro Code to amend the UGB, Section 3.01.020, addresses the seven factors from State Planning Goal 14. These factors include:

- 1 & 2 demonstration of need for expansion;
- 3 demonstration that the expansion will be consistent with orderly and economic provision of public facilities and services;
- 4 demonstration of maximum efficiency of land uses;
- 5 evaluation of the environmental, energy, economic and social consequences;
- 6 evaluation of retention of agricultural land; and
- 7 an assessment of the compatibility of proposed urban uses with nearby agricultural activities.

Metro Code Section 3.01.015(e) provides an outline for a Metro Council process for bringing urban reserve land into the UGB. If insufficient land is available to satisfy the need and meet the requirements of an urban reserve plan, then Metro Council may consider first tier lands for inclusion into the UGB for which a city or county has committed to complete and adopt an urban reserve plan. (The jurisdiction must provide documentation to support such a commitment.) All State and Metro requirements are assessed in this staff report. Additional Metro reports, which are referenced or have relevance to these legislative amendments include the following: *Utility Feasibility Analysis for Metro 2040 Urban Reserve Study Areas (June 1996)*, *Urban Growth Report (December 1997)*, *Urban Growth Report Addendum (August 1998)*, *Housing Needs Analysis (December 1997)*, *Urban Growth Boundary Assessment of Need (October 1998)*, *Urban Reserve Status Report (April 1998)*, and *Metro Urban Reserve Productivity Analysis (September 1998)*.

After initial public testimony and prior to the final opportunity for public testimony, this staff report may be augmented or revised according to information received from the public. The

Metro Council will consider the staff report and public testimony, and make a decision about which areas will be added to the UGB in order to address the 20-year land need. The Metro Council may condition the approval of any amendment decision and require further action by local jurisdictions or property owners before a UGB amendment is finalized.

Metro Code Section 3.01.012(e) requires an urban reserve plan and map that include conceptual land use plans for URAs. These plans must demonstrate compliance with the Regional Urban Growth Goals and Objectives (RUGGOs) and the 2040 Growth Concept design types and any applicable Urban Growth Management Functional Plan (Functional Plan) provisions. Urban reserve concept plan requirements include an average residential density target, sufficient commercial and industrial development for the needs of the area, a transportation plan and protection for wildlife habitat and water quality enhancement. It also requires a conceptual public facilities plan, school plan and an agreement on governance.

URAs #62 and #63 were not designated by the Metro Council as first tier urban reserves. These two reserves are being considered together due to their proximity to one another and service issues. A detailed description of each URA follows.

Site Descriptions

URA #62

URA #62 is 54 acres, 10 of which are zoned Exclusive Farm Use (EFU) (see Attachment A). Only the northern 8.4 acres has been included in an urban reserve plan and is proposed to be included within the UGB. This area is composed of class 2 soils. The URA is located at the intersection of Helvetia Road, Highway 26, and Shute Road. Rural residential is the dominant land use in this area and the majority of the tax lots in this reserve are smaller than 3.5 acres. URA #62 is split into two sections by Highway 26. The northern boundary of the reserve is roughly 750 feet north of Groveland Road. The eastern edge of the reserve is Helvetia Road on the north side of Highway 26, and Shute Road on the south side of Highway 26 (which is also the UGB and the City Limits of Hillsboro).

The western edge of URA #62 is the FEMA 100-year floodplain along Gulch Creek and roughly 1,500 feet to the east of Shute Road. The southern boundary of the reserve is roughly 250 feet south of Meek Road. Birch Drive and Oak Drive provide access to the reserve area south of Highway 26. Groveland Drive provides access to the area north of Highway 26. The average slope of the area is 2 percent. This URA is within Washington County but outside of the Metro jurisdictional boundary.

URA #63

URA #63 is 11 acres, all of which are EFU (see Attachment B). This area is composed of primarily class 2 soils with small parcels of class 1 and 4 soils. The reserve area is located near the intersection of Helvetia Road, Highway 26, and Shute Road and is northwest of URA #62. The reserve is made up of a small portion of a larger tax lot. Rural residential is the dominant land use in this area. The northern boundary of the reserve is roughly 750 feet north of Groveland Road (from a point west of Gulch Creek). The eastern edge of the reserve is the FEMA 100-year floodplain along Gulch Creek. The western edge of URA #63 is roughly 1,700 feet to the east of Helvetia Road. The southern boundary of the reserve is Highway 26. The average slope of the area is 5 percent. The URA is within Washington County but outside of the Metro jurisdictional boundary.

Alternatives Analysis

Given that the urban reserves are under appeal to the Land Use Board of Appeals, an analysis of exception lands around the approximately 200-mile long perimeter of the UGB was completed. Not all parcels of land outside, but near, the current UGB were considered when alternatives to the proposed sites were compared. Screening, or reducing the number of contending sites was done because some parcels or areas were clearly not suitable (for example, lands on the north side of the UGB – the Columbia River, or lands in the Columbia Gorge Scenic Area). This "Alternatives Analysis" was the first screen (see Exhibit A). This analysis is reported in the memorandum dated October 26, 1998, *Exception Land Not Considered as Alternative Sites for Urban Growth Boundary Expansion* (Exhibit A). In this report, exception lands were analyzed for their suitability for inclusion into the UGB. The factors that weighed against inclusion in the UGB included lands zoned for EFU, lands that would eliminate the separation between communities, lands more than one mile from the existing UGB and noncontiguous areas. In addition, natural features and settlement patterns that effect the buildability of land were also considered. These features include steep slope; lands in the FEMA 100-year floodplain and small acreage single family residential areas.

Secondly, after Phase 1 of the Productivity Analysis was completed, there were lands identified as less productive and other lands more productive providing more than enough capacity to meet the need for UGB expansion. The lands analyzed in Phase 2 of the Productivity Analysis are estimated to accommodate over 44,000 dwelling units. This is more than enough to provide a substantial choice of alternatives when compared with the approximately 16,000 dwelling units needed to be accommodated through UGB expansion. The final screening process was primarily consideration of efficiency of land and public service feasibility and is summarized in Exhibit B, "Additional Site Considerations."

West and northwest of URA #62 are areas of exception land almost entirely within the FEMA 100-year floodplain. Metro's adopted Functional Plan (Title 3) requires that land of this nature be protected from the effects of development. In addition, such lands were deemed unbuildable in the analysis of the Region 2040 Growth Concept, and Metro's Urban Growth Report. Using the FEMA floodplain as a boundary is consistent with the Regional Framework Plan Objective 1.7 (Urban/Rural Transition). In addition, the Metro Code Section 3.01.020(d) states the proposed location for the UGB shall result in a clear transition between urban and rural lands, using natural and built features, such as roads, drainage divides, floodplains, powerlines, major topographic features, and historic patterns of land use or settlement. The exception areas at the western end of Evergreen Road are within rural reserves as designated on the acknowledged 2040 Growth Concept Map. The policies contained in the Regional Framework Plan and the RUGGOs specify that rural reserves are lands that will not be developed for urban uses in the foreseeable future. They are intended to support and protect farm and forestry operations and to maintain separation between communities.

URAs #62 and #63 are not contiguous to, or connected to, other exception areas that are contiguous to the UGB. To expand the UGB onto non-contiguous exception areas would require the addition and urbanization of the intervening agricultural areas.

Exhibit A details this response.

Productivity Analysis

The Metro Urban Reserve Productivity Analysis (Productivity Analysis) was completed to assess the number of dwelling units and jobs that could be accommodated within the designated URAs. The Productivity Analysis was accomplished in two phases. Phase 1 completed a preliminary analysis of all 18,570 acres of adopted URAs and identified a subset of URAs for more detailed evaluation in Phase 2. The following selection criteria for Phase 2 URA analysis included:

- Inclusion in designated first tier urban reserves
- Proximity to UGB (less than one-half mile)
- Productivity ratio – buildable acres divided by total acres (ranking greater than 40 percent)
- Serviceability rating (for transportation and water-related serviceability) – moderate to easy (ranking greater than 0)

Exceptions to the above criteria were made to ensure a regional distribution of URAs. In addition, an area was selected if it had a high productivity rating (greater than 80 percent), even if both transportation and water-related services were rated "difficult"; or if it had a high productivity rating (greater than 70 percent) with only one service (transportation or water-related) rated "difficult." URAs with on-going urban reserve planning efforts were also selected. Others were selected because of service efficiencies with adjacent URAs. In all, 49 URAs were selected for Phase 2 analysis, which verified land supply data, identified 2040-design type, and estimated service cost. URAs #62 and #63 were included in Phase 2 of the Productivity Analysis. Urban reserve planning has started in URA #62 and #63 through a private initiative supported by the City of Hillsboro. A concept plan for the portion of URA #62 north of Highway 26 and a concept plan for URA #63 have been submitted (Attachment C).

SECTION III: APPLICABLE REVIEW CRITERIA

The criteria for a legislative amendment to the UGB are contained in Metro Code Section 3.01.020. They are based primarily on State Planning Goals 2 and 14 and have been acknowledged, or approved by the State as meeting their requirements. The criteria and staff analysis of the factors outlined in the Metro Code follow.

Factor 1: Demonstrated need to accommodate long-range urban population growth.

SUMMARY OF ANALYSIS: Factor 1 was addressed by the Metro Council adoption of Resolution No. 97-2559B, in December 1997, determining that there is a need to accommodate 32,370 dwelling units and 2,900 jobs through expansion of the UGB and that this need cannot be accommodated within the current UGB. The data used to support this conclusion is summarized in the Urban Growth Boundary Assessment of Need. In making their decision, the Metro Council decision took into account at least the following:

- 1) A forecast of population and employment to the year 2017. A peer review panel consisting of public and private sector economists who assessed the methodology and conclusions reviewed this forecast. In addition, this forecast was reviewed by the Metro Technical Advisory Committee (MTAC), comprised of staff representatives from cities, counties and special districts as well as presented to the Metro Policy Advisory Committee (MPAC) composed of elected officials from cities, counties and special districts.

- 2) A vacant land inventory based on 1994 data. MTAC and MPAC reviewed this inventory. (Calculation methods documented in the Urban Growth Report.)
- 3) Estimates of the capacity created through rezoning of land to be consistent with the Metro 2040 Growth Concept. (Calculation methods documented in the Urban Growth Report.)
- 4) Estimates of the amount of growth that could be accommodated through infill and redevelopment examined against actual rates for the years 1990 through 1994. (Calculation methods documented in the Urban Growth Report.)
- 5) The need for urban land as estimated and documented in the Urban Growth Report and compared with the supply, also documented in this report.
- 6) Public testimony and recommendations from MPAC.

The Metro Council also assumed on a policy basis the following: a) redevelopment rates greater than those experienced to date, b) substantial additional capacity assumed to be provided by rezoning for more density consistent with the 2040 Growth Concept, c) the assumption that all net developable land would be available for urban use during the planning period, and d) that parcels with development on them but with at least one-half acre of vacant buildable land would be available for further development.

New information since Resolution No. 97-2559B includes: adoption of stream corridor protection requirements (Functional Plan, Title 3), an updated vacant/buildable land inventory (1997 data), a listing of Steelhead as a "Threatened" species under the Federal Endangered Species Act, more detailed research about actual redevelopment and infill rates in 1995 and 1996, and the Productivity Analysis.

Scientific analyses completed to date suggest that for protection of fish, and especially salmonids such as Steelhead, 100-foot buffers or setbacks along rivers and streams would be needed (for further discussion, see the Urban Growth Boundary Assessment of Need). Steelhead has been listed as a "Threatened" species for a large portion of the region. The balance of the region is under consideration for such listing.

Recently adopted regulations (Functional Plan, Title 3) require setbacks from the top of bank from zero to 15-50 feet on streams and rivers, depending on the amount of area drained. In addition, for those areas with steep slopes (25 percent or greater) along streams, setbacks are up to 200 feet. These setbacks address flooding and water quality only, and are not specifically designed to address fish habitat needs. However, the Urban Growth Report technical analysis of the urban growth capacity of lands within the current Metro UGB was based on 200-foot buffers along all rivers and streams. That is, Metro requirements for protection along streams are now between 0 and 200 feet depending on the circumstances of the river or stream. Cities and counties of the region have about one year to implement these protections. However, Metro growth capacity assumptions are 200 feet along all stream and river segments. A difference of about 5,000 acres exists between these two approaches, one that calculates capacity and one, which regulates.

Metro is currently assessing the need for additional requirements, probably wider buffer widths, to better protect Steelhead. If 100-foot buffers are imposed and the latest vacant land and

current rates of redevelopment and infill are used, the 1998 technical capacity analysis would be that the deficit would be about the same (31,000 dwelling units) as that estimated in the Urban Growth Report (32,370 dwelling units). This analysis is addressed in the Urban Growth Boundary Assessment of Need. Metro has just received a grant from the State Department of Land Conservation and Development to better assess the buffer width needed in light of fish habitat and to provide the technical analysis and policy recommendations. Possible regulations will be made available to the Metro Council as soon as possible. This will allow the Metro Council to fine tune the need analysis and consider whether adjustments to the need or regulations are necessary. Federal regulations from the National Marine Fisheries Services (401 Rules) are anticipated to be issued in the next several months.

Metro also completed an update to the vacant and buildable land inventory in 1997 based on 1994 data. This 1998 inventory based on 1997 data, shows even fewer acres of vacant buildable land (20,223 acres rather than the 22,420 acres estimated from 1994 data). A map "Developed Land," included in the Urban Growth Boundary Assessment of Need, shows the extent of developed land as compared with vacant land within and adjacent to the Metro UGB.

Residential redevelopment and infill data collected for 1995 and 1996, show an actual rate of 25.4 percent. (That is, of all residential development built in the region during 1995 and 1996, about one-quarter was redevelopment or infill.) The Metro Council, in their 1997 decision (Resolution No. 97-2559B) concluded that a rate of 28.5 percent should be used. Maintaining the more aspirational rate of 28.5 percent is a more aggressive pursuit of the efficient use of land. This rate may be possible because of Functional Plan requirements, economic incentives, and more immediate response to 2040 concepts than anticipated.

Finally, the Productivity Analysis identifies a concern that the Urban Growth Report methods show a need for a relatively large number of homes (32,370) and only a small number of jobs (2,900). Building complete communities and pursuing a jobs/housing balance are two regional goals of long standing. While locating new jobs at the edge of the region may induce or encourage less compact development patterns (due to increased commuting from people living outside the UGB), some job growth would address imbalances in some areas with high levels of residential development. The Productivity Analysis suggests that enough capacity to accommodate local service jobs be provided in UGB expansion areas to help balance jobs and housing in areas where there are many more homes than jobs. The 2040 Growth Concept and the Regional Framework Plan recognize that we need to build complete communities. The Productivity Analysis assumed half a job per dwelling unit (or 16,000 jobs for 32,370 dwelling units).

CONCLUSION: The interaction of these variables can result in differing need numbers. Additional research about a number of the variables is needed (such as actual densities built compared with maximum units allowed, development potential on environmentally constrained lands, incorporation of local jurisdiction compliance reports and employment land supply). However, based on these present factors and data, there is not sufficient capacity within the current Metro UGB to accommodate all forecast growth for the required 20-year time horizon (to the year 2017). The need to expand the Metro UGB is about 32,370 dwelling units and 2,900 jobs. By State law, at least one-half this need for housing must be accommodated through expansion of the Metro UGB in 1998. After the 1999 review of need, including additional research, the approximate balance of 16,000 dwelling units will need to be adjusted. Employment conclusions may also need to be adjusted. Conclusions about need could be increased or decreased from the 1998 dwelling unit and job need conclusions. Based on all

evidence in the record, there is no basis to conclude that the adjusted need would be less than 16,000 dwelling units. MPAC supported this conclusion.

As a result, the adopted determination of residential need (i.e., a 32,370 dwelling unit deficit) with half provided for in 1998 UGB amendments, should be maintained until 1999, when a final need determination can be supported by additional information.

Factor 2: Need for housing, employment opportunities and livability may be addressed under either subsection (A) or (B) or both, as described below.

SUMMARY OF ANALYSIS: Factor 2 (A), was also addressed by the Metro Council adoption of Resolution No. 97-2559B, determining that there is a need to accommodate 32,370 dwelling units and 2,900 jobs that cannot be accommodated within the current UGB. Specific data supporting this conclusion is included in the Housing Needs Analysis and the Urban Growth Report. These reports complete an economic analysis that assesses the number of dwelling units needed by income type and by tenure (rental or ownership) and compares this need with the capacity within the existing Metro UGB to accommodate their construction. Likely methods to accommodate growth in ways other than through expansion of the UGB were assessed and debated by MPAC and the Metro Council.

Again, as stated in the conclusion for Factor 1, the Metro Council considered a variety of new methods to accommodate growth within the current UGB. These methods included: a) a residential redevelopment rate assumption higher than that experienced in the region to date, b) the assumption that cities and counties of the region would revise their comprehensive plans and zoning designations consistent with the 2040 Growth Concept and the Functional Plan to accommodate more growth than that previously allowed, c) the assumption that all net developable land would be available for urban use during the planning period, and d) that parcels with development on them but with at least one-half acre of vacant buildable land would be available for further development.

Factor 2(B) is optional if Factor 2(A) is addressed. Regardless, Metro has concluded that the region "...can continue to grow and *enhance livability* (emphasis added) by making the right choices for how we grow. The region's growth will be balanced by: maintaining a compact urban form, with easy access to nature..." (Regional Framework Plan, Policy 1.1, Urban Form).

CONCLUSION: Based on consideration of the information included above, accommodation of all of the expected growth for the next 20 years, to the year 2017, cannot be met within the current Metro UGB. This conclusion includes consideration and use of innovative methods of accommodating growth including assuming more dense development and substantial reliance on rates of redevelopment and infill greater than those experienced to date. Even with these assumptions, there is a need to expand the Metro UGB to accommodate about 32,370 dwelling units and 2,900 jobs.

Factor 3: Orderly and economic provision of public facilities and services. An evaluation of this factor shall be based upon the following:

(A) For the purposes of this section, economic provision shall mean the lowest public cost provision of urban services. When comparing alternative sites with regard to Factor 3, the best site shall be that site which has the lowest net increase in the total cost for provision of all urban services. In addition, the comparison may show how

the proposal minimizes the cost burden to other areas outside the subject area proposed to be brought into the boundary.

Staff Analysis

URAs #62 and #63 are proposed to be developed as a corridor design type with an average of greater than 10 dwelling units per net buildable acre (18 DU per acre).

Generalized assumptions were used for estimating serviceability for water, wastewater, stormwater and transportation in the Productivity Analysis. Cost estimates reflect a total buildout of each URA. Land acquisition cost and earthquake mitigation costs were not included in this analysis. Cost estimates assumed that the services for all URAs within a regional grouping would be constructed at the same time to capitalize on economies of scale factors. URAs #62 and #63 were grouped together.

The wastewater cost estimate includes pipes, pump stations, force mains, bridge crossings and boring. A cost factor for extra treatment capacity is also included. The water cost estimate includes pressure reducing valves, meters, bridge crossings, boring, pump stations and storage facilities. Cost factors are also included for water source expansion and water treatment. The stormwater cost includes channelization, incorporation of water quality features and detention. For all three services, costs associated with piping and trenching, extra deep installation costs, and wetland, stream and riparian mitigation are also included where applicable. Maintenance and operations costs are included for wastewater and stormwater piping, pump stations, channelization, water quality features and detention sites.

The transportation serviceability cost estimate was based on need for a multi-modal transportation system which includes street, pedestrian, and bicycle systems as outlined by the Metro 2040 Growth Concept and was supplemented by local service providers. The estimate is a sum of capital costs and the present worth of annual maintenance and preservations costs (20-year forecast). Capital, maintenance and preservation costs for streets include costs for bicycle and pedestrian systems. Transit system costs are noted included, but were estimated on a relative comparison basis. As noted in the Productivity Analysis (see page A178), relative transit costs were estimated for URAs #62 and #63 to be high when compared with other areas. The road cost estimates use regional groupings to disperse the costs among contiguous URAs. URAs that share the same planned transportation system, such as URAs #62 and #63, are grouped together, reducing the cost per URA. Each URA assumes its proportion of the total cost estimate for the grouping.

The total estimated cost for wastewater, water, stormwater and transportation is expressed in Cost per Dwelling Unit Equivalent (DUE). A DUE is an estimate of service demand expressed as though it was serving only dwelling units, but it takes into consideration employment based needs as well. A DUE is equal to the Estimated Dwelling Units (EDUs) per URA plus the estimated employment per URA ($EDU + \text{employment} = DUE$). The conversion to DUE provides for a costing factor that is consistent among all URAs. Only 48 of the 49 URAs have cost estimates in the Productivity Analysis (URA #39 is a school site). When ranked from lowest to highest for total cost, the estimated cost for URA #62 is \$29,656 per DUE, the 36th lowest cost ranking. For URA #63 the DUE cost is \$42,921 which is the 41st lowest in cost. More specific information is available in the Productivity Analysis, on pages A307-A309 for URA #62. URA #63 has been reevaluated; more specific information is available from a revision to the Productivity Analysis (see Attachment E).

The proponent has provided additional analysis based on higher projected densities, which results in lower unit costs for servicing these URAs. In the urban reserve plan submitted for URA #62 and #63 the proponent assigns a proportional share of the total serviceability costs to the area of URA #62 included in the concept plan at the projected densities that results in a DUE cost for URA #62 of \$12,792.

URA #63 is assumed to develop at a minimum of 18 dwelling units per acre. Calculation of buildable acres requires a reduction in gross acres of 25 percent (consistent with the Productivity Analysis), to equal 7.87 acres. At a density of 18 units per acre, URA #63 yields a total of 142 dwelling units. The total serviceability costs for URA #63 are \$2,713,073 divided by 142 DUEs for a cost of \$19,106 per DUE.

Factor 3: continued

(B) For the purposes of this section, orderly shall mean the extension of services from existing serviced areas to those areas which are immediately adjacent and which are consistent with the manner of service provision. For the provision of gravity sanitary sewers, this could mean a higher rating for an area within an already served drainage basin. For the provision of transit, this would mean a higher rating for an area which could be served by the extension of an existing route rather than an area which would require an entirely new route.

Staff Analysis

URA #62 is adjacent to the existing UGB. URA #63 is adjacent to URA #62. The necessary services will be integrated into the existing service network of wastewater, water, stormwater and transportation in the surrounding area. Metro requires that a public facilities plan be drafted as part of the urban reserve planning in URAs #62 and #63.

Before analyzing the specifics of the Productivity Analysis, it is important to note the following:

- Until this past year, Statewide Planning Goal 11 prevented service providers from extending urban level of services extra-territorially – outside their jurisdictions. In addition, service providers were required to size their services consistent with comprehensive plans. Accordingly, urban service planning or their provision was not permitted outside the UGB.
- Service providers could begin to plan for urban services once the Metro Council approved the urban reserves. However, because of the appeal of Metro's urban reserves at the given the Land Use Board of Appeals, there was a risk that service providers could be planning for areas that may not remain urban reserves. The risk was that if the area being planned for urban services was too small, the service planning effort would have to be redone to take in other areas. If it were too large the service planning effort would have to be downsized. Accordingly, most service providers found it prudent to wait for resolution of the legal appeal on Metro's urban reserves.
- The Productivity Analysis (and two earlier analyses by the firm KCM) assessed facility costs on a broad comparison basis, not a detailed, pre-construction basis. The Productivity Analysis is the best available information on a consistent, region-wide basis. It includes assessment of the cost to provide urban facilities to the subject areas as well as other costs, such as upgrades to sewer treatment facilities.

In a letter dated September 25, 1998, the City of Hillsboro indicated that it supports the efforts of the property owner of URAs #62 and #63 to undertake planning for these sites. In a

Hillsboro-Washington Memorandum of Understanding, the responsibility for urban reserve concept planning has been assigned to the Hillsboro. If the URAs are brought into the UGB, Hillsboro will annex them and establish urban zoning. The City of Hillsboro would also assume responsibility for providing municipal services to the sites upon:

- (a) City and Metro approval of a completed urban reserve plan for the sites followed by their inclusion into the UGB;
- (b) establishment of the feasibility of providing public facilities and infrastructure services to the sites with owner funding participation and corresponding funding participation commitment from the owner; and
- (c) annexation of the sites to Metro (see Attachment F).

A large industrial campus has recently been completed to the east of URA #62. Utilities and services have been established to serve this development and could be extended to serve URAs #62 and #63. Costs for a portion of URA #62 included in the concept plan have not been proportionally assigned.

Wastewater

The majority of residences in URAs #62 and #63 are currently served by septic systems. According to the Productivity Analysis, to provide sanitary sewer service to the area installation of pipe, manholes and trenching would be required. No new pump stations would be necessary, gravity sewer will be used to provide a treatment capacity of 0.1 million gallons per day (mgd) (.09 mgd for URA #62 and .01 mgd for URA #63).

According to the Productivity Analysis, expanding wastewater service to serve this area will not compromise the ability of the governing jurisdiction (Hillsboro) to serve the areas within the existing UGB. Sanitary sewer plans are a necessary component of the urban reserve planning process to ensure efficient siting of facilities and service of all areas within URAs #62 and #63. Master planning will specifically determine routing, flow volumes, location of basins served, pipe sizes and maintenance requirements. Provision of sanitary sewer to existing residential uses within this area will eliminate the potential of any current or future leaching from septic systems and drain fields that may pollute ground water or degrade water quality in Waible Creek.

In some cases expanding sanitary sewer lines or installing pump stations may allow parcels located within the current UGB to be served. Extension of sanitary sewer within URAs #62 and #63 may allow economies of scale to be realized when these facilities are constructed and include a larger service area.

Sanitary sewer service would be provided from the trunk line running through the western edge of the Seaport property. This would involve one river crossing to access URA #63.

Water

Water for these URAs can be provided under Highway 26 or from the lines in NW Jacobson Road to the east. According to the Productivity Analysis, the cost of extending water to URAs #62 and #63 would include transmission lines, the installation of pressure reducing valves, a river crossing to access URA #63 and ongoing treatment costs.

Expanding water service to URAs #62 and #63 will not compromise the ability of Hillsboro to serve other areas within the UGB.

Stormwater

Regional detention facilities may be required depending upon the available storage capacity in Rock Creek and other smaller un-named creeks in the area. Water quality features are a necessary component of all storm treatment and storage facilities due to the sensitivity of Rock Creek and the Clackamas River basins. Stormwater facilities will be designed to make efficient use of land, be easily maintainable and not exceed the carrying capacity of the natural resource areas into which they released.

In the letter dated October 6, 1998, to the Metro Council Growth Management Committee, Thomas McConnell of Alpha Engineering, Inc. indicated that storm sewer facilities meeting Unified Sewerage Agency standards would be on site. The Productivity Analysis shows that URA #62 will require a small detention pond and both URAs #62 and #63 will require off-stream detention facilities.

Transportation

The transportation serviceability analysis in the Productivity Analysis provides cost estimates for transportation improvement needs within each URA. The estimate is based on needs for street, pedestrian, and bicycle systems as outlined by the Metro 2040 Growth Concept and local service providers. A sum of the capital costs includes the present worth of annual maintenance and preservations costs for a 20-year forecast. Capital, maintenance and preservation costs for streets include costs for bicycle and pedestrian systems. Transit systems were included as a relative service cost. Serving URAs #62 and #63 with transit service is rated in the high service cost range.

Fire, Police and Schools

Fire and police services will be provided by the governing jurisdictions. Urban reserve plans are required to include a provision in the plan to incorporate these areas into their service territories. Funding for fire and police services is provided through allocation of general funding or bond measures to construct capital improvements, most likely from property taxes. Additional property tax revenue will be generated by the increased residential and commercial development that will be constructed as URAs #62 and #63 develop.

In the letter dated October 6, 1998, from Thomas McConnell, the sites have excellent access to an elementary school just north of the sites on West Union Road and a new high school site just off Jacobson Road.

CONCLUSION: The Productivity Analysis provides consistent data for comparing alternative sites. The Productivity Analysis provides the most detailed, up-to-date and consistent basis for comparing public facilities and service costs to alternative sites throughout the region. This analysis estimates capacity expansion costs as well as connection costs. This analysis method addresses adequate capacity to serve the uses contemplated within a UGB expansion area over the planning period (years 1997-2017). The sites considered in detail (Phase 2 of the Productivity Analysis) rank as follows:

Public Facilities Cost Comparison (sorted from lowest to highest)

Urban Reserve	Total Acres ¹	Buildable Acres ¹	DU Equivalent (200' stream setback) ²	Costs					Total Public Facility Cost per DUE ³
				Wastewater	Water	Stormwater	Roads	Transit	
54	190.9	175.2	1,261	\$ 4,678,284	\$ 1,759,131	\$ 2,679,000	\$ 3,009,749	lower cost	\$ 9,613
55	473.0	318.9	2,335	\$ 12,537,051	\$ 2,050,364	\$ 3,141,000	\$ 5,759,930	lower cost	\$ 10,060
41	144.4	99.1	713	\$ 3,855,043	\$ 608,000	\$ 105,000	\$ 2,842,935	medium cost	\$ 10,389
*15	371.0	277.8	2,090	\$ 6,722,694	\$ 4,355,000	\$ 5,029,500	\$ 5,712,746	medium cost	\$ 10,440
53	204.2	147.5	1,157	\$ 5,964,731	\$ 1,439,708	\$ 2,175,000	\$ 3,076,838	lower cost	\$ 10,934
*55	353.0	198.1	2,166	\$ 11,725,806	\$ 4,330,273	\$ 2,394,000	\$ 6,237,425	lower cost	\$ 11,398
*5	1,422.0	766.4	7,411	\$ 36,546,537	\$ 19,015,000	\$ 9,444,000	\$ 27,276,260	lower cost	\$ 12,451
1	531.8	245.6	2,752	\$ 14,697,300	\$ 4,636,200	\$ 5,538,000	\$ 11,491,427	higher cost	\$ 13,214
*37	145.5	112.6	1,062	\$ 4,169,127	\$ 3,997,000	\$ 1,264,500	\$ 4,705,923	medium cost	\$ 13,316
24	173.5	143.3	1,115	\$ 7,718,391	\$ 3,268,160	\$ 1,152,000	\$ 2,885,013	medium cost	\$ 13,469
52	98.8	66.6	479	\$ 2,409,673	\$ 1,316,088	\$ 2,323,800	\$ 1,117,378	lower cost	\$ 14,952
65	116.0	78.4	2,780	\$ 19,143,300	\$ 10,408,000	\$ 6,406,050	\$ 7,794,780	lower cost	\$ 15,739
*4	123.4	59.4	427	\$ 3,401,763	\$ 1,000,000	\$ 1,152,000	\$ 1,366,751	lower cost	\$ 16,194
25	1,047.6	535.9	4,344	\$ 26,309,888	\$ 13,049,500	\$ 6,972,000	\$ 24,879,790	medium cost	\$ 16,392
61	28.4	16.4	150	\$ 959,940	\$ 667,600	\$ 885,000	\$ -	higher cost	\$ 16,748
64	191.3	126.8	1,145	\$ 7,459,500	\$ 3,966,000	\$ 2,758,500	\$ 5,236,401	higher cost	\$ 16,960
18	98.5	67.6	487	\$ 4,711,500	\$ 432,000	\$ 1,264,500	\$ 1,856,111	medium cost	\$ 16,978
*11	464.2	157.7	1,442	\$ 11,909,058	\$ 3,858,000	\$ 4,525,800	\$ 5,371,573	medium cost	\$ 17,797
49	261.6	174.9	1,259	\$ 10,417,500	\$ 5,831,000	\$ 3,598,500	\$ 2,662,235	medium cost	\$ 17,872
42	249.6	170.1	1,556	\$ 12,741,600	\$ 5,894,100	\$ 2,785,800	\$ 6,429,311	medium cost	\$ 17,901
*48	218.4	155.3	1,118	\$ 8,229,750	\$ 4,576,000	\$ 3,196,500	\$ 4,786,739	medium cost	\$ 18,591
*14	307.2	141.0	1,206	\$ 11,023,998	\$ 3,485,000	\$ 4,130,400	\$ 4,269,752	medium cost	\$ 18,988
*44	238.1	152.9	1,399	\$ 11,978,850	\$ 5,524,500	\$ 3,229,800	\$ 6,740,402	medium cost	\$ 19,643
51	93.6	51.1	368	\$ 3,001,412	\$ 891,157	\$ 2,508,000	\$ 895,290	lower cost	\$ 19,826
31	736.8	460.2	4,015	\$ 28,360,035	\$ 12,355,500	\$ 5,298,000	\$ 34,828,744	medium cost	\$ 20,137
22	337.3	150.0	1,080	\$ 9,791,400	\$ 5,764,000	\$ 2,901,000	\$ 4,831,573	medium cost	\$ 21,558
*33	43.7	22.5	269	\$ 1,211,700	\$ 1,242,375	\$ 1,152,000	\$ 2,255,487	medium cost	\$ 21,800
17	189.3	137.8	992	\$ 8,180,400	\$ 5,402,160	\$ 3,901,500	\$ 4,309,966	medium cost	\$ 21,974
30	190.3	110.1	927	\$ 6,925,275	\$ 5,792,000	\$ 3,337,800	\$ 4,523,835	medium cost	\$ 22,191
*45	464.2	280.4	2,019	\$ 18,465,000	\$ 13,017,000	\$ 4,720,500	\$ 11,049,925	medium cost	\$ 23,408
*41	278.8	202.0	1,454	\$ 17,517,777	\$ 7,055,000	\$ 4,654,500	\$ 4,857,321	medium cost	\$ 23,435
29	190.6	94.3	679	\$ 4,365,900	\$ 5,355,250	\$ 2,341,500	\$ 4,330,925	higher cost	\$ 24,153
34	749.1	308.9	2,664	\$ 20,415,002	\$ 10,741,325	\$ 5,818,200	\$ 35,200,510	medium cost	\$ 27,092
33	294.7	149.4	1,084	\$ 8,725,599	\$ 6,060,750	\$ 3,955,500	\$ 10,714,538	medium cost	\$ 27,176
23	22.9	16.2	117	\$ 1,261,209	\$ 360,000	\$ 1,264,500	\$ 302,705	medium cost	\$ 27,258
62	8.4	7.8	324	\$ 3,303,891	\$ 1,436,600	\$ 2,145,000	\$ 2,708,555	higher cost	\$ 29,656
32	87.3	69.0	497	\$ 2,582,901	\$ 1,983,000	\$ 3,006,600	\$ 7,761,238	medium cost	\$ 30,881
70	35.2	29.8	163	\$ 864,600	\$ 459,000	\$ 1,565,550	\$ 2,155,707	higher cost	\$ 31,014
*47	82.0	57.2	412	\$ 3,183,750	\$ 4,996,000	\$ 1,152,000	\$ 4,715,449	medium cost	\$ 34,125
*35	72.2	22.0	233	\$ 1,490,400	\$ 3,299,850	\$ 1,303,200	\$ 2,897,380	medium cost	\$ 38,658
63	10.5	7.3	27	\$ 588,966	\$ 1,798,000	\$ 105,000	\$ 221,107	higher cost	\$ 42,921
67	319.2	137.0	749	\$ 9,189,450	\$ 5,556,500	\$ 4,855,200	\$ 12,643,287	higher cost	\$ 43,068
68	64.0	18.5	101	\$ 1,611,000	\$ 1,215,000	\$ 1,303,200	\$ 1,520,898	higher cost	\$ 55,965
*43	10.2	7.2	52	\$ 2,565,150	\$ 144,500	\$ 207,375	\$ 287,930	medium cost	\$ 62,001
69	11.9	7.9	43	\$ 339,000	\$ 625,500	\$ 1,303,200	\$ 568,683	higher cost	\$ 65,761
*36	33.1	8.8	48	\$ 1,138,413	\$ 719,200	\$ 1,168,800	\$ 240,181	medium cost	\$ 67,874
*34	7.4	2.3	13	\$ 51,660	\$ 136,250	\$ 885,000	\$ 187,557	medium cost	\$ 98,455
3	22.2	4.8	26	\$ 783,000	\$ 2,423,000	\$ 847,200	\$ 88,816	higher cost	\$ 158,833
*39	20.0	19.9	0	\$ 2,630,957	\$ 1,188,000	\$ 105,000	\$ -	medium cost	\$ -

Source: Metro Urban Reserve Productivity Analysis (September 1998); * first tier urban reserve

¹ Total acres and buildable acres reflect changes to urban reserve areas #5, #15, #39, #55 (inside and outside Metro boundary), #62 & #65.

² DUE = estimated dwelling units (EDUs) per URA + employment (converted to EDU equivalents) per URA.

³ Total cost per DUE does not reflect boundary changes to urban reserve areas #5, #15, #39, #55, #62 & #65. Not enough information is available to estimate whether a significant change in cost would occur, so it is assumed that the added land would roughly cost the same to service as the original boundary.

URAs #62 and #63 rank 36th and 41st most costly as compared with all other studied sites according to the estimate prepared for the Productivity Analysis.

The proponent has provided additional analysis based on higher projected densities, which results in lower unit costs for servicing these URAs. In the urban reserve plan submitted for URA #62 and #63 the proponent assigns a proportional share of the total serviceability costs to the area of URA #62 included in the concept plan at the projected densities that results in a DUE cost for URA #62 of \$12,792.

URA #63 is assumed to develop at a minimum of 18 dwelling units per acre. Calculation of buildable acres requires a reduction in gross acres of 25 percent (consistent with the Productivity Analysis), to equal 7.87 acres. At a density of 18 units per acre, URA #63 yields a total of 142 dwelling units. The total serviceability costs for URA #63 are \$2,713,073 divided by 142 DUEs for a cost of \$19,106 per DUE.

The revised DUE costs presented by the proponent use density targets based on a 50-foot buffer along the riparian resource that bi-sects the site. The Productivity Analysis uses a 200-foot buffer in the analysis that most likely would increase the DUE costs. Based on the proponent's lack of natural resource data presented the 50-foot buffer and the density targets can not be assumed to be accurate.

Factor 4: Maximum efficiency of land uses within and on the fringe of the existing urban area. An evaluation of this factor shall be based on at least the following:

(A) The subject area can be developed with features of an efficient urban growth form including residential and employment densities capable of supporting transit service; residential and employment development patterns capable of encouraging pedestrian, bicycle, and transit use; and the ability to provide for a mix of land uses to meet the needs of residents and employees. If it can be shown that the above factors of compact form can be accommodated more readily in one area than others, the area shall be more favorably considered.

Staff Analysis

This factor has similarities to the discussion under Factors 1 and 2 regarding "need." A full discussion of housing need is found in the Housing Needs Analysis and a summary is located in the Urban Growth Boundary Assessment of Need. The report indicates that even at housing densities exceeding historical trends and considering an aggressive rate of infill and development (28.5 percent), the capacity of land inside the existing UGB is about 80 percent of the 20-year need. This leaves 32,370 dwelling units to be accommodated outside the current UGB. In addition, the maximum efficiency of land uses within the urban area has been specifically addressed by the Functional Plan, Title 1 (Requirements for Housing and Employment), which requires the 24 cities and 3 counties to increase the density of residential development within the UGB. Table 1 of the Functional Plan sets targets for the 24 cities and 3 counties to meet for housing and employment units within the UGB for the years 1994 to 2017. As compliance with the Functional Plan is not required until February 1999, its impact on local housing densities is not yet known. However, the potential impact of Title 1 was taken into account in estimating the current capacity of the UGB as required by ORS 197.296.

State statute, ORS 197.299, requires that the Metro UGB be amended to include one-half the estimated land needed for a 20-year land supply by December 1998. The Urban Growth Report and the Addendum to the Urban Growth Report indicate that there is a shortfall of land to accommodate dwelling units and jobs. Since the impact of Title 1 of the Functional Plan is not yet known, the determination of need relies on data provided by the Urban Growth Report and subsequent Addendum.

URA #62 is adjacent to an Industrial Area and #63 is adjacent to URA #62. URAs #62 and #63 are capable of being developed with features that comply with the 2040 Growth Concept. Maximum efficiency can be accomplished through compact development at 2040 design type densities (minimum 10 units per net developable acre) with a mix of uses - residential, retail, commercial, recreational, etc. - and opportunities for multi-modal transportation such as walking, bicycling, transit and driving. Metro Code Section 3.01.015(f) requires that URAs meet the planning requirements of the Functional Plan that applies to areas inside the UGB.

URAs #62 and #63 together consist of approximately 18 acres. The Productivity Analysis estimates for URA #62 that 87 dwelling units and 47 jobs (depending on constrained land assumptions) could be accommodated. For URA #63 the revised estimate is 72 dwelling units and 38 jobs. Development at these numbers would result in an average density of 10 dwelling units or more per net buildable acre. This density will be sufficient to support transit service, as it is comparable with the actual density of much of the area within the current UGB that is served by transit.

Factor 4: continued

(B) The proposed UGB amendment will facilitate achieving an efficient urban growth form on adjacent urban land, consistent with local comprehensive plan policies and regional functional plans, by assisting with achieving residential and employment densities capable of supporting transit service; supporting the evolution of residential and employment development patterns capable of encouraging pedestrian, bicycle, and transit use; and improving the likelihood of realizing a mix of land uses to meet the needs of residents and employees.

Staff Analysis

Urban-type development of URAs #62 and #63 will facilitate efficient urban growth inside the UGB in several ways. Street connectivity will be improved by extending a grid street pattern. Enhanced street connectivity will provide better access for fire and police protection. As the area urbanizes, the local street network will be brought up to urban standards with improvements like curbs and gutters, sidewalks, handicapped ramps and bike lanes. Extension and looping of water lines within URAs #62 and #63, and in some cases within the existing UGB, will enhance water quality by eliminating dead end lines and increasing pressure available for fire flow purposes.

CONCLUSION: The Productivity Analysis provides the most up-to-date and consistent comparison of the efficiency of alternative sites. URAs #62 and #63 were ranked 1st and 2nd respectively. The following listing of efficient urban growth is ranked from most efficient to least efficient:

Productivity Index Comparison
(sorted by highest productivity to lowest)

Urban Reserve	Total Acres ¹	Buildable Acres ²	Dwelling Unit Capacity	Job Capacity	Productivity/Efficiency Rating
62	8.4	7.8	87	47	30.5***
63	10.5	7.3	71	38	19.9
*37	145.5	112.6	995	159	17.5
*15	371.0	277.8	2,396	645	17.2
55	473.0	318.9	2,509	1,799	16.5
54	190.9	175.2	1,108	369	15.9
24	173.5	143.3	634	1,155	15.4
42	249.6	170.1	0	3,734	15.0
*33	43.7	22.5	220	118	14.8
64	191.3	126.8	1,039	254	14.4
*44	238.1	152.9	0	3,357	14.1
32	87.3	69.0	436	145	13.7
65	116.0	78.4	704	180	13.7
53	204.2	147.5	997	385	13.6
31	736.8	460.2	3,352	1,590	13.1
*5	1,422.0	766.4	6,210	2,998	13.0
61	28.4	16.4	0	360	12.7
17	189.3	137.8	871	290	12.6
*41	278.8	202.0	1,277	426	12.5
1	531.8	245.6	2,267	1,163	12.4
23	22.9	16.2	103	34	12.3
*48	218.4	155.3	982	327	12.3
*43	10.2	7.2	45	15	12.2
*47	82.0	57.2	361	120	12.0
18	98.5	67.6	427	142	11.9
41	144.4	99.1	626	209	11.9
30	190.3	110.1	834	224	11.7
49	261.6	174.9	1,106	369	11.6
52	98.8	66.6	421	140	11.6
**55	353.0	198.1	1,493	457	11.4
70	35.2	29.8	143	47	11.1
*45	464.2	280.4	1,772	591	10.4
25	1,047.6	535.9	2,939	3,373	10.0
*14	307.2	141.0	1,062	347	9.4
51	93.6	51.1	323	108	9.4
33	294.7	149.4	956	308	8.8
69	11.9	7.9	38	12	8.7
29	190.6	94.3	596	199	8.5
34	749.1	308.9	1,891	1,855	8.5
*4	123.4	59.4	375	125	8.3
22	337.3	150.0	949	316	7.7
*35	72.2	22.0	223	23	7.7
*11	464.2	157.7	0	3,461	7.5
67	319.2	137.0	658	216	5.6
*34	7.4	2.3	11	4	4.1
68	64.0	18.5	89	29	3.8
36	33.1	8.8	42	14	3.5
3	22.2	4.8	23	8	2.8
*39	20.0	19.9	-	-	-

Source: Productivity Analysis (9/98)

*first tier; **first tier inside Metro Boundary

***Adjusted to reflect additional information received.

¹ Total acres and buildable acres reflect changes to urban reserve areas #5, #15, #39, #55 (inside and outside the Metro boundary), #62 & #65.

² Calculated using 200-foot riparian buffer widths.

The proponent has provided additional analysis based on higher projected densities, which results in lower unit costs for servicing these URAs. In the urban reserve plan submitted for URAs #62 and #63, the proponent assigns a proportional share of the total serviceability costs to the area of URA #62 included in the concept plan at the projected densities that results in a DUE cost for URA #62 of \$12,792.

URA #63 is assumed to develop at a minimum of 18 dwelling units per acre. Calculation of buildable acres requires a reduction in gross acres of 25 percent (consistent with the Productivity Analysis), to equal 7.87 acres. At a density of 18 units per acre, URA #63 yields a total of 142 dwelling units. The total serviceability costs for URA #63 are \$2,713,073 divided by 142 DUEs for a cost of \$19,106 per DUE.

The revised DUE costs presented by the proponent use density targets based on a 50-foot buffer along the riparian resource that bisects the site. The Productivity Analysis uses a 200-foot buffer in the analysis that most likely would increase the DUE costs. Based on the proponent's lack of natural resource data presented, the 50-foot buffer and the density targets cannot be assumed to be accurate.

Factor 5: Environmental, energy, economic and social consequences. An evaluation of this factor shall be based upon consideration of at least the following:

- (A) If the subject property contains any resources or hazards subject to special protection identified in the local comprehensive plan and implemented by appropriate land use regulations, findings shall address how urbanization is likely to occur in a manner consistent with these regulations.**

Staff Analysis

URAs #62 and #63 are located in the McKay Creek Watershed in the Tualatin River Basin. Waible Creek, a tributary flows between the two URAs and is subject to the protection provided by Title 3 of the Functional Plan. Development will occur in a manner consistent with these regulations. Portions of the edge of URA #62 abutting the southern edge of Highway 26 are identified as being in the FEMA 100-year floodplain. All development, excavation and fill in the floodplain will be subject to Title 3 Performance Standards. Title 3 currently addresses only water quality and flood management. Fish and Wildlife Conservation will be addressed through Metro's regional Goal 5 analysis over the next 18 months.

In addition, Metro Council, through Ordinance No. 97-2562B has provided for exceptions to the density requirements of the Functional Plan if natural areas require permanent protection from development.

CONCLUSION: There is no evidence that there are significant differences from site to site when considering this subfactor.

Factor 5: continued

- (B) Complementary and adverse economic impacts shall be identified through review of a regional economic opportunity analysis, if one has been completed. If there is no regional economic opportunity analysis, one may be completed for the subject land.**

Staff Analysis

A regional economic opportunity analysis has not been completed as of the date of this report. However, there are two recent documents, which do provide information about the regional economy. One is *Regional Connections: A Work In Progress* (1998), completed by the Institute for Portland Metropolitan Studies and the Multnomah/Washington County Regional Strategies Board. This study shows that during the same time period that the compact urban form was being implemented, the region surpassed Pittsburgh, Baltimore, Indianapolis, Kansas City and Cincinnati in the creation of manufacturing jobs. The region transformed itself from a 35 percent value-added economy to 60 percent during the period from the 1980's to the 1990's. The study also shows that educational attainment and wages have grown much faster than the state or national averages. The report also documents how trade, drives the growth of the region. The report concludes that electronics/software, metals/machinery, professional services, recreation-related services, transportation/distribution, lumber and wood products, nursery products and specialty foods are, at least preliminarily, economic sectors which are likely to continue to contribute to the economy of the region.

In addition, another study, *Action Plan for Keeping Agriculture Viable in the Portland Metro Area*, by the Agri-Business Council of Oregon (1997), provides information about the agricultural sector of the economy and issues and concerns of the industry. The study concludes that: "A certain critical mass of farming, in contiguous blocks of land or operations, is essential to achieve economies through bulk purchases, distribution and control of services costs." The report encourages preserving farmland at the urban edge as one way to help ensure this part of the region's and State's economy remains viable.

Based on estimates from the Productivity Analysis, URA #62 is estimated to be able to accommodate at least 47 jobs and URA #63 is estimated to be able to accommodate at least 38 jobs.

CONCLUSION: A regional economic opportunity analysis has not been prepared. However, there is data concerning subregional jobs/housing balance. This data is considered in subfactor 5(C), below.

Factor 5: continued

(C) The long-term environmental, energy, economic, and social consequences resulting from the use at the proposed site. Adverse impacts shall not be significantly more adverse than would typically result from the needed lands being located in other areas requiring an amendment of the UGB.

Staff Analysis

Environmental

General

Interviews with representatives from the Oregon Department of Fish and Wildlife (ODFW) and the US Fish and Wildlife Service provided the technical basis for the fish and wildlife section

Two critical habitats that ODFW have expressed concern about are: Willamette Valley Grasslands and Oak Woodlands. These habitat types are their highest priority for protection and restoration. These habitat types, or remnants of them, exist in some of the URAs in the

Metro region. The best fish and wildlife habitats have a mix of habitat types (i.e., wetlands, forest, open space, streams and floodplains). The more variety, the more fish and wildlife populations can be retained or enhanced. Amphibians and reptiles are perhaps the most sensitive to loss of habitat variety. These animals do not need just wetlands and ponds, but they also need upland habitat to lay eggs and hibernate for the winter. Retention of these species requires riparian vegetation, but also nearby (within a one-half mile) upland habitat associated with riparian areas.

As development occurs, impervious surfaces increase as a percent of total land. This increases the amount of pollutants (such as soil, pesticides, herbicides, fertilizers, oils and heavy metals) carried in stormwater. In addition, the stream hydrology is affected by more and faster moving water that can cause stream bank erosion and flooding of adjacent lands. These impacts must be addressed in the urban reserve planning process. Some watersheds (i.e., the Tualatin Basin) have very strict stormwater management requirements. Metro currently does not currently address stormwater management, though it has been identified, as a future issue to be addressed.

Protection and enhancement of existing riparian and floodplain vegetation is crucial if water quality is to be maintained or enhanced because of its direct and multiple water quality benefits. Title 3 will apply to all areas brought into the UGB. It does not, however, address stormwater management, which is a significant factor for increasing water pollution and flooding.

Fish and Wildlife

The corner stand of trees in the northern portion of URA #62 has the potential for grassland restoration, which would add to the complexity of the habitat and enhance its value. Currently, hawks and owls use the trees for nesting and perching. The trees are an important component of the open space mix, and oak trees in particular are an oasis for wildlife. This upland habitat is an important habitat component, along with streams and wetlands. For example, red-legged frogs hibernate in these upland areas in the winter.

Water Quality and Quantity

Waible Creek is a tributary to McKay Creek, which is a Tualatin River tributary. It will require protection measures to ensure that future urbanization does not further degrade current water quality. The Tualatin River has strict controls for phosphorus pollution, cause primarily for soil erosion during construction and stormwater discharge.

Natural Hazards

Various analyses have been conducted for natural hazards such as earthquakes, landslides and floods to understand the risks they create for the built environment. Risk may be reduced by avoiding or modifying the land in hazardous areas or by constructing buildings and infrastructures to withstand the effects of natural hazards.

The Regional Earthquake Hazard Mapping and Preparedness program initiated by Oregon Department of Geology and Mineral Industries (DOGAMI) and Metro in 1992 identified: earthquake hazards; the people, structures and systems at risk from natural hazards to support local disaster preparedness efforts; and proposed natural hazard mitigation programs.

The earthquake hazard maps are interpretation of local geologic hazards in relation to ground motion amplification by a "soft" soil column; liquefaction of water-saturated sand, creating areas of "quicksand" or liquefiable sediment; and landslides triggered by the earthquake shaking of high slope instability areas. These three maps were combined to create the Relative

Earthquake Hazard Map (REHM) of the Metro region. Separate relative earthquake hazards maps of these hazards showing their level of severity at any given site were also produced. The relative earthquake hazard maps are reproductions of the overall earthquake hazard at locations depicted on the maps. This interpretation of the hazard is based on the contribution of geologic conditions to the overall hazard. These data and their analysis are no substitute for site specific data collection and analysis. The reference maps were published by DOGAMI (GMS-79 Earthquake Hazard Maps of the Portland Quadrangle, Multnomah and Washington Counties). The most direct applications of the REHM is for siting of facilities and use in the determination of whether site specific seismic hazard investigation should be required for any of the eight land use classifications.

Mitigation measures are currently being developed by Metro staff and the Regional Natural Hazards Technical Advisory Committee to address the impacts of natural hazards on people and structures in hazard prone areas. Mitigation measures will be designed to provide recommendations to reduce risk and may include subdivision regulations, structural requirements, building retrofit recommendations, siting and management requirements for public facilities and risk evaluation techniques.

Energy

Statewide guidelines for Goal 6, Energy, states: "Priority consideration in land use planning should be given to methods of analysis and implementation measures that will assure achievement of maximum efficiency in energy utilization." Overall energy consumed as a result of adding this area to the UGB is likely to increase as a result of construction, increases in the number of automobiles, burning of fossil fuels for heating and cooling of homes and businesses and electricity consumption.

The cost of not amending the UGB to include URAs or amending the UGB in another area more distant from the current area would potentially be greater in terms of energy loss and consumption. URAs #62 and #63 are proximate to the current City of Hillsboro boundaries, which make logical extension of roads to serve this area practical. Planned development will increase the density of the area making existing and proposed street system more efficient.

Economic

All of URA #62 and #63 is zoned EFU. The URAs are currently in rural residential use with some home-based occupations.

Amendments to the UGB and subsequent annexation to Hillsboro will require extension of urban services such as sanitary sewer and water service to permit urban development. Extension of infrastructure and residential development will increase the assessed value of properties in this area and increase the tax base. Urbanization, which includes intensification of residential and commercial development will increase the per acre value of land and improvements within these URAs. Once annexation and development occur, all special districts serving this area will also receive an increase in their tax bases.

According to an action plan developed for *Keeping Agriculture Viable in the Portland Area*, farms tend to specialize in higher value crops that can be cultivated on smaller parcels and yield a higher income per acre ratio than the rest of the state. Examples of high value farm products are nursery products, greenhouse products, fruits, vegetables and nuts. The Metro region produces 25.8 percent of the Gross State Product (GSP) with only 1.8 percent of the

state's agricultural land. Overall, agricultural products contribute 2.5 percent of the GSP in the Portland region (\$325 million in production/\$518 million in processing). Statewide GSP break down as follows: high tech – 7 percent, manufacturing – 6 percent, construction – 6 percent and services – 26 percent.

All of URAs #62 and #63 are zoned for EFU. There are no agricultural uses currently on these URAs. The majority of the URAs are made up of class 2 soils, with small portions of class 1 and 4 soils. Class 1 is the most valuable and productive soil type for farming, located within these URAs.

Social

The social consequences of expanding the UGB have both positive and negative impacts for those living both inside the current UGB and in the URA. Through required urban reserve planning, the area can be developed in an efficient manner with the amenities of an urban area. This would provide an opportunity for mixed-use development with a wide array of services for local residents. The closer proximity to services, jobs, etc. could result in shorter trips for local residents, and will provide opportunities for other modes of transportation such as transit, bicycling and walking. In addition, public facilities such as sanitary sewer will become available to existing homes in URAs #62 and #63. Inclusion of this area may also facilitate service availability to areas inside the UGB that are still on septic systems.

On the other hand, this type of urbanization will affect the rural character of the area. This is a negative impact for those who cherish such a lifestyle and rural environment. Residents inside the UGB may also feel a loss from urbanization of rural lands outside the current UGB. Those currently farming may feel pressure from increased urbanization to develop their lands or curtail farming activities. These social costs must be weighed against the costs of not providing enough land to accommodate needed housing and jobs.

The social cost of not expanding the UGB in areas close to existing developed areas is great. Loss of agricultural production, increased costs of services, increased vehicle miles traveled and pollution result from pushing growth outside of the areas that are contiguous to the current UGB. Public involvement efforts through mail-in surveys, phone surveys, community meetings, etc. reveal that easy access to regional amenities, open space, protection of the natural environment are some of the qualities important to livability. The social impacts of urbanization of URAs #62 and #63 are not more adverse than would occur in other URAs.

Affordable Housing

As noted above, the social aspects of not providing needed housing could be high for low- to moderate-income households. Unfulfilled demand for housing (by not taking additional lands into the UGB) will increase the price of available housing, encourage overcrowding of existing dwelling units and may prohibit the lowest income households from obtaining housing. The available choices of housing may also become restricted if there is not enough land available to meet demand for various products.

As noted in the Housing Needs Analysis, "Since 1990, there has been a growing concern on the issue of housing affordability in the Portland metropolitan region. This concern continues to be precipitated by a number of reasons which include: a widening gap between household income and the cost of housing; an increase in population and homelessness; rising land costs and the lack of available land." Metro has continued with this concern by designating an Affordable Housing Technical Advisory Committee which is beginning to look at possible

solutions. One direct solution is making additional land available, particularly as Metro Code requires that the net residential development density in urban reserves brought into the UGB be an average of 10 dwelling units per acre. This provision will help ensure that a range of housing types are made available and as concluded by the Housing Needs Analysis, a good deal of affordable housing can be made available by having smaller homes on smaller lots. The minimum density required in urban reserves plays a beginning part in delivering more affordable housing and addressing the social consequences of UGB management policies. URA #62 is estimated by the Productivity Analysis to provide 87 dwelling units and the revised estimate for URA #63 is estimated to provide 72 dwelling units. Together, these areas would address less than 1 percent of the need in 1998 (approximately 16,000 dwelling units).

Archeological Sites

The social factors of disturbing archeological resources by urbanizing URAs #62 and #63 could be significant if Federal laws protecting disturbance were not observed. Federal laws prohibit the disturbance of Native American burial sites. Approximately 6 percent of the surface area of the State have been formally surveyed to determine the presence of Native American artifacts. The number of existing surveys available for the Portland basin is very small.

Archeological resources are protected under Statewide Planning Goal 5 and Federal law, which will be addressed through the urban reserve planning process. Lee Gilson, State Archeologist, from the State Historic Preservation Office (SHPO) reviewed URAs #62 and #63 and has determined that no specific resources are located within these areas, but two sites are located east of these reserves. SHPO has records of completed survey work, excavations, test pits and known archeological resources located throughout the state. Based on known settlement patterns and disturbance that have already occurred in this area due to farming and residential development, it is unlikely that any additional resources exist. If, however, archeological resources were encountered during construction, it would be a violation of Federal law to disturb these sites.

Historic Sites

There are no specific historic resources in URAs #62 and #63 that are listed on the State Register or the National Register of Historic places, according to SHPO. Impacts on non-surveyed historic resources are best addressed by the local jurisdiction through Goal 5 survey, inventory and protection ordinances. In the event historic buildings are identified in these areas, it is possible to rehabilitate the structure for residential use or a new use. Re-use and rehabilitation options are often financially more attractive options to property owners because of high demolition costs.

Aggregate Resources

Aggregate resources are important for road building and general construction. In general, due to the finite nature of these resources and a limited supply in the metro area, the price of these resources is expected to increase. Aggregate uses are temporary in nature due to the limited supply of the resource on a site. It is often economical to use the resources as close to the mine as possible because of the resource's bulky nature and high transport costs. The relationship between aggregate resources, construction activities and costs means it is important to preserve these resources. These sites have the potential to be recycled and reused for recreational purposes, landfills and open space after reclamation.

Initial information on mining sites was obtained from DOGAMI's 1990 database, Mineral Information Layer of Oregon by County (MILOC). This database was used only as a preliminary indicator of mining locations, as the locational accuracy of MILOC is very rough and

much of the information contained within the records is outdated. Using MILOC as a first screen, staff reviewed September 1997 aerial photographs for evidence of mining activity. Areas where mines are visible are listed below. For all sites listed, activity was assumed to be ongoing, as no reclamation was apparent of the photograph. County assessor databases on Metro's RLIS geographic information system were queried to produce ownership and acreage information for each site. All acreage's are approximate.

There is no mining activity occurring within one mile of URAs #62 and #63.

CONCLUSION: State planning guidelines indicate several ways to address energy efficiency. Some can be addressed through construction methods and would apply to all sites equally. In addition, there are guidelines specifically addressing land use that state: "Land use planning should, to the maximum extent possible, seek to recycle and re-use vacant land and those uses which are not energy efficient. Land use planning should, to the maximum extent possible, combine increasing density gradients along high capacity transportation corridors to achieve greater energy efficiency." These are the precepts used in the 2040 Growth Concept, through density minimums and application of Metro 2040 design types, and expected to be applied in areas added to the UGB. There is no evidence suggesting that the alternative sites being considered for inclusion within the UGB are substantially different when considered for energy efficiency.

With regard to archeological or historic resources, there is no evidence to suggest that any one of the alternative sites will be more or less impacted by urbanization than any other. Resources may be found and existing State or Federal law that are designed to address resource protection may require actions. Accordingly, there is no evidence suggesting that the alternative sites being considered for inclusion within the UGB are substantially different when considered for archeological or historic resources.

There are other issues that have been consistently raised in public testimony concerning the area. These issues have environmental, economic and social consequences. Some are the same as those discussed above (e.g., Steelhead), others are not but may be addressed in other Metro Code sections (such as roads). However, these issues have been consistently identified in public testimony as major negative impacts likely to affect the subject area. For this reason, they are included in the consideration of this portion of the Metro Code.

The list of negative impacts, identified on the following table, includes roads, stormwater, Steelhead, flooding, wildlife and farm soils. The word "roads" in this portion of this staff report means inadequate existing roads to accommodate expected growth and no evidence of funding sources available now or in the foreseeable future to address the shortfall. The word "schools" means development of the urban reserve area is likely to result in more students than current school capacities and no evidence of where funding for needed school sites or buildings will come from. The word "rural" refers to losing the lower density development and lifestyle of the area or impacting the surrounding area through an abrupt change from one development type (rural) to another (urban). The word "stormwater" means surface water runoff at such high volumes, quantities, temperature, sedimentation or chemical contamination that it currently does not meet water quality standards. "Stormwater" also means that with current regulations, additional future development will reduce the quality of existing bodies of water that may currently meet standards such that the resulting water may not meet water quality standards. The word "Steelhead" is meant to describe the presence of the salmonid that is listed as a threatened species in the subject urban reserve area. The word "flooding" denotes an area that is subject to flooding or is likely, under current regulations, to substantially contribute to flooding

or additional flooding to adjacent stream or river segments. The word "wildlife" means the presence of wildlife and wildlife habitat that is likely to be eliminated if current regulations remain the same and the area is included in the UGB. The term "farm soils" represents lands with significant area with productive agricultural soils and/or areas with active agricultural activities.

In addition to the negative impacts, there are positive impacts of growth. These include providing affordable housing and improving the jobs/housing balance. The term "affordable housing" in this portion of the staff report means the provision of additional land and the production of homes for sale and rent that will increase the supply of affordable housing in the area. The term "job/housing balance" means providing land for development of jobs in areas with few jobs and housing in areas with little housing. This balances land uses in an area and reduces the impact on major arterials and highways. In the situation where an area has few jobs, it also provides for a more diverse tax base to support needed local public facilities and services.

Using these issue components, each site has been assessed as either having impacts of urbanizing that can be mitigated so that there are no more adverse impacts than the alternative sites, or having impacts that are so significant that some or all of the impacts cannot be mitigated. Based on all evidence in the record, there is no basis to conclude that any of the contending urban reserves have impacts that cannot be mitigated.

Urban Reserve	Negative Impacts Needing Mitigation	Positive Impacts
4	Roads, schools, stormwater, Steelhead, flooding	Affordable housing
5	Roads, schools, rural, stormwater, Steelhead, flooding, wildlife	Affordable housing
14	Roads, schools, rural, stormwater, Steelhead, wildlife	Affordable housing
15	Roads, schools, rural, stormwater, Steelhead, wildlife	Affordable housing
31	Roads, schools, rural, stormwater, wildlife	Affordable housing
32	Roads, schools, rural, stormwater, wildlife	Affordable housing
33	Roads, schools, rural, stormwater, wildlife	Affordable housing
34	Roads, schools, rural, stormwater, wildlife	Jobs/housing balance
39	Roads, rural, stormwater, farm soils	School site
41	Roads, schools, rural, stormwater, farm soils	Affordable housing, Jobs/housing balance
42	Roads, schools, rural, stormwater	Affordable housing
43	Roads, schools, rural, stormwater	Affordable housing
47	Roads, schools, rural, stormwater	Affordable housing
45	Roads, schools, rural, stormwater	Affordable housing
51	Roads, schools, rural, stormwater	Affordable housing
52	Roads, schools, rural, stormwater	Affordable housing
53	Roads, schools, rural, stormwater, farm soils	Jobs/housing balance
54	Roads, schools, rural, stormwater, farm soils	Jobs/housing balance
55 inside Metro Boundary	Roads, schools, rural, stormwater,	Jobs/housing balance
55 outside Metro Boundary	Roads, schools, rural, stormwater, farm soils	Affordable housing, jobs/housing balance

Urban Reserve	Negative Impacts Needing Mitigation	Positive Impacts
62	Roads, schools, rural, stormwater, farm soils	Affordable housing, jobs/housing balance
63	Roads, schools, rural, stormwater, farm soils	Affordable housing, jobs/housing balance
65	Roads, schools, rural, stormwater, farm soils	Affordable housing, jobs/housing balance

Note: Includes only URAs in last screening and covered by staff reports.
Source: Metro Growth Management Services Department.

In further response to impacts, the Metro Council could consider requirements to address these issues. These requirements could take the form of amendments to the Functional Plan, Title 11 or Conditions of approval attached to UGB approvals. Requirements to mitigate impacts could include the following:

1. **General.** Adoption of an urban comprehensive plan designation or urban zoning for the subject area shall not preclude additional future Metro conditions or requirements that may be identified as a result of future analyses.
2. **Roads.** Adoption of an urban comprehensive plan designation or urban zoning for the subject area shall be approved by the city or county only after a transportation funding plan that addresses existing and future needed road improvements identified in the urban reserve plan has been approved for the area.
3. **Schools.** Adoption of an urban comprehensive plan designation or urban zoning for the subject area shall be approved by the city or county only after a school site funding plan that addresses future needed school sites identified in the urban reserve plan has been approved for the area.
4. **Rural.** Adoption of an urban comprehensive plan designation or urban zoning for the subject area shall be approved by the city or county only after a rural design plan is adopted for the area. The plan shall not reduce the anticipated 2040 densities of the urban reserve area. The rural design plan shall examine the opportunities for conservation of trees and native vegetation in strategic areas along roads or vistas to visually separate new urban development from remaining adjacent rural lands outside the urban reserve area.
5. **Stormwater.** Adoption of an urban comprehensive plan designation or urban zoning for the subject area shall be approved by the city or county only after a stormwater management plan has been adopted for the area. The stormwater plan shall address means of ensuring that the speed, temperature, sedimentation and chemical composition of stormwater runoff meets State and Federal water quality standards as development of the urban reserve area occurs. In addition, the city or county regulations shall require that the amount of stormwater runoff after completion of a development shall not be greater than the stormwater runoff before development.
6. **Flooding.** Adoption of an urban comprehensive plan designation or urban zoning for the subject area shall be approved by the city or county only after the city or county adopts a requirement for the subject area that the quantity of stormwater runoff after urban development of a site is no greater than the amount of stormwater runoff before urban development.

7. **Steelhead.** Adoption of an urban comprehensive plan designation or urban zoning for the subject area shall be approved by the city or county only after the city or county adopts a requirement for Title 3 setbacks from the top of bank of streams and wetlands, examines any potential impacts within 200 feet of the top of bank and addresses Federal requirements adopted pursuant to the Endangered Species Act. The requirement shall also obligate the development to include revegetation of the setback with native plants if the area does not already have native plants.
8. **Farm Soils.** This concern is addressed in Factors 6 and 7 of this report.

Factor 6: Retention of agricultural land. This factor shall be addressed through the following:

- (A) Prior to the designation of urban reserves, the following hierarchy shall be used for identifying priority sites for urban expansion to meet a demonstrated need for urban land:**
- (i) Expansion on rural lands excepted from Statewide Planning Goals 3 and 4 in adopted and acknowledge county comprehensive plans. Small amounts of rural resource land adjacent to or surrounded by those "exception lands" may be included with them to improve the efficiency of the boundary amendment. The smallest amount of resource land necessary to achieve improved efficiency shall be included;**
 - (ii) If there is not enough land as described in (i) above to meet demonstrated need, secondary or equivalent lands, as defined by the state, should be considered;**
 - (iii) If there is not enough land as described in either (i) or (ii) above, to meet demonstrated need, secondary agricultural resource lands, as defined by the state should be considered;**
 - (iv) If there is not enough land as described in either (i), (ii) or (iii) above, to meet demonstrated need, primary forest resource lands, as defined by the state, should be considered;**
 - (v) If there is not enough land as described in either (i), (ii), (iii) or (iv) above, to meet demonstrated need, primary agricultural lands, as defined by the state, may be considered.**

Staff Analysis

Metro Council adopted urban reserves on March 6, 1997, by Ordinance No. 96-655E (including URAs #62 and #63). As noted in the Metro Code, the above hierarchy is only to be used prior to adoption of urban reserves. The proposed amendment is wholly within the designated urban reserves. Alternatively, the designated urban reserves are not yet acknowledged by LCDC and are currently under appeal.

CONCLUSION: Urban Reserves have been designated and adopted by the Metro Council by Ordinance No. 96-655E. We assert that this requirement has been satisfied. Alternatively, given that the urban reserves have been appealed to the Land Use Board of Appeals, staff have assessed the retention of agricultural land for all contending sites based on the Factor 6 hierarchy. Exception land in these areas is not agricultural land and need not be retained to comply with Factor 6. The following is a ranking from least impact on farm and forest resource

lands (using percent of EFU zoning of total acres). The Metro Code also states that: "While all of the following Goal 14 factors must be addressed, the factors cannot be evaluated without reference to each other. Rigid separation of the factors ignores obvious overlaps." Accordingly, it is concluded that the Metro Code hierarchy states a priority, not an absolute and must be considered in relationship to the other factors. For URA #62, the rating was 14th and URA #63 was ranked 16th. Accordingly, URA #62 was not very highly rated when ranked against all other analyzed sites around the region. URA #63 would presumably be rated even lower for urbanization if the same methodology were applied as it is 100 percent EFU land. In order to complete this comparison, the following table ranks sites starting with those sites with the smallest percent of EFU land (therefore, the highest priority for inclusion within the UGB) and ending with those sites with the most amount of EFU land:

**Comparison of Exclusive Farm Use Acres
(sorted by lowest number of EFU to highest)**

URA #	Total Acres	EFU Acres	% EFU
*4	123.4	0	0%
*5	1,422.0	0	0%
*15	371.0	0	0%
17	189.3	0	0%
18	98.5	0	0%
22	337.3	0	0%
23	22.9	0	0%
24	173.5	0	0%
25	1,047.6	0	0%
29	190.6	0	0%
30	190.3	0	0%
34	749.1	0	0%
*35	72.2	0	0%
*36	33.1	0	0%
*37	145.5	0	0%
42	249.6	0	0%
*43	10.2	0	0%
*45	464.2	0	0%
*47	82.0	0	0%
*48	218.4	0	0%
49	261.6	0	0%
51	93.6	0	0%
61	28.4	0	0%
67	319.2	0	0%
68	64.0	0	0%
69	11.9	0	0%
70	35.2	0	0%
*33	43.7	0	0%
*34	7.4	0	0%
52	98.8	1.8	2%
64	191.3	16.7	9%
*11	464.2	63.0	14%
**55	353.0	48.0	14%
*14	307.2	42.6	14%
33	294.7	76.6	26%
41	144.4	68.7	48%
54	190.9	144.0	75%
55	473.0	366.0	77%
44	238.1	189.9	80%
*41	278.8	224.7	81%
31	736.8	639.6	87%
53	204.2	183.0	90%
32	87.3	79.9	92%
62	8.4	8.0	95%
65	116.0	112.0	97%
1	531.8	530.9	100%
3	22.2	22.2	100%
63	10.5	10.5	100%
*39	20.0	20.0	100%

Source: Metro Regional Land Information System (RLIS) database

*first tier

**first tier inside Metro boundary

Factor 6: continued

(B) After urban reserves are designated and adopted, consideration of Factor 6 shall be considered satisfied if the proposed amendment is wholly within an area designated as an urban reserve.

Staff Analysis

The proposed amendment is wholly within the area designated as urban reserve. Alternatively, see the analysis cited above.

Factor 6: continued

(C) After urban reserves are designated and adopted, a proposed amendment for land not wholly within an urban reserve must also demonstrate that the need cannot be satisfied within urban reserves.

Staff Analysis

This staff report presents information on lands wholly within URAs #62 (portion of reserve) and #63. Alternatively, see the analysis cited above.

CONCLUSION: Except for refinements to the urban reserve boundary, the site is wholly within a designated urban reserve. Alternatively, given the appeal of the urban reserve decision see the ratings above. The URAs were rated 21st and 22nd.

Factor 7: Compatibility of proposed urban development with nearby agricultural activities. The record shall include an analysis of the potential impact on nearby agricultural activities including the following:

- (i) A description of the number, location and types of agricultural activities occurring within one mile of the subject site;

Crop types were interpreted from a September 1997 aerial photograph, at a scale of 1" = 800'. Guidance for crop identification was received from the USDA Farm Service Agency of Clackamas/Multnomah County. This data has not been field checked, and errors may exist. EFU zoning was obtained from county records. Metro is required to base its analysis on this zoning that has been acknowledged by the State.

Summary of URA #62

Acres of EFU land in this URA.....	8
Percent (%) of URA which is EFU.....	100%
Acres of EFU within 1 Mile.....	1,551
Percent (%) of Total Acres within 1 Mile.....	65%

URA #62 EFU Lands by Crop Type

Generalized Crop Type	EFU Acres Inside of URA, By Crop Type	EFU Acres within 1 Mile of URA, by Crop Type	Percentage of EFU within 1 Mile, By Crop Type *
Nursery Stock	0	0	0%
Orchard	0	37	2%
Row Crops (includes corn, vineyards, cane berries)	0	0	0%
Vegetables	0	0	0%
Field Crops (includes grasses, grains, pastures)	0	1,433	92%
Unknown	0	1	0%
Unfarmed	8	80	6%

Summary of URA #63

Acres of EFU land in this URA.....	11
Percent (%) of URA which is EFU.....	100%
Acres of EFU within 1 Mile.....	1,649
Percent (%) of Total Acres within 1 Mile.....	70%

URA #63 EFU Lands by Crop Type

Generalized Crop Type	EFU Acres Inside of URA, by Crop Type	EFU Acres within 1 Mile of URA, By Crop Type	Percentage of EFU within 1 Mile, By Crop Type *
Nursery Stock	0	0	0%
Orchard	0	45	3%
Row Crops (includes corn, vineyards, cane berries)	0	0	0%
Vegetables	0	0	0%
Field Crops (includes grasses, grains, pastures)	0	1,461	89%
Unknown	0	1	0%
Unfarmed	11	141	9%

Potential impacts on EFU lands from urbanization on URAs #62 and #63:

A number of factors influence whether, and the degree to which urban development impacts agricultural practices on adjacent or nearby EFU land. Representatives of the Washington County and Multnomah/Clackamas County offices of the USDA Farm Service Agency worked with Metro staff to identify the most significant challenges to compatibility that exist between the urban use of land and nearby farming activity. Considerations that apply universally to all URAs may include:

- Urbanization may affect land values and inhibit the ability of farmers and agricultural suppliers to acquire parcels of land needed for agricultural production.
- Urbanization may result in the isolation of certain agricultural areas from the greater farming community. This may hinder normal practices of sharing equipment and knowledge among farmers.
- There are safety and liability issues associated with increased residential populations in close proximity to active farming (i.e., vandalism and accidental injury on and around farm equipment).

Issues specific to the development of these URAs may also include:

- Added residential population may result in increased complaints directed at farming operations related to odor, dust, noise, and the use of pesticides/fertilizers.
- Slight impacts may occur on downstream EFU land as a result of increased impervious surface and related stormwater runoff issues. Any such effects could be avoided by on-site stormwater retention.
- Except for potential stormwater issues, EFU land to the southeast should be minimally affected by development, as it is on the opposite side of Sunset Highway.
- Increased traffic on Helvetia Road and other local roads may impede the normal movement of farm equipment.
- This area is surrounded on two sides by EFU land.
- A small portion of EFU land to the west is contained in URA #63.

SUMMARY OF ANALYSIS: Avoiding areas with EFU land is one way to help ensure that the resource is protected. However, the surrounding lands must also be analyzed for the presence of agriculture in order to further consider the impact on agriculture for Factor 7. The most current and consistent available data were gathered by Metro staff based on a methodology recommended by the Farm Service Agency of the US Department of Agriculture. These data demonstrate that the least impacting sites are as follows (rankings start with the lowest number of acres of actively farmed EFU and end with the highest number). We assert that the first approach is to avoid sites with the most heavy impact.

Comparison of Agricultural Compatibility
(sorted from lowest actively farmed Exclusive Farm Use acres to highest)

URA #	Acres of EFU In URA	Acres of EFU within 1 mile	% EFU acres of total acres within 1 mile	# of actively farmed EFU acres within UR and within 1 mi.
*4	0	-	0%	0
*43	0	191	8%	0
*5	0	174	2%	121
*15	0	243	5%	167
42	0	890	20%	376
*34	0	636	10%	386
34	0	636	10%	386
*14	43	494	11%	394
*47	0	649	21%	421
32	32	857	27%	745
*33	0	1,159	25%	775
33	77	1,159	25%	842
51	0	1,388	41%	907
*39	20	1,408	57%	926
41	68	1,561	48%	1,161
54	144	1,619	43%	1,176
52	1.8	1,651	47%	1,192
65	112	1,307	40%	1,221
31	640	1,176	18%	1,255
**55	48	1,976	43%	1,328
55	366	1,696	34%	1,361
53	183	2,018	52%	1,403
62	8	1,551	65%	1,472
63	11	1,649	70%	1,508
*41	225	1,966	44%	1,520
*45	0	2,750	42%	1,819

Source: Metro Regional Land Information System (RLIS) database

*first tier

**first tier within Metro boundary

Note: Includes only urban reserve areas in last screening and covered by Staff Reports.

CONCLUSION: The subject site urban reserves are ranked 21st and 22nd.

Factor 7: continued

- (ii) **An analysis of the potential impacts, if any, on nearby agricultural activities taking place on lands designated for agricultural use in the applicable adopted county or city comprehensive plan, and mitigation efforts, if any impacts are identified. Impacts to be considered shall include consideration of land and water resources which may be critical to agricultural activities, consideration of the impact on the farming practices of urbanization of the subject land as well as the impact on the local agricultural economy.**

Staff Analysis

This factor requires that urban uses in the proposed UGB expansion area must be rendered "compatible" with agricultural activities nearby.

CONCLUSION: In further response to impacts, the Metro Council could consider requirements to address these issues. These requirements could take the form of amendments to the Functional Plan, Title 11 or Conditions of approval attached to UGB approvals. Requirements to mitigate impacts could include the following:

1. **Surface Water Impacts.** Adoption of an urban comprehensive plan designation or urban zoning for the subject area shall be approved by the city or county only after an on-site stormwater detention plan requirement for urban developments is adopted to address the potential for flooding of agricultural areas.
2. **Proximity (odor, dust, noise, chemical applications impacts).** Adoption of an urban comprehensive plan designation or urban zoning for the subject area shall be approved by the city or county only after a plan for setbacks and open space, developed to help separate urban and farm uses, is adopted for the area.
3. **Roads.** Adoption of an urban comprehensive plan designation or urban zoning for the subject area shall be approved by the city or county only after a road plan that minimizes farm equipment movement/urban traffic movements is adopted for the area.

Metro Code Section 3.01.020(c), (d) and (e)

- (c) **The requirements of Statewide Planning Goal 2 will be met by addressing all of the requirements of Section 3.01.020(b), above, and by factually demonstrating that [3.01.020(c)]:**

- (c)(1) **The land need identified cannot be reasonably accommodated within the current UGB; and**

Staff Analysis

Need has been addressed in Metro Code Sections 3.01.020(b)(1)(2) and (4). Extensive analyses have been performed to determine if projected population growth can be

accommodated on lands inside the UGB. A summary of the analysis can be found in the Urban Growth Boundary Assessment of Need.

Metro has taken measures to increase capacity inside the current UGB through the Functional Plan, Title 1, which requires the 24 cities and 3 counties to increase their densities for residential zones. The full effect of this region-wide up-zoning will not be entirely realized until after February 1999. The Urban Growth Report finds that even with the higher densities and an aggressive infill and redevelopment assumption, a shortfall of dwelling unit capacity exists inside the UGB. The current UGB with this up-zoning represents what can reasonably be accommodated for housing.

Metro has evaluated all potential pieces of land in the UGB for future capacity and, therefore, has reviewed alternatives to amending the UGB.

CONCLUSION: As noted in the response to Factors 1 and 2, the Metro Council has reviewed all likely means to accommodate the expected growth within the current UGB and not found sufficient capacity for a 20-year land supply. The means analyzed include: a) redevelopment rates greater than those experienced to date, b) substantial additional capacity assumed to be provided by rezoning for more density consistent with the 2040 Growth Concept and the Functional Plan, c) the assumption that all net developable land would be available for urban use during the planning period, (including lands with farm use assessment within the current UGB), and d) that many parcels with development on them but with at least one-half acre of vacant buildable land would be available for further development. Detailed documentation of this is included in the Urban Growth Report, Baseline Data Report (1997) and the Urban Growth Boundary Assessment of Need.

