RESERVES STEERING COMMITTEE MEETING #11
ANNOTATED AGENDA

Date: February 11, 2009
Time: **9:00 a.m. to noon**
Place: Council Chamber, Metro Regional Center
600 NE Grand Avenue, Portland

I. Welcome and Introductions (9:00 – 9:20)
Debra Nudelman, facilitator
- Agenda review
- Adoption of January 14, 2009 meeting minutes
- Updates since last meeting

Packet materials: January 14, 2009 meeting minutes.

II. Public Comment (9:20 – 9:30)

III. Framing Growth Forecasts in the Context of Urban Reserves (9:30 – 9:45)
Core 4 staff
Desired Outcomes: Understanding of how and when growth forecasts and allocations will be integrated into the reserves process.
Packet materials: None.

IV. Phase 3 Public Involvement (9:45 – 10:00)
Core 4 staff
Desired Outcomes: Understanding of coordinated public involvement activities in Phase 3 of the reserves process.
Packet materials: None; please refer to "Coordinated Public Involvement Plan – Urban and Rural Reserves – March 2008" in the March 2008 meeting packet for background information.

V. Urban and Rural Reserve Initial Screening Results (10:00 – 11:45; includes break)
Core 4 staff
- Update on rural reserve initial screening work
- Discuss urban reserve initial screening methodology/results

Desired Outcomes: Understanding of initial screening methodology; discussion of initial screening results for both urban and rural reserves.
Packet Materials: Core 4 Technical Team memo on urban reserves initial screening methodology.

VI. Next Steps and Wrap-up (11:45 – noon)
Debra Nudelman
- Upcoming meetings & topics
- Confirm agreed-upon next steps
- Meeting summary

VII. Adjourn

Draft **Reserves Steering Committee 2009 Agenda Items**

March 11
- Continued discussion of rural and urban reserve initial screening
- Discuss candidate area evaluation process
- Making the Greatest Place update including preliminary urban growth report and population and employment range forecast

April 8
- **Recommend rural and urban reserve candidate areas to Core 4**
- Continued discussion of candidate area evaluation process
- Public involvement update
- Making the Greatest Place updates including local aspirations and employment trends

May 13 **Please hold extended meeting time: 9:00 a.m. to 4:00 p.m.**
- Discuss preliminary urban reserves evaluation results including potential design and capacity of urban reserve candidate areas
- Discuss preliminary rural reserve evaluation results
- Public involvement results

June 10 **Please hold extended meeting time: 9:00 a.m. to 4:00 p.m.**
- Continued discussion of urban and rural reserve evaluation results
- Begin discussion of proposed urban and rural reserve areas

July 8 **Please hold extended meeting time: 9:00 a.m. to 4:00 p.m.**
- Complete discussion of proposed urban and rural reserve areas
- **Recommend preliminary urban and rural reserve areas to Core 4 [Phase 3 completion]**

The committee will receive regular updates on Making The Greatest Place activities

RESERVES STEERING COMMITTEE
DRAFT MEETING SUMMARY
January 14, 2009; 9:00 am – 12:00 noon
Metro Regional Center, Council Chambers

Core 4 Members Present: Washington County Chair Tom Brian, Multnomah County Commissioner Jeff Cogen, Metro Councilor Kathryn Harrington, Clackamas County Commissioner Charlotte Lehan.

Reserves Steering Committee Members Present: Susan Anderson, Chris Barhyte, Jeff Boechler, Craig Brown, Denny Doyle, Karen Goddin, Jack Hoffman, Kirk Jarvie, Tim Knapp, Greg Manning, Sue Marshall, Mary Kyle McCurdy, David Morman, Lainie Smith, Greg Specht, Richard Whitman, Jerry Willey.

Alternates Present: Susan Barnes, Drake Butsch, Bob Clay, Shawn Cleave, Teri Cummings, Jim Johnson, Donna Jordan, Richard Kidd, Jim Labbe, Bob LeFeber, Jim Nicita, Ron Papsdorf, John Pinkstaff, Lidwien Rahman, Sabrina White-Scarver.

Also Present: Charlie Adams, Sandy Baker, Chuck Beasley, Dick Benner, Susana Brennan, Carol Chesarek, Carlotta Collette, Karol Collymore, Danielle Cowan, Shirley Craddick, Mark Crandall, Brent Curtis, Mike Dahlstrom, Laura Dawson-Bodner, Doug Decker, Maggie Dickerson, Dan Drentlaw, Jim Emerson, Mark Greenfield, Julia Hajduk, Jon Holan, Tony Holt, Carl Hosticka, Adelle Jenike, Jane Leo, Lisa Libby, Art Lutz, Eric Martin, Doug McClain, Ed Murphy, Craig Nelson, Lindsey Nesbitt, Martha Nix, Tim O'Brien, John O'Neil, Mark Ottenad, Deanna Palm, Rod Park, Ken Ray, Pat Ribellia, Gordon Root, Kelly Ross, Joseph Schaefer, Sidaro Sin, Marcia Sinclair, Steven Sparks, Dick Springer, Thane Tienson, Ray Valone, Tom VanderZanden, Ramsay Weit, Matt Wellner, John Williams, Terri Wilson, Ty Wyman.