- (c) (2) The proposed uses are compatible with other adjacent uses or will be so rendered through measures designed to reduce adverse impacts; and**

Staff Analysis

A proposal included in the October 6, 1998, letter from Thomas McConnell stated that the site is capable of and appropriate for medium density residential at densities at or exceeding 18 units per acre. This would include a small commercial component, open space and a 50-foot buffer for Waible Creek. The surrounding adjacent uses are agriculture, rural residential and industrial. The development would be separated from the industrial uses by Highway 26 and Helvetia Road. Waible Gulch would act as a buffer between URA #62 and agricultural uses located to the north.

CONCLUSION: The conditions listed in response to Factors 5 and 7 are designed to address the adverse impacts identified.

- (c)(3) The long-term environmental, economic, social and energy consequences resulting from the use at the proposed site with measures designed to reduce adverse impacts are not significantly more adverse than would typically result from the same proposal being located in other areas than the proposed site and requiring an exception.**

Staff Analysis

See discussion in Factor 5.

CONCLUSION: This criterion is addressed as Factor 5 of Goal 14.

- (d) **The proposed location for the UGB shall result in a clear transition between urban and rural lands, using natural and built features, such as roads, drainage divides, floodplains, powerlines, major topographic features, and historic patterns of land use or settlement.**

Staff Analysis

The southern portion of URA #62 is separated from rural lands by Highway 26. Waible Creek separates the northern portion of the reserve from rural lands. These boundaries form a clear transition between urban and rural land. URA #63 is adjacent to Highway 26 and contains a farmhouse and outbuildings.

Adding URA #62 to the UGB would not create islands of urban land or allow fingers of urbanized land to intrude to nearby resource land. In order to be connected to the UGB, URA #63 would need to be included in the UGB expansion with URA #62.

The site is located adjacent to Highway 26 and an off-ramp that allows access to the highway. The total size of the reserve is small (18 acres) and is bordered by a natural riparian area along the majority of the northern edge of the site.

- (e) **Satisfaction of the requirements of Sections 3.01.020(a) and (b) does not mean that other Statewide Planning Goals do not need to be considered. If the proposed amendment involves other Statewide Planning Goals, they shall be addressed.**

Staff Analysis

The provisions of the acknowledged Metro Code address the application of Goals 2 and 14. These are the applicable goals for proposed UGB amendments. Alternatively, other goals are satisfied as follows:

Goal 1, Citizen Participation. Each property owner according to the latest information from the County Assessor's office within the subject area and within 500 feet was mailed a notice of the public hearing. In addition, a notice was published in the legal notice section of *The Oregonian* newspaper; public hearing advertisements were also published in *The Oregonian* newspaper; accounts of the public hearings at the Metro Council Growth Management Committee and the Metro Council were published in *The Oregonian* and other local newspapers; public hearings were held in two off-site locations (Hillsboro and Gresham) as well as six additional hearings in Metro Council Chamber and over 200 individuals presented oral testimony to the Metro Council Growth Management Committee and the Metro Council.

In addition, as a precursor to consideration of UGB expansion, the Metro Council has had open houses, newsletters, hot lines, surveys and public hearings on the 2040 Growth Concept and the Urban Reserves.

Goal 2, Urban Planning. Information concerning Goal 2 is provided in this staff report under the section addressing Metro Code Section 3.01.020 (c), above.

Goals 3, Agriculture. Information is provided in the Factor 6 and Factor 7 sections of this staff report. This information addresses the soil types, their agricultural capabilities and the amount of such soil in relation to the total amount of land within the urban reserve area, the location and type of agricultural activities currently being conducted within the subject area as well as within one mile of the subject area.

Goal 5. The discussion of Factor 5 includes consideration of riparian corridors, including wetlands as well as fish and wildlife habitat. It also considers aggregate resources, energy and cultural resources including archeological and historic resources.

Goal 6, Air, Water and Land Resources. DEQ has determined that emissions from cars and trucks are the largest single source of air pollution in the metropolitan area. The region has dramatically cleaned its air (through industry efforts and air pollution devices required on newer cars) and as of this past year, now complies with State and Federal standards (the metropolitan area now is in "attainment"). However, DEQ calculates that growth in the region and the increase in auto emissions from this growth as well as the number of vehicle miles traveled that will mean that the metropolitan area will again be a "nonattainment area" within five to seven years. This could trigger requirements for private industries to take extensive actions to ameliorate air quality. Given this concern, DEQ has estimated the impact of new policy initiatives in the region. These initiatives include: the 2040 Growth Concept (with its emphasis on a compact urban form for the region), the region's emphasis on mixed use development where transit service is frequent and convenient, the requirements of the Functional Plan and RTP for connectivity, and local government implementation of the State's Transportation Planning Rule. The DEQ has forecast that implementation of these policies is likely to be effective in addressing the region's future air quality challenges. DEQ's Final Report of the State Task Force on Motor Vehicle Emission Reductions in the Portland Area estimates effective implementation of these policies. As long as expansion of the UGB is built to urban densities, there is no evidence that there is a substantial difference in expected air pollution emissions from one area to another when comparing alternative sites.

Goal 7, Areas Subject to Natural Disasters and Hazards. Metro Council adopted Functional Plan, Title 3, that addresses Statewide Planning Goals 6 and 7. These requirements, to be implemented by cities and counties within the region protect property and lives through setbacks from streams and wetlands, balanced cut and fill, and erosion control measures. In addition, as noted in Factor 5, Metro is working on prudent approaches to addressing earthquake and landslide threats in the region. All areas included within the UGB will be required to annex to the Metro Boundary prior to being added to the UGB. Once within the Metro Boundary, Title 3 and any requirements adopted by the Metro Council with regard to earthquakes and landslides would be required to be applied to the subject site. Accordingly, there is no evidence that there is a substantial difference between sites.

Goal 9, Economy of the State. Goal 9 calls for diversification and improvement of the economy. It asks communities to inventory commercial and industrial lands, project future needs for such lands, and plan and zone enough land to meet those needs. This is addressed in the information provided in the response to Factors 1 and 2, above.

Goal 10, Housing. This goal specifies that there must be a plan for accommodating needed housing types. An inventory of buildable residential lands, as noted in the response to Factors 1 and 2 was completed and projection of future needs for such lands was made. The Housing Needs Analysis demonstrates that there is enough buildable land to meet those needs to the year 2017 except for 32,370 dwelling units which must be accommodated through

expansion of the UGB. The Metro Council also adopted a Regional Framework Plan that created an Affordable Housing Technical Advisory Committee and commitment and timeline to address affordable housing issues in the region. This method is expected to help identify impediments and to find solutions, including incentives and regulations, which address the problems.

Goal 11, Public Facilities and Services. This Goal is addressed in the discussion of Factor 3 above.

Goal 12, Transportation. This is addressed in the information considered in Factor 3 as well as Factors 5 and 7.

Goal 13, Energy. This is addressed in Factor 5, above.

Goal 14, Urbanization. This is addressed in the discussion of Factors 1 through 7, above.

Goal 15, Willamette Greenway. This goal is addressed through Title 3 and will be further addressed by recently initiated regional Goal 5 work.

SECTION IV: METRO CODE SECTION 3.01.012 URBAN RESERVE PLANNING REQUIREMENTS

Metro Code also requires an urban reserve plan be completed for the URAs. The Metro Code requires a conceptual land use plan for URAs which demonstrate compliance with Goal 2 and Goal 14, by application of Metro Code Section 3.01.020 or Section 3.01.030. These urban reserve plans assume compliance with the RUGGOs and the 2040 Growth Concept design types and any applicable Functional Plan provisions. Urban reserve concept plan requirements include an average residential density target, sufficient commercial and industrial development for the needs of the area, a transportation plan and protection for wildlife habitat and water quality enhancement. Metro Code Section 3.01.012 also requires a conceptual public facilities plan, school plan and an agreement on governance. If insufficient land to satisfy the "need" is available that meets the urban reserve requirements, the Metro Council may consider first tier lands where a city or county commits to complete and adopt an urban reserve plan and provides documentation to support this commitment as outlined in Metro Code Section 3.01.015(e).

The following analysis is based on submittal on November 10, 1998 of a "Preliminary" Urban Reserve Plan by Alpha Engineering for URAs #63 and the northern portion of #62 (Attachments C and D). The City of Hillsboro has provided copies of letters dated November 10, 1998 and September 25, 1998, discussing governance issues and support for this site. Mark Greenfield, representing the property owner, has also submitted a letter dated November 12, 1998 clarifying information released in the "preliminary" report.

(e) Urban Reserve Plan Required. A conceptual land use plan and concept map, which demonstrates compliance with Goal 2 and Goal 14 and Section 3.01.020 or Section 3.01.030, with the RUGGOs and with the 2040 Growth Concept design types and any applicable Functional Plan provisions, shall be required for all major amendment applications and legislative amendments of the UGB. Except as provided in Section 3.01.015(e), the plan and map shall include at least the following, when applicable:

(1) Provision for either annexation to a city and any necessary service districts at the time of the final approval of the UGB amendment consistent with Section 3.01.065 OR an applicable city-county planning area agreement which requires at least the following:

(A) City or county agreement to adopt comprehensive plan provisions for the lands added to the UGB, which comply with all requirements of urban reserve plan conditions of the UGB.

Staff Response

Property owners in Urban Reserves #62 and #63 have submitted a "preliminary" concept plan for portions of URA #62 north of Highway 26 and URA #63. In a letter dated September 25, 1998, the City of Hillsboro indicated that it supports the efforts of the property owner of the URAs to undertake urban reserve planning for these sites. In a Hillsboro-Washington County Memorandum of Understanding, the responsibility for urban reserve concept planning has been assigned to the City. If the URAs are brought into the UGB, the City will annex them and establish urban zoning. The City of Hillsboro would also assume responsibility for providing municipal services to the sites upon:

- A. City and Metro approval of a completed urban reserve plan for the sites followed by their inclusion into the UGB;
- B. establishment of the feasibility of providing public facilities and infrastructure services to the sites with owner funding participation and corresponding funding participation commitment from the owner; and
- C. annexation of the sites to Metro.

The terms of this agreement have not been fulfilled because the "preliminary" plan fails to address funding participation by the proponent and establishment of feasibility for providing public facilities therefore this criterion has not been met.

(B) City and county agreement that lands added to the UGB shall be rezoned for urban development only upon annexation or agreement for delayed annexation to the city and any necessary service district identified in the approved concept plan or incorporation as a new city; and

Staff Response

The letter dated November 10, 1998, from Tim Erwert, City Manager at the City of Hillsboro, states that the City cannot support inclusion of URAs #62 and #63 unless the proponent completes all provisions in the Metro Code regarding urban reserve planning and conducts a citizen involvement program that is approved by the Citizen Involvement Committee (Attachment D). Hillsboro also requires inclusion of an approved urban reserve plan in the City's comprehensive plan. The City of Hillsboro has not considered the "preliminary" concept plan. In addition, a letter dated November 17, 1998, to the CIAC vice-chair states, "I would like to thank the CIAC again for allowing us the opportunity to address the committee and present a proposed citizen involvement program. The subject program will be used in the development of a concept plan for URAs 62 and 63..." The contents of this letter suggest that the plan has not been finalized or considered by the City of Hillsboro. Commitments made in a September 25, 1998 letter, from the City of Hillsboro, are contingent on meeting the above requirements.

All conditions of the City of Hillsboro approval have not been fulfilled, therefore this criterion has not been satisfied.

- (C) County agreement that, prior to annexation to the city and any necessary service districts, rural zoning that ensures a range of opportunities for the orderly, economic and efficient provision of urban services when these lands are included in the UGB remains in place until city annexation and the adoption of urban zoning.**

Staff Response

The City of Hillsboro has negotiated a Memorandum of Understanding (MOU) with Washington County to assume governance and reserve planning responsibilities for this area. The MOU also requires the City of Hillsboro to annex this area and establish urban zoning once the areas have been brought into the UGB. A letter dated September 25, 1998, from the City of Hillsboro states that the City will assume responsibility for this area when feasibility of providing public facilities and infrastructure services has been determined. To date this has not been completed.

Although an agreement is in place with Washington County to provide an orderly extension of urban services, the City of Hillsboro has several conditions relating to feasibility that have not been determined. Therefore this criterion has not been met.

- (2) Notwithstanding (1) above, the Metro Council may approve a major or legislative amendment to the UGB if the proposed amendment is required to assist the region to comply with the 2040 Growth Concept or to assist the region, a city or county in demonstrating compliance with statute, rule, or statewide goal requirements for land within the UGB. These requirements include ORS 197.296, 197.299 and 197.303, the Statewide Planning Goals and RUGGOs. An urban services agreement consistent with ORS 195.065 shall be required as a condition of approval for any amendment under this subsection.**
- (3) URAs #11 and #4 and #65 are so geographically distant from existing city limits that annexation to a city is difficult to achieve. If the county and affected city and any necessary service districts have signed an urban service agreement or an urban reserve agreement coordinating urban services for the area, then the requirements for annexation to a city in (1)(B) and (1)(C) above shall not apply.**

Staff Response

These criteria are not applicable [(2) and (3)]. The approach chosen by the proponent relates to criterion (1).

- (4) Provision for average residential densities of at least 10 dwelling units per net developable residential acre or lower densities that conform to the 2040 Growth Concept plan design type designation for the area.**

Staff Response

The proposed plan exceeds this requirement for providing a minimum of 10 units per acre by including a mix of housing types to provide 18 dwelling units per acre. There are no specific design types assigned to these reserves yet although the Productivity Analysis has assigned a corridor designation to these reserves. The proponent does not propose a specific design type but the proposed concept plan design designation of high and medium density residential and service commercial fulfill the intent of a corridor design type. The corridor design includes a mix of 70 percent residential and 30 percent commercial due to the location (arterial connections), pedestrian connections and potential access to transit.

The proposal exceeds the minimum density requirements, therefore this criterion has been met.

- (5) Demonstrable measures that will provide a diversity of housing stock that will fulfill needed housing requirements as defined by ORS 197.303. Measures may include, but are not limited to, implementation of recommendations in Title 7 of the Functional Plan.**

Staff Response

The plan proposes a mix of densities (high and medium) in the form of apartments, townhouses and rowhouses. The area of the plan designated, as medium density residential would provide both rental and for sale units and may include accessory units or "granny flats" for as an additional option. The medium density units are clustered around a circular drive that surrounds a proposed park.

Due to the variation of housing types and the mix of density proposed, this criterion has been fulfilled.

- (6) Demonstration of how residential developments will include, without public subsidy, housing affordable to households with incomes at or below area median incomes for home ownership and at or below 80 percent of area median incomes for rental as defined by US Department of Housing and Urban Development for the adjacent urban jurisdiction. Public subsidies shall not be interpreted to mean the following: density bonuses, streamlined permitting processes, extensions to the time at which systems development charges (SDCs) and other fees are collected, and other exercises of the regulatory and zoning powers.**

Staff Response

The proposed reserve plan includes a discussion of providing a mixture of sale and rental housing and may include "granny flats" or accessory unit housing to meet the affordable housing requirements. The plan presents a diversity of housing types that would theoretically provide housing in different price ranges and would address a variety of housing needs. No specific commitment has been made in the concept plan to developing a product that could meet the affordable housing requirement.

Based on 80 percent of the City of Hillsboro's median income affordable rent would be \$633/month. The proponent states that accessory units (granny flats) are projected to fulfill this affordable housing need but no rent projections have been provided. Using the same standard, the purchase price of homes (at 5 percent down payment) could not exceed \$106,373.

No specific information has been submitted that demonstrates that this criterion has been fulfilled. However, a commitment to implement the development types discussed by the proponent would demonstrate that the criterion has been met.

(7) Provision for sufficient commercial and industrial development for the needs of the area to be developed and the needs of adjacent land inside the UGB consistent with 2040 Growth Concept design types.

Staff Response

The plan provides 1.7 acres of commercial to be developed to support the residential units that will be developed. The commercial portion of the site will be developed as a node at Helvetia Road and Vogues Lane. The commercial portion of the site will provide convenience services to residents to limit additional trips outside of this area. This type and location of the commercial development is consistent with the corridor design type assigned by the Productivity Analysis for these reserves.

Because the entire Hillsboro area is jobs rich and housing poor, inclusion of additional land for commercial or industrial purposes is not necessary. An industrial area is located east and south of URAs #62 and #63. URAs #62 and #63 are projected to provide 85 jobs by the Productivity Analysis.

Sufficient commercial land has been proposed to satisfy the needs of the developing residential area. This is consistent with 2040 design types, therefore this criterion has been satisfied.

(8) A conceptual transportation plan consistent with the Regional Transportation Plan and consistent with protection of natural resources as required by Metro Functional Plan.

Staff Response

A basic transportation plan has been submitted that shows conceptual locations of a local street system. The transportation plan does not address the impacts of the development of these URAs on the surrounding street network, level of service, compatibility with the Hillsboro Transportation Systems Plan or mitigation for any adverse impacts. No additional crossing of the natural resource area on the site is planned as part of this development.

This criterion has not been met because: 1) a Conceptual Transportation Plan has not been submitted that conclusively demonstrates consistency with the Regional Transportation Plan and 2) coordination with local jurisdictions concerning transportation planning for the area has not occurred.

(9) Identification, mapping and a funding strategy for protecting areas from development due to fish and wildlife protection, water quality enhancement and mitigation, and natural hazards mitigation. A natural resource protection plan to protect fish and wildlife habitat, water quality enhancement areas and natural hazard areas shall be completed as part of the comprehensive plan and zoning for lands added to the UGB prior to urban development.

The plan discusses the available natural resource information provided by Metro and mapped during the Title 3 process. The Title 3 mapping identified a creek that bi-sects the property in

an east/west direction and drains more than 100 acres. As a result, the plan proposes a 50-foot riparian buffer that protects this resource. Title 3 only addressed water quality and flooding issues. Buffer width prescribed through this title does not address impacts on fish and wildlife and habitat areas. Informal reconnaissance has been completed on the site and as a result it is noted that the banks are devoid of vegetation and would benefit from re-vegetation and restoration. The plan does not detail the qualifications of the firm that performed this work.

A general statement has been included in the plan that states that development plans would include a landscape plan that provides substantial plantings within the 50-foot buffer. No mention is made to the type of plantings or the overall value of these efforts.

The plan lacks identification and mapping of natural resources located on this site. A letter from USA dated November 3, 1998, indicates that the site contains a perennial stream and potential wetlands or hazard drainage areas. No formal investigation has been completed for these areas as highlighted in the Factor 5 analysis of this report.

No funding strategy or detailed plan has been provided to show how fish and wildlife habitat or water quality along the creek will be protected or enhanced.

Due to the lack of 1) identification of resources, 2) a clear funding or a protection plan for the identified natural resources, fish and wildlife habitat, this criterion has not been met.

(10) A conceptual public facilities and services plan, including rough cost estimates for the provision of sewer, water, storm drainage, transportation, fire and police protection facilities and parks, including financing strategy for those costs.

Staff Response

A conceptual public facilities plan has been completed for water and sanitary sewer for this site. No conceptual storm drainage plan has been developed for this site although the Productivity Analysis provides an estimate of the costs. The proponent indicates that drainage would be provided in compliance with the City of Hillsboro and Washington County negotiation.

The City of Hillsboro will provide Fire and Police services after annexation. The City is currently developing a new fire station near the intersection of 229th Street and Evergreen Parkway, which would be located two miles from the URAs.

No specific financing strategy has been developed for these reserves. The proponent states that they would "work with the city and county" to finance necessary improvements and that property taxes and systems development charges will cover system improvements.

A rough cost estimate of public facility siting has been included in the Productivity Analysis. The proponent has discussed revisions to the costs provided in this analysis because of the increased productivity on the site which effectively reduces the per dwelling unit costs to serve this site, using the proponent's methodology. With the increased productivity, the overall ranking of the site in comparison to other URAs becomes more favorable. The site, on a cost per DUE basis (URA #62 = \$12,792 and URA #63 = \$19,106) would be ranked 8th and 23rd if this method is applied.

It should be noted that the Productivity Analysis uses a 200-foot buffer on each side of the stream (the proponent has used 50-feet) in the analysis to generate the number of dwelling units and jobs accommodated on this site. The proponent has not provided an estimate of the buildable lands used in the analysis so the productivity and costs could be compared. Part of the difference in productivity numbers may be due to the difference in stream buffers.

Because a financing plan for public facilities has not been included, this criterion has not been met.

- (11) A conceptual school plan that provides for the amount of land and improvements needed for school facilities. Estimates of the need shall be coordinated among affected school districts, the affected city or county, and affected special districts consistent with the procedures in ORS 195.110(3), (4) and (7).**

Staff Response

No proposed school plan has been submitted for this site. Comments have been received from the Hillsboro School District. Discussions have occurred between the proponent and the Assistant Superintendent, Joe Rodriguez, on the district's needs for schools within this area. Due to the small size of the reserve areas and the existing facilities located near these areas, there is no evidence that dedication of additional school lands is needed. A copy of the letter confirming this conversation to the School District has been included in the plan materials. Based on the date of the letter, November 16, 1998, little time has been allowed if the school district chooses to respond further.

This criterion has been satisfied, based on the information in the record.

- (12) An Urban Reserve Plan map showing, at least, the following, when applicable:**
- (A) Major roadway connection and public facilities;**
 - (B) Location of unbuildable lands including but not limited to steep slopes, wetlands, floodplains and riparian areas;**
 - (C) General locations for commercial and industrial lands;**
 - (D) General locations for single and multi-family housing;**
 - (E) General locations for public open space, plazas and neighborhood centers;**
and
 - (F) General locations or alternative locations for any needed school, park or fire hall sites.**

Staff Response

Major Roadways and Public Facilities

Major arterials have been shown on the proposed plan. A generalized local street network provides access to the site. A public facilities plan has been included for the site (sanitary sewer and water only). A narrative is included which discusses the availability of sanitary sewer (provided by the United Sewerage Agency), water service (Tualatin Valley Water District) and schools. These service providers have indicated that there are no concerns with servicing these reserve areas.

Unbuildable Lands, Natural Areas

The reserve plan map indicates a 50-foot buffer adjacent to a creek that bi-sects the reserve area. The creek had been identified on Title 3 maps, as draining over 100 acres, therefore a minimum of a 50-foot buffer is required. No discussion has been provided on the location of any wetlands, floodplains, riparian areas, steep slopes or natural hazard areas.

Commercial and Industrial Lands

The map indicates that a 1.75 acre commercial site will be located at the southeast corner of the property. The inclusion of 1.75 acres of commercial use on this site is appropriate to serve the developing residential areas within the reserves. The Hillsboro area has a jobs/housing imbalance that would be compounded by inclusion of an industrial designation on any portion of the property or a larger commercial area.

Single and Multi-family Residential

The map indicates generalized locations for medium and high density residential development areas. A conceptual street network serves residential areas.

Public Open Space, School, Fire Halls

The map shows a combination of open space in the form of a buffer along the existing creek and a dedicated park space. Existing school sites have been indicated on the plan. No fire stations have been indicated on the plan although a fire station will be constructed within two miles of the URAs.

The concept plan lacks sufficient detail on natural resources and storm drainage to fully comply with this criterion.

- (13) The urban reserve plan shall be coordinated among the city, county, school district and other service districts, including a dispute resolution process with an MPAC report and public hearing consistent with RUGGOs Objective 5.3. The urban reserve plan shall be considered for local approval by the affected city or by the county, if subsection (3), above, applies in coordination with any affected service district and/or school district. Then the Metro Council shall consider final approval of the plan.**

Staff Response

Coordination has occurred between the City of Hillsboro and Washington County in the form of a MOU, which assigns planning, and urban reserve plan jurisdiction to the City. The proponent has only submitted a "preliminary" concept plan and has not completed the citizen involvement requirements. The proponent has informally coordinated with the Hillsboro School District to determine if there are adequate facilities to serve these areas. USA and TVWD have indicated that they have reviewed the preliminary plan and have provided general comments regarding serviceability.

This criterion has not been satisfied because the proponent has not fulfilled all of the requirements in the MOU between the City of Hillsboro and Washington County and conditions placed by the City to have coordinated planning with all affected parties.

SUMMARY

The owner/developer for URA #43 has prepared and presented to Metro an urban reserve plan pursuant to Metro Code Section 3.01.012(e). Despite the plan in its current form is not sufficient to satisfy the requirements of the Metro Code. A brief summary of the issues present follows:

Urban Reserve Plan Required

The plan provided appears to describe URA #62 and #63 as a Corridor 2040 Design type. This designation is consistent with the Productivity Analysis and staff evaluation of the site. The plan addresses the following elements of the urban reserve plan requirements:

1. Provision for Annexation **Not Satisfied**
2. Regional Compliance **Not Applicable**
3. Remote Geography **Not Applicable**
4. Average Density of 10 DU/AC **Satisfied** The plan demonstrates consistency with the applicable 2040 Concept Plan Design Type.
5. Diversity of Housing **Satisfied** The plan depicts zoning that will allow for a diversity of housing.
6. Affordable Housing **Not Satisfied** Calculations have not been shown that demonstrate that this requirement has been fulfilled.
7. Commercial and Industrial Land **Satisfied**
8. Transportation Plan **Not Satisfied** An adequate transportation plan has not been submitted.
9. Natural Area Mapping **Not Satisfied** Natural resources and funding or protection plan have not been submitted.
10. Public Facilities Plan **Not Satisfied** A financing plan and a conceptual storm drainage plan have not been submitted.
11. School Plan **Satisfied** The owner/developer has not provided sufficient opportunity for comment to the affected school district, but the record to date is satisfactory.
12. Maps **Not Satisfied** The maps lack sufficient detail on storm drainage and natural resources to fully comply.
13. Government Coordination **Not Satisfied** The City of Hillsboro has not yet formally considered the plan presented to Metro and the proponent has not fulfilled the requirements stated in the MOU.

Metro Code Section 3.010.012(c), 2040 Design Types:

- (3) **Prior to adding land to the UGB, the Metro Council shall modify the 2040 Growth Concept to designate regional design types consistent with the 2040 Growth Concept for the land added.**

Staff have attached copies of "Draft 2040 Design Type" maps, to this staff report.

Based upon review of the information in the record, few of the applicable criteria have been met. Metro staff conclude that the submitted urban reserve plan does not satisfy the Metro Code 3.01.012(e) requirements.

SECTION V: SUMMARY OF STAFF REPORT CONCLUSIONS

UGB Expansion Areas Sorted by Total Ranking (Highest ranking is highest suitability for urbanization)

The ratings described in this report are combined in the table below. Because there is a requirement to balance the competing factors, each URA is evaluated for its suitability for urbanization relative to all other contending sites. Ratings were calculated as described elsewhere to derive a raw score. A statistical method was applied to the raw scores to allow comparison with each factor given equal weight. A distribution of scores for any one factor was calculated comparing the variance from the mean value (standard deviation). This allowed conversion of the data for each factor to be described as a value of between 0 and 10 without distortion. For example, one evaluation method might have raw scores between 0 and 55, while another might have values between 1 and 150. Merely adding raw scores would result in one criterion being weighed more heavily. In addition, the raw scores are in different units. Factor 3 is measured primarily in dollars, while Factor 4 in dwelling units and jobs. This statistical method allows comparison. By statistically rating "on the curve," no factor is weighed more or less than any other. The following table contains ratings with a total ranking. Factor 3 includes both ranking from the Productivity Analysis for public facility cost and an adjusted ranking (0) where the feasibility of providing public facilities cannot be verified by the urban reserve plan process.

Summary of Staff Report Conclusions - UGB Expansion
Sorted by Total Score (highest score is highest suitability for urbanization)

URA #	Acres	Dwelling Units	Cumulative Total DUs	Jobs	Factor 3		Factor 4 Efficiency or Productivity of Site	Factor 5 Environ., Econ. Energy & Social	Factor 6 Retention of Agric. Land	Factor 7 Compatibility with Agriculture	Total Score		Urban Reserve Plan ³
					Public Facilities Cost	Feasibility ¹					Total	Adjusted Total ²	
*15	371.0	2,396	2,396	645	8		8	‡	8	9	33	33	C
*5	1,422.0	6,210	8,606	2,998	7		5	‡	8	9	29	29	C
42	249.6	0	8,606	3,734	6		7	‡	8	8	29	29	R/I ⁴
*4	123.4	375	8,981	125	7		2	‡	8	10	27	27	C
*33	43.7	220	9,200	118	5		6	‡	8	6	25	25	C
*14	307.2	1,062	10,262	347	6		2	‡	7	8	23	23	C
*47	82.0	361	10,624	120	3		4	‡	8	8	23	23	C
*43	10.2	45	10,669	15	0		4	‡	8	10	22	22	C
52	98.8	421	11,090	140	7		4	‡	8	3	22	22	I
51	93.6	323	11,413	108	6		2	‡	8	5	21	21	I
**55	353.0	1,493	12,906	457	8		4	‡	7	2	21	21	C/I
54	190.9	1,108	14,013	369	8		7	‡	2	3	20	20	I
55	473.0	2,509	16,522	1,799	8		8	‡	2	2	20	20	I
41	144.4	626	17,149	209	8		4	‡	4	3	19	19	I
34	749.1	1,891	19,040	1,855	5	N	2	‡	8	8	23	18	I
*34	7.4	11	19,051	4	0		0	‡	8	8	16	16	C
*45	464.2	1,772	20,823	591	5		3	‡	8	0	16	16	C
53	204.2	997	21,820	385	8		5	‡	1	2	16	16	I
62	8.4	87	21,907	47	4		10	‡	1	1	16	16	I
65	116.0	704	22,611	180	7		5	‡	1	3	16	16	R
33	294.7	956	23,567	308	6	N	2	‡	6	5	19	13	I
*41	278.8	1,277	24,844	426	5		5	‡	2	1	13	13	R
63	10.5	71	24,915	38	2		9	‡	1	1	13	13	I
32	87.3	436	25,351	145	4	N	5	‡	1	6	16	12	I
31	736.8	3,352	28,703	1,590	6	N	5	‡	1	2	14	8	I
***39	20.0	0	28,703	0	n/a		n/a	‡	1	5	n/a	n/a	C

¹ Refers to feasibility of providing public facilities to site. If there is no service provider verification, score is reduced to zero. "N" = no verification

² Adjusted for feasibility status. If there is no service provider verification, score for Factor 3 reduced to zero is reflected in this column.

³ R = Recommended for Approval; C = Committed to Complete; I = Incomplete

⁴ R if site used for prison; I if not

*first tier; **first tier inside Metro boundary

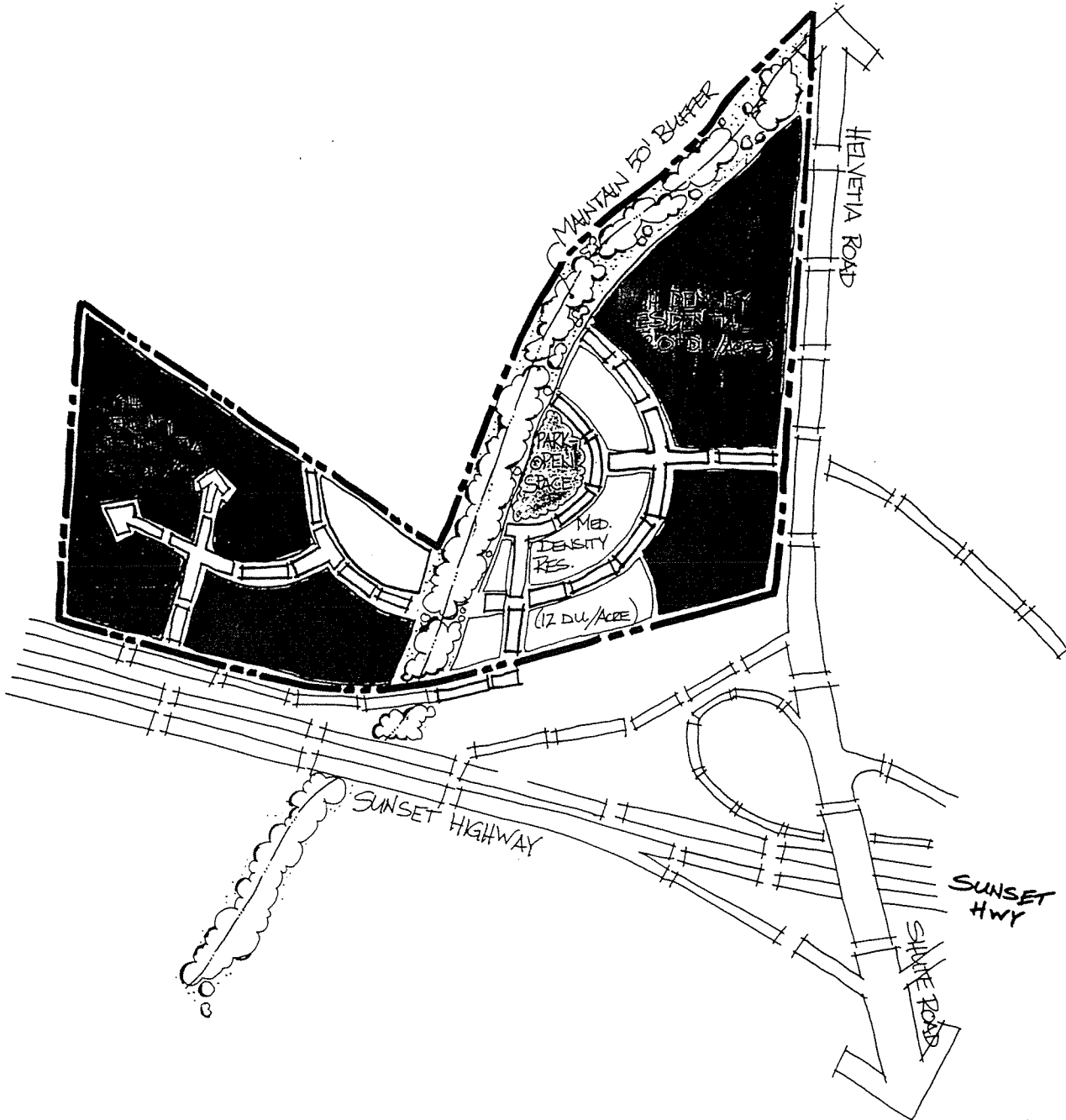
***URA #39 is a proposed school site. No information is available for factors 3 and 4; therefore, a total score has not been calculated.

‡ see Factor 5 analysis

Note: URAs #34 & 41 Public Facilities costs weigh heavily on first tier lands if the development costs are not later shared with the remaining lands in urban reserve.

URA 62 (North) And 63

Concept Plan

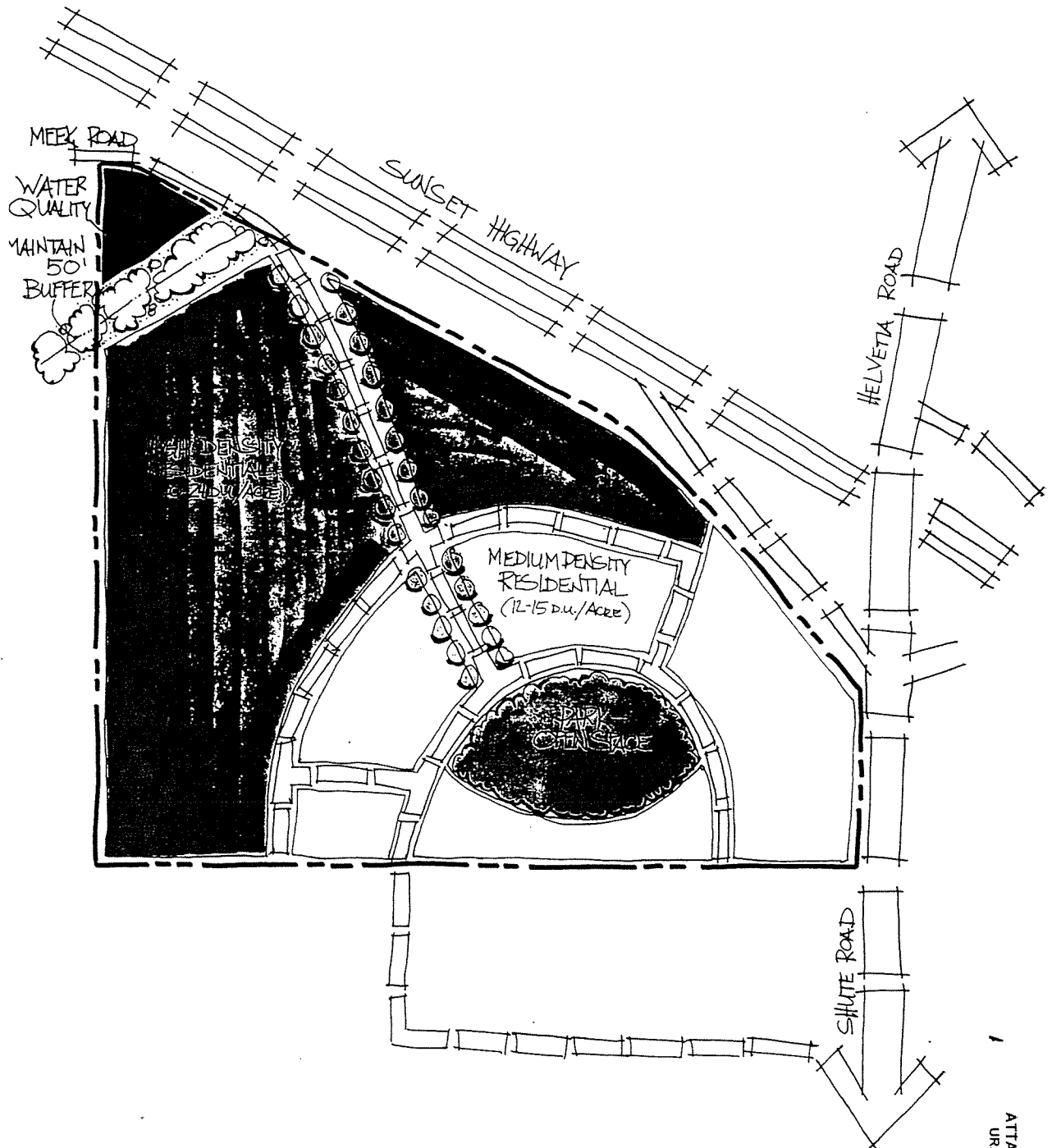


ATTACHMENT D
URAs 62 & 63

* This Preliminary Concept Plan is still subject to City of Hillsboro and Washington County review in accordance with City/County Memorandum of Understanding dated January 29, 1998.

URA 62 (South)

Concept Plan



ATTACHMENT C
URAs 62 & 63

* This Preliminary Concept Plan is still subject to City of Hillsboro and Washington County review in accordance with City/County Memorandum of Understanding dated January 29, 1998.

METRO
URBAN RESERVE PRODUCTIVITY ANALYSIS

Table 8. Productivity Estimate for Phase 2 URAs (Base with 200 foot stream buffers)

Reserve Number	Acres				Productivity		Density		Productivity Index ^f
	Total Acres	Buildable Land ^a	Buildable Res. Land	Buildable Resource Land ^b	Dwelling Units ^c	Employment ^d	DU/ Net Resident. Acre ^e	Emp. Per Gross Emp Acre	
Tier 1									
4	123.4	59.4	52.1		375	125	9.6	0.0	8.3
5	1,382.0	839.5	703.2		6,210	2,883	11.8	44.3	12.9
11	464.2	157.7	0.0	51.1	0	3,461	0.0	25.0	7.5
14	307.2	141.0	117.6	26.6	1,062	347	12.0	20.0	9.4
15	315.5	248.3	213.6		1,879	506	11.7	20.0	15.9
33	43.7	22.5	13.8		220	118	21.2	20.0	14.8
34	7.4	2.3	2.1		11	4	7.3	0.0	4.1
35	72.2	22.0	19.3		223	23	15.4	0.0	7.7
36	33.1	8.8	7.7		42	14	7.3	0.0	3.5
37	145.5	112.6	98.8		995	159	13.4	0.0	17.5
39	13.1	0.0	0.0	0.0	0	0	0.0	0.0	0.0
41	278.8	202.0	177.4	156.2	1,277	426	9.6	0.0	12.5
43	10.2	7.2	6.3		45	15	9.6	0.0	12.2
44	238.1	152.9	0.0	27.5	0	3,357	0.0	25.0	14.1
45	464.2	280.4	246.2		1,772	591	9.6	0.0	10.4
47	82.0	57.2	50.2		361	120	9.6	0.0	12.0
55	475.8	283.8	247.1	58.3	1,877	694	10.1	60.0	10.9
Subtotal	4,456.3	2,597.4	1,955.4	319.7	16,351	12,842	11.1	27.0	11.7
Other									
1	531.8	245.6	184.6	253.6	2,267	1,163	16.4	31.1	12.4
3	22.2	4.8	4.2	4.5	23	8	7.3	0.0	2.8
17	189.3	137.8	121.0		871	290	9.6	0.0	12.6
18	98.5	67.6	59.4		427	142	9.6	0.0	11.9
22	337.3	150.0	131.7		949	316	9.6	0.0	7.7
23	22.9	16.2	14.3		103	34	9.6	0.0	12.3
24	173.5	143.3	89.1		634	1,155	9.6	25.0	15.4
25	1,047.6	535.9	388.2		2,939	3,373	10.1	30.0	10.0
29	190.6	94.3	82.8		596	199	9.6	0.0	8.5
30	190.3	110.1	94.8		834	224	11.7	20.0	11.7
31	736.8	460.2	382.3	508.7	3,352	1,590	11.7	37.8	13.1
32	87.3	69.0	60.6	69.3	436	145	9.6	0.0	13.7
33	294.7	149.4	124.6	59.0	956	308	10.2	20.0	8.8
34	749.1	308.9	218.4		1,891	1,855	11.5	26.9	8.5
41	144.4	99.1	87.0	45.0	626	209	9.6	0.0	11.9
42	249.6	170.1	0.0		0	3,734	0.0	22.5	15.0
48	218.4	155.3	136.4		982	327	9.6	0.0	12.3
49	261.6	174.9	153.6		1,106	369	9.6	0.0	11.6
51	93.6	51.1	44.9		323	108	9.6	0.0	9.4
52	98.8	66.6	58.5	1.7	421	140	9.6	0.0	11.6
53	204.2	147.5	127.9	152.8	997	385	10.4	60.0	13.6
54	190.9	175.2	153.8	141.0	1,108	369	9.6	0.0	15.9
55	350.4	260.2	214.8	274.1	1,798	1,289	11.2	60.0	16.0
61	28.4	16.4	0.0		0	360	0.0	25.0	12.7
62	54.4	27.0	16.6	8.1	264	142	21.2	20.0	14.3
63	10.5	2.3	1.4	1.6	22	12	21.2	20.0	6.3
64	191.3	126.8	108.0	15.0	1,039	254	12.8	20.0	14.4
65	487.7	318.7	272.8	186.4	2,512	643	12.3	20.0	13.7
67	319.2	137.0	120.3		658	216	7.3	0.0	5.6
68	64.0	18.5	16.2		89	29	7.3	0.0	3.8
69	11.9	7.9	6.9		38	12	7.3	0.0	8.7
70	35.2	29.8	26.1		143	47	7.3	0.0	11.1
Subtotal	7,686.4	4,477.6	3,499.8	1,720.9	28,403	19,451	10.8	27.4	11.4
Total	12,142.7	7,074.8	5,455.2	2,040.6	44,754	32,294	10.9	27.2	11.5

Source: URA Productivity Model, ECONorthwest, 1998

- Total acres less (1) existing and estimated future public and institutional land, and (2) constrained land; plus estimated redevelopable land.
- Resource land is farm and forest land as designated by Metro's RLIS.
- In most cases, a URA has several types of residential land (i.e., buildable land is allocated to different Metro design types), each with a different average density. The model handles these different calculations to calculate total units.
- In the base case, a little under 40% of the total employment occurred on residential land in Inner and Outer Neighborhoods.
- Reported per "net acre" so that estimates can be compared to Metro policy requiring an average of 10 dwelling units per net residential acre.
- Productivity Index = (Population + Employment) / Total Acres. Population = DU * persons/DU.

Table 1: URA Serviceability, Summary of Costs

Urban Reserve #	Acreage		Dwelling Unit Equivalents (DUEs)		Serviceability Cost (Totals)				Serviceability Cost (per DUE)		
	Total	Buildable	Base Case	Base with 200' Stream Buffer	Wastewater	Water	Stormwater	Transportation	Base Case	Base with 200' Stream Buffer	
Tier 1	4	123.4	61.6	442	427	\$3,401,763	\$1,000,000	\$1,152,000	\$1,368,751	\$15,640	\$16,194
	5	1,382.0	999.2	8821	7411	\$36,546,537	\$19,015,000	\$9,444,000	\$27,276,260	\$10,461	\$12,451
	11	484.2	181.9	1755	1442	\$11,909,058	\$3,858,000	\$4,525,800	\$5,371,573	\$14,625	\$17,797
	14	307.2	185.4	1586	1206	\$11,023,998	\$3,485,000	\$4,130,400	\$4,269,752	\$14,443	\$18,988
	15	315.6	252.0	2122	2090	\$8,722,694	\$4,355,000	\$5,029,500	\$5,712,748	\$10,284	\$10,440
	33	43.7	25.1	300	269	\$1,211,700	\$1,242,375	\$1,152,000	\$2,255,487	\$19,534	\$21,800
	34	7.4	3.1	17	13	\$51,660	\$136,250	\$885,000	\$187,557	\$75,406	\$98,455
	35	72.2	23.6	248	233	\$1,490,400	\$3,299,850	\$1,303,200	\$2,897,380	\$36,232	\$38,658
	36	33.1	10.8	69	48	\$1,138,413	\$719,200	\$1,168,800	\$240,181	\$55,579	\$67,674
	37	145.6	122.6	1156	1062	\$4,169,127	\$3,997,000	\$1,264,500	\$4,705,923	\$12,228	\$13,316
	39	13.1	0.0	0	0	\$2,630,957	\$1,188,000	\$105,000	\$0	\$0	\$0
	41	278.8	203.4	1484	1454	\$17,517,777	\$7,055,000	\$4,654,500	\$4,857,321	\$23,276	\$23,435
	43	10.2	8.4	61	52	\$2,565,150	\$144,500	\$207,375	\$287,930	\$52,601	\$62,001
	44	238.1	156.1	1428	1399	\$11,978,850	\$5,524,500	\$3,229,800	\$6,740,402	\$19,241	\$19,643
	45	464.2	327.0	2354	2019	\$18,465,000	\$13,017,000	\$4,720,500	\$11,049,925	\$20,071	\$23,408
	47	62.0	68.9	496	412	\$3,183,750	\$4,896,000	\$1,152,000	\$4,715,449	\$26,308	\$34,125
	55	475.6	353.2	2696	2166	\$11,725,806	\$4,330,273	\$2,394,000	\$6,237,425	\$9,157	\$11,398
Other	1	531.6	300.2	3364	2752	\$14,697,300	\$4,636,200	\$5,538,000	\$11,491,427	\$10,809	\$13,214
	3	22.2	4.8	26	26	\$783,000	\$2,423,000	\$847,200	\$88,816	\$158,833	\$158,833
	17	189.3	155.0	1116	992	\$8,180,400	\$5,402,160	\$3,901,500	\$4,309,968	\$19,526	\$21,974
	18	98.5	67.6	487	487	\$4,711,500	\$432,000	\$1,264,500	\$1,656,111	\$18,978	\$16,978
	22	337.3	170.1	1225	1080	\$9,791,400	\$5,764,000	\$2,901,000	\$4,831,573	\$19,014	\$21,558
	23	22.9	18.0	130	117	\$1,261,209	\$360,000	\$1,264,500	\$302,705	\$24,551	\$27,258
	24	173.6	159.1	1239	1115	\$7,718,391	\$3,268,160	\$1,152,000	\$2,885,013	\$12,129	\$13,469
	25	1,047.8	586.8	4757	4344	\$26,309,888	\$13,049,500	\$8,972,000	\$24,879,790	\$14,870	\$16,392
	29	190.6	97.9	705	679	\$4,365,900	\$5,355,250	\$2,341,500	\$4,330,925	\$23,267	\$24,153
	30	190.3	134.0	1128	927	\$8,925,275	\$5,792,000	\$3,337,600	\$4,523,835	\$16,246	\$22,191
	31	736.8	588.3	5132	4015	\$28,380,035	\$12,355,500	\$5,298,000	\$34,828,744	\$15,752	\$20,137
	32	87.3	70.7	509	497	\$2,582,901	\$1,983,000	\$3,006,600	\$7,761,238	\$30,133	\$30,681
	33	294.7	196.4	1425	1084	\$8,725,599	\$8,060,750	\$3,955,500	\$10,714,638	\$20,672	\$27,176
	34	749.1	368.3	3178	2684	\$20,415,002	\$10,741,325	\$5,618,200	\$35,200,610	\$22,727	\$27,092
	41	144.4	119.1	857	713	\$3,855,043	\$608,000	\$105,000	\$2,842,935	\$8,645	\$10,389
	42	249.6	182.3	1667	1556	\$12,741,600	\$5,894,100	\$2,785,800	\$6,429,311	\$16,708	\$17,901
	48	218.4	160.4	1298	1116	\$8,229,750	\$4,676,000	\$3,196,500	\$4,786,739	\$18,010	\$18,591
	49	261.6	198.7	1431	1259	\$10,417,500	\$5,031,000	\$3,598,500	\$2,662,235	\$15,731	\$17,872
	51	93.6	63.8	387	368	\$3,001,412	\$891,157	\$2,508,000	\$895,290	\$18,643	\$19,826
	52	98.8	67.1	483	479	\$2,409,673	\$1,316,088	\$2,323,800	\$1,117,378	\$14,644	\$14,952
	53	204.2	169.4	1330	1157	\$5,964,731	\$1,439,708	\$2,175,000	\$3,078,638	\$9,518	\$10,934
	54	190.9	180.8	1301	1261	\$4,678,284	\$1,759,131	\$2,679,000	\$3,009,749	\$9,318	\$9,813
	55	350.4	277.5	2490	2335	\$12,537,051	\$2,050,364	\$3,141,000	\$5,759,930	\$9,434	\$10,060
	61	28.4	24.0	220	150	\$959,840	\$667,600	\$885,000	\$0	\$11,443	\$16,748
	62	64.4	26.8	343	324	\$3,303,691	\$1,438,600	\$2,145,000	\$2,708,555	\$27,984	\$29,656
	63	10.5	2.3	28	27	\$588,968	\$1,798,000	\$105,000	\$221,107	\$98,219	\$98,819
	64	191.3	131.3	1185	1145	\$7,459,500	\$3,966,000	\$2,758,500	\$5,236,401	\$16,365	\$16,960
	65	487.7	350.6	3058	2780	\$19,143,300	\$10,408,000	\$8,406,050	\$7,794,780	\$14,309	\$15,739
	67	319.2	174.9	958	749	\$9,189,450	\$5,558,500	\$4,855,200	\$12,643,287	\$33,725	\$43,068
	68	64.0	21.1	115	101	\$1,611,000	\$1,215,000	\$1,303,200	\$1,520,898	\$49,078	\$55,965
69	11.9	7.9	43	43	\$339,000	\$625,500	\$1,303,200	\$568,683	\$65,761	\$65,761	
70	35.2	29.8	163	163	\$864,800	\$459,000	\$1,565,550	\$2,155,707	\$30,971	\$31,014	
Tier 1 and Other	33	338.4	221.4	1725	1353	\$9,937,299	\$7,303,125	\$5,107,500	\$12,970,025	\$20,474	\$26,107
	34	756.6	371.3	3182	2677	\$20,466,862	\$10,877,575	\$8,703,200	\$35,388,067	\$23,003	\$27,433
	41	423.2	322.6	2322	2168	\$21,372,820	\$7,663,000	\$4,759,500	\$7,700,256	\$17,873	\$19,142
	55	628.2	630.7	5188	4501	\$24,262,858	\$8,380,837	\$5,535,000	\$11,997,355	\$9,290	\$10,704

TABLE 5. TRANSPORTATION SERVICEABILITY COSTS

Phase II Service Availability Analysis
 Transportation System Cost Estimates -- Streets, Bicycle, Pedestrian, Transit
 W&H Project 3270-0101 (filename: TRANCOST.xls)

URA	ACREAGE	DUEs (1) Base Case	DUEs (1) Base with 200' Buffer	TRANSIT (2) (relative service cost)	CAPITAL COST STREETS (3,4) (millions)	PRESENT WORTH MAINTENANCE STREETS (4,5) (20 year forecast) (millions)	TOTAL COST (6) (millions)	COST PER DUE (6) Base Case	COST PER DUE (6) Base with 200' Buffer
Tier 1									
4	124	442	427	lower cost	\$ 1.03	\$ 0.33	\$ 1.37	\$ 3,092	\$ 3,196
5	1382	8821	7411	lower cost	\$ 20.63	\$ 6.65	\$ 27.28	\$ 3,092	\$ 3,680
11	464	1755	1442	medium cost	\$ 4.08	\$ 1.29	\$ 5.37	\$ 3,061	\$ 3,725
14	307	1568	1206	medium cost	\$ 3.12	\$ 1.15	\$ 4.27	\$ 2,723	\$ 3,539
15	315	2122	2090	medium cost	\$ 4.18	\$ 1.54	\$ 5.71	\$ 2,692	\$ 2,733
33	339	300	269	medium cost	\$ 1.97	\$ 0.29	\$ 2.26	\$ 7,518	\$ 8,388
34	756	17	13	medium cost	\$ 0.17	\$ 0.02	\$ 0.19	\$ 11,033	\$ 14,650
35	72	248	233	medium cost	\$ 2.23	\$ 0.67	\$ 2.90	\$ 11,683	\$ 12,458
36	33	59	48	medium cost	\$ 0.20	\$ 0.04	\$ 0.24	\$ 4,071	\$ 4,991
37	146	1156	1062	medium cost	\$ 3.93	\$ 0.78	\$ 4.71	\$ 4,071	\$ 4,433
39	13	0	0	medium cost	\$ -	\$ -	\$ -	\$ -	\$ -
41	424	1464	1454	medium cost	\$ 3.50	\$ 1.36	\$ 4.86	\$ 3,318	\$ 3,340
43	10	61	52	medium cost	\$ 0.21	\$ 0.07	\$ 0.29	\$ 4,720	\$ 5,570
44	238	1428	1399	medium cost	\$ 5.03	\$ 1.72	\$ 6.74	\$ 4,720	\$ 4,819
45	464	2354	2019	medium cost	\$ 8.63	\$ 2.42	\$ 11.05	\$ 4,694	\$ 5,474
47	82	496	412	medium cost	\$ 3.58	\$ 1.14	\$ 4.72	\$ 9,507	\$ 11,455
55	826	2696	2166	lower cost	\$ 4.58	\$ 1.66	\$ 6.24	\$ 2,314	\$ 2,880
Other									
1	532	3364	2752	higher cost	\$ 8.92	\$ 2.57	\$ 11.49	\$ 3,416	\$ 4,176
3	22	26	26	higher cost	\$ 0.07	\$ 0.02	\$ 0.09	\$ 3,416	\$ 3,406
17	189	1116	992	medium cost	\$ 3.21	\$ 1.10	\$ 4.31	\$ 3,862	\$ 4,346
18	99	487	487	medium cost	\$ 1.26	\$ 0.60	\$ 1.86	\$ 3,811	\$ 3,813
22	37	1225	1080	medium cost	\$ 3.54	\$ 1.29	\$ 4.83	\$ 3,944	\$ 4,473
23	23	130	117	medium cost	\$ 0.23	\$ 0.07	\$ 0.30	\$ 2,329	\$ 2,588
24	173	1239	1115	medium cost	\$ 2.17	\$ 0.71	\$ 2.89	\$ 2,329	\$ 2,586
25	1048	4757	4344	medium cost	\$ 18.06	\$ 6.82	\$ 24.88	\$ 5,230	\$ 5,727
29	190	705	679	higher cost	\$ 2.94	\$ 1.39	\$ 4.33	\$ 6,143	\$ 6,381
30	190	1128	927	medium cost	\$ 3.36	\$ 1.16	\$ 4.52	\$ 4,010	\$ 4,878
31	737	5132	4015	medium cost	\$ 29.90	\$ 4.93	\$ 34.83	\$ 6,787	\$ 8,676
32	87	509	497	medium cost	\$ 7.27	\$ 0.49	\$ 7.76	\$ 15,248	\$ 15,631
33	339	1425	1084	medium cost	\$ 9.34	\$ 1.37	\$ 10.71	\$ 7,519	\$ 9,885
34	756	3175	2664	medium cost	\$ 32.15	\$ 3.05	\$ 35.20	\$ 11,087	\$ 13,213
41	424	857	713	medium cost	\$ 2.05	\$ 0.79	\$ 2.84	\$ 3,317	\$ 3,985
42	250	1667	1556	medium cost	\$ 5.01	\$ 1.42	\$ 6.43	\$ 3,857	\$ 4,132
48	218	1298	1118	medium cost	\$ 3.63	\$ 1.16	\$ 4.79	\$ 3,688	\$ 4,281
49	262	1431	1259	medium cost	\$ 1.91	\$ 0.75	\$ 2.66	\$ 1,860	\$ 2,114
51	93	387	368	lower cost	\$ 0.66	\$ 0.24	\$ 0.90	\$ 2,313	\$ 2,433
52	99	483	479	lower cost	\$ 0.82	\$ 0.30	\$ 1.12	\$ 2,313	\$ 2,331
53	204	1330	1157	lower cost	\$ 2.26	\$ 0.82	\$ 3.08	\$ 2,313	\$ 2,658
54	191	1301	1261	lower cost	\$ 2.21	\$ 0.80	\$ 3.01	\$ 2,313	\$ 2,386
55	826	2490	2335	lower cost	\$ 4.23	\$ 1.53	\$ 5.76	\$ 2,313	\$ 2,467
61	28	220	150	higher cost	\$ -	\$ -	\$ -	\$ -	\$ -
62	54	343	324	higher cost	\$ 2.26	\$ 0.45	\$ 2.71	\$ 7,897	\$ 8,372
63	11	28	27	higher cost	\$ 0.18	\$ 0.04	\$ 0.22	\$ 7,897	\$ 8,053
64	191	1185	1145	higher cost	\$ 3.59	\$ 1.65	\$ 5.24	\$ 4,419	\$ 4,573
65	488	3058	2780	lower cost	\$ 5.90	\$ 1.89	\$ 7.79	\$ 2,549	\$ 2,804
67	319	956	749	higher cost	\$ 9.37	\$ 3.28	\$ 12.64	\$ 13,225	\$ 16,887
68	64	115	101	higher cost	\$ 1.13	\$ 0.39	\$ 1.52	\$ 13,225	\$ 15,065
69	12	43	43	higher cost	\$ 0.42	\$ 0.15	\$ 0.57	\$ 13,225	\$ 13,185
70	35	163	163	higher cost	\$ 1.60	\$ 0.56	\$ 2.16	\$ 13,225	\$ 13,253
Both									
33	339	1725	1353	medium cost	\$ 11.31	\$ 1.66	\$ 12.97	\$ 7,519	\$ 9,588
34	756	3192	2677	medium cost	\$ 32.32	\$ 3.07	\$ 35.39	\$ 11,086	\$ 13,220
41	424	2322	2168	medium cost	\$ 5.55	\$ 2.15	\$ 7.70	\$ 3,316	\$ 3,552
55	826	5186	4501	lower cost	\$ 8.81	\$ 3.19	\$ 12.00	\$ 2,313	\$ 2,666

(1) DUEs = Dwelling Unit Equivalents. DUEs are estimated housing and employment figures. 1 DUE = 2.4 people.
 (2) For this analysis, transit is described in qualitative rather than quantitative terms because of time limitations and wide variations in URA transit system characteristics/lack of researchable information that hindered comprehensive analysis.
 (3) Capital cost for streets is taken from Spreadsheet 2, Appendix B
 (4) Capital costs for streets and maintenance costs for streets assume capital and maintenance costs for bicycle and pedestrian systems.
 (5) Present worth of maintenance cost/year for streets is taken from Spreadsheet 3, Appendix B.
 (6) It should be noted that cost estimates per URA change when contiguous URAs are brought into the UGB at the same time. URAs "share costs" if they are brought in on the same transportation system

URA#62

Wastewater Cost

Technique/ Option	Quantity	Units	Low Range		High Range		Engineer's Estimate	
			Cost/ Unit	Total Cost	Cost/ Unit	Total Cost	Cost/ Unit	Total Cost
Pipe, manholes & trenching								
Small (<=15" diameter)*	10,613	feet	\$75	\$795,975	\$105	\$1,114,365	\$90	\$955,170
Medium (18" - 24" diameter, estimated @ 24")		feet	\$120	\$0	\$170	\$0	\$145	\$0
Large (>=27" diameter, estimated @ 42")		feet	\$210	\$0	\$300	\$0	\$250	\$0
Maintenance (20 year present worth)	10,613	feet	\$40	\$424,520	\$64	\$679,232	\$48	\$509,424
Pipe, manholes & trenching; extra deep								
Small (<=15" diameter)		feet	\$90	\$0	\$130	\$0	\$120	\$0
Medium (18" - 24" diameter, estimated @ 24")		feet	\$144	\$0	\$205	\$0	\$190	\$0
Large (>=27" diameter, estimated @ 42")		feet	\$252	\$0	\$355	\$0	\$330	\$0
Maintenance (20 year present worth)	0	feet	\$40	\$0	\$64	\$0	\$48	\$0
Pump stations								
Small (80 year present worth)		each	\$9,000	\$0	\$110,000	\$0	\$100,000	\$0
Medium (80 year present worth)		each	\$745,000	\$0	\$855,000	\$0	\$800,000	\$0
Large (80 year present worth)		each	\$1,400,000	\$0	\$1,600,000	\$0	\$1,500,000	\$0
Maintenance (20 year present worth)	0	each	\$128,000	\$0	\$192,000	\$0	\$160,000	\$0
Force mains								
Small		feet	\$75	\$0	\$105	\$0	\$90	\$0
Medium		feet	\$120	\$0	\$170	\$0	\$145	\$0
Large		feet	\$210	\$0	\$300	\$0	\$250	\$0
Maintenance (20 year present worth)	0	feet	\$32	\$0	\$48	\$0	\$40	\$0
Extra for pipe construction at wetland								
Shallow to moderate soil depth		feet	\$20	\$0	\$40	\$0	\$30	\$0
Deep soil depth		feet	\$30	\$0	\$60	\$0	\$50	\$0
Stream and riparian mitigation								
<25' wide		feet	\$100	\$0	\$200	\$0	\$180	\$0
25' to 75' wide		feet	\$250	\$0	\$350	\$0	\$330	\$0
> 75' - 200' wide		feet	\$350	\$0	\$450	\$0	\$430	\$0
Wetland mitigation								
Low quality		acre	\$10,000	\$0	\$25,000	\$0	\$18,250	\$0
Medium quality		acre	\$15,000	\$0	\$35,000	\$0	\$22,750	\$0
High quality		acre	\$20,000	\$0	\$40,000	\$0	\$28,000	\$0
River crossing (bridge, estimated @ 8")								
Small (<=75' length, estimated @ 75')		each	\$3,750	\$0	\$4,500	\$0	\$4,180	\$0
Medium (75' - 150' length, estimated @ 150')		each	\$8,750	\$0	\$7,500	\$0	\$7,200	\$0
Large (>= 150' length)		each	\$7,500	\$0	\$11,000	\$0	\$10,600	\$0
River crossing (bore/trench, estimated at 30")								
Small (<=75' length)		each	\$48,575	\$0	\$47,625	\$0	\$47,100	\$0
Medium (75' - 150' length)		each	\$87,450	\$0	\$88,800	\$0	\$88,125	\$0
Large (>= 150' length, estimated @ 200')		each	\$118,000	\$0	\$120,200	\$0	\$119,100	\$0
Treatment capacity								
Medium (10/10)		mgd	\$3,000,000	\$0	\$5,000,000	\$0	\$4,000,000	\$0
AWT (USA)	0.09	mgd	\$4,000,000	\$360,000	\$8,000,000	\$540,000	\$5,000,000	\$450,000
Maintenance (20 year present worth)	0.09	mgd	\$2,880,000	\$259,200	\$4,000,000	\$360,000	\$3,200,000	\$288,000

*Indicates shared facility

Base Total:	\$1,839,695	\$2,693,597	\$2,202,594
Engineering Costs @ 20%:	\$367,939	\$538,719	\$440,519
Contingency Costs @ 30%:	\$551,909	\$808,079	\$660,778
Total:	\$2,759,543	\$4,040,396	\$3,303,891

URA#62

Water Cost

Technique/ Option	Quantity	Units	Low Range		High Range		Engineer's Estimate	
			Cost/Unit	Total Cost	Cost/Unit	Total Cost	Cost/Unit	Total Cost
Source expansion**								
Surface water		mgd	\$800,000	\$0	\$1,200,000	\$0	\$1,000,000	\$0
Groundwater		mgd	\$475,000	\$0	\$525,000	\$0	\$500,000	\$0
Treatment and appurtenances								
Level A (Expansion)	0.13	mgd	\$300,000	\$39,000	\$500,000	\$65,000	\$400,000	\$52,000
Level B (New Plant)		mgd	\$1,000,000	\$0	\$1,500,000	\$0	\$1,250,000	\$0
Maintenance (20 year present worth)	0.13	mgd	\$750,000	\$97,500	\$1,250,000	\$162,500	\$1,000,000	\$130,000
Transmission lines***								
Small (<= 12")	7,000	ft	\$150	\$1,050,000	\$180	\$1,260,000	\$175	\$1,225,000
Medium (12" - 22")		ft	\$180	\$0	\$225	\$0	\$200	\$0
Large (>= 22")		ft	\$200	\$0	\$275	\$0	\$250	\$0
River crossing (bridge, estimated @ 8")								
Small (<= 75' length, estimated @ 75')		each	\$3,750	\$0	\$4,500	\$0	\$4,160	\$0
Medium (75' - 150' length, estimated @ 150')		each	\$8,750	\$0	\$7,500	\$0	\$7,200	\$0
Large (>= 150' length)		each	\$7,500	\$0	\$11,000	\$0	\$10,600	\$0
River crossing (bore/french, estimated at 30")								
Small (<= 75' length)		each	\$48,575	\$0	\$47,625	\$0	\$47,100	\$0
Medium (75' - 150' length)		each	\$87,450	\$0	\$88,800	\$0	\$88,125	\$0
Large (>= 150' length, estimated @ 200')		each	\$118,000	\$0	\$120,200	\$0	\$119,100	\$0
Pressure reducing valves								
Small*	0.93	each	\$30,000	\$27,750	\$35,000	\$32,375	\$32,000	\$29,600
Medium		each	\$40,000	\$0	\$50,000	\$0	\$45,000	\$0
Large		each	\$60,000	\$0	\$75,000	\$0	\$70,000	\$0
Water meters								
Large		each	\$60,000	\$0	\$60,000	\$0	\$70,000	\$0
Distribution system storage								
Small (1-2 mg)		mg	\$1,000,000	\$0	\$2,000,000	\$0	\$1,500,000	\$0
Medium (2-5 mg)		mg	\$2,000,000	\$0	\$3,000,000	\$0	\$2,500,000	\$0
Large (>5 mg)		mg	\$3,000,000	\$0	\$6,000,000	\$0	\$5,000,000	\$0
Pump stations								
Small (80 year present worth)		each	\$90,000	\$0	\$110,000	\$0	\$100,000	\$0
Medium (80 year present worth)		each	\$745,000	\$0	\$855,000	\$0	\$800,000	\$0
Large (80 year present worth)		each	\$1,400,000	\$0	\$1,600,000	\$0	\$1,500,000	\$0
Maintenance (20 year present worth)	0	each	\$100,000	\$0	\$150,000	\$0	\$128,000	\$0

*Indicates shared facility

**Due to the recent expansion of the Barney Reservoir, costs associated with source expansion are not included.

***Connection is assumed at new 66" water transmission line

Base Total:	\$1,214,250	\$1,519,875	\$1,436,600
Engineering Costs @ 20%:	\$242,850	\$303,975	\$287,320
Agency Costs @ 30%:	\$364,275	\$455,963	\$430,980
Total:	\$1,214,250	\$1,519,875	\$1,436,600

Appendix A
URA #62

URA#62

Stormwater Cost

Technique/ Option	Quantity	Units	Low Range		High Range		Engineer's Estimate	
			Cost/Unit	Total Cost	Cost/Unit	Total Cost	Cost/Unit	Total Cost
Pipe, manholes & trenching								
Small (<=18" diameter)		feet	\$70	\$0	\$120	\$0	\$110	\$0
Medium 21" - 42" diameter, estimated @ 42"		feet	\$130	\$0	\$220	\$0	\$190	\$0
Large (>=45" diameter, estimated @ 60")		feet	\$180	\$0	\$300	\$0	\$270	\$0
Maintenance (20 year present worth)	0	feet	\$32	\$0	\$48	\$0	\$40	\$0
Extra for pipe construction at wetland								
Shallow to moderate soil depth		feet	\$20	\$0	\$40	\$0	\$30	\$0
Deep soil depth		feet	\$30	\$0	\$60	\$0	\$50	\$0
Stream and riparian mitigation								
<25' wide		feet	\$100	\$0	\$200	\$0	\$180	\$0
25' to 75' wide		feet	\$250	\$0	\$350	\$0	\$330	\$0
> 75' - 200' wide		feet	\$350	\$0	\$450	\$0	\$430	\$0
Wetland mitigation								
Low quality		acre	\$10,000	\$0	\$25,000	\$0	\$18,250	\$0
Medium quality		acre	\$15,000	\$0	\$35,000	\$0	\$22,750	\$0
High quality		acre	\$20,000	\$0	\$40,000	\$0	\$28,000	\$0
Channelization								
Small (10 ft ² X-Sect)		feet	\$50	\$0	\$100	\$0	\$80	\$0
Medium (25 ft ² X-Sect)		feet	\$100	\$0	\$150	\$0	\$140	\$0
Large (45 ft ² X-Sect)		feet	\$175	\$0	\$275	\$0	\$250	\$0
Maintenance (20 year present worth)	0	feet	\$20	\$0	\$48	\$0	\$32	\$0
Water quality pond/marsh								
Small (<= .50 acres)	1	each	\$125,000	\$125,000	\$250,000	\$250,000	\$200,000	\$200,000
Medium (.51 - 2 acres)		each	\$140,000	\$0	\$280,000	\$0	\$225,000	\$0
Large (>2 acres)		each	\$180,000	\$0	\$320,000	\$0	\$260,000	\$0
Maintenance (20 year present worth)	1	each	\$180,000	\$160,000	\$480,000	\$480,000	\$320,000	\$320,000
On - stream detention								
Small Regional (50 - 150 acres)		each	\$100,000	\$0	\$200,000	\$0	\$150,000	\$0
Medium Regional (150 - 250 acres)		each	\$150,000	\$0	\$250,000	\$0	\$200,000	\$0
Large Regional (>250 acres)		each	\$250,000	\$0	\$800,000	\$0	\$400,000	\$0
Maintenance (20 year present worth)	0	each	\$80,000	\$0	\$180,000	\$0	\$98,000	\$0
Off - stream detention								
On - Site		each	\$50,000	\$0	\$80,000	\$0	\$70,000	\$0
Small Regional (50 - 150 acres)	1	each	\$250,000	\$250,000	\$400,000	\$400,000	\$350,000	\$350,000
Medium Regional (150 - 250 acres)		each	\$350,000	\$0	\$750,000	\$0	\$800,000	\$0
Large Regional (>250 acres)		each	\$700,000	\$0	\$2,000,000	\$0	\$1,200,000	\$0
Maintenance (20 year present worth)	1	each	\$320,000	\$320,000	\$800,000	\$800,000	\$560,000	\$560,000

Base Total:	\$855,000	\$1,930,000	\$1,430,000
Engineering Costs @ 20%:	\$171,000	\$386,000	\$286,000
Contingency Costs @ 30%:	\$256,500	\$579,000	\$429,000
Total:	\$1,282,500	\$2,895,000	\$2,145,000

Appendix A
URA #62

CNCV

URA#63

Wastewater Cost

Technique/ Option	Quantity	Units	Low Range		High Range		Engineer's Estimate	
			Cost/ Unit	Total Cost	Cost/ Unit	Total Cost	Cost/ Unit	Total Cost
Pipe, manholes & trenching								
Small (<=15" diameter)*	1,388	feet	\$75	\$104,100	\$105	\$145,740	\$90	\$124,920
Medium (18" - 24" diameter, estimated @ 24")		feet	\$120	\$0	\$170	\$0	\$145	\$0
Large (>=27" diameter, estimated @ 42")		feet	\$210	\$0	\$300	\$0	\$250	\$0
Maintenance (20 year present worth)	1,388	feet	\$40	\$55,520	\$64	\$88,832	\$48	\$66,624
Pipe, manholes & trenching; extra deep								
Small (<=15" diameter)		feet	\$90	\$0	\$130	\$0	\$120	\$0
Medium (18" - 24" diameter, estimated @ 24")		feet	\$144	\$0	\$205	\$0	\$190	\$0
Large (>=27" diameter, estimated @ 42")		feet	\$252	\$0	\$355	\$0	\$330	\$0
Maintenance (20 year present worth)	0	feet	\$40	\$0	\$64	\$0	\$48	\$0
Pump stations								
Small (60 year present worth)		each	\$9,000	\$0	\$110,000	\$0	\$100,000	\$0
Medium (60 year present worth)		each	\$745,000	\$0	\$655,000	\$0	\$800,000	\$0
Large (80 year present worth)		each	\$1,400,000	\$0	\$1,600,000	\$0	\$1,500,000	\$0
Maintenance (20 year present worth)	0	each	\$128,000	\$0	\$192,000	\$0	\$180,000	\$0
Force mains								
Small		feet	\$75	\$0	\$105	\$0	\$90	\$0
Medium		feet	\$120	\$0	\$170	\$0	\$145	\$0
Large		feet	\$210	\$0	\$300	\$0	\$250	\$0
Maintenance (20 year present worth)	0	feet	\$32	\$0	\$48	\$0	\$40	\$0
Extra for pipe construction at wetland								
Shallow to moderate soil depth		feet	\$20	\$0	\$40	\$0	\$30	\$0
Deep soil depth		feet	\$30	\$0	\$60	\$0	\$50	\$0
Stream and riparian mitigation								
<25' wide		feet	\$100	\$0	\$200	\$0	\$180	\$0
25' to 75' wide		feet	\$250	\$0	\$350	\$0	\$330	\$0
> 75' - 200' wide		feet	\$350	\$0	\$450	\$0	\$430	\$0
Wetland mitigation								
Low quality		acre	\$10,000	\$0	\$25,000	\$0	\$18,250	\$0
Medium quality		acre	\$15,000	\$0	\$35,000	\$0	\$22,750	\$0
High quality		acre	\$20,000	\$0	\$40,000	\$0	\$28,000	\$0
River crossing (bridge, estimated @ 8")								
Small (<=75' length, estimated @ 75')		each	\$3,750	\$0	\$4,500	\$0	\$4,160	\$0
Medium (75' - 150' length, estimated @ 150')		each	\$6,750	\$0	\$7,500	\$0	\$7,200	\$0
Large (>= 150' length)		each	\$7,500	\$0	\$11,000	\$0	\$10,600	\$0
River crossing (bore/trench, estimated at 30")								
Small (<=75' length)		each	\$46,575	\$0	\$47,625	\$0	\$47,100	\$0
Medium (75' - 150' length)		each	\$87,450	\$0	\$88,800	\$0	\$88,125	\$0
Large (>= 150' length, estimated @ 200')	1	each	\$118,000	\$118,000	\$120,200	\$120,200	\$119,100	\$119,100
Treatment capacity								
Medium (10/10)		mgd	\$3,000,000	\$0	\$5,000,000	\$0	\$4,000,000	\$0
AWT (USA)	0.01	mgd	\$4,000,000	\$40,000	\$6,000,000	\$60,000	\$5,000,000	\$50,000
Maintenance (20 year present worth)	0.01	mgd	\$2,880,000	\$28,800	\$4,000,000	\$40,000	\$3,200,000	\$32,000

*Indicates shared facility

Base Total:	\$346,420	\$454,772	\$392,644
Engineering Costs @ 20%:	\$69,284	\$90,954	\$78,529
Contingency Costs @ 30%:	\$103,926	\$136,432	\$117,793
Total:	\$519,630	\$682,158	\$588,966

Appendix A
URA #63

URA#63

Water Cost

Technique/ Option	Quantity	Units	Low Range		High Range		Engineer's Estimate	
			Cost/Unit	Total Cost	Cost/Unit	Total Cost	Cost/Unit	Total Cost
Source expansion*								
Surface water		mgd	\$800,000	\$0	\$1,200,000	\$0	\$1,000,000	\$0
Groundwater		mgd	\$475,000	\$0	\$525,000	\$0	\$500,000	\$0
Treatment and appurtenances								
Level A (Expansion)	0.01	mgd	\$300,000	\$3,000	\$500,000	\$5,000	\$400,000	\$4,000
Level B (New Plant)		mgd	\$1,000,000	\$0	\$1,500,000	\$0	\$1,250,000	\$0
Maintenance (20 year present worth)	0.01	mgd	\$750,000	\$7,500	\$1,250,000	\$12,500	\$1,000,000	\$10,000
Transmission lines***								
Small (<= 12")	9,500	ft	\$150	\$1,425,000	\$180	\$1,710,000	\$175	\$1,662,500
Medium (12" - 22")		ft	\$160	\$0	\$225	\$0	\$200	\$0
Large (>= 22")		ft	\$200	\$0	\$275	\$0	\$250	\$0
River crossing (bridge, estimated @ 8")								
Small (<= 75' length, estimated @ 75')		each	\$3,750	\$0	\$4,500	\$0	\$4,160	\$0
Medium (75' - 150' length, estimated @ 150')		each	\$6,750	\$0	\$7,500	\$0	\$7,200	\$0
Large (>= 150' length)		each	\$7,500	\$0	\$11,000	\$0	\$10,600	\$0
River crossing (bore/trench, estimated at 30")								
Small (<= 75' length)		each	\$48,575	\$0	\$47,625	\$0	\$47,100	\$0
Medium (75' - 150' length)		each	\$87,450	\$0	\$88,600	\$0	\$88,125	\$0
Large (>= 150' length, estimated @ 200')	1	each	\$118,000	\$118,000	\$120,200	\$120,200	\$119,100	\$119,100
Pressure reducing valves								
Small*	0.08	each	\$30,000	\$2,250	\$35,000	\$2,625	\$32,000	\$2,400
Medium		each	\$40,000	\$0	\$50,000	\$0	\$45,000	\$0
Large		each	\$60,000	\$0	\$75,000	\$0	\$70,000	\$0
Water meters								
Large		each	\$60,000	\$0	\$80,000	\$0	\$70,000	\$0
Distribution system storage								
Small (1-2 mg)		mg	\$1,000,000	\$0	\$2,000,000	\$0	\$1,500,000	\$0
Medium (2-5 mg)		mg	\$2,000,000	\$0	\$3,000,000	\$0	\$2,500,000	\$0
Large (>5 mg)		mg	\$3,000,000	\$0	\$6,000,000	\$0	\$5,000,000	\$0
Pump stations								
Small (80 year present worth)		each	\$90,000	\$0	\$110,000	\$0	\$100,000	\$0
Medium (80 year present worth)		each	\$745,000	\$0	\$855,000	\$0	\$800,000	\$0
Large (80 year present worth)		each	\$1,400,000	\$0	\$1,600,000	\$0	\$1,500,000	\$0
Maintenance (20 year present worth)	0	each	\$100,000	\$0	\$150,000	\$0	\$128,000	\$0

*Indicates shared facility

**Due to the recent expansion of the Barney Reservoir, costs associated with source expansion are not included.

***Connection is assumed at new 66" water transmission line

Base Total:	\$1,555,750	\$1,850,325	\$1,798,000
Engineering Costs @ 20%:	\$311,150	\$370,065	\$359,600
Agency Costs @ 30%:	\$466,725	\$555,098	\$539,400
Total:	\$1,555,750	\$1,850,325	\$1,798,000

Appendix A
URA #63

A211

URA#63

Stormwater Cost

Technique/ Option	Quantity	Units	Low Range		High Range		Engineer's Estimate	
			Cost/ Unit	Total Cost	Cost/ Unit	Total Cost	Cost/ Unit	Total Cost
Pipe, manholes & trenching								
Small (<=18" diameter)		feet	\$70	\$0	\$120	\$0	\$110	\$0
Medium 21" - 42" diameter, estimated @ 42"		feet	\$130	\$0	\$220	\$0	\$190	\$0
Large (>=45" diameter, estimated @ 60")		feet	\$180	\$0	\$300	\$0	\$270	\$0
Maintenance (20 year present worth)	0	feet	\$32	\$0	\$48	\$0	\$40	\$0
Extra for pipe construction at wetland								
Shallow to moderate soil depth		feet	\$20	\$0	\$40	\$0	\$30	\$0
Deep soil depth		feet	\$30	\$0	\$60	\$0	\$50	\$0
Stream and riparian mitigation								
<25' wide		feet	\$100	\$0	\$200	\$0	\$180	\$0
25' to 75' wide		feet	\$250	\$0	\$350	\$0	\$330	\$0
> 75' - 200' wide		feet	\$350	\$0	\$450	\$0	\$430	\$0
Wetland mitigation								
Low quality		acre	\$10,000	\$0	\$25,000	\$0	\$18,250	\$0
Medium quality		acre	\$15,000	\$0	\$35,000	\$0	\$22,750	\$0
High quality		acre	\$20,000	\$0	\$40,000	\$0	\$28,000	\$0
Channelization								
Small (10 ft ² X-Sept)		feet	\$50	\$0	\$100	\$0	\$80	\$0
Medium (25 ft ² X-Sept)		feet	\$100	\$0	\$160	\$0	\$140	\$0
Large (45 ft ² X-Sept)		feet	\$175	\$0	\$275	\$0	\$250	\$0
Maintenance (20 year present worth)	0	feet	\$20	\$0	\$48	\$0	\$32	\$0
Water quality pond/marsh								
Small (<= .50 acres)		each	\$125,000	\$0	\$250,000	\$0	\$200,000	\$0
Medium (.51- 2 acres)		each	\$140,000	\$0	\$280,000	\$0	\$225,000	\$0
Large (>2 acres)		each	\$180,000	\$0	\$320,000	\$0	\$260,000	\$0
Maintenance (20 year present worth)	0	each	\$180,000	\$0	\$480,000	\$0	\$320,000	\$0
On - stream detention								
Small Regional (50 - 150 acres)		each	\$100,000	\$0	\$200,000	\$0	\$150,000	\$0
Medium Regional (150 - 250 acres)		each	\$150,000	\$0	\$250,000	\$0	\$200,000	\$0
Large Regional (>250 acres)		each	\$250,000	\$0	\$800,000	\$0	\$400,000	\$0
Maintenance (20 year present worth)	0	each	\$80,000	\$0	\$180,000	\$0	\$98,000	\$0
Off - stream detention								
On - Site	1	each	\$50,000	\$50,000	\$80,000	\$80,000	\$70,000	\$70,000
Small Regional (50 - 150 acres)		each	\$250,000	\$0	\$400,000	\$0	\$350,000	\$0
Medium Regional (150 - 250 acres)		each	\$350,000	\$0	\$750,000	\$0	\$600,000	\$0
Large Regional (>250 acres)		each	\$700,000	\$0	\$2,000,000	\$0	\$1,200,000	\$0
Maintenance (20 year present worth)	0	each	\$320,000	\$0	\$800,000	\$0	\$580,000	\$0

Base Total:	\$50,000	\$80,000	\$70,000
Engineering Costs @ 20%:	\$10,000	\$16,000	\$14,000
Contingency Costs @ 30%:	\$15,000	\$24,000	\$21,000
Total:	\$75,000	\$120,000	\$105,000

Appendix A
URA#63



Memorandum

Date: September 22, 1998
To: Mark Turpel, Metro
From: Tom Armstrong, AICP ^{TR}
RE: Revisions to Urban Reserve Productivity Analysis

In his September 16, 1998 letter to Elaine Wilkerson, Thomas McConnell, AICP, of Alpha Engineering raises concerns about the accuracy of the Productivity Analysis as it applies to URA 63. Upon review of his comments, we have modified our development classification for this URA. This memo provides the resulting revised productivity analysis.