Facilitation Team: Debra Nudelman, Aurora Martin.

I. WELCOME AND INTRODUCTIONS

Deb Nudelman called the meeting to order at 9:12 a.m., welcomed everyone including new Steering Committee members, made brief introductory remarks, and asked attendees to introduce themselves.

Deb provided an overview of the agenda and meeting materials. She noted that some requests to have copies of documents made have come in at the last minute. Staff asks that all document requests be made one week in advance of the Steering Committee meeting. Laura Dawson-Bodner is the contact for meeting materials and can be reached at laura.dawson-bodner@oregonmetro.gov. If you are unable to make the request one week in advance, please bring copies of your handout to distribute to the group.

Deb then asked for comments or amendments to the December meeting summary. She noted that there was a request to include the Memorandum from Matthew Butts of Group Mackenzie dated October 22, 2008 in the Attachments to the Public Record for December 10, 2008, which was made available at the December 10 meeting.

There being no other amendments, the summary was adopted as final pending the agreed-to revisions. Deb then asked for updates since the last Steering Committee meeting.

Greg Manning noted that the reserves business coalition recently held a meeting with Washington County. They discussed a few key points, including concerns about the finalization of population and employment numbers and the use of those numbers in the work being done by the Steering Committee and county committees. In addition, the business coalition provided a formal response to the infrastructure study that was presented at the November 12 Steering Committee meeting. They have not received a formal response to those concerns and criticisms of the infrastructure study. At the meeting, there was also discussion about the delay in the initial screening of urban reserves. The business coalition will spend some time formalizing their observations and will be reporting back to the Steering Committee.

Sue Marshall thanked staff for distributing the letter from the Coalition for a Livable Future *RE: Equity Considerations in Making the Greatest Place Planning Processes.* She has talked with some members about the distribution of equity and how different policies have impacted those with the fewest resources. It is important to determine the people who have not had a voice yet, and to make sure they have a say about how they want their communities to grow.

Greg Specht noted that he reviewed the minutes from previous Steering Committee meetings. The question about when staff would provide population and employment numbers was first raised in the January meeting. He noted that the Steering Committee has not been given those numbers yet. He referred to the October 24 forecast assumptions and asked if those are the numbers being targeted. If they are, he would like Metro to say so. If they are not the numbers, he would like to know when the Steering Committee will have access to the correct numbers. He requested that the memo from Brent Curtis re: *Washington County staff progress report on rural reserves designation* be addressed by Metro staff.

Councilor Harrington responded that the answer was provided at the March 14, 2008 Steering Committee meeting as outlined in the *Framing Growth Forecasts in the Context of Urban Reserves* document. This is a process that was agreed to among the Core 4 and the project management team.

Greg Specht held up a page of numbers and asked if they were the correct numbers.

Councilor Harrington responded that the numbers Greg Specht had are for scenario work exercises to better inform us of the cause and effect relationships for different scenarios, and to demonstrate what numbers the simulations used to implement those scenarios. The numbers there are not allocations.

John Williams said that one of the key points is that members of this process made a conscious decision to do work in parallel and to look at suitability for urban and rural reserves while at the same time discussing aspirations. That parallel approach was laid out in the *Framing Growth Forecasts in the Context of Urban Reserves* document. There was a starting point with numbers and allocations, however that was not final. The Reserves process will certainly rely on numbers at the end, however right now the four jurisdictions are working on the suitability analysis. The numbers provided in the fall were intended as a starting point, not as final.

Councilor Harrington noted that the numbers in the Fall 2008 scenarios allow us to look at the cause and effect relationships for various policies. It is incorrect to use them as anything other than a starting point for the regional discussion. The reserves process needs to spend time on the suitability of lands for urban and rural reserves.

Chair Brian reported that county planning directors are saying the numbers available to them are not adequate for them to do their jobs. Not knowing population and employment growth numbers affects the planners' ability to determine aspirations. As a city thinks about its density or growth, it needs reliable data and the numbers available now are not adequate. The memo suggested that we can develop another model to see what different policies do and to find a model that we can agree on. Chair Brian noted it would not be wise to have individual jurisdictions going out and creating their own population models. He hopes we can get another model as is being requested by many local governments.

Craig Brown said he still has not heard when firm population numbers will be available and asked at what part of the process the Steering Committee can expect these numbers to be available. He agreed with Chair Brian and asked how a city or county can develop their own aspirations if they do not know the numbers they are looking for.

Deb Nudelman requested that due to time constraints, interested members of the Steering Committee work with the project management team offline on this topic to help the process move forward as efficiently as possible. She said that the *Framing Growth Forecasts in the Context of Urban Reserves* document was written to help explain the process. Deb noted the concerns being raised relate to the Recommendations section 2, and she asked the Steering Committee to remember that section 3 outlines when Metro will release forecasts.

Craig Brown asked if that timeline would be followed.

Councilor Harrington responded that is the plan, however the date to provide population and employment forecasts is still in the future.

John Williams said the plan is for a revised 20 and 50 year population and employment range forecast to be released in March. Where the MetroScope model places population and employment depends on the assumptions or inputs used.

Craig Brown said it seems that basic population projections should be available, although he understands that where those numbers go is a more complex issue. He suggested Metro is looking at where the region should grow and not necessarily where the region needs to grow. He noted that sometimes the ideal may not fit with actual needs.

John Williams countered the idea that there are no numbers available. The Forecast Forum held in May 2008 provided population and employment range forecasts at a 50-year scale. In October 2008, scenarios were released that included forecasts for various subgeographies, as assigned by the MetroScope model based on a set of assumptions which were a starting point for the regional conversation. The region is continuing work to define the right set of assumptions. Chair Brian has verbalized that the assumptions out there might not be the right ones to rely on. You cannot produce a set of numbers without knowing what the assumptions are behind those numbers. Staff

is using both the top down and bottom up approaches to get us where we need to be to make reserve designations.

Greg Specht said he appreciates the effort to keep us moving, however the numbers piece is critical to the entire process. He asked for confirmation that there will be revised numbers in March. One of the issues raised in Brent Curtis' memo is the base case population and employment projections that would look at how things have grown in the past and project historical growth forward. Greg asked if we could get those numbers in the March meeting.

Councilor Harrington responded that staff have heard the request and will look into it.

Jerry Willey noted that he heard of a recent study that came out with significantly different numbers from Metro. Determining a baseline should not be difficult because it has been done for years around the country. His second point is that this is a question of integrity. People are looking to Metro because they have been ordained as keeper of the keys. It is important that Metro is able to give us numbers that have integrity to them so that the numbers do not support a preordained outcome. He would like numbers from independently derived information.

Councilor Harrington responded that the Metro Council was asked by other groups to do things differently than they have in the past and the council has spent a tremendous amount of time, energy, and resources to craft something. Councilor Harrington has heard a number of assertions that there are no numbers, however numbers were provided in May 2008 and again in October 2008. People are now wondering how those numbers were created. Metro developed scenarios to look at different policy decisions. Metro's concern is about the risk of spending too many resources on scenarios and assumptions instead of trying to plan for potential futures. It is important to understand what the local aspirations are in our communities today. She believes that cities have ideas of where they are today and where they want to go, and that information needs to be incorporated as we move forward. She thinks there is plenty of data on the table, and now we need to state the assumptions that we can all use and keep moving forward.

Chris Barhyte said the last time Metro provided numbers the Steering Committee debated different areas around the region and felt the outcome of numbers did not include the aspirations of communities. Chris reflected that the problem with having local communities derive final numbers is that they may be different than the numbers Metro derives. It will be interesting to see where the numbers come together. He suggested that the counties need to work out their aspirations and take them to the table.

Councilor Harrington noted that this process is radically different from the way it has been done in the past. There is already a model for a process that does things a lot differently. We are trying to follow through on that process.

Chris Barhyte agreed and thinks we just need to come up with numbers in the county and then be able to justify how we got there.

Councilor Harrington said Chris is referring to is an economic study in which five cities participated. Metro staff is very aware of that study and has been communicating with involved parties while moving forward.

Chair Brian said his interpretation of Chris' comments is that if we have cities and counties spend a lot of time discussing boundary lines, densities, and adopting aspirations, and those aspirations are out of sync with another set of decisions, local jurisdictions have to end up debating that. He would like to avoid having counties and cities wasting time debating aspirations internally and then debating those aspirations with other jurisdictions again later. He believes it is healthier to give jurisdictions the information they are requesting so they can make their allocations with that in mind. It is better to have that conversation on an iterative basis so that you do not end up at loggerheads with several different jurisdictions.

Shawn Cleave noted that when talking about aspirations, the Farm Bureau would like a policy of zero growth. The Farm Bureau is at the table, however, and hopes this process can find a way to develop a system for Metro not to have to come back every five years to set new growth boundaries. If that cannot be accomplished in November, the Farm Bureau may have a problem with that outcome. He is hearing from the Farm Bureau's members that without numbers they have no basis to make rational decisions.