URA 63 is a relatively small urban reserve consisting of 10.5 total acres with one tax lot. It is located northwest of the U.S. 26 and Shute Road interchange in Washington County. It is not a Tier 1 Reserve. The tax lot contains 10.1 acres of identified resource land of which 7.1 acres are developed; and 3.0 acres of vacant land, of which 1.6 acres are constrained by a Title 3 stream buffer along the eastern edge of the URA. The balance of land (.4 acres) is in public right-of-way.

The original map and aerial photo review showed a large portion of the URA was developed, but most of the "rooftops" were obscured by a large grove of trees. Based on the assumption that the URA was largely developed, a field visit was not conducted for this URA. The developed portion of the tax lot was classified as Category 2 - might redevelop, based on the high improvement value. The 2040 design type allocation classified this URA as 100% Corridor with 70% residential and 30% commercial given its proximity to the interchange.

The information presented by Mr. McConnell lead us to re-classify the developed portion to Category 1 - likely to redevelop, which significantly increases the amount of buildable land. Table 1 presents the revised productivity analysis. The end result of this change is that URA 63 has the highest productivity index of all the Phase 2 URAs, moving it from the bottom quartile to the top quartile. However it should be noted that the tax lot is designated as resource land.

Post-It™ brand fax transmittal memo 7671		# of pages
To	JIM STANDISH	
Co.	ALPHA	
Dept.	857-8043	
From		
Co.		
Phone #		
Fax #		

1220 SW Morrison Street, Suite 500
Portland, OR 97205
phone 503 241.7095
facsimile 503 241.7195

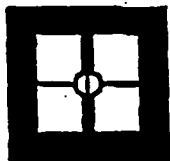
Table 1. Productivity Estimate for URA 63 (Base assumptions)

	Acres				Productivity		Density		Productivity Index
	Total Acres	Bulldable Land	Bulldable Residential Land	Bulldable Resource Land	Dwelling Units	Employment	DU/Net Resident. Acre	Emp. Per Gross Emp Acre	
Original	10.6	2.3	1.4	1.6	23	12	21.2	20.0	6.3
Revised	10.5	7.3	4.5	7.3	72	38	16.0	20.0	20.1

The productivity results are still lower than the numbers presented in Mr. McConnell's letter because our design type allocation included a commercial component and we have applied a consistent regional methodology. The remaining difference may be to Mr. McConnell's specific knowledge of the site and its development potential. This is an example of how site specific master plans may result in a further increase in productivity.

The serviceability analysis has not been updated yet. Revisions to all of the tables in the Summary Report will be prepared later.

CITY OF HILLSBORO



COPY

September 25, 1998

Fax transmitted:

Jon Kvistad, Presiding Officer
and Metro Council
600 NE Grand Avenue
Portland, Oregon 97232

RE: Urban Reserve Sites 62 and 63.

Dear Presiding Officer Kvistad and Metro Council:

Please be informed that the City of Hillsboro is fully aware of the ongoing private effort to prepare urban reserve plans for urban reserve sites 62 and 63. Since these sites are across the Sunset Highway (US 26) from the only nearby urban reserve sites, they can stand alone and need not be master planned with other sites. Accordingly, we support the efforts of the owner of the sites to accomplish this essential planning work.

The owner and his consultant have presented to us preliminary proposed land use and transportation concepts for the site. We have discussed these matters and the need to establish the feasibility of bringing public facilities and infrastructure services to the sites if they are brought into the UGB. The owner understands that such feasibility, in part, requires substantial owner participation in funding such facilities and services.

The owner and his consultants also understand that an urban reserve plan covering the sites, which complies with applicable Metro Code requirements, must be completed prior to their inclusion into the UGB. We look forward to continuing our planning coordination with the owner and his consultants as they refine the urban reserve plan for the sites in the near future.

Sites 62 and 63 are covered in a Hillsboro-Washington County Memorandum of Understanding. The MOU assigns urban reserve concept planning responsibilities for the sites to the City of Hillsboro and addresses the governance requirements contained in the Metro Code. If the sites are brought into the UGB, the MOU requires the City of Hillsboro to annex them and establish urban zoning.

Post-It® Fax Note	7871	Date	9/25	# of pages	2
To	Tom McLeod	From	Pat Ribellm		
Co./Dept.		Co.			
Phone #	452-8003	Phone #	681-0239		
Fax #	452-8043	Fax #			

09/25/98 15:34 CITY OF HILLSBORO
Hon. Jon Kvistad & Metro Council
September 25, 1998
Page 2.

The City of Hillsboro would accept annexation of the sites to the City and assume responsibility for providing municipal services to the sites upon (1) City and Metro approval of a completed urban reserve plan for the sites by the owner followed by their inclusion into the UGB; (2) establishment of the feasibility of providing public facilities and infrastructure services to the sites with owner funding participation and a corresponding funding participation commitment from the owner; and, (3) annexation of the Sites to the Metropolitan Service District.

Thank you for considering these remarks.

Sincerely,

CITY OF HILLSBORO

Tim Erwert/PR

Tim Erwert
City Manager

cc: Jim Standring

2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31

WASHINGTON COUNTY and the CITY OF HILLSBORO
Memorandum of Understanding Re: Preparation of Urban Reserve Plans
for
METRO URBAN RESERVE SITE NOS. 51, 52, 53, 54, 55, 61, 62, 63 and 64.

I. Purpose.

This Memorandum of Understanding ("Memorandum") is between the City of Hillsboro ("City") and Washington County ("County"), and is executed, respectively, by the Directors of the County Department of Land Use & Transportation and the Hillsboro Planning Department. It is prepared pursuant to ORS 190.010 which permits local government to enter into agreements for the performance of any or all functions and activities that a party to the agreement, its officers or agents, have authority to perform. The Memorandum addresses Metro Code, Sec. 3.01.012(e)(1) which requires an "urban reserve plan" for any Metro Urban Growth Boundary ("UGB") expansion areas. Such a plan may include a city-county planning area agreement that:

- 1) the city or county will adopt comprehensive plan provisions for such areas;
- 2) such areas will be rezoned for urban development only upon annexation, or upon agreement for delayed annexation to the city; and
- 3) before their annexation to the city, the county shall adopt rural zoning of the expansion areas to protect them from inappropriate development until city annexation and adoption of urban zoning.

The purposes of the Memorandum are to identify the roles of the City of Hillsboro and Washington County in preparing urban reserve plans for Metro Urban Reserve sites; set forth the process for City-County planning coordination during their preparation; and, identify certain subject matter to be addressed by the urban reserves plans. The Memorandum does not delegate authority or responsibility (and the attendant procedural duties) to make formal land use decisions within the covered urban reserve areas and is subject to appropriation of funds, including private funding contribution, by the City.

"Urban reserve plan" means and includes urban reserves plans described in, and required under Sec. 3.01-012(e)(1-13) of the Metro Code. An urban reserve plan includes, but is not limited to a conceptual land use plan and concept map for the entire land area covered by the urban reserve plan.

II. Planning Areas.

The parties to this Memorandum agree that it applies to those approved Urban Reserve sites shown on attached exhibits "A-1" through "A-9" (hereinafter collectively referred to as the "planning areas") as affirmed either by the State Land Use Board of Appeals (LUBA) in LUBA Nos. 97-050 through -057 and 97-063 or in any approved settlement thereof. The parties understand and agree that:

1. Impacts on and relationships of the planning areas (and individual Urban Reserve sites) to other areas in the City and County can be considered during the urban reserve planning process; and,
2. An urban reserve plan may cover one or more of the Urban Reserve sites; provided, however, that a single urban reserve plan may cover Urban Reserve Sites Nos. 51, 52, 53, 54 and 55 because these sites share common transportation, public utility, schools, sewer and water supply needs and issues and may be best master-planned collectively.

III. Planning Roles.

The parties agree that the following planning roles within the planning areas shall be assigned to the City and County:

- A. The City shall prepare one or more urban reserve plan(s), and adopt corresponding City comprehensive plan amendments upon their approval by the Metro Council, for the planning areas which address the following applicable plan requirements in Metro Code, Sec. 3.01-012(e) (1-13):
 1. Residential densities within the planning areas that permit at least ten (10) dwelling units per net developable residential acre in accordance with Metro Code, Sec. 3.01-012(e)(3).
 2. Housing measures that provide for a diverse housing stock within the Area that address housing requirements described in ORS 197.303 in accordance with Metro Code, Sec. 3.01-012(e)(5).
 3. "Affordable housing" provisions that meet performance requirements described in Metro Code, Sec. 3.01-012(e)(6).
 4. Provisions that permit sufficient commercial and industrial development to meet the need for such development within the planning areas and adjacent lands inside the UGB in a manner consistent with Metro Region 2040 Growth Concept Design Types in accordance with Metro Code, Sec. 3.01-012(e)(7).

2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45

5. A conceptual transportation system plan for the planning areas that would be consistent with the Metro Regional Transportation System Plan and with the protection of natural resources as required by Metro functional plans in accordance with Metro Code, Sec. 3.01-012(e)(8). Proposed transportation system improvements (including recommended design standards and construction timing) for the area shall be coordinated and consistent with the design and operation of the County transportation system as prescribed in its Transportation System Plan

6. Provisions that identify, map and describe a funding strategy for protecting areas inside the planning areas from development due to wildlife habitat protection, water quality enhancement and mitigation and natural hazards mitigation in accordance with Metro Code, Sec. 3.01-012(e)(9).

7. A conceptual public facilities and services plan for the planning areas which includes rough cost estimates for providing public infrastructure, parks, public safety and fire protection services and facilities and their financing in accordance with Metro Code, Sec. 3.01-012(e)(10).

8. A conceptual school plan in accordance with Metro Code, Sec. 3.-01-012(e)(11).

9. In accordance with Metro Code, Sec. 3.01-012(e)(12), an urban reserve plan map of the planning areas showing at least the following information when applicable:

- a. Major roadway connections and public facilities;
- b. location of unbuildable lands including steep slopes, wetlands, floodplains and riparian areas;
- c. general locations for commercial and industrial lands;
- d. general locations for single and multi-family housing;
- e. general locations for public open space, plazas and neighborhood centers; and
- f. general locations or alternative locations for any needed school, park or fire hall sites.

E. The City agrees that the urban reserve plan shall be coordinated among the City, County, School District(s) and other affected service districts and shall be approved by the City prior to submittal to the Metro Council for Metro adoption pursuant to Metro Code, Sec. 3.01-012(e)(13).

F. The City shall establish and conduct a public involvement program for plan formulation in consultation with the County, the Hillsboro CIAC, and assigned representatives of the County Citizen Participation Organization (CPO) in which the planning areas are situated. The City shall be responsible for funding the preparation of the plan(s); however, any cost incurred by the County in participating in their preparation or providing comments on the plan(s) shall be borne by the County.

1 G. The County shall provide to the City all requested and available County data about the
2 planning areas needed to prepare the urban reserve plan(s).

3
4 H. The parties agrees that the urban reserve plan(s) shall also include an urban service
5 agreement(s) that covers the provision of these services within the planning areas shall be
6 executed at the appropriate time. It shall be consistent with ORS 195.065 and shall
7 implement this conceptual plan.

8
9 I. The City shall coordinate urban reserve plan preparation with the County through its
10 Department of Land Use & Transportation in the following manner:

11
12 1. The City shall transmit draft urban reserve plan concepts and recommendations to the
13 County for review and comment. The City shall consider the County's comments, if any,
14 prior to including such concepts and recommendations within the plan.

15
16 2. If a specific County comment will not be accommodated within the plan, the City shall
17 explain its reasons therefor in writing prior to submittal of the urban reserve plan for
18 review and action by the City Planning Commission and City Council. The County may
19 raise any rejected comment before the Planning Commission or City Council.

20
21 3. The City shall notify the County in advance of any Planning Commission and City
22 Council public hearing on the urban reserve plan in accordance with existing City
23 comprehensive plan amendments public notice requirements.

24
25 4. The City Council shall approve any urban reserve plan(s) for the planning areas to be
26 referred to the Metro Council for formal approval pursuant to the Metro Code.

27
28 E. County "rural" zoning of the planning areas shall be adopted prior to its inclusion within the
29 UGB. Such zoning shall restrict the development of urban uses and urban infrastructure
30 development, and shall remain in effect until City annexation of the area. Current County
31 zoning of the planning area may be used to satisfy this requirement if it achieves these
32 objectives. The City shall have the opportunity to review and comment on such zoning.

33
34 **IV. Memorandum Effective Date; Completion of Urban Reserve Plan(s).**

35
36 A. On the effective date of this Memorandum, any and all County planning authority within the
37 planning areas needed by the City in order to prepare the urban reserve plan(s) required by
38 the Metro Code is hereby assigned to the City.

39
40 B. The City shall complete the preparation of the urban reserve plan(s) in accordance with the
41 following timetable:

42
43 1. If Metro includes the planning areas within Urban Reserves to be included within the
44 Urban Growth Boundary by December 31, 1998, preparation of the urban reserve plan(s)
45 shall be completed for submittal to Metro by September 30, 1998.

2 2. If Metro includes the planning areas within Urban Reserves to be included within the
3 Urban Growth Boundary by December 31, 1999, preparation of the urban reserve plan(s)
4 shall be completed for submittal to Metro by September 30, 1999.

5
6 V. Planning Area Annexation to the City. ✓

7
8 A. The parties understand that the City shall initiate action to annex properties within the
9 planning area to the City after their inclusion within the UGB. The County hereby agrees to
10 support such annexation unless annexation is invalid under applicable annexation laws.

11
12 V. Amendments, Termination & Expiration.

13
14 The parties may request amendments to any provision in this Memorandum. To be effective,
15 both parties must agree in writing to any such amendment. Disagreement over a requested
16 amendment shall not be grounds for termination of this Memorandum of Understanding. This
17 Memorandum may be terminated by either party thirty (30) days after written notice of
18 termination has been mailed to the other party. The Memorandum and the obligations of the
19 parties thereunder shall expire upon adoption by the Hillsboro City Council of all City
20 comprehensive plan amendments required hereunder, or on December 31, 2000, whichever
21 occurs first.

22
23 IN WITNESS THEREOF, the parties have executed this Memorandum of Understanding on the
24 date set under their signatures.
25
26

27
28 WASHINGTON COUNTY

CITY OF HILLSBORO

29
30
31 By John Rosenberger
32 John Rosenberger, Director
33 Dept of Land Use & Transportation
34

By Winslow C. Brooks
35 Winslow C. Brooks, Director
36 Planning Department

37 Date: 1-29-98

Date: 1/29/98

38 attach:

**Proposed Urban Growth Boundary Expansion
Staff Report
November 24, 1998**

**Urban Reserve Areas 39, 41 and 42
(Wilsonville Area)**



METRO

**Growth Management Services Department
600 N.E. Grand Avenue
Portland, OR 97232
503/797-1839**

Date: November 24, 1998

STAFF REPORT

PROPOSAL: Metro Legislative Amendment (Resolution No. 98-2729A)

URBAN RESERVE: Urban Reserve Areas (URAs) #39, #41 and #42, Wilsonville

APPLICABLE

REVIEW CRITERIA: Metro Code Section 3.01.020.

Note: Approximately 90 acres of URA #42 is inside of the Metro jurisdictional boundary; the remainder is outside of the Metro jurisdictional boundary. For this report, Metro has considered URA #42 as a unit, in keeping with the City of Wilsonville's plan for this area. For areas inside the Metro jurisdictional boundary, the Metro Council can approve UGB expansions by Ordinance. For areas outside of the Metro jurisdictional boundary, the Metro Council can approve a "resolution of intent" to move the UGB subject to the property owners' initiating annexation to the Metro jurisdictional boundary.

SECTION I: SITE INFORMATION

URA #39 Summary Information	
Acres: 20**	Buildable Acres:* 0 (Proposed as future school)
EFU Acres: 20	Estimated Dus:* 0
Location: Wilsonville	Estimated Jobs:* 0***
County: Clackamas	Major arterials & streets: SW Wilsonville Road
Current Zoning: EFU	Watershed: Willamette River Basin: Corral Creek Subbasin

* based on 200-foot riparian buffers; DUs = Dwelling Units

** URA #39 has been amended as per Metro Resolution No. 98-2729A.

*** The productivity analysis does not assume jobs for this site, as it accounts for employment on publicly owned lands separately. Current estimates indicate that this school will create approximately 50 teaching and support positions.

URA #41 (First Tier Portion) Summary Information	
Acres: 279	Buildable Acres:* 202
EFU Acres: 225	Estimated DUs:* 1277
Location: Wilsonville	Estimated Jobs:* 426
County: Clackamas	Major arterials & streets: Grahams Ferry Road
Current Zoning: EFU and RRF5	Watershed: Willamette River Basin: Corral Creek and Seely Ditch Subbasin

* based on 200-foot riparian buffers; DUs = Dwelling Units

URA #41 (Non-First Tier Portion) Summary Information	
Acres: 144	Buildable Acres: * 99
EFU Acres: 69	Estimated DUs: * 626
Location: Wilsonville	Estimated Jobs: * 209
County: Clackamas	Major arterials & streets: Grahams Ferry Road
Current Zoning: EFU and RRF5	Watershed: Watershed: Willamette River Basin: Corral Creek and Seely Ditch Subbasin

* based on 200-foot riparian buffers; DUs = Dwelling Units

URA #42 (as amended) Summary Information *	
Acres: 255 + 72 (amended acres) = 327	Buildable Acres: 172 + 72 (amended acres***) = 244
EFU Acres: 0	Estimated DUs: ** 0
Location: Wilsonville	Estimated Jobs: ** 4,001
County: Washington and Clackamas (small piece)	Major arterials & streets: Day Road, Grahams Ferry Road
Current Zoning: AF5, RI, MAE	Watershed: Willamette River Basin Seely Ditch Subbasin

* Approximately 90 acres of URA #42 is inside of the Metro jurisdictional boundary; the remainder is outside of the Metro jurisdictional boundary. For this report, Metro has considered URA #42 as a unit, in keeping with the City of Wilsonville's plan for this area. For areas inside the Metro jurisdictional boundary, the Metro Council can approve UGB expansions by Ordinance. For areas outside of the Metro jurisdictional boundary, the Metro Council can approve a "resolution of intent" to move the UGB subject to the property owners' initiating annexation to the Metro jurisdictional boundary.

** based on 200-foot riparian buffers; DUs = Dwelling Units

*** Existing Metro data indicates the possibility of a stream running through the northeast portion of the 72-acre amendment made to URA #42, though the stream may no longer exist in this area. Title 3 protection standards apply only to areas within the Metro jurisdictional boundary, and would apply to the proposed amendment to URA #42 only when it is brought into the UGB. In addition, this feature would have to be field verified before Title 3 protection standards apply.

SECTION II: BACKGROUND INFORMATION

Urban growth boundaries (UGB) mark the separation between areas of urban level development and areas for farm, forest and rural uses. The Metro Council established the UGB in 1979. Metro Code provides several methods for amending the UGB. Property owners and municipalities can request a change to the UGB. The Metro Code establishes a process for amendments under 20 acres in size, called a locational adjustment. For larger areas, the process is called a major amendment.

In addition, the Metro Council may initiate changes to the UGB, as legislative amendments, if it finds insufficient capacity within the current UGB. By State law, every five years Metro is required to assess the capacity of the lands inside the UGB and compare it to the forecast of growth for the next 20 years. State law, ORS 197.296, also requires that a 20-year land supply be maintained inside the UGB to accommodate projected housing need. Additionally, ORS 197.299 requires that at least one-half of any identified land need be added to the UGB by December 1998 and the balance by December 1999. The Metro Council has concluded that insufficient capacity exists within the UGB.

This report contains background information and a general discussion of Metro Code requirements for URAs #39, #41 and #42.

Section I of this report displays a summary table of information about URAs #39, #41 and #42. Section II discusses the criteria specified by Metro Code that need to be addressed for Metro Council to amend the UGB. Section III is the staff analysis of URAs as they relate to the factors outlined in Metro Code. It includes specific information about any urban reserve planning that is

pertinent to the factors. Section IV outlines the general status of urban reserve planning in the URAs.

To amend the UGB, Metro Code Section 3.01.020, addresses the seven factors from Statewide Planning Goal 14. These factors include:

- 1 & 2 demonstration of need for expansion;
- 3 a demonstration that the expansion will be consistent with orderly and economic provision of public facilities and services;
- 4 demonstration of maximum efficiency of land uses;
- 5 evaluation of the environmental, energy, economic and social consequences;
- 6 evaluation of retention of agricultural land; and
- 7 an assessment of the compatibility of proposed urban uses with nearby agricultural activities.

Metro Code states how these factors are to be considered in the Metro area that is the basis for consideration of amendments to the UGB. Metro Code Section 3.01.015(e) provides an outline for Metro Council's process for bringing urban reserve land into the UGB. If insufficient land is available to satisfy the need and meet the requirements for an urban reserve plan, then Metro Council may consider first tier lands where a city or county commits to complete and adopt an urban reserve plan. The jurisdiction must provide documentation to support this commitment. All of these State and Metro requirements are assessed in this staff report. Additional Metro reports, which are referenced or have relevance to these legislative amendments include the following: *1996 Utility Feasibility Analysis for Metro 2040 Urban Reserve Study Areas, Urban Growth Report (December 1997), Urban Growth Report Addendum (August 1998), Housing Needs Analysis (December 1997), Urban Growth Boundary Assessment of Need (October 1998), Urban Reserve Study Areas Report (1998) and Metro Urban Reserve Productivity Analysis (September 1998).*

After initial public testimony, and before the final opportunity for public testimony, this staff report may be augmented or revised according to information received from the public. The Metro Council will consider the staff report, public testimony, and make a decision about which areas to add to the UGB to address the 20-year land need. The Metro Council may condition any amendment decision which can require further action by local jurisdictions and/or property owners in order to finalize the UGB amendment.

Metro Code Section 3.01.012(e) requires urban reserve plans to include a conceptual land use plan and map for URAs. These plans must demonstrate compliance with Statewide Planning Goals 2 and 14, Metro Code Section 3.01.020 or Section 3.01.030, with the Regional Urban Growth Goals and Objectives (RUGGOs), and the 2040 Growth Concept design types and any applicable Urban Growth Management Functional Plan (Functional Plan) provisions. Urban reserve concept plan requirements include an average residential density target, sufficient commercial and industrial development for the needs of the area, a transportation plan and protection for wildlife habitat and water quality enhancement. It also requires a conceptual public facilities plan, school plan and an agreement on governance.

URAs #39, #41 and #42 were designated by the Metro Council as urban reserves. URA #41 includes both a first tier and a non-first tier portion. A total of 770 acres is being considered for inclusion in this expansion. However, when considering only first tier lands, the area is 299 acres. A detailed description of each URA follows.

Site Descriptions

URA #39

URA #39 as amended by Metro Resolution No. 98-2729A, is 20 Exclusive Farm Use (EFU) acres. The area is composed of class 2 agricultural soils. Areas with soils ranging from class 1 (the best) to class 4 (moderately productive) are to be avoided for urban uses. However, as described later in this report, other factors must also be considered. The eastern boundary of the area is the Metro UGB/the City of Wilsonville City Limits. The area is a proposed site for a school and is adjacent, in part, to public (middle) school property inside of the UGB to the east. The site currently belongs to the State of Oregon and is being held in the Division of State Lands (DSL) Common School Fund. It is available to the West Linn-Wilsonville School District, provided that it is used for the construction of a public school. The area is located north of Wilsonville Road and is a little more than a mile away from I-5. This reserve site has no tree cover. The area is within Clackamas County and is not within the Metro jurisdictional boundary.

URA #41

URA #41 (first tier and non-first tier portion) is 423 acres and 288 of those acres are EFU. The area is composed of mostly class 2 and some class 3 agricultural soils. The site includes acreage both east and west of SW Grahams Ferry Road. South of Tooze Road, Grahams Ferry is the western boundary of the reserve. The area is bound on the south by Evergreen Drive. The northern boundary is some 1,300 feet north of SW Malloy Way. The eastern boundary is the current UGB and the Wilsonville City Limits, located near Kinsman Road and the western end of Boeckman Road. The portion of the site that is south of Tooze Road and bordering on the Dammasch State Hospital site is a first tier urban reserve. The average slope is 3 percent. A relatively large area in the southeastern portion of the reserve was inundated by the flood of 1996, and there are wetlands in the same general vicinity. The dominant land use in this area is agriculture. There is a large subdivision south and east of 110th Avenue inside the UGB. The area is in Clackamas County and is not within the Metro jurisdictional boundary.

URA #42

URA #42 (as amended by Metro Ordinance No. 98-744B) is 327 acres, none of which are zoned EFU. The area is composed of mostly class 2 and 4 soils. The site is located northwest of the City of Wilsonville, just west of I-5 and Boones Ferry Road. SW Clay Street is the northern boundary of the portion of the URA west of SW Boones Ferry Road. The northern boundary of the portion of the URA east of SW Boones Ferry Road is SW Day Road. The western and southern boundaries of the urban reserve are the Burlington Northern Railroad tracks. The eastern boundary is SW Boones Ferry Road and the existing UGB and the Wilsonville City Limits. More than two-thirds of the entire URA is zoned as agriculture farm/forest (5-acre minimum lot size) under Washington County's Comprehensive Plan. The remainder of the site is zoned land extensive industrial by Washington County or Rural Industrial by Clackamas County. A large industrial park is located inside the UGB south of Day Road, just off Boones Ferry Road. There are many trees in the northern section of the area and a variety of agricultural uses scattered throughout. The area is generally flat with only a 2 percent average slope. The Clackamas/Washington County line divides the URA at SW Ridder Road. Less than 15 acres of URA #42 are south of SW Ridder Road and in Clackamas County. The rest of the acreage is in Washington County.

Approximately 90 acres of this 327-acre URA is inside of the Metro jurisdictional boundary; the remainder is outside of the Metro jurisdictional boundary. For this report, Metro has considered URA #42 as a unit, in keeping with the City of Wilsonville's plan for this area. For areas inside the Metro jurisdictional boundary, the Metro Council can approve UGB expansions by Ordinance. For areas outside of the Metro jurisdictional boundary, the Metro Council can approve a "resolution of intent" to move the UGB subject to the property owners' initiating annexation to the Metro jurisdictional boundary.

Additional Note Regarding Prison Siting for URAs #41 and 42

The Dammasch Hospital site in URA #41 has been proposed by the State as a future site for a women's prison and prisoner intake center. In conjunction with these discussions, the City of Wilsonville commissioned an alternative planning study for the first tier portion of URA #41, *The Dammasch Area Transportation Efficient Land Use Plan (Damasch Plan)*, which is addressed in this staff report. On January 30, 1998, the City of Wilsonville also presented an alternative location for a prison site to the Legislative Emergency Board. The alternative site is located west of Day Road and Garden Acres Road, and immediately north and west of the original URA #42. The City proposed this site, asserting that the alternative area is more appropriate for a prison than the Dammasch area. Metro reviewed the City's alternative proposal/concept plan as an issue of regional concern. As per Metro Ordinance No. 98-744B (Attachment D), Metro has amended URA #42 to include approximately 72 acres. This amendment is conditioned upon the Oregon Department of Corrections' (ODOC) decision to site the facility within the boundaries of amended URA #42. In addition, the amended portion of this URA will not be included inside the UGB unless a final determination is made by ODOC to site this facility on the property. While the original 255 acres of URA #42 is still an urban reserve, no urban reserve plan has been completed for this area alone (without a prison at the Day Road site).

Alternatives Analysis

Given that the urban reserve are under appeal to the Land Use Board of Appeals (LUBA), and analysis of exception lands around the approximately 200-mile long perimeter of the UGB was completed. Not all parcels of land outside, but near, the current UGB were considered when alternatives to the proposed sites were compared. Screening, or reducing the number of contending sites was done because some parcels or areas were clearly not suitable (for example, lands on the north side of the UGB – the Columbia River, or lands in the Columbia Gorge Scenic Area). This "Alternatives Analysis" was the first screen and was reported in the memorandum dated October 26, 1998, *Exception Land Not Considered as Alternative Sites for Urban Growth Boundary Expansion* (Exhibit A). In this report, exception lands were analyzed for their suitability for inclusion into the UGB. The factors that weighted against inclusion in the UGB included lands zoned for EFU, lands that would eliminate the separation between communities, land more than one mile from the existing UGB and noncontiguous areas. In addition, natural features and settlement patterns that effect the buildability of land were also considered. These features include steep slopes, lands in the FEMA 100-year floodplain and small acreage single family residential areas.

Secondly, after Phase 1 of the Productivity Analysis was completed, there were lands identified as less suitable and other lands more suitable providing more than enough capacity to meet the need for UGB expansion. The lands analyzed in Phase 2 of the Productivity Analysis are estimated to accommodate over 44,000 dwelling units. This is more than enough to provide a substantial choice of alternatives when compared with the approximately 16,000 dwelling units needed to be accommodated through UGB expansion. The final filtering process was primarily

consideration of efficiency of land and public service feasibility and is summarized in Exhibit B, "Additional Site Considerations."

Productivity Analysis

The Productivity Analysis was completed to assess the number of dwelling units and jobs that could be accommodated within the designated URAs. The Productivity Analysis was accomplished in two phases. Phase 1 completed a preliminary analysis of all 18,570 acres of adopted URAs and identified a subset of URAs for more detailed evaluation in Phase 2. The selection criteria for Phase 2 URA analysis included:

- Designation as first tier urban reserves
- Proximity to UGB (less than one-half mile)
- Productivity ratio – buildable acres divided by total acres (ranking greater than 40 percent)
- Serviceability rating for transportation and water-related serviceability of moderate to easy (ranking greater than 0)

Detailed information from the Productivity Analysis appears in Attachment B.

Exceptions to the above criteria were made to ensure a regional distribution of URAs. In addition, an area was selected if it had a high productivity rating (greater than 80 percent), even if both transportation and water-related services were rated "difficult"; or if it had a high productivity rating (greater than 70 percent) with only one service (transportation or water-related) rated "difficult." URAs with on-going urban reserve planning efforts were also selected. Others were selected because of service efficiencies with adjacent URAs. In all, 49 URAs were selected for the Phase 2 analysis, that verified land supply data, identified 2040-design type and estimated service cost. URAs #39, #41 and #42 were included in Phase 2 of the Productivity Analysis.

Furthermore, the Metro Council Growth Management Committee directed that public hearings be held for those urban reserves in which urban reserve planning was completed or the planning was underway. Master planning has been completed for first tier portion of URA #41 and the adjacent Dammasch State Hospital site, which is inside the UGB. The Dammasch Plan was completed in January 1997 in anticipation that first tier URA #41 would be brought into the UGB.

SECTION III: APPLICABLE REVIEW CRITERIA

The criteria for a legislative amendment to the UGB are contained in Metro Code Section 3.01.020. They are based primarily on Statewide Planning Goals 2 and 14 and have been acknowledged, or approved by the State as meeting its requirements. The criteria and staff analysis of the factors outlined in the Metro Code follows.

Factor 1: Demonstrated need to accommodate long-range urban population growth.

SUMMARY OF ANALYSIS: Factor 1 was addressed by the Metro Council adoption of Resolution No. 97-2559B, in December 1997, determining that there is a need to accommodate 32,370 dwelling units and 2,900 jobs through expansion of the UGB and that this need cannot be accommodated within the current UGB. The data used to support this conclusion is

summarized in the Urban Growth Boundary Assessment of Need. In making their decision, the Metro Council decision took into account at least the following:

- 1) A forecast of population and employment to the year 2017. A peer review panel consisting of public and private sector economists who assessed the methodology and conclusions reviewed this forecast. In addition, this forecast was reviewed by the Metro Technical Advisory Committee (MTAC), comprised of staff representatives from cities, counties and special districts as well as presented to the Metro Policy Advisory Committee (MPAC) composed of elected officials from cities, counties and special districts.
- 2) A vacant land inventory based on 1994 data. MTAC and MPAC reviewed this inventory. (Calculation methods documented in the Urban Growth Report.)
- 3) Estimates of the capacity created through rezoning of land to be consistent with the Metro 2040 Growth Concept. (Calculation methods documented in the Urban Growth Report.)
- 4) Estimates of the amount of growth that could be accommodated through infill and redevelopment examined against actual rates for the years 1990 through 1994. (Calculation methods documented in the Urban Growth Report.)
- 5) The need for urban land as estimated and documented in the Urban Growth Report and compared with the supply, also documented in this report.
- 6) Public testimony and recommendations from MPAC.

The Metro Council also assumed on a policy basis the following: a) redevelopment rates greater than those experienced to date, b) substantial additional capacity assumed to be provided by rezoning for more density consistent with the 2040 Growth Concept, c) the assumption that all net developable land would be available for urban use during the planning period, and d) that parcels with development on them but with at least one-half acre of vacant buildable land would be available for further development.

New information since Resolution No. 97-2559B includes: adoption of stream corridor protection requirements (Functional Plan, Title 3), an updated vacant/buildable land inventory (1997 data), a listing of Steelhead as a "Threatened" species under the Federal Endangered Species Act, more detailed research about actual redevelopment and infill rates in 1995 and 1996, and the Productivity Analysis.

Scientific analyses completed to date suggest that for protection of fish, and especially salmonids such as Steelhead, 100-foot buffers or setbacks along rivers and streams would be needed (for further discussion, see the Urban Growth Boundary Assessment of Need). Steelhead have been listed as a "Threatened" species for a large portion of the region. The balance of the region is under consideration for such listing.

Recently adopted regulations (Functional Plan, Title 3) require setbacks from the top of bank from zero to 15-50 feet on streams and rivers, depending on the amount of area drained. In addition, for those areas with steep slopes (25 percent or greater) along streams, setbacks are up to 200 feet. These setbacks address flooding and water quality only, and are not specifically designed to address fish habitat needs. However, the Urban Growth Report technical analysis

of the urban growth capacity of lands within the current Metro UGB was based on 200-foot buffers along all rivers and streams. That is, Metro requirements for protection along streams are now between 0 and 200 feet depending on the circumstances of the river or stream. Cities and counties of the region have about one year to implement these protections. However, Metro growth capacity assumptions are 200 feet along all stream and river segments. A difference of about 5,000 acres exists between these two approaches, one that calculates capacity and one, which regulates.

Metro is currently assessing the need for additional requirements, probably wider buffer widths, to better protect Steelhead. If 100-foot buffers are imposed and the latest vacant land and current rates of redevelopment and infill are used, the 1998 technical capacity analysis would be that the deficit would be about the same (31,000 dwelling units) as that estimated in the Urban Growth Report (32,370 dwelling units). This analysis is addressed in the Urban Growth Boundary Assessment of Need. Metro has just received a grant from the State Department of Land Conservation and Development to better assess the buffer width needed in light of fish habitat and to provide the technical analysis and policy recommendations. Possible regulations will be made available to the Metro Council as soon as possible. This will allow the Metro Council to fine tune the need analysis and consider whether adjustments to the need or regulations are necessary. Federal regulations from the National Marine Fisheries Services (401 Rules) are anticipated to be issued in the next several months.

Metro also completed an update to the vacant and buildable land inventory in 1997 based on 1994 data. This 1998 inventory based on 1997 data, shows even fewer acres of vacant buildable land (20,223 acres rather than the 22,420 acres estimated from 1994 data). A map "Developed Land," included in the Urban Growth Boundary Assessment of Need, shows the extent of developed land as compared with vacant land within and adjacent to the Metro UGB.

Residential redevelopment and infill data collected for 1995 and 1996, show an actual rate of 25.4 percent. (That is, of all residential development built in the region during 1995 and 1996, about one-quarter was redevelopment or infill.) The Metro Council, in their 1997 decision (Resolution No. 97-2559B) concluded that a rate of 28.5 percent should be used. Maintaining the more aspirational rate of 28.5 percent is a more aggressive pursuit of the efficient use of land. This rate may be possible because of Functional Plan requirements, economic incentives, and more immediate response to 2040 concepts than anticipated.

Finally, the Productivity Analysis identifies a concern that the Urban Growth Report methods show a need for a relatively large number of homes (32,370) and only a small number of jobs (2,900). Building complete communities and pursuing a jobs/housing balance are two regional goals of long standing. While locating new jobs at the edge of the region may induce or encourage less compact development patterns (due to increased commuting from people living outside the UGB), some job growth would address imbalances in some areas with high levels of residential development. The Productivity Analysis suggests that enough capacity to accommodate local service jobs be provided in UGB expansion areas to help balance jobs and housing in areas where there are many more homes than jobs. The 2040 Growth Concept and the Regional Framework Plan recognize that we need to build complete communities. The Productivity Analysis assumed a need for half a job per dwelling unit (or 16,000 jobs for 32,370 dwelling units).

CONCLUSION: The interaction of these variables can result in differing need numbers. Additional research about a number of the variables in needed (such as actual densities built compared with maximum units allowed, development potential on environmentally constrained

lands, incorporation of local jurisdiction compliance reports and employment land supply). However, based on these present factors and data, there is not sufficient capacity within the current Metro UGB to accommodate all forecast growth for the required 20-year time horizon (to the year 2017). The need to expand the Metro UGB is about 32,370 dwelling units and 2,900 jobs. By State law, at least one-half of this need for housing must be accommodated through expansion of the Metro UGB in 1998. After the 1999 review of need, including additional research, the approximate balance of 16,000 dwelling units will need to be adjusted. Employment conclusions may also need to be adjusted. Conclusions about need could be increased or decreased from the 1990 dwelling unit and jobs need conclusions. Based on all evidence in the record, there is no basis to conclude that the adjusted need would be less than 16,000 dwelling units. MPAC supported this conclusion.

As a result, the adopted determination of residential need (i.e., a 32,370 dwelling unit deficit) with half provided for in 1998 UGB amendments, should be maintained until 1999, when a final need determination can be supported by additional information.

Factor 2: Need for housing, employment opportunities and livability may be addressed under either subsection (A) or (B) or both, as described below.

SUMMARY OF ANALYSIS: Factor 2 (A), was also addressed by the Metro Council adoption of Resolution No. 97-2559B, determining that there is a need to accommodate 32,370 dwelling units and 2,900 jobs that cannot be accommodated within the current UGB. Specific data supporting this conclusion is included in the Housing Needs Analysis and the Urban Growth Report. These reports complete an economic analysis that assesses the number of dwelling units needed by income type and by tenure (rental or ownership) and compares this need with the capacity within the existing Metro UGB to accommodate their construction. Likely methods to accommodate growth in ways other than through expansion of the UGB were assessed and debated by MPAC and the Metro Council.

Again, as stated in the conclusion for Factor 1, the Metro Council considered a variety of new methods to accommodate growth within the current UGB. These methods included: a) a residential redevelopment rate assumption higher than that experienced in the region to date, b) the assumption that cities and counties of the region would revise their comprehensive plans and zoning designations consistent with the 2040 Growth Concept and the Functional Plan to accommodate more growth than that previously allowed, c) the assumption that all net developable land would be available for urban use during the planning period, and d) that parcels with development on them but with at least one-half acre of vacant buildable land would be available for further development.

Factor 2(B) is optional if Factor 2(A) is addressed. Regardless, Metro has concluded that the region "...can continue to grow and *enhance livability* (emphasis added) by making the right choices for how we grow. The region's growth will be balanced by: maintaining a compact urban form, with easy access to nature..." (Regional Framework Plan, Policy 1.1, Urban Form).

CONCLUSION: Based on consideration of the information included above, accommodation of all of the expected growth for the next 20 years, to the year 2017, cannot be met within the current Metro UGB. This conclusion includes consideration and use of innovative methods of accommodating growth including assuming more dense development and substantial reliance on rates of redevelopment and infill greater than those experienced to date. Even with these assumptions, there is a need to expand the Metro UGB to accommodate about 32,370 dwelling units and 2,900 jobs.

Factor 3: Orderly and economic provision of public facilities and services. An evaluation of this factor shall be based upon the following:

- (A) For the purposes of this section, economic provision shall mean the lowest public cost provision of urban services. When comparing alternative sites concerning Factor 3, the best site shall be that site which has the lowest net increase in the total cost for provision of all urban services. In addition, the comparison may show how the proposal minimizes the cost burden to other areas outside the subject area proposed to be brought into the boundary.**

Staff Analysis

General Information

The Productivity Analysis was performed to assess dwelling unit and employment capacity in selected URAs and to estimate costs for wastewater, water, stormwater and transportation service to these URAs. The Productivity Analysis indicates that while all URAs can be provided with the above services, some areas are more difficult and costly to serve than others are.

Overall, assumptions were used for water, wastewater, stormwater and transportation serviceability in the Productivity Analysis. Cost estimates reflect total buildout within each URA. Land acquisition cost and earthquake mitigation costs were not included in this analysis. Cost estimates assumed that the services for all URAs within a regional grouping would be constructed at the same time to capitalize on economies of scale. URAs #39 and the first tier portion of URA #41 were grouped together for water, wastewater and stormwater cost estimates. It should be noted that the Productivity Analysis does not consider the approximately 72-acre amendment to URA #42 in its facilities cost estimates, nor the recent approximately 7-acre amendment to URA #39.

The wastewater cost estimate includes pump stations, force mains, bridge crossings and boring. A cost factor for extra treatment capacity is also included. The water cost estimate includes pressure reducing valves, meters, bridge crossings, boring, pump stations and storage facilities. Cost factors are included for water source expansion and water treatment. The stormwater cost includes channelization, incorporation of water quality features and detention. For all three services, costs associated with piping and trenching, extra deep installation costs, and wetland, stream and riparian construction are also included where applicable. Maintenance and operations costs are included for wastewater and stormwater piping, pump stations, channelization, water quality features and detention sites.

The transportation serviceability cost estimate was based on need for a multi-modal transportation system which includes street, pedestrian, and bicycle systems as outlined by the Metro 2040 Growth Concept and was supplemented by local service providers. The estimate is a sum of capital costs and the present worth of annual maintenance and preservations costs (20-year forecast). Capital, maintenance and preservation costs for streets include costs for bicycle and pedestrian systems. Transit system costs are noted included, but were estimated on a relative comparison basis. As noted in the Productivity Analysis (see page A178), relative transit costs were estimated for URAs #39, #41 and #42 to be medium when compared with other areas. The road cost estimates use regional groupings to disperse the costs among contiguous URAs. URAs that share the same planned transportation system are grouped

together, reducing the cost per URA. Each URA assumes its proportion of the total cost estimate for the grouping.

The total estimated cost for wastewater, water, stormwater and transportation is expressed in Cost per Dwelling Unit Equivalent (DUE). A DUE is an estimate of service demand as though it was serving only dwelling units, but it takes into consideration employment based needs as well. A DUE is equal to the Estimated Dwelling Units (EDUs) per URA plus the estimated employment per URA ($EDU + Employment = DUE$). The conversion to DUE provides for a costing factor that is consistent among all URAs. Only 48 of the 49 URAs have cost estimates in the Productivity Analysis. URA #39 was not ranked, as it was intended for a school, and has no associated DUEs. For first tier URA #41, the total cost is \$23,435 per DUE; for the non-first tier portion of URA #41, the total cost is \$10,389 per DUE. For URA #42, the total cost is \$17,901 per DUE.

CONCLUSION: The Productivity Analysis provides consistent data for comparing alternative sites. The Productivity Analysis provides the most detailed, up-to-date and consistent basis for comparing public facilities and service costs to alternative sites throughout the region. This analysis estimates capacity expansion costs as well as connection costs. This analysis method addresses adequate capacity to serve the uses contemplated within a UGB expansion area over the planning period (years 1997-2017). Site rankings are as follows.

Public Facilities Cost Comparison (sorted from lowest to highest)

Urban Reserve	Total Acres ¹	Buildable Acres ¹	DU Equivalent (200' stream setback) ²	Costs					Total Public Facility Cost per DUE ³
				Wastewater	Water	Stormwater	Roads	Transit	
54	190.9	175.2	1,261	\$ 4,678,284	\$ 1,759,131	\$ 2,679,000	\$ 3,009,749	lower cost	\$ 9,613
55	473.0	318.9	2,335	\$ 12,537,051	\$ 2,050,364	\$ 3,141,000	\$ 5,759,930	lower cost	\$ 10,060
41	144.4	99.1	713	\$ 3,855,043	\$ 608,000	\$ 105,000	\$ 2,842,935	medium cost	\$ 10,389
*15	371.0	277.8	2,090	\$ 6,722,694	\$ 4,355,000	\$ 5,029,500	\$ 5,712,746	medium cost	\$ 10,440
53	204.2	147.5	1,157	\$ 5,964,731	\$ 1,439,708	\$ 2,175,000	\$ 3,076,838	lower cost	\$ 10,934
*55	353.0	198.1	2,166	\$ 11,725,806	\$ 4,330,273	\$ 2,394,000	\$ 6,237,425	lower cost	\$ 11,398
*5	1,422.0	766.4	7,411	\$ 36,546,537	\$ 19,015,000	\$ 9,444,000	\$ 27,276,260	lower cost	\$ 12,451
1	531.8	245.6	2,752	\$ 14,697,300	\$ 4,636,200	\$ 5,538,000	\$ 11,491,427	higher cost	\$ 13,214
*37	145.5	112.6	1,062	\$ 4,169,127	\$ 3,997,000	\$ 1,264,500	\$ 4,705,923	medium cost	\$ 13,316
24	173.5	143.3	1,115	\$ 7,718,391	\$ 3,268,160	\$ 1,152,000	\$ 2,885,013	medium cost	\$ 13,469
52	98.8	66.6	479	\$ 2,409,673	\$ 1,316,088	\$ 2,323,800	\$ 1,117,378	lower cost	\$ 14,952
65	116.0	78.4	2,780	\$ 19,143,300	\$ 10,408,000	\$ 6,406,050	\$ 7,794,780	lower cost	\$ 15,739
*4	123.4	59.4	427	\$ 3,401,763	\$ 1,000,000	\$ 1,152,000	\$ 1,366,751	lower cost	\$ 16,194
25	1,047.6	535.9	4,344	\$ 26,309,888	\$ 13,049,500	\$ 6,972,000	\$ 24,879,790	medium cost	\$ 16,392
61	28.4	16.4	150	\$ 959,940	\$ 667,600	\$ 885,000	\$ -	higher cost	\$ 16,748
64	191.3	126.8	1,145	\$ 7,459,500	\$ 3,966,000	\$ 2,758,500	\$ 5,236,401	higher cost	\$ 16,960
18	98.5	67.6	487	\$ 4,711,500	\$ 432,000	\$ 1,264,500	\$ 1,856,111	medium cost	\$ 16,978
*11	464.2	157.7	1,442	\$ 11,909,058	\$ 3,858,000	\$ 4,525,800	\$ 5,371,573	medium cost	\$ 17,797
49	261.6	174.9	1,259	\$ 10,417,500	\$ 5,831,000	\$ 3,598,500	\$ 2,662,235	medium cost	\$ 17,872
42	249.6	170.1	1,556	\$ 12,741,600	\$ 5,894,100	\$ 2,785,800	\$ 6,429,311	medium cost	\$ 17,901
*48	218.4	155.3	1,118	\$ 8,229,750	\$ 4,576,000	\$ 3,196,500	\$ 4,786,739	medium cost	\$ 18,591
*14	307.2	141.0	1,206	\$ 11,023,998	\$ 3,485,000	\$ 4,130,400	\$ 4,269,752	medium cost	\$ 18,988
*44	238.1	152.9	1,399	\$ 11,978,850	\$ 5,524,500	\$ 3,229,800	\$ 6,740,402	medium cost	\$ 19,643
51	93.6	51.1	368	\$ 3,001,412	\$ 891,157	\$ 2,508,000	\$ 895,290	lower cost	\$ 19,826
31	736.8	460.2	4,015	\$ 28,360,035	\$ 12,355,500	\$ 5,298,000	\$ 34,828,744	medium cost	\$ 20,137
22	337.3	150.0	1,080	\$ 9,791,400	\$ 5,764,000	\$ 2,901,000	\$ 4,831,573	medium cost	\$ 21,558
*33	43.7	22.5	269	\$ 1,211,700	\$ 1,242,375	\$ 1,152,000	\$ 2,255,487	medium cost	\$ 21,800
17	189.3	137.8	992	\$ 8,180,400	\$ 5,402,160	\$ 3,901,500	\$ 4,309,966	medium cost	\$ 21,974
30	190.3	110.1	927	\$ 6,925,275	\$ 5,792,000	\$ 3,337,800	\$ 4,523,835	medium cost	\$ 22,191
*45	464.2	280.4	2,019	\$ 18,465,000	\$ 13,017,000	\$ 4,720,500	\$ 11,049,925	medium cost	\$ 23,408
*41	278.8	202.0	1,454	\$ 17,517,777	\$ 7,055,000	\$ 4,654,500	\$ 4,857,321	medium cost	\$ 23,435
29	190.6	94.3	679	\$ 4,365,900	\$ 5,355,250	\$ 2,341,500	\$ 4,330,925	higher cost	\$ 24,153
34	749.1	308.9	2,664	\$ 20,415,002	\$ 10,741,325	\$ 5,818,200	\$ 35,200,510	medium cost	\$ 27,092
33	294.7	149.4	1,084	\$ 8,725,599	\$ 6,060,750	\$ 3,955,500	\$ 10,714,538	medium cost	\$ 27,176
23	22.9	16.2	117	\$ 1,261,209	\$ 360,000	\$ 1,264,500	\$ 302,705	medium cost	\$ 27,258
62	8.4	7.8	324	\$ 3,303,891	\$ 1,436,600	\$ 2,145,000	\$ 2,708,555	higher cost	\$ 29,656
32	87.3	69.0	497	\$ 2,582,901	\$ 1,983,000	\$ 3,006,600	\$ 7,761,238	medium cost	\$ 30,881
70	35.2	29.8	163	\$ 864,600	\$ 459,000	\$ 1,565,550	\$ 2,155,707	higher cost	\$ 31,014
*47	82.0	57.2	412	\$ 3,183,750	\$ 4,996,000	\$ 1,152,000	\$ 4,715,449	medium cost	\$ 34,125
*35	72.2	22.0	233	\$ 1,490,400	\$ 3,299,850	\$ 1,303,200	\$ 2,897,380	medium cost	\$ 38,658
63	10.5	7.3	27	\$ 588,966	\$ 1,798,000	\$ 105,000	\$ 221,107	higher cost	\$ 42,921
67	319.2	137.0	749	\$ 9,189,450	\$ 5,556,500	\$ 4,855,200	\$ 12,643,287	higher cost	\$ 43,068
68	64.0	18.5	101	\$ 1,611,000	\$ 1,215,000	\$ 1,303,200	\$ 1,520,898	higher cost	\$ 55,965
*43	10.2	7.2	52	\$ 2,565,150	\$ 144,500	\$ 207,375	\$ 287,930	medium cost	\$ 62,001
69	11.9	7.9	43	\$ 339,000	\$ 625,500	\$ 1,303,200	\$ 568,683	higher cost	\$ 65,761
*36	33.1	8.8	48	\$ 1,138,413	\$ 719,200	\$ 1,168,800	\$ 240,181	medium cost	\$ 67,874
*34	7.4	2.3	13	\$ 51,660	\$ 136,250	\$ 885,000	\$ 187,557	medium cost	\$ 98,455
3	22.2	4.8	26	\$ 783,000	\$ 2,423,000	\$ 847,200	\$ 88,816	higher cost	\$ 158,833
*39	20.0	19.9	0	\$ 2,630,857	\$ 1,188,000	\$ 105,000	\$ -	medium cost	\$ -

Source: Metro Urban Reserve Productivity Analysis (September 1998); * first per urban reserve

¹ Total acres and buildable acres reflect changes to urban reserve areas #5, #15, #39, #55 (inside and outside Metro boundary), #62 & #65.

² DUE = estimated dwelling units (EDUs) per URA + employment (converted to EDU equivalents) per URA.

³ Total cost per DUE does not reflect boundary changes to urban reserve areas #5, #15, #39, #55, #62 & #65. Not enough information is available to estimate whether a significant change in cost would occur, so it is assumed that the added land would roughly cost the same to service as the original boundary.

A ranking of the estimates prepared in the Productivity Analysis shows the following:

URA #39	No Ranking
URA #41(non-first tier portion)	3
URA #41(first tier portion)	31
URA #42	20

Factor 3: continued

- (B) For the purposes of this section, orderly shall mean the extension of services from existing serviced areas to those areas which are immediately adjacent and which are consistent with the manner of service provision. For the provision of gravity sanitary sewers, this could mean a higher rating for an area within an already served drainage basin. For the provision of transit, this would mean a higher rating for an area that could be served by the extension of an existing route, rather than an area, which would require an entirely new route.

Staff Analysis

URAs #39, #41 (first tier portion) and #42 are adjacent to the existing UGB. According to several studies, necessary services can be integrated with existing services in the surrounding area. Metro requires that a public facilities plan be drafted as part of the urban reserve planning in URAs #39, #41 and #42.

In addition, the following elements should benoted:

Until this past year, Statewide Planning Goal 11 prevented service providers from extending urban-level services outside of their jurisdictions. In addition, service providers were required to size their services consistent with comprehensive plans. Accordingly, urban service planning, or the provision of urban services, was not permitted outside the UGB.

Service providers were permitted to plan for urban services once the Metro Council approved the urban reserves. However, given the appeal to the LUBA, there was a risk that service providers could be wasting ratepayer dollars. The risk was that if the area being planned for urban services were too small, the service planning effort would have to be redone to take in other areas. If it were too large, the service planning effort would have to be downsized. Accordingly, most service providers found it prudent to wait for resolution of the legal appeal on Metro's urban reserves.

The Productivity Analysis (and two earlier analyses by the firm KCM) assessed facility costs on a broad comparison basis, not a detailed, pre-construction basis. The Productivity Analysis is the best available information on a consistent, regionwide basis. It includes assessment of the cost to provide urban facilities to the subject areas as well as other costs, such as upgrades to sewer treatment facilities.

Wastewater

URAs #39 and #41 (first tier portion only)
Estimates for wastewater and servicing costs from the Productivity Analysis have grouped URA #39 with the first tier portion of URA #41. Currently, most residences in these areas are

served by septic systems. In order to provide sanitary sewer service to these areas, one new pump station would be required as well as pipe, manholes, trenching, force mains, and additional treatment capacity for .4 million gallons per day (mgd).

The Dammasch Plan also addresses issues relating to sanitary sewer in the first tier portion of URA #41. The area is not currently served by Wilsonville's sanitary sewer system. The adjacent Living Enrichment Center, however, does have sewer services. It uses a lift station to pump effluent into a city sanitary line that runs through residential areas to the west. Along the south boundary of the Dammasch planning area (i.e., the Dammasch State Hospital), the existing 15-inch sanitary sewer line is estimated to be of adequate size for the developing area. The plan also notes that the City's 30-inch Seely Ditch trunk line is above its capacity downstream of the 15-inch line. It will have to be upgraded to increase capacity before this area develops. A small wastewater treatment plant is in service at the Dammasch State Hospital, though the study indicates that the system does not meet Oregon Department of Environmental Quality (DEQ) criteria for discharge.

The Dammasch Plan estimates that a gravity sanitary sewer system connected to the City's system will be necessary. The Seely Interceptor will also need upgrading from Wilsonville Road to the City's treatment plant. A second gravity system will need to drain to the southwest corner of the site. As with the Productivity Analysis, the Dammasch Plan assumes this area will need a new pump station, which it proposes be located north of the Learning Enrichment Center, near Grahams Ferry Road. It would pump the effluent eastward, back to the City's gravity system. This plan does not estimate the amount of additional treatment capacity required.

URA #41 (non-first tier)

The Productivity Analysis estimates that the non-first tier portion of URA #41 would be served by the pump station added for URA #39 and first tier URA #41. It would require additional pipe, manholes, trenching, force mains, and treatment capacity for an additional .21 mgd.

URA #42

For URA #42, the Productivity Analysis assumes the area would develop with a women's prison and prisoner intake center. As such, it estimates that URA #42 would require a pump station as well as pipe, manholes, trenching, force mains, and additional treatment capacity for .42 mgd.

Facilities needs for URA #42 have also been addressed in the context of ongoing discussions regarding the siting of a women's prison and prisoner intake center within the site. A memorandum, dated May 27, 1998, from the City of Wilsonville's Community Development Director (Attachment E) notes that if the area does develop with a women's prison and prisoner intake center, ODOC "would extend/replace the sewer line that crosses the Burlington Northern Railroad northwest of Hillman Court and from there along the north side of the railroad tracks to the vicinity of the Cahalin Road Extension." This line would be able to serve the City's industrial sanctuary. The Community Development Director notes that while the line may be undersized once the area becomes fully developed, it can provide for several years of additional growth. The Director also anticipates that other areas served by the line will contribute to their proportion of the cost of replacing or paralleling where additional capacity is required.

Water

As of January 5, 1998, the City of Wilsonville declared a moratorium on new development approvals based upon lack of water capacity. The moratorium includes a provision that prevents allocations of water capacity from being transferred from one site to another. Capacity allocated to existing development, however, may be allocated to replacement uses on the same site on condition that water demand not be increased. A new July 1998 ordinance has extended this moratorium. The State has given the City the authority to continue this moratorium until January 2000. The City of Wilsonville's staff report, Ordinance No. 493, and additional correspondence related to this Ordinance appear at the back of this report as Attachment F.

URAs #39 and 41 (first tier only)

Public wells provide water to residences in URAs #41 and #42 (URA #39 has no residences). Currently, the only water within the Wilsonville City Limits comes from a series of eight wells, whose source is a local aquifer. The Oregon Water Resources Department (OWRD) has classified this aquifer as "groundwater limited." It will not permit the City to add any additional wells to its system. The City has estimated that with existing capacity, conservation measures, well production estimates, and capacity from one planned additional reservoir, it can provide 7.41 mgd as a maximum daily usage.

Projects exempted from the City's moratorium include an additional school planned by the West Linn-Wilsonville School District. The school is planned to be built in designated URA #39. This exception is contingent upon an agreement that there be no summer school or other use of the facilities demanding water use in the summer; that water maintenance during the summer be interruptible; and that there be no irrigation on the site. The findings are based on the City Council's decision that a new school is needed in the community, and that local schools have a history of minimal summer water usage.

The Productivity Analysis estimates similarly that expansion of existing water sources is needed to provide water service to development occurring in URA #39 and the first tier portion of URA #41. In addition, treatment, transmission lines and a medium-sized (2-5 million-gallon) distribution storage system will be required. This study estimates water demand for these areas at .6 mgd.

According to the Dammasch Plan, the Dammasch Hospital has its own on-site well water system to serve domestic and fire requirements to the Dammasch Plan area (all of first tier URA #41 as well as adjacent State-owned land). However as the plan notes, "With the continually dropping water table in this area..dependence on the Dammasch wells to provide water service to the Dammasch Urban Village would not be prudent." The Plan's assessment of needed water system additions include extension of water mains, looping, and fire hydrants.

While the Dammasch Plan has not received an exemption from the City of Wilsonville's development moratorium, Metro is considering this concept plan as the basis for including the first tier portion of URA #41. The proposed UGB expansion is intended to fulfill a 20-year land supply. It is anticipated that the City's development moratorium will be resolved within this period.

URA #41 (non-first tier)

For the non-first tier portion of URA #41, the Productivity Analysis estimates that expansion of existing water sources, with treatment, is also needed. The estimated water demand for this areas comes to .32 mgd.

URA #42

For URA #42, the Productivity Analysis estimates that expansion of existing water sources will be needed, along with transmission lines, river crossing, and a distribution storage system. The City of Wilsonville's Community Development Director has indicated, in a memorandum dated May 27, 1998 (Attachment E), that the City would be able to provide a looped system that could provide domestic and fire flows for the proposed prison and prisoner intake center in URA #42. An 18-inch water main would be constructed to loop from River Road and Clutter Road from Garden Acres Road to Grahams Ferry, up Grahams Ferry to Day Road, east on Day Road to Boones Ferry Road, and back to Boones Ferry Road to link with the water main at Pioneer Court. In addition, the memo notes that this improvement will help facilitate development within the City's industrial sanctuary.

The City of Wilsonville is currently investigating the feasibility of using the Troutdale aquifer, to the south of Wilsonville, as an additional source of water.

Stormwater

There is no planned or managed storm water collection system in place in URAs #39, #41 and #42. All existing runoff from impervious surface in this area either is allowed to infiltrate directly into the ground or is collected in a rural roadside ditch system.

URAs #39 and #41 (first tier only)

The Dammasch Plan references the City's 1981 Stormwater Management Master Plan. It has shown that most of the soils in the Dammasch Planning Area (i.e., first tier URA #41) are of Class C, indicating moderately high runoff. Soils in the western portion of the Dammasch area have been classified as Class B, indicating moderately low runoff. In the northeastern part of the Dammasch area, the soils are classified as Class D, indicating high runoff. The central part of the site has moderate slopes, while the rest of the area is relatively flat.

Similarly, the Productivity Analysis estimates that on-stream detention will be required for URA #39 and first tier URA #41 to address stormwater runoff. First tier URA #41, the Productivity Analysis estimates, will also require off-stream detention and water quality ponds or marshes (three of varying sizes).

URA #41 (non-first tier)

The Productivity Analysis estimates that the non-first tier portion of URA #41 will require off-stream detention.

URA #42

Flooding has been an issue for URA #42. According to the City of Wilsonville, it can be mitigated through improvements associated with the development of a women's prison and

prisoner intake center on the site. A memorandum dated May 27, 1998, from the Wilsonville's Community Development Director (Attachment E) states:

The industrial sanctuary is subject to significant localized flooding with the water entering the north from two separate locations. First, there is a substantial amount of water that crosses into the area at Clay Road and flows to the southeast across Grahams Ferry and Day Road causing substantial flooding. The construction of the proposed Women's Prison/Intake Center will include the rerouting of this storm water flow to a large detention facility. The water is then metered out to the south side of the Burlington Northern Railroad. There is a potential for additional significant storm water flows from the north across Day Road, and the design to route this storm water through the system will be included in the overall plans for the development of the industrial sanctuary as outlined in the City's Storm Water Management System.

According to the Productivity Analysis, URA #42 will require channelization, two water quality ponds or marshes of varying sizes, and two on-stream detention facilities of varying sizes. Detention facilities will slow and delay water run-off and prevent downstream flooding. By incorporating additional water quality features, increased pollutant loads can be filtered out from urban run-off and sediments can be collected before this run-off reaches streams and creeks.

Wilsonville will be required to address stormwater in its urban reserve plan(s). Providing stormwater service in this area will not compromise Wilsonville's ability to serve the areas within the existing UGB because most of the treatment and detention will occur in the immediate area. Master planning will determine the specific water quality and detention systems for the basin. In addition, basin studies will be necessary to determine pre- and post- development run-off rates and release projections to eliminate downstream flooding and prevent degradation of nearby wetlands.

Transportation

URA #39

URA #39 is directly accessible via SW Wilsonville Road. The Productivity Analysis does not make estimates for the cost of providing transportation services to this site.

The City of Wilsonville is in the process of improving the interchange between Wilsonville Road and the I-5 as well as the section of Wilsonville Road between Boones Ferry Road and the Burlington Northern Railroad line. These improvements include road widening to provide additional capacity.

URA #41 (first tier and non-first tier)

The Productivity Analysis estimates that the cost of providing transportation services to the first tier portion of URA #41 ranges between \$3,318 and \$3,340 per DUE. The cost of providing transportation services to the non-first tier portion of URA #41 ranges between \$3,317 and \$3,195 per DUE.

The Dammasch Plan notes that development of an urban village at first tier URA #41 will increase vehicle trips in the area. This plan has considered some of the traffic improvements now underway, such as those described above, in conducting its traffic analysis.

The Dammasch Plan notes other areas that could be improved. Extending Boeckman Road to Tooze Road would provide an east-west connection as well as draw traffic away from SW Wilsonville Road. The plan opts for using Boeckman Road as the main thoroughfare serving the Dammasch area. It will extend southwest through the planning area to Grahams Ferry Road. Traffic is intended to follow Grahams Ferry Road southward toward Wilsonville Road. The planning area will also be served at the northern edge by connecting Brown Road with Tooze Road. The Dammasch Plan is formulated upon a grid pattern that has been modified along the northern and western parts of the planning area in order to limit traffic impacts outside of the UGB.

The traffic improvements for the Dammasch Plan, addressed above, would also help serve the non-first tier portion of URA #41.

URA #42

The Productivity Analysis estimates that the cost of providing transportation services to URA #42 ranges between \$3,857 and \$4,132 per DUE.

There is evidence of traffic issues near URA #42. According to the memorandum dated May 27, 1998, from the City of Wilsonville's Community Development Director (Attachment E), the intersection of Day Road and Boones Ferry Road as well as Day Road and Grahams Ferry Road have posed traffic problems. The ODOC intends to make significant improvements to the traffic capacity at these two intersections. ODOC also plans to construct a half street along Grahams Ferry Road (next to the women's prison and prisoner intake center) that meets urban standards. These improvements, the memo states, should provide additional capacity for future development in the industrial sanctuary.

Fire, Police and Schools

Fire and police services will be provided by the governing jurisdictions. Urban reserve plans are required to include a provision to incorporate these areas into their service territories. Funding for fire and police services is provided through allocation of general funding or bond measures to construct capital improvements, most likely from property taxes. Additional property tax revenue will be generated by the increased residential and commercial development that will be constructed as these URAs develop.

URA #39

The West Linn-Wilsonville School District serves URA #39, which is intended to be developed as a school site.

URA #41

URA #41 is divided between the West Linn-Wilsonville and the Sherwood School Districts. According to current Metro RLIS data, the majority of the first tier portion sits in the former, while the remaining part of the first tier portion plus all of the non-first tier portion sits in the latter. A conceptual school plan is required by Metro Code Section 3.01.012(e) that will identify the

amount of land and improvements needed for school facilities. The City of Wilsonville will govern this area.

According to the Dammasch Plan, fire and police services are currently provided to the City of Wilsonville by Tualatin Valley Fire and Rescue, and the Clackamas County Sheriff's Department, respectively. These service areas would likely be extended to the URAs #39, #41 and #42 once brought into the UGB.

URA #42

URA #42 is completely within the Sherwood School District, though it is being considered as a site for a future prison. As per Metro Ordinance No. 98-744B (Attachment D), the amendment to URA #42 is conditioned upon the siting of a women's prison and prisoner intake center by the ODOC within the boundaries of designated URA #42, as amended. Therefore, school facilities are not a consideration for this area.

Detailed information on cost estimates from the Productivity Analysis and Urban Reserve Concept Plans appears in Section IV (Urban Reserve Planning Requirements), Part 10 of this report.

Factor 4: Maximum efficiency of land uses within and on the fringe of the existing urban area. An evaluation of this factor shall be based on at least the following:

- (A) The subject area can be developed with features of an efficient urban growth form including residential and employment densities capable of supporting transit service; residential and employment development patterns capable of encouraging pedestrian, bicycle, and transit use; and the ability to provide for a mix of land uses to meet the needs of residents and employees. If it can be shown that the above factors of compact form can be accommodated more readily in one area than others, the area shall be more favorably considered.**

Staff Analysis

This factor has similarities to the discussion under Factors 1 and 2 regarding "need." A full discussion of housing need is found in the Housing Needs Analysis and a summary is located in the Urban Growth Boundary Assessment of Need. The report indicates that even at housing densities exceeding historical trends and considering an aggressive rate of infill and development (28.5 percent), the capacity of land inside the existing UGB is about 80 percent of the 20-year need. This leaves 32,370 dwelling units to be accommodated outside the current UGB. In addition, the maximum efficiency of land uses within the urban area has been specifically addressed by the Functional Plan, Title 1 (Requirements for Housing and Employment), which requires the 24 cities and 3 counties to increase the density of residential development within the UGB. Table 1 of the Functional Plan sets targets for the 24 cities and 3 counties to meet for housing and employment units within the UGB for the years 1994 to 2017. As compliance with the Functional Plan is not required until February 1999, its impact on local housing densities is not yet known. However, the potential impact of Title 1 was taken into account in estimating the current capacity of the UGB as required by ORS 197.296.

State statute requires that the Metro UGB be amended to include one-half the estimated land needed for a 20-year land supply by December 1998. The Urban Growth Report and the Addendum to the Urban Growth Report indicate that there is a shortfall of land to accommodate

dwelling units and jobs. Since the impact of Title 1 of the Functional Plan is not yet known, the determination of need relies on data provided by the Urban Growth Report and subsequent Addendum. Metro Code Section 3.01.015(f) also requires that URAs meet the planning requirements of the Functional Plan that apply to areas inside the current UGB.

URA #39

The Productivity Analysis does not estimate URA #39 to accommodate additional dwelling units or jobs (though the concept plan for URA #39 estimates the school will hold approximately 50 teaching and support jobs).

URA #41 (first tier only)

The Productivity Analysis estimates that the first tier portion of URA #41 can accommodate between 1,277 and 1,286 dwelling units, and between 426 jobs and 429 jobs. Development at this density would result in an average density of 9.6 dwelling units per net residential acre.

The Dammasch Plan, for the first tier portion of URA #41, opts for a residential community with a village center and mixed-use areas. This plan accommodates approximately 2,300 housing units, both single and multi-family housing types, at varying densities and price ranges. The average dwelling unit density for this plan is 10.2 dwelling units per net acre. Approximately one-fourth of the total land area would be protected as parks or open space. As shown by this plan, URA #41 is capable of being developed in keeping with the 2040 Growth Concept. Maximum efficiency can be accomplished through development at 2040 design types with a mix of uses as well as through use of multi-modal transportation such as walking, bicycling, transit and driving.

URA #41 (non-first tier portion)

The non-first tier portion of URA #41 is not considered in the Dammasch Plan. However, the Productivity Analysis estimates that the non-first tier portion of URA #41 can accommodate between 626 and 753 dwelling units and between 209 and 251 jobs. Development at this density would result in an average residential density of 9.6 dwelling units per net acre.

URA #42

URA #42, is under consideration as a site for a future prison. As per Metro Ordinance No. 98-744B (Attachment D), the amendment is conditioned upon the siting of a women's prison and prisoner intake center within the amended area. While the Productivity Analysis considered the capacity of URA #42 without the amendment as per Metro Ordinance No. 98-744B, it assumed that URA #42 could accommodate between 3,734 and 4,001 jobs. The Analysis did not assume that URA #42 would accommodate any dwelling units.

Factor 4: continued

- (B) The proposed UGB amendment will facilitate achieving an efficient urban growth form on adjacent urban land, consistent with local comprehensive plan policies and regional functional plans, by assisting with achieving residential and employment densities capable of supporting transit service; supporting the evolution of residential and employment development patterns capable of**

encouraging pedestrian, bicycle, and transit use; and improving the likelihood of realizing a mix of land uses to meet the needs of residents and employees.

Staff Analysis

URA #39

A school on URA #39 would facilitate efficient growth inside the UGB by providing public services in closer proximity to existing residential neighborhoods. This could allow for increased pedestrian, bicycle and transit use in the area. Activities generated from this school site may contribute to additional services and employment, thereby encouraging a greater mixture of land uses. This primary school is planned to accommodate approximately twice the enrollment of traditional primary schools. In addition, as this school is planned to be close to an existing middle school (Wood Middle School), economies of scale may also be realized through the sharing of facilities such as athletic fields, administrative offices and a media center. The plan is also designed to minimize on-site circulation, and contains access management features that separate the bus and parent drop-off/pick-up area.

URA #41

URA #41 could also contribute to more efficient land use inside of the UGB. Planning work has been completed for the first tier portion of URA #41 and the Dammasch State Hospital site through the Dammasch Plan, which opts for mixed use residential and employment development patterns capable of encouraging pedestrian, bicycle and transit use. Development at these levels would result in an average density of 10.2 dwelling units per net buildable acre. This density will be sufficient to support transit service as it is comparable with the actual density of much of the area within the current UGB that is served by transit. A central component of the Dammasch Plan includes redevelopment of the Dammasch State Hospital Site, (the majority of which is currently inside of the UGB). Thus, full implementation of the Dammasch Plan would help the City of Wilsonville meet its employment and dwelling unit target capacities, as required by the Functional Plan. Relevant portions of the Dammasch Plan, including a site plan, appear at the end of this report as Attachment C.

URA #42

URA #42 is proposed to accommodate a prison facility, and could allow more efficient use of land within the existing UGB by providing infrastructure and transportation improvements to the planned North Wilsonville Industrial Area. Alternatively, the portion of the URA south of Day Road could be developed as an employment area. This density will be sufficient to support transit service as it is comparable with the actual density of much of the area within the current UGB that is served by transit.

As noted in a June 2, 1998, letter from Wilsonville's City Manager to Metro's Executive Officer, Attachment G:

The City would like to annex all of the expanded Area 42 as part of our commitment to provide urban services not only to the prison but to the adjacent property which would benefit from infrastructure improvements built to city standards at the DOC's expense...with or without annexation the City of Wilsonville will be compelled to provide infrastructure improvements to the prison. In this location, the prison will serve as the

anchor tenant to support the development of the proposed north Wilsonville industrial area. Without the prison, the provision of urban services to this area will not be financially feasible for many years into the future.

Improvements accompanying the development of a women's prison and prisoner intake center in URA #42 would also facilitate increased jobs development within adjacent areas.

CONCLUSION: The Productivity Analysis provides the most up-to-date and consistent comparison of the efficiency of alternative sites. The following listing of efficient urban growth is ranked from most efficient to least efficient:

Productivity Index Comparison
(sorted by highest productivity to lowest)

Urban Reserve	Total Acres ¹	Buildable Acres ²	Dwelling Unit Capacity	Job Capacity	Productivity/ Efficiency Rating
62	8.4	7.8	87	47	30.5**
63	10.5	7.3	71	38	19.9
*37	145.5	112.6	995	159	17.5
*15	371.0	277.8	2,396	645	17.2
55	473.0	318.9	2,509	1,799	16.5
54	190.9	175.2	1,108	369	15.9
24	173.5	143.3	634	1,155	15.4
42	249.6	170.1	0	3,734	15.0
*33	43.7	22.5	220	118	14.8
64	191.3	126.8	1,039	254	14.4
*44	238.1	152.9	0	3,357	14.1
32	87.3	69.0	436	145	13.7
65	116.0	78.4	704	180	13.7
53	204.2	147.5	997	385	13.6
31	736.8	460.2	3,352	1,590	13.1
*5	1,422.0	766.4	6,210	2,998	13.0
61	28.4	16.4	0	360	12.7
17	189.3	137.8	871	290	12.6
*41	278.8	202.0	1,277	426	12.5
1	531.8	245.6	2,267	1,163	12.4
23	22.9	16.2	103	34	12.3
*48	218.4	155.3	982	327	12.3
*43	10.2	7.2	45	15	12.2
*47	82.0	57.2	361	120	12.0
18	98.5	67.6	427	142	11.9
41	144.4	99.1	626	209	11.9
30	190.3	110.1	834	224	11.7
49	261.6	174.9	1,106	369	11.6
52	98.8	66.6	421	140	11.6
**55	353.0	198.1	1,493	457	11.4
70	35.2	29.8	143	47	11.1
*45	464.2	280.4	1,772	591	10.4
25	1,047.6	535.9	2,939	3,373	10.0
*14	307.2	141.0	1,062	347	9.4
51	93.6	51.1	323	108	9.4
33	294.7	149.4	956	308	8.8
69	11.9	7.9	38	12	8.7
29	190.6	94.3	596	199	8.5
34	749.1	308.9	1,891	1,855	8.5
*4	123.4	59.4	375	125	8.3
22	337.3	150.0	949	316	7.7
*35	72.2	22.0	223	23	7.7
*11	464.2	157.7	0	3,461	7.5
67	319.2	137.0	658	216	5.6
*34	7.4	2.3	11	4	4.1
68	64.0	18.5	89	29	3.8
36	33.1	8.8	42	14	3.5
3	22.2	4.8	23	8	2.8
*39	20.0	19.9	-	-	-

Source: Productivity Analysis (9/98) *first tier; **first tier inside Metro Boundary ***Adjusted to reflect additional information received.

¹ Total acres and buildable acres reflect changes to urban reserve areas #5, #15, #39, #55 (inside and outside the Metro boundary), #62 & #65.

² Calculated using 200-foot riparian buffer widths.

The sites rank as follows:

URA #39	No Ranking
URA #41 (first tier)	#19
URA #41 (non-first tier)	#26
URA #42	# 8

Factor 5: Environmental, energy, economic and social consequences. An evaluation of this factor shall be based upon consideration of at least the following:

- (A) **If the subject property contains any resources or hazards subject to special protection identified in the local comprehensive plan and implemented by appropriate land use regulations, findings shall address how urbanization is likely to occur in a manner consistent with these regulations.**

Staff Analysis

Concerning resources, designated water quality resource areas are subject to special protection provided by that portion of the Functional Plan Title 3 that deals with Flood Management. Development will occur in a manner consistent with these regulations. Setbacks (from 15-200 feet) from streams and wetlands will be required depending on slope and the size of the stream. New development or substantial additions to existing development are required to setback at least 50 feet from delineated wetlands. All development, excavation and fill in the floodplain within the URAs will be subject to Title 3 requirements, which will be implemented by local jurisdictions. Other natural hazards, such as those illustrated in maps prepared by Metro, identify earthquakes and landslides are not identified in local comprehensive plans. Possible mitigation measures are being explored at this time. Hazard mitigation measures, if needed, will be addressed through this process.

In addition, Metro Council, through Ordinance No. 97-2562B, has provided for exceptions to the density requirements of the Functional Plan if natural areas require permanent protection from development.

CONCLUSION: There is no evidence that there is any difference from site to site when considering this subfactor.

Factor 5: continued

- (B) **Complementary and adverse economic impacts shall be identified through review of a regional economic opportunity analysis, if one has been completed. If there is no regional economic opportunity analysis, one may be completed for the subject land.**

Staff Analysis

A regional economic opportunity analysis has not been completed as of the date of this report. However, two recent documents do provide information about the regional economy. One is *Regional Connections: A Work In Progress, 1998*, completed by the Institute for Portland Metropolitan Studies and the Multnomah/Washington County Regional Strategies Board. This study shows that during the same period in which a more compact urban form was being

implemented, the region surpassed Pittsburgh, Baltimore, Indianapolis, Kansas City and Cincinnati in the creation of manufacturing jobs. The Metro region transformed itself from a 35 percent value-added economy to a 60 percent value-added economy during the period from the 1980's to the 1990's. The study also shows that educational attainment and wages have grown much faster than the State or national averages. The report also documents how trade drives the growth of the region. It concludes that electronics/software, metals/machinery, professional services, recreation-related services, transportation/distribution, lumber and wood products, nursery products and specialty foods are, at least preliminarily, economic sectors which are likely to continue to contribute to the economy of the region.

In addition, another study, *Action Plan for Keeping Agriculture Viable in the Portland Metro Area* (Agri-Business Council of Oregon, 1997), provides information about the agricultural sector of the economy and about issues and concerns of the industry. The study concludes that: "A certain critical mass of farming, in contiguous blocks of land or operations, is essential to achieve economies through bulk purchases, distribution and control of services costs." The report encourages preserving farmland at the urban edge as one way to help ensure this part of the region's and State's economy remains viable.

The Productivity Analysis does not estimate URA #39 to accommodate additional jobs. It estimates that the first tier portion of URA #41 will accommodate 426 jobs; the non first-tier portion, 209 jobs. URA #42 was assumed to accommodate a prison, with an total estimated 4,001 jobs. It should be noted that the City of Wilsonville expects that approximately one-third of URA #42 will accommodate a prison; the remaining part of the site should still be available for other uses.

CONCLUSION: A regional economic opportunity analysis has not been prepared. However, there is data concerning subregional jobs/housing balance. This data is considered in subfactor 5(C), below.

Factor 5: continued

- (C) **The long-term environmental, energy, economic, and social consequences resulting from the use at the proposed site. Adverse impacts shall not be significantly more adverse than would typically result from the needed lands being located in other areas requiring an amendment of the UGB.**

Staff Analysis

Environmental

Interviews with representatives from the Oregon Department of Fish and Wildlife (ODFW) and the US Fish and Wildlife Service provide the technical basis for the fish and wildlife section.

Two critical habitats for which ODFW have expressed concern are Willamette Valley Grasslands and Oak Woodlands. These habitat types are of highest priority for protection and restoration. The habitat types, or remnants of them, exist in some of the URAs in the Metro region. The best fish and wildlife habitats have a mix of habitat types (i.e., wetlands, forest, open space, streams and floodplains). The more variety, the more fish and wildlife populations can be retained or enhanced. Amphibians and reptiles are the most sensitive to loss of habitat variety. These animals do not just need wetlands and ponds, but they also need upland habitat

to lay eggs and hibernate for the winter. Retention of these species requires riparian vegetation, and also nearby (within a one-mile) upland habitat associated with riparian areas.

As development occurs, impervious surfaces increase as a percent of total land. This increases the amount of pollutants (such as soil, pesticides, herbicides, fertilizers, oils and heavy metals) carried in stormwater. In addition, the stream hydrology is affected by more and faster moving water that can cause stream bank erosion and flooding of adjacent lands. This is a major impact that is the result of increasing urbanization, which must be addressed in the master planning process. Some watersheds (e.g., in the Tualatin Basin) have very strict stormwater management requirements. Metro does not currently address stormwater management, though this has been identified as a future issue to be addressed.

Protection and enhancement of existing riparian and floodplain vegetation is crucial if water quality is to be maintained or enhanced because of its direct and multiple water quality benefits.

Title 3 will apply to all areas brought into the UGB. It does not, however, address stormwater management, which is a significant factor for increasing water pollution and flooding.

URA #39

URA #39 is an approximately 20-acre piece of a larger parcel used for farming field crops. According to a Metro staff analysis, URA #39 does not appear to have any significant habitat issues, though this area does provide open space for wildlife adjacent to the urban fringe. Stormwater should be treated on-site as much as possible to reduce downstream impacts. This area is immediately south to a wetland area on the DSL property. The West Linn-Wilsonville School District intends to work with ODSL to install a buffer between the school and the wetland area. The wetland area may also be used for environmental study.

URA #41 (first tier and non-first tier)

URA #41 shows strong restoration potential and good grassland habitat restoration potential. There is also potential for stream restoration within the current ditch that has been used in the past for farming, and restoration potential for the wetland along the eastern side of URA #41. Some forested habitat exists in the central and southeastern areas of the URA, which also has restoration potential.

The historic drainage, stream and wetland systems in this area have been altered due to past drainage patterns and ditching of land for farming. Remnant drainage ways could be restored for water quality benefit. This area is also experiencing severe groundwater limitations. Master planning for URA #41 should encourage groundwater recharge. Careful consideration should be given to the location of impervious surfaces. As stormwater from URA #41 will eventually discharge to the Willamette River, this issue must be addressed. The Willamette is under examination as a future drinking water source for the region.

The Dammasch Plan has noted that both Coffee Lake Creek and Coffee Lake Creek wetlands are potentially significant areas based on several factors, including: size; existence of more than one habitat type; corridor connection; and the connection to other habitat types. The plan has noted that most of this area will be unavailable for development, though it assumes some development within the floodplain. Metro Code (Title 3) now requires that fill from development be balanced with excavation in order to prevent increased flood levels along Coffee Lake Creek.

URA #42

Western portions of URA #42 are relatively undeveloped, and have high habitat value, if protected. There is a heavily forested patch in the middle of this URA that provides a migration corridor to the west. A stream in the northern portion of URA #42 appears to be significantly altered from past land use practices. The riparian vegetation in this area is of low quality or non-existent in portions of the stream. It will be important to restore the riparian vegetation of its water quality and quantity benefits. This area is also experiencing groundwater limitations. Groundwater master planning will need to address ways in which to increase groundwater recharge.

Natural Hazards

Various analyses have been conducted for natural hazards such as earthquakes, landslides and flooding in order to understand the risks they create for the built environment. Risk may be reduced by avoiding or modifying the land in hazardous areas, or by constructing buildings and infrastructure in a way that can withstand the effects of natural hazards.

In 1992, Metro and the Regional Earthquake Hazard Mapping and Preparedness program (initiated by Oregon Department of Geology and Mineral Industries (DOGAMI)) identified earthquake hazards, people, structures and systems at risk from natural hazards. This effort was intended to support local disaster preparedness efforts, and to propose natural hazard mitigation programs.

The earthquake hazard maps interpret local geologic hazards in relation to the following: ground motion amplification by a "soft" soil column; liquefaction of water-saturated sand, creating areas of "quicksand" or liquefiable sediment; and landslides triggered by the earthquake shaking of high slope instability areas. Relative earthquake hazards maps were also produced that show level of severity by site. These three maps were combined to create the Relative Earthquake Hazard Map (REHM) of the Metro region.

The relative earthquake hazard maps are reproductions of the overall earthquake hazard at locations depicted on the maps. This interpretation of the hazard is based on the contribution of geologic conditions to the overall hazard. These data and analyses are no substitute for site-specific information. The reference maps were published by DOGAMI (GMS-79 Earthquake Hazard Maps of the Portland Quadrangle, Multnomah and Washington Counties). The most direct application of the REHM is for siting facilities, and for determining whether to require site-specific seismic hazard investigation for any of the eight land use classifications.

Metro staff and the Regional Natural Hazards Technical Advisory Committee are currently developing mitigation measures to address the impacts of natural hazards on people and structures in hazard prone areas. Specific recommendations on mitigation measures will be designed to help reduce risk. Measures may include subdivision regulations, structural requirements, building retrofit recommendations, siting and management requirements for public facilities and risk evaluation techniques.

Energy

Statewide guidelines for Goal 6, Energy, states: "Priority consideration in land use planning should be given to methods of analysis and implementation measures that will assure achievement of maximum efficiency in energy utilization." The energy consumed from adding this area to the UGB is likely to increase as a result of construction, additional automobiles,

burning of fossil fuels for heating and cooling of homes and businesses, and electricity consumption.

The cost of not amending the UGB to include these URAs and amending the UGB in another area more distant from the current area would potentially be greater in terms of energy loss and consumption.

URAs #39, #41 (first tier) and #42 are proximate to the current Wilsonville boundaries. Thus, it would be practical to extend roads to serve this area. Reduction in the number of miles to serve a developing area decreases consumption of fossil fuels as well as pollution from automobile use. Overall reductions in vehicle miles traveled and out-of-direction travel can be expected from locating the UGB expansion in this area. The location of a neighborhood commercial area in the first tier portion of URA #41 would further reduce automobile trips by providing basic services for future residential uses. Planned development will increase the density of the area, making the existing and proposed street system more efficient.

Economic

Amendments to the UGB and subsequent annexation to the City of Wilsonville will require extension of urban services such as sanitary sewer and water service to permit urban development. Extension of infrastructure and residential development will increase the assessed value of properties in this area and increase the tax base. Urbanization, which includes intensification of residential and commercial development, will increase the per acre value of land and improvements within these URAs. Once annexation and development occur, all special districts serving this area will also receive an increase in their tax bases.

According to an action plan developed for *Keeping Agriculture Viable in the Portland Area*, farms in the Portland Metropolitan Area tend to specialize in higher-value crops that can be cultivated on smaller parcels and yield a higher income per acre ratio of sales than the rest of the State. Examples of high value farm products are nursery products, greenhouse products, fruits, vegetables and nuts. The Metro region produces 25.8 percent of the Gross State Product (GSP) with only 1.8 percent of the State's agricultural land. Overall, agricultural products contribute 2.5 percent of the GSP in the Portland region (\$325 million in production/\$518 million in processing). Statewide GSP break down as follows: high tech – 7 percent, manufacturing – 6 percent, construction – 6 percent and services – 26 percent.

URA #39

URA #39 is planned to be developed as a school. This may enhance economic activity in the vicinity by encouraging the development of complimentary operations to serve this area. This activity provides a beneficial and needed use to the community in face of the potential loss of farming income.

URA #41 (first tier and non-first tier)

The first tier portion of URA #41 is zoned partially EFU, and partially rural residential (RRFF5). This area is composed of several private residences and some agricultural uses. Approximately 80 percent of the first tier portion of URA #41 is EFU. The non-first tier portion of URA #41 is also partially EFU and partially rural residential (zoned RRFF5). Approximately 47 percent of the non first-tier portion of URA #41 is zoned EFU.

URA #41 is projected to develop as an inner neighborhood and mixed use center. The Dammasch Plan illustrates this concept for the first tier portion of URA #41. The entire URA is proximate to existing development within the City of Wilsonville. In addition, the type of development projected for this area is consistent with current development patterns within the City. Proposed commercial development for this area is likely to generate income sufficient to outweigh the loss of farm income in this area.

URA #42

URA #42, as amended, is zoned partially rural residential, and partially rural industrial, (MAE, or land extensive industrial by Washington County; RI, or rural industrial by Clackamas County). There is no EFU-zoned land within URA #42. According to the City of Wilsonville's June 12, 1998, *Proposed Concept Plan for the North Wilsonville Industrial Area* (Attachment I), URA #42 contains a mixture of some industrial businesses. They are involved in the processing and manufacture of timber and forest-related products; farm crops and produce; and processing of minerals and aggregate. The area also contains some rural residential uses with pasture for horses or land for specialty crops. According to Metro RLIS, there are no Class 1 soils in URA #42.

URA #42 has been proposed as a site for a women's prison and prisoner intake center. A May 29, 1998, letter from the City of Wilsonville regarding the North Wilsonville Industrial Area (Attachment H) states the following:

...the development of a prison in Area #42 will actually help to facilitate planned industrial development surrounding it. As Area #42 becomes increasingly industrial in character, properties surround the proposed Day Road prison site will benefit from industrial infrastructure improvements, and potentially, from a prison that could provide a market for local goods. The prison facility is expected to both consume the services of, and provide services to, surrounding industries.

The proposed development of a prison on this site is likely to generate additional economic activity that could benefit existing businesses in the vicinity. As Metro's staff analysis indicates, little to no farming is occurring within amended URA #42. Thus, loss of farming income is not a significant issue for this area.

Because of urbanization in these areas, primarily in URAs #39 and #41, some loss of farm income (from the conversion of agricultural lands to housing and/or commercial uses) is anticipated. The economic value of farms in these areas is not considered high, as there are few areas of land devoted to agricultural activities.

Overall, the adverse economic consequences of the loss in farm-related income in URAs #39, #41 and #42 would be offset by the increase in other types of economic activities resulting from bringing these lands into the UGB. The relatively small number of existing farm uses and the lack of highly productive soils has minimized the losses for the areas addressed above. A shift in economic income will also occur within new construction activity in the area. Statewide, construction is an important economic activity, accounting for 6 percent of the GSP.

Social

There are both positive and negative social consequences of expanding the UGB in these areas. Through required urban reserve planning, URAs #39, #41 and #42 can provide additional amenities for residents in the designated URAs as well as for residents inside of the UGB. Inclusion of these URAs, particularly URA #41, would provide an opportunity for mixed use development with a wide array of services. Closer proximity to services and jobs can result in fewer vehicle miles traveled by local residents, and can provide opportunities for other modes of transportation such as transit, bicycling and walking. Public facilities, such as a new school in URA #39, and new infrastructure from the proposed women's prison and prisoner intake center in URA #42, could be provided to residents and businesses within the existing UGB.

This type of urbanization may also affect the rural character of the area. This is a negative impact for those who cherish such a lifestyle and rural environment. Residents inside the UGB may feel a loss from urbanization of open space outside the current UGB. Those currently farming may feel pressure from increased urbanization to develop their lands or curtail farming activities.

The social cost of not expanding the UGB in areas close to existing development is great. Loss of large scale agricultural production, increased costs of services, increased vehicle miles traveled and pollution result from pushing growth to areas that are not contiguous to the current UGB. Public involvement efforts through mail-in surveys, phone surveys, community meetings reveal that easy access to regional amenities, open space, protection of the natural environment are some of the qualities important to livability. The social impacts of urbanization of these URAs are not more adverse than would occur in other URAs.

Affordable Housing

The social aspects of not providing needed housing could be severe for low-to-moderate income households. Unfulfilled demand for housing (by not taking additional lands into the UGB) will increase the price of available housing, and could make it difficult for lower income groups to obtain housing. Housing choices may also become restricted if there is not sufficient land to meet demand for various products.

As noted in the Housing Needs Analysis, "Since 1990, there has been a growing concern on the issue of housing affordability in the Portland metropolitan region. This concern continues to be precipitated by a number of reasons which include: a widening gap between household income and the cost of housing; an increase in population and homelessness; rising land costs and the lack of available land." Metro has responded to this concern by designating an Affordable Housing Technical Advisory Committee. It is beginning to look at possible solutions. One direct solution is to make additional land available; Metro Code requires that the net residential development density of urban reserves brought into the UGB average 10 dwelling units per acre. This provision will help ensure that a range of housing types is available. As concluded by the Housing Needs Analysis, a good deal of affordable housing can be made available by having smaller homes on smaller lots. Minimum density requirements for urban reserves will help to deliver more affordable housing as well as address the social consequences of UGB management policies. URA #41 (the first tier and non-first tier portion) is estimated to provide 1,903 dwelling units. Together, these areas would accommodate about 12 percent of the need that must be addressed in 1998 (approximately 16,000 dwelling units).

Archeological Sites

Archeological Sites

Archeological resources are protected by Federal and State laws, which prohibit the disturbance of Native American burial sites. Approximately 6 percent of the surface area of the State has been formally surveyed to determine the presence of Native American artifacts. The number of existing surveys available for the Portland basin is very small considering the size of the area.

Archeological resources are protected under Statewide Planning Goal 5 and Federal law, which will be addressed through the urban reserve planning process. According to Lee Gilson, State Archeologist, from the State Historic Preservation Office (SHPO), no specific resources are located within these areas. SHPO has records of completed survey work, excavations, test pits and known archeological resources located throughout the State.

Based on known settlement patterns and disturbance that have already occurred in this area due to farming and residential development, it is unlikely that any resources exist. If however archeological resources are encountered during construction, it is a violation of Federal law to disturb these sites.

Historic Sites

There is an historic resource located in URA #41, as noted by the State Register or the National Register of Historic places, according to SHPO. Impacts on non-surveyed historic resources are best addressed by the local jurisdiction through a Goal 5 survey, an inventory and protection ordinances. Regulations permit the rehabilitation of such structures for residential use or other new uses. Re-use and rehabilitation options are often financially more attractive options to property owners because of high demolition costs.

Aggregate Resources

Aggregate resources are important for road building and general construction. In general, due to the finite nature of these resources and a limited supply in the Metro area, the price of these resources is expected to increase. Aggregate uses are temporary in nature due to the limited supply of the resource on a site. It is often economical to use the resources as close to the mine as possible because of the resource's bulky nature and high transport costs. The relationship between aggregate resources, construction activities and costs makes it important to preserve these resources. These sites have the potential to be recycled and reused for recreational purposes, landfills and open space after reclamation.

The initial information for mining sites was gathered from DOGAMI's 1990 database, MILOC (Mineral information Layer of Oregon by County). This database was used only as a preliminary indicator of mining locations. The locational accuracy of MILOC is very rough, and much of the information contained within the records is outdated. Staff used MILOC as a first screen to review September 1997 aerial photographs for evidence of mining activity. Areas where mines are visible are listed below. For all sites listed, activity is assumed ongoing; no reclamation was apparent of the photograph. County assessor databases on Metro's RLIS GIS system were queried to produce ownership and acreage information for each site. Acreage figures are approximate. In considering the possible impact of mining near these areas, it is necessary to note the proposed uses for each of these URAs as well as their proximity to the mining activities. Mining conflicts can result from noise, dust, vibration and truck traffic.

URA #39

Approximately one-half mile from the eastern boundary of URA #39, there is a sand and gravel operation. This is a 25-acre site owned by Jean Young.

URA #41

There are two sand and gravel operations occurring approximately ¾ mile to the southeast of URA #41. These include a 7-acre site owned by the City of Wilsonville, and a 25-acre site owned by Jean Young. This may increase truck traffic along Grahams Ferry Road toward the site.

URA #42

Several stone mining sites exist within a 400-foot to ¾ mile distance northwest of URA #42. These sites include approximately eight tax lots, which total 100 acres (by the Assessor's record). All of these properties are owned by Morse Brothers.

CONCLUSION: State planning guidelines indicate several ways to address energy efficiency. Some can be addressed through construction methods and would apply to all sites equally. In addition, there are guidelines specifically addressing land use that state: "Land use planning should, to the maximum extent possible, seek to recycle and re-use vacant land and those uses which are not energy efficient. Land use planning should, to the maximum extent possible, combine increasing density gradients along high capacity transportation corridors to achieve greater energy efficiency." These are the precepts used in the 2040 Growth Concept, through density minimums and application of Metro 2040 design types, and expected to be applied in areas added to the UGB. There is no evidence suggesting that the alternative sites being considered for inclusion within the UGB are substantially different when considered for energy efficiency.

Concerning archeological or historic resources, there is no evidence to suggest that any one of the alternative sites will be more or less impacted by urbanization than any other. Resources may be found and existing State or Federal law that are designed to address resource protection may require actions. Accordingly, there is no evidence suggesting that the alternative sites being considered for inclusion within the UGB are substantially different when considered for archeological or historic resources.

There are other issues that have been consistently raised in public testimony concerning the area. These issues have environmental, economic and social consequences. Some are the same as those discussed above (e.g., Steelhead), others are not but may be addressed in other Metro Code sections (such as roads). However, these issues have been consistently identified in public testimony as major negative impacts likely to affect the subject area. For this reason, they are included in the consideration of this portion of the Metro Code.

The list of negative impacts, identified on the following table, includes roads, stormwater, Steelhead, flooding, wildlife and farm soils. The word "roads" in this portion of this staff report means inadequate existing roads to accommodate expected growth and no evidence of funding sources available now or in the near future to address the shortfall. The word "schools" means development of the urban reserve area is likely to result in more students than current school capacities and no evidence of where funding for needed school sites or buildings will come from. The word "rural" refers to losing the lower density development and lifestyle of the area or impacting the surrounding area through an abrupt change from one development type (rural) to another (urban). The word "stormwater" means surface water runoff at such high volumes, quantities, temperature, sedimentation or chemical contamination that it currently does not meet water quality standards. "Stormwater" also means that with current regulations, additional future

development will reduce the quality of existing bodies of water that may currently meet standards such that the resulting water may not meet water quality standards. The word "Steelhead" is meant to describe the presence of the salmonid that is listed as a threatened species in the subject urban reserve area. The word "flooding" denotes an area that is subject to flooding or is likely, under current regulations, to substantially contribute to flooding or additional flooding to adjacent stream or river segments. The word "wildlife" means the presence of wildlife and wildlife habitat that is likely to be eliminated if current regulations remain the same and the area is included in the UGB. The term "farm soils" represents lands with significant area with productive agricultural soils and/or areas with active agricultural activities.

In addition to the negative impacts, there are positive impacts of growth. These include providing affordable housing and improving the jobs/housing balance. The term "affordable housing" in this portion of the staff report means the provision of additional land and the production of homes for sale and rent that will increase the supply of affordable housing in the area. The term "job/housing balance" means providing land for development of jobs in areas with few jobs and housing in areas with little housing. This balances land uses in an area and reduces the impact on major arterials and highways. In the situation where an area has few jobs, it also provides for a more diverse tax base to support needed local public facilities and services.

Using these issue components, each site has been assessed as either having impacts of urbanizing that can be mitigated so that there are no more adverse impacts than the alternative sites, or having impacts that are so significant that some or all of the impacts cannot be mitigated. Based on all evidence in the record, there is no basis to conclude that any of the contending urban reserves have impacts that cannot be mitigated.

Urban Reserve	Negative Impacts Needing Mitigation	Positive Impacts
4	Roads, schools, stormwater, Steelhead, flooding	Affordable housing
5	Roads, schools, rural, stormwater, Steelhead, flooding, wildlife	Affordable housing
14	Roads, schools, rural, stormwater, Steelhead, wildlife	Affordable housing
15	Roads, schools, rural, stormwater, Steelhead, wildlife	Affordable housing
31	Roads, schools, rural, stormwater, wildlife	Affordable housing
32	Roads, schools, rural, stormwater, wildlife	Affordable housing
33	Roads, schools, rural, stormwater, wildlife	Affordable housing
34	Roads, schools, rural, stormwater, wildlife	Jobs/housing balance
39	Roads, rural, stormwater, farm soils	School site
41	Roads, schools, rural, stormwater, farm soils	Affordable housing, Jobs/housing balance
42	Roads, schools, rural, stormwater	Affordable housing
43	Roads, schools, rural, stormwater	Affordable housing
47	Roads, schools, rural, stormwater	Affordable housing
45	Roads, schools, rural, stormwater	Affordable housing
51	Roads, schools, rural, stormwater	Affordable housing
52	Roads, schools, rural, stormwater	Affordable housing
53	Roads, schools, rural, stormwater, farm soils	Jobs/housing balance

54	Roads, schools, rural, stormwater, farm soils	Jobs/housing balance
55 inside Metro Boundary	Roads, schools, rural, stormwater,	Jobs/housing balance
55 outside Metro Boundary	Roads, schools, rural, stormwater, farm soils	Affordable housing, jobs/housing balance
62	Roads, schools, rural, stormwater, farm soils	Affordable housing, jobs/housing balance
63	Roads, schools, rural, stormwater, farm soils	Affordable housing, jobs/housing balance
65	Roads, schools, rural, stormwater, farm soils	Affordable housing, jobs/housing balance

Note: Includes only URAs in last screening and covered by staff reports.
Source: Metro Growth Management Services Department.

In further response to impacts, the Metro Council could consider requirements to address these issues. These requirements could take the form of amendments to the Functional Plan, Title 11 or Conditions of approval attached to UGB approvals. Requirements to mitigate impacts could include the following:

1. General. Adoption of an urban comprehensive plan designation or urban zoning for the subject area shall not preclude additional future Metro conditions or requirements that may be identified as a result of future analyses.
2. Roads. Adoption of an urban comprehensive plan designation or urban zoning for the subject area shall be approved by the city or county only after a transportation funding plan that addresses existing and future needed road improvements identified in the urban reserve plan has been approved for the area.
3. Schools. Adoption of an urban comprehensive plan designation or urban zoning for the subject area shall be approved by the city or county only after a school site funding plan that addresses future needed school sites identified in the urban reserve plan has been approved for the area.
4. Rural. Adoption of an urban comprehensive plan designation or urban zoning for the subject area shall be approved by the city or county only after a rural design plan is adopted for the area. The plan shall not reduce the anticipated 2040 densities of the urban reserve area. The rural design plan shall examine the opportunities for conservation of trees and native vegetation in strategic areas along roads or vistas to visually separate new urban development from remaining adjacent rural lands outside the urban reserve area.
5. Stormwater. Adoption of an urban comprehensive plan designation or urban zoning for the subject area shall be approved by the city or county only after a stormwater management plan has been adopted for the area. The stormwater plan shall address means of ensuring that the speed, temperature, sedimentation and chemical composition of stormwater runoff meets State and Federal water quality standards as development of the urban reserve area occurs. In addition, the city or county regulations shall require that the amount of stormwater runoff after completion of a development shall not be greater than the stormwater runoff before development.

6. **Flooding.** Adoption of an urban comprehensive plan designation or urban zoning for the subject area shall be approved by the city or county only after the city or county adopts a requirement for the subject area that the quantity of stormwater runoff after urban development of a site is no greater than the amount of stormwater runoff before urban development.
7. **Steelhead.** Adoption of an urban comprehensive plan designation or urban zoning for the subject area shall be approved by the city or county only after the city or county adopts a requirement for Title 3 setbacks from the top of bank of streams and wetlands, examines any potential impacts within 200 feet of the top of bank and addresses Federal requirements adopted pursuant to the Endangered Species Act. The requirement shall also obligate the development to include revegetation of the setback with native plants if the area does not already have native plants.
8. **Farm Soils.** This concern is addressed in Factors 6 and 7 of this report.

Factor 6: Retention of agricultural land. This factor shall be addressed through the following:

- (A) **Prior to the designation of urban reserves, the following hierarchy shall be used for identifying priority sites for urban expansion to meet a demonstrated need for urban land:**
 - (i) **Expansion on rural lands excepted from Statewide Planning Goals 3 and 4 in adopted and acknowledge county comprehensive plans. Small amounts of rural resource land adjacent to or surrounded by those "exception lands" may be included with them to improve the efficiency of the boundary amendment. The smallest amount of resource land necessary to achieve improved efficiency shall be included;**
 - (ii) **If there is not enough land as described in (i) above to meet demonstrated need, secondary or equivalent lands, as defined by the State, should be considered;**
 - (iii) **If there is not enough land as described in either (i) or (ii) above, to meet demonstrated need, secondary agricultural resource lands, as defined by the State should be considered;**
 - (iv) **If there is not enough land as described in either (i), (ii) or (iii) above, to meet demonstrated need, primary forest resource lands, as defined by the State, should be considered;**
 - (v) **If there is not enough land as described in either (i), (ii), (iii) or (iv) above, to meet demonstrated need, primary agricultural lands, as defined by the State, may be considered.**

Staff Analysis

Metro Council adopted urban reserves on March 6, 1997 by Ordinance No. 96-655E (including URAs #39, #41 and #42). As noted in Metro Code, the above hierarchy is only to be used before adoption of urban reserves. The proposed amendment is wholly within the designated urban reserves (URAs #39, #41 and #42). It should be noted that the designated urban reserves are not yet acknowledged by LCDC and are currently under appeal.

This factor was addressed by rating each study area for exception land, agricultural soils, land uses, including parcelization, and access to irrigation. The analysis was conducted using raw scores for the kinds of lands in the study area. Exception lands and resource lands (farm and forest lands) received varying points based on parcel size. Additional points were granted for class I-IV soils, available irrigation and existence of prime or unique agricultural lands. Raw scores were converted to ratings. Study areas that contain less agricultural land received a higher rating for future urbanization.

For URA #39, the rating was zero; for URA #41, the rating was two; and for URA #42, the rating was eight. Accordingly, URA #42 was very highly rated when ranked against all other analyzed sites around the region.

CONCLUSION: Urban Reserves have been designated and adopted by the Metro Council by Ordinance No. 96-655E. We assert that this requirement has been satisfied. Alternatively, given that the urban reserves have been appealed to LUBA, staff have assessed the retention of agricultural land for all contending sites based on the Factor 6 hierarchy. The following is a ranking from least impact on farm and forest resource lands (using percent of EFU zoning of total acres). The Metro Code also states that: "While all of the following Goal 14 factors must be addressed, the factors cannot be evaluated without reference to each other. Rigid separation of the factors ignores obvious overlaps." Accordingly, it is concluded that the Metro Code hierarchy states a priority, not an absolute and must be considered in relationship to the other factors. In order to complete this comparison, the following table ranks sites starting with those sites with the smallest percent of EFU land (therefore, the highest priority for inclusion within the UGB) and ending with those sites with the most amount of EFU land:

**Comparison of Exclusive Farm Use Acres
(sorted by lowest number of EFU to highest)**

URA #	Total Acres	EFU Acres	% EFU
*4	123.4	0	0%
*5	1,422.0	0	0%
*15	371.0	0	0%
17	189.3	0	0%
18	98.5	0	0%
22	337.3	0	0%
23	22.9	0	0%
24	173.5	0	0%
25	1,047.6	0	0%
29	190.6	0	0%
30	190.3	0	0%
34	749.1	0	0%
*35	72.2	0	0%
*36	33.1	0	0%
*37	145.5	0	0%
42	249.6	0	0%
*43	10.2	0	0%
*45	464.2	0	0%
*47	82.0	0	0%
*48	218.4	0	0%
49	261.6	0	0%
51	93.6	0	0%
61	28.4	0	0%
67	319.2	0	0%
68	64.0	0	0%
69	11.9	0	0%
70	35.2	0	0%
*33	43.7	0	0%
*34	7.4	0	0%
52	98.8	1.8	2%
64	191.3	16.7	9%
*11	464.2	63.0	14%
**55	353.0	48.0	14%
*14	307.2	42.6	14%
33	294.7	76.6	26%
41	144.4	68.7	48%
54	190.9	144.0	75%
55	473.0	366.0	77%
44	238.1	189.9	80%
*41	278.8	224.7	81%
31	736.8	639.6	87%
53	204.2	183.0	90%
32	87.3	79.9	92%
62	8.4	8.0	95%
65	116.0	112.0	97%
1	531.8	530.9	100%
3	22.2	22.2	100%
63	10.5	10.5	100%
*39	20.0	20.0	100%

Source: Metro Regional Land Information System (RLIS)

*first tier

**first tier inside Metro boundary

Factor 6: continued

- (B) After urban reserves are designated and adopted, consideration of Factor 6 shall be considered satisfied if the proposed amendment is wholly within an area designated as an urban reserve.**

Staff Analysis

This staff report presents information on lands wholly within URAs #39, #41 and #42. Additional information is provided in the analysis cited above.

Factor 6: continued

- (C) After urban reserves are designated and adopted, a proposed amendment for land not wholly within an urban reserve must also demonstrate that the need cannot be satisfied within urban reserves.**

Staff Analysis

This staff report presents information on lands wholly within URAs #39, #41 and #42. Additional information is provided in the analysis cited above.

CONCLUSION: Except for refinements to the urban reserve boundary, the site is wholly within a designated urban reserve. Alternatively, given the appeal of the urban reserve decision see the ratings above. The site's rankings (as indicated by the table on the previous page) are as follows:

URA #39	No Ranking
URA #41 (first tier)	10
URA #41 (non-first tier)	6
URA #42	1

URA #42 is in the first ranking because there are no EFU acres in this reserve.

Factor 7: Compatibility of proposed urban development with nearby agricultural activities. The record shall include an analysis of the potential impact on nearby agricultural activities including the following:

- (i) A description of the number, location and types of agricultural activities occurring within one mile of the subject site;**

Staff Analysis

Crop types were interpreted from a September 1997 aerial photograph, at a scale of 1" = 800'. Guidance for crop identification was received from the USDA Farm Service Agency of Clackamas/Multnomah County. The data shown in the following tables has not been field-checked, and errors may exist. Information on EFU zones was obtained from county records. Metro is required to base its analysis on zoning that has been acknowledged by the State.

URA #39

URA #39 is bordered by the UGB to the east and southeast, and by EFU-zoned areas to the north, west and southwest. The entire URA is zoned EFU. According to a Metro staff analysis, there are approximately 1,408 acres of EFU-zoned land within a one-mile radius of URA #39. This EFU-zoned land represents approximately 57 percent of the entire land area within a one-mile radius of URA #39. Approximately 45 percent of the EFU land consist of field crops, 14 percent consists of orchard, and 3 percent consists of nursery stock. The rest of the uses in the surrounding area are unknown or not in farm use. This estimate was made using RLIS, aerial photos and information obtained from the Farm Bureau.

URA #39 Generalized Crop Type	EFU Acres Inside of URA, By Crop Type	EFU Acres within 1 Mile of URA, by Crop Type	Percentage of EFU within 1 Mile, By Crop Type *
Nursery Stock	0	42	3%
Orchard	0	199	14%
Row Crops (includes cord, vineyards, cane berries)	0	0	0%
Vegetables	0	0	0%
Field Crops (includes grasses, grains, pastures)	20	644	45%
Unknown	0	28	2%
Unfarmed	0	495	35%

* Note: Crops with the 1st & 2nd- highest percentages marked in bold font.

URA #41

URA #41 (both the first tier and non-first tier portion) are bordered by EFU land to the east, EFU-zoned and rural residential-zoned land to the North, EFU-zoned and rural residential-zoned land to the west, and the UGB to the south. According to a Metro staff analysis, 69 percent of this URA is zoned EFU, and there are approximately 2,180 acres of EFU land within a one-mile radius of URA #41. This EFU-zoned land represents approximately 42 percent of the entire land area within a one-mile radius of URA #41. Approximately 60 percent of the EFU land consists of field crops, 8 percent consists of orchard, and 32 percent is unfarmed. This estimate was made using RLIS, aerial photos and information obtained from the Farm Bureau.

URA #41 Generalized Crop Type	EFU Acres Inside of URA, By Crop Type	EFU Acres within 1 Mile of URA, by Crop Type	Percentage of EFU within 1 Mile, By Crop Type *
Nursery Stock	0	0	0%
Orchard	0	182	8%
Row Crops (includes corn, vineyards, cane berries)	0	4	0%
Vegetables	0	4	0%
Field Crops (includes grasses, grains, pastures)	247	1,310	60%
Unknown	0	9	0%
Unfarmed	47	670	32%

* Note: Crops with the 1st & 2nd- highest percentages marked in bold font.

URA #42

URA #42 is bordered by MAE-zoned land (land extensive industrial) to the east, and land zoned farm/forest-5 acre to the north and west, and the UGB and some rural industrial-zoned land to the south and southwest. None of the land within this URA is zoned EFU, though there are approximately 890 acres of EFU-zoned land within a one-mile radius of URA #42. This EFU-zoned land represents approximately 20 percent of the entire land area within a one-mile radius of URA #42. Approximately 40 percent of this EFU-zoned land consists of field crops, 2 percent consists of vegetables, and the remaining 58 percent is unfarmed. This estimate was made using RLIS, aerial photos and information obtained from the Farm Bureau.

URA #42 Generalized Crop Type	EFU Acres Inside of URA, By Crop Type	EFU Acres within 1 Mile of URA, by Crop Type	Percentage of EFU within 1 Mile, By Crop Type *
Nursery Stock	0	0	0%
Orchard	0	0	0%
Row Crops (includes corn, vineyards, cane berries)	0	0	0%
Vegetables	0	17	2%
Field Crops (includes grasses, grains, pastures)	0	359	40%
Unknown	0	0	0%
Unfarmed	0	514	58%

* Note: Crops with the 1st & 2nd- highest percentages marked in bold font.

SUMMARY OF ANALYSIS: Avoiding areas with EFU land is one way to help ensure that the resource is protected. However, the surrounding lands must also be analyzed for the presence of agriculture in order to further consider the impact on agriculture. The most current and consistent available data were gathered by Metro staff based on a methodology recommended by the Farm Service Agency of the US Department of Agriculture. These data demonstrate that the least impacting sites are as follows (rankings start with the lowest number of acres of actively farmed EFU and end with the highest number). We assert that the first approach is to avoid sites with the most heavy impact.

Comparison of Agricultural Compatibility				
<i>(sorted from lowest actively farmed Exclusive Farm Use acres to highest)</i>				
URA #	Acres of EFU in URA	Acres of EFU within 1 mile	% EFU acres of total acres within 1 mile	# of actively farmed EFU acres within UR and within 1 ml.
*4	0	-	0%	0
*43	0	191	8%	0
*5	0	174	2%	121
*15	0	243	5%	167
42	0	890	20%	376
*34	0	636	10%	386
34	0	636	10%	386
*14	43	494	11%	394
*47	0	649	21%	421
32	32	857	27%	745
*33	0	1,159	25%	775
33	77	1,159	25%	842
51	0	1,388	41%	907
*39	20	1,408	57%	926
41	68	1,561	48%	1,161
54	144	1,619	43%	1,176
52	1.8	1,651	47%	1,192
65	112	1,307	40%	1,221
31	640	1,176	18%	1,255
**55	48	1,976	43%	1,328
55	366	1,696	34%	1,361
53	183	2,018	52%	1,403
62	8	1,551	65%	1,472
63	11	1,649	70%	1,508
*41	225	1,966	44%	1,520
*45	0	2,750	42%	1,819

Source: Metro Regional Land Information System (RLIS) database

*first tier **first tier within Metro boundary

Note: Includes only urban reserve areas in last screening and covered by Staff Reports.

CONCLUSION: The URAs rank as follows:

URA #39	12
URA #41 (first tier)	23
URA #41 (non-first tier)	13
URA #42	4

Factor 7: continued

- (ii) **An analysis of the potential impacts, if any, on nearby agricultural activities taking place on lands designated for agricultural use in the applicable adopted county or city comprehensive plan, and mitigation efforts, if any impacts are identified. Impacts to be considered shall include consideration of land and water resources, which may be critical to agricultural activities, consideration of the impact on the farming practices of urbanization of the subject land, as well as the impact on the local agricultural economy.**

Staff Analysis

This factor requires that urban uses in the proposed UGB expansion area must be rendered "compatible" with agricultural activities nearby.

URA #39

URA #39 is proposed as a school site. It is directly accessible via SW Wilsonville Road. An agreement between the DSL and the West Linn-Wilsonville School District will make the sale of this property contingent upon it being developed as a school. In addition, the City of Wilsonville has exempted this development from its development moratorium on the condition that there be no summer school or other use of the facilities creating a need for water in the summer; that water maintenance during the summer be interruptible; and that there be no irrigation on the site. These findings are based on the City Council's decision that a new school is needed in the community, and that local schools have a history of minimal summer water usage.

A number of factors influence whether, and the degree to which urban development influences agricultural practices on adjacent or nearby EFU land. Representatives of the Washington County and Multnomah/Clackamas County offices of the USDA Farm Service Agency worked with Metro staff to identify the most significant challenges to compatibility that exist between the urban use of land and nearby farming activity. Considerations that apply universally to all urban reserve areas may include:

- Urbanization may affect land values and inhibit the ability of farmers and agricultural suppliers to acquire parcels of land needed for agricultural production.
- Urbanization may result in the isolation of certain agricultural areas from the greater farming community. This may hinder normal practices of sharing equipment and knowledge among farmers.
- There are safety and liability issues associated with increased residential populations in close proximity to active farming (i.e., vandalism and accidental injury on and around farm equipment).

In addition to the universal factors addressed above, URA #39 is entirely EFU-zoned, and is part of a 155-acre parcel for farming field crops; it is leased on an annual basis.

Alternatively, while development on this site may have some impact on adjacent agricultural practices, the loss of 20 acres will still leave a parcel that exceeds the minimum density size for this EFU zone. While this parcel is immediately south of a wetland area, this wetland may provide a natural buffer between the proposed school site and agricultural activity to the north.

URA #41 (first tier and non-first tier portion)

URA #41 (both first tier and non-first tier) abut some EFU-zoned land and some rural-residential-zoned land, as stated above. For the first tier portion of URA #41 specifically, The Dammasch Plan aims to use Boeckman Road as the main thoroughfare serving the Dammasch area. It will extend southwest through the planning area to Grahams Ferry Road. Traffic is intended to follow Grahams Ferry Road southward toward Wilsonville Road. The planning area will also be served at the northern edge by connecting Brown Road with Tooze Road. The Dammasch Plan is formulated upon a grid pattern that has been modified along the northern and western parts of the planning area in order to limit traffic impacts outside of the UGB.

There is no concept plan currently underway for the non-first tier portion of URA #41. However, the land designated EFU within this URA as well as to the north and northwest of the URA, consists of a "peninsula" that is surrounded by the UGB, rural residential land, and a portion of first tier URA #41 to the south. Thus, this EFU land is surrounded by urbanized or urbanizable land.

In addition to the three universal factors addressed for URA #39, above, issues specific to development of URA #41 may also include:

- Added residential population may result in increased complaints directed at farming operations related to odor, dust, noise and the use of pesticides/fertilizers.
- Fresh vegetable and nursery operations may benefit from increased market created by nearby development.
- Drainage impacts on nearby farmland should be minimal, as the flow pattern is mostly away from nearby EFU land.
- Increased traffic on Wilsonville and Grahams Ferry Roads and other local roads may impede the normal movement of farm equipment.
- If the EFU land inside the Tier 1 portion is developed, there is potential for restoring the original stream channel of Coffee Lake Creek, which has been ditched for irrigation.

URA #42

URA #42 is surrounded by rural residential zones and rural industrial zones. As stated above, only 20 percent of the land within a one-mile radius of URA #42 is zoned EFU; of this EFU land, 58 percent is unfarmed. Thus, possible effects of noise or dust from urbanization in URA #42 are not likely to have a great impact upon the farming economy as a whole.

In addition to the universal factors addressed for URA #39, above, issues specific to the development of URA #42 may include:

- Added residential population may result in increased complaints directed at farming operations related to odor, dust, noise, and the use of pesticides/fertilizers.
- Additional stormwater runoff into Coffee Lake Creek and its tributaries from increased impervious surfaces may result in downstream flooding of nearby EFU lands to the south. These potential effects could be avoided by on-site stormwater retention.
- Increased traffic on Grahams Ferry Road between URA #42 and URA #41 as well as other local roads may impede the normal movement of farm equipment.
- The eastern area of EFU is across I-5 and should not be impacted by this URA.

CONCLUSION: In further response to impacts, the Metro Council could consider requirements to address these issues. These requirements could take the form of amendments to the Functional Plan, Title 11 or Conditions of approval attached to UGB approvals. Requirements to mitigate impacts could include the following:

1. **Surface Water Impacts.** Adoption of an urban comprehensive plan designation or urban zoning for the subject area shall be approved by the city or county only after an on-site stormwater detention plan requirement for urban developments is adopted to address the potential for flooding of agricultural areas.
2. **Proximity (odor, dust, noise, chemical applications impacts).** Adoption of an urban comprehensive plan designation or urban zoning for the subject area shall be approved by the city or county only after a plan for setbacks and open space, developed to help separate urban and farm uses, is adopted for the area.
3. **Roads.** Adoption of an urban comprehensive plan designation or urban zoning for the subject area shall be approved by the city or county only after a road plan that minimizes farm equipment movement/urban traffic movements is adopted for the area.
4. **Groundwater Impacts.** Adoption of an urban comprehensive plan designation nor urban zoning for the subject areas shall be approved by the city or county only after water conservation requirements have been adopted for these URAs to minimize the impact on agricultural water sources.

Metro Code Section 3.01.020 (c), (d) and (e)

(c) The requirements of Statewide Planning Goal 2 will be met by addressing all of the requirements of Section 3.01.020(b), above, and by factually demonstrating that:

(c)(1) The land need identified cannot be reasonably accommodated within the current UGB; and

Staff Analysis

Need has been addressed in Metro Code Section 3.01.020(b)(1)(2) and (4). Extensive analyses have been performed to determine if projected population growth can be accommodated on lands inside the UGB. A summary of the analysis can be found in the Urban Growth Boundary Assessment of Need.

Metro has taken measures to increase capacity inside the current UGB through the Functional Plan, Title 1, which requires the 24 cities and 3 counties to increase their densities for residential zones. This measure will not be fully realized until after February 1999. The Urban Growth Report finds that even with higher densities and an aggressive infill and redevelopment assumption, a shortfall of dwelling unit capacity exists inside the UGB.

Metro has evaluated all potential pieces of land in the UGB for future capacity and, therefore, has reviewed alternatives to amending the UGB.

CONCLUSION: As noted in the response to Factors 1 and 2, the Metro Council has reviewed all likely means to accommodate the expected growth within the current UGB and not found

sufficient capacity. These methods included: a) redevelopment rates greater than those experienced to date, b) substantial additional capacity assumed to be provided by rezoning for more density consistent with the 2040 Growth Concept and the Functional Plan, c) the assumption that all net developable land would be available for urban use during the planning period, (including lands with farm use assessment within the current UGB), and d) that many parcels with development on them but with at least one-half acre of vacant buildable land would be available for further development. Detailed documentation of this is included in the Urban Growth Report, Baseline Data Report (1997) and the Urban Growth Boundary Assessment of Need.

- (c)(2) The proposed uses are compatible with other adjacent uses or will be so rendered through measures designed to reduce adverse impacts; and**

Staff Analysis

URA #39 will likely be developed as a school. As stated above, development on this site is not likely to have significant impacts upon adjacent uses. The proposed design for the school facility can be reworked, as necessary, to mitigate any conflicts as part of the development approval process with the City of Wilsonville.

URA #41 will likely be developed for residential uses at densities consistent with inner neighborhoods, as identified in the 2040 Growth Concept. As addressed above, and in The Dammasch Plan, any potential traffic impacts on nearby farming activities will be mitigated, in part, by the street system.

URA #42, if included in the UGB, will be developed as a women's prison and prisoner intake center. The proposed use for this site is compatible with the surrounding rural industrial uses, and will be made more compatible through extensive buffering additions to the site.

CONCLUSION: The conditions listed in response to Factors 5 and 7 are designed to address the adverse impacts identified.

- (c)(3) The long-term environmental, economic, social and energy consequences resulting from the use at the proposed site with measures designed to reduce adverse impacts are not significantly more adverse than would typically result from the same proposal being located in other areas than the proposed site and requiring an exception.**

Staff Analysis

See the discussion in Factor 5.

CONCLUSION: This criterion is addressed as Factor 5 of Goal 14.

- (d) The proposed location for the UGB shall result in a clear transition between urban and rural lands, using natural and built features, such as roads, drainage divides, floodplains, power lines, major topographic features, and historic patterns of land use or settlement.**

Staff Analysis

URAs #39, #41 and #42 are directly adjacent to the existing UGB, and urban areas to the east.

Development plans (school) for URA #39 do not entail a highly intensive use that will cause significant impacts upon nearby rural lands.

For the first tier portion of URA #41, the Dammasch Plan conceives smaller, multi-family residences toward the center of the plan area, with larger, single family detached lots toward the western edge of the site. This will help ease the transition from urban to rural land.

A concept plan for URA #42, prepared by the City of Wilsonville Planning Department, dated June 12, 1998, states:

Area #42 is isolated from other rural Washington County properties to the west by the Burlington Northern Railroad line, and immediately west of the railroad, by extensive quarry operations and the Coffee Lake wetlands. The effectively blocks connectivity through the area from the west to the east. To the east of URA #42 is Wilsonville's Commerce Center industrial development and Interstate 5.

- (e) **Satisfaction of the requirements of Section 3.01.020(a) and (b) does not mean that other Statewide Planning Goals do not need to be considered. If the proposed amendment involves other Statewide Planning Goals, they shall be addressed.**

Goal 1, Citizen Participation. Each property owner according to the latest information from the County Assessor's office within the subject area and within 500 feet was mailed a notice of the public hearing. In addition, a notice was published in the legal notice section of *The Oregonian* newspaper; public hearing advertisements were also published in *The Oregonian* newspaper; accounts of the public hearings at the Metro Council Growth Management Committee and the Metro Council were published in *The Oregonian* and other local newspapers; public hearings were held in two off-site locations (Hillsboro and Gresham) as well as six additional hearings in Metro Council Chamber and over 200 individuals presented oral testimony to the Metro Council Growth Management Committee and the Metro Council.

In addition, as a precursor to consideration of UGB expansion, the Metro Council has had open houses, newsletters, hot lines, surveys and public hearings on the 2040 Growth Concept and the urban reserves.

Goal 2, Urban Planning. Information concerning Goal 2 is provided in this staff report under the section addressing Metro Code Section 3.01.020 (c), above.

Goals 3, Agriculture. Information is provided in the Factor 6 and Factor 7 sections of this staff report. This information addresses the soil types, their agricultural capabilities and the amount of such soil in relation to the total amount of land within the urban reserve area, the location and type of agricultural activities currently being conducted within the subject area as well as within one mile of the subject area.

Goal 5. The discussion of Factor 5 includes consideration of riparian corridors, including wetlands as well as fish and wildlife habitat. It also considers aggregate resources, energy and cultural resources including archeological and historic resources.

Goal 6, Air, Water and Land Resources. DEQ has determined that emissions from cars and trucks are the largest single source of air pollution in the metropolitan area. The region has dramatically cleaned its air (through industry efforts and air pollution devices required on newer cars) and as of this past year, now complies with State and Federal standards (the metropolitan area now is in "attainment"). However, DEQ calculates that growth in the region and the increase in auto emissions from this growth as well as the number of vehicle miles traveled that will mean that the metropolitan area will again be a "nonattainment area" within five to seven years. This could trigger requirements for private industries to take extensive actions to ameliorate air quality. Given this concern, DEQ has estimated the impact of new policy initiatives in the region. These initiatives include: the 2040 Growth Concept (with its emphasis on a compact urban form for the region), the region's emphasis on mixed use development where transit service is frequent and convenient, the requirements of the Functional Plan and RTP for connectivity, and local government implementation of the State's Transportation Planning Rule. The DEQ has forecast that implementation of these policies is likely to be effective in addressing the region's future air quality challenges. DEQ's Final Report of the State Task Force on Motor Vehicle Emission Reductions in the Portland Area estimates effective implementation of these policies. As long as expansion of the UGB is built to urban densities, there is no evidence that there is a substantial difference in expected air pollution emissions from one area to another when comparing alternative sites.

Goal 7, Areas Subject to Natural Disasters and Hazards. Metro Council adopted Functional Plan, Title 3, that addresses Statewide Planning Goals 6 and 7. These requirements, to be implemented by cities and counties within the region protect property and lives through setbacks from streams and wetlands, balanced cut and fill, and erosion control measures. In addition, as noted in Factor 5, Metro is working on prudent approaches to addressing earthquake and landslide threats in the region. All areas included within the UGB will be required to annex to the Metro jurisdictional boundary before being added to the UGB. Once within the Metro jurisdictional boundary, Title 3 and any requirements adopted by the Metro Council concerning earthquakes and landslides would be required to be applied to the subject site. Accordingly, there is no evidence that there is a substantial difference between sites.

Goal 9, Economy of the State. Goal 9 calls for diversification and improvement of the economy. It asks communities to inventory commercial and industrial lands, project future needs for such lands, and plan and zone enough land to meet those needs. This is addressed in the information provided in the response to Factors 1 and 2, above.

Goal 10, Housing. This goal specifies that there must be a plan for accommodating needed housing types. An inventory of buildable residential lands, as noted in the response to Factors 1 and 2 was completed and projection of future needs for such lands was made. The Housing Needs Analysis demonstrates that there is enough buildable land to meet those needs to the year 2017 except for 32,370 dwelling units which must be accommodated through expansion of the UGB. The Metro Council also adopted a Regional Framework Plan that created an Affordable Housing Technical Advisory Committee and commitment and timeline to address affordable housing issues in the region. This method is expected to help identify impediments and to find solutions, including incentives and regulations, which address the problems.

Goal 11, Public Facilities and Services. This Goal is addressed in the discussion of Factor 3 above.

Goal 12, Transportation. This is addressed in the information considered in Factor 3 as well as Factors 5 and 7.

Goal 13, Energy. This is addressed in Factor 5, above.

Goal 14, Urbanization. This is addressed in the discussion of Factors 1 through 7, above.

Goal 15, Willamette Greenway. This goal is addressed through Title 3 and will be further addressed by recently initiated regional Goal 5 work.

SECTION IV: METRO CODES SECTION 3.01.012 URBAN RESERVE PLANNING REQUIREMENTS

Staff Analysis

The applicable Statewide Planning Goals are 2 and 14. These goals are addressed by the analysis for Metro Code Section 3.01.020 discussed above.

Metro Code Section 3.01.012:

- (e) **Urban Reserve Plan Required.** A conceptual land use plan and concept map, which demonstrates compliance with Goal 2 and Goal 14 and section 3.01.020 or section 3.01.030, with the RUGGO and with the 2040 Growth Concept design types and any applicable functional plan provisions, shall be required for all major amendment applications and legislative amendments of the urban growth boundary. Except as provided in section 3.01.015(e), the plan and map shall include at least the following, when applicable:
- (1) Provision for either annexation to a city and any necessary service districts at the time of the final approval of the Urban Growth Boundary amendment consistent with section 3.01.065 OR an applicable city-county planning area agreement which requires at least the following:
 - (A) City of county agreement to adopt comprehensive plan provisions for the lands added to the Urban Growth Boundary which comply with all requirements of urban reserve plan conditions of the Urban Growth Boundary
 - (B) City and county agreement that lands added to the Urban Growth Boundary shall be rezoned for urban development only upon annexation or agreement for delayed annexation to the city an any necessary service district identified in the approved Concept Plan or incorporation as a new city;
 - (C) County agreement that, prior to annexation to the city an any necessary service districts, rural zoning that ensures a range of opportunities for the orderly, economic and efficient provision of urban services when these lands are included in the Urban Growth Boundary remains in place until city annexation and the adoption of urban zoning.

Staff Analysis

URA #39

URA #39 is planned for an elementary school. A preliminary conceptual plan and map for this site appear at the end of this report as Attachment J. This area is available to the West Linn-Wilsonville School District, if it is used for the construction of a public school. Metro included this site in the urban reserves at the request of the City of Wilsonville and the School District. The City has considered this plan in the context of its moratorium on new development applications, and has granted an exception to the moratorium for this project.

While there does not appear to be a formal annexation agreement or city-county planning agreement for URA #39, verbal consultation with the City of Wilsonville's Planning Director has indicated that Clackamas County is willing coordinate with the City to make this property part of the Wilsonville City Limits. In addition, Wilsonville's Mayor has stated in a November 24, 1998, letter that the City and the School District are committed to completing all of the urban reserve planning requirements for URA #39 that have not been fulfilled as of the date of this report. A copy of this letter appears at the end of this report as Attachment L.

Therefore, these criteria have been addressed.

URA #41 (first tier portion)

The Dammasch Plan for the first tier portion of URA #41 was prepared for the City of Wilsonville. City officials and citizens recommended the plan to the Planning Commission and City Council, who voted unanimously on November 13, 1996 to adopt the Dammasch Plan.

According to the City of Wilsonville's Planning Director, Clackamas County is willing to coordinate with the City to make this property part of the Wilsonville City Limits. In addition, Wilsonville's Mayor has stated in a November 24, 1998 letter that the City "remains committed to complete those planning processes, provide the necessary infrastructure, annex the areas, and allow for the urbanization of URAs #39 and #42 as well as the first-tier portion of URA #41, as soon as possible." A copy of this letter appears at the end of this report as Attachment L.

Therefore, these criteria have been addressed.

URA #41.(non-first tier portion)

The adopted Dammasch Plan does not consider planning options for the non-first tier portion of URA #41. No other planning efforts have been completed for URA #41. Therefore, these criteria have not been satisfied.

URA #42

URA #42, as amended, is under consideration as a site for a women's prison and prisoner intake center. As per Metro Ordinance No. 98-744B, the approximately 72-acre amendment to URA #42 is conditioned upon the ODOC's decision to site the facility within the boundaries of amended URA #42. In addition, the amended portion of this URA will not be included inside the Metro UGB unless a final determination is made by ODOC to site this facility on the property. A copy of Metro Ordinance No. 98-744B and the related statement of urban reserve findings appear at the end of this report as Attachment D. The City of Wilsonville has prepared a

memorandum detailing the plan for URA #42, dated May 27, 1998, as well as a Proposed Concept Plan for URA #42, dated June 12, 1998.

In keeping with the Proposed Concept Plan for the North Wilsonville Industrial Area, the City of Wilsonville has indicated that it would like to annex this area into its City Limits. As stated in June 2, 1998 letter from Wilsonville's City Manager to Metro's Executive Officer,

The City would like to annex all of the expanded Area 42 as part of our commitment to provide urban services not only to the prison but to the adjacent property which would benefit from infrastructure improvements built to city standards at the DOC's expense. As you know, with or without annexation, the City of Wilsonville will be compelled to provide infrastructure improvements to the prison.

However, according to the City of Wilsonville's Planning Director, the issue of who will assume governance of this area has yet to be resolved between the City of Wilsonville and Washington County (all but approximately 15 acres of URA #42 are currently in unincorporated Washington County).

The City of Wilsonville has also acknowledged that the area within amended URA #42 surrounding the proposed women's prison and prisoner intake center will require a more detailed master plan with information on development phasing. Wilsonville's Mayor has stated in a November 24, 1998 letter that the City "remains committed to complete those planning processes, provide the necessary infrastructure, annex the areas, and allow for the urbanization of Areas #39 and #42 as well as the first tier portion of Area #41, as soon as possible." A copy of this letter appears at the end of this report as Attachment L.

Additional planning could be initiated upon the Governor's approval to site the women's prison and prisoner intake center within URA #42.

Given the statement of commitment above, these criteria have been addressed.

- (2) **Notwithstanding (1) above, the Metro Council may approve a major or legislative amendment to the UGB if the proposed amendment is required to assist the region to comply with the 2040 Growth Concept or to assist the region, a city or county in demonstrating compliance with statute, rule or Statewide Planning Goal requirements for land within the UGB. These requirements include ORS 197.296, 197.299 and 197.303, the Statewide Planning Goals and RUGGOs. An urban services agreement consistent with ORS 195.065 shall be required as a condition of approval for any amendment under this subsection.**

URA #39

As the plan for URA #39 fulfills the criterion for subsection (1) above, this criterion is not applicable.

URA #41 (first tier portion)

As the Dammasch Plan for first tier portion of URA #41 fulfills the criterion for subsection (1) above, this criterion is not applicable.

URA #41 (non-first tier portion)

No planning work has been completed for the non-first tier portion of URA #41. Therefore, this criterion has not been satisfied.

URA #42

The plan for the North Wilsonville Industrial Area could contribute to implementation of the 2040 Growth Concept, most notably by providing additional jobs base for the City of Wilsonville and for the region. However, there is no urban services agreement in place, as required by this subsection. Therefore, the Plan for URA #42 does not yet fulfill this criterion.

- (3) URAs #11, #14 and #65 are so geographically distant from existing city limits that annexation to a city is difficult to achieve. If the county and affected city and any necessary service districts have signed an urban service agreement or an urban reserve agreement coordinating urban services for the area, then the requirements for annexation to a city in (1)(B) and (1)(C) above shall not apply.

The above criterion is not applicable to URAs #39, #41 or #42.

- (4) Provision for average residential densities of at least 10 dwelling units per net developable residential acre or lower densities that conform to the 2040 Growth Concept plan design types.

URA #39

URA #39 is planned as a future school site. It is not planned to have dwelling units. Therefore, these provisions do not apply.

URA #41 (first tier portion)

According to the Dammasch Plan, the planning area will have an average residential density of 10.2 dwelling units per net developable acre. Therefore, the Dammasch Plan fulfills this criterion.

URA #41 (non-first tier portion)

No planning has been completed for the non-first tier portion of URA #41. Therefore, this criterion has not been satisfied.

URA #42

URA #42 is has been planned as a future prison site with a surrounding employment area. No additional dwelling units have been planned for this area. Therefore, these provisions do not apply.

- (5) Demonstrable measures that will provide a diversity of housing stock that will fulfill needed housing requirements as defined by ORS 197.303. Measures may

include, but are not limited to, implementation of recommendations in Title 7 of the Functional Plan.

URA #39

URA #39 is planned as a future school site. It is not planned to have dwelling units. Therefore, this criterion does not apply.

URA #41. (first tier portion)

The Dammasch Plan opts for a range of different types of housing that will be developed simultaneously. In this way, the plan will be able to accommodate several different housing markets that reflect different segments of age, households size and incomes. The Plan includes provisions for both single and multi-family housing, with a range of lot sizes (see Dammasch Plan, p. 103). Therefore, the Dammasch Plan fulfills this criterion.

URA #41 (non-first tier portion)

No planning has been completed for the non-first tier portion of URA #41. Therefore, this criterion has not been satisfied.

URA #42

URA #42 is planned as a site for a women's prison and prisoner intake center. The approximately 72-acre amendment to URA #42 is conditioned upon the ODOC's decision to site the facility within the boundaries of amended URA #42. In addition, the amended portion of this URA will not be included inside the UGB unless a final determination is made by ODOC to site the facility on the property. Finally, no additional dwelling units are planned for this URA, due to its consideration as a future site for a women's prison and prisoner intake center.

Therefore, this criterion does not apply.

- (6) **Demonstration of how residential developments will include, without public subsidy, housing affordable to households with incomes at or below area median incomes for home ownership and at or below 80 percent of area median incomes for rental as defined by US Department of Housing and Urban Development of the adjacent urban jurisdiction. Public subsidies shall not be interpreted to mean the following: density bonuses, streamlined permitting processes, extensions to the time at which systems development charges (SDCs) and other fees are collected, and other exercises of the regulatory and zoning powers.**

General Comments

A Metro staff analysis has estimated that the 1998 median household income for the City of Wilsonville is \$51,696. An affordable home for a family at this income level is (30-year mortgage, 7 percent interest rate, 5 percent down payment) is estimated at \$154,366. An affordable rent for a family at 80 percent of this income level is estimated at \$735 per month.

URA #39

URA #39 is planned as a future school site. It is not planned to have dwelling units. Therefore, this criterion does not apply.

URA #41 (first tier portion)

The Dammasch Plan makes note of the number of projected units of each type of housing (i.e., large single family lots, standard single family lots, small single family lots, clustered housing, row-houses, condominiums, garden apartments and senior housing) as well as the number of units under each category that are projected to be owner-occupied and renter-occupied. The plan's development assumptions also show the average unit value for each type of unit listed, ranging \$64,000 for garden apartments to \$382,000 for larger lot single family homes. This study (dated 1996) estimates Wilsonville area median family incomes at \$45,000. The Plan also notes that apartments, attached housing and clustered housing would be feasible for persons in the median income range.

This analysis of the Dammasch Plan is included at the end of this document as (Attachment C).

Therefore, the Dammasch Plan fulfills this criterion.

URA #41 (non-first tier portion)

No planning has been completed for the non-first tier portion of URA #41. Therefore, this criterion has not been satisfied.

URA #42

Therefore, these provisions are not applicable to URA #42, as URA #42 is not planned for additional housing. Therefore, this criterion does not apply.

- (7) Provision for sufficient commercial and industrial development for the needs of the area to be developed and the needs of adjacent land inside the UGB consistent with 2040 Growth Concept design types.**

URA #39

URA #39 is planned as a future school site only. Therefore, this criterion does not apply.

URA #41 (first tier portion)

The Dammasch Plan includes a significant non-residential component consisting of approximately 85,000 square feet of retail uses; 120,000 square feet of general employment uses; and 19,000 square feet of civic uses. The retail component is focused on "convenience retail" to serve the needs of residents within the Dammasch area. Retail uses will be anchored by a grocery store. Civic uses will include a branch library, a fire station, community policing, a community hall and a school. Other commercial employment uses will include ground floor office commercial uses such as a branch bank or real estate brokerage. The Plan does not envision this area as an industrial complex, and does not accommodate warehousing, distribution or other heavy industrial uses.

Therefore, the Dammasch Plan fulfills this criterion.

URA #41 (non-first tier portion)

No planning has been completed for the non-first tier portion of URA #41. Therefore, this criterion has not been satisfied.

URA #42

URA #42 is planned as a site for a women's prison and prisoner intake center, though a component of the City of Wilsonville's plan for this area is a new industrial park that will contain a number of industrial and commercial uses. These would be facilitated by the infrastructure that is brought to the area through the siting of a prison in URA #42.

Therefore, the plan for this area fulfills this criterion.

- (8) **A conceptual transportation plan consistent with the Regional Transportation Plan, and consistent with protection of natural resources as required by Metro functional plans.**

URA #39

URA #39 is planned as a single site, and is approximately 20 acres. It is directly accessible via SW Wilsonville Road.

While no transportation plan has yet been prepared for this site, the City of Wilsonville's Community Development Director has indicated in a November 23, 1998 memo (Attachment M) that congestion on Wilsonville Road is being addressed through the City's Transportation System's Plan (TSP), which is expected to be complete in 1999. The design for this site is expected to accommodate shared access with Wood Middle School; this will help reduce traffic issues on the road. The TSP will also provide policy directives, demand management, new system construction plans and funding plans. The City has delayed its TSP until final a final prison siting decision has been made by the State.

Metro will be working with the City of Wilsonville to help it achieve compliance with the Regional Transportation Plan (RTP). Part of the ongoing work in this process will be designation and planning for the Roadway Functional Classification System.

In addition, the City of Wilsonville's Mayor has noted in a November 24, 1998 letter (Attachment L):

Given that Area #39 will not be urbanized except for public school purposes, the planning process is greatly simplified. The costs of the necessary infrastructure will be borne by the West Linn-Wilsonville School District and the City....The School District and the City share a commitment to complete all of Metro's Urban Reserve planning requirements that have not yet been met, and we need to complete those tasks in the next few months in order for the District to stay on schedule to begin construction in 1999.

Given the statement of commitment above, this criterion is adequately addressed.

URA #41 (first tier portion)

The Dammasch Plan focuses upon the concept of mixed use development with a variety of housing types and lot sizes. The street system illustrated in the Dammasch Plan map shows good connectivity as well as pedestrian and bicycle amenities. The Dammasch Plan also addresses the RTP, which has noted the need for improvements along the I-5 interchange at Wilsonville Road. This will expand the regional freight system, and provide opportunities for bicycles and pedestrians. According to the RTP, no additional modifications are required within the Dammasch Plan area.

A transportation impact analysis is a component of the Dammasch Plan. The analysis examines how changes to the land use and street network of the area will affect the local transportation system. This analysis is based upon the PM peak hour period between 1995 and 2015. It uses the Metro 2015 projected land uses for all areas except the Dammasch Plan area.

The analysis examined three possible street improvements, including 1) the extension of Boeckman Road west to connect with Tooze Road; 2) the extension of Barber Road across I-5 to connect with Parkview Avenue to the east as well as extension to the west to the project site; and 3) both improvements.

The analysis found that implementation of this site will increase vehicle trips in the study area. It opts for the first suggested improvement, extension Boeckman Road to Tooze Road, in order to alleviate traffic along Wilsonville Road. The Barber Road extension may also be helpful, though it is not essential for this plan. The Dammasch Plan projects that by 2015, traffic volumes will increase along Grahams Ferry Road by 42.5 percent, and along Brown Road by 27.5 percent. It also notes that, with or without its implementation, the Wilsonville Road I-5 interchange will operate at LOS F by 2015.

The Dammasch Plan makes the following recommendations for transportation improvements:

- Consider extending Barber Road across I-5 to Parkway Road.
- Add an additional bus route connecting the Dammasch Site Area to the Town Center Loop at 15-minute intervals.
- Extend Boeckman Road to connect with Tooze Road.
- Add pedestrian and bicycle facilities along Boeckman Road from the overpass to the Dammasch Plan area.

The Dammasch Plan addresses protection of natural resource, which is discussed in the following section (9).

Therefore, the Dammasch Plan satisfies the above criterion.

URA #41 (non-first tier portion)

No planning has been completed for the non-first tier portion of URA #41. Therefore, this criterion has not been satisfied.

URA #42

The Proposed Concept Plan for the North Wilsonville Industrial Area contains a transportation component, which addresses the RTP.

The plan notes the Boones Ferry Road, Day Road, Garden Acres Road, Grahams Ferry Road, and Clutter Road are key roads in the arterial system for this part of the City of Wilsonville. The City's Comprehensive Plan has already made note of the need for improvements along Boones Ferry Road, in order to allow two lanes with a continuous left turn median from its intersection with I-5 northward.

The plan identified the intersection between Boones Ferry Road and Elligsen Road (moving eastward) as an important truck route. Furthermore, the plan acknowledges Metro's studies and findings, including:

- The rural arterial designation from Boones Ferry Road and I-5 northward.
- The area west of I-5 in north Wilsonville is designated as "Truck Terminal and Distribution Facility" on the Regional Freight System Map.
- Boones Ferry and Elligsen Roads are designated as "Urban Roads."
- Ridder Road is identified as a "Road Connector" on the Regional Freight System Map.

The City is also recommending the extension of Kinsman Road as a major south-north route.

Metro will be working with the City of Wilsonville to help it achieve compliance with the RTP. Part of the ongoing work in this process will be designation and planning for the Roadway Functional Classification System.

Wilsonville's Mayor has stated in a November 24, 1998 letter that the Preliminary Concept Plan for Area #42 will need to be finalized. In addition, the Mayor notes that the City "remains committed to complete those planning processes, provide the necessary infrastructure, annex the areas, and allow for the urbanization of Areas #39 and #42, as well as the first-tier portion of Area #41, as soon as possible." A copy of this letter appears at the end of this report as Attachment L.

Given the statement of commitment above, this criterion is adequately addressed.

- (9) **Identification, mapping and a funding strategy for protecting areas from development due to fish and wildlife protection, water quality enhancement and mitigation, and natural hazards mitigation. A natural resource protection plan to protect fish and wildlife habitat, water quality enhancement areas and natural hazard areas shall be completed as part of the comprehensive plan and zoning for lands added to the UGB before urban development.**

General Comment

Title 3 protection standards for water quality and flood management as described in the Functional Plan apply only to areas within the Metro jurisdictional boundary, and would only apply to these urban reserve areas when they are brought into the UGB (which would be immediately preceded by annexation into the Metro jurisdictional boundary). In addition, many of the wetland and riparian areas that may exist within these urban reserves have not been field

verified. Field verification would have to be completed before Title 3 protection standards apply. It should be noted that Title 3 does not address stormwater management, a significant factor for increasing water pollution and flooding.

In addition to Metro Title 3 standards, the City of Wilsonville's Comprehensive Plan describes protection standards for sensitive areas designated as Primary or Secondary Open Space. Any applicable areas would be designated as such upon coming into the Wilsonville City Limits. While the provisions do not require landowner compensation for affected property owners, they do allow for density transfers to mitigate the impacts of development in sensitive areas. In addition, the City collects a systems development charge (SDC) for parks and recreation development, of \$1,794 per single family dwelling as well as an SDC for stormwater systems. The later may be applied to purchase and improve wetlands, creeks and drainageways that are a part of open spaces.

The City's tree protection ordinance also includes a fund to help mitigate the loss of trees. Finally, local Improvement District (LID) money has also been applied within the City to address the loss of Oregon white oak trees. This technique may also be applied to URAs #39, #41 or #42.

URA #39

URA #39 does not appear to have any significant habitat issues, though this area does provide open space for wildlife adjacent to the urban fringe. Stormwater should be treated on-site as much as possible to reduce downstream impacts. Should this area be annexed to the City of Wilsonville, the City's policies regarding sensitive areas would apply.

Considering this information as well as the information described in the General Comment section above, this criterion has been satisfied.

URA #41 (first tier and non-first tier)

The Dammasch Plan has noted that both Coffee Lake Creek and Coffee Lake Creek wetlands are potentially significant areas. Approximately 115 acres of the planning area that is within the flood plain will be unavailable for development. Some development will occur within the floodplain; fill from development will be balanced with excavation to ensure that flood levels in Coffee Lake Creek do not increase. In addition, the plan notes that any regulatory development constraints are dependent upon the City's Goal 5 analysis, which would be required before development is to occur.

Runoff is currently collected in an underground storm drainage system and diverted into the Mill Creek drainage. Implementation of the Dammasch Plan may also provide for opportunities to restore the natural drainage patterns of the area.

Considering this information as well as the information described in the General Comment section above, this criterion has been satisfied.

URA #41 (non-first tier portion)

No planning has been completed for the non-first tier portion of URA #41. Therefore, this criterion has not been satisfied.

URA #42

According to the Proposed Concept Plan for the North Wilsonville Industrial Area, prepared by the City of Wilsonville, no wetlands have been identified within URA #42. The Coffee Lake Wetlands, however, exist to the immediate southwest of URA #42. The eastern portion of URA #42 also has two drainage ways. In Wilsonville's Comprehensive Plan, areas such as these are designated as Primary Open Space, and are not considered available for development. When this area is brought into the UGB, the City's Primary Open Space designation would likely apply to these natural features, including the forested areas.

Considering this information as well as the information described in the General Comment section above, this criterion has been satisfied.

- (10) A conceptual public facilities and services plan, including rough cost estimates for the provision of sewer, water, storm drainage, transportation, fire and police protection facilities and parks, including a financing strategy for those costs.

General Comments

A detailed description of additional public facilities required for URAs #39, #41 and #42 have been addressed under Factor 3 of this report, regarding provision of public services. The first tier portion of URA #41 and URA #42 have also addressed these issues through more detailed planning work, as discussed in Factor 3.

The actual costs cited in the Productivity Analysis and relevant plans for these areas are detailed below. It should be noted that cost estimates shown in the Productivity Analysis may differ from those appearing in urban reserve plans. Along with installation and construction costs, the Productivity Analysis considers the costs of providing extra treatment capacity; construction of wetland, stream, and riparian areas; and the costs associated with maintenance for wastewater, stormwater, piping, pump stations, channelization, water quality features, and detention sites.

URA #39

A November 23, 1998 memo from the City of Wilsonville's Community Development Director to the City's Planning Director notes the following infrastructure improvements will be needed in URA #39:

- **Wastewater** – Recent improvements to the City of Wilsonville's wastewater treatment plant provides the City with the ability to handle service to the proposed site. Collection system improvements will be the responsibility of the school district at the time of construction. The City Council will need to approve an inter-basin transfer, after recommendation by the Development Review Board.
- **Storm Drainage** – The site currently drains to adjoining wetlands and Arrowhead Creek. Current planning does not anticipate any improvements to storm drainage systems, though on-site detention/retention is required as part of this design.
- **Water** – This proposed development has received an exemption from the City of Wilsonville's development moratorium based on lack of water capacity. While it would be optimal for the City of base its decision on connecting water lines to this site on the ultimate outcome of where the prison is located, (URA #41 vs. URA #42), the City has recognized

that it cannot halt planning for this school site. The City has thus begun designing 15-inch water line, which will be extended on Wilsonville Road from Kinsman Road to Willamette Way East. This project will be financed by the City's Capital Improvement Program for fiscal year 1999/2000.

- **Transportation** – The design for this site is expected to accommodate shared access with wood Middle School; this will help reduce traffic issues on the road. Traffic issues along Wilsonville Road are being addressed through the City's TSP, which will provide policy directives, demand management, new system construction plans and funding plans. The City has delayed its TSP until final a final prison siting decision has been made by the State.

Financing for fire and police protection for this area has not yet been addressed in the Concept Plan for URA #39. However, it is likely that fire protection would be provided by Tualatin Valley Fire and Rescue.

The City of Wilsonville's Mayor has also noted in a November 24, 1998 letter (Attachment L),

Given that Area #39 will not be urbanized except for public school purposes, the planning process is greatly simplified. The costs of the necessary infrastructure will be borne by the West Linn-Wilsonville School District and the City....The School District and the City share a commitment to complete all of Metro's Urban Reserve planning requirements that have not yet been met, and we need to complete those tasks in the next few months in order for the District to stay on schedule to begin construction in 1999.

In addition, a November 23, 1998 letter from the Deputy Superintendent of the West Linn-Wilsonville School District notes that the district has sufficient funding available to construct this school and provide the needed infrastructure improvements on URA #39. A copy of this letter appears at the end of this report as Attachment N.

Finally, the engineer's estimates from the Productivity Analysis outline the following costs for servicing URA #39:

Wastewater -	\$2,630,957
Storm Drainage -	\$105,000
Water -	\$1,118,000
Transportation -	\$0
TOTAL -	\$6,484,914

Considering the City of Wilsonville's and the School District's commitment to complete necessary planning work, this criterion has been addressed.

URA #41 (first tier portion)

The Dammasch Plan modeled three different price scenarios for providing facilities to the Dammasch Plan area, and concluded with a Preferred Option (Attachment C). The cost breakdowns group stormwater costs with transportation costs, and provide separate breakdowns for water and sanitary sewer. The total cost of providing these facilities to the Dammasch Plan area is estimated at \$22,500,000. This includes soft costs and contingencies.

By contrast, the engineer's estimates from the Productivity Analysis have estimated the following costs:

Wastewater -	\$17,517,777
Storm Drainage -	\$4,654,500
Water -	\$7,055,000
Transportation -	\$4,857,231
TOTAL -	\$34,084,508

Along with installation and construction costs, the Productivity Analysis considers the costs of providing extra treatment capacity; construction of wetland, stream, and riparian areas; and the costs associated with maintenance for wastewater, stormwater, piping, pump stations, channelization, water quality features, and detention sites. The cost estimates indicated in the Dammasch Plan are not as extensive.

As noted in the Dammasch Plan, fire protection for the area is provided by Tualatin Valley Fire and Rescue. The Fire District oversees maintenance and upgrades of fire-fighting equipment, as well as capital improvements. A fire station currently exists on Kinsman Road, just north of Wilsonville Road. The Dammasch Plan also notes that the Clackamas County Sheriff's department provides law enforcement service to the City of Wilsonville and surrounding area on a 24-hour basis.

The Dammasch Plan also includes a strategy for financing these improvements. Upon annexation to the City of Wilsonville, property taxes will be paid to the City. In addition, financing for this project may include a local improvement district, a tax increment district, or a similar financing vehicle for the off-site public infrastructure improvements. The plan notes that infrastructure improvements will be phased to allow the project to respond to changing market conditions.

The Dammasch Plan fulfills this criterion.

URA #41 (non-first tier portion)

No planning work has been completed for the non-first tier portion of URA #41. However, the engineer's estimates from the Productivity Analysis estimate the following costs for the above services:

Wastewater -	\$3,885,043
Storm Drainage -	\$105,000
Water -	\$608,000
Transportation -	\$2,842,935
TOTAL -	\$7,440,978

This criterion has not been fulfilled.

URA #42

Rough costs for public facilities needs for URA #42 are detailed in a briefing packet prepared by the City of Wilsonville regarding the use of this area for a women's prison, dated February 25, 1998 (Attachment K). According to this document, the off-site infrastructure costs (including streets, water, sanitary sewer and storm sewer) for constructing a women's prison and prisoner

intake center on the site amount to \$23,490,000. The City of Wilsonville anticipates that the final public facilities element of the Master Plan will be able to provide greater detail on these issues.

As noted in a June 2, 1998, letter from Wilsonville's City Manager to Metro's Executive Officer, infrastructure improvements would be built to city standards at the ODOC's expense. In addition, the City of Wilsonville contracts for police protection from the Clackamas County Sheriff's Office, and for fire and safety services through the Tualatin Valley Fire and Rescue District. The City has noted, in the North Wilsonville Industrial Area Plan, that the County and the District both have adequate personnel to provide expanded service to this area.

Wilsonville's Mayor, in a November 24, 1998 letter (Attachment L) notes that:

Wilsonville remains committed to complete those planning processes, provide the necessary infrastructure, annex the areas, and allow for the urbanization of Areas #39 and #41, as well as the first-tier portion of Area #41, as soon as possible.

For comparison, the engineer's estimates from the Productivity Analysis note the following as costs for the above services:

Wastewater -	\$12,741,600
Storm Drainage -	\$2,735,800
Water -	\$5,894,100
Transportation -	\$6,429,311
Total -	\$27,800,811

Given the statement of commitment above, this criterion has been addressed.

- (11) A conceptual school plan that provides for land and improvements needed for school facilities. Estimates of the need shall be coordinated among affected school districts, the affected city our county, and affected special districts consistent with the procedures in ORS 195.110(3), (4) and (7).

URA #39

URA #39 is planned as a future site for an elementary school. As this school is adjacent to the current Wood Middle School, it will be possible for the two schools to share a number of facilities and administrative functions. This site, as amended by Metro Resolution No. 98-2729A, is approximately 20 acres. As noted in a November 16, 1998, memorandum from McKeever/Morris to Metro Growth Management, the school that is proposed for this site will contain approximately twice the enrollment of most primary schools. The addition of this school in URA #39 is necessary to serve the needs of the community. While a school may be included in the Dammasch Area as part of the plan for URA #41, it is intended to serve only the needs of the Dammasch community.

That the plan for URA #39 fulfills this criterion.

URA #41 (first tier portion)

The Dammasch Plan provides for an additional school site within the Dammasch Area. Implementation of the Dammasch Plan, with 2,300 new dwelling units, would most likely generate the need for an additional elementary school. The School District would prefer that a school be included in the Dammasch Area. This school would require approximately 10 acres, which would be accommodated in the plan area. As the Dammasch Plan is predicated upon resolution of the City of Wilsonville's development moratorium, the need for this particular school may be alleviated should the plan fail to be implemented.

That the Dammasch Plan fulfills this criterion.

URA #41 (non-first tier portion)

No planning work has been completed for the non-first tier portion of URA #41. Therefore, this criterion has not been satisfied.

URA #42

URA #42 is planned as a future site for a women's prison and prisoner intake center. Additional schools are not likely to result from the projected uses on this site.

This criterion is not applicable to the plan for URA #42.

(12) An Urban Reserve Plan map showing, at least, the following, when applicable:

- (A) Major roadway connection and public facilities;
- (B) Location of unbuildable lands including but not limited to steep slopes, wetlands, floodplains and riparian areas;
- (C) General locations for commercial and industrial lands;
- (D) General locations for public open space, plazas and neighborhood centers; and
- (E) General locations or alternative locations for any needed school, park or fire hall sites.

URA #39

A Draft Concept Plan for the proposed elementary school in URA #39 appears at the end of this document as Attachment J. The plan map shows the major roadway connection as Wilsonville Road, running in a southwesterly direction. No lands within the plan area are considered unbuildable. As the plan consists of a school site alone, the above criteria (C) through (E) are not directly applicable.

The plan for URA #39 fulfills this criterion.

URA #41 (first tier portion)

The adopted conceptual land use plan map for the Dammasch Plan illustrates major roadway connections; locations of unbuildable lands; locations for commercial lands (industrial lands are not a component of this plan); locations for parks and open spaces, plazas and neighborhood centers; and the location of the proposed additional school. This plan map is included at the end of this report as (Attachment C).

The Dammasch Plan fulfills this criterion.

URA #41 (non-first tier portion)

No planning work has been completed for the non-first tier portion of URA #41. Therefore, this criterion has not been satisfied.

URA #42

The proposed concept plan for the North Wilsonville Industrial Area (June 12, 1998) contains a series of concept maps showing major roadway connections; the location of natural resources, such as wetlands, tree stands and open spaces; and the location of commercial and industrial lands. Public and civic uses do not exist near this area. As the area is proposed for a women's prison and prisoner intake center, additional uses of this type are not intended to be included in the area.

The plan for URA #42 fulfills this criterion.

- (13) The urban reserve plan shall be coordinated among the city, county, school district and other service districts, including a dispute resolution process with an MPAC report and public hearing consistent with RUGGOs Objective 5.3. The urban reserve plan shall be considered for local approval by the affected city or by the county, if subsection (3), above, applies in coordination with any affected service district and/or school district. Then the Metro Council shall consider final approval of the plan.

URA #39

URA #39 was included in the urban reserves at the request of the City of Wilsonville and the West Linn-Wilsonville School District. District voters approved a bond to finance construction of a public school on this site. The DSL, the current owner of the property, requested a waiver of Metro's Location Adjustment filing application deadline in order to prepare an amendment application for the construction of a primary school on this approximately 13-acre site. As per Metro Resolution No. 98-2729A, URA #39 has been amended to include approximately 7 additional acres of EFU land to the southwest of the original site area.

The City of Wilsonville's Planning Director has also indicated that Clackamas County is willing to cede this land area to the City of Wilsonville. Thus, coordination for this planning effort has included the City of Wilsonville, Clackamas County and the School District. As noted in a November 24, 1998 letter from the City of Wilsonville's Mayor,

The City of Wilsonville is prepared to support the annexation of Area #39 as soon as possible, in order to assist the School District. Clackamas County has deferred urban planning to the City for the Urban Reserves adjoining Wilsonville. We anticipate no governance issues involving Clackamas County.

In addition, a November 23, 1998 letter from the Deputy Superintendent of the West Linn-Wilsonville School District (Attachment N) notes, "We are currently proceeding on schedule with

annexation and other land use issues that should complete these procedures by late spring 1999."

This criterion has been fulfilled.

URA #41 (first tier portion)

The Dammasch Area Plan was adopted unanimously by the Wilsonville City Council on November 13, 1996. A component of this plan is an MOU signed between several stakeholders to initiate the process leading up to the Dammasch Plan. The stakeholders included the City of Wilsonville, Metro, Oregon Department of Administrative Services, DSL, Oregon Mental Health and Developmental Disability Services Division, Oregon Department of Transportation and the Department of Land Conservation and Development.

A component of this plan has been a three-part public involvement process leading up to the final adopted Dammasch Plan.

The Dammasch Plan fulfills this criterion.

URA #41 (non-first tier portion)

No planning work has been completed for the non-first tier portion of URA #41. Therefore, this criterion has not been fulfilled.

URA #42

During the beginning phases of this planning effort, the Wilsonville Planning Division held a series of open houses to present the Conceptual Land Use and Transportation maps of the Concept Plan. This plan has also been presented to Washington County, and staff from the City of Wilsonville and Washington County have held meetings to address this plan.

The plan for URA #42 fulfills this criterion.

Metro Code Section 3.010.012(c), 2040 Design Types:

- (3) Prior to adding land to the UGB, the Metro Council shall modify the 2040 Growth Concept to designate regional design types consistent with the 2040 Growth Concept for the land added.**

Staff have attached copies of "Draft 2040 Design Type" maps, to this staff report.

SECTION V: SUMMARY OF STAFF REPORT CONCLUSIONS

The ratings described in this report are combined in the table below. Because there is a requirement to balance the competing factors, each URA is evaluated for its suitability for urbanization relative to all other contending sites. Ratings were calculated as described elsewhere to derive a raw score. A statistical method was applied to the raw scores to allow comparison with each factor given equal weight. A distribution of scores for any one factor was calculated comparing the variance from the mean value (standard deviation). This allowed conversion of the data for each factor to be described as a value of between 0 and 10 without

distortion. For example, one evaluation method might have raw scores between 0 and 55, while another might have values between 1 and 150. Merely adding raw scores would result in one criterion being weighed more heavily. In addition, the raw scores are in different units. Factor 3 is measured primarily in dollars, while Factor 4 in dwelling units and jobs. This statistical method allows comparison. By statistically rating "on the curve," no factor is weighed more or less than any other. The following table contains ratings with a total ranking. Factor 3 includes both ranking from the Productivity Analysis for public facility cost and an adjusted ranking (0) where the feasibility of providing public facilities cannot be verified by the urban reserve plan process.

Summary of Staff Report Conclusions - UGB Expansion
Sorted by Total Score (highest score is highest suitability for urbanization)

URA #	Acres	Dwelling Units	Cumulative Total DUs	Jobs	Factor 3 Public Facilities		Factor 4 Efficiency or Productivity of Site	Factor 5 Environ., Econ. Energy & Social	Factor 6 Retention of Agric. Land	Factor 7 Compatibility with Agriculture	Total Score		Urban Reserve Plan ³
					Cost	Feasibility ¹					Total	Adjusted Total ²	
*15	371.0	2,396	2,396	645	8		8	‡	8	9	33	33	C
*5	1,422.0	6,210	8,606	2,998	7		5	‡	8	9	29	29	C
42	249.6	0	8,606	3,734	6		7	‡	8	8	29	29	R/I ⁴
*4	123.4	375	8,981	125	7		2	‡	8	10	27	27	C
*33	43.7	220	9,200	118	5		6	‡	8	6	25	25	C
*14	307.2	1,062	10,262	347	6		2	‡	7	8	23	23	C
*47	82.0	361	10,624	120	3		4	‡	8	8	23	23	C
*43	10.2	45	10,669	15	0		4	‡	8	10	22	22	C
52	98.8	421	11,090	140	7		4	‡	8	3	22	22	I
51	93.6	323	11,413	108	6		2	‡	8	5	21	21	I
**55	353.0	1,493	12,906	457	8		4	‡	7	2	21	21	C/I
54	190.9	1,108	14,013	369	8		7	‡	2	3	20	20	I
55	473.0	2,509	16,522	1,799	8		8	‡	2	2	20	20	I
41	144.4	626	17,149	209	8		4	‡	4	3	19	19	I
34	749.1	1,891	19,040	1,855	5	N	2	‡	8	8	23	18	I
*34	7.4	11	19,051	4	0		0	‡	8	8	16	16	C
*45	464.2	1,772	20,823	591	5		3	‡	8	0	16	16	C
53	204.2	997	21,820	385	8		5	‡	1	2	16	16	I
62	8.4	87	21,907	47	4		10	‡	1	1	16	16	I
65	116.0	704	22,611	180	7		5	‡	1	3	16	16	R
33	294.7	956	23,567	308	6	N	2	‡	6	5	19	13	I
*41	278.8	1,277	24,844	426	5		5	‡	2	1	13	13	R
63	10.5	71	24,915	38	2		9	‡	1	1	13	13	I
32	87.3	436	25,351	145	4	N	5	‡	1	6	16	12	I
31	736.8	3,352	28,703	1,590	6	N	5	‡	1	2	14	8	I
***39	20.0	0	28,703	0	n/a		n/a	‡	1	5	n/a	n/a	C

¹ Refers to feasibility of providing public facilities to site. If there is no service provider verification, score is reduced to zero. "N" = no verification

² Adjusted for feasibility status. If there is no service provider verification, score for Factor 3 reduced to zero is reflected in this column.

I: GMLegAm and Staff Report for UGAs. C: Completed to Complete; I: Incomplete

⁴ R if site used for prison; I if not

*first tier; **first tier inside Metro boundary

***URA #39 is a proposed school site. No information is available for factors 3 and 4; therefore, a total score has not been calculated.

‡ see Factor 5 analysis

Note: URAs #34 & 41 Public Facilities costs weigh heavily on first tier lands if the development costs are not later shared with the remaining lands in urban reserve.

2.2.2.3 Parks and Recreation

Although numerous parks and recreation facilities are available in the Portland metropolitan area, relatively few parks are located within the City of Wilsonville. The City's Parks & Recreation Master Plan (City of Wilsonville, 1994) lists seven city parks:

- Memorial Park (56.84 acres)
- Memorial Park East (41 acres)
- Fox Chase (2.51 acres)
- Town Center Property
- Courtside Estates Park
- Boones Ferry Park (6.0 acres)
- Tranquil Nature Park (4.57 acres)

None are located within the Dammasch planning area. Tranquil Nature Park is south of the planning area, on the west side of Brown Road. The Park at Merryfield, on private property north of Wood Middle School, is slated for near-term development. Both parks include natural areas and will offer minimal recreation facilities.

Memorial Park, the City's largest park, is in the southeast part of town, adjacent to the Willamette River. Memorial Park offers ballfields, soccer fields, picnic areas, and a variety of other active and passive recreation options.

2.2.2.4 Libraries

The City of Wilsonville has a single library, which is operated by the City. It is located in east Wilsonville, on Wilsonville Road and Memorial Drive, near City Hall.

2.2.2.5 Transportation Facilities

Transportation facilities serving the study area are identified in the City's Transportation Master Plan (City of Wilsonville, 1991). The facilities, and their classifications according to the plan, include:

- Grahams Ferry Road, a two-lane rural collector under Clackamas County and Washington County jurisdiction;
- Tooze Road, a two-lane major collector that ends at Brown Road/110th. If extended, Tooze Road would connect with Boeckman Road.
- Boeckman Road, a two-lane minor arterial that extends over I-5 on a two lane bridge;
- Brown Road/ 110th, a two-lane major collector that connects with Wilsonville Road at a signalized intersection. This road extends past the entrance to the Dammasch State Hospital site and connects with Tooze Road;

- Barber Road, a two-lane major collector connecting Boones Ferry Road with Kinsman Road;
- Kinsman Road, a two-lane minor arterial that connects Barber Road with Wilsonville Road at a signalized intersection.
- Boones Ferry Road, a two-lane minor arterial street running parallel to I-5 that connects with Boeckman Road and with Wilsonville Road at a signalized intersection; and
- Wilsonville Road, which extends under and provides complete access to I-5. Between Brown Road and Kinsman, Wilsonville Road is a minor arterial; east of Kinsman to Town Center Loop, it is designated a major arterial.

The study area has a limited local street network consisting mostly of facilities connecting buildings at the Dammasch site.

2.2.2.6 Transit Services

Transit service is provided by South Metro Area Rapid Transit (SMART). SMART provides both fixed-route and demand-responsive transit service in Wilsonville. SMART operates four fixed routes, two of which provide service near the Dammasch area. Route 204 travels from the Knight's Castle area on the east side of Wilsonville to Fox Chase along Wilsonville Road. This route travels north on Boones Ferry Road, turns onto Barber and then south onto Kinsman, from which it turns west onto Wilsonville Road. This route operates from 5:45 AM to 6:30 PM Monday through Friday. Route 203 travels from Commerce Circle and 95th Avenue to Wilsonville City Hall along Boberg/Boones Ferry Road and Wilsonville Road. This is a peak-hour route which operates from 6:20 to 9:20 AM and 2:20 to 6:20 PM. Connecting service is available to other transportation services.

SMART's dial-a-ride service provides curb-to-curb service for the general public on a first-come, first-served basis. It operates from 5:30 AM to 8:45 PM Monday through Friday and from 7 AM to 5 PM on Saturday. SMART also provides LINK service to connect to areas within a 25-mile radius of Wilsonville. This service is designed to link customers to transportation services outside the city limits. LINK is available from 9:45 AM to 3 PM Monday through Friday and from 7 AM to 5 PM on Saturday.

2.2.2.7 Sanitary Sewer Facilities

The Dammasch planning area is not currently served by City of Wilsonville sanitary sewer, with the exception of the Living Enrichment Center in the southwest portion of the planning area. The Living Enrichment Center uses a lift station to pump effluent into a City sanitary line that runs through residential areas to the west. An existing 15-inch sanitary sewer line (recently upgraded from a 10-inch line) is adjacent to the south boundary of the planning area and will probably be adequate to serve future development in the area. Sanitary service to the planning area can be provided through a combination of lift stations and gravity sewers. The City's 30-inch Seely

Ditch trunk line is over capacity downstream of the 15-inch line and must be upgraded to increase capacity prior to development of the planning area.

A small wastewater treatment plant, constructed to serve the Dammasch hospital, is still in service. The treatment plant is located just south of the Living Enrichment Center and near Grahams Ferry Road. The hospital's sanitary collection system delivers wastewater to the plant, which passes the effluent through the comminutor (to break down solids), to the primary clarifier, through a trickling filter using natural gravel media, then through a final clarifier. The effluent is chlorinated prior to being discharged to Corral Creek and the Willamette River.

According to Dammasch staff, the system does not meet Oregon Department of Environmental Quality (DEQ) criteria for discharge when mixing water from storm runoff is not present. During a site visit on August 7, 1996, the flow to the plant was so low there was no discharge. The only flow occurring was recycle flow pumped from the final clarifier to the headworks.

2.2.2.8 Storm Drainage Facilities

Storm water drains generally to Coffee Lake Creek on the eastern portion of the planning area, and wetlands in the western portion. Storm water may require treatment to ensure adequate quality prior to discharge to the receiving bodies.

Runoff from impervious surfaces on the hospital grounds is collected in an underground storm drainage system and diverted from its natural drainageway (south through the Wilsonville Tract) into the Mill Creek drainage. This transport of storm water has caused erosion problems at its point of discharge. Redevelopment of the Dammasch area will provide an opportunity to restore the natural drainage patterns.

2.2.2.9 Water Supply Facilities

Water in the Dammasch planning area is supplied by wells, both public (City of Wilsonville) and private.

The City of Wilsonville has a strong backbone system to the northeast corner of the planning area. Looped 14-inch and 18-inch lines feed from the 2.2 million and 3.0 million gallon reservoirs at Elligsen Road and Canyon Creek Road North. A looped system of 12- and 14-inch lines in Barber Road and Kinsman Road is also tied to the Elligsen and Canyon Creek reservoir system. In addition, there is a 10- through 12-inch and a 14-inch loop from the Nike and Gesellschaft wells (southeast) with a 14-inch line to the Charbonneau wells and reservoir south of the Willamette River. An 10-inch line in Wilsonville Road may be nearing capacity due to recent development in the southwest portion of the City, but the City plans to upgrade this line to an 18-inch line in the spring of 1997.

The Dammasch hospital has its own on-site well water system. It consists of two separate well systems that serve domestic and fire requirements for the site. The domestic well system has a

The Dammasch hospital has its own on-site well water system. It consists of two separate well systems that serve domestic and fire requirements for the site. The domestic well system has a capacity of 300 gallons per minute (gpm), and the fire well system has a capacity of 950 gpm. The domestic system uses a filter and softener to improve the quality of the well water. According to Dammasch staff, a second filter system is used to treat the domestic water used in the steam boilers at the power plant.

Each of the two on-site wells has an elevated storage tank approximately 150 feet in height. The overflow elevation of the reservoirs is estimated to be about 350 feet. The overflow elevation of the City's Elligsen Road/Canyon Creek Road North reservoirs is 400 feet. Therefore, the systems cannot be interconnected successfully. It may be possible to use the existing Dammasch system, with supplemental City flow through a pressure-reducing valve or by boosting the pressure of the Dammasch water by pumping, for future development of the Dammasch planning area. These possibilities should be explored. The City has indicated an interest in acquiring the water, at least from the better quality well. This acquisition would be strictly for use as a backup emergency water supply source that would be used if the primary water supply source were presently unavailable. With the continually dropping water table in this area, that dependence on the Dammasch wells to provide water service to the Dammasch Urban Village would not be prudent.

The two Dammasch wells have been included in an Oregon Water Resources Department (OWRD) test pumping program since 1990. The tests have revealed that it is common for wells in Oregon to experience depletion of water level due to pumping from the Columbia River basalt. The two Dammasch wells are about 1000 feet deep and develop basalt ground water. The Dammasch wells contain higher levels of dissolved solids (mineralization) than shallower basalt wells in the area. This feature at the Dammasch wells points out an additional consideration with future use at the City wells. Since ground water mineralization generally increases with depth, we should expect that the City will be pumping more mineralized water in the future. This may be a practical problem for some uses in addition to being a general aesthetic problem.

2.2.2.10 *Electricity, Gas, and Telecommunications*

Electricity is provided by Portland General Electric. Power distribution lines are located along public roads throughout the planning area.

Northwest Natural Gas has several gas pipelines in the planning area: a 2-inch service along Evergreen Avenue (between Serenity Way and Montebello Drive); a 4-inch service to the Dammasch hospital boiler house (from 110th/Brown); a 4-1/2-inch line along 110th/Brown Road, then east through the Bischof property and ultimately in Boeckman Road. There is also a 6-5/8-inch gas main in Kinsman Road.

Telephone service in the planning area is provided by GTE Northwest.

Other parcels in the planning area are either vacant and in agricultural use, or contain single-family dwellings and assorted farm buildings. Dwellings are located on properties owned by:

- Rumpf (one dwelling);
- Taber (one dwelling);
- Nims (one dwelling);
- Bischof (two dwellings on Tooze Road property, one dwelling on 110th Avenue property);
- Chang (two dwellings);
- Dearmond (one dwelling);
- Piculell (one dwelling); and
- Kirkendall (one dwelling).

Most, if not all, of these dwellings would remain in their present locations if the Dammasch Area Plan is adopted and implemented.

2.2.4 Land Available for Development

The Dammasch Area Plan study area comprises approximately 520 acres. However, much of the planning area will be unavailable for development due to constraints such as existing development (e.g., the Living Enrichment Center), wetlands, flood plain designations, utility easements, open space expectations, rights-of-way, civic requirements, and whether land is within the UGB.

Table 2.5 provides a breakdown of the total acreage in the study area and indicates some of the land with development constraints. The parcel acreages shown in the table are taken from Clackamas County tax assessor data. Other acreages (i.e., flood plain, easements) were calculated using topographic map data from the City of Wilsonville, information from various utilities, and parcel data from Metro's RLIS data base. There were some discrepancies between the Metro parcel data and tax assessor data; the acreages presented in Table 2.5 should be considered approximate and should be verified through field survey.

As discussed in Section 2.2.3.2, several properties included in the Dammasch study area are crossed by utility easements. Information obtained from BPA, PGE, Northwest Natural Gas, Santa Fe Pacific, and the City of Wilsonville was used to determine the parcels and acreages affected by easements. Several easements were noted, although specific locations of some easements are not known, and all easements will have to be field verified. More thorough research may also reveal additional easements, though it is reasonable to expect that any additional easements would not greatly affect the developable area.

**Table 2.5
Damasch Study Area, Land Area Breakdown**

Total Area	519.89
Urban (Within UGB)	258.92
Rural	260.97
Area Unavailable for Urban Village Development (assuming expansion of UGB)	
Within Flood Plain	115.06
Easements*	12.44
Road Right-of-Way	11.20
Living Enrichment Center	42.75
Subtotal, Unavailable Area	166.92
Total Available for Urban Village Development (assuming expansion of UGB)	352.97

* Most of the land contained in easements also lies within the flood plain. The total area of land in easements that lies outside the flood plain is approximately 2.6 acres, which has been excluded from the developable area.

The flood plain acreage was estimated using the best available information. The flood plain acreage calculations are based on the FIRM for the area, which indicates a 143-foot elevation at the south edge of the planning area. For reference, aerial photographs taken during the February 1996 flood were examined. The flood water elevation was estimated at 139 feet at the time the photographs were taken. The flood plain area was assumed to be unavailable for development. However, it may be that some development will occur within the flood plain as it is shown on Figure 6. Although development may require some fill within the flood plain, the fill should be balanced with excavation, to avoid increasing flood levels on Coffee Lake Creek.

The Living Enrichment Center property is already partially developed, however much of the parcel remains in natural vegetation. At this time, the Living Enrichment Center plans to expand their facility and utilize the entire parcel for their activities, such as their church, temporary housing for retreat participants, and other uses accessory to the church. Therefore, their property was assumed to be unavailable for "urban village" development.

Development of the properties on the east side of the study area (belonging to Young and Jones) is constrained by the flood plain and BPA easement, which is 125 feet wide. Much of both properties is designated Primary Open Space in the Wilsonville Comprehensive Plan; the remainder is designated Secondary Open Space. The acreage of these two properties was also assumed to be unavailable for "urban village" uses. However, at least a portion of these properties is expected to be available for industrial development.

According to Jim Long, with the City of Wilsonville, roads in the study area are county roads and have 40-foot rights-of-way. The only exception is Brown Road, where it runs east-west along the

study area's southern boundary. Here, the southern half of Brown Road is within the City of Wilsonville, adding an additional 10 feet of width to the street's right-of-way.

6. TRANSPORTATION IMPACT ANALYSIS

6.1 DESCRIPTION OF THE ANALYSIS

This section examines the transportation effects of creating an urban village in the Dammasch planning area. The transportation impact analysis examines the effects of street network improvements as well as land use changes on the local transportation network. It identifies additional traffic burdens caused by the project at key intersections and roadways as well as any impacts improved transit and transportation demand management measures would have on the system. The analysis period is the PM peak hour under both existing (1995) and future year (2015) conditions. This study uses the Metro 2015 projected land use (household and employment allocations) in all areas except the planning area zones.

Capacity and level-of-service (LOS) calculations were performed for the following four signalized intersections: 1) Wilsonville Road at Boones Ferry Road, 2) Wilsonville Road at the I-5 southbound ramps, 3) Wilsonville Road at the I-5 northbound ramps, and 4) Elligsen Road at the I-5 northbound ramps.

This analysis also examines the traffic flows along three key roadways: the Boeckman Road overpass, the potential Barber Road overpass, and Brown Road north of Wilsonville Road. Traffic flows were also examined at the intersections of Tooze Road and Grahams Ferry Road, Brown Road at Wilsonville Road, and Boones Ferry Road at Wilsonville Road.

Figure 29 illustrates the project study area, the four intersections included in the operations analysis, and all roadways included in the traffic flow analysis.

6.1.1 Planned Improvements

The following proposed or under-construction street and interchange improvements were included in the analysis and are shown on Figure 29.

- The interchange of I-5 at Elligsen Road is being modified by ODOT to include a partial cloverleaf. When it is completed, the east to south movement at the southbound ramps, and the west to north movement at the northbound ramps will be rerouted onto a partial cloverleaf, thus the left-turn movement will be eliminated at each intersection. Lane configurations at the northbound ramps will consist of two through lanes on the west and east approaches, with a channelized right-turn lane on the east approach. The south approach consists of a left-through lane and a channelized right-turn lane. Since the planned signal timing of this intersection has not yet been determined, a 60-second-cycle length was used. This is typical for a two-phase system.

- The City of Wilsonville and ODOT plan to modify the interchange of I-5 at Wilsonville Road in 1997. The plans are to widen Wilsonville Road from four to six travel lanes at the interchange, with reconstruction of Wilsonville Road continuing west to Brown Road. Modifications such as the timing, phasing, and lane geometry for both intersections at the interchange have not yet been determined. Therefore, this analysis chose timing, phasing, and lane configurations to optimize traffic operations and achieve the best possible level-of-service. A 90-second-cycle length was used at both intersections which is typical of a three-phase traffic signal. This study assumed lane configurations at southbound ramps to include a channelized right-turn lane on the west approach; an exclusive left-turn lane on the east approach; and a left-turn lane, a left-through lane, and a channelized right-turn lane for the off-ramp on the north approach. Assumed lane configurations at the northbound ramps are reversed with the off-ramp approaching from the south. All through movements along Wilsonville Road at both intersections will have two through lanes.
- The intersection of Wilsonville Road and Boones Ferry Road will also be modified as part of the widening project. Wilsonville Road will have an added lane for a total of two through lanes. On the north approach another left-turn lane will be added as well.

Other current projects were not included in this analysis because they are not expected to alter the current or future travel patterns along the streets under examination. These projects are the partial closures of Boones Ferry Road from Ridder Road to Elligsen Road, and of Parkview Drive from Parkway Avenue to Elligsen Road. Closure of these streets is due to the construction of the partial cloverleaf at the I-5 interchange with Elligsen Road. Future year analysis does not include the Canyon Road extension because it is not part of the regional system.

6.1.2 Development Scenarios

This transportation analysis examined existing (1995) and future year (2015) traffic conditions using different combinations of land use and street improvement alternatives. The three street improvement alternatives include: 1) extending Boeckman Road west to connect with Tooze Road; 2) extending Barber Road across I-5 to connect with Parkview Avenue to the east and extending it west to the project site; and 3) both improvements. The development scenarios examined are listed in Table 6.1.

Scenarios one and two use 1995 land use as defined in the Metro regional transportation model. Scenario three and four use the year 2015 regional land use as projected by Metro in all areas except the urban village site, which was kept vacant. This methodology was used because Metro assumed intense land use development in the project area. If Metro land use was used, impacts of the project on the transportation system could not be evaluated. Scenarios five through eight used the proposed urban village land use in the study area along with the projected regional growth as in the No-Build land use. All scenarios, except scenario one, include planned improvements mentioned previously.

Currently, the City is embarking on a new Transportation System Plan (TSP). The recommendations that accompany the Dammasch Area Plan should be considered as part of this TSP.

9.8 INFRASTRUCTURE COSTS

Costs were estimated for the basic infrastructure (i.e., roads and utilities) needed to develop the Dammasch area. Costs for off-site facilities and improvements, such as additional water sources, sewage treatment facilities, and intersection and interchange improvements are not included in the basic infrastructure costs for the planning area. The need for such improvements is related to growth in general, and cannot be attributed to a single development or planning area. Figure 37 shows the transportation and utility improvements included in the cost estimate, which is presented in Table 9.3.

9.8.1 Transportation Facilities

The cost estimate assumes construction of primary road improvements, i.e., roads with sidewalks, curbs and gutters; underground private utilities including power, telephone, and cable television; street lighting; landscaping and irrigation; and storm sewers within the roadway. The cost of landscaping a boulevard was added where applicable. Road improvement costs were factored into the per-foot unit cost of the roads.

Boeckman Road, Brown Road, and Barber Road were assumed to provide the primary connections to the existing City streets. Costs were estimated for improvements to Boeckman Road that begin at a point east of the Burlington Northern Railroad tracks, approximately 1,200 feet east of the study area boundary. Boeckman Road was assumed to intersect Grahams Ferry Road, north of the Living Enrichment Center. For Barber Road, costs were included for improvements starting at a point approximately 200 feet east of the study area boundary at Kinsman Road, extending to Grahams Ferry Road near the northwest corner of the planning area. The cost estimates do not include improvements to Grahams Ferry Road along the full length of the western study area boundary, only between Barber and Tooze roads. Estimates for Brown Road include improvements within the planning area boundary, from the southern boundary to Tooze Road. Tooze Road would be extended to Grahams Ferry Road.

Off-site intersection improvements were not specifically estimated, but generalized costs were assigned to allow for necessary upgrades to existing intersections.

Bridge costs were estimated for necessary crossings to extend the roads as shown on Figures 37. The cost of an overpass at I-5 was not included.

Table 9.3

Cost Estimate for Basic Infrastructure--Preferred Option

Item	Description	Quantity	Units	Unit Cost	Amount	Subtotal
Extend Boeckman Road to Grahams Ferry Road						\$5,700,000
1	Boeckman Road - 48' PCC, c&g, sw	6270	LF	\$350	\$2,194,500	
2	Boeckman Road - 52' PCC, c&g, sw	2690	LF	\$390	\$1,049,100	
3	Construct 2 bridges - 60' x 90'	10800	SF	\$105	\$1,134,000	
4	Wetland Mitigation	1	LS	\$150,000	\$150,000	
5	Construct private utilities	8960	LF	\$95	\$851,200	
6	Construct Landscaping and Irrigation w/o Center Median	6270	LF	\$28	\$175,560	
7	Construct Landscaping and Irrigation w/ Center Median	2690	LF	\$56	\$150,640	
Extend Barber Road to Grahams Ferry then Grahams Ferry to Tooze Road						\$3,800,000
8	Barber Road - 40' PCC, c&g, sw	2470	LF	\$250	\$617,500	
9	Barber Road - 44' PCC, c&g, sw	5130	LF	\$290	\$1,487,700	
10	Construct 1 bridge - 52' x 100'	5200	SF	\$105	\$546,000	
11	Wetland Mitigation	1	LS	\$75,000	\$75,000	
12	Construct private utilities	7600	LF	\$95	\$722,000	
13	Construct Landscaping and Irrigation w/o Center Median	2470	LF	\$28	\$69,160	
14	Construct Landscaping and Irrigation w/ Center Median	5130	LF	\$56	\$287,280	
Extend Brown Road to Tooze Road then Tooze Road to Grahams Ferry						\$2,600,000
15	Brown Road - 36' AC, c&g, sw	2700	LF	\$240	\$648,000	
16	Brown Road - 40' AC, c&g, sw	3650	LF	\$280	\$1,022,000	
17	Construct private utilities	6350	LF	\$95	\$603,250	
18	Construct Landscaping and Irrigation w/o Center Median	2700	LF	\$28	\$75,600	
19	Construct Landscaping and Irrigation w/ Center Median	3650	LF	\$56	\$204,400	
Construct Primary Water System						\$1,600,000
20	Extend 14" main in Boeckman Road to Barber Road	5880	LF	\$75	\$441,000	
21	Extend 14" main in Barber Road to Boeckman Road	4220	LF	\$75	\$316,500	
22	Loop 12" main - from Boeckman 14" at Barber in Barber to Gr. Fry. to Tooze to Brown to Boeckman 14" at Brown	8670	LF	\$65	\$563,550	
23	Extend 12" main in Boeckman Road S.E. to study	2100	LF	\$65	\$136,500	
24	Construct fire hydrants at average 350' spacing.	59	EA	\$2,500	\$147,500	
Construct Primary Sanitary Sewer System						\$1,400,000
25	Construct 12" main parallel to and in Barber Road to Seeley interceptor	5950	LF	\$55	\$327,250	
26	Construct 10" main west of crest to Graham's Ferry North of the Living Enrichment Center	7000	LF	\$45	\$315,000	
27	Upgrade Seeley Ditch Interceptor from Wilsonville Road to WWTP - assume 12" parallel line w/ manholes	4500	LF	\$61	\$274,500	
28	Construct Pump Station at Graham's Ferry (North of L.E.C.)	1	EA	\$150,000	\$150,000	
29	Construct 8" main from Pump Station east to Brown Road	5000	LF	\$35	\$175,000	
30	Construct manholes at average spacing of 380 feet	34	EA	\$2,000	\$68,000	
31	Construct 12" Seeley Ditch siphon crossing	1	EA	\$50,000	\$50,000	
Construct Off-Site Intersection Upgrades						\$400,000
32	Minor Intersection Improvements	2	EA	\$100,000	\$200,000	
33	Major Intersection Improvements	1	EA	\$200,000	\$200,000	
Subtotal - Construction Cost						\$15,500,000

Soft Costs including Contingency and Engineering (25%)	\$4,000,000
Contingencies (20%)	\$3,000,000
Total Estimated Cost	\$22,500,000

9.8.2 Utility Improvements

The primary water system improvements include water lines extended from the existing City of Wilsonville system and a looped system within the primary road system of the study area. Valving, thrust blocking, and fire hydrants were included in the estimates. The existing Dammasch wells and fire system are not included in the system or the cost estimates.

The water system was estimated with a looped connection, along Barber and Boeckman roads, to the existing City of Wilsonville system. A second loop was included in the northwest portion of the planning area. In the southwest part of the study area, a 12-inch main was extended from Barber Road to the study area boundary in Boeckman Road.

The primary sanitary sewer system improvements include a gravity sanitary sewer system connected to the City of Wilsonville system. The proposed development of the Dammasch area will increase demand and cause the 30-inch Seely Interceptor to exceed its design capacity. Therefore, an allowance was made for upgrading the Seely Interceptor from Wilsonville Road to the City's treatment plant and is included in the cost estimates. The cost of a second gravity system was figured because the site slopes northeast and southwest from a ridge bisecting the site. This system would drain to the southwest corner of the site where a pump station would pump the effluent back to the east and into the City's gravity system.

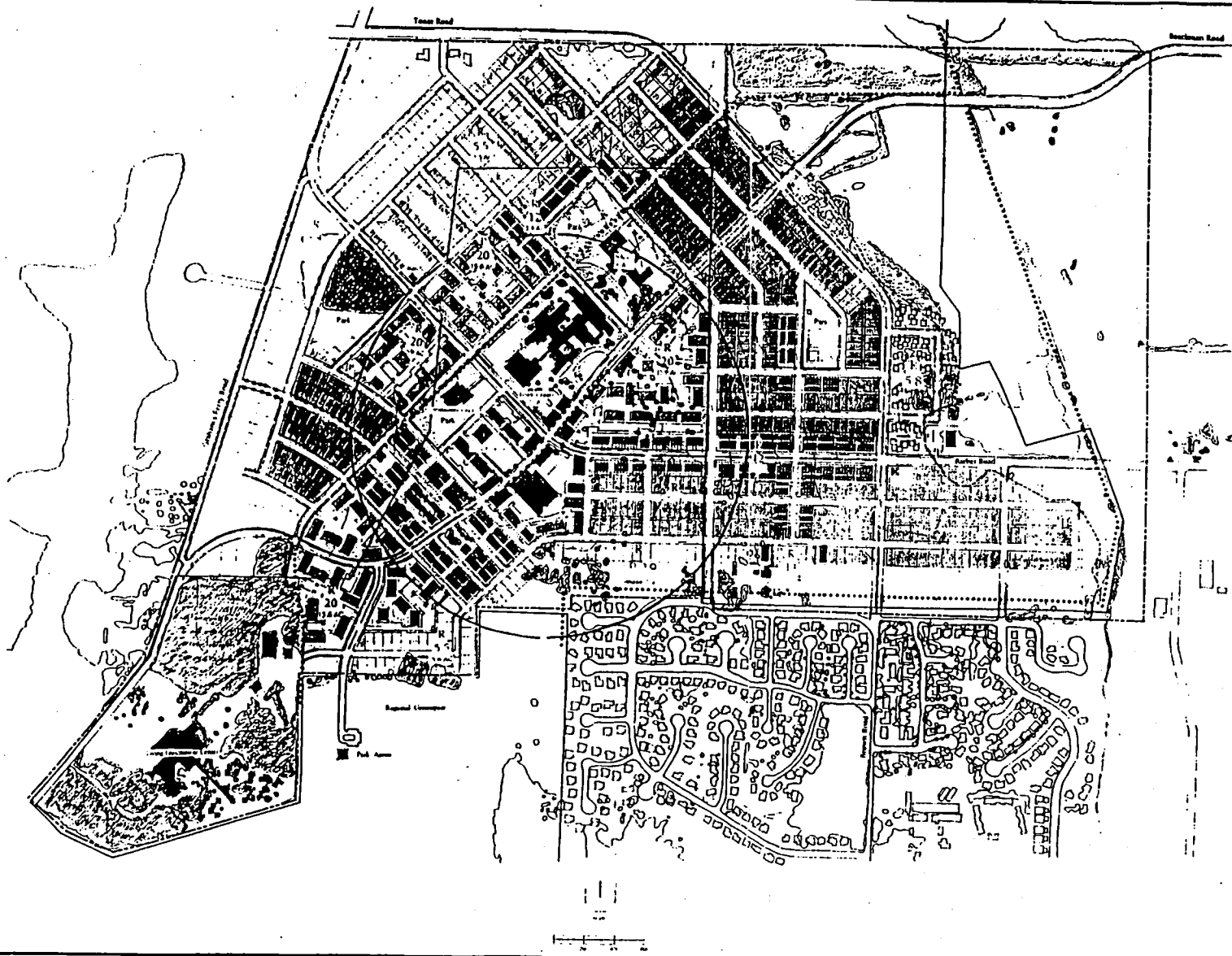
Sanitary sewer on the east side of the planning area runs within the road right-of-way of Brown Road, allowing gravity collection of all sanitary sewer on the east side of the ridge. On the west side of the ridge, it was assumed that two 10-inch mains would be constructed, roughly parallel, to serve the area and carry effluent by gravity to the proposed pump station at the north side of the Living Enrichment Center near Grahams Ferry Road. The cost for the pump station and force main was also included in the estimate.

9.9 FINANCIAL ANALYSIS

The Dammasch Transportation-Efficient Land Use Plan is a mixed-use, multi-phase, public-private development project. It is described as such because:

1. Although the plan is predominantly a housing development, it also includes retail shopping and services, employment facilities, recreational facilities and civic components; hence, it is a mixed-use project.
2. It is a multi-phase development because it will unfold in a series of phases over a number of years. The market analysis suggests that the project will take from nine to twelve years to fully develop.

662As 37-41 BELTWAY 411.C



Dammasch Area Transportation- Efficient Land Use Plan

ADOPTED
CONCEPTUAL
PLAN

LAND USE

DECEMBER 6, 1996

FIGURE 34



David Evans and Associates, Inc.
Leland Consulting Group
Fletcher Farr • Ayotte
Jeanne Lawson Associates

BEFORE THE METRO COUNCIL

CLERK OF THE METRO COUNCIL

luis

FOR THE PURPOSE OF AMENDING)	ORDINANCE NO 98-744B
ORDINANCE NO. 96-655E TO ADD LAND TO)	
DESIGNATED URBAN RESERVE AREAS FOR)	Introduced by Executive Officer
THE PORTLAND METROPOLITAN AREA)	Mike Burton
URBAN GROWTH BOUNDARY TO PROVIDE)	
FOR A STATE PRISON; AMENDING RUGGO)	
ORDINANCE NO. 95-625A AND THE REGIONAL)	
FRAMEWORK PLAN ORDINANCE NO. 97-715B;)	
AND DECLARING AN EMERGENCY)	

WHEREAS, ORS 197.298(1)(a) requires that land designated as urban reserve land by Metro shall be the first priority land for inclusion in the Metro Urban Growth Boundary; and

WHEREAS, the Land Conservation and Development Commission's (LCDC's) Urban Reserve Area Rule at OAR 660-21-020 requires Metro to designate the location of urban reserve areas for the Portland Metropolitan area within two miles of the regional Urban Growth Boundary; and

WHEREAS, LCDC's Urban Reserve Area Rule, at OAR 660-21-020, requires that urban reserve areas designated by Metro shall be shown on all applicable comprehensive plan and zoning maps; and

WHEREAS, LCDC's Urban Reserve Area Rule, at OAR 660-21-030(1), requires that urban reserve areas shall include at least a 10 to 30 year supply of developable land beyond the 20 year supply in the Urban Growth Boundary; and

WHEREAS, LCDC's Urban Reserve Area Rule, at OAR 660-21-030(2), requires that Metro study lands adjacent to the Urban Growth Boundary for suitability as urban reserve areas; and

WHEREAS, LCDC's Urban Reserve Area Rule, at OAR 660-21-030(3), requires that land found suitable for an urban reserve area must be included according to the Rule's priorities

and that first priority lands are those lands identified in comprehensive plans as exception areas plus those resource lands completely surrounded by exception areas which are not high value crop areas; and

WHEREAS, Resolution No. 95-2244 established urban reserve study areas as the subject of Metro's continued study for possible designation as urban reserve areas consistent with LCDC's Urban Reserve Area Rule; and

WHEREAS, urban reserve study areas are shown on the 2040 Growth Concept Map in Ordinance No. 95-625A adopting the Regional Urban Growth Goals and Objectives (RUGGO) which was acknowledged by LCDC Compliance Order 96-ACK-010 on December 9, 1996; and

WHEREAS, the urban reserve study areas shown on the 2040 Growth Concept Map are included on that map in the Regional Framework Plan in Ordinance No. 97-715B; and

WHEREAS, Metro adopted Ordinance No. 96-655E on March 6, 1997, designating approximately 18,600 acres as urban reserve areas; and

WHEREAS, the "special need" land use of a state prison in the Metro region had not been considered at that time; and

WHEREAS, an area of "exception," non-farm lands adjacent to north Wilsonville to Day Road was included in designated urban reserves; and

WHEREAS, the siting process for state prisons has now resulted in a proposed prison site located partially on currently designated urban reserve area and about 72 additional acres of "exception," non-farm lands north of Day Road; and

WHEREAS, Metro has encouraged the location of the proposed state prison at this site as an alternative to land at Dammasch Hospital inside the UGB and adjacent urban reserves in Resolution No. 98-2623A; and

WHEREAS, notice of adoption of this proposed addition to urban reserve areas and the proposed postacknowledgment amendments to the acknowledged RUGGO ordinance have been given consistent with ORS 197.610(1); now, therefore,

THE METRO COUNCIL ORDAINS AS FOLLOWS:

Section 1. Ordinance No. 96-655E is hereby amended to designate the area indicated on the map attached as Exhibit "A," and incorporated herein, as an additional urban reserve area for the Metro Urban Growth Boundary for the purpose of compliance with the Urban Reserve Area Rule at OAR 660-21-020 to identify lands of first priority for inclusion in the Metro Urban Growth Boundary as required by ORS 197.298 on the condition that this additional area is developed only for a state prison. This amendment to designated urban reserves shall be automatically repealed if the Oregon Department of Corrections commences construction of a women's prison facility at the former Dammasch Hospital property.

Section 2. The urban reserve area on Exhibit "A" shall be shown on all applicable county comprehensive plan and zoning maps as required by the Urban Reserve Area Rule at OAR 660-21-020. In addition, these findings shall be incorporated into the comprehensive plans of the Cities of Wilsonville and Tualatin, and Washington County.

Section 3. Ordinances No. 95-625A and 97-715B are hereby amended to add the urban reserve area indicated in Exhibit "A" to the 2040 Growth Concept Map in both the Regional Urban Growth Goals and Objectives and the Regional Framework Plan as a designated urban reserve area.

Section 4. The Findings and Conclusions in Exhibit "B", attached and incorporated herein, explain how the additional urban reserve area designated in Section 1 of this Ordinance complies with the Urban Reserve Area Rule and the acknowledged Regional Urban Growth

Goals and Objectives. These Findings and Conclusions are hereby incorporated into Metro's acknowledged Urban Growth Boundary Plan, a comprehensive plan provision, together with the acknowledged 2040 Growth Concept, the acknowledged urban growth boundary and the amendment procedures in Metro Code 3.01.

Section 5. Consistent with RUGGO Goal 11 Objective 22.3.3, Clay Street, the northern boundary of the amended Urban Reserve Area No. 42, is established as the permanent northern-most boundary for Metro's urban reserves in the vicinity of the City of Wilsonville.

Section 6. The designation of this additional urban reserve area to be available for amendments to the Metro Urban Growth Boundary is necessary to preserve the health, safety or welfare of the Metro region; therefore, an emergency is hereby declared to exist, and this Ordinance shall take effect upon passage.

Section 7. The provisions of this ordinance are separate and severable. The invalidity of any clause, sentence, paragraph, section, subsection, or portion of this ordinance or the invalidity of the application thereof to any city, county, person or circumstance shall not affect

/////

/////

/////

/////

/////

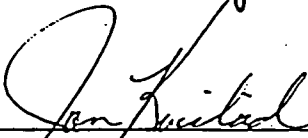
/////

/////

/////


the validity of the remaining provisions of this ordinance or its application to other cities,
counties, persons or circumstances.

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



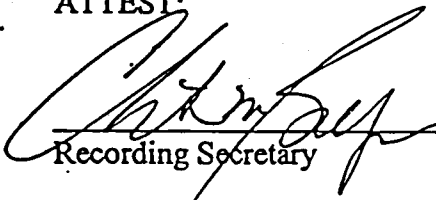
Jon Kvistad, Presiding Officer

Approved as to Form:



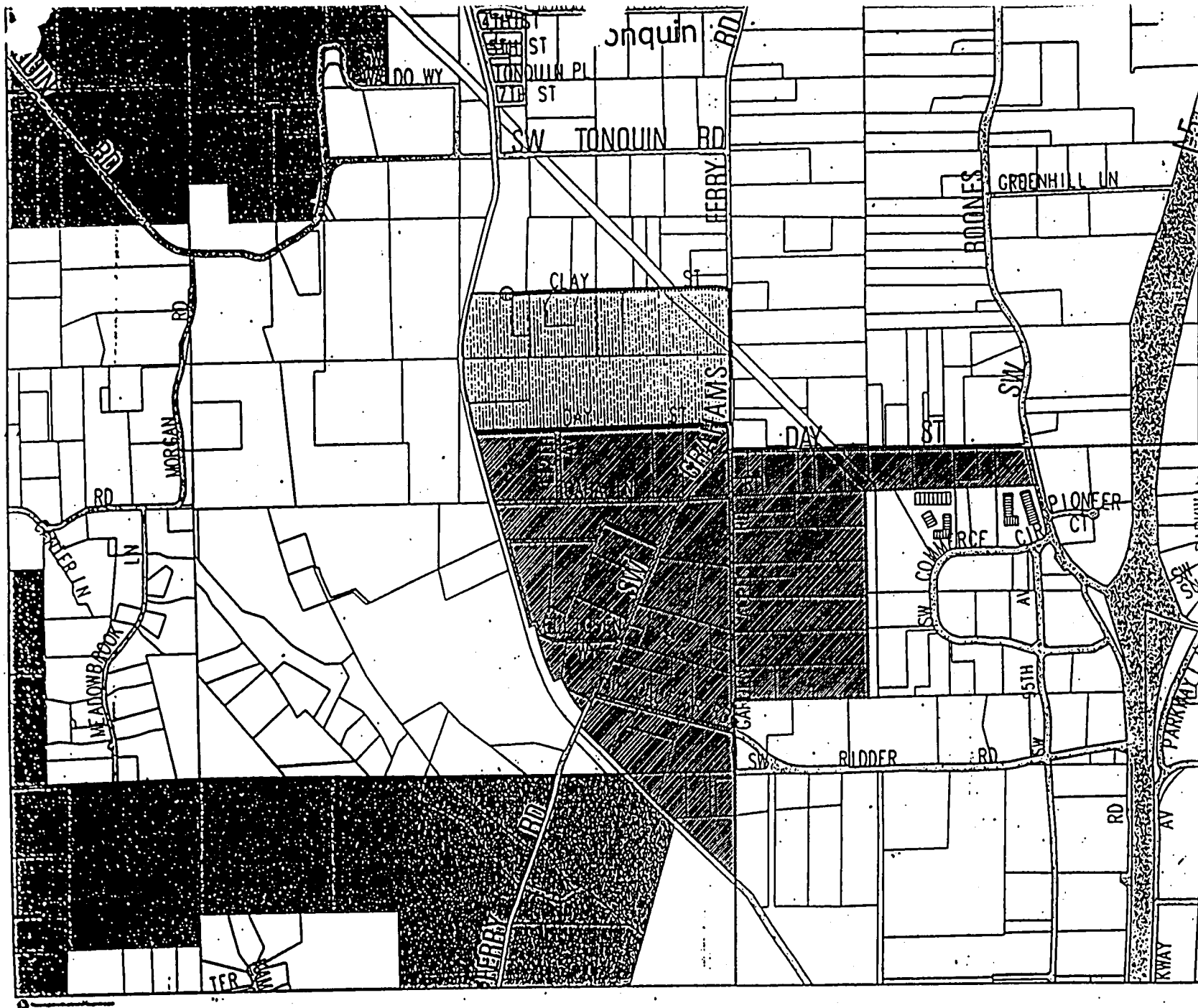
Daniel B. Cooper, General Counsel

ATTEST:



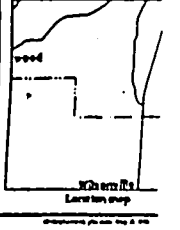
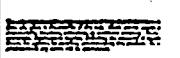
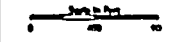
Recording Secretary

I:\DOCS#07.F&D\02UGB\04URBRES.DEC\07WILSON.PRSWORD744.B
June 26, 1998



Urban Reserve
Amendment

Exhibit A



**Ordinance No. 98-744B
Urban Reserve Findings and Conclusions**

The results of Metro's legislative determination of this amendment of urban reserve area 42 are explained here consistent with statewide land use Goal 2 and OAR 660-21-030(5).

I. Applicability Of This Ordinance

This is an amendment of Ordinance 96-655E which adopted urban reserve area 42. Consistent with Section 3 of Ordinance 96-655E, the urban reserve areas map in that ordinance is amended by this Ordinance No. 98-744B to include this 72-acre addition to urban reserve area 42. Consistent with Section 2 and 3 of that ordinance, the acknowledged 2040 Growth Concept Map adopted in RUGGO in Ordinance No. 95-625A and the Regional Framework Plan in Ordinance No. 97-715B is amended in those ordinances to include this urban reserve area amendment.

II. Urban Reserve Rule Determination

Applicable portions of Growth Management's staff reports are attached and incorporated herein as part of these Findings. The staff report findings are supplemented here by explanation of the evidence, findings and conclusions from evidence presented subsequent to the staff report.

A. The estimated amount of land was established by Ordinance No. 96-655E consistent with OAR 660-21-030(1) and remains unchanged except for the accommodation of the additional prison facility described in the record of this ordinance.

B. The application of the suitability analysis consistent with OAR 660-21-030(2) to establish urban reserve 42 was completed in Ordinance No. 96-655E. As indicated in the staff report at pages 6-10 and Attachment 3 at page 20 of this Exhibit, the 72-acre addition to urban reserve 42 has, essentially, the same characteristics that gave the exception lands in urban reserve area 42 a very high relative suitability score.

C. Consistent with OAR 660-21-020 and Section 4 of Ordinance No. 96-655E, Section 4 of this Ordinance requires that this amendment to urban reserve area 42 be shown on all applicable county and city comprehensive plan and zoning maps.

D. By incorporation into Metro's urban reserves and Regional Framework-Plan by Section 2 of this Ordinance, these Findings and Conclusions are included in the comprehensive plans of affected jurisdictions in compliance with OAR 660-21-030(5) because Metro's UGB plans, including urban reserves, are comprehensive plan provisions of all cities and counties

within Metro. See, *League of Women Voters v. Metro. Service District*, Or App 333, 335-336, 781 P2d 1256 (1989). In addition, these Findings and Conclusions are required by Section 2 of this Ordinance to be added to affected city and county comprehensive plans of the Cities of Wilsonville and Tualatin, and Washington County.

III. Applicable Regional Urban Growth Goals and Objectives (RUGGO)

A. The application of RUGGO objectives 15, 16, 18vi., 19, 3.3, 22, 22.3.3 and more generally, Goal 11.2.ii, 11.2.iv are explained at pages 10-12 of this Exhibit, concluding that this urban reserve amendment is consistent with those objectives. Central to the analysis is the effect of supersiting legislation (See, Attachment 1 at pages 16-17 of this Exhibit) and Governor Kitzhaber's June 25, 1998 announcement of his decision to proceed to select this amended urban reserve site 42 for the prison using that supersiting authority. The Governor's announcement was in the record of the June 25, 1998 hearing.

B. In addition, the following RUGGO issues were raised in evidence in the record subsequent to the staff report:

1. Violation of RUGGO Objective 22.3.3 was alleged in testimony before the Metro Council. Despite this allegation, there is no legal authority for this, or any RUGGO Objective to be applied to prevent the super siting of a prison on amended urban reserve 42. Even if the siting were a RUGGO violation, it could still be sited. Therefore, Metro's recognition of the effect of that statutory authority is not a violation of its own objective. This is, especially, true when the effect of amending this urban reserve to recognize this industrial use is to mitigate its impact. The condition in Section 5 of this ordinance establishes the northern boundary of this addition to urban reserve 42 as the permanent northern boundary of urban reserves in this vicinity. This is consistent with objective 22.3.3 because it mitigates the effect of the prison siting on the separation of Tualatin and Wilsonville. The condition in Section 1 of the Ordinance recognizes the super siting authority and avoids any violation of RUGGOs by automatically repealing this urban reserves amendment if this site is not a super sited prison. *1000 Friends of Oregon v. City of North Plains*, 27 Or LUBA 372 (1994).

2. The issue of a possible I-5, 99W connector highway between Tualatin and Wilsonville was raised to the Metro Council. The location of that general corridor at this point is inside the regional urban growth boundary at the southern edge of the City of Tualatin. There is no evidence presented in the record to indicate that the actual alignment of that project would be located near to the northern boundary of amended urban reserve 42. Even if the final alignment moves south of the UGB at Tualatin, the condition in Section 5 of this ordinance helps maintain separation of communities by retaining a northern boundary of urban reserves adjacent to the southern community of Wilsonville.

3. The issue of the adequacy of stormwater management facilities for an area near the proposed prison, but off site, was raised to the Metro Council with engineering evidence of the problem. This problem was first identified in the preliminary ODOC studies in the record at the first hearing. The Metro Council accepts the engineering evidence of the final ODOC

report and the Westech Engineer response to evidence from Holistic Water Resources Engineering on the feasibility of proposed stormwater facilities in the record of the June 25, 1998 hearing. At this stage of land use decision, only the feasibility of an engineered solution must be demonstrated, not facility location or design.

Westech Engineering identifies the off site acreage which drains from the north into the Grahams Ferry Road and Day Road intersection. The ODOC proposed improvements include a solution for this currently inadequately drained area across the prison site to the southwest detention facility. ODOC is providing an on site detention basin that will include capacity for the off site stormwater at Grahams Ferry Road and Day Road intersection. Westech concludes that the detention facility is adequately sized to provide detention for existing and future conditions, including the off site stormwater.

Further planning for "permanent facilities" will continue as the area develops. As Planning Director Lashbrook testified, the city has contracted with KCM Engineering to coordinate with Westech Engineering to prepare a stormwater master plan for the entire city and adjacent urban reserves. This master plan is intended to be included in the Public Facilities Plan in the acknowledged comprehensive plan of the City of Wilsonville.

IV. Applicability of the Urban Growth Management Functional Plan

The Functional Plan is not directly applicable to land outside Metro's jurisdictional boundary, such as the 72 acres that are the subject of this amendment. However, the Functional Plan directly implements RUGGO objectives and the 2040 Growth Concept. Therefore, the prospective analysis of Functional Plan policies in the attached Staff Report shows the positive effects on urban reserve areas 39, 41, and 42 and the urban growth boundary areas adjacent to them in the City of Wilsonville. These are more detailed findings that show consistency with the RUGGO provisions that these Functional Plan provisions implement.

COMMUNITY DEVELOPMENT
MEMORANDUM

DATE: MAY 27, 1998
TO: STEPHAN LASHBROOK, PLANNING DIRECTOR
FROM: ELDON R. JOHANSEN, COMMUNITY DEVELOPMENT DIRECTOR
SUBJECT: PRELIMINARY URBAN RESERVE PLAN FOR URBAN RESERVE AREA
42 (EXPANDED)

The purpose of this memorandum is to provide additional information concerning the overall impact of constructing the infrastructure necessary to support a Women's Prison/Intake Center at the intersection of Day Road and Grahams Ferry Road and on the infrastructure which is also necessary to develop the industrial sanctuary. Specific comments are as follows:

Water

The City has existing water available to serve the industrial sanctuary from the vicinity of Ridder Road and Garden Acres Road with a fire flow at a residual of 20 PSI of approximately 4100 gallons per minute. The City also has water available at Pioneer Court on Boones Ferry Road just north of 95th Avenue of 3700 gallons per minute with a residual of 20 PSI. To provide a strong looped system to ensure adequate domestic and fire flows for the prison, an 18" water main will be constructed to loop from along Ridder Road and Clutter Road from Garden Acres Road to Grahams Ferry, and then up Grahams Ferry to Day Road, east on Day Road to Boones Ferry Road and then back to the southeast on Boones Ferry Road to tie to the existing water main at Pioneer Court. This line will provide excellent domestic water and fire flows for the prison, and also has adequate capacity to provide the overall "backbone system" for the industrial sanctuary. As the sanctuary develops, the developments will be able to obtain service from the 18" transmission main without having to extend service back to the existing areas of the City.

Sewer

The Department of Corrections will extend/replace a sewer line that crosses the Burlington Northern Railroad just northwest of Hillman Court and from there along the north side of the railroad tracks to the vicinity of the Cahalin Road extension. This line will be oversized with sufficient capacity to serve the industrial sanctuary. Although there are two separate sections of the trunk sewer from this area to the treatment plant that will be potentially undersized at full build-out of the area, the line has sufficient capacity to provide for several years of additional growth. It is anticipated that the developments within the industrial sanctuary and other areas served by this line will contribute a proportional share of the costs towards replacing or paralleling the line where additional capacity is required.



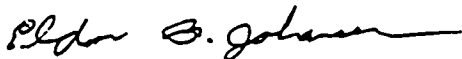
Storm Sewer

The industrial sanctuary is subject to significant localized flooding with the water entering the north from two separate locations. First, there is a substantial amount of water that crosses into the area at Clay Road and flows to the southeast across Grahams Ferry and Day Road causing substantial flooding. The construction of the proposed Women's Prison/Intake Center will include the rerouting of this storm water flows to a large detention facility. The water is then metered out to the south side of the Burlington Northern Railroad. There is a potential for additional significant storm water flows from the north across Day Road, and the design to route this storm water through the system will be included in the overall plans for the development of the industrial sanctuary as outlined in the City's Storm Water Management System.

Roads

There is a present significant problem with traffic at the intersection of Day Road and Boones Ferry Road, and also at Day Road and Grahams Ferry Road. The Department of Corrections will substantially improve the capacity at these intersections to correct the present traffic problem and to provide additional capacity for substantial growth. In addition, the Department of Corrections will construct a half street along Grahams Ferry Road adjacent to the proposed Women's Prison/Intake Center to urban standards. The improvement of the intersection and the construction of the road adjacent to the prison to urban standards will provide substantial capacity for future development of the industrial sanctuary.

Sincerely,



Eldon R. Johansen
Community Development Director

ERJ:bgs

somerville prison
052698



(503) 682-1011
(503) 682-1015 Fax
(503) 682-0843 TDD

December 18, 1997

TO: Honorable Mayor and City Council
FROM: Stephan Lashbrook, Planning Director
SUBJECT: STAFF REPORT for public hearing on January 5, 1998
(97 PC 03 - Ordinance No. 493)

SUMMARY

The City Of Wilsonville does not have an adequate long-term supply of water to allow for the continued approval of development applications. After conducting a public hearing on December 10, 1997, the City Planning Commission voted unanimously to recommend approval of the proposed moratorium on development approvals.

RECOMMENDATION

Both the City staff and the Planning Commission recommend that the City Council adopt Ordinance No. 493, enacting a moratorium on land development approvals that would otherwise increase the demand for water.

BACKGROUND

City staff, the Development Review Board (DRB), and City Council are no longer able, when reviewing development proposals, to make findings that adequate public facilities and services are available to accommodate proposed developments. Such development approvals must, therefore, be curtailed until an additional source of water is available to serve community growth.

This subject is covered in more detail in the Planning Commission packet, now made part of the record of the City Council. After reviewing the information and testimony presented to it, the Planning Commission concluded that

- A. A moratorium is justified and needed at this time. Any delay will simply increase the hardship on developers and property owners who have already received development approvals.
- B. The required procedures have been followed to declare the moratorium. The record for this action shows that all legal requirements have been met.



- C. The moratorium should be enacted at the planning approval stage, rather than at the point of building permit approval. This approach, curtailing further planning approvals, is more appropriate than denying building permits because it allows those projects that have already received planning approvals to go forward and consume the remaining water system capacity. If the moratorium is placed on building permits, rather than planning approvals, the result will be a "feeding frenzy" for those building permits until the remaining water capacity is used up. That will create a chaotic development environment in the City.

As is now well-documented in the attached exhibits, Wilsonville faces a serious lack of water. This can be summarized in the following:

1. The City's only source of water is a series of wells. Those wells are not able to produce the volume of water that was originally anticipated.
2. The water level in the wells is dropping, as is the overall water quality.
3. The State of Oregon will not allow the City to drill additional wells and even if the State would allow additional wells, the result would be an even more rapid depletion of the limited groundwater resource.
4. Even with an aggressive conservation program beyond what the City has been able to achieve thus far, land development applications that have already been approved are expected to consume all of the remaining capacity from the City's existing wells.
5. There are no additional, readily available, sources of water to meet community needs. The solution will be expensive and will take considerable time and effort to put into place.
6. The City's acknowledged Comprehensive Plan and implementing ordinances require City decision-makers to assure that all necessary public facilities will be available before approving a land development application. Under the current circumstances, the City's decision-makers are not able to make such a finding concerning the adequacy of the water system. Hence, proposed development applications must be denied or receive conditional approval - subject to the condition that they cannot proceed with construction until a new water source has been identified and funded.
7. By statute (ORS 197.505, -et seq), a pattern of denying applications creates a de facto moratorium. In order to legally declare a moratorium, a detailed process must be followed and appropriate findings made. All of the requirements of the statute and local ordinances have been followed in the preparation and consideration of the proposed ordinance (No. 493).

The Planning Commission's recommendation included some relatively minor changes to the proposed moratorium ordinance. These changes, shown in bold in the copy of Ordinance No. 493 that is in the City Council packet, can be summarized as follows:

1. WEST LINN - WILSONVILLE SCHOOL DISTRICT

#31
The Commission supported the District's request to reserve water for a new school. This was based on the District's stated intention to enter a development agreement with the City that would specify that there would be:

- * No summer school or other use of the facilities creating a need for water in the summer, beyond minimum maintenance; and
- * Interruptible water service during the summer.

Findings in support of this decision included:

- * A new school is already needed in the community;
- * Local schools have a history of minimal summer water usage. This means that the existing schools do not contribute to the peak water usage during the summer and, in effect, the schools are not using the water that is allocated to them. It should present no special problems to have a new school that is not guaranteed water availability through the summer months. The School District is willing to curtail irrigation of athletic fields to help the City deal with water shortages.

2. TEUFEL DEVELOPMENT (VILLAGE AT MAIN STREET)

The Commission supported treating this development as "vested" to receive the allocation of water shown on Exhibit "C." This was based on the fact that the developer has entered a development agreement and a settlement agreement with the City concerning improvements for the entire site, and the fact that this project has experienced numerous delays that prevented the developer from beginning construction on the third phase of the project. Also, the City reasonably believed at the time of the development approval that water would be available for the entire project and this belief was conveyed to the Planning Commission during its deliberations on that development application.

3. "TOLLING" OF DEVELOPMENT APPROVALS DURING MORATORIUM

The Commission noted that several developments have received Stage II planning approvals but will not be able to go forward unless an increased allocation of water becomes available. These developments are labeled "Projects with planning approval subject to availability of water" on Exhibit "C." The Planning Commission recommended that the usual two-year expiration of Stage II approvals be extended for these developments, tolling the days that the moratorium is in effect. This would effect an amendment to current Code language.

ORDINANCE NO. 493

AN ORDINANCE ADOPTING A MORATORIUM ON PLANNING APPROVALS FOR LAND DEVELOPMENTS THROUGHOUT THE CITY OF WILSONVILLE DUE TO A LACK OF WATER SYSTEM CAPACITY; AND DECLARING AN EMERGENCY.

WHEREAS, the City of Wilsonville is a home rule city under the laws of the State of Oregon and has a duly acknowledged Comprehensive Land Use Plan; and

WHEREAS, the City's acknowledged Comprehensive Land Use Plan is intended to ensure that the rate of community growth and development does not exceed the community's ability to provide essential public services and facilities, including adequate water for domestic, irrigation, and fire-fighting purposes. The City's acknowledged Comprehensive Land Use Plan further provides that a continued source of water will be available to meet the City's growing needs into the future, but the City's acknowledged Comprehensive Land Use Plan is silent as to how the City is to provide water service without an adequate source of water, as is illustrated by its text:

(a) City Comprehensive Plan Objectives include:

- 3.1 Urban development should be allowed only in areas where necessary services can be provided.
- 3.4 Require that primary facilities be available or under construction prior to issuance of a building permit

(b) The City's acknowledged Comprehensive Plan policies also commit the City to provide water service that keeps pace with development:

3.2.1 The City shall review and, where necessary, update the Water System Master Plan to conform to the densities shown on the Comprehensive Plan and any subsequent amendments to the Plan.

a. All major water lines shall be extended in conformance to the line sizes indicated on the Master Plan and, at a minimum, provisions for system looping shall be made. If the type, scale, and/or location of a proposed development warrants maximum fire flows, the Planning Commission may require completion of a loop in conjunction with the development.

b. All line extensions shall be made at the cost of the developer or landowner of the property being served. When a major line is extended that is sized to provide service to lands other than those requiring the initial extension, the City may:

1. Authorize and administer formation of a Local Improvement District to allocate the cost of the line improvements to all properties benefiting from the extension; or

2. Authorize and administer a payback system whereby the initial developer may recover an equitable share of the cost of the

extension from benefiting property owners/developers as the properties are developed.

c. All line extension shall be extended the full frontage width of the property being served, so as to provide for further connection of adjoining properties.

d. All water lines shall be installed in accordance with the City's urbanization policies and Public Works Standards.

3.2.2 The City shall continue to develop, operate, and maintain a water system, including wells, pumps, and reservoirs, capable of serving all urban development within the incorporated City limits. The City shall also maintain the lines of the distribution system once they have been installed and accepted by the City (see Policy 3.2.1.b).

3.2.3 The City shall, through a Capital Improvements Program, plan and schedule major water system improvements needed to serve continued development, e.g., additional wells, pumps, and reservoirs.

WHEREAS, the City finds there is a demonstrated need to prevent a shortage of water for domestic and fire flow usage which would occur during the period of the proposed moratorium

commencing January 5, 1998, through the following six months and which justifies a moratorium pursuant to ORS 197.520(2) for new land development approvals; and

WHEREAS, based upon reasonably available information, the City makes the following findings in support of the above finding of demonstrated need:

(a) The extent of need beyond the estimated capacity of existing public water facilities expected to result from new land development, including identification of the current operating capacity, together with the portion of such capacity already committed to development, are as follows:

1. The development approvals as of November 26, 1997, together with present water users, are projected to use 7.41 million gallons per day (MGD) of water capacity on a maximum day as set forth in Exhibit A, attached hereto and incorporated herein; and
2. The City's source of water for City water uses is from eight wells which will produce 5.49 MGD on a maximum day after the new Boeckman well is equipped and connected to the system; and
3. The Boeckman well is the last well which the City is allowed by the State's Water Resources Department. However, the City has ground water rights of 13 cubic feet per second (cfs) and the current eight wells produce up to 9 cfs. This then appears to provide a paper option of drilling either deeper or more wells to provide additional capacity. But even if deeper or additional well(s) were allowed under the aforementioned rights and the doctrine of secondary appropriation, the aquifer level is declining at such a rate that any further ground water usage would threaten existing capacity both in the near term and the long term; and

4. The City experience with water conservation provides a reasonable expectation that a diligent effort at water conservation will reduce maximum day water demand by 1.19 MGD; and

5. A review of well production data indicates one well has been attributed with providing an additional 0.13 MGD which it has not produced, thereby reducing the calculation of overall water capacity demand by a like amount; and

6. The present reservoirs have a capacity of 5.9 MGD and the City has planned and funded an additional reservoir of 2.0 MGD to come on line in 1998, and it is projected that 0.6 MGD of maximum day water capacity can be satisfied by use of reservoir capacity while maintaining a safe fireflow reserve; and

7. The above combination of existing capacity, water conservation, well production calculations, and new reservoir capacity, provides a projected capacity of 7.41 MGD for maximum day usage; and

8. While market forces have caused development to occur at a faster rate than could be reasonably anticipated, there are still 715 acres of residential land, 399 acres of industrial land, and 82 acres of commercial land which are undeveloped and will need to be served by a projected 7.0 MGD of additional capacity, exclusive of the need to serve urban reserve areas or any prison complex in the future; and

9. The City has employed the consulting firm of Montgomery Watson to analyze viable alternatives for the City to provide the needed water capacity. A copy of Montgomery Watson's report, dated March, 1997, is made part of the public record, marked Exhibit B and incorporated by reference herein. In addition to the recitals above

and the aforementioned Montgomery Watson report, the City has taken the actions set forth in the Director of Public Works report, dated November 7, 1997, marked Exhibit C-1, made part of the public record. The City has been working towards a plan of correction and must do so pursuant to ORS 197.530. Any plan of correction must weigh and balance the different alternatives, the probable cost of each, what the best result for such expenditure will be given scarce dollars and the projected build-out capacity and water needs of such development, and the reasonable ability of the City to ultimately finance any such costs. But until a reasonable plan of correction can be developed, including adequate funding, the need for establishing a moratorium on new development based on lack of water capacity is clearly and convincingly demonstrated.

(b) The shortage of water affects the whole city. Wilsonville is not a large city, geographically including a total of approximately six square miles. Thus, the City finds that the moratorium is reasonably limited to the whole geographical area of the city;

(c) While there is some elasticity in the projected water demand within the developments approved, in that should a development not go forward within two years of its development approval it could, therefore, forfeit its development permit and free-up its demand on water capacity. The City cannot reasonably make projections based upon a developer not exercising an approved right. Nor can the City commit its reserves for fire safety to domestic use. In the past three years the City has experienced one fatal fire and at least one other fire that could have spread to other dwelling units if not for an adequate supply of water held in reserves.

Currently, the City has previously-approved projects for development which have not yet been built, totaling 230 single family dwelling units, 742 multi-family dwelling units, 350,000 square feet of commercial floor space, and 674,000 square feet of industrial floor space. This is sufficient to accommodate additional growth for approximately two years before significantly impacting other nearby communities. Nor is the moratorium intended to stop development approvals wherein there is no increased demand upon water capacity. Therefore, the housing and development needs of the City have been accommodated as much as possible by (1) having allowed development approvals to progress to the point that, if built, all capacity will be used, and (2) allowing development which will not increase demand upon water capacity. Moreover, in the event that any such development rights are forfeited which would otherwise use water capacity, it appears that the development of properties along the recently established local improvement district (LID) No. 12 should be given first priority in order to accommodate as much as possible the geographical area which most likely can provide the greatest additional housing and meet economic development needs, given the recent investment in major public improvements to serve this area by the property owners within LID No. 12; and

WHEREAS, pursuant to ORS 197.520(1)(a), the City has provided written notice to the Department of Land Conservation and Development on November 13, 1997, which is more than 45 days prior to the final public hearing for January 5, 1998, on this ordinance; and

WHEREAS, pursuant to ORS 197.520(1)(b), the City has made written findings justifying the need for the moratorium in accordance with ORS 197.520(2); and

WHEREAS, a duly noticed public hearing was conducted before the City's Planning Commission on December 10, 1997, after which the Planning Commission adopted Resolution

97PC03, recommending that the City Council enact a moratorium as provided in this ordinance;
and

WHEREAS, pursuant to ORS 197.520(1)(c), on January 5, 1998, the City Council has held a duly noticed public hearing on declaring a moratorium based on the lack of water capacity to serve new development and the findings which support the moratorium.

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

Section I: FINDINGS AND DETERMINATIONS

- A. The City Council adopts the above recitals as findings and incorporates them by reference in support of this ordinance.
- B. The Wilsonville City Council hereby determines that:
1. A moratorium based upon lack of water capacity for new development is declared. This moratorium shall not apply to a development which has a Stage II development approval set forth in Exhibit C-2 and otherwise complies with the City's laws, ordinances, rules and regulations. Unless otherwise set forth in this ordinance, no applications for land use approvals, shall be accepted or granted which will create an increased demand for water service during the moratorium period set forth below. Except, however, that those applications which have received Development Review Board approval subject to City Council review, or DRB recommendation for City Council approval, as of the effective date of this ordinance shall be reviewed by the City Council. New development shall include, but is not necessarily limited to, land partitions or

subdivisions, conditional use permits, variances, zone changes, phase II planned development approvals.

2. Applications for land use approvals may be allowed to go forward to development only where it is found by the City decision-makers, who are empowered by local ordinance to take action on development applications, that the development will not cause an increased demand for water service. Allowing developments which will not cause an increased demand for water to proceed is an additional accommodation to housing and economic needs. Also, the development of a public school that has no summer-school program and no summer irrigation of landscaping can be deemed to be a development that will not cause an increased demand for water service during that portion of the year when water shortages are critical. To the extent that Phase 3 of the Teufel Village (Village at Main Street) development was included as having Stage II approval in the City's water calculations shown in Exhibit C-2, it shall continue to be so accounted as it is inextricably woven into a settlement agreement and development agreement with the City and this area will accommodate additional housing and economic development needs. The development agreement with Capital Realty also affords Capital's Wilsonville Town Center project to receive similar treatment as Teufel Village and the Wilsonville Town Center project shall be included in Exhibit C-2 under Stage II approvals similar to Teufel Village, with 93,000 gallons per day Capital Realty indicated as the amount of water necessary for their buildout. The

expiration for a time equal to the duration of this moratorium, including any extension that may legally be granted.

10. In the event that the State of Oregon formally demands that the City provide water to a correctional facility, the City Attorney is authorized to file an action in Circuit Court, naming the State's Department of Corrections, and any parties whose property development rights to connect to City water would be jeopardized by the State's actions. Such action shall seek to have the Court determine who shall receive City water pending a resolution to the lack of capacity.

11. This moratorium shall expire six months from the date of its enactment unless otherwise extended in accordance with state law.

Section II. VALIDITY and SEVERABILITY

The validity of any section, clause, sentence or provision of this ordinance shall not affect the validity of any other provision of this ordinance which can be given effect without reference to the invalid part or parts.

Section III. EMERGENCY DECLARED

The matters contained herein concern the public health, welfare and safety. An emergency is hereby declared to exist, and this ordinance shall become immediately effective upon its passage by the City Council.

SUBMITTED to the Wilsonville City Council and read for the first and second time at a regular meeting thereof on the 5th day of January, 1998, commencing at the hour of 7 p.m. at the Wilsonville Community Center.

Sandra C. King
SANDRA C. KING, CMC, City Recorder

ENACTED by the Wilsonville City Council at a regular meeting thereof this 5th day of January, 1998, by the following votes:

YEAS: 5 NAYS: -0-

Sandra C. King
SANDRA C. KING, CMC, City Recorder

DATED and signed by the Mayor this 7th day of January, 1998.

Charlotte Lehan
CHARLOTTE LEHAN, Mayor

SUMMARY OF VOTES:

Mayor Lehan	<u>Yes</u>
Councilor Kirk	<u>Yes</u>
Councilor Luper	<u>Yes</u>
Councilor Helser	<u>Yes</u>
Councilor Barton	<u>Yes</u>

n:\cityre\ordinances\ord493

05/28/98 THU 12:11 FAX

WATER ASSURANCE CHECK				
	Supply			
	1/7/98	January 1997 Report	October 1997 Status	Jan 1998 Status
Production with new well	5.55 MGD	5.55 MGD	5.38 MGD	5.49 MGD
Use of reservoir to meet maximum day requirement	0.20 MGD	0.20 MGD	0.20 MGD	0.20 MGD
Continued voluntary reduction of max day demand by the top 10 irrigation users	0.41 MGD	0.41 MGD	0.41 MGD	0.41 MGD
Mandatory curtailment of irrigation to 2/3 of normal use	0.78 MGD	0.78 MGD	0.78 MGD	0.78 MGD
Reduction in "unaccounted for" water that has previously been identified	0.13 MGD	0.13 MGD	0.13 MGD	0.13 MGD
20% of new reservoir capacity	0 MGD	0 MGD	0.40 MGD	0.40 MGD
Source to be identified				0.09 MGD
Total	7.07 MGD	7.07 MGD	7.30 MGD	7.50 MGD
	Demand			
	January 1997 Report	October 1997 Status	Jan 1998 Status	
Unconstrained maximum day consumption - Summer 1996	5.66 MGD	5.66 MGD	5.66 MGD	5.66 MGD
Approvals not included in summer 1996 consumption	1.36 MGD	1.61 MGD	1.61 MGD	1.84 MGD
Total	6.99 MGD	7.27 MGD	7.27 MGD	7.50 MGD
Available for future projects	0.08 MGD	0.03 MGD	0.03 MGD	0.0 MGD

City of

WILSONVILLE
in OREGON3000 SW Town Center Loop E
Wilsonville, Oregon 97070
(503) 682-1011
(503) 682-1015 Fax
(503) 682-0843 TDD**MEMORANDUM**

EXHIBIT C-1

DATE: NOVEMBER 7, 1997
TO: MIKE KOHLHOFF
FROM: JEFF BAUMAN *JB*
RE: WATER SUPPLY PLANNING

Over the past years, the city of Wilsonville has undertaken numerous steps to address future water supply needs. The following list identifies key activities that have occurred, with emphasis on planning and engineering studies that have occurred.

- 1989: Regional Providers Advisory Group
 Technical staff representing 35 agencies (including Wilsonville) convened monthly to discuss/coordinate water supply issues of regional interest.
- 1991-92: "Water Source Options Study"
 This engineering study represented Phase I of a regional planning effort. It evaluated 29 potential sources of water for the Portland/Vancouver metropolitan area. It concluded that 6 of these options merited further analysis. The study was conducted for the 35 agencies of the Regional Providers Advisory Group, which included the city of Wilsonville. The study was conducted by an engineering consulting team headed by CH2MHill.
- 1992 to present: Water conservation efforts and/or curtailment programs have been implemented every summer in Wilsonville (ranging from public education and requests for voluntary reduction in water usage, to mandatory restrictions during peak demand periods).
- 1992-94: Willamette River pilot plant
 A pilot-scale water treatment facility was set up in Wilsonville to demonstrate how "raw water" from the Willamette River could be treated with readily available technologies to provide water which meets all federal and state drinking water standards. The project was conducted by the Tualatin Valley Water District, with support from the city of Wilsonville.
- 1993: Second Elligsen reservoir placed in service.
- 1993: Canyon Creek well placed in service.
- 1993-96: "Regional Water Supply Plan"
 This engineering study represented Phase II of the regional planning effort. It evaluated the 6 most promising supply options in greater detail and concluded that a combination of sources (including the Willamette River) should be protected



November 7, 1997
Page 3

of the participating agencies. The lead agency for this study was the city of Tigard. Other participating agencies included: Wilsonville, Tualatin, Sherwood, Portland, Tualatin Valley Water District, and Clackamas River Water District. The consulting engineer was Murray, Smith & Associates.

1997 (ongoing): Regional Water Providers Consortium
This group of 28 agencies is an outgrowth of the Regional Providers Advisory Group. All 28 agencies have endorsed the Regional Water Supply Plan, and have designated elected officials from their respective governing bodies to serve on the Regional Water Providers Consortium Board. Wilsonville Mayor Charlotte Lehan was elected Vice-Chair of this Board.

1997 (ongoing): Columbia-Willamette Water Conservation Coalition
Wilsonville has joined this group of 18 agencies which work cooperatively to establish conservation goals, provide public information/technical assistance, and evaluate the effectiveness of conservation efforts. Wilsonville Public Works Director Jeff Bauman serves on the "core team" (i.e., steering committee) of the Coalition.

in process: "Willamette River Water Treatment Plant Project Concept Design"
This engineering study is a detailed site analysis as well as technical/financial feasibility analysis of a Willamette water treatment plant designed to meet Wilsonville's long-term water supply needs. The study is scheduled to be completed in 1998. The consulting engineer is Montgomery Watson.

in process: Construction has begun on the Boeckman well, which should be in service by the summer of 1998.

in process: Bids are being solicited for construction of an additional reservoir (2 million gallon capacity) to be in service by the summer of 1998.

Water Requirements for Projects with Approval for Water		
	Update 1/7/98 PIng Ref	Maximum daily production in GPD
Commercial		
ACT III - built	95PC26	9,000
Canyon Creek Business Park (2 buildings)	97DB06	78,000
Chevron - built	96DR03	15,000
Fox Center-renewed	96DB23	22,000
Garden Center - built	96DR17/95PC29	1,000
WBC project-office	97DB19	89,000
Living Enrichment Center		61,000
Oriental Rug Store at TC - built	96DR05	4,000
Tarr Card Lock	97DB05	
Teufel	95PC27	172,000
Town Center, 3d Anchor		14,000
Unocal	96DB29	4,000
Willamette Inn Motel - Indoor Swimming Poo	97DB21	
WV Rental	96DB16/97DB29	1,000
Town Center-Phase III		93,000
Total Commercial		563,000
Industrial		
Artistic Auto body	96DB36	
CISCO-small whse exp- built	96DB01	3,000
Comm & Ind Park (Tim Knapp)	96DB34/97DB04	6,000
Deerfield Partn (Conway)Tk Term on Comm C	96DB15	10,000
Don Rasmussen Mercedes-Benz (update 7/3	97DB23/97DB01	6,000
Fullman Company	97DB20	9,000
GMC/Wentworth	97DB02	6,000
Jack Martin, Bldg B	94PC41	17,000
LeadTec	96DB30	8,000
Master Craft aka Cranston Machinery	96DR02	31,000
Nike Parking Expansion	97DB17	
Oregon Pacific Investment	96PC03	12,000
PGE Crew Center	96DB04	3,000
ProGrass - built	96DB18	9,000
Rebco - Ron Tonkin (1 year extension appro	95PC17	20,000
Sysco Continental Inc, Phase I - built	96DB37	2,000
Tektronix	97DB18	1,000
US Crane-expired	95PC22	
Utility Vault #2 - built	96DB12	
Total Industrial		144,000
Multifamily		
Greenhouse Estates-46 lots	96DB35	24,000

* Added per Council action adopting Ordinance on 1/5/98
Annex, CD Public, Water Production, Water-Recent Approvals

Water Requirements for Projects with Approval for Water		
	Update 1/7/98: Ping Ref	Maximum daily production in GPD
Hathaway	95PC06	162,000
Phoenix Inn-Gathered under Oil Can Henry	96PC04	29,000
Randall 372 apts on Canyon Creek	96DB24/97DB07	200,000
Teufel	95PC27 &97DB12	236,000
Vlahos Firs aka Carmon Oaks	97DB10	45,000
Wiedeman Senior Apartments	96DB13	29,000
Willamette Woods Senior Community (approx 96 units)	96DB28	52,000
Total Multifamily		777,000
Office		
Chamber/Visitors Center orig approval on 8/13/96 & revised	96DB05	6,000
NW LL Partn- office, Kinsman-Gathered	96DB06	1,000
Total Office		6,000
Town Center Park	96DB05	24,000
Single Family		
Canyon Creek Meadows	95PC16	89,000
Hathaway	95PC06	21,000
Hummelt Phases I, II and III (total of all 3 pha	96DR13	124,000
Teufel (Stage II not approved, but PI Comm	95PC27	94,000
Total Single Family		328,000
Total		1,842,000
Projects with planning approval subject to availability of water		
LaPoint Center Chevron Station/Market	97DB28	4,000
Marcia's Vineyard - 126 Apartments (Needs Council approval)	97DB34	68,000
White Oak - 201 Apartments (Needs Council	97DB24	175,000
Willamette Valley Homes - being appealed	97DB30	4,000
Total with planning approval subject to availability of water		251,000

Artemis

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

October 27, 1993

Mr. Andy Cotugno
Planning Director
Metro
600 NE Grand Avenue
Portland OR 97232

Re: Possible Cuts from the ODOT Construction Schedule

Dear Mr. Cotugno:

The list of possible cuts from the ODOT construction schedule released by the Metro staff last week contains some serious errors relating to the I-5 Stafford Interchange that I would like to bring to your attention.

First, the interchange is given only 10 points for its 1990 vehicle to capacity ratio of 1.16. This clearly should be 15 points, as the V/C ratio is greater than one.

Second, the Metro chart shows a net gain of only 734 jobs in the area around the project between 1988 and 1995. I must call to your attention that Mentor Graphics Corporation alone added over 1,000 jobs in that area in 1991. I do not know what the correct figure is, but I do know that it is substantially higher than 734. As a point of reference, we have business licenses for 6,517 employees in the City of Wilsonville in October 1993 within one mile of the interchange, as compared to an estimate of 2,789 in 1995 as included on the Construction Cut List.

Third, the interchange receives no points for transit. However, not one, but two transit systems (Tri-Met and South Metro Area Rapid Transit) use that interchange and a park-and-ride is located immediately adjacent to the interchange in a parking lot between Burns Brothers truck stop and Parkway Cinema. I fail to see how this translates into zero points for transit.

Fourth, the interchange handles more than 5,000 cargo trucks daily, and is accessed by the distribution centers of Nike, Smith's Home Furnishings, G.I. Joes and Sysco Food Systems, among others. Again, I fail to see how this translates into zero points for intermodal use. We are performing classification counts at the interchange and will inform you of any substantial changes.

Mr. Andy Cotugno
Re: Possible Cuts from the ODOT Construction Schedule
October 27, 1993 - Page 2

Your attention to what appears to be some serious errors and a prompt response would be deeply appreciated.

Sincerely,


Eldon R. Johansen
Community Development Director

ej:dk:md

pc: Arlene Loble, City Manager
Dave Kanner, Public Affairs Director/Ombudsman
Mike Kohlhoff, City Attorney
Mike Stone, City Engineer
Wayne Sorensen, Planning Director



City of
WILSONVILLE
in OREGON

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

December 7, 1993

Mr. George Van Bergen, chair
Joint Policy Advisory Committee on Transportation
METRO
600 NE Grand Ave.
Portland, OR 97232

Dear Mr. Van Bergen:

On behalf of the City of Wilsonville and in particular on behalf of our business constituents, I would like to commend the Metro planning staff and the staff of the Oregon Department of Transportation for their hard work on the revisions to the ODOT construction schedule and for the hard work yet to come. I am also extremely pleased to see that the concerns and input of the city and its constituents were taken to heart in developing the preliminary recommendations for the construction schedule and that the I-5/Stafford Road Interchange project is recommended to be kept in that schedule. It is our fervent wish that this also be the final recommendation of JPACT and the Oregon Transportation Commission.

The reasons for retaining the Stafford Road Interchange project in the construction schedule are many and have been gone over in some detail in our prior testimony. However, I would like to reiterate some of those reasons for the record.

Safety

There is a serious safety issue at the Stafford Interchange which, according to traffic counts conducted by the City of Wilsonville in October 1993, is now used by an average of 7,715 cargo trucks daily. Grades, sharp turning radii and inadequate acceleration lanes result in trucks being unable to enter the freeway safely and accelerate to freeway speeds (65 mph in that section of I-5). This is reflected in the extremely high accident rate for that interchange. In addition, traffic routinely backs out onto the freeway from the southbound off-ramp during all day parts and especially during the a.m. peak hours.

Economic Development

Wilsonville is the site of the distribution centers of such major businesses as Nike, Avia, G.I. Joe's, Smith's Home Furnishings, PayLess Drug and Sysco Food Systems. Wilsonville is also the headquarters of Tektronix and Mentor Graphics. These and many other businesses in Wilsonville depend on the free and safe flow of cargo through the Stafford Interchange and in many cases have developed their business plans around the assumption that the interchange would be rebuilt. We cannot responsibly ignore the needs of these businesses.

Intermodal Transportation

While the goal of reducing single-passenger automobile trips is laudable and the City of Wilsonville has taken significant steps to reduce such trips, the issue at the Stafford Interchange is truck traffic, not passenger car traffic. As mentioned earlier,

December 7, 1993
Mr. George Van Bergen
Page 2

7,715 trucks per day are using the Stafford Interchange. No matter how many sidewalks and bike paths we build, there are certain freeway users who will not and cannot be served by them. These are, of course, the business interests such as those in Wilsonville, who move their goods and materials by truck and who will continue to depend on the highway system.

Wilsonville, which is not a part of the Tri-Met district, has also invested millions of dollars in developing and expanding a mass transit system -- South Metro Area Rapid Transit -- to connect the city with other parts of the region and to provide an alternative to the single-occupant passenger vehicle on our own streets. Our transit system, I might add is, unlike Tri-Met, free to the users.

In addition, we have recently completed a Bicycle/Pedestrian Master Plan and our city code requires bike paths and sidewalks as part of all new development in the city.

Again, however, no matter how much we do (and we believe we are doing our part) to get passenger vehicles off the roads, we have not lessened our obligation to ensure that truck traffic can move safely on our highways.

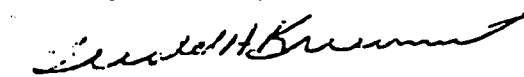
Local Investment

As long ago as 1978, ODOT had made it clear that the city needed to move its major north-south interchanges away from the freeway interchanges, and the city has done so at great expense. In addition, at ODOT's insistence, and as part of the Stafford Interchange project, a new north-south arterial was constructed using funds from a Local Improvement District that includes many of the businesses and industries most directly impacted by the Stafford Interchange. In total, the city has spent or committed more than \$14.4 million towards arterial improvements to support the interchange reconstruction project.

In addition, Wilsonville businesses pay nearly \$1 million per year in employer payroll taxes to support South Metro Area Rapid Transit.

All of this, I believe, lends ample weight to keeping the Stafford Interchange project on the construction schedule. I again commend the staffs of Metro and ODOT for their diligence and hard work and that JFACT and the OTC for their consideration of these issues.

Sincerely,



Gerald A. Krummel
Mayor

June 2, 1998

Wilsonville, Oregon 97070
(503) 682-1011
(503) 682-1015 Fax
(503) 682-0843 TDD

Mike Burton, Executive Officer
Metro
600 NE Grand Ave.
Portland, OR 97232-2736

Re: Expansion of Urban Reserve Area 42

Dear Mike:

This letter is a follow-up to our April 2, 1998, meeting with the Governor and the DOC staff concerning the expansion of Urban Reserve Area 42 to accommodate the siting of a women's prison and intake facility. The State Supreme Court has made it abundantly clear that under the Super Siting Statute the siting of a prison is not dependent on local land use decision making. Nonetheless, the City of Wilsonville supports the expansion of Urban Reserve Area 42 because it makes good land use sense to do so.

The City would like to annex all of the expanded Area 42 as a part of our commitment to provide urban services not only to the prison but to the adjacent property which would benefit from infrastructure improvements built to city standards at the DOC's expense. As you know, with or without annexation the City of Wilsonville will be compelled to provide infrastructure improvements to the prison. In this location the prison will serve as the anchor tenant to support the development of the proposed north Wilsonville industrial area. Without the prison, the provision of urban services to this area will not be financially feasible for many years into the future. For the past ten years industrial development has continued unabated in this unincorporated area of Washington County despite the lack of adequate storm drainage, street improvements, or a cohesive development plan. Even without a prison, city planning and engineering standards can help rectify this inconsistency. However, the prison can actually serve as a catalyst to help solve these problems.

The City recommends expanding Urban Reserve Area 42 to include the 72.5 additional acres required by the DOC for construction of the prison and to provide a buffer along Clay Street for the property to the north. With the exception of three home sites, all of the property is now used for commercial and industrial purposes. Approximately 19 acres are zoned MAE (land intensive industrial). This property is located south of Clay Street along the railroad tracks and includes the recently-closed hazardous waste transfer station. The balance of the property (approximately 53 acres) is zoned AF5 (Ag Forest 5). Most of the site was extensively logged in 1997 which apparently has exacerbated flooding problems in the area. The only forest remaining is a 4.8 acre stand of trees fronting on Clay Street. The balance of the property (approximately 18 acres) includes a construction equipment storage yard and pole barn, the relocated Tualatin dog food rendering plant (which is used for equipment repair and storage), and a nursery stock storage area which is located in part under the BPA easement.

All of the property is exception land. None of the property is EFU or otherwise



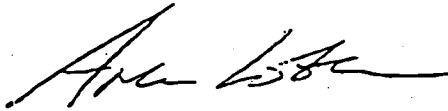
Mike Burton, Metro Executive Officer
June 2, 1998

Page 2 of 2

agriculturally productive except for a hay field on the nursery property. To my knowledge there are no wetlands and no environmentally sensitive species identified in the expanded Urban Reserve Area.

In order to provide for a logical extension of urban services that will benefit not only the Department of Corrections but also the adjacent property owners, on behalf of the City of Wilsonville, I respectfully request Metro's consideration of the expansion of Urban Reserve Area 42.

Sincerely,



Arlene Loble
City Manager

cc: Jon Kvistad, Metro Presiding Officer
Metro Council
Honorable Mayor and City Council

al:lb

May 29, 1998

City of
WILSONVILLE
in OREGON

(503) 682-1015 Fax
(503) 682-0843 TDD

Ms. Mary Weber, Senior Regional Planner
Metro Growth Management Services
600 NE Grand Ave.
Portland, OR 97232

RE: Proposed Concept Plan, North Wilsonville Industrial Area

Dear Ms. Weber:

This is a package submittal composed of three copies of the proposed Concept Plan for Urban Reserve Area #42. In addition, I am including some general comments (below), and responses to Metro Code Section 3.012 criteria (below). The attachments I am supplying include an evaluation of how the proposed Concept Plan for Area #42 meets RUGGO and Urban Growth Management Functional Plan criteria, and a Memorandum from Eldon Johansen, Wilsonville's Community Development Director, identifying public facility capacities and needs.

The City of Wilsonville and the Oregon Department of Corrections are in the final stages of preparing cost estimates for infrastructure to serve Urban Reserve Area #42 and the proposed prison. Cost information should be available by next week.

General Comments

In our extensive discussions and meetings with the public and other agencies, several points have emerged that I would like to emphasize. They are as follows:

A. Urban Reserve Area #39 is a school site south of Dammasch held in trust for the Common School Fund by the Division of State Lands. This site is available to the West Linn - Wilsonville School District without cost, provided that it is used for the construction of a public school. There are no other undeveloped potential school sites west of Interstate 5 and within the West Linn-Wilsonville School District, other than Area #39 and the school site proposed within the Dammasch area master plan. Metro included Area #39 within the Urban Reserves at the request of the City of Wilsonville and the School District, specifically to meet this need.

By developing Area #39 as a school, building out the Dammasch area master plan (Area #41) as a mixed-use urban village with housing and another school, and by



developing Area #42 with industrial uses and the Day Road prison facility, the City will be able to meet a number of goals for housing, jobs, schools and other public facilities. It should be noted that Area #42 is within the Sherwood School District and no school sites are proposed within Area #42.

B. How does a prison location meet "special need" criteria? There was no way for Wilsonville or Metro to predict that the state would site a prison in Wilsonville. Indeed, many people in the region are still having a great deal of difficulty believing that that decision has been made and supported on appeal through the Oregon Supreme Court. The state has never previously used super-siting to locate a prison within the tri-county area. While a prison has many characteristics similar to those of a heavy industrial use, prisons are inherently different from other land uses within Metro's 2040 design types. If the Day Road prison is to be constructed, it must be treated as a unique land use, worthy of "special need" status.

C. Prison inmates as residents for housing density allocation. Prison inmates are considered by the U.S. Census to be residents of "group quarters"--a type of housing. Once the prison is constructed and the site is annexed into the City, inmates will be counted by the Census as residents of Wilsonville. The 1990 Census indicated that Wilsonville households averaged slightly more than 2 people per dwelling unit. On that basis one could conclude that each prisoner can be considered to occupy the equivalent of approximately 0.5 dwelling unit. Please see the attachment.

D. Wilsonville's funding strategy to protect open spaces. Natural resources and potentially hazardous sites in Wilsonville are acknowledged and protected through Primary and Secondary Open Space designations. The Comprehensive Plan does not require compensation to landowners whose property is within a designated open space area but the Plan does allow for development to be concentrated in non-open space areas. This amounts to a density-transfer system to minimize development in designated open space areas.

Wilsonville currently collects a systems development charge (SDC) for parks and recreation development, equal to \$1,794 per single family dwelling. These funds can be used to acquire and protect open space areas. The City also collects an SDC for stormwater systems, a fee that can be used to acquire and improve wetlands, creeks and other drainageways that are also open spaces.

Most of the portions of Urban Reserve Area #42 that we expect to be designated as open space are forested. The City has a tree protection ordinance in place that includes a fund that is used to mitigate the loss of trees. The City has also used Local Improvement District (LID) money to create a fund to mitigate the loss of Oregon white oak trees. A similar approach could be used if an LID is formed to make improvements in an Urban Reserve.

Metro and The Wetlands Conservancy have recently acquired properties in the Coffee Lake area between Urban Reserve Areas #41 and #42.

E. North Industrial Concept Plan and its relationship to existing City plans. The West Side Master Plan and the Dammasch Area Transportation-Efficient Land Use Plan both emphasize the importance of completing the development of the Dammasch area as an urban village. It is not possible for that to happen with a prison in the middle of a 520-acre planning area. In contrast, the development of a prison in Area #42 will actually help to facilitate planned industrial development surrounding it. As Area #42 becomes increasingly industrial in character, properties surrounding the proposed Day Road prison site will benefit from industrial infrastructure improvements, and potentially, from a prison that could provide a market for local goods. The prison facility is expected to both consume the services of, and provide services to, surrounding industries.

Relationship of North Wilsonville Industrial Area Concept Plan to Urban Reserve Criteria

The criteria are addressed as follows:

Sections 3.01.012(c)(2) and (d).

Along with the nearly 250 acres that compose the current boundaries of Urban Reserve Area #42, the Concept Plan identifies approximately 73 additional acres of non-urban reserve property that is necessary to site the "special land need" described in subsection (d). In this case, the special need land area totals over 100 acres, part of which is already within the Urban Reserve and part of which is proposed to be added to it. A state correctional facility is proposed for that area. The 73 acre area that is proposed to be added to the Urban Reserve is composed of larger parcels with fewer residential impacts than would be found if a prison were located in the Dammasch area. (The average rural residential parcel size within Area #42 is 3.4 acres; the average parcel size of all uses within Area #42 is 3.83 acres.)

Section 3.01.012(e)(1).

The Concept Plan identifies the annexation of Area #42 to the City of Wilsonville as the desired course of action. As the Area urbanizes, the City plans to provide all needed urban services. We understand that it is not Washington County's intent to provide urban services to Area #42. Wetlands and quarry operations help to form a barrier between Area #42 and the remainder of Washington County to the north and west.

Urban Reserve Area #42 adjoins the Wilsonville City limits. It is not contiguous to any other city.

Section 3.01.012(e)(2)

This legislative amendment provides for the appropriate planning level scrutiny of a "special need" review by the Metro Council.

Section 3.01.012(e)(3)

Does not apply to Area #42.

Section 3.01.012(e)(4)

No residential uses are proposed for Area #42. However, residential densities of more than ten dwelling units per net developable residential acre are planned for the urban village to be built at Dammasch (Area #41). 2300 housing units are included within the City-adopted compact density plan for Area #41.

It should be noted that all of the land adjoining Area #42 within the City is planned for industrial use. Metro has designated the adjoining properties as industrial on the 2040 land use maps. This portion of the City is rapidly building out with industrial uses. There are no dwelling units within the northwest quadrant of the City.

Section 3.01.012(e)(5)

No residential uses are proposed for Area #42. However, a diversity of housing stock that will fulfill needed housing requirements can be met by the compact urban form planned for Area #41.

Section 3.012(e)(6)

The residential development element of the City's plan for Area #41 identifies the housing types where special attention will be necessary to assure affordable housing for households with incomes at or below area median incomes. The City coordinated those planning efforts with both the Clackamas County Housing Authority and State's housing agency.

Section 3.012(e)(7)

The Concept Plan establishes the compatibility between the needs of the Day Road prison site and adjacent proposed industrial development. This is balanced by the focus

of the Master Plan for Area #41, which provides for 2,300 dwelling units and necessary urban-village infrastructure, including a proposed school site and four public parks.

Section 3.012(e)(8)

Figure 6 of the Concept Plan identifies major natural resources; Figures 4 and 7 of the Concept Plan illustrate transportation improvements that are consistent with the Regional Transportation Plan.

Section 3.012(e)(9)

The Concept Plan identifies general areas of open space potential in an area where no Metro open space resources have been identified. The Master Plan will more fully explore how remnant natural resource areas can be combined with stormwater management facilities so as to preserve and protect opportunities for valuable natural habitat in the future.

Section 3.01.012(e)(10)

Conceptual costs for public facilities and services are discussed in the Concept Plan. More detail on the funding of these improvements will be discussed in the public facilities element of the Master Plan.

Section 3.01.012(f)(11)

No residential uses are proposed; thus no school sites have been identified in the Area #42 Concept Plan. However, the Master Plan for the Dammasch area (Area #41) adequately addresses future siting needs for this area of the West Linn-Wilsonville School District.

Section 3.01.012(12)


The Concept Plan contains a Conceptual Land Use Plan Map (Figure 3) and a Conceptual Transportation Plan Map (Figure 4) that meet the requirements of this subsection. The Urban Reserve Plan Map (Figure 7) complies with all applicable sections. Figures 8-10 identify transportation components in more detail.

Public Input and Review

The Wilsonville Planning Division held a series of open houses on the Conceptual Land Use and Transportation maps of this Concept Plan. The affected property owners who attended were able to provide input and discuss these concepts, and were informed of the possibility of changes to their neighborhood in the near future.

Please contact me at (503) 570-1581 if you have questions or need further information.

Sincerely,



Stephan A. Lashbrook, AICP
Planning Director

cc: Arlene Loble, City Manager
Richard Ross, DOC
Steve Marks, Governor's staff
Eldon Johansen, Community Development Director
Larry Shaw, Metro Legal staff
Glen Bolen, Metro Growth Management staff

**NORTH WILSONVILLE INDUSTRIAL AREA
WILSONVILLE, OREGON**

**PROPOSED
CONCEPT PLAN**

June 12, 1998

**Wilsonville Planning Division
(503) 682-4960**

OBJECTIVES OF CONCEPT PLAN

The North Wilsonville Industrial Area has the following objectives:

- Meet a critical regional need for a state-mandated correctional facility;
- Meet future regional needs for additional industrial-zoned and serviced land;
- Utilize Urban Reserve lands agreed upon by the region;
- Respect existing natural conditions; and
- Contribute to the continuing economic health of Wilsonville.

Upon approval by the Governor of the prison facility on the selected site, west of Day Road, immediate acquisition and construction by the Oregon Department of Corrections can begin. This will constitute the first phase of urban development of Area #42. The remainder of the Urban Reserve will require a more detailed master plan that includes additional phasing of development. The City of Wilsonville is committed to completing that master plan.

The remainder of this Concept Plan describes existing conditions, a conceptual land use scheme for the non-prison site land, conceptual transportation plan maps, a natural resources site map, infrastructure plans, and implementation steps. As a starting point this Concept Plan is intended to meet the requirements of Metro Code Chapter 3.01.005(c)(3), (4) and (5); and to comply with Chapter 3.01.012(e).

EXISTING SITE CONDITIONS

The North Wilsonville Industrial Area is currently a mix of rural residential, industrial, small rural land-extensive activities, and small woodlots (Figure 2). The Area is relatively flat, with a drainage locally known as Basalt Creek running north-south through its eastern half. A grouping of rural residential homesites on parcels averaging 5.47 acres per dwelling is situated on the east side of Garden Acres Road.

The largest parcel in the North Wilsonville Industrial Area, tax lot 3S103A001300, 32.25 acres, was logged in 1997 and not replanted. Stands of trees are found along the south side of Day Road before it opens into small pasturages and homesites prior to its intersection with Grahams Ferry Road. Industrial and commercial activities include a composting operation and small to mid-sized nurseries. Crops such as blueberries are grown on small lots. Soil classifications are Classes II and III.

There are 39 residences and nine industrial and commercial operations within Area #42. The Washington County Comprehensive Plan designates Area #42 as "Rural/Natural Resource." Implementation is by the County's Agriculture and Forest - 5 (AF-5) Land District regulations for approximately 80% of the property; and by the Land Extensive Industrial (MA-E) Land District for the remaining small lot industrial uses along a corridor that generally parallels the Burlington Northern rail line. It should be noted that a 20-acre minimum lot size for future land divisions was applied to Area #42 when these parcels were approved for Urban Reserve inclusion. The use status did not change with the adoption of the Urban Reserve designation; Urban Reserve lands are intended to be retained in rural, non-intensive land uses until they are annexed into Wilsonville and developed with urban uses.

The small southernmost triangle of the North Wilsonville Industrial Area is located in Clackamas County and zoned Rural Industrial.

In addition to being designated as exception lands by Washington County, Area #42 is isolated from other rural Washington County properties to the west by the Burlington Northern Railroad line, and immediately west of the railroad, by extensive quarry operations and the Coffee Lake wetlands. This effectively blocks connectivity through

the Area from the west to the east. To the east of Area #42 is Wilsonville's Commerce Center industrial development and Interstate 5.

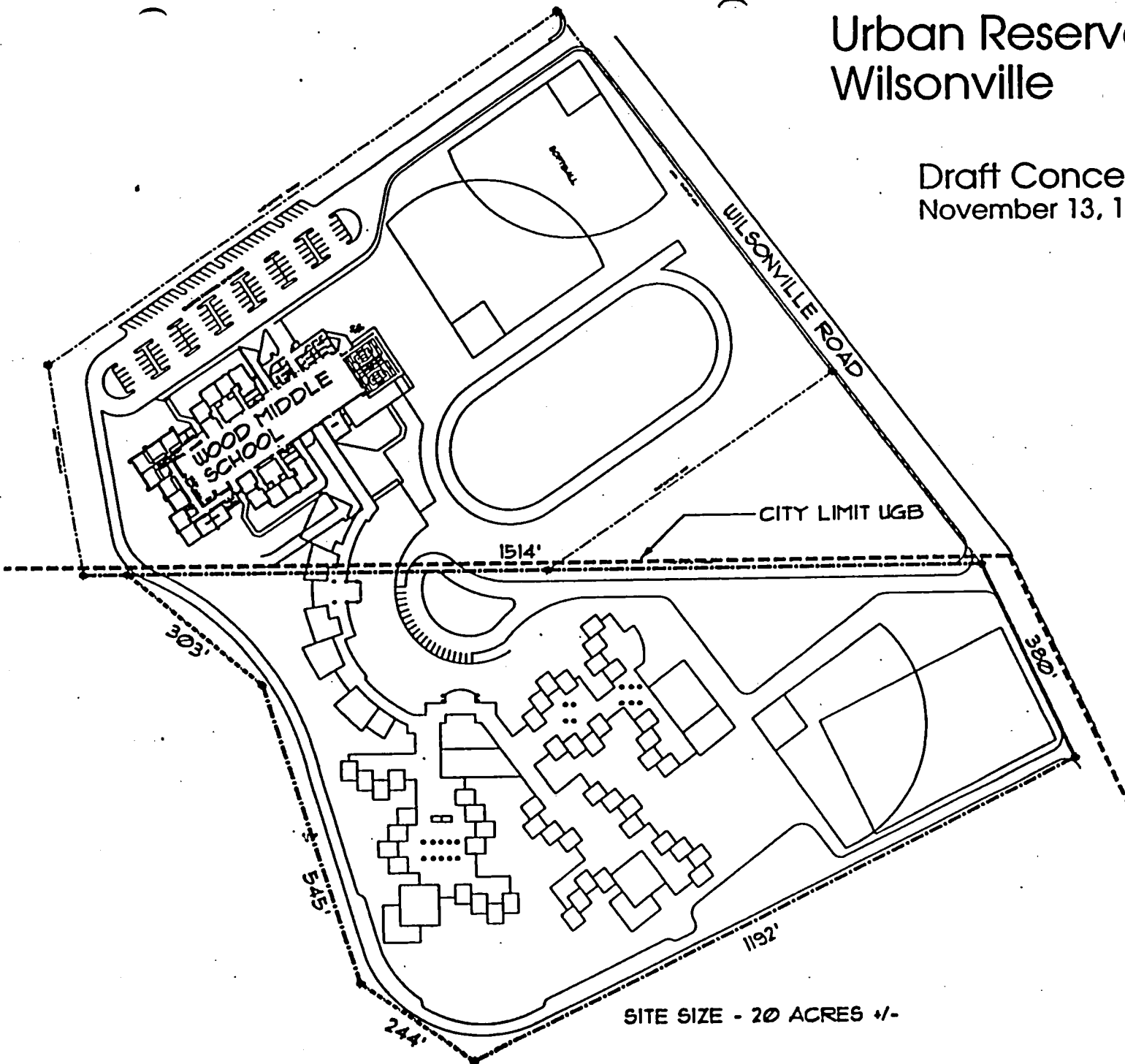
A BPA powerline traverses Area #42 in a southeast to northwest direction, barely clipping the extreme northeastern corner of the proposed Day Road prison site property.

The road system is adequate for rural uses. Upgrading will be required as future urban uses are developed. Heaviest truck traffic is found on Grahams Ferry, Day and Ridder Roads. Residential traffic is dominant on Garden Acres Road. The three-way intersection of Grahams Ferry, Day and Garden Acres Roads gets the heaviest use.

Due to Area #42's relatively flat terrain, there are no panoramic views within its boundaries. No cultural resources have been identified.

Urban Reserve Area #39 Wilsonville

Draft Concept Plan
November 13, 1998



SITE SIZE - 20 ACRES +/-

The Wilsonville Industrial Site

A viable alternative to the Dammasch State Hospital property for a medium security women's prison and co-gender inmate intake facility.

A briefing packet prepared by:



February 25, 1998

ATTACHMENT K
URAS 39, 41 & 42

City of

WILSONVILLE
In OREGON



On January 30, 1998, the City of Wilsonville presented to the Legislative Emergency Board an alternative site to the Dammasch State Hospital property for a women's prison and co-gender inmate intake facility.

We believe this site is superior to Dammasch in virtually all respects and that the late hour of its introduction is not a valid reason to dismiss it. If a better site has presented itself, even at the last moment, the late hour should not keep us from doing the right thing.

The site is located just outside of Wilsonville's northwest city limit, on land that is slated by Metro to become part of the region's urban reserve. If a prison is built there, we would anticipate bringing it into the city as soon as possible.

The city of Wilsonville has never objected to having a prison in our city; we have objected to having a prison on the Dammasch property. We have said all along that if we had an appropriate industrial site and if we had water to serve it, we would not object to hosting a prison.

The area around Dammasch is residential and has been slated for more residential development over the next 40 years. But while the job of a residential community is connection and interaction, the job of a prison is isolation. A prison at the Dammasch site will always be out of synch and in conflict with surrounding land uses. A prison at the alternative industrial site would be entirely compatible with surrounding land uses. It is in fact the kind of degraded industrial property on which a prison belongs. It is a site where surrounding industrial properties could benefit from and share in needed infrastructure improvements -- where the prison could be an asset rather than a liability.

The past 18 months have been frustrating for Wilsonville and for me personally. We have seen what we believe to be very valid objections to the Dammasch prison siting dismissed as NIMBY arguments rather than being granted the respect and serious examination they deserve. The city will not -- will never -- stop fighting against having a prison located at Dammasch.

However, I believe it is time for us all to come a resolution wherein the city can work with the state rather than doing constant battle. Surely the state, even if they will not say so publicly, can understand the benefit of locating on a site where the community will accept them, rather than forcing the prison onto a site where they will always be deeply resented by a community that does not want it there. What value can we as a society place on that benefit? How easily can we dismiss it?

This is a very, very long-term decision. The prison is expected to stand for 100 years or more. But 50 or 70 or 100 years from now, no one will remember, much less care, whether construction began in 1998 or 1999 or even 2000. But the impacts of this prison on its host community will literally be etched in stone. That's why it's so important that it be built on the proper site, which we believe, and as we will detail in the pages that follow, is the Wilsonville Industrial Site.

Sincerely,

A handwritten signature in cursive script that reads "Charlotte Lehan".

Charlotte Lehan
Mayor

ABOUT THE ALTERNATE SITE

Size: 130 acres

Location: Unincorporated Washington County, approximately .25 miles from Wilsonville's city limits.

Zoning: Predominantly rural industrial, some rural residential.

Owner: There are 13 different owners within the site boundary. The largest parcels are owned by the Grunbaum Family Trust of Sherwood, OR, and Western Compliance, Inc., of Fort Worth, TX. They, like almost all of the other property owners, are willing sellers.

Distance from I-5: The site is approximately .7 miles from the North Wilsonville/Stafford interchange with I-5.

Infrastructure: The city will commit to making the necessary adjustments so that the DOC's off-site infrastructure costs remain the same as those already agreed to for the Dammasch property.

Wetlands issues: No NWI wetlands on the site.

Flood Plain: Not located in a 100 year flood plain.

Nearest school: Tualatin High School (1.2 air miles, 1.8 miles by road).

Adjacent land uses: Gravel mining operations, peat moss processing plant, waste wood processing yard, wholesale nurseries. Approximately 60 residential properties within 1/4 mile of the site. (There are 237 dwelling units within 1/4 mile of the Dammasch site.)

Comparison of Off-Sites with Possible Adjustments

	2/24/98 Dammasch	Alternative Site
Streets	\$8,811,700	\$6,910,000
Construction credits balance Washington County TIF????		\$0
Net streets	\$8,811,700	\$6,910,000
Water	\$10,000,000	\$10,000,000
16 inch waterline to site		\$1,500,000
Reduction in city share of \$10,000,000		(\$1,500,000)
Net water	\$10,000,000	\$10,000,000
Sanitary Sewer	\$4,171,200	\$9,300,000
Use in-city SDC rate		(\$1,650,000)
Provide credits against sewer SDC for line oversizing		(\$670,000)
Refine right of way and easement requirements		(\$1,000,000)
Accept alternative of parallel sewer lines where feasible		(\$1,200,000)
Net sanitary sewer	\$4,171,200	\$4,780,000
Storm Sewer	\$521,400	\$1,800,000
Total	\$23,504,300	\$23,490,000



(503) 682-1015 Fax
(503) 682-0843 TDD

Elaine Wilkerson, Director
Growth Management Services
600 NE Grand Ave.
Portland, OR 97232

Dear Elaine:

You have asked for a letter of commitment from the City of Wilsonville, stating our intention to complete the Concept Planning process for Urban Reserve Area #39, as well as Areas #41 and #42. Please consider this letter as a statement of that commitment.

Urban Reserve Area #39 adjoins the City of Wilsonville, immediately west of Wood Middle School. The West Linn – Wilsonville School District is prepared to acquire this 20-acre site from the Division of State Lands (DSL) and begin construction of two new elementary schools. The City supports the efforts of the School District.

As indicated in the attached memo from Community Development Director Johansen to Planning Director Lashbrook, the City has already completed much of the infrastructure planning for Area #39. At the same time, the School District has prepared a basic design plan for the schools that will be built there.

Given that Area #39 will not be urbanized except for public school purposes, the planning process is greatly simplified. The costs of the necessary infrastructure will be borne by the West Linn – Wilsonville School District and the City. The School District has already received voter approval of a bond to pay for the construction of the first of the proposed schools in Area #39. The School District and the City share a commitment to complete all of Metro's Urban Reserve planning requirements that have not yet been met, and we need to complete those tasks in the next few months in order for the District to stay on schedule to begin construction in 1999.

The City of Wilsonville is prepared to support the annexation of Area #39 as soon as possible, in order to assist the School District. Clackamas County has deferred urban planning to the City for the Urban Reserves adjoining Wilsonville. We anticipate no governance issues involving Clackamas County.

Urban Reserve Areas #41 and #42 are obviously larger and more complicated than Area #39, but the City remains committed to complete the Urban Planning requirements for those areas as well. Please note that the Dammasch Area Transportation-Efficient Land Use Plan (the Dammasch Master Plan) was completed for the first-tier portion of Area #41 before Metro's Concept Plan requirements were



1/23/98 MON 16:31 FAX

SANITARY SEWER

We have just recently completed a major upgrade to the City wastewater treatment plant. We now have the treatment plant capacity to handle service to the proposed school site. Collection system improvements will be needed to carry the sewage from the site to the treatment plant. For the most part, those improvements will be the responsibility of the school district at the time of construction, just as with any other large development. An inter-basin transfer will have to be approved by the City Council, on recommendation from the Development Review Board, but that should be a fairly routine part of the development permit process for the schools. That sort of inter-basin transfer will be required for other developments in the vicinity, so I don't anticipate any special problems in having it approved.

WATER

In enacting the moratorium on development due to limitations of our water system, the City Council provided an exemption for the School District. This allows the School District to go forward with new school construction during the moratorium, based largely on commitments made by the District to limit water use City-wide, and the fact that schools do not tend to be large water users during the summer.

We have studied two different designs for distribution system expansion to serve the site. We hoped to know if, and where, a prison might be located before having to finalize that water system design. If a prison is eventually sited at Dammasch, several hundred feet north of Area #39, it will alter the water system design for the whole vicinity. It now seems possible that design decisions on the services to a new school will have to be made before we have any resolution of the prison-siting issue. Given that fact, we have gone ahead with designing a new 15-inch water line, to be extended on Wilsonville Road, from Kinsman Road to Willamette Way East, to provide adequate water service to the new school and adjacent properties. This project will be included within the City's Capital Improvement Program for fiscal year 1999/2000. We anticipate having that work completed before the school will be open for students the following year.

Given the fact that Area #39 is held in trust for the Common School Fund by the Division of State Lands (DSL), the only urban use that can be made of that area is the development of one or more public schools. That provides a level of certainty that we rarely have in dealing with lands that are proposed for annexation. It is much easier to design for infrastructure expansion when we know what sort of development will be served.

If you have any questions about this information, please let me know.



Eldon R. Johansen, P.E.
Community Development Director



Wilsonville, Oregon 97070
(503) 682-1011
(503) 682-1015 Fax
(503) 682-0843 TDD

COMMUNITY DEVELOPMENT DEPARTMENT

November 23, 1998

TO: Stephan Lashbrook, Planning Director
FROM: Eldon Johansen, Community Development Director
SUBJECT: Services to Urban Reserve Area #39

You have asked me to provide information on the City's plans to provide urban services to Urban Reserve Area #39, adjoining Wood Middle School on the west side of Wilsonville. As you know we have anticipated the acquisition of this site by the West Linn —Wilsonville School District for some time, and have planned to provide services accordingly.

We have stepped up those planning efforts in recent months in response to information from the School District indicating that they hope to begin construction of the first of two new schools on that site in 1999. Four types of infrastructure are considered in this memo: streets, storm drainage, sanitary sewer, and water.

STREETS

The site adjoins Wilsonville Road. The School District's design is expected to include shared access with Wood Middle School, thereby reducing traffic problems on the road. Congestion on Wilsonville Road east of this site remains a critical concern, but it is being addressed in the City's Transportation Systems Plan that is now at the draft stage. Completion of the Transportation Systems Plan will include policy direction, demand management, new system construction plans and priorities, and funding plans. Progress on the Transportation Systems Plan has been delayed while we have been waiting for a prison-siting decision from the state, but it is expected to be completed in 1999.

STORM DRAINAGE

Wood Middle School drains to adjoining wetlands and to Arrowhead Creek. The same will be true of the new schools that are proposed there. No particular storm drainage system improvements are anticipated to accommodate those schools, but on-site storm-water detention/retention will be required as part of the design for the new schools.



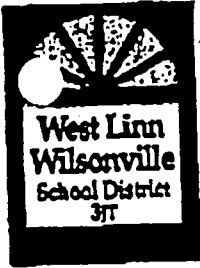
finalized. The Dammasch Master Plan may need to be modified, or re-adopted by the City, to address the Concept Plan requirements. The Preliminary Concept Plan prepared for Area #42 also needs to be finalized to assure that it meets Metro's requirements. The City of Wilsonville remains committed to complete those planning processes, provide the necessary infrastructure, annex the areas, and allow for the urbanization of Areas #39 and #42, as well as the first-tier portion of Area #41, as soon as possible.

Sincerely,



Charlotte Lehan
Mayor

CC: Roger Woehl, West Linn - Wilsonville School District
Judie Hammerstad, Clackamas County
Linda Peters, Washington County
Arlene Loble, City Manager
Eldon Johansen, Community Development Director
Stephan Lashbrook, Planning Director



West Linn-Wilsonville School District 3JT

ADMINISTRATION BUILDING

P.O. Box 35 · West Linn, Oregon 97068 · (503) 638-9869 or Fax (503) 638-9878

November 23, 1998

Jennifer Bradford
Metro Regional Staff
600 NE Grand Avenue
Portland, Oregon 97232-2736

Dear Ms. Bradford:

I am writing to you in response to your phone call last Friday regarding our interest in supporting Urban Reserve 39 being included inside the Urban Growth Boundary.

The West Linn - Wilsonville School District passed a bond in November, 1997, for \$51.25 million. The bond fund was planned with the public to include the construction of a double elementary school facility in Wilsonville. Our district has sufficient funds from the sale of bonds to construct this facility and provide for the necessary infrastructure on the land that constitutes Urban Reserve 39.

We are currently proceeding on a schedule with annexation and other land use issues that should complete these procedures by late spring, 1999. We plan to begin construction of the school during the summer of 1999 for an opening in September, 2000.

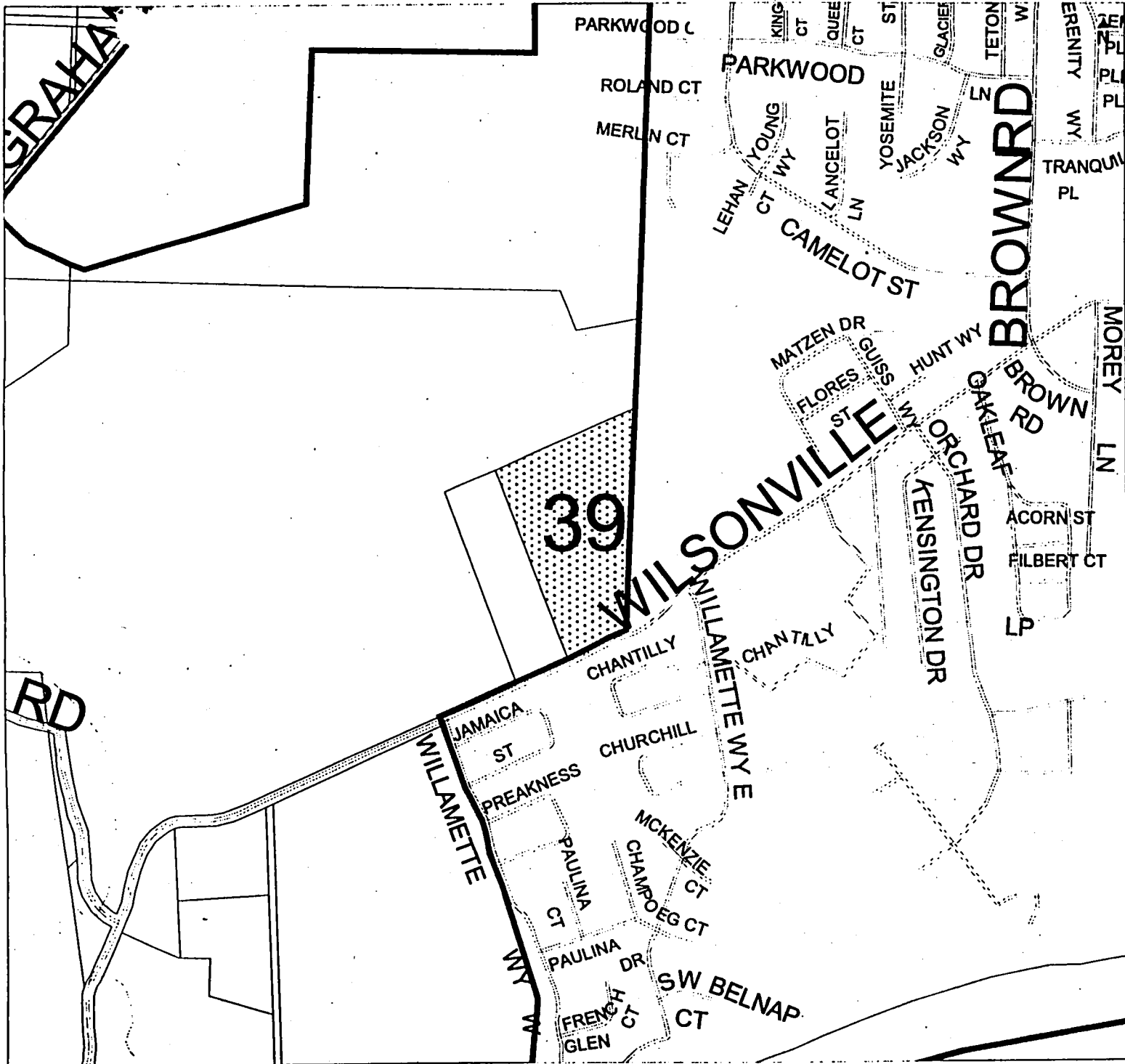
The City of Wilsonville is writing to you to confirm their willingness and ability to provide services to meet the infrastructure needs of our school on land currently identified as Urban Reserve 39.

Thank you for your help.

Sincerely,




A handwritten signature in cursive script that reads "Michael Tannenbaum".

Michael Tannenbaum, D.Ed.
Deputy Superintendent

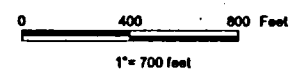


REGIONAL LAND INFORMATION SYSTEM
Resolution #98-2729A
Urban Reserve #39

First Tier
 Outside Metro Boundary

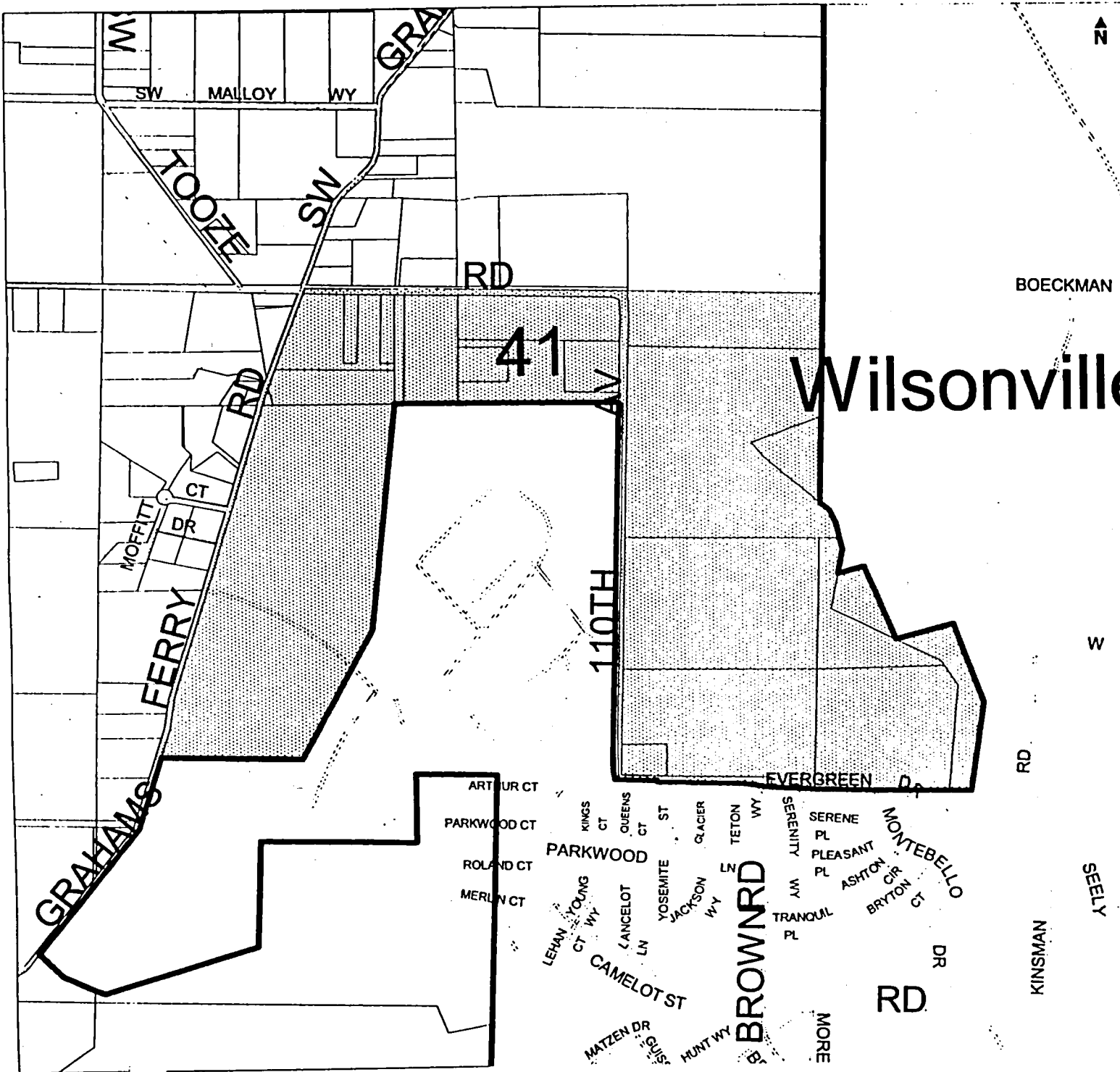
-  Area Considered in Resolution
-  First Tier Urban Reserve
-  Urban Growth Boundary

ATTACHMENT A
 URAS 39, 41 & 42



METRO

800 NE Grand Ave.
 Portland, OR 97232-2736
 503 797-1742 FAX 503 797-1909
 Email: drc@metro.dst.or.us



R
 REGIONAL LAND INFORMATION SYSTEM

Resolution #98-2729A
Urban Reserve #41
 (partial)

First Tier
 Outside Metro Boundary

Area Considered in Resolution
 First Tier Urban Reserve
 Urban Growth Boundary

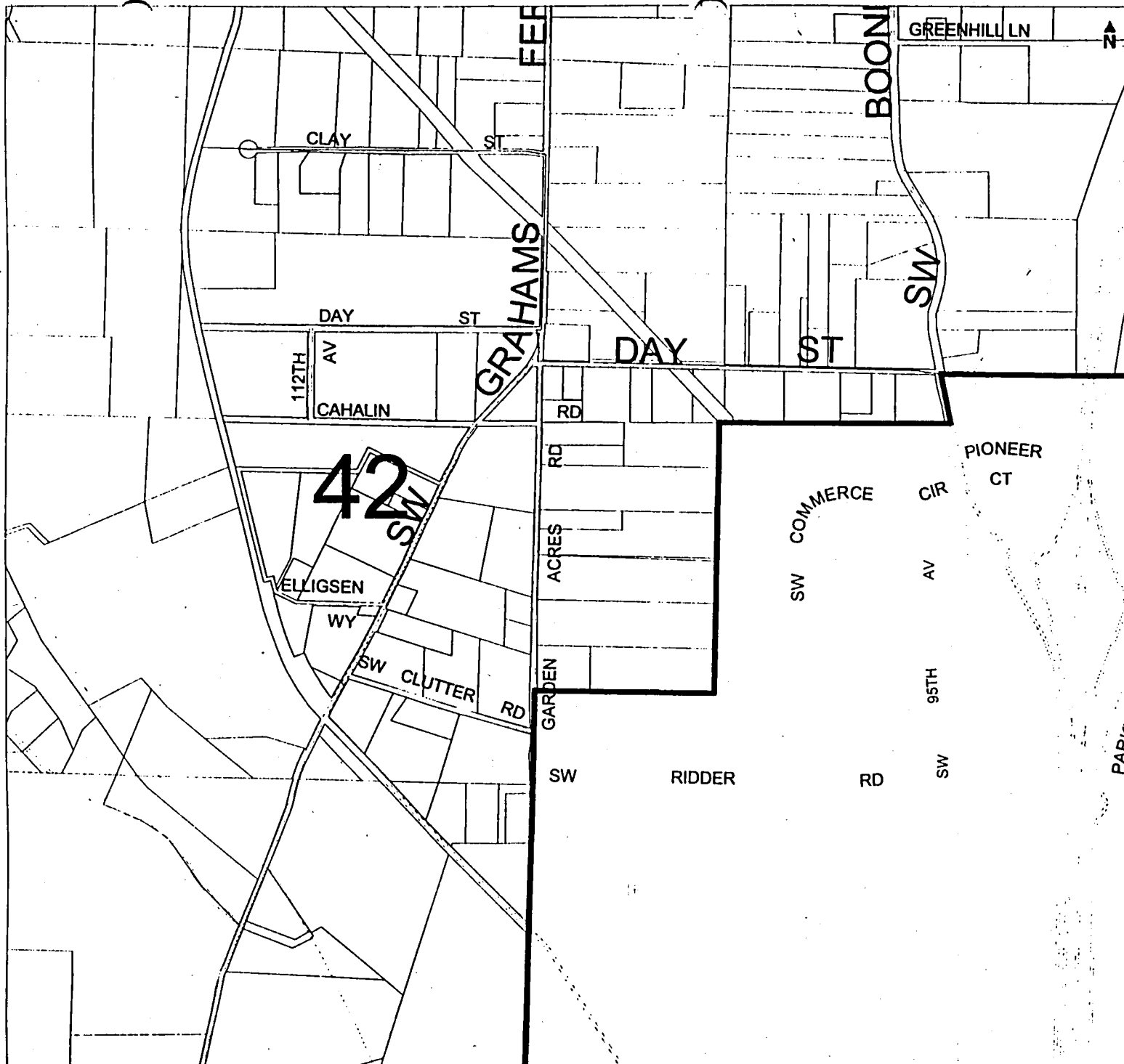
Wilsonville

BOECKMAN
 W
 RD
 SELLY AV
 KINSMAN
 RD
 MORE
 RD
 DR

0 500 1000 1500 Feet
 1" = 1000 feet

METRO
 600 NE Grand Ave
 Portland, OR 97232-2736
 503 787-1742 FAX 503 787-1909
 Email drc@metro.dst.or.us

Plot date: Nov 17, 2000 projects/latmaps apr



R L S

REGIONAL LAND INFORMATION SYSTEM

Resolution #98-2729A Urban Reserve #42

Non-First Tier
Partially Within Metro Boundary

- Area Considered in Resolution
- First Tier Urban Reserve
- Urban Growth Boundary

1" = 1000 feet

METRO

600 NE Grand Ave
Portland, OR 97232-2738
503 797-1742 FAX 503 797-1909
Email: drc@metro.dst.or.us

Table 8. Productivity Estimate for Phase 2 URAs (Base with 200 foot-stream buffers)

Reserve Number	Acres				Productivity		Density		Productivity Index ^f
	Total Acres	Buildable Land ^a	Buildable Res. Land	Buildable Resource Land ^b	Dwelling Units ^c	Employment ^d	DU/ Net Resident Acre ^e	Emp. Per Gross Emp Acre	
Tier 1									
4	123.4	59.4	52.1		375	125	9.6	0.0	8.3
5	1,382.0	839.5	703.2		6,210	2,883	11.8	44.3	12.9
11	464.2	157.7	0.0	51.1	0	3,461	0.0	25.0	7.5
14	307.2	141.0	117.6	26.6	1,062	347	12.0	20.0	9.4
15	315.5	248.3	213.6		1,879	506	11.7	20.0	15.9
33	43.7	22.5	13.8		220	118	21.2	20.0	14.8
34	7.4	2.3	2.1		11	4	7.3	0.0	4.1
35	72.2	22.0	19.3		223	23	15.4	0.0	7.7
36	33.1	8.8	7.7		42	14	7.3	0.0	3.5
37	145.5	112.6	98.8		995	159	13.4	0.0	17.5
39	13.1	0.0	0.0	0.0	0	0	0.0	0.0	0.0
41	278.8	202.0	177.4	156.2	1,277	426	9.6	0.0	12.5
43	10.2	7.2	6.3		45	15	9.6	0.0	12.2
44	238.1	152.9	0.0	27.5	0	3,357	0.0	25.0	14.1
45	464.2	280.4	246.2		1,772	591	9.6	0.0	10.4
47	82.0	57.2	50.2		361	120	9.6	0.0	12.0
55	475.8	283.8	247.1	58.3	1,877	694	10.1	60.0	10.9
Subtotal	4,456.3	2,597.4	1,955.4	319.7	16,351	12,842	11.1	27.0	11.7
Other									
1	531.8	245.6	184.6	253.6	2,267	1,163	16.4	31.1	12.4
3	22.2	4.8	4.2	4.5	23	8	7.3	0.0	2.8
17	189.3	137.8	121.0		871	290	9.6	0.0	12.6
18	98.5	67.6	59.4		427	142	9.6	0.0	11.9
22	337.3	150.0	131.7		949	316	9.6	0.0	7.7
23	22.9	16.2	14.3		103	34	9.6	0.0	12.3
24	173.5	143.3	88.1		634	1,155	9.6	25.0	15.4
25	1,047.6	535.9	388.2		2,939	3,373	10.1	30.0	10.0
29	190.6	94.3	82.8		596	199	9.6	0.0	8.5
30	190.3	110.1	94.8		834	224	11.7	20.0	11.7
31	736.8	460.2	382.3	508.7	3,352	1,590	11.7	37.8	13.1
32	87.3	69.0	60.6	69.3	436	145	9.6	0.0	13.7
33	294.7	149.4	124.6	59.0	956	308	10.2	20.0	8.8
34	749.1	308.9	218.4		1,891	1,855	11.5	26.9	8.5
41	144.4	99.1	87.0	45.0	626	209	9.6	0.0	11.9
42	249.6	170.1	0.0		0	3,734	0.0	22.5	15.0
48	218.4	155.3	136.4		982	327	9.6	0.0	12.3
49	261.6	174.9	153.6		1,106	369	9.6	0.0	11.6
51	93.6	51.1	44.9		323	108	9.6	0.0	9.4
52	98.8	66.6	58.5	1.7	421	140	9.6	0.0	11.6
53	204.2	147.5	127.9	152.8	997	385	10.4	60.0	13.6
54	190.9	175.2	153.8	141.0	1,108	369	9.6	0.0	15.9
55	350.4	260.2	214.8	274.1	1,798	1,289	11.2	60.0	16.0
61	28.4	16.4	0.0		0	360	0.0	25.0	12.7
62	54.4	27.0	16.6	8.1	264	142	21.2	20.0	14.3
63	10.5	2.3	1.4	1.6	22	12	21.2	20.0	6.3
64	191.3	126.8	108.0	15.0	1,039	254	12.8	20.0	14.4
65	487.7	318.7	272.8	186.4	2,512	643	12.3	20.0	13.7
67	319.2	137.0	120.3		658	216	7.3	0.0	5.6
68	64.0	18.5	16.2		89	29	7.3	0.0	3.8
69	11.9	7.9	6.9		38	12	7.3	0.0	8.7
70	35.2	29.8	26.1		143	47	7.3	0.0	11.1
Subtotal	7,686.4	4,477.6	3,499.8	1,720.9	28,403	19,451	10.8	27.4	11.4
Total	12,142.7	7,074.8	5,455.2	2,040.6	44,754	32,294	10.9	27.2	11.5

Source: URA Productivity Model, ECONorthwest, 1998

- a. Total acres less (1) existing and estimated future public and institutional land, and (2) constrained land; plus estimated redevelopable land.
- b. Resource land is farm and forest land as designated by Metro's RLIS.
- c. In most cases, a URA has several types of residential land (i.e., buildable land is allocated to different Metro design types), each with a different average density. The model handles these different calculations to calculate total units.
- d. In the base case, a little under 40% of the total employment occurred on residential land in Inner and Outer Neighborhoods.
- e. Reported per "net acre" so that estimates can be compared to Metro policy requiring an average of 10 dwelling units per net residential acre.
- f. Productivity Index = (Population + Employment) / Total Acres. Population = DU * persons/DU.

Table 1: URA Serviceability, Summary of Costs

Urban Reserve #	Acreage		Dwelling Unit Equivalents (DUEs)		Serviceability Cost (Totals)				Serviceability Cost (per DUE)		
	Total	Buildable	Base Case	Base with 200' Stream Buffer	Wastewater	Water	Stormwater	Transportation	Base Case	Base with 200' Stream Buffer	
Tier 1	4	123.4	61.5	442	427	\$3,401,763	\$1,000,000	\$1,152,000	\$1,368,751	\$15,640	\$16,194
	5	1,382.0	999.2	8821	7411	\$36,546,537	\$19,015,000	\$9,444,000	\$27,276,260	\$10,461	\$12,451
	11	464.2	191.9	1755	1442	\$11,909,058	\$3,858,000	\$4,525,800	\$5,371,573	\$14,625	\$17,797
	14	307.2	185.4	1586	1206	\$11,023,998	\$3,485,000	\$4,130,400	\$4,269,752	\$14,443	\$18,988
	15	315.5	252.0	2122	2090	\$6,722,694	\$4,355,000	\$5,029,500	\$5,712,746	\$10,284	\$10,440
	33	43.7	25.1	300	269	\$1,211,700	\$1,242,375	\$1,152,000	\$2,255,487	\$19,534	\$21,800
	34	7.4	3.1	17	13	\$51,660	\$136,250	\$885,000	\$187,557	\$75,406	\$98,455
	35	72.2	23.5	248	233	\$1,490,400	\$3,299,850	\$1,303,200	\$2,897,380	\$36,232	\$38,658
	36	33.1	10.8	59	48	\$1,138,413	\$719,200	\$1,168,800	\$240,181	\$55,579	\$67,874
	37	145.5	122.6	1156	1062	\$4,169,127	\$3,997,000	\$1,264,500	\$4,705,923	\$12,228	\$13,316
	39	13.1	0.0	0	0	\$2,630,957	\$1,188,000	\$105,000	\$0	\$0	\$0
	41	278.8	203.4	1464	1454	\$17,517,777	\$7,055,000	\$4,654,500	\$4,857,321	\$23,276	\$23,435
	43	10.2	8.4	61	52	\$2,565,150	\$144,500	\$207,375	\$287,930	\$52,801	\$62,001
	44	238.1	156.1	1428	1399	\$11,978,850	\$5,524,500	\$3,229,800	\$6,740,402	\$19,241	\$19,643
	45	464.2	327.0	2354	2019	\$18,465,000	\$13,017,000	\$4,720,500	\$11,049,925	\$20,071	\$23,408
	47	82.0	68.9	496	412	\$3,183,750	\$4,998,000	\$1,152,000	\$4,715,449	\$28,308	\$34,125
	55	475.8	353.2	2696	2166	\$11,725,806	\$4,330,273	\$2,394,000	\$6,237,425	\$9,157	\$11,398
Other	1	531.8	300.2	3364	2752	\$14,697,300	\$4,636,200	\$5,538,000	\$11,491,427	\$10,809	\$13,214
	3	22.2	4.8	26	26	\$783,000	\$2,423,000	\$847,200	\$88,816	\$158,833	\$158,833
	17	189.3	155.0	1116	992	\$8,180,400	\$5,402,160	\$3,901,500	\$4,309,966	\$19,526	\$21,974
	18	98.5	67.8	487	487	\$4,711,500	\$432,000	\$1,264,500	\$1,858,111	\$16,978	\$16,978
	22	337.3	170.1	1225	1080	\$9,791,400	\$5,764,000	\$2,901,000	\$4,831,573	\$19,014	\$21,558
	23	22.9	18.0	130	117	\$1,261,209	\$360,000	\$1,264,500	\$302,705	\$24,551	\$27,258
	24	173.5	159.1	1239	1115	\$7,718,391	\$3,268,160	\$1,152,000	\$2,885,013	\$12,129	\$13,469
	25	1,047.6	588.8	4757	4344	\$26,309,888	\$13,049,500	\$6,972,000	\$24,879,790	\$14,970	\$16,392
	29	190.6	97.9	705	679	\$4,365,900	\$5,355,250	\$2,341,500	\$4,330,925	\$23,267	\$24,153
	30	190.3	134.0	1128	927	\$6,925,275	\$5,792,000	\$3,337,800	\$4,523,835	\$18,246	\$22,191
	31	736.8	588.3	5132	4015	\$28,360,035	\$12,355,500	\$5,298,000	\$34,828,744	\$15,752	\$20,137
	32	87.3	70.7	509	497	\$2,582,901	\$1,983,000	\$3,006,600	\$7,761,238	\$30,133	\$30,881
	33	294.7	196.4	1425	1084	\$8,725,599	\$6,060,750	\$3,955,500	\$10,714,538	\$20,872	\$27,178
	34	749.1	368.3	3176	2664	\$20,415,002	\$10,741,325	\$5,818,200	\$35,200,510	\$22,727	\$27,092
	41	144.4	119.1	857	713	\$3,855,043	\$608,000	\$105,000	\$2,842,935	\$8,645	\$10,389
	42	249.8	182.3	1667	1556	\$12,741,600	\$5,894,100	\$2,785,800	\$8,429,311	\$16,708	\$17,901
	48	218.4	180.4	1298	1118	\$8,229,750	\$4,576,000	\$3,196,500	\$4,786,739	\$16,010	\$18,591
	49	261.6	198.7	1431	1259	\$10,417,500	\$5,831,000	\$3,598,500	\$2,682,235	\$15,731	\$17,872
	51	93.6	53.8	387	368	\$3,001,412	\$891,157	\$2,508,000	\$895,290	\$18,843	\$19,826
	52	98.8	67.1	483	479	\$2,409,673	\$1,316,088	\$2,323,800	\$1,117,378	\$14,844	\$14,952
	53	204.2	169.4	1330	1157	\$5,964,731	\$1,439,708	\$2,175,000	\$3,076,838	\$9,518	\$10,934
	54	190.9	180.8	1301	1261	\$4,678,284	\$1,759,131	\$2,679,000	\$3,009,749	\$9,318	\$9,613
	55	350.4	277.5	2490	2335	\$12,537,051	\$2,050,364	\$3,141,000	\$5,759,930	\$9,434	\$10,060
	61	28.4	24.0	220	150	\$959,940	\$667,600	\$885,000	\$0	\$11,443	\$16,748
	62	54.4	28.6	343	324	\$3,303,891	\$1,436,600	\$2,145,000	\$2,708,555	\$27,984	\$29,656
	63	10.5	2.3	28	27	\$588,966	\$1,798,000	\$105,000	\$221,107	\$98,219	\$98,819
	64	181.3	131.3	1185	1145	\$7,459,500	\$3,986,000	\$2,758,500	\$5,238,401	\$18,385	\$18,980
	65	487.7	350.5	3058	2780	\$19,143,300	\$10,408,000	\$6,406,050	\$4,855,200	\$14,309	\$15,739
	67	319.2	174.9	958	749	\$9,189,450	\$5,556,500	\$4,855,200	\$12,643,287	\$33,725	\$43,068
	68	64.0	21.1	115	101	\$1,811,000	\$1,215,000	\$1,303,200	\$1,520,898	\$49,078	\$55,965
69	11.9	7.9	43	43	\$339,000	\$825,500	\$1,303,200	\$588,683	\$65,761	\$65,761	
70	35.2	29.8	163	163	\$864,600	\$459,000	\$1,565,550	\$2,155,707	\$30,971	\$31,014	
Tier 1 and Other	33	338.4	221.4	1725	1353	\$9,937,299	\$7,303,125	\$5,107,500	\$12,970,025	\$20,474	\$26,107
	34	758.5	371.3	3192	2677	\$20,488,882	\$10,877,575	\$6,703,200	\$35,388,067	\$23,003	\$27,433
	41	423.2	322.5	2322	2168	\$21,372,820	\$7,683,000	\$4,759,500	\$7,700,258	\$17,873	\$19,142
	55	828.2	630.7	5188	4501	\$24,282,858	\$8,380,637	\$5,535,000	\$11,997,355	\$9,290	\$10,704

TABLE 5. TRANSPORTATION SERVICEABILITY COSTS

Phase II Service Availability Analysis									
Transportation System Cost Estimates – Streets, Bicycle, Pedestrian, Transit									
W&H Project 3270-0101 (filename: TRANCOST.xls)									
URA	ACREAGE	DUEs (1) Base Case	DUEs (1) Base with 200' Buffer	TRANSIT (2) (relative service cost)	CAPITAL COST STREETS (3,4) (millions)	PRESENT WORTH MAINTENANCE STREETS (4,5) (20 year forecast) (millions)	TOTAL COST (6) (millions)	COST PER DUE (6) Base Case	COST PER DUE (6) Base with 200' Buffer
Tier 1									
4	124	442	427	lower cost	\$ 103	\$ 0.33	\$ 1.37	\$ 3,092	\$ 3,198
5	1382	8821	7411	lower cost	\$ 2063	\$ 6.65	\$ 27.28	\$ 3,092	\$ 3,680
11	464	1755	1442	medium cost	\$ 408	\$ 1.29	\$ 5.37	\$ 3,061	\$ 3,725
14	307	1568	1206	medium cost	\$ 312	\$ 1.15	\$ 4.27	\$ 2,723	\$ 3,539
15	315	2122	2090	medium cost	\$ 418	\$ 1.54	\$ 5.71	\$ 2,692	\$ 2,733
33	339	300	269	medium cost	\$ 197	\$ 0.29	\$ 2.26	\$ 7,518	\$ 8,388
34	756	17	13	medium cost	\$ 0.17	\$ 0.02	\$ 0.19	\$ 11,033	\$ 14,650
35	72	248	233	medium cost	\$ 2.23	\$ 0.67	\$ 2.90	\$ 11,683	\$ 12,458
36	33	59	48	medium cost	\$ 0.20	\$ 0.04	\$ 0.24	\$ 4,071	\$ 4,991
37	146	1156	1062	medium cost	\$ 3.93	\$ 0.78	\$ 4.71	\$ 4,071	\$ 4,433
39	13	0	0	medium cost	\$ -	\$ -	\$ -	\$ -	\$ -
41	424	1464	1454	medium cost	\$ 3.50	\$ 1.36	\$ 4.86	\$ 3,318	\$ 3,340
43	10	61	52	medium cost	\$ 0.21	\$ 0.07	\$ 0.29	\$ 4,720	\$ 5,570
44	238	1428	1399	medium cost	\$ 5.03	\$ 1.72	\$ 6.74	\$ 4,720	\$ 4,819
45	464	2354	2019	medium cost	\$ 8.63	\$ 2.42	\$ 11.05	\$ 4,694	\$ 5,474
47	82	496	412	medium cost	\$ 3.58	\$ 1.14	\$ 4.72	\$ 9,507	\$ 11,455
55	826	2596	2166	lower cost	\$ 4.58	\$ 1.66	\$ 6.24	\$ 2,314	\$ 2,880
Other									
11	532	3364	2752	higher cost	\$ 8.92	\$ 2.57	\$ 11.49	\$ 3,416	\$ 4,176
31	22	26	26	higher cost	\$ 0.07	\$ 0.02	\$ 0.09	\$ 3,416	\$ 3,406
17	189	1116	992	medium cost	\$ 3.21	\$ 1.10	\$ 4.31	\$ 3,862	\$ 4,346
18	99	487	487	medium cost	\$ 1.26	\$ 0.60	\$ 1.86	\$ 3,811	\$ 3,813
22	37	1225	1080	medium cost	\$ 3.54	\$ 1.29	\$ 4.83	\$ 3,944	\$ 4,473
23	23	130	117	medium cost	\$ 0.23	\$ 0.07	\$ 0.30	\$ 2,329	\$ 2,588
24	173	1239	1116	medium cost	\$ 2.17	\$ 0.71	\$ 2.89	\$ 2,329	\$ 2,586
25	1048	4757	4344	medium cost	\$ 18.05	\$ 6.82	\$ 24.88	\$ 5,230	\$ 5,727
29	190	705	679	higher cost	\$ 2.94	\$ 1.39	\$ 4.33	\$ 6,143	\$ 6,381
30	190	1128	927	medium cost	\$ 3.36	\$ 1.16	\$ 4.52	\$ 4,010	\$ 4,878
31	37	532	4015	medium cost	\$ 29.90	\$ 4.93	\$ 34.83	\$ 6,787	\$ 8,676
32	87	509	497	medium cost	\$ 7.27	\$ 0.49	\$ 7.76	\$ 15,248	\$ 15,631
33	339	1425	1084	medium cost	\$ 9.34	\$ 1.37	\$ 10.71	\$ 7,519	\$ 9,885
34	756	3775	2664	medium cost	\$ 32.15	\$ 3.05	\$ 35.20	\$ 11,087	\$ 13,213
41	424	657	713	medium cost	\$ 2.05	\$ 0.79	\$ 2.84	\$ 3,317	\$ 3,985
42	250	1667	1556	medium cost	\$ 5.01	\$ 1.42	\$ 6.43	\$ 3,857	\$ 4,132
48	218	1298	1116	medium cost	\$ 3.63	\$ 1.16	\$ 4.79	\$ 3,688	\$ 4,281
49	252	1437	1255	medium cost	\$ 1.91	\$ 0.75	\$ 2.66	\$ 1,860	\$ 2,114
51	93	387	368	lower cost	\$ 0.66	\$ 0.24	\$ 0.90	\$ 2,313	\$ 2,433
52	99	483	479	lower cost	\$ 0.82	\$ 0.30	\$ 1.12	\$ 2,313	\$ 2,331
53	204	1330	1157	lower cost	\$ 2.25	\$ 0.82	\$ 3.08	\$ 2,313	\$ 2,658
54	191	1307	1257	lower cost	\$ 2.21	\$ 0.80	\$ 3.01	\$ 2,313	\$ 2,386
55	826	2490	2335	lower cost	\$ 4.23	\$ 1.53	\$ 5.76	\$ 2,313	\$ 2,467
61	28	220	150	higher cost	\$ -	\$ -	\$ -	\$ -	\$ -
62	54	343	324	higher cost	\$ 2.26	\$ 0.45	\$ 2.71	\$ 7,897	\$ 8,372
63	11	25	27	higher cost	\$ 0.18	\$ 0.04	\$ 0.22	\$ 7,897	\$ 8,053
64	191	1185	1145	higher cost	\$ 3.59	\$ 1.65	\$ 5.24	\$ 4,419	\$ 4,573
65	488	3058	2780	lower cost	\$ 5.90	\$ 1.89	\$ 7.79	\$ 2,549	\$ 2,804
67	319	956	749	higher cost	\$ 9.37	\$ 3.28	\$ 12.64	\$ 13,225	\$ 16,887
68	64	115	101	higher cost	\$ 1.13	\$ 0.39	\$ 1.52	\$ 13,225	\$ 15,065
69	12	43	43	higher cost	\$ 0.42	\$ 0.15	\$ 0.57	\$ 13,225	\$ 13,185
70	35	163	163	higher cost	\$ 1.60	\$ 0.56	\$ 2.16	\$ 13,225	\$ 13,253
Both									
33	339	1725	1353	medium cost	\$ 11.31	\$ 1.66	\$ 12.97	\$ 7,519	\$ 9,568
34	756	3192	2677	medium cost	\$ 32.32	\$ 3.07	\$ 35.39	\$ 11,086	\$ 13,220
41	424	2322	2168	medium cost	\$ 5.55	\$ 2.15	\$ 7.70	\$ 3,316	\$ 3,552
55	826	5186	4501	lower cost	\$ 8.81	\$ 3.19	\$ 12.00	\$ 2,313	\$ 2,666

(1) DUEs = Dwelling Unit Equivalents. DUEs are estimated housing and employment figures. 1 DUE = 2.4 people
 (2) For this analysis, transit is described in qualitative rather than quantitative terms because of time limitations and wide variations in URA transit system characteristics/lack of researchable information that hindered comprehensive analysis
 (3) Capital cost for streets is taken from Spreadsheet 2, Appendix B
 (4) Capital costs for streets and maintenance costs for streets assume capital and maintenance costs for bicycle and pedestrian systems
 (5) Present worth of maintenance cost year for streets is taken from Spreadsheet 3, Appendix B
 (6) It should be noted that cost estimates per URA change when contiguous URAs are brought into the UGB at the same time. URAs "share costs" if they are brought in on the same transportation system.

A178

URA#39 Tier 1

Wastewater Cost

Technique/ Option	Quantity	Units	Low Range		High Range		Engineer's Estimate	
			Cost/ Unit	Total Cost	Cost/ Unit	Total Cost	Cost/ Unit	Total Cost
Pipe, manholes & trenching								
Small (<=15" diameter)	5,000	feet	\$75	\$375,000	\$105	\$525,000	\$90	\$450,000
Medium (18" - 24" diameter, estimated @ 24")		feet	\$120	\$0	\$170	\$0	\$145	\$0
Large (>=27" diameter, estimated @ 42")		feet	\$210	\$0	\$300	\$0	\$250	\$0
Maintenance (20 year present worth)	5,000	feet	\$40	\$200,000	\$64	\$320,000	\$48	\$240,000
Pipe, manholes & trenching; extra deep								
Small (<=15" diameter)	450	feet	\$90	\$40,500	\$130	\$58,500	\$120	\$54,000
Medium (18" - 24" diameter, estimated @ 24")		feet	\$144	\$0	\$205	\$0	\$190	\$0
Large (>=27" diameter, estimated @ 42")		feet	\$252	\$0	\$355	\$0	\$330	\$0
Maintenance (20 year present worth)	450	feet	\$40	\$18,000	\$64	\$28,800	\$48	\$21,600
Pump stations								
Small (80 year present worth)		each	\$9,000	\$0	\$110,000	\$0	\$100,000	\$0
Medium (80 year present worth)*	0.48	each	\$745,000	\$358,494	\$855,000	\$411,428	\$800,000	\$384,960
Large (80 year present worth)		each	\$1,400,000	\$0	\$1,800,000	\$0	\$1,500,000	\$0
Maintenance (20 year present worth)	0.48	each	\$128,000	\$61,594	\$192,000	\$92,390	\$160,000	\$76,992
Force mains								
Small		feet	\$75	\$0	\$105	\$0	\$90	\$0
Medium*	1,516	feet	\$120	\$181,894	\$170	\$257,683	\$145	\$219,788
Large		feet	\$210	\$0	\$300	\$0	\$250	\$0
Maintenance (20 year present worth)	1,516	feet	\$32	\$48,505	\$48	\$72,757	\$40	\$60,631
Extra for pipe construction at wetland								
Shallow to moderate soil depth		feet	\$20	\$0	\$40	\$0	\$30	\$0
Deep soil depth		feet	\$30	\$0	\$60	\$0	\$50	\$0
Stream and riparian mitigation								
<25' wide		feet	\$100	\$0	\$200	\$0	\$180	\$0
25' to 75' wide		feet	\$250	\$0	\$350	\$0	\$330	\$0
> 75' - 200' wide		feet	\$350	\$0	\$450	\$0	\$430	\$0
Wetland mitigation								
Low quality		acre	\$10,000	\$0	\$25,000	\$0	\$18,250	\$0
Medium quality		acre	\$15,000	\$0	\$35,000	\$0	\$22,750	\$0
High quality		acre	\$20,000	\$0	\$40,000	\$0	\$28,000	\$0
River crossing (bridge, estimated @ 8")								
Small (<=75' length, estimated @ 75')		each	\$3,750	\$0	\$4,500	\$0	\$4,160	\$0
Medium (75' - 150' length, estimated @ 150')		each	\$6,750	\$0	\$7,500	\$0	\$7,200	\$0
Large (>= 150' length)		each	\$7,500	\$0	\$11,000	\$0	\$10,600	\$0
River crossing (bore/trench, estimated at 30")								
Small (<=75' length)		each	\$46,575	\$0	\$47,625	\$0	\$47,100	\$0
Medium (75' - 150' length)		each	\$87,450	\$0	\$88,800	\$0	\$88,125	\$0
Large (>= 150' length, estimated @ 200')		each	\$118,000	\$0	\$120,200	\$0	\$119,100	\$0
Treatment capacity								
Medium (10/10)		mgd	\$3,000,000	\$0	\$5,000,000	\$0	\$4,000,000	\$0
AWT (USA)	0.03	mgd	\$4,000,000	\$120,000	\$8,000,000	\$180,000	\$5,000,000	\$150,000
Maintenance (20 year present worth)	0.03	mgd	\$2,880,000	\$86,400	\$4,000,000	\$120,000	\$3,200,000	\$96,000

*Indicates shared facility

Base Total	\$1,490,386	\$2,066,556	\$1,753,971
Engineering Costs @ 20%:	\$298,077	\$413,311	\$350,794
Contingency Costs @ 30%:	\$447,116	\$619,967	\$526,191
Total.	\$2,235,579	\$3,099,835	\$2,630,957

URA#39 Tier 1

Water Cost

Technique/ Option	Quantity	Units	Low Range		High Range		Engineer's Estimate	
			Cost/ Unit	Total Cost	Cost/ Unit	Total Cost	Cost/ Unit	Total Cost
Source expansion								
Surface water		mgd	\$800,000	\$0	\$1,200,000	\$0	\$1,000,000	\$0
Groundwater	0.05	mgd	\$475,000	\$21,375	\$525,000	\$23,625	\$500,000	\$22,500
Treatment and appurtenances								
Level A (Expansion)	0.05	mgd	\$300,000	\$13,500	\$500,000	\$22,500	\$400,000	\$18,000
Level B (New Plant)		mgd	\$1,000,000	\$0	\$1,500,000	\$0	\$1,250,000	\$0
Maintenance (20 year present worth)	0.05	mgd	\$750,000	\$33,750	\$1,250,000	\$56,250	\$1,000,000	\$45,000
Transmission lines								
Small (<= 12')	6,300	ft	\$150	\$945,000	\$180	\$1,134,000	\$175	\$1,102,500
Medium (12' - 22')		ft	\$160	\$0	\$225	\$0	\$200	\$0
Large (>= 22')		ft	\$200	\$0	\$275	\$0	\$250	\$0
River crossing (bridge, estimated @ 8")								
Small (<= 75' length, estimated @ 75')		each	\$3,750	\$0	\$4,500	\$0	\$4,180	\$0
Medium (75' - 150' length, estimated @ 150')		each	\$6,750	\$0	\$7,500	\$0	\$7,200	\$0
Large (>= 150' length)		each	\$7,500	\$0	\$11,000	\$0	\$10,600	\$0
River crossing (bore/trench, estimated at 30")								
Small (<= 75' length)		each	\$46,575	\$0	\$47,625	\$0	\$47,100	\$0
Medium (75' - 150' length)		each	\$87,450	\$0	\$88,600	\$0	\$88,125	\$0
Large (>= 150' length, estimated @ 200')		each	\$118,000	\$0	\$120,200	\$0	\$119,100	\$0
Pressure reducing valves								
Small		each	\$30,000	\$0	\$35,000	\$0	\$32,000	\$0
Medium		each	\$40,000	\$0	\$50,000	\$0	\$45,000	\$0
Large		each	\$60,000	\$0	\$75,000	\$0	\$70,000	\$0
Water meters								
Large		each	\$60,000	\$0	\$80,000	\$0	\$70,000	\$0
Distribution system storage								
Small (1-2 mg)		mg	\$1,000,000	\$0	\$2,000,000	\$0	\$1,500,000	\$0
Medium (2-5 mg)		mg	\$2,000,000	\$0	\$3,000,000	\$0	\$2,500,000	\$0
Large (>5 mg)		mg	\$3,000,000	\$0	\$6,000,000	\$0	\$5,000,000	\$0
Pump stations								
Small (80 year present worth)		each	\$90,000	\$0	\$110,000	\$0	\$100,000	\$0
Medium (80 year present worth)		each	\$745,000	\$0	\$855,000	\$0	\$800,000	\$0
Large (80 year present worth)		each	\$1,400,000	\$0	\$1,600,000	\$0	\$1,500,000	\$0
Maintenance (20 year present worth)	0	each	\$100,000	\$0	\$150,000	\$0	\$128,000	\$0

Base Total	\$1,013,625	\$1,236,375	\$1,188,000
Engineering Costs @ 20%	\$202,725	\$247,275	\$237,600
Contingency Costs @ 30%	\$304,088	\$370,913	\$358,400
Total	\$1,013,625	\$1,236,375	\$1,188,000

Appendix A
URA #39 Tier 1

AZIS

012

URA#39 Tier 1

Stormwater Cost

Technique/ Option	Quantity	Units	Low Range		High Range		Engineer's Estimate	
			Cost/ Unit	Total Cost	Cost/ Unit	Total Cost	Cost/ Unit	Total Cost
Pipe, manholes & trenching								
Small (<=18" diameter)		feet	\$70	\$0	\$120	\$0	\$110	\$0
Medium 21" - 42" diameter, estimated @ 42"		feet	\$130	\$0	\$220	\$0	\$190	\$0
Large (>=45" diameter, estimated @ 60")		feet	\$180	\$0	\$300	\$0	\$270	\$0
Maintenance (20 year present worth)	0	feet	\$32	\$0	\$48	\$0	\$40	\$0
Extra for pipe construction at wetland								
Shallow to moderate soil depth		feet	\$20	\$0	\$40	\$0	\$30	\$0
Deep soil depth		feet	\$30	\$0	\$60	\$0	\$50	\$0
Stream and riparian mitigation								
<25' wide		feet	\$100	\$0	\$200	\$0	\$180	\$0
25' to 75' wide		feet	\$250	\$0	\$350	\$0	\$330	\$0
> 75' - 200' wide		feet	\$350	\$0	\$450	\$0	\$430	\$0
Wetland mitigation								
Low quality		acre	\$10,000	\$0	\$25,000	\$0	\$18,250	\$0
Medium quality		acre	\$15,000	\$0	\$35,000	\$0	\$22,750	\$0
High quality		acre	\$20,000	\$0	\$40,000	\$0	\$28,000	\$0
Channelization								
Small (10 ft ² X-Sept)		feet	\$50	\$0	\$100	\$0	\$80	\$0
Medium (25 ft ² X-Sept)		feet	\$100	\$0	\$150	\$0	\$140	\$0
Large (45 ft ² X-Sept)		feet	\$175	\$0	\$275	\$0	\$250	\$0
Maintenance (20 year present worth)	0	feet	\$20	\$0	\$48	\$0	\$32	\$0
Water quality pond/marsh								
Small (<= .50 acres)		each	\$125,000	\$0	\$250,000	\$0	\$200,000	\$0
Medium (.51 - 2 acres)		each	\$140,000	\$0	\$280,000	\$0	\$225,000	\$0
Large (>2 acres)		each	\$180,000	\$0	\$320,000	\$0	\$280,000	\$0
Maintenance (20 year present worth)	0	each	\$180,000	\$0	\$480,000	\$0	\$320,000	\$0
On - stream detention								
Small Regional (50 - 150 acres)		each	\$100,000	\$0	\$200,000	\$0	\$150,000	\$0
Medium Regional (150 - 250 acres)		each	\$150,000	\$0	\$250,000	\$0	\$200,000	\$0
Large Regional (>250 acres)		each	\$250,000	\$0	\$600,000	\$0	\$400,000	\$0
Maintenance (20 year present worth)	0	each	\$80,000	\$0	\$180,000	\$0	\$98,000	\$0
Off - stream detention								
On - Site	1	each	\$50,000	\$50,000	\$80,000	\$80,000	\$70,000	\$70,000
Small Regional (50 - 150 acres)		each	\$250,000	\$0	\$400,000	\$0	\$350,000	\$0
Medium Regional (150 - 250 acres)		each	\$350,000	\$0	\$750,000	\$0	\$600,000	\$0
Large Regional (>250 acres)		each	\$700,000	\$0	\$2,000,000	\$0	\$1,200,000	\$0
Maintenance (20 year present worth)	0	each	\$320,000	\$0	\$800,000	\$0	\$580,000	\$0

Base Total	\$50,000	\$80,000	\$70,000
Engineering Costs @ 20%	\$10,000	\$16,000	\$14,000
Contingency Costs @ 30%	\$15,000	\$24,000	\$21,000
Total	\$75,000	\$120,000	\$105,000

Appendix A
URA #39 Tier 1

URA#41 Tier 1

Wastewater Cost

Technique/ Option	Quantity	Units	Low Range		High Range		Engineer's Estimate	
			Cost/ Unit	Total Cost	Cost/ Unit	Total Cost	Cost/ Unit	Total Cost
Pipe, manholes & trenching								
Small (<=15" diameter)	20,925	feet	\$75	\$1,569,375	\$105	\$2,197,125	\$90	\$1,883,250
Medium (18" - 24" diameter, estimated @ 24")	6,075	feet	\$120	\$729,000	\$170	\$1,032,750	\$145	\$880,875
Large (>=27" diameter, estimated @ 42")		feet	\$210	\$0	\$300	\$0	\$250	\$0
Maintenance (20 year present worth)	27,000	feet	\$40	\$1,080,000	\$64	\$1,728,000	\$48	\$1,296,000
Pipe, manholes & trenching; extra deep								
Small (<=15" diameter)	15,075	feet	\$90	\$1,356,750	\$130	\$1,959,750	\$120	\$1,809,000
Medium (18" - 24" diameter, estimated @ 24")	6,075	feet	\$144	\$874,800	\$205	\$1,245,375	\$190	\$1,154,250
Large (>=27" diameter, estimated @ 42")		feet	\$252	\$0	\$355	\$0	\$330	\$0
Maintenance (20 year present worth)	21,150	feet	\$40	\$846,000	\$64	\$1,353,600	\$48	\$1,015,200
Pump stations								
Small (80 year present worth)		each	\$9,000	\$0	\$110,000	\$0	\$100,000	\$0
Medium (80 year present worth)*	0.49	each	\$745,000	\$366,784	\$855,000	\$420,917	\$800,000	\$393,840
Large (80 year present worth)		each	\$1,400,000	\$0	\$1,600,000	\$0	\$1,500,000	\$0
Maintenance (20 year present worth)	0.49	each	\$128,000	\$63,014	\$192,000	\$94,522	\$180,000	\$78,788
Force mains								
Small		feet	\$75	\$0	\$105	\$0	\$90	\$0
Medium*	721	feet	\$120	\$86,488	\$170	\$122,524	\$145	\$104,508
Large		feet	\$210	\$0	\$300	\$0	\$250	\$0
Maintenance (20 year present worth)	721	feet	\$32	\$23,063	\$48	\$34,595	\$40	\$28,829
Extra for pipe construction at wetland								
Shallow to moderate soil depth		feet	\$20	\$0	\$40	\$0	\$30	\$0
Deep soil depth		feet	\$30	\$0	\$60	\$0	\$50	\$0
Stream and riparian mitigation								
<25' wide		feet	\$100	\$0	\$200	\$0	\$180	\$0
25' to 75' wide		feet	\$250	\$0	\$350	\$0	\$330	\$0
> 75' - 200' wide		feet	\$350	\$0	\$450	\$0	\$430	\$0
Wetland mitigation								
Low quality		acre	\$10,000	\$0	\$25,000	\$0	\$18,250	\$0
Medium quality		acre	\$15,000	\$0	\$35,000	\$0	\$22,750	\$0
High quality		acre	\$20,000	\$0	\$40,000	\$0	\$28,000	\$0
River crossing (bridge, estimated @ 8")								
Small (<=75' length, estimated @ 75')		each	\$3,750	\$0	\$4,500	\$0	\$4,180	\$0
Medium (75' - 150' length, estimated @ 150')		each	\$6,750	\$0	\$7,500	\$0	\$7,200	\$0
Large (>= 150' length)		each	\$7,500	\$0	\$11,000	\$0	\$10,600	\$0
River crossing (bore/trench, estimated at 30")								
Small (<=75' length)		each	\$46,575	\$0	\$47,625	\$0	\$47,100	\$0
Medium (75' - 150' length)		each	\$87,450	\$0	\$88,800	\$0	\$88,125	\$0
Large (>= 150' length, estimated @ 200')		each	\$118,000	\$0	\$120,200	\$0	\$119,100	\$0
Treatment capacity								
Medium (10/10)		mgd	\$3,000,000	\$0	\$5,000,000	\$0	\$4,000,000	\$0
AWT (USA)	0.37	mgd	\$4,000,000	\$1,480,000	\$6,000,000	\$2,220,000	\$5,000,000	\$1,850,000
Maintenance (20 year present worth)	0.37	mgd	\$2,880,000	\$1,065,600	\$4,000,000	\$1,480,000	\$3,200,000	\$1,184,000

*Indicates shared facility

Base Total	\$9,540,854	\$13,889,157	\$11,678,518
Engineering Costs @ 20%	\$1,908,171	\$2,777,831	\$2,335,704
Contingency Costs @ 30%	\$2,862,258	\$4,166,747	\$3,503,555
Total	\$14,311,281	\$20,833,736	\$17,517,777

A27

URA#41 Tier 1

Water Cost

Technique/ Option	Quantity	Units	Low Range		High Range		Engineer's Estimate	
			Cost/ Unit	Total Cost	Cost/ Unit	Total Cost	Cost/ Unit	Total Cost
Source expansion								
Surface water		mgd	\$800,000	\$0	\$1,200,000	\$0	\$1,000,000	\$0
Groundwater	0.55	mgd	\$475,000	\$281,250	\$525,000	\$288,750	\$500,000	\$275,000
Treatment and appurtenances								
Level A (Expansion)	0.55	mgd	\$300,000	\$165,000	\$500,000	\$275,000	\$400,000	\$220,000
Level B (New Plant)		mgd	\$1,000,000	\$0	\$1,500,000	\$0	\$1,250,000	\$0
Maintenance (20 year present worth)	0.55	mgd	\$750,000	\$412,500	\$1,250,000	\$687,500	\$1,000,000	\$550,000
Transmission lines								
Small (<= 12")		ft	\$150	\$0	\$180	\$0	\$175	\$0
Medium (12" - 22")	17,550	ft	\$160	\$2,808,000	\$225	\$3,948,750	\$200	\$3,510,000
Large (>=22")		ft	\$200	\$0	\$275	\$0	\$250	\$0
River crossing (bridge, estimated @ 8")								
Small (<=75' length, estimated @ 75')		each	\$3,750	\$0	\$4,500	\$0	\$4,160	\$0
Medium (75' - 150' length, estimated @ 150')		each	\$6,750	\$0	\$7,500	\$0	\$7,200	\$0
Large (>= 150' length)		each	\$7,500	\$0	\$11,000	\$0	\$10,600	\$0
River crossing (bore/trench, estimated at 30")								
Small (<=75' length)		each	\$46,575	\$0	\$47,625	\$0	\$47,100	\$0
Medium (75' - 150' length)		each	\$87,450	\$0	\$88,800	\$0	\$88,125	\$0
Large (>= 150' length, estimated @ 200')		each	\$118,000	\$0	\$120,200	\$0	\$119,100	\$0
Pressure reducing valves								
Small		each	\$30,000	\$0	\$35,000	\$0	\$32,000	\$0
Medium		each	\$40,000	\$0	\$50,000	\$0	\$45,000	\$0
Large		each	\$60,000	\$0	\$75,000	\$0	\$70,000	\$0
Water meters								
Large		each	\$60,000	\$0	\$80,000	\$0	\$70,000	\$0
Distribution system storage								
Small (1-2 mg)		mg	\$1,000,000	\$0	\$2,000,000	\$0	\$1,500,000	\$0
Medium (2-5 mg)	1	mg	\$2,000,000	\$2,000,000	\$3,000,000	\$3,000,000	\$2,500,000	\$2,500,000
Large (>5 mg)		mg	\$3,000,000	\$0	\$6,000,000	\$0	\$5,000,000	\$0
Pump stations								
Small (80 year present worth)		each	\$90,000	\$0	\$110,000	\$0	\$100,000	\$0
Medium (80 year present worth)		each	\$745,000	\$0	\$855,000	\$0	\$800,000	\$0
Large (80 year present worth)		each	\$1,400,000	\$0	\$1,600,000	\$0	\$1,500,000	\$0
Maintenance (20 year present worth)	0	each	\$100,000	\$0	\$150,000	\$0	\$128,000	\$0

Base Total	\$5,646,750	\$8,200,000	\$7,055,000
Engineering Costs @ 20%	\$1,129,350	\$1,640,000	\$1,411,000
Contingency Costs @ 30%	\$1,694,025	\$2,460,000	\$2,116,500
Total	\$5,646,750	\$8,200,000	\$7,055,000

Appendix A
URA #41 Tier 1

URA#41 Tier 1

Stormwater Cost

Technique/ Option	Quantity	Units	Low Range		High Range		Engineer's Estimate	
			Cost/Unit	Total Cost	Cost/Unit	Total Cost	Cost/Unit	Total Cost
Pipe, manholes & trenching								
Small (<=18" diameter)		feet	\$70	\$0	\$120	\$0	\$110	\$0
Medium 21" - 42" diameter, estimated @ 42"		feet	\$130	\$0	\$220	\$0	\$190	\$0
Large (>=45" diameter, estimated @ 60")		feet	\$180	\$0	\$300	\$0	\$270	\$0
Maintenance (20 year present worth)	0	feet	\$32	\$0	\$48	\$0	\$40	\$0
Extra for pipe construction at wetland								
Shallow to moderate soil depth		feet	\$20	\$0	\$40	\$0	\$30	\$0
Deep soil depth		feet	\$30	\$0	\$60	\$0	\$50	\$0
Stream and riparian mitigation								
<25' wide		feet	\$100	\$0	\$200	\$0	\$180	\$0
25' to 75' wide		feet	\$250	\$0	\$350	\$0	\$330	\$0
> 75' - 200' wide		feet	\$350	\$0	\$450	\$0	\$430	\$0
Wetland mitigation								
Low quality		acre	\$10,000	\$0	\$25,000	\$0	\$18,250	\$0
Medium quality		acre	\$15,000	\$0	\$35,000	\$0	\$22,750	\$0
High quality		acre	\$20,000	\$0	\$40,000	\$0	\$28,000	\$0
Channelization								
Small (10 ft ² X-Sept)		feet	\$50	\$0	\$100	\$0	\$80	\$0
Medium (25 ft ² X-Sept)		feet	\$100	\$0	\$150	\$0	\$140	\$0
Large (45 ft ² X-Sept)		feet	\$175	\$0	\$275	\$0	\$250	\$0
Maintenance (20 year present worth)	0	feet	\$20	\$0	\$48	\$0	\$32	\$0
Water quality pond/marsh								
Small (<= .50 acres)	1	each	\$125,000	\$125,000	\$250,000	\$250,000	\$200,000	\$200,000
Medium (.51 - 2 acres)	1	each	\$140,000	\$140,000	\$280,000	\$280,000	\$225,000	\$225,000
Large (>2 acres)	1	each	\$180,000	\$180,000	\$320,000	\$320,000	\$280,000	\$260,000
Maintenance (20 year present worth)	3	each	\$160,000	\$480,000	\$480,000	\$1,440,000	\$320,000	\$960,000
On - stream detention								
Small Regional (50 - 150 acres)		each	\$100,000	\$0	\$200,000	\$0	\$150,000	\$0
Medium Regional (150 - 250 acres)	1	each	\$150,000	\$150,000	\$250,000	\$250,000	\$200,000	\$200,000
Large Regional (>250 acres)		each	\$250,000	\$0	\$600,000	\$0	\$400,000	\$0
Maintenance (20 year present worth)	1	each	\$80,000	\$80,000	\$160,000	\$160,000	\$98,000	\$98,000
Off - stream detention								
On - Site		each	\$50,000	\$0	\$80,000	\$0	\$70,000	\$0
Small Regional (50 - 150 acres)		each	\$250,000	\$0	\$400,000	\$0	\$350,000	\$0
Medium Regional (150 - 250 acres)	1	each	\$350,000	\$350,000	\$750,000	\$750,000	\$600,000	\$600,000
Large Regional (>250 acres)		each	\$700,000	\$0	\$2,000,000	\$0	\$1,200,000	\$0
Maintenance (20 year present worth)	1	each	\$320,000	\$320,000	\$800,000	\$800,000	\$560,000	\$560,000

Base Total	\$1,825,000	\$4,250,000	\$3,103,000
Engineering Costs @ 20%	\$365,000	\$850,000	\$620,800
Contingency Costs @ 30%	\$547,500	\$1,275,000	\$930,900
Total	\$2,737,500	\$6,375,000	\$4,654,500

Appendix A
URA #41 Tier 1

1219

Technique/ Option	Quantity	Units	Low Range		High Range		Engineer's Estimate	
			Cost/ Unit	Total Cost	Cost/ Unit	Total Cost	Cost/ Unit	Total Cost
Pipe, manholes & trenching								
Small (<=15" diameter)	5,850	feet	\$75	\$438,750	\$105	\$614,250	\$90	\$528,500
Medium (18" - 24" diameter, estimated @ 24")		feet	\$120	\$0	\$170	\$0	\$145	\$0
Large (>=27" diameter, estimated @ 42")		feet	\$210	\$0	\$300	\$0	\$250	\$0
Maintenance (20 year present worth)	5,850	feet	\$40	\$234,000	\$64	\$374,400	\$48	\$280,800
Pipe, manholes & trenching; extra deep								
Small (<=15" diameter)		feet	\$90	\$0	\$130	\$0	\$120	\$0
Medium (18" - 24" diameter, estimated @ 24")		feet	\$144	\$0	\$205	\$0	\$190	\$0
Large (>=27" diameter, estimated @ 42")		feet	\$252	\$0	\$355	\$0	\$330	\$0
Maintenance (20 year present worth)	0	feet	\$40	\$0	\$64	\$0	\$48	\$0
Pump stations								
Small (80 year present worth)		each	\$9,000	\$0	\$110,000	\$0	\$100,000	\$0
Medium (80 year present worth)*	0.03	each	\$745,000	\$19,668	\$855,000	\$22,572	\$800,000	\$21,120
Large (80 year present worth)		each	\$1,400,000	\$0	\$1,600,000	\$0	\$1,500,000	\$0
Maintenance (20 year present worth)	0.03	each	\$128,000	\$3,379	\$192,000	\$5,069	\$160,000	\$4,224
Force mains								
Small		feet	\$75	\$0	\$105	\$0	\$90	\$0
Medium*	83	feet	\$120	\$9,979	\$170	\$14,137	\$145	\$12,058
Large		feet	\$210	\$0	\$300	\$0	\$250	\$0
Maintenance (20 year present worth)	83	feet	\$32	\$2,661	\$48	\$3,992	\$40	\$3,328
Extra for pipe construction at wetland								
Shallow to moderate soil depth		feet	\$20	\$0	\$40	\$0	\$30	\$0
Deep soil depth		feet	\$30	\$0	\$60	\$0	\$50	\$0
Stream and riparian mitigation								
<25' wide		feet	\$100	\$0	\$200	\$0	\$180	\$0
25' to 75' wide		feet	\$250	\$0	\$350	\$0	\$330	\$0
> 75' - 200' wide		feet	\$350	\$0	\$450	\$0	\$430	\$0
Wetland mitigation								
Low quality		acre	\$10,000	\$0	\$25,000	\$0	\$18,250	\$0
Medium quality		acre	\$15,000	\$0	\$35,000	\$0	\$22,750	\$0
High quality		acre	\$20,000	\$0	\$40,000	\$0	\$28,000	\$0
River crossing (bridge, estimated @ 8")								
Small (<=75' length, estimated @ 75')		each	\$3,750	\$0	\$4,500	\$0	\$4,160	\$0
Medium (75' - 150' length, estimated @ 150')		each	\$8,750	\$0	\$7,500	\$0	\$7,200	\$0
Large (>= 150' length)		each	\$7,500	\$0	\$11,000	\$0	\$10,800	\$0
River crossing (bore/trench, estimated at 30")								
Small (<=75' length)		each	\$46,575	\$0	\$47,625	\$0	\$47,100	\$0
Medium (75' - 150' length)		each	\$87,450	\$0	\$88,800	\$0	\$88,125	\$0
Large (>= 150' length, estimated @ 200')		each	\$118,000	\$0	\$120,200	\$0	\$119,100	\$0
Treatment capacity								
Medium (10/10)		mgd	\$3,000,000	\$0	\$5,000,000	\$0	\$4,000,000	\$0
AWT (USA)	0.21	mgd	\$4,000,000	\$840,000	\$6,000,000	\$1,260,000	\$5,000,000	\$1,050,000
Maintenance (20 year present worth)	0.21	mgd	\$2,880,000	\$604,800	\$4,000,000	\$840,000	\$3,200,000	\$672,000

*Indicates shared facility

Base Total:	\$2,153,238	\$3,134,420	\$2,570,029
Engineering Costs @ 20%:	\$430,648	\$628,884	\$514,008
Contingency Costs @ 30%:	\$645,971	\$940,326	\$771,009
Total:	\$3,229,856	\$4,701,630	\$3,855,043

A27

URA#41

Water Cost

Technique/ Option	Quantity	Units	Low Range		High Range		Engineer's Estimate	
			Cost/ Unit	Total Cost	Cost/ Unit	Total Cost	Cost/ Unit	Total Cost
Source expansion								
Surface water		mgd	\$800,000	\$0	\$1,200,000	\$0	\$1,000,000	\$0
Groundwater	0.32	mgd	\$475,000	\$152,000	\$525,000	\$168,000	\$500,000	\$160,000
Treatment and appurtenances								
Level A (Expansion)	0.32	mgd	\$300,000	\$96,000	\$500,000	\$160,000	\$400,000	\$128,000
Level B (New Plant)		mgd	\$1,000,000	\$0	\$1,500,000	\$0	\$1,250,000	\$0
Maintenance (20 year present worth)	0.32	mgd	\$750,000	\$240,000	\$1,250,000	\$400,000	\$1,600,000	\$320,000
Transmission lines								
Small (<= 12')		ft	\$150	\$0	\$180	\$0	\$175	\$0
Medium (12' - 22')		ft	\$180	\$0	\$225	\$0	\$200	\$0
Large (>= 22')		ft	\$200	\$0	\$275	\$0	\$250	\$0
River crossing (bridge, estimated @ 8")								
Small (<=75' length, estimated @ 75')		each	\$3,750	\$0	\$4,500	\$0	\$4,160	\$0
Medium (75' - 150' length, estimated @ 150')		each	\$6,750	\$0	\$7,500	\$0	\$7,200	\$0
Large (>= 150' length)		each	\$7,500	\$0	\$11,000	\$0	\$10,600	\$0
River crossing (bore/trench, estimated at 30")								
Small (<=75' length)		each	\$46,575	\$0	\$47,625	\$0	\$47,100	\$0
Medium (75' - 150' length)		each	\$87,450	\$0	\$88,600	\$0	\$88,125	\$0
Large (>= 150' length, estimated @ 200')		each	\$118,000	\$0	\$120,200	\$0	\$118,100	\$0
Pressure reducing valves								
Small		each	\$30,000	\$0	\$35,000	\$0	\$32,000	\$0
Medium		each	\$40,000	\$0	\$50,000	\$0	\$45,000	\$0
Large		each	\$60,000	\$0	\$75,000	\$0	\$70,000	\$0
Water meters								
Large		each	\$60,000	\$0	\$80,000	\$0	\$70,000	\$0
Distribution system storage								
Small (1-2 mg)		mg	\$1,000,000	\$0	\$2,000,000	\$0	\$1,500,000	\$0
Medium (2-5 mg)		mg	\$2,000,000	\$0	\$3,000,000	\$0	\$2,500,000	\$0
Large (>5 mg)		mg	\$3,000,000	\$0	\$6,000,000	\$0	\$5,000,000	\$0
Pump stations								
Small (80 year present worth)		each	\$90,000	\$0	\$110,000	\$0	\$100,000	\$0
Medium (80 year present worth)		each	\$745,000	\$0	\$855,000	\$0	\$800,000	\$0
Large (80 year present worth)		each	\$1,400,000	\$0	\$1,600,000	\$0	\$1,500,000	\$0
Maintenance (20 year present worth)	0	each	\$100,000	\$0	\$150,000	\$0	\$128,000	\$0

Base Total	\$488,000	\$728,000	\$608,000
Engineering Costs @ 20%	\$97,600	\$145,600	\$121,600
Contingency Costs @ 30%	\$146,400	\$218,400	\$182,400
Total	\$488,000	\$728,000	\$608,000

Appendix A
URA #41

URA#41

Stormwater Cost

Technique/ Option	Quantity	Units	Low Range		High Range		Engineer's Estimate	
			Cost/ Unit	Total Cost	Cost/ Unit	Total Cost	Cost/ Unit	Total Cost
Pipe, manholes & trenching								
Small (<=18" diameter)		feet	\$70	\$0	\$120	\$0	\$110	\$0
Medium 21" - 42" diameter, estimated @ 42"		feet	\$130	\$0	\$220	\$0	\$190	\$0
Large (>=45" diameter, estimated @ 60")		feet	\$180	\$0	\$300	\$0	\$270	\$0
Maintenance (20 year present worth)	0	feet	\$32	\$0	\$48	\$0	\$40	\$0
Extra for pipe construction at wetland								
Shallow to moderate soil depth		feet	\$20	\$0	\$40	\$0	\$30	\$0
Deep soil depth		feet	\$30	\$0	\$60	\$0	\$50	\$0
Stream and riparian mitigation								
<25' wide		feet	\$100	\$0	\$200	\$0	\$180	\$0
25' to 75' wide		feet	\$250	\$0	\$350	\$0	\$330	\$0
> 75' - 200' wide		feet	\$350	\$0	\$450	\$0	\$430	\$0
Wetland mitigation								
Low quality		acre	\$10,000	\$0	\$25,000	\$0	\$18,250	\$0
Medium quality		acre	\$15,000	\$0	\$35,000	\$0	\$22,750	\$0
High quality		acre	\$20,000	\$0	\$40,000	\$0	\$28,000	\$0
Channelization								
Small (10 ft X-Sept)		feet	\$50	\$0	\$100	\$0	\$80	\$0
Medium (25 ft X-Sept)		feet	\$100	\$0	\$150	\$0	\$140	\$0
Large (45 ft X-Sept)		feet	\$175	\$0	\$275	\$0	\$250	\$0
Maintenance (20 year present worth)	0	feet	\$20	\$0	\$48	\$0	\$32	\$0
Water quality pond/marsh								
Small (<= .50 acres)		each	\$125,000	\$0	\$250,000	\$0	\$200,000	\$0
Medium (.51 - 2 acres)		each	\$140,000	\$0	\$280,000	\$0	\$225,000	\$0
Large (>2 acres)		each	\$180,000	\$0	\$320,000	\$0	\$260,000	\$0
Maintenance (20 year present worth)	0	each	\$180,000	\$0	\$480,000	\$0	\$320,000	\$0
On - stream detention								
Small Regional (50 - 150 acres)		each	\$100,000	\$0	\$200,000	\$0	\$150,000	\$0
Medium Regional (150 - 250 acres)		each	\$150,000	\$0	\$250,000	\$0	\$200,000	\$0
Large Regional (>250 acres)		each	\$250,000	\$0	\$600,000	\$0	\$400,000	\$0
Maintenance (20 year present worth)	0	each	\$80,000	\$0	\$160,000	\$0	\$98,000	\$0
Off - stream detention								
On - Site	1	each	\$50,000	\$50,000	\$80,000	\$80,000	\$70,000	\$70,000
Small Regional (50 - 150 acres)		each	\$250,000	\$0	\$400,000	\$0	\$350,000	\$0
Medium Regional (150 - 250 acres)		each	\$350,000	\$0	\$750,000	\$0	\$600,000	\$0
Large Regional (>250 acres)		each	\$700,000	\$0	\$2,000,000	\$0	\$1,200,000	\$0
Maintenance (20 year present worth)	0	each	\$320,000	\$0	\$800,000	\$0	\$560,000	\$0

Base Total.	\$50,000	\$80,000	\$70,000
Engineering Costs @ 20%	\$10,000	\$16,000	\$14,000
Contingency Costs @ 30%	\$15,000	\$24,000	\$21,000
Total	\$75,000	\$120,000	\$105,000

Appendix A
URA #41

A-219

A 230

URA#42

Wastewater Cost

Technique/ Option	Quantity	Units	Low Range		High Range		Engineer's Estimate	
			Cost/ Unit	Total Cost	Cost/ Unit	Total Cost	Cost/ Unit	Total Cost
Pipe, manholes & trenching								
Small (<=15" diameter)	17,550	feet	\$75	\$1,316,250	\$105	\$1,842,750	\$90	\$1,579,500
Medium (18" - 24" diameter, estimated @ 24")		feet	\$120	\$0	\$170	\$0	\$145	\$0
Large (>=27" diameter, estimated @ 42")		feet	\$210	\$0	\$300	\$0	\$250	\$0
Maintenance (20 year present worth)	17,550	feet	\$40	\$702,000	\$64	\$1,123,200	\$48	\$842,400
Pipe, manholes & trenching; extra deep								
Small (<=15" diameter)		feet	\$90	\$0	\$130	\$0	\$120	\$0
Medium (18" - 24" diameter, estimated @ 24")		feet	\$144	\$0	\$205	\$0	\$190	\$0
Large (>=27" diameter, estimated @ 42")		feet	\$252	\$0	\$355	\$0	\$330	\$0
Maintenance (20 year present worth)	0	feet	\$40	\$0	\$64	\$0	\$48	\$0
Pump stations								
Small (80 year present worth)		each	\$9,000	\$0	\$110,000	\$0	\$100,000	\$0
Medium (80 year present worth)	1	each	\$745,000	\$745,000	\$855,000	\$855,000	\$800,000	\$800,000
Large (80 year present worth)		each	\$1,400,000	\$0	\$1,800,000	\$0	\$1,500,000	\$0
Maintenance (20 year present worth)	1	each	\$128,000	\$128,000	\$192,000	\$192,000	\$180,000	\$180,000
Force mains								
Small		feet	\$75	\$0	\$105	\$0	\$90	\$0
Medium	6,100	feet	\$120	\$732,000	\$170	\$1,037,000	\$145	\$884,500
Large		feet	\$210	\$0	\$300	\$0	\$250	\$0
Maintenance (20 year present worth)	6,100	feet	\$32	\$195,200	\$48	\$292,800	\$40	\$244,000
Extra for pipe construction at wetland								
Shallow to moderate soil depth		feet	\$20	\$0	\$40	\$0	\$30	\$0
Deep soil depth		feet	\$30	\$0	\$60	\$0	\$50	\$0
Stream and riparian mitigation								
<25' wide	3,000	feet	\$100	\$300,000	\$200	\$600,000	\$180	\$540,000
25' to 75' wide		feet	\$250	\$0	\$350	\$0	\$330	\$0
> 75' - 200' wide		feet	\$350	\$0	\$450	\$0	\$430	\$0
Wetland mitigation								
Low quality		acre	\$10,000	\$0	\$25,000	\$0	\$18,250	\$0
Medium quality		acre	\$15,000	\$0	\$35,000	\$0	\$22,750	\$0
High quality		acre	\$20,000	\$0	\$40,000	\$0	\$28,000	\$0
River crossing (bridge, estimated @ 8")								
Small (<=75' length, estimated @ 75')		each	\$3,750	\$0	\$4,500	\$0	\$4,180	\$0
Medium (75' - 150' length, estimated @ 150')		each	\$6,750	\$0	\$7,500	\$0	\$7,200	\$0
Large (>= 150' length)		each	\$7,500	\$0	\$11,000	\$0	\$10,600	\$0
River crossing (bore/trench, estimated at 30")								
Small (<=75' length)		each	\$46,575	\$0	\$47,625	\$0	\$47,100	\$0
Medium (75' - 150' length)		each	\$87,450	\$0	\$88,600	\$0	\$88,125	\$0
Large (>= 150' length, estimated @ 200')		each	\$118,000	\$0	\$120,200	\$0	\$119,100	\$0
Treatment capacity								
Medium (10/10)		mgd	\$3,000,000	\$0	\$5,000,000	\$0	\$4,000,000	\$0
AWT (USA)	0.42	mgd	\$4,000,000	\$1,680,000	\$6,000,000	\$2,520,000	\$5,000,000	\$2,100,000
Maintenance (20 year present worth)	0.42	mgd	\$2,880,000	\$1,209,600	\$4,000,000	\$1,680,000	\$3,200,000	\$1,344,000

Base Total \$7,008,050 \$10,142,750 \$8,494,400

Engineering Costs @ 20% \$1,401,610 \$2,028,550 \$1,698,880
 Contingency Costs @ 30% \$2,102,415 \$3,042,825 \$2,548,320

Total \$10,512,075 \$15,214,125 \$12,741,600

URA#42

Water Cost

Technique/ Option	Quantity	Units	Low Range		High Range		Engineer's Estimate	
			Cost/Unit	Total Cost	Cost/Unit	Total Cost	Cost/Unit	Total Cost
Source expansion								
Surface water		mgd	\$800,000	\$0	\$1,200,000	\$0	\$1,000,000	\$0
Groundwater	0.63	mgd	\$475,000	\$299,250	\$525,000	\$330,750	\$500,000	\$315,000
Treatment and appurtenances								
Level A (Expansion)	0.63	mgd	\$300,000	\$189,000	\$500,000	\$315,000	\$400,000	\$252,000
Level B (New Plant)		mgd	\$1,000,000	\$0	\$1,500,000	\$0	\$1,250,000	\$0
Maintenance (20 year present worth)	0.63	mgd	\$750,000	\$472,500	\$1,250,000	\$787,500	\$1,000,000	\$630,000
Transmission lines								
Small (<= 12")		ft	\$150	\$0	\$180	\$0	\$175	\$0
Medium (12" - 22")	15,750	ft	\$160	\$2,520,000	\$225	\$3,543,750	\$200	\$3,150,000
Large (>=22")		ft	\$200	\$0	\$275	\$0	\$250	\$0
River crossing (bridge, estimated @ 8")								
Small (<=75' length, estimated @ 75')		each	\$3,750	\$0	\$4,500	\$0	\$4,160	\$0
Medium (75' - 150' length, estimated @ 150')		each	\$8,750	\$0	\$7,500	\$0	\$7,200	\$0
Large (>= 150' length)		each	\$7,500	\$0	\$11,000	\$0	\$10,600	\$0
River crossing (bore/trench, estimated at 30")								
Small (<=75' length)	1	each	\$48,575	\$48,575	\$47,625	\$47,625	\$47,100	\$47,100
Medium (75' - 150' length)		each	\$87,450	\$0	\$88,800	\$0	\$88,125	\$0
Large (>= 150' length, estimated @ 200')		each	\$118,000	\$0	\$120,200	\$0	\$119,100	\$0
Pressure reducing valves								
Small		each	\$30,000	\$0	\$35,000	\$0	\$32,000	\$0
Medium		each	\$40,000	\$0	\$50,000	\$0	\$45,000	\$0
Large		each	\$60,000	\$0	\$75,000	\$0	\$70,000	\$0
Water meters								
Large		each	\$60,000	\$0	\$80,000	\$0	\$70,000	\$0
Distribution system storage								
Small (1-2 mg)	1	mg	\$1,000,000	\$1,000,000	\$2,000,000	\$2,000,000	\$1,500,000	\$1,500,000
Medium (2-5 mg)		mg	\$2,000,000	\$0	\$3,000,000	\$0	\$2,500,000	\$0
Large (>5 mg)		mg	\$3,000,000	\$0	\$6,000,000	\$0	\$5,000,000	\$0
Pump stations								
Small (60 year present worth)		each	\$90,000	\$0	\$110,000	\$0	\$100,000	\$0
Medium (60 year present worth)		each	\$745,000	\$0	\$855,000	\$0	\$800,000	\$0
Large (60 year present worth)		each	\$1,400,000	\$0	\$1,600,000	\$0	\$1,500,000	\$0
Maintenance (20 year present worth)	0	each	\$100,000	\$0	\$150,000	\$0	\$128,000	\$0

Base Total:	\$4,527,325	\$7,024,625	\$5,894,100
Engineering Costs @ 20%:	\$905,465	\$1,404,925	\$1,178,820
Contingency Costs @ 30%:	\$1,358,198	\$2,107,388	\$1,768,230
Total:	\$4,527,325	\$7,024,625	\$5,894,100

Appendix A
URA #42

A281

A282

URA#42

Stormwater Cost

Technique/ Option	Quantity	Units	Low Range		High Range		Engineer's Estimate	
			Cost/ Unit	Total Cost	Cost/ Unit	Total Cost	Cost/ Unit	Total Cost
Pipe, manholes & trenching								
Small (<=18" diameter)		feet	\$70	\$0	\$120	\$0	\$110	\$0
Medium 21" - 42" diameter, estimated @ 42"		feet	\$130	\$0	\$220	\$0	\$190	\$0
Large (>=45" diameter, estimated @ 60")		feet	\$180	\$0	\$300	\$0	\$270	\$0
Maintenance (20 year present worth)	0	feet	\$32	\$0	\$48	\$0	\$40	\$0
Extra for pipe construction at wetland								
Shallow to moderate soil depth		feet	\$20	\$0	\$40	\$0	\$30	\$0
Deep soil depth		feet	\$30	\$0	\$60	\$0	\$50	\$0
Stream and riparian mitigation								
<25' wide		feet	\$100	\$0	\$200	\$0	\$180	\$0
25' to 75' wide		feet	\$250	\$0	\$350	\$0	\$330	\$0
> 75' - 200' wide		feet	\$350	\$0	\$450	\$0	\$430	\$0
Wetland mitigation								
Low quality		acre	\$10,000	\$0	\$25,000	\$0	\$18,250	\$0
Medium quality		acre	\$15,000	\$0	\$35,000	\$0	\$22,750	\$0
High quality		acre	\$20,000	\$0	\$40,000	\$0	\$26,000	\$0
Channelization								
Small (10 ft ² X-Sept)	100	feet	\$50	\$5,000	\$100	\$10,000	\$80	\$8,000
Medium (25 ft ² X-Sept)		feet	\$100	\$0	\$150	\$0	\$140	\$0
Large (45 ft ² X-Sept)		feet	\$175	\$0	\$275	\$0	\$250	\$0
Maintenance (20 year present worth)	100	feet	\$20	\$2,000	\$48	\$4,800	\$32	\$3,200
Water quality pond/marsh								
Small (<= .50 acres)	1	each	\$125,000	\$125,000	\$250,000	\$250,000	\$200,000	\$200,000
Medium (.51 - 2 acres)		each	\$140,000	\$0	\$280,000	\$0	\$225,000	\$0
Large (>2 acres)	1	each	\$180,000	\$180,000	\$320,000	\$320,000	\$260,000	\$260,000
Maintenance (20 year present worth)	2	each	\$180,000	\$320,000	\$480,000	\$960,000	\$320,000	\$640,000
On - stream detention								
Small Regional (50 - 150 acres)	1	each	\$100,000	\$100,000	\$200,000	\$200,000	\$150,000	\$150,000
Medium Regional (150 - 250 acres)		each	\$150,000	\$0	\$250,000	\$0	\$200,000	\$0
Large Regional (>250 acres)	1	each	\$250,000	\$250,000	\$600,000	\$600,000	\$400,000	\$400,000
Maintenance (20 year present worth)	2	each	\$80,000	\$160,000	\$160,000	\$320,000	\$98,000	\$196,000
Off - stream detention								
On - Site		each	\$50,000	\$0	\$80,000	\$0	\$70,000	\$0
Small Regional (50 - 150 acres)		each	\$250,000	\$0	\$400,000	\$0	\$350,000	\$0
Medium Regional (150 - 250 acres)		each	\$350,000	\$0	\$750,000	\$0	\$600,000	\$0
Large Regional (>250 acres)		each	\$700,000	\$0	\$2,000,000	\$0	\$1,200,000	\$0
Maintenance (20 year present worth)	0	each	\$320,000	\$0	\$800,000	\$0	\$560,000	\$0

Base Total	\$1,142,000	\$2,664,800	\$1,857,200
Engineering Costs @ 20%	\$228,400	\$532,960	\$371,440
Contingency Costs @ 30%	\$342,600	\$799,440	\$557,160
Total	\$1,713,000	\$3,997,200	\$2,785,800

Appendix A
URA #42

DAMMASCH AREA TRANSPORTATION-EFFICIENT LAND USE PLAN

January 31, 1997

Prepared for the City of Wilsonville

Prepared by

*David Evans and Associates, Inc.
Leland Consulting Group
Fletcher Farr Ayotte
Jeanne Lawson Associates*

TABLE OF CONTENTS

Section	Page
SUMMARY.....	i
1. PROJECT DESCRIPTION.....	1
1.1 LOCATION.....	1
1.2 BACKGROUND.....	1
1.3 PLANNING PROCESS.....	1
1.3.1 Task Force.....	1
1.3.2 Stakeholder Interviews.....	2
1.3.3 Private Property Owners.....	5
1.3.4 Public Workshops.....	6
1.3.5 Plan Adoption.....	7
1.3.6 Summary of Stakeholders' Issues.....	8
1.3.7 Relevant Metro Decisions.....	8
2. SITE ANALYSIS.....	11
2.1 RELATED PLANS AND POLICIES.....	11
2.1.1 City of Wilsonville.....	11
2.1.2 Clackamas County.....	35
2.1.3 Metro.....	35
2.1.4 State of Oregon.....	47
2.1.5 Other Documents Related to Planning for the Dammasch Area.....	49
2.2 STUDY AREA INVENTORY.....	51
2.2.1 Natural Environment.....	51
2.2.2 Cultural and Infrastructure.....	60
2.2.3 Land Ownership and Improvements.....	67
2.2.4 Land Available for Development.....	72
3. MARKET ANALYSIS.....	75
3.1 INTRODUCTION.....	75
3.1.1 Methodology.....	75
3.1.2 Overview of Data Sources.....	76
3.2 WILSONVILLE DEMOGRAPHIC OVERVIEW.....	76
3.2.1 Population Growth in Wilsonville and the Region.....	76
3.2.2 Income Growth.....	78
3.2.3 Population Age Composition.....	78
3.2.4 Household Size.....	82
3.3 HOUSING MARKET.....	82
3.3.1 Introduction.....	82
3.3.2 Definition of Housing Market Trade Areas.....	84
3.3.3 Housing Market Analysis—Primary Trade Area.....	86
3.3.4 Housing Market Analysis—Secondary Market Area.....	86
3.3.5 Housing Market Analysis—Tertiary Market Area.....	87
3.3.6 Household Demographics, Income and Suitability of Housing Product.....	89

6.1 DESCRIPTION OF THE ANALYSIS	139
6.1.1 Planned Improvements.....	139
6.1.2 Development Scenarios.....	140
6.1.3 Land Use Projections	143
6.1.4 Traffic Projections.....	144
6.1.5 Methodology	144
6.2 FINDINGS	147
6.2.1 Existing Land Use.....	147
6.2.2 No-Build Land Use	150
6.2.3 Proposed Urban Village Land Use.....	151
6.2.4 Impact of Urban Village Development.....	154
6.3 CONCLUSIONS AND RECOMMENDATIONS.....	155
7. COST ESTIMATES FOR DEVELOPMENT OPTIONS	157
7.1 OPTIONS EVALUATED.....	157
7.2 FACILITIES INCLUDED IN THE COST ESTIMATES	157
7.2.1 Transportation Facilities	157
7.2.2 Utility Improvements	161
7.3 ESTIMATED TOTAL COSTS FOR EACH OPTION	161
8. EVALUATION OF DEVELOPMENT OPTIONS.....	165
8.1 EVALUATION CRITERIA.....	165
8.2 CITIZEN EVALUATION.....	165
8.3 ADOPTION OF DAMMASCH AREA PLAN	167
9. ADOPTED CONCEPTUAL PLAN	169
9.1 GENERAL DESCRIPTION	169
9.2 LAND USE	169
9.2.1 Village Center	170
9.2.2 Residential Development	177
9.2.3 Reuse of Dammasch Hospital Facilities	178
9.3 CIRCULATION FRAMEWORK.....	179
9.3.1 Primary Roadways	179
9.3.2 Local Roadways	179
9.4 OPEN SPACE FRAMEWORK.....	179
9.5 BACKGROUND AND PLAN DEVELOPMENT	180
9.5.1 Response to Public Involvement.....	180
9.6 DEVELOPMENT OF COMMUNITY CHARACTER.....	181
9.7 INTEGRATED TRANSPORTATION SYSTEM.....	182
9.7.1 Compliance with the Transportation Planning Rule	182
9.8 INFRASTRUCTURE COSTS	183
9.8.1 Transportation Facilities	183
9.8.2 Utility Improvements	186
9.9 FINANCIAL ANALYSIS.....	186
9.9.1 Implementation Strategy	187
9.9.2 Development Assumptions and Feasibility.....	188
10. REFERENCES	195
10.1 PERSONAL COMMUNICATIONS	196

Other soil types in the planning area contain inclusions of hydric soils. Aloha silt loam, Amity silt loam, Quatama loam, Willamette silt loam, and Woodburn silt loam are all classified as having some hydric components. Locations of hydric inclusions in these soils will need to be determined through soil testing.

2.2.1.3 Drainageways

Coffee Lake Creek is the principal drainageway in the Dammasch planning area. Roughly 320 acres of the 520-acre planning area drains to Coffee Lake Creek in the eastern part of the planning area. A minor tributary of the Willamette River, Coffee Lake Creek flows southerly approximately 5.2 miles from its origin in the Tonquin area, through western Wilsonville (and the Dammasch planning area) to the Willamette. It has a total drainage area of approximately 8.2 square miles (FEMA, 1987). South of Boeckman Road, Coffee Lake Creek is also known as Seely Ditch.

Approximately 100 acres in the far western portion of the planning area, including the Living Enrichment Center and land to the north, drains into Mill Creek. Another 100 or so acres, including much of the developed portions of the Dammasch Hospital site, naturally drains to the south, through the Wilsonville Tract, eventually draining into the southern portion of Coffee Lake Creek. However, runoff from impervious surfaces on the Dammasch Hospital grounds is collected in an underground storm drainage system and diverted from its natural drainageway and into the Mill Creek drainage. If the Dammasch area is redeveloped, the existing Dammasch storm drainage system should be abandoned, restoring natural drainage patterns. Increased impervious surfaces from development of the area would also necessitate stormwater treatment.

2.2.1.4 Flood Plains

A detailed flood plain analysis has not been conducted within the Dammasch Planning Area. Coffee Lake Creek is known to flood periodically, but there are no gauging stations on the stream; therefore no records of major floods are available (FEMA, 1987). According to aerial photographs taken during the flood of February 1996, floodwaters covered much of the eastern portion of the planning area, along both sides of Coffee Lake Creek, from just north of Evergreen Road to Boeckman Road; areas north of Boeckman were also flooded.

The Federal Emergency Management Agency (FEMA) conducted a Flood Insurance Study for the City of Wilsonville in February 1987. FEMA calculated base flood elevations at several intervals on Coffee Lake Creek, from its mouth at the Willamette River to 6,005 feet upstream (near the southern boundary of the Dammasch planning area). According to the analysis, the 100-year flood elevation, at 6,005 feet upstream, is 142.8 feet National Geodetic Vertical Datum of 1929 (NGVD). Upstream from this point, the flood plain is quite broad, so the flood surface elevation is not expected to increase significantly at least as far upstream as Boeckman Road. The Flood Insurance Rate Map (FIRM) for the area indicates a 100-year flood elevation at 143 feet NGVD at a similar location. Figure 6 indicates the flood plain of Coffee Lake Creek in the Dammasch planning area.

2.2.1.5 Potentially Significant Natural Areas and Wetlands

The City of Wilsonville is in the process of identifying and evaluating natural areas in the study area and throughout the city. At the time of this writing, no natural areas have been designated as significant Goal 5 resources (Neamtzu, pers. comm., 1996). For the Dammasch Area Plan, potentially significant natural areas were determined through a review of existing documents, including:

- Aerial photos;
- Wilsonville's Goal 5 inventory;
- Natural Resource Conservation Service soil survey;
- US Fish and Wildlife National Wetland Inventory; and
- Metro's 100-year flood plain and natural vegetation GIS overlays.

Areas were determined to be potentially significant if they contained suitable habitat for threatened or endangered species or if they had any three of the following criteria:

- Over five acres in size;
- Connection to other habitats;
- Corridor connection;
- Native plant communities;
- Wetlands (either over one acre in size for isolated wetlands or any adjacent to other habitats); or
- Wildlife features (i.e., water, cover, corridor, snags, dead and down woody debris).

Based on these criteria, four areas were identified as potentially significant natural areas. Each resource is briefly discussed below and is shown on Figure 8.

The large wetland complex on the east end of the planning area (Coffee Lake Creek and Coffee Lake Creek wetlands) was determined to be potentially significant based on size, containing more than one habitat type, corridor connection, connection to other habitat types, and this area

was identified as a Goal 5 resource in the Wilsonville Goal 5 inventory. This wetland area is mapped as Humaquepts by the NRCS. Coffee Lake Creek is a permanent open water feature.

The upland Douglas-fir stand at the north end of the study area was determined to be potentially significant because it is over 5 acres in size (approximately 11.5), it contains wildlife features, and has a wet drainage through the northeast corner. The understory has been removed and used as a residential yard. Possible enhancement of this area could include replanting the understory.

West of the upland coniferous forest is a mixed coniferous-deciduous forest. This area was determined to be potentially significant because it is over 5 acres in size (approximately 8.2 acres), contains two habitat types, and contains wildlife features. This area has an undisturbed understory.

The mixed coniferous-deciduous forest around the Living Enrichment Center has also been determined to be a potentially significant natural resource because it is over 5 acres in size, contains wildlife features and more than one habitat type, and has a connection to wetlands and a corridor connection. This area is slightly disturbed based on the trail system through the forest. However, the trails keep people in concentrated paths through the resource area, leaving the remainder undisturbed. The Living Enrichment Center property also contains some wetland areas identified in the City of Wilsonville's Goal 5 resource inventory.

Development constraints are dependent upon the City's Goal 5 ordinance, which has not yet been completed. If any natural area in the Dammasch planning area is determined to be significant, an ESEE (Environmental, Social, Economic, and Energy) analysis would be required prior to any development within that area(s). In addition, wetlands are under the jurisdiction of both DSL and the US Army Corps of Engineers. Any alteration of jurisdictional wetland areas must be coordinated with these two agencies. There is debate about whether any wetlands in the Dammasch planning area are considered jurisdictional. According to Metro RLIS data, two wetlands identified in the National Wetland Inventory (NWI) are in the planning area (Metro, 1996a). Both are in the northeast portion of the planning area and are shown on Figure 7.

2.2.1.7 Vegetation

Section 2.2.1.6 discussed the forested and wetland areas in the Dammasch planning area. Most of the vegetation in the planning area consists of grasses and agricultural crops, as shown on Figure 8.

Land between 110th Avenue and Coffee Lake Creek is in agricultural use--predominantly cultivated crops and pasture. An orchard is located near the middle of the area, and some upland scrub/shrub areas are also found west of Coffee Lake Creek. East of Coffee Lake Creek is an open, grassy meadow. Open areas west and north of the Dammasch hospital grounds are characterized by grassy areas, fallow fields, and pasture.

The Dammasch hospital grounds themselves (the part of the hospital site within the UGB) are vegetated primarily with grasses (maintained lawns and open meadows). Ornamental trees and shrubs are planted along the roadways, and near the hospital buildings and on-site residences.

2.2.2 Cultural and Infrastructure

2.2.2.1 Schools

There are no schools within the Dammasch planning area. Wood Middle School is located south of the planning area on Wilsonville Road. The nearest elementary school is south of Wilsonville Road on Boones Ferry Road. Both are within West Linn/Wilsonville School District 3J.

The school district has identified the need for an additional school(s) in western Wilsonville; however, no specific sites have been selected. According to the school district, they are currently preparing a plan for future school development, but the plan is not ready for release to the public at this time. The district is still considering the potential school sites identified in the City's Park & Recreation Master Plan (Nutt, pers. comm., 1996). That plan identifies a potential school site adjacent to Wood Middle School, in the Wilsonville Tract.

When asked how development of the Dammasch area would affect local schools, a representative of the school district stated that it would likely create the need for an additional elementary school and for expansion of the existing middle school (Nelson, pers. comm., 1996). This projection was based on an estimated 2,300 dwelling units being built in the Dammasch planning area, as prescribed in the development program presented in Section 4 of this document. The district would prefer that a school be included in the Dammasch Area Plan and would comprise at least 10 acres, so adequate play fields could be provided.

2.2.2.2 Fire and Police Services

Fire protection is provided by the Tualatin Valley Fire and Rescue. The Fire District is responsible for maintenance and upgrades of fire-fighting equipment, and for making necessary capital improvements such as new fire stations (City of Wilsonville, 1980). In Wilsonville, Tualatin Valley Fire and Rescue has a fire station on Kinsman Road, just north of Wilsonville Road, and another station on Elligsen, at the City Hall Annex.

The Clackamas County Sheriff's Department provides law enforcement service to the City of Wilsonville and surrounding area on a 24-hour basis. The sheriff's office is also located at the City Hall Annex on Elligsen.

2.2.2.3 Parks and Recreation

Although numerous parks and recreation facilities are available in the Portland metropolitan area, relatively few parks are located within the City of Wilsonville. The City's Parks & Recreation Master Plan (City of Wilsonville, 1994) lists seven city parks:

- Memorial Park (56.84 acres)
- Memorial Park East (41 acres)
- Fox Chase (2.51 acres)
- Town Center Property
- Courtside Estates Park
- Boones Ferry Park (6.0 acres)
- Tranquil Nature Park (4.57 acres)

None are located within the Dammasch planning area. Tranquil Nature Park is south of the planning area, on the west side of Brown Road. The Park at Merryfield, on private property north of Wood Middle School, is slated for near-term development. Both parks include natural areas and will offer minimal recreation facilities.

Memorial Park, the City's largest park, is in the southeast part of town, adjacent to the Willamette River. Memorial Park offers ballfields, soccer fields, picnic areas, and a variety of other active and passive recreation options.

2.2.2.4 Libraries

The City of Wilsonville has a single library, which is operated by the City. It is located in east Wilsonville, on Wilsonville Road and Memorial Drive, near City Hall.

2.2.2.5 Transportation Facilities

Transportation facilities serving the study area are identified in the City's Transportation Master Plan (City of Wilsonville, 1991). The facilities, and their classifications according to the plan, include:

- Grahams Ferry Road, a two-lane rural collector under Clackamas County and Washington County jurisdiction;
- Tooze Road, a two-lane major collector that ends at Brown Road/110th. If extended, Tooze Road would connect with Boeckman Road.
- Boeckman Road, a two-lane minor arterial that extends over I-5 on a two lane bridge;
- Brown Road/ 110th, a two-lane major collector that connects with Wilsonville Road at a signalized intersection. This road extends past the entrance to the Dammasch State Hospital site and connects with Tooze Road;

- Barber Road, a two-lane major collector connecting Boones Ferry Road with Kinsman Road;
- Kinsman Road, a two-lane minor arterial that connects Barber Road with Wilsonville Road at a signalized intersection.
- Boones Ferry Road, a two-lane minor arterial street running parallel to I-5 that connects with Boeckman Road and with Wilsonville Road at a signalized intersection; and
- Wilsonville Road, which extends under and provides complete access to I-5. Between Brown Road and Kinsman, Wilsonville Road is a minor arterial; east of Kinsman to Town Center Loop, it is designated a major arterial.

The study area has a limited local street network consisting mostly of facilities connecting buildings at the Dammasch site.

2.2.2.6 Transit Services

Transit service is provided by South Metro Area Rapid Transit (SMART). SMART provides both fixed-route and demand-responsive transit service in Wilsonville. SMART operates four fixed routes, two of which provide service near the Dammasch area. Route 204 travels from the Knight's Castle area on the east side of Wilsonville to Fox Chase along Wilsonville Road. This route travels north on Boones Ferry Road, turns onto Barber and then south onto Kinsman, from which it turns west onto Wilsonville Road. This route operates from 5:45 AM to 6:30 PM Monday through Friday. Route 203 travels from Commerce Circle and 95th Avenue to Wilsonville City Hall along Boberg/Boones Ferry Road and Wilsonville Road. This is a peak-hour route which operates from 6:20 to 9:20 AM and 2:20 to 6:20 PM. Connecting service is available to other transportation services.

SMART's dial-a-ride service provides curb-to-curb service for the general public on a first-come, first-served basis. It operates from 5:30 AM to 8:45 PM Monday through Friday and from 7 AM to 5 PM on Saturday. SMART also provides LINK service to connect to areas within a 25-mile radius of Wilsonville. This service is designed to link customers to transportation services outside the city limits. LINK is available from 9:45 AM to 3 PM Monday through Friday and from 7 AM to 5 PM on Saturday.

2.2.2.7 Sanitary Sewer Facilities

The Dammasch planning area is not currently served by City of Wilsonville sanitary sewer, with the exception of the Living Enrichment Center in the southwest portion of the planning area. The Living Enrichment Center uses a lift station to pump effluent into a City sanitary line that runs through residential areas to the west. An existing 15-inch sanitary sewer line (recently upgraded from a 10-inch line) is adjacent to the south boundary of the planning area and will probably be adequate to serve future development in the area. Sanitary service to the planning area can be provided through a combination of lift stations and gravity sewers. The City's 30-inch Seely

Ditch trunk line is over capacity downstream of the 15-inch line and must be upgraded to increase capacity prior to development of the planning area.

A small wastewater treatment plant, constructed to serve the Dammasch hospital, is still in service. The treatment plant is located just south of the Living Enrichment Center and near Grahams Ferry Road. The hospital's sanitary collection system delivers wastewater to the plant, which passes the effluent through the comminutor (to break down solids), to the primary clarifier, through a trickling filter using natural gravel media, then through a final clarifier. The effluent is chlorinated prior to being discharged to Corral Creek and the Willamette River.

According to Dammasch staff, the system does not meet Oregon Department of Environmental Quality (DEQ) criteria for discharge when mixing water from storm runoff is not present. During a site visit on August 7, 1996, the flow to the plant was so low there was no discharge. The only flow occurring was recycle flow pumped from the final clarifier to the headworks.

2.2.2.8 Storm Drainage Facilities

Storm water drains generally to Coffee Lake Creek on the eastern portion of the planning area, and wetlands in the western portion. Storm water may require treatment to ensure adequate quality prior to discharge to the receiving bodies.

Runoff from impervious surfaces on the hospital grounds is collected in an underground storm drainage system and diverted from its natural drainageway (south through the Wilsonville Tract) into the Mill Creek drainage. This transport of storm water has caused erosion problems at its point of discharge. Redevelopment of the Dammasch area will provide an opportunity to restore the natural drainage patterns.

2.2.2.9 Water Supply Facilities

Water in the Dammasch planning area is supplied by wells, both public (City of Wilsonville) and private.

The City of Wilsonville has a strong backbone system to the northeast corner of the planning area. Looped 14-inch and 18-inch lines feed from the 2.2 million and 3.0 million gallon reservoirs at Elligsen Road and Canyon Creek Road North. A looped system of 12- and 14-inch lines in Barber Road and Kinsman Road is also tied to the Elligsen and Canyon Creek reservoir system. In addition, there is a 10- through 12-inch and a 14-inch loop from the Nike and Gesellschaft wells (southeast) with a 14-inch line to the Charbonneau wells and reservoir south of the Willamette River. An 10-inch line in Wilsonville Road may be nearing capacity due to recent development in the southwest portion of the City, but the City plans to upgrade this line to an 18-inch line in the spring of 1997.

The Dammasch hospital has its own on-site well water system. It consists of two separate well systems that serve domestic and fire requirements for the site. The domestic well system has a

The Dammasch hospital has its own on-site well water system. It consists of two separate well systems that serve domestic and fire requirements for the site. The domestic well system has a capacity of 300 gallons per minute (gpm), and the fire well system has a capacity of 950 gpm. The domestic system uses a filter and softener to improve the quality of the well water. According to Dammasch staff, a second filter system is used to treat the domestic water used in the steam boilers at the power plant.

Each of the two on-site wells has an elevated storage tank approximately 150 feet in height. The overflow elevation of the reservoirs is estimated to be about 350 feet. The overflow elevation of the City's Elligsen Road/Canyon Creek Road North reservoirs is 400 feet. Therefore, the systems cannot be interconnected successfully. It may be possible to use the existing Dammasch system, with supplemental City flow through a pressure-reducing valve or by boosting the pressure of the Dammasch water by pumping, for future development of the Dammasch planning area. These possibilities should be explored. The City has indicated an interest in acquiring the water, at least from the better quality well. This acquisition would be strictly for use as a backup emergency water supply source that would be used if the primary water supply source were presently unavailable. With the continually dropping water table in this area, that dependence on the Dammasch wells to provide water service to the Dammasch Urban Village would not be prudent.

The two Dammasch wells have been included in an Oregon Water Resources Department (OWRD) test pumping program since 1990. The tests have revealed that it is common for wells in Oregon to experience depletion of water level due to pumping from the Columbia River basalt. The two Dammasch wells are about 1000 feet deep and develop basalt ground water. The Dammasch wells contain higher levels of dissolved solids (mineralization) than shallower basalt wells in the area. This feature at the Dammasch wells points out an additional consideration with future use at the City wells. Since ground water mineralization generally increases with depth, we should expect that the City will be pumping more mineralized water in the future. This may be a practical problem for some uses in addition to being a general aesthetic problem.

2.2.2.10 *Electricity, Gas, and Telecommunications*

Electricity is provided by Portland General Electric. Power distribution lines are located along public roads throughout the planning area.

Northwest Natural Gas has several gas pipelines in the planning area: a 2-inch service along Evergreen Avenue (between Serenity Way and Montebello Drive); a 4-inch service to the Dammasch hospital boiler house (from 110th/Brown); a 4-1/2-inch line along 110th/Brown Road, then east through the Bischof property and ultimately in Boeckman Road. There is also a 6-5/8-inch gas main in Kinsman Road.

Telephone service in the planning area is provided by GTE Northwest.

Other parcels in the planning area are either vacant and in agricultural use, or contain single-family dwellings and assorted farm buildings. Dwellings are located on properties owned by:

- Rumpf (one dwelling);
- Taber (one dwelling);
- Nims (one dwelling);
- Bischof (two dwellings on Tooze Road property, one dwelling on 110th Avenue property);
- Chang (two dwellings);
- Dearmond (one dwelling);
- Piculell (one dwelling); and
- Kirkendall (one dwelling).

Most, if not all, of these dwellings would remain in their present locations if the Dammasch Area Plan is adopted and implemented.

2.2.4 Land Available for Development

The Dammasch Area Plan study area comprises approximately 520 acres. However, much of the planning area will be unavailable for development due to constraints such as existing development (e.g., the Living Enrichment Center), wetlands, flood plain designations, utility easements, open space expectations, rights-of-way, civic requirements, and whether land is within the UGB.

Table 2.5 provides a breakdown of the total acreage in the study area and indicates some of the land with development constraints. The parcel acreages shown in the table are taken from Clackamas County tax assessor data. Other acreages (i.e., flood plain, easements) were calculated using topographic map data from the City of Wilsonville, information from various utilities, and parcel data from Metro's RLIS data base. There were some discrepancies between the Metro parcel data and tax assessor data; the acreages presented in Table 2.5 should be considered approximate and should be verified through field survey.

As discussed in Section 2.2.3.2, several properties included in the Dammasch study area are crossed by utility easements. Information obtained from BPA, PGE, Northwest Natural Gas, Santa Fe Pacific, and the City of Wilsonville was used to determine the parcels and acreages affected by easements. Several easements were noted, although specific locations of some easements are not known, and all easements will have to be field verified. More thorough research may also reveal additional easements, though it is reasonable to expect that any additional easements would not greatly affect the developable area.

**Table 2.5
Dammach Study Area, Land Area Breakdown**

Total Area	519.89
Urban (Within UGB)	258.92
Rural	260.97
Area Unavailable for Urban Village Development (assuming expansion of UGB)	
Within Flood Plain	115.06
Easements*	12.44
Road Right-of-Way	11.20
Living Enrichment Center	42.75
Subtotal, Unavailable Area	166.92
Total Available for Urban Village Development (assuming expansion of UGB)	352.97

* Most of the land contained in easements also lies within the flood plain. The total area of land in easements that lies outside the flood plain is approximately 2.6 acres, which has been excluded from the developable area.

The flood plain acreage was estimated using the best available information. The flood plain acreage calculations are based on the FIRM for the area, which indicates a 143-foot elevation at the south edge of the planning area. For reference, aerial photographs taken during the February 1996 flood were examined. The flood water elevation was estimated at 139 feet at the time the photographs were taken. The flood plain area was assumed to be unavailable for development. However, it may be that some development will occur within the flood plain as it is shown on Figure 6. Although development may require some fill within the flood plain, the fill should be balanced with excavation, to avoid increasing flood levels on Coffee Lake Creek.

The Living Enrichment Center property is already partially developed, however much of the parcel remains in natural vegetation. At this time, the Living Enrichment Center plans to expand their facility and utilize the entire parcel for their activities, such as their church, temporary housing for retreat participants, and other uses accessory to the church. Therefore, their property was assumed to be unavailable for "urban village" development.

Development of the properties on the east side of the study area (belonging to Young and Jones) is constrained by the flood plain and BPA easement, which is 125 feet wide. Much of both properties is designated Primary Open Space in the Wilsonville Comprehensive Plan; the remainder is designated Secondary Open Space. The acreage of these two properties was also assumed to be unavailable for "urban village" uses. However, at least a portion of these properties is expected to be available for industrial development.

According to Jim Long, with the City of Wilsonville, roads in the study area are county roads and have 40-foot rights-of-way. The only exception is Brown Road, where it runs east-west along the

study area's southern boundary. Here, the southern half of Brown Road is within the City of Wilsonville, adding an additional 10 feet of width to the street's right-of-way.

6. TRANSPORTATION IMPACT ANALYSIS

6.1 DESCRIPTION OF THE ANALYSIS

This section examines the transportation effects of creating an urban village in the Dammasch planning area. The transportation impact analysis examines the effects of street network improvements as well as land use changes on the local transportation network. It identifies additional traffic burdens caused by the project at key intersections and roadways as well as any impacts improved transit and transportation demand management measures would have on the system. The analysis period is the PM peak hour under both existing (1995) and future year (2015) conditions. This study uses the Metro 2015 projected land use (household and employment allocations) in all areas except the planning area zones.

Capacity and level-of-service (LOS) calculations were performed for the following four signalized intersections: 1) Wilsonville Road at Boones Ferry Road, 2) Wilsonville Road at the I-5 southbound ramps, 3) Wilsonville Road at the I-5 northbound ramps, and 4) Elligsen Road at the I-5 northbound ramps.

This analysis also examines the traffic flows along three key roadways: the Boeckman Road overpass, the potential Barber Road overpass, and Brown Road north of Wilsonville Road. Traffic flows were also examined at the intersections of Tooze Road and Grahams Ferry Road, Brown Road at Wilsonville Road, and Boones Ferry Road at Wilsonville Road.

Figure 29 illustrates the project study area, the four intersections included in the operations analysis, and all roadways included in the traffic flow analysis.

6.1.1 Planned Improvements

The following proposed or under-construction street and interchange improvements were included in the analysis and are shown on Figure 29.

- The interchange of I-5 at Elligsen Road is being modified by ODOT to include a partial cloverleaf. When it is completed, the east to south movement at the southbound ramps, and the west to north movement at the northbound ramps will be rerouted onto a partial cloverleaf, thus the left-turn movement will be eliminated at each intersection. Lane configurations at the northbound ramps will consist of two through lanes on the west and east approaches, with a channelized right-turn lane on the east approach. The south approach consists of a left-through lane and a channelized right-turn lane. Since the planned signal timing of this intersection has not yet been determined, a 60-second-cycle length was used. This is typical for a two-phase system.

- The City of Wilsonville and ODOT plan to modify the interchange of I-5 at Wilsonville Road in 1997. The plans are to widen Wilsonville Road from four to six travel lanes at the interchange, with reconstruction of Wilsonville Road continuing west to Brown Road. Modifications such as the timing, phasing, and lane geometry for both intersections at the interchange have not yet been determined. Therefore, this analysis chose timing, phasing, and lane configurations to optimize traffic operations and achieve the best possible level-of-service. A 90-second-cycle length was used at both intersections which is typical of a three-phase traffic signal. This study assumed lane configurations at southbound ramps to include a channelized right-turn lane on the west approach; an exclusive left-turn lane on the east approach; and a left-turn lane, a left-through lane, and a channelized right-turn lane for the off-ramp on the north approach. Assumed lane configurations at the northbound ramps are reversed with the off-ramp approaching from the south. All through movements along Wilsonville Road at both intersections will have two through lanes.
- The intersection of Wilsonville Road and Boones Ferry Road will also be modified as part of the widening project. Wilsonville Road will have an added lane for a total of two through lanes. On the north approach another left-turn lane will be added as well.

Other current projects were not included in this analysis because they are not expected to alter the current or future travel patterns along the streets under examination. These projects are the partial closures of Boones Ferry Road from Ridder Road to Elligsen Road, and of Parkview Drive from Parkway Avenue to Elligsen Road. Closure of these streets is due to the construction of the partial cloverleaf at the I-5 interchange with Elligsen Road. Future year analysis does not include the Canyon Road extension because it is not part of the regional system.

6.1.2 Development Scenarios

This transportation analysis examined existing (1995) and future year (2015) traffic conditions using different combinations of land use and street improvement alternatives. The three street improvement alternatives include: 1) extending Boeckman Road west to connect with Tooze Road; 2) extending Barber Road across I-5 to connect with Parkview Avenue to the east and extending it west to the project site; and 3) both improvements. The development scenarios examined are listed in Table 6.1.

Scenarios one and two use 1995 land use as defined in the Metro regional transportation model. Scenario three and four use the year 2015 regional land use as projected by Metro in all areas except the urban village site, which was kept vacant. This methodology was used because Metro assumed intense land use development in the project area. If Metro land use was used, impacts of the project on the transportation system could not be evaluated. Scenarios five through eight used the proposed urban village land use in the study area along with the projected regional growth as in the No-Build land use. All scenarios, except scenario one, include planned improvements mentioned previously.

Currently, the City is embarking on a new Transportation System Plan (TSP). The recommendations that accompany the Dammasch Area Plan should be considered as part of this TSP.

9.8 INFRASTRUCTURE COSTS

Costs were estimated for the basic infrastructure (i.e., roads and utilities) needed to develop the Dammasch area. Costs for off-site facilities and improvements, such as additional water sources, sewage treatment facilities, and intersection and interchange improvements are not included in the basic infrastructure costs for the planning area. The need for such improvements is related to growth in general, and cannot be attributed to a single development or planning area. Figure 37 shows the transportation and utility improvements included in the cost estimate, which is presented in Table 9.3.

9.8.1 Transportation Facilities

The cost estimate assumes construction of primary road improvements, i.e., roads with sidewalks, curbs and gutters; underground private utilities including power, telephone, and cable television; street lighting; landscaping and irrigation; and storm sewers within the roadway. The cost of landscaping a boulevard was added where applicable. Road improvement costs were factored into the per-foot unit cost of the roads.

Boeckman Road, Brown Road, and Barber Road were assumed to provide the primary connections to the existing City streets. Costs were estimated for improvements to Boeckman Road that begin at a point east of the Burlington Northern Railroad tracks, approximately 1,200 feet east of the study area boundary. Boeckman Road was assumed to intersect Grahams Ferry Road, north of the Living Enrichment Center. For Barber Road, costs were included for improvements starting at a point approximately 200 feet east of the study area boundary at Kinsman Road, extending to Grahams Ferry Road near the northwest corner of the planning area. The cost estimates do not include improvements to Grahams Ferry Road along the full length of the western study area boundary, only between Barber and Tooze roads. Estimates for Brown Road include improvements within the planning area boundary, from the southern boundary to Tooze Road. Tooze Road would be extended to Grahams Ferry Road.

Off-site intersection improvements were not specifically estimated, but generalized costs were assigned to allow for necessary upgrades to existing intersections.

Bridge costs were estimated for necessary crossings to extend the roads as shown on Figures 37. The cost of an overpass at I-5 was not included.

Table 9.3

Cost Estimate for Basic Infrastructure--Preferred Option

Item	Description	Quantity	Units	Unit Cost	Amount	Subtotal
Extend Boeckman Road to Grahams Ferry Road						\$5,700,000
1	Boeckman Road - 48' PCC, c&g, sw	6270	LF	\$350	\$2,194,500	
2	Boeckman Road - 52' PCC, c&g, sw	2690	LF	\$390	\$1,049,100	
3	Construct 2 bridges - 60' x 90'	10800	SF	\$105	\$1,134,000	
4	Wetland Mitigation	1	LS	\$150,000	\$150,000	
5	Construct private utilities	8960	LF	\$95	\$851,200	
6	Construct Landscaping and Irrigation w/o Center Median	6270	LF	\$28	\$175,560	
7	Construct Landscaping and Irrigation w/ Center Median	2690	LF	\$56	\$150,640	
Extend Barber Road to Grahams Ferry then Grahams Ferry to Tooze Road						\$3,800,000
8	Barber Road - 40' PCC, c&g, sw	2470	LF	\$250	\$617,500	
9	Barber Road - 44' PCC, c&g, sw	5130	LF	\$290	\$1,487,700	
10	Construct 1 bridge - 52' x 100'	5200	SF	\$105	\$546,000	
11	Wetland Mitigation	1	LS	\$75,000	\$75,000	
12	Construct private utilities	7600	LF	\$95	\$722,000	
13	Construct Landscaping and Irrigation w/o Center Median	2470	LF	\$28	\$69,160	
14	Construct Landscaping and Irrigation w/ Center Median	5130	LF	\$56	\$287,280	
Extend Brown Road to Tooze Road then Tooze Road to Grahams Ferry						\$2,600,000
15	Brown Road - 36' AC, c&g, sw	2700	LF	\$240	\$648,000	
16	Brown Road - 40' AC, c&g, sw	3650	LF	\$280	\$1,022,000	
17	Construct private utilities	6350	LF	\$95	\$603,250	
18	Construct Landscaping and Irrigation w/o Center Median	2700	LF	\$28	\$75,600	
19	Construct Landscaping and Irrigation w/ Center Median	3650	LF	\$56	\$204,400	
Construct Primary Water System						\$1,600,000
20	Extend 14" main in Boeckman Road to Barber Road	5880	LF	\$75	\$441,000	
21	Extend 14" main in Barber Road to Boeckman Road	4220	LF	\$75	\$316,500	
22	Loop 12" main - from Boeckman 14" at Barber in Barber to Gr. Fry. to Tooze to Brown to Boeckman 14" at Brown	8670	LF	\$65	\$563,550	
23	Extend 12" main in Boeckman Road S.E. to study	2100	LF	\$65	\$136,500	
24	Construct fire hydrants at average 350' spacing.	59	EA	\$2,500	\$147,500	
Construct Primary Sanitary Sewer System						\$1,400,000
25	Construct 12" main parallel to and in Barber Road to Seeley interceptor	5950	LF	\$55	\$327,250	
26	Construct 10" main west of crest to Graham's Ferry North of the Living Enrichment Center	7000	LF	\$45	\$315,000	
27	Upgrade Seeley Ditch Interceptor from Wilsonville Road to WWTP - assume 12" parallel line w/ manholes	4500	LF	\$61	\$274,500	
28	Construct Pump Station at Graham's Ferry (North of LEC)	1	EA	\$150,000	\$150,000	
29	Construct 8" main from Pump Station east to Brown Road	5000	LF	\$35	\$175,000	
30	Construct manholes at average spacing of 380 feet	34	EA	\$2,000	\$68,000	
31	Construct 12" Seeley Ditch siphon crossing	1	EA	\$50,000	\$50,000	
Construct Off-Site Intersection Upgrades						\$400,000
32	Minor Intersection Improvements	2	EA	\$100,000	\$200,000	
33	Major Intersection Improvements	1	EA	\$200,000	\$200,000	
Subtotal - Construction Cost						\$15,500,000

Soft Costs including Contingency and Engineering (25%)

\$4,000,000

Contingencies (20%)

\$3,000,000

Total Estimated Cost

\$22,500,000

9.8.2 Utility Improvements

The primary water system improvements include water lines extended from the existing City of Wilsonville system and a looped system within the primary road system of the study area. Valving, thrust blocking, and fire hydrants were included in the estimates. The existing Dammasch wells and fire system are not included in the system or the cost estimates.

The water system was estimated with a looped connection, along Barber and Boeckman roads, to the existing City of Wilsonville system. A second loop was included in the northwest portion of the planning area. In the southwest part of the study area, a 12-inch main was extended from Barber Road to the study area boundary in Boeckman Road.

The primary sanitary sewer system improvements include a gravity sanitary sewer system connected to the City of Wilsonville system. The proposed development of the Dammasch area will increase demand and cause the 30-inch Seely Interceptor to exceed its design capacity. Therefore, an allowance was made for upgrading the Seely Interceptor from Wilsonville Road to the City's treatment plant and is included in the cost estimates. The cost of a second gravity system was figured because the site slopes northeast and southwest from a ridge bisecting the site. This system would drain to the southwest corner of the site where a pump station would pump the effluent back to the east and into the City's gravity system.

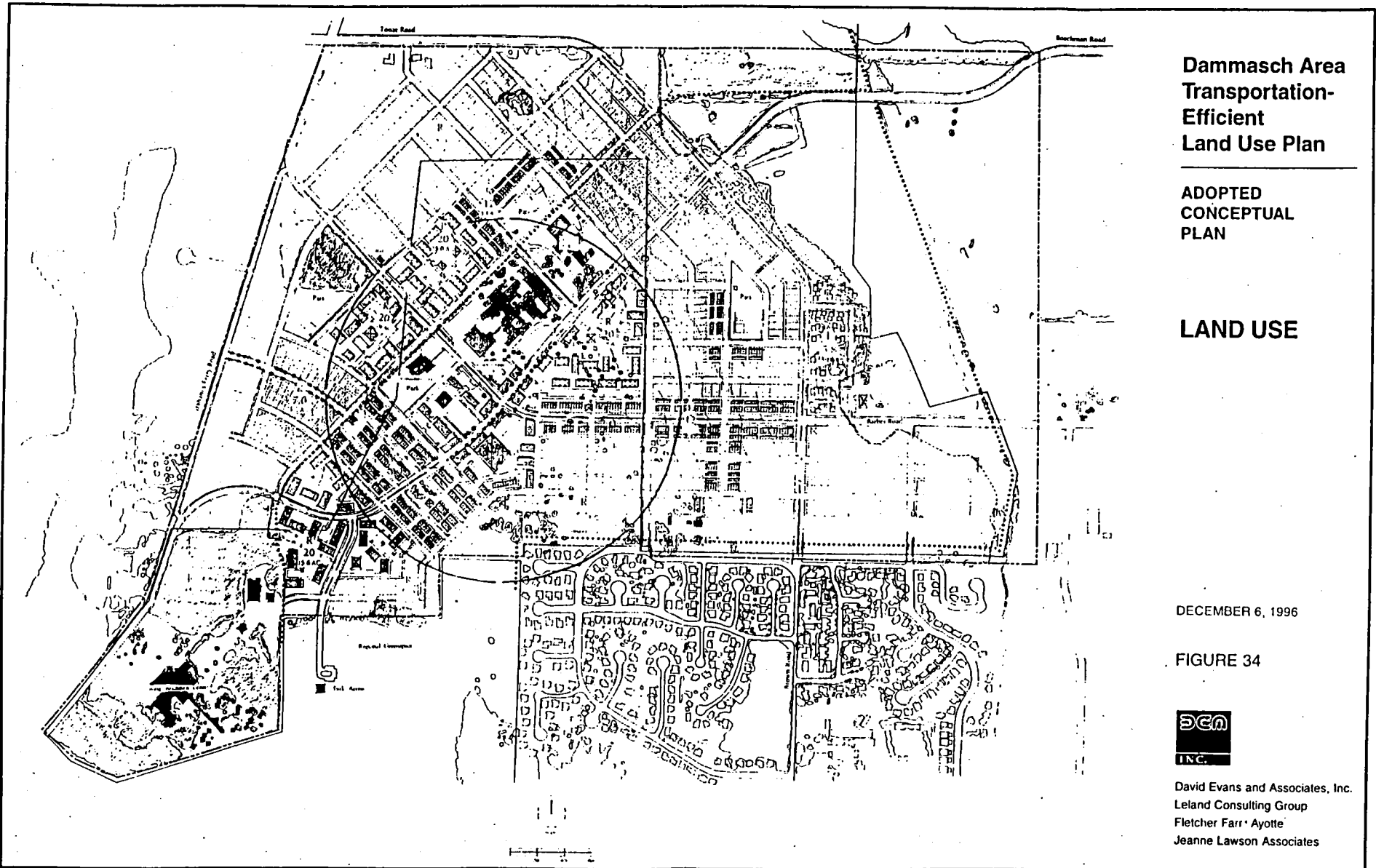
Sanitary sewer on the east side of the planning area runs within the road right-of-way of Brown Road, allowing gravity collection of all sanitary sewer on the east side of the ridge. On the west side of the ridge, it was assumed that two 10-inch mains would be constructed, roughly parallel, to serve the area and carry effluent by gravity to the proposed pump station at the north side of the Living Enrichment Center near Grahams Ferry Road. The cost for the pump station and force main was also included in the estimate.

9.9 FINANCIAL ANALYSIS

The Dammasch Transportation-Efficient Land Use Plan is a mixed-use, multi-phase, public-private development project. It is described as such because:

1. Although the plan is predominantly a housing development, it also includes retail shopping and services, employment facilities, recreational facilities and civic components; hence, it is a mixed-use project.
2. It is a multi-phase development because it will unfold in a series of phases over a number of years. The market analysis suggests that the project will take from nine to twelve years to fully develop.

CCAs 37-41 February 7/11/06



**Dammasch Area
Transportation-
Efficient
Land Use Plan**

**ADOPTED
CONCEPTUAL
PLAN**

LAND USE

DECEMBER 6, 1996

FIGURE 34



David Evans and Associates, Inc.
Leland Consulting Group
Fletcher Farr · Ayotte
Jeanne Lawson Associates

W/S

BEFORE THE METRO COUNCIL Clerk of the Metro Council

FOR THE PURPOSE OF AMENDING)	ORDINANCE NO 98-744B
ORDINANCE NO. 96-655E TO ADD LAND TO)	
DESIGNATED URBAN RESERVE AREAS FOR)	Introduced by Executive Officer
THE PORTLAND METROPOLITAN AREA)	Mike Burton
URBAN GROWTH BOUNDARY TO PROVIDE)	
FOR A STATE PRISON; AMENDING RUGGO)	
ORDINANCE NO. 95-625A AND THE REGIONAL)	
FRAMEWORK PLAN ORDINANCE NO. 97-715B;)	
AND DECLARING AN EMERGENCY)	

WHEREAS, ORS 197.298(1)(a) requires that land designated as urban reserve land by Metro shall be the first priority land for inclusion in the Metro Urban Growth Boundary; and

WHEREAS, the Land Conservation and Development Commission's (LCDC's) Urban Reserve Area Rule at OAR 660-21-020 requires Metro to designate the location of urban reserve areas for the Portland Metropolitan area within two miles of the regional Urban Growth Boundary; and

WHEREAS, LCDC's Urban Reserve Area Rule, at OAR 660-21-020, requires that urban reserve areas designated by Metro shall be shown on all applicable comprehensive plan and zoning maps; and

WHEREAS, LCDC's Urban Reserve Area Rule, at OAR 660-21-030(1), requires that urban reserve areas shall include at least a 10 to 30 year supply of developable land beyond the 20 year supply in the Urban Growth Boundary; and

WHEREAS, LCDC's Urban Reserve Area Rule, at OAR 660-21-030(2), requires that Metro study lands adjacent to the Urban Growth Boundary for suitability as urban reserve areas; and

WHEREAS, LCDC's Urban Reserve Area Rule, at OAR 660-21-030(3), requires that land found suitable for an urban reserve area must be included according to the Rule's priorities

and that first priority lands are those lands identified in comprehensive plans as exception areas plus those resource lands completely surrounded by exception areas which are not high value crop areas; and

WHEREAS, Resolution No. 95-2244 established urban reserve study areas as the subject of Metro's continued study for possible designation as urban reserve areas consistent with LCDC's Urban Reserve Area Rule; and

WHEREAS, urban reserve study areas are shown on the 2040 Growth Concept Map in Ordinance No. 95-625A adopting the Regional Urban Growth Goals and Objectives (RUGGO) which was acknowledged by LCDC Compliance Order 96-ACK-010 on December 9, 1996; and

WHEREAS, the urban reserve study areas shown on the 2040 Growth Concept Map are included on that map in the Regional Framework Plan in Ordinance No. 97-715B; and

WHEREAS, Metro adopted Ordinance No. 96-655E on March 6, 1997, designating approximately 18,600 acres as urban reserve areas; and

WHEREAS, the "special need" land use of a state prison in the Metro region had not been considered at that time; and

WHEREAS, an area of "exception," non-farm lands adjacent to north Wilsonville to Day Road was included in designated urban reserves; and

WHEREAS, the siting process for state prisons has now resulted in a proposed prison site located partially on currently designated urban reserve area and about 72 additional acres of "exception," non-farm lands north of Day Road; and

WHEREAS, Metro has encouraged the location of the proposed state prison at this site as an alternative to land at Dammasch Hospital inside the UGB and adjacent urban reserves in Resolution No. 98-2623A; and

WHEREAS, notice of adoption of this proposed addition to urban reserve areas and the proposed postacknowledgment amendments to the acknowledged RUGGO ordinance have been given consistent with ORS 197.610(1); now, therefore,

THE METRO COUNCIL ORDAINS AS FOLLOWS:

Section 1. Ordinance No. 96-655E is hereby amended to designate the area indicated on the map attached as Exhibit "A," and incorporated herein, as an additional urban reserve area for the Metro Urban Growth Boundary for the purpose of compliance with the Urban Reserve Area Rule at OAR 660-21-020 to identify lands of first priority for inclusion in the Metro Urban Growth Boundary as required by ORS 197.298 on the condition that this additional area is developed only for a state prison. This amendment to designated urban reserves shall be automatically repealed if the Oregon Department of Corrections commences construction of a women's prison facility at the former Dammasch Hospital property.

Section 2. The urban reserve area on Exhibit "A" shall be shown on all applicable county comprehensive plan and zoning maps as required by the Urban Reserve Area Rule at OAR 660-21-020. In addition, these findings shall be incorporated into the comprehensive plans of the Cities of Wilsonville and Tualatin, and Washington County.

Section 3. Ordinances No. 95-625A and 97-715B are hereby amended to add the urban reserve area indicated in Exhibit "A" to the 2040 Growth Concept Map in both the Regional Urban Growth Goals and Objectives and the Regional Framework Plan as a designated urban reserve area.

Section 4. The Findings and Conclusions in Exhibit "B", attached and incorporated herein, explain how the additional urban reserve area designated in Section 1 of this Ordinance complies with the Urban Reserve Area Rule and the acknowledged Regional Urban Growth

Goals and Objectives. These Findings and Conclusions are hereby incorporated into Metro's acknowledged Urban Growth Boundary Plan, a comprehensive plan provision, together with the acknowledged 2040 Growth Concept, the acknowledged urban growth boundary and the amendment procedures in Metro Code 3.01.

Section 5. Consistent with RUGGO Goal 11 Objective 22.3.3, Clay Street, the northern boundary of the amended Urban Reserve Area No. 42, is established as the permanent northern-most boundary for Metro's urban reserves in the vicinity of the City of Wilsonville.

Section 6. The designation of this additional urban reserve area to be available for amendments to the Metro Urban Growth Boundary is necessary to preserve the health, safety or welfare of the Metro region; therefore, an emergency is hereby declared to exist, and this Ordinance shall take effect upon passage.

Section 7. The provisions of this ordinance are separate and severable. The invalidity of any clause, sentence, paragraph, section, subsection, or portion of this ordinance or the invalidity of the application thereof to any city, county, person or circumstance shall not affect

/////

/////

/////

/////

/////

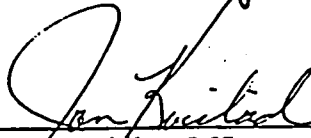
/////

/////

/////

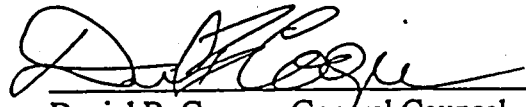
the validity of the remaining provisions of this ordinance or its application to other cities,
counties, persons or circumstances.

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



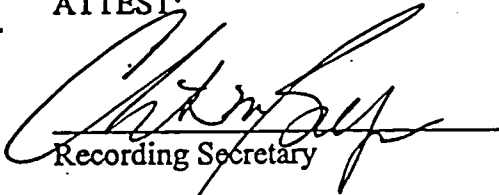
Jon Kvistad, Presiding Officer

Approved as to Form:



Daniel B. Cooper, General Counsel

ATTEST:



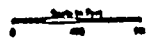
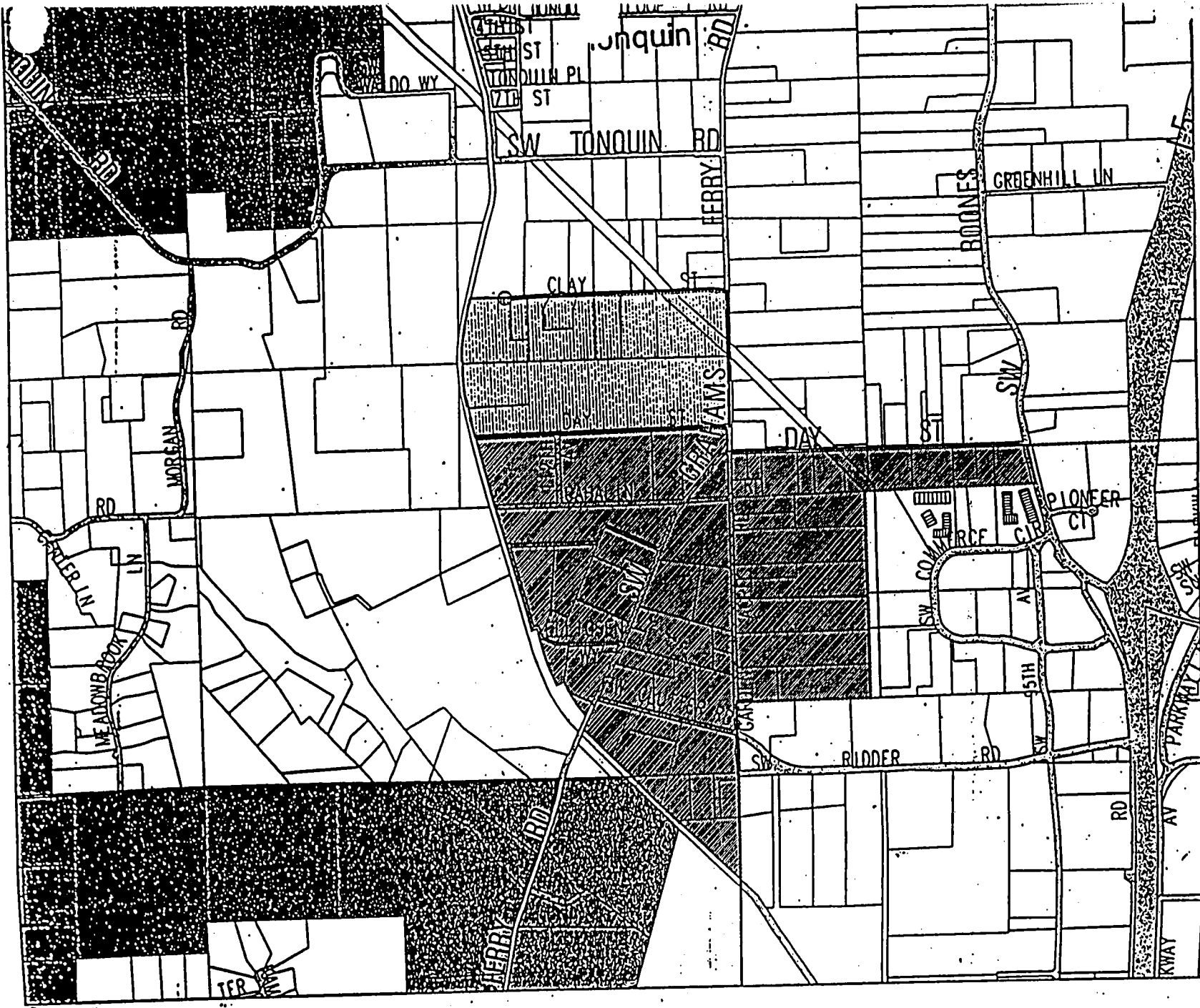
Recording Secretary

I:\DOCS#07.F&D\02UGBV04URBRES.DEC\07WILSON.PRS\ORD744.B
June 26, 1998

Urban Reserve Amendment

- Urban Reserve
- Urban Reserve
- Urban Reserve
- Urban Reserve
- Urban Reserve

Exhibit A



**Ordinance No. 98-744B
Urban Reserve Findings and Conclusions**

The results of Metro's legislative determination of this amendment of urban reserve area 42 are explained here consistent with statewide land use Goal 2 and OAR 660-21-030(5).

I. Applicability Of This Ordinance

This is an amendment of Ordinance 96-655E which adopted urban reserve area 42. Consistent with Section 3 of Ordinance 96-655E, the urban reserve areas map in that ordinance is amended by this Ordinance No. 98-744B to include this 72-acre addition to urban reserve area 42. Consistent with Section 2 and 3 of that ordinance, the acknowledged 2040 Growth Concept Map adopted in RUGGO in Ordinance No. 95-625A and the Regional Framework Plan in Ordinance No. 97-715B is amended in those ordinances to include this urban reserve area amendment.

II. Urban Reserve Rule Determination

Applicable portions of Growth Management's staff reports are attached and incorporated herein as part of these Findings. The staff report findings are supplemented here by explanation of the evidence, findings and conclusions from evidence presented subsequent to the staff report.

- A. The estimated amount of land was established by Ordinance No. 96-655E consistent with OAR 660-21-030(1) and remains unchanged except for the accommodation of the additional prison facility described in the record of this ordinance.
- B. The application of the suitability analysis consistent with OAR 660-21-030(2) to establish urban reserve 42 was completed in Ordinance No. 96-655E. As indicated in the staff report at pages 6-10 and Attachment 3 at page 20 of this Exhibit, the 72-acre addition to urban reserve 42 has, essentially, the same characteristics that gave the exception lands in urban reserve area 42 a very high relative suitability score.
- C. Consistent with OAR 660-21-020 and Section 4 of Ordinance No. 96-655E, Section 4 of this Ordinance requires that this amendment to urban reserve area 42 be shown on all applicable county and city comprehensive plan and zoning maps.
- D. By incorporation into Metro's urban reserves and Regional Framework-Plan by Section 2 of this Ordinance, these Findings and Conclusions are included in the comprehensive plans of affected jurisdictions in compliance with OAR 660-21-030(5) because Metro's UGB plans, including urban reserves, are comprehensive plan provisions of all cities and counties

within Metro. See, *League of Women Voters v. Metro. Service District*, Or App 333, 335-336, 781 P2d 1256 (1989). In addition, these Findings and Conclusions are required by Section 2 of this Ordinance to be added to affected city and county comprehensive plans of the Cities of Wilsonville and Tualatin, and Washington County.

III. Applicable Regional Urban Growth Goals and Objectives (RUGGO)

A. The application of RUGGO objectives 15, 16, 18vi., 19, 3.3, 22, 22.3.3 and more generally, Goal 11.2.ii, 11.2.iv are explained at pages 10-12 of this Exhibit, concluding that this urban reserve amendment is consistent with those objectives. Central to the analysis is the effect of supersiting legislation (See, Attachment 1 at pages 16-17 of this Exhibit) and Governor Kitzhaber's June 25, 1998 announcement of his decision to proceed to select this amended urban reserve site 42 for the prison using that supersiting authority. The Governor's announcement was in the record of the June 25, 1998 hearing.

B. In addition, the following RUGGO issues were raised in evidence in the record subsequent to the staff report:

1. Violation of RUGGO Objective 22.3.3 was alleged in testimony before the Metro Council. Despite this allegation, there is no legal authority for this, or any RUGGO Objective to be applied to prevent the super siting of a prison on amended urban reserve 42. Even if the siting were a RUGGO violation, it could still be sited. Therefore, Metro's recognition of the effect of that statutory authority is not a violation of its own objective. This is, especially, true when the effect of amending this urban reserve to recognize this industrial use is to mitigate its impact. The condition in Section 5 of this ordinance establishes the northern boundary of this addition to urban reserve 42 as the permanent northern boundary of urban reserves in this vicinity. This is consistent with objective 22.3.3 because it mitigates the effect of the prison siting on the separation of Tualatin and Wilsonville. The condition in Section 1 of the Ordinance recognizes the super siting authority and avoids any violation of RUGGOs by automatically repealing this urban reserves amendment if this site is not a super sited prison. *1000 Friends of Oregon v. City of North Plains*, 27 Or LUBA 372 (1994).

2. The issue of a possible I-5, 99W connector highway between Tualatin and Wilsonville was raised to the Metro Council. The location of that general corridor at this point is inside the regional urban growth boundary at the southern edge of the City of Tualatin. There is no evidence presented in the record to indicate that the actual alignment of that project would be located near to the northern boundary of amended urban reserve 42. Even if the final alignment moves south of the UGB at Tualatin, the condition in Section 5 of this ordinance helps maintain separation of communities by retaining a northern boundary of urban reserves adjacent to the southern community of Wilsonville.

3. The issue of the adequacy of stormwater management facilities for an area near the proposed prison, but off site, was raised to the Metro Council with engineering evidence of the problem. This problem was first identified in the preliminary ODOC studies in the record at the first hearing. The Metro Council accepts the engineering evidence of the final ODOC

report and the Westech Engineer response to evidence from Holistic Water Resources Engineering on the feasibility of proposed stormwater facilities in the record of the June 25, 1998 hearing. At this stage of land use decision, only the feasibility of an engineered solution must be demonstrated, not facility location or design.

Westech Engineering identifies the off site acreage which drains from the north into the Grahams Ferry Road and Day Road intersection. The ODOC proposed improvements include a solution for this currently inadequately drained area across the prison site to the southwest detention facility. ODOC is providing an on site detention basin that will include capacity for the off site stormwater at Grahams Ferry Road and Day Road intersection. Westech concludes that the detention facility is adequately sized to provide detention for existing and future conditions, including the off site stormwater.

Further planning for "permanent facilities" will continue as the area develops. As Planning Director Lashbrook testified, the city has contracted with KCM Engineering to coordinate with Westech Engineering to prepare a stormwater master plan for the entire city and adjacent urban reserves. This master plan is intended to be included in the Public Facilities Plan in the acknowledged comprehensive plan of the City of Wilsonville.

IV. Applicability of the Urban Growth Management Functional Plan

The Functional Plan is not directly applicable to land outside Metro's jurisdictional boundary, such as the 72 acres that are the subject of this amendment. However, the Functional Plan directly implements RUGGO objectives and the 2040 Growth Concept. Therefore, the prospective analysis of Functional Plan policies in the attached Staff Report shows the positive effects on urban reserve areas 39, 41, and 42 and the urban growth boundary areas adjacent to them in the City of Wilsonville. These are more detailed findings that show consistency with the RUGGO provisions that these Functional Plan provisions implement.

City of

WILSONVILLE
in OREGON

(503) 682-1010 FAX
(503) 682-0843 TDD

COMMUNITY DEVELOPMENT
MEMORANDUM

DATE: MAY 27, 1998
TO: STEPHAN LASHBROOK, PLANNING DIRECTOR
FROM: ELDON R. JOHANSEN, COMMUNITY DEVELOPMENT DIRECTOR
SUBJECT: PRELIMINARY URBAN RESERVE PLAN FOR URBAN RESERVE AREA
42 (EXPANDED)

The purpose of this memorandum is to provide additional information concerning the overall impact of constructing the infrastructure necessary to support a Women's Prison/Intake Center at the intersection of Day Road and Grahams Ferry Road and on the infrastructure which is also necessary to develop the industrial sanctuary. Specific comments are as follows:

Water

The City has existing water available to serve the industrial sanctuary from the vicinity of Ridder Road and Garden Acres Road with a fire flow at a residual of 20 PSI of approximately 4100 gallons per minute. The City also has water available at Pioneer Court on Boones Ferry Road just north of 95th Avenue of 3700 gallons per minute with a residual of 20 PSI. To provide a strong looped system to ensure adequate domestic and fire flows for the prison, an 18" water main will be constructed to loop from along Ridder Road and Clutter Road from Garden Acres Road to Grahams Ferry, and then up Grahams Ferry to Day Road, east on Day Road to Boones Ferry Road and then back to the southeast on Boones Ferry Road to tie to the existing water main at Pioneer Court. This line will provide excellent domestic water and fire flows for the prison, and also has adequate capacity to provide the overall "backbone system" for the industrial sanctuary. As the sanctuary develops, the developments will be able to obtain service from the 18" transmission main without having to extend service back to the existing areas of the City.

Sewer

The Department of Corrections will extend/replace a sewer line that crosses the Burlington Northern Railroad just northwest of Hillman Court and from there along the north side of the railroad tracks to the vicinity of the Cahalin Road extension. This line will be oversized with sufficient capacity to serve the industrial sanctuary. Although there are two separate sections of the trunk sewer from this area to the treatment plant that will be potentially undersized at full build-out of the area, the line has sufficient capacity to provide for several years of additional growth. It is anticipated that the developments within the industrial sanctuary and other areas served by this line will contribute a proportional share of the costs towards replacing or paralleling the line where additional capacity is required.



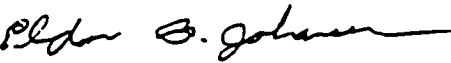
Storm Sewer

The industrial sanctuary is subject to significant localized flooding with the water entering the north from two separate locations. First, there is a substantial amount of water that crosses into the area at Clay Road and flows to the southeast across Grahams Ferry and Day Road causing substantial flooding. The construction of the proposed Women's Prison/Intake Center will include the rerouting of this storm water flows to a large detention facility. The water is then metered out to the south side of the Burlington Northern Railroad. There is a potential for additional significant storm water flows from the north across Day Road, and the design to route this storm water through the system will be included in the overall plans for the development of the industrial sanctuary as outlined in the City's Storm Water Management System.

Roads

There is a present significant problem with traffic at the intersection of Day Road and Boones Ferry Road, and also at Day Road and Grahams Ferry Road. The Department of Corrections will substantially improve the capacity at these intersections to correct the present traffic problem and to provide additional capacity for substantial growth. In addition, the Department of Corrections will construct a half street along Grahams Ferry Road adjacent to the proposed Women's Prison/Intake Center to urban standards. The improvement of the intersection and the construction of the road adjacent to the prison to urban standards will provide substantial capacity for future development of the industrial sanctuary.

Sincerely,


Eldon R. Johansen
Community Development Director

ERJ:bgs

somerville prison
052698



(503) 682-1011
(503) 682-1015 Fax
(503) 682-0843 TDD

December 18, 1997

TO: Honorable Mayor and City Council
FROM: Stephan Lashbrook, Planning Director
SUBJECT: STAFF REPORT for public hearing on January 5, 1998
(97 PC 03 - Ordinance No. 493)

SUMMARY

The City Of Wilsonville does not have an adequate long-term supply of water to allow for the continued approval of development applications. After conducting a public hearing on December 10, 1997, the City Planning Commission voted unanimously to recommend approval of the proposed moratorium on development approvals.

RECOMMENDATION

Both the City staff and the Planning Commission recommend that the City Council adopt Ordinance No. 493, enacting a moratorium on land development approvals that would otherwise increase the demand for water.

BACKGROUND

City staff, the Development Review Board (DRB), and City Council are no longer able, when reviewing development proposals, to make findings that adequate public facilities and services are available to accommodate proposed developments. Such development approvals must, therefore, be curtailed until an additional source of water is available to serve community growth.

This subject is covered in more detail in the Planning Commission packet, now made part of the record of the City Council. After reviewing the information and testimony presented to it, the Planning Commission concluded that

- A. A moratorium is justified and needed at this time. Any delay will simply increase the hardship on developers and property owners who have already received development approvals.
- B. The required procedures have been followed to declare the moratorium. The record for this action shows that all legal requirements have been met.

- C. The moratorium should be enacted at the planning approval stage, rather than at the point of building permit approval. This approach, curtailing further planning approvals, is more appropriate than denying building permits because it allows those projects that have already received planning approvals to go forward and consume the remaining water system capacity. If the moratorium is placed on building permits, rather than planning approvals, the result will be a "feeding frenzy" for those building permits until the remaining water capacity is used up. That will create a chaotic development environment in the City.

As is now well-documented in the attached exhibits, Wilsonville faces a serious lack of water. This can be summarized in the following:

1. The City's only source of water is a series of wells. Those wells are not able to produce the volume of water that was originally anticipated.
2. The water level in the wells is dropping, as is the overall water quality.
3. The State of Oregon will not allow the City to drill additional wells and even if the State would allow additional wells, the result would be an even more rapid depletion of the limited groundwater resource.
4. Even with an aggressive conservation program beyond what the City has been able to achieve thus far, land development applications that have already been approved are expected to consume all of the remaining capacity from the City's existing wells.
5. There are no additional, readily available, sources of water to meet community needs. The solution will be expensive and will take considerable time and effort to put into place.
6. The City's acknowledged Comprehensive Plan and implementing ordinances require City decision-makers to assure that all necessary public facilities will be available before approving a land development application. Under the current circumstances, the City's decision-makers are not able to make such a finding concerning the adequacy of the water system. Hence, proposed development applications must be denied or receive conditional approval - subject to the condition that they cannot proceed with construction until a new water source has been identified and funded.
7. By statute (ORS 197.505, et seq), a pattern of denying applications creates a de facto moratorium. In order to legally declare a moratorium, a detailed process must be followed and appropriate findings made. All of the requirements of the statute and local ordinances have been followed in the preparation and consideration of the proposed ordinance (No. 493).

The Planning Commission's recommendation included some relatively minor changes to the proposed moratorium ordinance. These changes, shown in bold in the copy of Ordinance No. 493 that is in the City Council packet, can be summarized as follows:

#31
1. WEST LINN - WILSONVILLE SCHOOL DISTRICT

The Commission supported the District's request to reserve water for a new school. This was based on the District's stated intention to enter a development agreement with the City that would specify that there would be:

- * No summer school or other use of the facilities creating a need for water in the summer, beyond minimum maintenance; and
- * Interruptible water service during the summer.

Findings in support of this decision included:

- * A new school is already needed in the community;
- * Local schools have a history of minimal summer water usage. This means that the existing schools do not contribute to the peak water usage during the summer and, in effect, the schools are not using the water that is allocated to them. It should present no special problems to have a new school that is not guaranteed water availability through the summer months. The School District is willing to curtail irrigation of athletic fields to help the City deal with water shortages.

2. TEUFEL DEVELOPMENT (VILLAGE AT MAIN STREET)

The Commission supported treating this development as "vested" to receive the allocation of water shown on Exhibit "C." This was based on the fact that the developer has entered a development agreement and a settlement agreement with the City concerning improvements for the entire site, and the fact that this project has experienced numerous delays that prevented the developer from beginning construction on the third phase of the project. Also, the City reasonably believed at the time of the development approval that water would be available for the entire project and this belief was conveyed to the Planning Commission during its deliberations on that development application.

3. "TOLLING" OF DEVELOPMENT APPROVALS DURING MORATORIUM

The Commission noted that several developments have received Stage II planning approvals but will not be able to go forward unless an increased allocation of water becomes available. These developments are labeled "Projects with planning approval subject to availability of water" on Exhibit "C." The Planning Commission recommended that the usual two-year expiration of Stage II approvals be extended for these developments, tolling the days that the moratorium is in effect. This would effect an amendment to current Code language.

ORDINANCE NO. 493

AN ORDINANCE ADOPTING A MORATORIUM ON PLANNING APPROVALS FOR LAND DEVELOPMENTS THROUGHOUT THE CITY OF WILSONVILLE DUE TO A LACK OF WATER SYSTEM CAPACITY; AND DECLARING AN EMERGENCY.

WHEREAS, the City of Wilsonville is a home rule city under the laws of the State of Oregon and has a duly acknowledged Comprehensive Land Use Plan; and

WHEREAS, the City's acknowledged Comprehensive Land Use Plan is intended to ensure that the rate of community growth and development does not exceed the community's ability to provide essential public services and facilities, including adequate water for domestic, irrigation, and fire-fighting purposes. The City's acknowledged Comprehensive Land Use Plan further provides that a continued source of water will be available to meet the City's growing needs into the future, but the City's acknowledged Comprehensive Land Use Plan is silent as to how the City is to provide water service without an adequate source of water, as is illustrated by its text:

(a) City Comprehensive Plan Objectives include:

3.1 Urban development should be allowed only in areas where necessary services can be provided.

3.4 Require that primary facilities be available or under construction prior to issuance of a building permit

(b) The City's acknowledged Comprehensive Plan policies also commit the City to provide water service that keeps pace with development:

3.2.1 The City shall review and, where necessary, update the Water System Master Plan to conform to the densities shown on the Comprehensive Plan and any subsequent amendments to the Plan.

a. All major water lines shall be extended in conformance to the line sizes indicated on the Master Plan and, at a minimum, provisions for system looping shall be made. If the type, scale, and/or location of a proposed development warrants maximum fire flows, the Planning Commission may require completion of a loop in conjunction with the development.

b. All line extensions shall be made at the cost of the developer or landowner of the property being served. When a major line is extended that is sized to provide service to lands other than those requiring the initial extension, the City may:

1. Authorize and administer formation of a Local Improvement District to allocate the cost of the line improvements to all properties benefiting from the extension; or
2. Authorize and administer a payback system whereby the initial developer may recover an equitable share of the cost of the

extension from benefiting property owners/developers as the properties are developed.

c. All line extension shall be extended the full frontage width of the property being served, so as to provide for further connection of adjoining properties.

d. All water lines shall be installed in accordance with the City's urbanization policies and Public Works Standards.

3.2.2 The City shall continue to develop, operate, and maintain a water system, including wells, pumps, and reservoirs, capable of serving all urban development within the incorporated City limits. The City shall also maintain the lines of the distribution system once they have been installed and accepted by the City (see Policy 3.2.1.b).

3.2.3 The City shall, through a Capital Improvements Program, plan and schedule major water system improvements needed to serve continued development, e.g., additional wells, pumps, and reservoirs.

WHEREAS, the City finds there is a demonstrated need to prevent a shortage of water for domestic and fire flow usage which would occur during the period of the proposed moratorium

commencing January 5, 1998, through the following six months and which justifies a moratorium pursuant to ORS 197.520(2) for new land development approvals; and

WHEREAS, based upon reasonably available information, the City makes the following findings in support of the above finding of demonstrated need:

(a) The extent of need beyond the estimated capacity of existing public water facilities expected to result from new land development, including identification of the current operating capacity, together with the portion of such capacity already committed to development, are as follows:

1. The development approvals as of November 26, 1997, together with present water users, are projected to use 7.41 million gallons per day (MGD) of water capacity on a maximum day as set forth in Exhibit A, attached hereto and incorporated herein; and

2. The City's source of water for City water uses is from eight wells which will produce 5.49 MGD on a maximum day after the new Boeckman well is equipped and connected to the system; and

3. The Boeckman well is the last well which the City is allowed by the State's Water Resources Department. However, the City has ground water rights of 13 cubic feet per second (cfs) and the current eight wells produce up to 9 cfs. This then appears to provide a paper option of drilling either deeper or more wells to provide additional capacity. But even if deeper or additional well(s) were allowed under the aforementioned rights and the doctrine of secondary appropriation, the aquifer level is declining at such a rate that any further ground water usage would threaten existing capacity both in the near term and the long term; and

4. The City experience with water conservation provides a reasonable expectation that a diligent effort at water conservation will reduce maximum day water demand by 1.19 MGD; and

5. A review of well production data indicates one well has been attributed with providing an additional 0.13 MGD which it has not produced, thereby reducing the calculation of overall water capacity demand by a like amount; and

6. The present reservoirs have a capacity of 5.9 MGD and the City has planned and funded an additional reservoir of 2.0 MGD to come on line in 1998, and it is projected that 0.6 MGD of maximum day water capacity can be satisfied by use of reservoir capacity while maintaining a safe fireflow reserve; and

7. The above combination of existing capacity, water conservation, well production calculations, and new reservoir capacity, provides a projected capacity of 7.41 MGD for maximum day usage; and

8. While market forces have caused development to occur at a faster rate than could be reasonably anticipated, there are still 715 acres of residential land, 399 acres of industrial land, and 82 acres of commercial land which are undeveloped and will need to be served by a projected 7.0 MGD of additional capacity, exclusive of the need to serve urban reserve areas or any prison complex in the future; and

9. The City has employed the consulting firm of Montgomery Watson to analyze viable alternatives for the City to provide the needed water capacity. A copy of Montgomery Watson's report, dated March, 1997, is made part of the public record, marked Exhibit B and incorporated by reference herein. In addition to the recitals above

and the aforementioned Montgomery Watson report, the City has taken the actions set forth in the Director of Public Works report, dated November 7, 1997, marked Exhibit C-1, made part of the public record. The City has been working towards a plan of correction and must do so pursuant to ORS 197.530. Any plan of correction must weigh and balance the different alternatives, the probable cost of each, what the best result for such expenditure will be given scarce dollars and the projected build-out capacity and water needs of such development, and the reasonable ability of the City to ultimately finance any such costs. But until a reasonable plan of correction can be developed, including adequate funding, the need for establishing a moratorium on new development based on lack of water capacity is clearly and convincingly demonstrated.

(b) The shortage of water affects the whole city. Wilsonville is not a large city, geographically including a total of approximately six square miles. Thus, the City finds that the moratorium is reasonably limited to the whole geographical area of the city;

(c) While there is some elasticity in the projected water demand within the developments approved, in that should a development not go forward within two years of its development approval it could, therefore, forfeit its development permit and free-up its demand on water capacity. The City cannot reasonably make projections based upon a developer not exercising an approved right. Nor can the City commit its reserves for fire safety to domestic use. In the past three years the City has experienced one fatal fire and at least one other fire that could have spread to other dwelling units if not for an adequate supply of water held in reserves.

Currently, the City has previously-approved projects for development which have not yet been built, totaling 230 single family dwelling units, 742 multi-family dwelling units, 350,000 square feet of commercial floor space, and 674,000 square feet of industrial floor space. This is sufficient to accommodate additional growth for approximately two years before significantly impacting other nearby communities. Nor is the moratorium intended to stop development approvals wherein there is no increased demand upon water capacity. Therefore, the housing and development needs of the City have been accommodated as much as possible by (1) having allowed development approvals to progress to the point that, if built, all capacity will be used, and (2) allowing development which will not increase demand upon water capacity. Moreover, in the event that any such development rights are forfeited which would otherwise use water capacity, it appears that the development of properties along the recently established local improvement district (LID) No. 12 should be given first priority in order to accommodate as much as possible the geographical area which most likely can provide the greatest additional housing and meet economic development needs, given the recent investment in major public improvements to serve this area by the property owners within LID No. 12; and

WHEREAS, pursuant to ORS 197.520(1)(a), the City has provided written notice to the Department of Land Conservation and Development on November 13, 1997, which is more than 45 days prior to the final public hearing for January 5, 1998, on this ordinance; and

WHEREAS, pursuant to ORS 197.520(1)(b), the City has made written findings justifying the need for the moratorium in accordance with ORS 197.520(2); and

WHEREAS, a duly noticed public hearing was conducted before the City's Planning Commission on December 10, 1997, after which the Planning Commission adopted Resolution

97PC03, recommending that the City Council enact a moratorium as provided in this ordinance;
and

WHEREAS, pursuant to ORS 197.520(1)(c), on January 5, 1998, the City Council has held a duly noticed public hearing on declaring a moratorium based on the lack of water capacity to serve new development and the findings which support the moratorium.

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

Section I: FINDINGS AND DETERMINATIONS

A. The City Council adopts the above recitals as findings and incorporates them by reference in support of this ordinance.

B. The Wilsonville City Council hereby determines that:

1. A moratorium based upon lack of water capacity for new development is declared. This moratorium shall not apply to a development which has a Stage II development approval set forth in Exhibit C-2 and otherwise complies with the City's laws, ordinances, rules and regulations. Unless otherwise set forth in this ordinance, no applications for land use approvals, shall be accepted or granted which will create an increased demand for water service during the moratorium period set forth below. Except, however, that those applications which have received Development Review Board approval subject to City Council review, or DRB recommendation for City Council approval, as of the effective date of this ordinance shall be reviewed by the City Council. New development shall include, but is not necessarily limited to, land partitions or

subdivisions, conditional use permits, variances, zone changes, phase II planned development approvals.

2. Applications for land use approvals may be allowed to go forward to development only where it is found by the City decision-makers, who are empowered by local ordinance to take action on development applications, that the development will not cause an increased demand for water service. Allowing developments which will not cause an increased demand for water to proceed is an additional accommodation to housing and economic needs. Also, the development of a public school that has no summer-school program and no summer irrigation of landscaping can be deemed to be a development that will not cause an increased demand for water service during that portion of the year when water shortages are critical. To the extent that Phase 3 of the Teufel Village (Village at Main Street) development was included as having Stage II approval in the City's water calculations shown in Exhibit C-2, it shall continue to be so accounted as it is inextricably woven into a settlement agreement and development agreement with the City and this area will accommodate additional housing and economic development needs. The development agreement with Capital Realty also affords Capital's Wilsonville Town Center project to receive similar treatment as Teufel Village and the Wilsonville Town Center project shall be included in Exhibit C-2 under Stage II approvals similar to Teufel Village, with 93,000 gallons per day Capital Realty indicated as the amount of water necessary for their buildout. The

expiration for a time equal to the duration of this moratorium, including any extension that may legally be granted.

10. In the event that the State of Oregon formally demands that the City provide water to a correctional facility, the City Attorney is authorized to file an action in Circuit Court, naming the State's Department of Corrections, and any parties whose property development rights to connect to City water would be jeopardized by the State's actions. Such action shall seek to have the Court determine who shall receive City water pending a resolution to the lack of capacity.

11. This moratorium shall expire six months from the date of its enactment unless otherwise extended in accordance with state law.

Section II. VALIDITY and SEVERABILITY

The validity of any section, clause, sentence or provision of this ordinance shall not affect the validity of any other provision of this ordinance which can be given effect without reference to the invalid part or parts.

Section III. EMERGENCY DECLARED


The matters contained herein concern the public health, welfare and safety. An emergency is hereby declared to exist, and this ordinance shall become immediately effective upon its passage by the City Council.

SUBMITTED to the Wilsonville City Council and read for the first and second time at a regular meeting thereof on the 5th day of January, 1998, commencing at the hour of 7 p.m. at the Wilsonville Community Center.

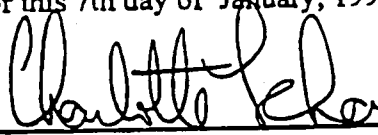

SANDRA C. KING, CMC, City Recorder

ENACTED by the Wilsonville City Council at a regular meeting thereof this 5th day of January, 1998, by the following votes:

YEAS: 5 NAYS: -0-


SANDRA C. KING, CMC, City Recorder

DATED and signed by the Mayor this 7th day of January, 1998.


CHARLOTTE LEHAN, Mayor

SUMMARY OF VOTES:

Mayor Lehan	<u>Yes</u>
Councilor Kirk	<u>Yes</u>
Councilor Luper	<u>Yes</u>
Councilor Helser	<u>Yes</u>
Councilor Barton	<u>Yes</u>

n:\cityre\ordinances\ord493

ORDINANCE NO. 493

WATER ASSURANCE CHECK			
Supply			
1/7/98	January 1997 Report	October 1997 Status	Jan 1998 Status
Production with new well	5.55 MGD	5.38 MGD	5.49 MGD
Use of reservoir to meet maximum day requirement	0.20 MGD	0.20 MGD	0.20 MGD
Continued voluntary reduction of max day demand by the top 10 irrigation users	0.41 MGD	0.41 MGD	0.41 MGD
Mandatory curtailment of irrigation to 2/3 of normal use	0.78 MGD	0.78 MGD	0.78 MGD
Reduction in "unaccounted for" water that has previously been identified	0.13 MGD	0.13 MGD	0.13 MGD
20% of new reservoir capacity	0 MGD	0.40 MGD	0.40 MGD
Source to be identified			0.09 MGD
Total	7.07 MGD	7.30 MGD	7.50 MGD
Demand			
	January 1997 Report	October 1997 Status	Jan 1998 Status
Unconstrained maximum day consumption - Summer 1996	5.66 MGD	5.66 MGD	5.66 MGD
Approvals not included in summer 1996 consumption	1.36 MGD	1.61 MGD	1.84 MGD
Total	6.99 MGD	7.27 MGD	7.50 MGD
Available for future projects	0.08 MGD	0.03 MGD	0.0 MGD

City of

WILSONVILLE
in OREGON



30000 SW Town Center Loop E
Wilsonville, Oregon 97070
(503) 682-1011
(503) 682-1015 Fax
(503) 682-0843 TDD

MEMORANDUM

EXHIBIT C-1

DATE: NOVEMBER 7, 1997
TO: MIKE KOHLHOFF
FROM: JEFF BAUMAN *JB*
RE: WATER SUPPLY PLANNING

Over the past years, the city of Wilsonville has undertaken numerous steps to address future water supply needs. The following list identifies key activities that have occurred, with emphasis on planning and engineering studies that have occurred.

- 1989: Regional Providers Advisory Group
Technical staff representing 35 agencies (including Wilsonville) convened monthly to discuss/coordinate water supply issues of regional interest.
- 1991-92: "Water Source Options Study"
This engineering study represented Phase I of a regional planning effort. It evaluated 29 potential sources of water for the Portland/Vancouver metropolitan area. It concluded that 6 of these options merited further analysis. The study was conducted for the 35 agencies of the Regional Providers Advisory Group, which included the city of Wilsonville. The study was conducted by an engineering consulting team headed by CH2MHill.
- 1992 to present: Water conservation efforts and/or curtailment programs have been implemented every summer in Wilsonville (ranging from public education and requests for voluntary reduction in water usage, to mandatory restrictions during peak demand periods).
- 1992-94: Willamette River pilot plant
A pilot-scale water treatment facility was set up in Wilsonville to demonstrate how "raw water" from the Willamette River could be treated with readily available technologies to provide water which meets all federal and state drinking water standards. The project was conducted by the Tualatin Valley Water District, with support from the city of Wilsonville.
- 1993: Second Elligsen reservoir placed in service.
- 1993: Canyon Creek well placed in service.
- 1993-96: "Regional Water Supply Plan"
This engineering study represented Phase II of the regional planning effort. It evaluated the 6 most promising supply options in greater detail and concluded that a combination of sources (including the Willamette River) should be protected



Serving The Community With Pride

November 7, 1997
Page 3

of the participating agencies. The lead agency for this study was the city of Tigard. Other participating agencies included: Wilsonville, Tualatin, Sherwood, Portland, Tualatin Valley Water District, and Clackamas River Water District. The consulting engineer was Murray, Smith & Associates.

1997 (ongoing): Regional Water Providers Consortium
This group of 28 agencies is an outgrowth of the Regional Providers Advisory Group. All 28 agencies have endorsed the Regional Water Supply Plan, and have designated elected officials from their respective governing bodies to serve on the Regional Water Providers Consortium Board. Wilsonville Mayor Charlotte Lehan was elected Vice-Chair of this Board.

1997 (ongoing): Columbia-Willamette Water Conservation Coalition
Wilsonville has joined this group of 18 agencies which work cooperatively to establish conservation goals, provide public information/technical assistance, and evaluate the effectiveness of conservation efforts. Wilsonville Public Works Director Jeff Bauman serves on the "core team" (i.e., steering committee) of the Coalition.

in process: "Willamette River Water Treatment Plant Project Concept Design"
This engineering study is a detailed site analysis as well as technical/financial feasibility analysis of a Willamette water treatment plant designed to meet Wilsonville's long-term water supply needs. The study is scheduled to be completed in 1998. The consulting engineer is Montgomery Watson.

in process: Construction has begun on the Boeckman well, which should be in service by the summer of 1998.

in process: Bids are being solicited for construction of an additional reservoir (2 million gallon capacity) to be in service by the summer of 1998.

Water Requirements for Projects with Approval for Water		
	Update 1/7/98 PIng Ref	Maximum daily production in GPD
Commercial		
ACT III - built	95PC26	9,000
Canyon Creek Business Park (2 buildings)	97DB06	78,000
Chevron - built	96DR03	15,000
Fox Center-renewed	96DB23	22,000
Garden Center - built	96DR17/95PC29	1,000
WBC project-office	97DB19	89,000
Living Enrichment Center		61,000
Oriental Rug Store at TC - built	96DR05	4,000
Tarr Card Lock	97DB05	
Teufel	95PC27	172,000
Town Center, 3d Anchor		14,000
Unocal	96DB29	4,000
Willamette Inn Motel - Indoor Swimming Pool	97DB21	
WV Rental	96DB16/97DB29	1,000
Town Center-Phase III		93,000
Total Commercial		563,000
Industrial		
Artistic Auto body	96DB36	
CISCO-small whse exp- built	96DB01	3,000
Comm & Ind Park (Tim Knapp)	96DB34/97DB04	6,000
Deerfield Partn (Conway)Tk Term on Comm C	96DB15	10,000
Don Rasmussen Mercedes-Benz (update 7/3	97DB23/97DB01	6,000
Fullman Company	97DB20	9,000
GMC/Wentworth	97DB02	6,000
Jack Martin, Bldg B	94PC41	17,000
LeadTec	96DB30	8,000
Master Craft aka Cranston Machinery	96DR02	31,000
Nike Parking Expansion	97DB17	
Oregon Pacific Investment	96PC03	12,000
PGE Crew Center	96DB04	3,000
ProGrass - built	96DB18	9,000
Rebco - Ron Tonkin (1 year extension appro	95PC17	20,000
Sysco Continental Inc, Phase I - built	96DB37	2,000
Tektronix	97DB18	1,000
US Crane-expired	95PC22	
Utility Vault #2 - built	96DB12	
Total Industrial		144,000
Multifamily		
Greenhouse Estates-46 lots	96DB35	24,000

* Added per Council action adopting Ordinance on 1/5/98
Annex, CD Public, Water Production, Water-Recent Approvals

Water Requirements for Projects with Approval for Water		
	Update 1/7/98: Png Ref	Maximum daily production in GPD
Hathaway	95PC06	162,000
Phoenix Inn-Gfathered under Oil Can Henry	96PC04	29,000
Randall 372 apts on Canyon Creek	96DB24/97DB07	200,000
Teufel	95PC27 & 97DB12	236,000
Vlahos Firs aka Carmon Oaks	97DB10	45,000
Wiedeman Senior Apartments	96DB13	29,000
Willamette Woods Senior Community (approx 96 units)	96DB28	52,000
Total Multifamily		777,000
Office		
Chamber/Visitors Center orig approval on 8/13/96 & revised	96DB05	6,000
NW LL Partn- office, Kinsman-Gfathered	96DB06	1,000
Total Office		6,000
Town Center Park	96DB05	24,000
Single Family		
Canyon Creek Meadows	95PC16	89,000
Hathaway	95PC06	21,000
Hummelt Phases I, II and III (total of all 3 pha	96DR13	124,000
Teufel (Stage II not approved, but PI Comm	95PC27	94,000
Total Single Family		328,000
Total		1,842,000
Projects with planning approval subject to availability of water		
LaPoint Center Chevron Station/Market	97DB28	4,000
Marcia's Vineyard - 126 Apartments (Needs Council approval)	97DB34	68,000
White Oak - 201 Apartments (Needs Council	97DB24	175,000
Willamette Valley Homes - being appealed	97DB30	4,000
Total with planning approval subject to availability of water		251,000

Arlene

City of
WILSONVILLE
in OREGON

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

October 27, 1993

Mr. Andy Cotugno
Planning Director
Metro
600 NE Grand Avenue
Portland OR 97232

Re: Possible Cuts from the ODOT Construction Schedule

Dear Mr. Cotugno:

The list of possible cuts from the ODOT construction schedule released by the Metro staff last week contains some serious errors relating to the I-5 Stafford Interchange that I would like to bring to your attention.

First, the interchange is given only 10 points for its 1990 vehicle to capacity ratio of 1.16. This clearly should be 15 points, as the V/C ratio is greater than one.

Second, the Metro chart shows a net gain of only 734 jobs in the area around the project between 1988 and 1995. I must call to your attention that Mentor Graphics Corporation alone added over 1,000 jobs in that area in 1991. I do not know what the correct figure is, but I do know that it is substantially higher than 734. As a point of reference, we have business licenses for 6,517 employees in the City of Wilsonville in October 1993 within one mile of the interchange, as compared to an estimate of 2,789 in 1995 as included on the Construction Cut List.

Third, the interchange receives no points for transit. However, not one, but two transit systems (Tri-Met and South Metro Area Rapid Transit) use that interchange and a park-and-ride is located immediately adjacent to the interchange in a parking lot between Burns Brothers truck stop and Parkway Cinema. I fail to see how this translates into zero points for transit.

Fourth, the interchange handles more than 5,000 cargo trucks daily, and is accessed by the distribution centers of Nike, Smith's Home Furnishings, G.I. Joes and Sysco Food Systems, among others. Again, I fail to see how this translates into zero points for intermodal use. We are performing classification counts at the interchange and will inform you of any substantial changes.

Mr. Andy Cotugno
Re: Possible Cuts from the ODOT Construction Schedule
October 27, 1993 - Page 2

Your attention to what appears to be some serious errors and a prompt response would be deeply appreciated.

Sincerely,


Eldon R. Johansen
Community Development Director

ej:dk:md

pc: Arlene Loble, City Manager
Dave Kanner, Public Affairs Director/Ombudsman
Mike Kohlhoff, City Attorney
Mike Stone, City Engineer
Wayne Sorensen, Planning Director



City of
WILSONVILLE
 in OREGON

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

December 7, 1993

Mr. George Van Bergen, chair
 Joint Policy Advisory Committee on Transportation
 METRO
 600 NE Grand Ave.
 Portland, OR 97232

Dear Mr. Van Bergen:

On behalf of the City of Wilsonville and in particular on behalf of our business constituents, I would like to commend the Metro planning staff and the staff of the Oregon Department of Transportation for their hard work on the revisions to the ODOT construction schedule and for the hard work yet to come. I am also extremely pleased to see that the concerns and input of the city and its constituents were taken to heart in developing the preliminary recommendations for the construction schedule and that the I-5/Stafford Road Interchange project is recommended to be kept in that schedule. It is our fervent wish that this also be the final recommendation of JPACT and the Oregon Transportation Commission.

The reasons for retaining the Stafford Road Interchange project in the construction schedule are many and have been gone over in some detail in our prior testimony. However, I would like to reiterate some of those reasons for the record.

Safety

There is a serious safety issue at the Stafford Interchange which, according to traffic counts conducted by the City of Wilsonville in October 1993, is now used by an average of 7,715 cargo trucks daily. Grades, sharp turning radii and inadequate acceleration lanes result in trucks being unable to enter the freeway safely and accelerate to freeway speeds (65 mph in that section of I-5). This is reflected in the extremely high accident rate for that interchange. In addition, traffic routinely backs out onto the freeway from the southbound off-ramp during all day parts and especially during the a.m. peak hours.

Economic Development

Wilsonville is the site of the distribution centers of such major businesses as Nike, Avia, G.I. Joe's, Smith's Home Furnishings, PayLess Drug and Sysco Food Systems. Wilsonville is also the headquarters of Tektronix and Mentor Graphics. These and many other businesses in Wilsonville depend on the free and safe flow of cargo through the Stafford Interchange and in many cases have developed their business plans around the assumption that the interchange would be rebuilt. We cannot responsibly ignore the needs of these businesses.

Intermodal Transportation

While the goal of reducing single-passenger automobile trips is laudable and the City of Wilsonville has taken significant steps to reduce such trips, the issue at the Stafford Interchange is truck traffic, not passenger car traffic. As mentioned earlier,

December 7, 1993
Mr. George Van Bergen
Page 2

7,715 trucks per day are using the Stafford Interchange. No matter how many sidewalks and bike paths we build, there are certain freeway users who will not and cannot be served by them. These are, of course, the business interests such as those in Wilsonville, who move their goods and materials by truck and who will continue to depend on the highway system.

Wilsonville, which is not a part of the Tri-Met district, has also invested millions of dollars in developing and expanding a mass transit system -- South Metro Area Rapid Transit -- to connect the city with other parts of the region and to provide an alternative to the single-occupant passenger vehicle on our own streets. Our transit system, I might add is, unlike Tri-Met, free to the users.

In addition, we have recently completed a Bicycle/Pedestrian Master Plan and our city code requires bike paths and sidewalks as part of all new development in the city.

Again, however, no matter how much we do (and we believe we are doing our part) to get passenger vehicles off the roads, we have not lessened our obligation to ensure that truck traffic can move safely on our highways.

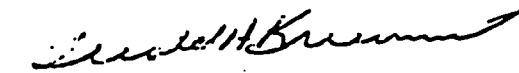
Local Investment

As long ago as 1978, ODOT had made it clear that the city needed to move its major north-south interchanges away from the freeway interchanges, and the city has done so at great expense. In addition, at ODOT's insistence, and as part of the Stafford Interchange project, a new north-south arterial was constructed using funds from a Local Improvement District that includes many of the businesses and industries most directly impacted by the Stafford Interchange. In total, the city has spent or committed more than \$14.4 million towards arterial improvements to support the interchange reconstruction project.

In addition, Wilsonville businesses pay nearly \$1 million per year in employer payroll taxes to support South Metro Area Rapid Transit.

All of this, I believe, lends ample weight to keeping the Stafford Interchange project on the construction schedule. I again commend the staffs of Metro and ODOT for their diligence and hard work and that JPACT and the OTC for their consideration of these issues.

Sincerely,



Gerald A. Krummel
Mayor

June 2, 1998

Wilsonville, Oregon 97070
(503) 682-1011
(503) 682-1015 Fax
(503) 682-0843 TDD

Mike Burton, Executive Officer
Metro
600 NE Grand Ave.
Portland, OR 97232-2736

Re: Expansion of Urban Reserve Area 42

Dear Mike:

This letter is a follow-up to our April 2, 1998, meeting with the Governor and the DOC staff concerning the expansion of Urban Reserve Area 42 to accommodate the siting of a women's prison and intake facility. The State Supreme Court has made it abundantly clear that under the Super Siting Statute the siting of a prison is not dependent on local land use decision making. Nonetheless, the City of Wilsonville supports the expansion of Urban Reserve Area 42 because it makes good land use sense to do so.

The City would like to annex all of the expanded Area 42 as a part of our commitment to provide urban services not only to the prison but to the adjacent property which would benefit from infrastructure improvements built to city standards at the DOC's expense. As you know, with or without annexation the City of Wilsonville will be compelled to provide infrastructure improvements to the prison. In this location the prison will serve as the anchor tenant to support the development of the proposed north Wilsonville industrial area. Without the prison, the provision of urban services to this area will not be financially feasible for many years into the future. For the past ten years industrial development has continued unabated in this unincorporated area of Washington County despite the lack of adequate storm drainage, street improvements, or a cohesive development plan. Even without a prison, city planning and engineering standards can help rectify this inconsistency. However, the prison can actually serve as a catalyst to help solve these problems.

The City recommends expanding Urban Reserve Area 42 to include the 72.5 additional acres required by the DOC for construction of the prison and to provide a buffer along Clay Street for the property to the north. With the exception of three home sites, all of the property is now used for commercial and industrial purposes. Approximately 19 acres are zoned MAE (land intensive industrial). This property is located south of Clay Street along the railroad tracks and includes the recently-closed hazardous waste transfer station. The balance of the property (approximately 53 acres) is zoned AF5 (Ag Forest 5). Most of the site was extensively logged in 1997 which apparently has exacerbated flooding problems in the area. The only forest remaining is a 4.8 acre stand of trees fronting on Clay Street. The balance of the property (approximately 18 acres) includes a construction equipment storage yard and pole barn, the relocated Tualatin dog food rendering plant (which is used for equipment repair and storage), and a nursery stock storage area which is located in part under the BPA easement.

All of the property is exception land. None of the property is EFU or otherwise



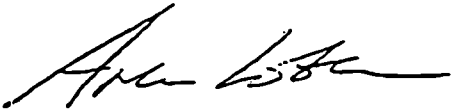
Mike Burton, Metro Executive Officer
June 2, 1998

Page 2 of 2

agriculturally productive except for a hay field on the nursery property. To my knowledge there are no wetlands and no environmentally sensitive species identified in the expanded Urban Reserve Area.

In order to provide for a logical extension of urban services that will benefit not only the Department of Corrections but also the adjacent property owners, on behalf of the City of Wilsonville, I respectfully request Metro's consideration of the expansion of Urban Reserve Area 42.

Sincerely,



Arlene Loble
City Manager

cc: Jon Kvistad, Metro Presiding Officer
Metro Council
Honorable Mayor and City Council

al:lb

May 29, 1998

City of

WILSONVILLE
in OREGON

(503) 682-1015 Fax
(503) 682-0843 TDD

Ms. Mary Weber, Senior Regional Planner
Metro Growth Management Services
600 NE Grand Ave.
Portland, OR 97232

RE: Proposed Concept Plan, North Wilsonville Industrial Area

Dear Ms. Weber:

This is a package submittal composed of three copies of the proposed Concept Plan for Urban Reserve Area #42. In addition, I am including some general comments (below), and responses to Metro Code Section 3.012 criteria (below). The attachments I am supplying include an evaluation of how the proposed Concept Plan for Area #42 meets RUGGO and Urban Growth Management Functional Plan criteria, and a Memorandum from Eldon Johansen, Wilsonville's Community Development Director, identifying public facility capacities and needs.

The City of Wilsonville and the Oregon Department of Corrections are in the final stages of preparing cost estimates for infrastructure to serve Urban Reserve Area #42 and the proposed prison. Cost information should be available by next week.

General Comments

In our extensive discussions and meetings with the public and other agencies, several points have emerged that I would like to emphasize. They are as follows:

A. Urban Reserve Area #39 is a school site south of Dammasch held in trust for the Common School Fund by the Division of State Lands. This site is available to the West Linn - Wilsonville School District without cost, provided that it is used for the construction of a public school. There are no other undeveloped potential school sites west of Interstate 5 and within the West Linn-Wilsonville School District, other than Area #39 and the school site proposed within the Dammasch area master plan. Metro included Area #39 within the Urban Reserves at the request of the City of Wilsonville and the School District, specifically to meet this need.

By developing Area #39 as a school, building out the Dammasch area master plan (Area #41) as a mixed-use urban village with housing and another school, and by



developing Area #42 with industrial uses and the Day Road prison facility, the City will be able to meet a number of goals for housing, jobs, schools and other public facilities. It should be noted that Area #42 is within the Sherwood School District and no school sites are proposed within Area #42.

B. How does a prison location meet "special need" criteria? There was no way for Wilsonville or Metro to predict that the state would site a prison in Wilsonville. Indeed, many people in the region are still having a great deal of difficulty believing that that decision has been made and supported on appeal through the Oregon Supreme Court. The state has never previously used super-siting to locate a prison within the tri-county area. While a prison has many characteristics similar to those of a heavy industrial use, prisons are inherently different from other land uses within Metro's 2040 design types. If the Day Road prison is to be constructed, it must be treated as a unique land use, worthy of "special need" status.

C. Prison inmates as residents for housing density allocation. Prison inmates are considered by the U.S. Census to be residents of "group quarters"--a type of housing. Once the prison is constructed and the site is annexed into the City, inmates will be counted by the Census as residents of Wilsonville. The 1990 Census indicated that Wilsonville households averaged slightly more than 2 people per dwelling unit. On that basis one could conclude that each prisoner can be considered to occupy the equivalent of approximately 0.5 dwelling unit. Please see the attachment.

D. Wilsonville's funding strategy to protect open spaces. Natural resources and potentially hazardous sites in Wilsonville are acknowledged and protected through Primary and Secondary Open Space designations. The Comprehensive Plan does not require compensation to landowners whose property is within a designated open space area but the Plan does allow for development to be concentrated in non-open space areas. This amounts to a density-transfer system to minimize development in designated open space areas.

Wilsonville currently collects a systems development charge (SDC) for parks and recreation development, equal to \$1,794 per single family dwelling. These funds can be used to acquire and protect open space areas. The City also collects an SDC for stormwater systems, a fee that can be used to acquire and improve wetlands, creeks and other drainageways that are also open spaces.

Most of the portions of Urban Reserve Area #42 that we expect to be designated as open space are forested. The City has a tree protection ordinance in place that includes a fund that is used to mitigate the loss of trees. The City has also used Local Improvement District (LID) money to create a fund to mitigate the loss of Oregon white oak trees. A similar approach could be used if an LID is formed to make improvements in an Urban Reserve.

Metro and The Wetlands Conservancy have recently acquired properties in the Coffee Lake area between Urban Reserve Areas #41 and #42.

E. North Industrial Concept Plan and its relationship to existing City plans. The West Side Master Plan and the Dammasch Area Transportation-Efficient Land Use Plan both emphasize the importance of completing the development of the Dammasch area as an urban village. It is not possible for that to happen with a prison in the middle of a 520-acre planning area. In contrast, the development of a prison in Area #42 will actually help to facilitate planned industrial development surrounding it. As Area #42 becomes increasingly industrial in character, properties surrounding the proposed Day Road prison site will benefit from industrial infrastructure improvements, and potentially, from a prison that could provide a market for local goods. The prison facility is expected to both consume the services of, and provide services to, surrounding industries.

Relationship of North Wilsonville Industrial Area Concept Plan to Urban Reserve Criteria

The criteria are addressed as follows:

Sections 3.01.012(c)(2) and (d).

Along with the nearly 250 acres that compose the current boundaries of Urban Reserve Area #42, the Concept Plan identifies approximately 73 additional acres of non-urban reserve property that is necessary to site the "special land need" described in subsection (d). In this case, the special need land area totals over 100 acres, part of which is already within the Urban Reserve and part of which is proposed to be added to it. A state correctional facility is proposed for that area. The 73 acre area that is proposed to be added to the Urban Reserve is composed of larger parcels with fewer residential impacts than would be found if a prison were located in the Dammasch area. (The average rural residential parcel size within Area #42 is 3.4 acres; the average parcel size of all uses within Area #42 is 3.83 acres.)

Section 3.01.012(e)(1).

The Concept Plan identifies the annexation of Area #42 to the City of Wilsonville as the desired course of action. As the Area urbanizes, the City plans to provide all needed urban services. We understand that it is not Washington County's intent to provide urban services to Area #42. Wetlands and quarry operations help to form a barrier between Area #42 and the remainder of Washington County to the north and west.

Urban Reserve Area #42 adjoins the Wilsonville City limits. It is not contiguous to any other city.

Section 3.01.012(e)(2)

This legislative amendment provides for the appropriate planning level scrutiny of a "special need" review by the Metro Council.

Section 3.01.012(e)(3)

Does not apply to Area #42.

Section 3.01.012(e)(4)

No residential uses are proposed for Area #42. However, residential densities of more than ten dwelling units per net developable residential acre are planned for the urban village to be built at Dammasch (Area #41). 2300 housing units are included within the City-adopted compact density plan for Area #41.

It should be noted that all of the land adjoining Area #42 within the City is planned for industrial use. Metro has designated the adjoining properties as industrial on the 2040 land use maps. This portion of the City is rapidly building out with industrial uses. There are no dwelling units within the northwest quadrant of the City.

Section 3.01.012(e)(5)

No residential uses are proposed for Area #42. However, a diversity of housing stock that will fulfill needed housing requirements can be met by the compact urban form planned for Area #41.

Section 3.012(e)(6)

The residential development element of the City's plan for Area #41 identifies the housing types where special attention will be necessary to assure affordable housing for households with incomes at or below area median incomes. The City coordinated those planning efforts with both the Clackamas County Housing Authority and State's housing agency.

Section 3.012(e)(7)

The Concept Plan establishes the compatibility between the needs of the Day Road prison site and adjacent proposed industrial development. This is balanced by the focus

of the Master Plan for Area #41, which provides for 2,300 dwelling units and necessary urban-village infrastructure, including a proposed school site and four public parks.

Section 3.012(e)(8)

Figure 6 of the Concept Plan identifies major natural resources; Figures 4 and 7 of the Concept Plan illustrate transportation improvements that are consistent with the Regional Transportation Plan.

Section 3.012(e)(9)

The Concept Plan identifies general areas of open space potential in an area where no Metro open space resources have been identified. The Master Plan will more fully explore how remnant natural resource areas can be combined with stormwater management facilities so as to preserve and protect opportunities for valuable natural habitat in the future.

Section 3.01.012(e)(10)

Conceptual costs for public facilities and services are discussed in the Concept Plan. More detail on the funding of these improvements will be discussed in the public facilities element of the Master Plan.

Section 3.01.012(f)(11)

No residential uses are proposed; thus no school sites have been identified in the Area #42 Concept Plan. However, the Master Plan for the Dammasch area (Area #41) adequately addresses future siting needs for this area of the West Linn-Wilsonville School District.

Section 3.01.012(12)

The Concept Plan contains a Conceptual Land Use Plan Map (Figure 3) and a Conceptual Transportation Plan Map (Figure 4) that meet the requirements of this subsection. The Urban Reserve Plan Map (Figure 7) complies with all applicable sections. Figures 8-10 identify transportation components in more detail.

Public Input and Review

The Wilsonville Planning Division held a series of open houses on the Conceptual Land Use and Transportation maps of this Concept Plan. The affected property owners who attended were able to provide input and discuss these concepts, and were informed of the possibility of changes to their neighborhood in the near future.

Please contact me at (503) 570-1581 if you have questions or need further information.

Sincerely,



Stephan A. Lashbrook, AICP
Planning Director

cc: Arlene Loble, City Manager
Richard Ross, DOC
Steve Marks, Governor's staff
Eldon Johansen, Community Development Director
Larry Shaw, Metro Legal staff
Glen Bolen, Metro Growth Management staff

**NORTH WILSONVILLE INDUSTRIAL AREA
WILSONVILLE, OREGON**

**PROPOSED
CONCEPT PLAN**

June 12, 1998

**Wilsonville Planning Division
(503) 682-4960**

OBJECTIVES OF CONCEPT PLAN

The North Wilsonville Industrial Area has the following objectives:

- Meet a critical regional need for a state-mandated correctional facility;
- Meet future regional needs for additional industrial-zoned and serviced land;
- Utilize Urban Reserve lands agreed upon by the region;
- Respect existing natural conditions; and
- Contribute to the continuing economic health of Wilsonville.

Upon approval by the Governor of the prison facility on the selected site, west of Day Road, immediate acquisition and construction by the Oregon Department of Corrections can begin. This will constitute the first phase of urban development of Area #42. The remainder of the Urban Reserve will require a more detailed master plan that includes additional phasing of development. The City of Wilsonville is committed to completing that master plan.

The remainder of this Concept Plan describes existing conditions, a conceptual land use scheme for the non-prison site land, conceptual transportation plan maps, a natural resources site map, infrastructure plans, and implementation steps. As a starting point this Concept Plan is intended to meet the requirements of Metro Code Chapter 3.01.005(c)(3), (4) and (5); and to comply with Chapter 3.01.012(e).

EXISTING SITE CONDITIONS

The North Wilsonville Industrial Area is currently a mix of rural residential, industrial, small rural land-extensive activities, and small woodlots (Figure 2). The Area is relatively flat, with a drainage locally known as Basalt Creek running north-south through its eastern half. A grouping of rural residential homesites on parcels averaging 5.47 acres per dwelling is situated on the east side of Garden Acres Road.

The largest parcel in the North Wilsonville Industrial Area, tax lot 3S103A001300, 32.25 acres, was logged in 1997 and not replanted. Stands of trees are found along the south side of Day Road before it opens into small pasturages and homesites prior to its intersection with Grahams Ferry Road. Industrial and commercial activities include a composting operation and small to mid-sized nurseries. Crops such as blueberries are grown on small lots. Soil classifications are Classes II and III.

There are 39 residences and nine industrial and commercial operations within Area #42. The Washington County Comprehensive Plan designates Area #42 as "Rural/Natural Resource." Implementation is by the County's Agriculture and Forest - 5 (AF-5) Land District regulations for approximately 80% of the property; and by the Land Extensive Industrial (MA-E) Land District for the remaining small lot industrial uses along a corridor that generally parallels the Burlington Northern rail line. It should be noted that a 20-acre minimum lot size for future land divisions was applied to Area #42 when these parcels were approved for Urban Reserve inclusion. The use status did not change with the adoption of the Urban Reserve designation; Urban Reserve lands are intended to be retained in rural, non-intensive land uses until they are annexed into Wilsonville and developed with urban uses.

The small southernmost triangle of the North Wilsonville Industrial Area is located in Clackamas County and zoned Rural Industrial.

In addition to being designated as exception lands by Washington County, Area #42 is isolated from other rural Washington County properties to the west by the Burlington Northern Railroad line, and immediately west of the railroad, by extensive quarry operations and the Coffee Lake wetlands. This effectively blocks connectivity through

the Area from the west to the east. To the east of Area #42 is Wilsonville's Commerce Center industrial development and Interstate 5.

A BPA powerline traverses Area #42 in a southeast to northwest direction, barely clipping the extreme northeastern corner of the proposed Day Road prison site property.

The road system is adequate for rural uses. Upgrading will be required as future urban uses are developed. Heaviest truck traffic is found on Grahams Ferry, Day and Ridder Roads. Residential traffic is dominant on Garden Acres Road. The three-way intersection of Grahams Ferry, Day and Garden Acres Roads gets the heaviest use.

Due to Area #42's relatively flat terrain, there are no panoramic views within its boundaries. No cultural resources have been identified.



**Draft 2040
Design Types**
Urban Growth Boundary
Legislative Amendment
Index number 9

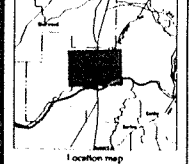
- Central City
- Regional Centers
- Town Centers
- Inner Neighborhoods
- Outer Neighborhoods
- Employment Areas
- Industrial Areas
- Landfills
- Main Street
- ✓ Proposed Regional Throughways
- ✓ Potential Regional Throughways
- ✓ Green Corridors
- ✓ Planned & Existing Light Rail Lines
- ✓ Proposed Light Rail Alignments
- ✓ Potential U.T. Facilities
- Light Rail Stations
- Potential Light Rail Stations
- International Airports
- Regional Airports
- Terminals
- Intermodal Rail Yards
- ✓ Rail Distribution Network
- Exclusive Farm Use
- Receptor Land in Urban Reserves
- Reserve Land in Urban Reserves
- Urban Reserves not in Legislative Amendment
- Rural Reserves
- Open Space
- ✓ Urban Growth Boundary
- ✓ Urban Reserve Boundaries
- ✓ Areas added to Reserve by Metro Council Ordinance
- Neighboring Cities
- Public Parks

DRAFT

Map prepared by the Regional Land Information System, Oregon State Department of Transportation, 1998. All rights reserved. No part of this map may be reproduced without the written permission of the Oregon State Department of Transportation.



Map prepared by the Regional Land Information System, Oregon State Department of Transportation, 1998. All rights reserved. No part of this map may be reproduced without the written permission of the Oregon State Department of Transportation.





CITY ATTORNEY'S OFFICE

380 "A" AVENUE
P.O. BOX 369
LAKE OSWEGO, OR 97034

TELEPHONE: (503) 635-0225
FAX: (503) 699-7453

DATE: 12/17/98

TO: Chris Billington FROM: Evan Boone
Metro CITY ATTORNEY'S OFFICE

FAX: 797-1793

TOTAL PAGES INCLUDING THIS PAGE: 5

If you do not receive all pages, please call Barbara Parr, (503) 635-0225.

COMMENTS:

For today's 2pm metro Council mtg

CONFIDENTIALITY NOTICE: THIS FACSIMILE TRANSMISSION MAY CONTAIN CONFIDENTIAL AND PRIVILEGED INFORMATION. THE INFORMATION CONTAINED IN THIS TRANSMISSION IS INTENDED FOR THE ADDRESSEE ONLY. IF YOU ARE NOT THE ADDRESSEE OF THIS FACSIMILE, PLEASE DO NOT REVIEW, DISCLOSE, COPY, OR DISTRIBUTE IT. IF YOU HAVE RECEIVED THIS TRANSMISSION BY MISTAKE, PLEASE TELEPHONE US IMMEDIATELY. THANK YOU.

N:\Forms\Fax-CAO



CITY ATTORNEY'S OFFICE

December 17, 1998

Mr. Jon Kvistad, Chair
Metropolitan Service District
Metro Regional Center
600 NE Grand Ave.
Portland, OR 97232

Re: Ordinance No. 98-791 - Local Government Boundary Changes

Dear Chair Kvistad:

Proposed Ordinance No. 98-791 would implement ORS 268.347 by imposing local government boundary modification standards in addition to the requirements of the applicable state law, i.e., ORS 222 (city annexation procedures). The proposed ordinance, recommended by MPAC, comes to the Council with a recommendation that MPAC further consider amendments to the proposed ordinance and report to Metro Council by April 1, 1999. It is acknowledged that additional policy and technical work remains before the Metro boundary change ordinance is to be deemed completed.

The City of Lake Oswego has met with other city and district planners and attorneys in reviewing the MPAC subcommittee's ordinance drafts, most recently producing a December 9, 1998 revision to Metro Code 3.09. Due to the time deadline for adoption (December 31, 1998), MPAC and its subcommittee were not able to fully consider the following items, each of which the City of Lake Oswego supports:

1. Reduction or Elimination of Notice Period to Consenting "Necessary Parties"¹

Part of the goal of the new boundary change procedures is to not lengthen the time for processing boundary changes uncontested by the affected necessary parties.² This goal was not reached. Section 3.09.030(b) requires 45 days notice to necessary parties. The 45-day period is nearly twice as long as the annexation procedure under the (dissolving) Metro Boundary Commission.

¹ "Necessary Party" means county, city or affected districts. 3.09.020(j).

² ORS 268.351(1)(b) requires Metro to establish an expedited process for uncontested boundary changes.

Jon Kvistad
December 17, 1998
Page 2

The "necessary party notice time" should be eliminated if all applicable necessary parties either have entered into an urban services plan with a city that addresses boundary changes or have entered into an agreement or waiver of notice of boundary changes. If the purpose of the notice is to alert a necessary party of possible annexation, and if the necessary party has already considered and approved the concept of annexation, then there is no need to provide 45 days notice to them.

2. Boundary Change Election To Be Last Step In Procedure

Appeal to the Metro Boundary Appeals Commission is permitted after the City's "final decision." Section 3.09.070. "Final decision" is currently defined as including any necessary annexation or withdrawal vote. Section 3.09.020(g). The City of Lake Oswego believes that the urban service analysis component of a boundary change should be completed before the issue is submitted to the voters for the political decision to approve or reject a boundary change.³ Accordingly, appeals to the Metro Boundary Appeals Commission by contesting necessary parties should occur before the electorate expends its time and energy on the political decision. As presently provided, it may be an exceedingly confusing and lengthy process to determine whether a boundary change complies with the land use requirements:

- a. City approves the annexation.
- b. An interested citizen challenges the land use determinations before LUBA.
- c. LUBA (and any appellate courts) determine the annexation complies with applicable land use requirements.
- d. The election is held and approved by the voters.

³ This process would also make it consist with the citizen appeal process to LUBA. Heritage Enterprises v. City of Corvallis, 300 Or 168, 708 P2d 601 (1985). LUBA stated in Heritage (emphasis added): "The present case involves a city council and the local electorate. The council made the initial determination of compliance of the proposed annexation with the city's comprehensive plan. The city charter assigned to the voters the decision whether to annex. Under this scheme, the voters are not called upon to make a decision involving the application of "a comprehensive plan provision" or the other provisions listed in ORS 197.015(10)(a). For the purpose of LUBA jurisdiction, we conclude that the legislature intended that the city council's decision would be the final "land use decision."

"The separate decision of the electorate whether to annex, as opposed to the determination whether the proposed annexation would comply with the comprehensive plan, was not a "land use decision" within the meaning of ORS chapter 197. The question referred to the voters was not whether the proposal could be adopted under the applicable land use law, but whether this proposal should be adopted at that time. The city council, not the voters, made the final determination of compliance with the comprehensive plan and land use laws. The city council, in referring the measure, decided that the proposed annexation was permissible but not required, under the city's comprehensive plan."

"Heritage insists that LUBA and the judiciary should review the voters' decision by the same standards that would apply to an agency or a governing board's decision. This is untenable. Elections do not (or should not) occur when the outcome is predetermined. And when the choice is appropriately the voters', that decision normally is not and should not be subject to administrative review."

Jon Kvistad
December 17, 1998
Page 3

e. A necessary party appeals the annexation election vote to the Metro Boundary Appeals Commission.

f. Metro Boundary Appeals Commission determines whether the land use requirements and the Metro code requirements is met.

g. A necessary party appeals the Commission decision to LUBA and any appellate courts.⁴

The timing of a LUBA appeal, and the scope of a LUBA appeal, should be carefully considered in determining when an appeal to the Boundary Appeals Commission will occur in the process and what the scope of the Metro Boundary Appeals Commission will include. The City of Lake Oswego believes this confusing process may be avoided by permitting appeal by necessary parties to the Metro Boundary Appeals Commission to occur before the election, rather than afterwards. (There remains uncertainty as to what the scope of review should be before the Metro Boundary Appeals Commission, considering the fact that a contesting necessary party, as an interested party in the annexation proceeding, also has standing to appeal to LUBA, but, under the present procedure, perhaps not until after decision of the Metro Boundary Appeals Commission on those matters which it will review.)

3. Boundary Change Criteria

Section 3.09.050(f) sets forth criteria to be examined when a city or necessary party considers a boundary change. The language of the criteria, taken from ORS 195.070, are factors to be considered by a city and a necessary party when establishing an urban service agreement. These criteria are not directly applicable to small parcel boundary changes, e.g. "the feasibility of creating a new entity for the provision of the urban service"; or "economic, demographic and sociological trends and projections relevant to the provision of the urban service." 3.09.050(f)(4), (6). Proposed alternative criteria language can be found in a December 9, 1998 draft submitted to the MPAC subcommittee by a working group of planners and city attorneys.

//

//

//

//

//


⁴ Previously, appeal of a Metropolitan Boundary Commission decision was directly to the Court of Appeals, not LUBA. ORS 199.461(4). The direct appeal of local government boundary commission decisions to the Court of Appeals pursuant to ORS 199.461(4) is no longer applicable. Now it appears that "further appeals as provided by law" by necessary parties challenging annexation compliance with land use requirements would be to LUBA. ORS 268.354(3).

Jon Kvistad
December 17, 1998
Page 4

For the reasons stated above, the City of Lake Oswego supports the requirement Ordinance No. 98-791 be studied for further revisions consistent with ORS 268.347 and simplifying the boundary change procedures.

If you have any questions, please contact me.

Sincerely,



Evan P. Boone
Deputy City Attorney

Cc: Rob Drake, MPAC Boundary Change Subcommittee Chair
Dan Cooper, Metro General Counsel
Tom Coffee, Lake Oswego Asst. City Manager
Bill Scheiderich, Deputy City Attorney, Beaverton
James Coleman, City Attorney, West Linn
Timothy Sercombe, City Attorney, Hillsboro

EPB: bh

N:\Boone\Planning\Opinions\Metro Annexation DecOrdAdopt.001.doc



Administration

December 16, 1998

Mr. Jon Kvistad, Council Chair
Metropolitan Service District
Metro Regional Center
600 NE Grand Avenue
Portland, OR 97232

Re: Ordinance No. 98-791 – Local Government Boundary Changes

Dear Mr. Kvistad:

The City of West Linn has reviewed the December 10, 1998, draft of Chapter 3.09 of the Metro Code, and provides the following comments and requests that the Council consider one amendment to the draft as proposed.

The voters of the City of West Linn amended the City Charter in May, 1998 to require a vote of the people before the City annexes property. In order to implement this requirement earlier this year, the City Council adopted city code provisions which create a two-step process for consideration of an annexation request. The first step is the consideration of any and all land use and service provision issues. Once a final decision is reached in that process, the Council considers the referral of the annexation question to the voters. The Council believed it was poor policy to refer an annexation question to the voters if the proposal had not been found in compliance with the land use laws and that services could be provided.

The City anticipated the enactment of Metro Code Chapter 3.09 and allowed for consideration of the Metro standards and process as a part of the first step in the annexation process. Your current draft requires consideration of the Metro standards to occur **after** the people have approved an annexation request. The current draft will require the City to consider its land use standards, refer the question to the voters, and if approved then hold another hearing to consider the Metro standards. This creates the very real possibility that the Metro Boundary Appeals Commission, a three-member appointed body, will at some point overturn an annexation decision that has been previously approved by the voters. This outcome is undesirable and unnecessary.

Mr. Jon Kvistad, Council Chair
December 16, 1998
Page Two

We strongly encourage the Council to amend the draft to allow cities like West Linn that have a Charter-required vote on annexations to complete the Metro process **prior** to the annexation question being sent to the voters. This change will allow all land use and service issues to be decided so that the voters know that the request complies with those laws and is not subject to a further review. The following change to the definition of the term "Final decision," 3.09.020(g), will accomplish this objective:

"Final decision" means an adopted resolution, order or ordinance of an approving entity that is the final action of the approving entity applying the standards of this Chapter to the boundary change request.

The effect of this change will make the notice of final decision required by 3.09.030(e) to be a notice of the City consideration of the Metro standards and not a notice of the outcome of the City election on the annexation question.

We have also reviewed the comments submitted by the City of Lake Oswego requesting further consideration of the notice period and criteria issues and concur in their request for modification of the draft code provisions on those issues.

If you have any questions, please contact me.

Sincerely,



Jill Thorn, Mayor

cc: Tom Coffee, Lake Oswego Asst. City Manager
James Coleman, West Linn City Attorney
Dan Cooper, Metro General Counsel
Rob Drake, MAPCO Boundary Change Subcommittee Chair
Timothy Sercombe, Hillsboro City Attorney
Bill Schiederich, Deputy City Attorney, Beaverton

12-17-98

To the members of the
Metro Council:

Re: Proposed Resolution # 98-2733

This Resolution is making changes to the W.R.P.A.C. By-Laws without those proposed By-Law changes having been approved by the vote of the members of the Water Resource Policy Advisory Committee. This is contrary to Robert's Rules of Order (revised), and common courtesy. The "Staff Report on Res. # 98-2733 dated Nov. 7th was never included in the agenda packets as "informational", nor placed on the WRPAC agendas for either the November or December Regular meetings. This proposed Resolution position #26 of WRPAC entitled "Developer", and adds a new position of "#3, Tualatin Watershed - Surface Water U.S.A." It appears that the United Sewerage Agency would have two voting and two alternate seats, or that a new seat, yet to be filled by some future agency. By-laws for WRPAC Article III, Section 1 states, "... the Committee shall consist of representatives of the following jurisdictions and agencies: " The proposed Resolution goes on to change many of those "jurisdictions and agencies" under 98-2733's Exhibit A, "position" column. For these issues and proposals, I refer to WRPAC By-laws Article VII (Amendments) which states "These By-Laws may be amended or repealed with at least 30 days written notice to Committee members and only with the Consent of the Council."

Article
III
Section
5 (B)

page 1

12-17-98

On Monday the 14th I discussed this issue with WRPAC Chair Susan McCain. At that time I requested her to pull the proposed Resolution from the Metro Council agenda. She declined. I am asking the Metro Council or Chair Kirstad to pull this item from the agenda pending the required by-law procedure and appropriate discussion by the WRPAC members.

Thank you for your consideration.

Scott Forrester
WRPAC member and
representative of the
Clackamas River Basin Council

Note to Staff:

Please put in file for 98-2733 (Res)
and make and distribute copies for all
Metro Council members, before the meeting
today. Thank You Staff!

page 2

December 17, 1998

Metro Councilors
600 NE Grand
Portland, Oregon 97232

Re: Ordinance No. 98-791

Dear Councilors:

As a land use planner in Oregon for over eight years, I want to offer my analysis and opinion on the proposed *Metro Code Chapter 3.09 LOCAL GOVERNMENT BOUNDARY CHANGES*. I am writing these comments to you not representing a particular client; rather, I am sharing my thoughts because I believe Annexation to be a significant growth management tool available to local jurisdictions. For that reason, I have spent my own time following the process closely since the inception of the MPAC subcommittee, and was a participant in the "Ad Hoc Technical Group" that met throughout the subcommittee process.

In addition to my experience in Oregon representing both applicants and cities in a variety of land use matters, I provided staff support to the Land County Boundary Commission for over 4 years. I am well versed in both the policy issues and procedural aspects of ORS 199, which is being replaced in the Metro area by Chapter 3.09 (which will supplement existing state laws in ORS 222, 198 and 221).

The following list summarizes my comments on the proposed Code.

1. **I support adoption of Ordinance 98-791, with consideration for changes to make the process more efficient.** The MPAC subcommittee worked hard to come to agreement on a variety of complex issues. I understand the pressing need to adopt this Ordinance by the end of December. As noted below, I feel the "expedited process" as described in the current Ordinance should be amended.
2. **Provide for an ACTUAL expedited process in Chapter 3.09.** Expedited procedures will apply both for annexations to cities and annexations to special districts.
- 3.09 Establish and define an "Expedited Process" throughout the Chapter, specifically in Sections 3.09.030 and 3.09.050.
- 3.09.030(b) Reduce the number of days from day of notice to day of hearing to 30 days at the most, consider reducing to 15 days. The current expedited process in ORS 199 has a 10 day "review window." The proposed Metro Code makes that review window more than 4 times longer.
- 3.09.050 (b) Reduce the amount of time prior to a decision that a staff report must be written from 30 days to 15. This requirement only extends the timeframe in which staff will set a proposal for hearing. The standard for land use applications is 7 days.



The reason for my concern with adequate provision for expedited procedures is that most annexations that are processed are simple, non-controversial and meet all the requirements and policy guidelines for annexation. The state legislature realized this, and included the expedited process in ORS 199. That expedited process in ORS 199 provides for "simple non-controversial" annexations (either to cities or special districts) to be processed in 25 days (from receipt of complete application to final decision).

Thank you for your consideration of this testimony. Please feel free to call me at (503) 372-3706

Sincerely,

W&H Pacific, Inc.

A handwritten signature in black ink that reads "Chris Eaton". The signature is written in a cursive, slightly slanted style.

Chris Eaton, AICP

cc: Honorable Gordon Smith, United States Senator
Mike Burton, Metro Executive Director
Elaine Wilkerson, Metro Growth Management
Honorable Rob Drake, Mayor of Beaverton
Ken Martin, Portland Boundary Commission