Councilor Harrington said she thought the foundation agricultural lands did a good job showing lands that could be set aside for future use, and she is surprised by some of what she is hearing.

Shawn Cleave said he agrees with Jim Johnson's mapping and said that everything is valuable agricultural land from the Farm Bureau's perspective. The big myth is that we have a 20-year land supply out there. Recognizing that this is not the case will alleviate the problem and stop us from having to expand the UGB every five years.

Chair Brian said that the population and employment numbers topic is an important issue and hopes this process is flexible enough to address this. He noted that this topic is important enough to take us off agenda and it will continue to do so.

Deb Nudelman said she appreciated the comments and that they show the importance of this topic. She asked for volunteers who could meet outside the Steering Committee to get clear about the challenges, what the interests are, what may or may not be working, and what the group can do to help fix it. Volunteers included Mary Kyle McCurdy, Greg Specht, Denny Doyle/Jerry Willey, Shawn Cleave, and Jack Hoffman. Staff will be in touch about a meeting or conference call to help clarify what people are trying to accomplish. [Action Item]

II. PUBLIC COMMENT FOR NON-AGENDA ITEMS

Sandy Baker, private property owner, submitted written testimony outlining her family's concerns that their land will be set aside as a green space and their desire to have their land available to build on.

III. RESERVES STEERING COMMITTEE 2009 WORK PROGRAM

John Williams provided an update on the 2009 work program to help define more clearly where in the process the Steering Committee is and where it is headed. He referred to the Draft *Reserves Steering Committee 2009 Agenda Items* provided in the meeting packet. Currently, the Reserves process is in Phase 3, which is the longest phase and will result in reserves recommendations. Discussion of reserve candidate areas will continue over the next few meetings. The Steering Committee is

scheduled to recommend rural and urban reserve candidate areas to the Core 4 at the March 16 meeting. In addition, the Steering Committee will receive regular updates on Making the Greatest Place activities. John noted that it may be necessary to extended or hold additional meetings beginning in May. Phase 3 will be completed in July, and Phase 4 includes adoption of the reserve areas and the forming of intergovernmental agreements. Implementation and growth management decisions will be made in 2010 and 2011.

Greg Specht asked if there had been any discussion about moving the December deadline for the finalization of this process.

John Williams stated that December was still the scheduled end point.

Mary Kyle McCurdy asked what the legal requirement is for ending this process and if a timeframe is outlined in SB 1011.

Dick Benner responded that there is not a legal timeframe in SB 1011 or in the administrative rule. The deadline is a policy decision, however he noted that there are compelling policy reasons for keeping to this schedule, including the need to draw from urban reserves when making the next UGB expansion.

Mary Kyle McCurdy asked what the legal requirement is for designating urban reserves.

Dick Benner responded to Steering Committee members' questions by stating that one requirement is to determine the UGB capacity for accommodating growth. That is set in law to be completed by the end of 2009. We have one year following that to take some action. If we find that we do not have sufficient capacity for all assumptions about our policy, we have to take action by the end of 2010. There is a possible one-year extension on both deadlines.

Councilor Harrington noted that the *Regional Choices Engagement Architecture* chart explains this.

John Williams reminded Steering Committee members of the importance of reaching out to stakeholder groups. The Core 4 and staff recognize outreach is a key role that Steering Committee members have and they hope the agenda outline provides enough time to do that.

Deb Nudelman asked that the Steering Committee members check with their constituents before the next meeting to determine if the schedule provides enough time for stakeholder outreach. She will ask for an update at the February 11 meeting. [Action Item]

IV. RURAL RESERVE INITIAL SCREENING

John Williams referred to the January 13 *Rural reserves initial screening* memo from the Core 4 Project Management Team. This memo outlines the initial screening process at a broad level. Similar processes are being conducted with factors for both rural and urban reserves. This discussion of rural reserve screening was scheduled first because the maps and information for forestry, agriculture, and natural features were available earlier. Those maps were overlaid and the county advisory committees reviewed the data. John introduced staff members to begin the discussion of the work happening at the county levels.

Doug McClain explained how Clackamas County has conducted its initial screening. He noted that the candidate reserve area map being presented has not yet been reviewed by the Clackamas County Board of Commissioners and should not be viewed as final as there is a lot more work to be done. The Clackamas County Policy Advisory Committee (PAC) spent several meetings gathering information, and then it took the information that was readily available and developed a map of potential rural reserves first. The next step is to develop a map of candidate urban reserves. The PAC recognizes there will be overlap when those maps are put together and then the hard work of designating potential urban and rural reserves will begin. The question of how much land is needed becomes critically important at that third stage of putting those maps together.

An important assumption for everyone to understand is that the PAC was inclusive versus exclusive when completing this initial step. Doug reminded the group that this is an iterative process and the look of the proposed candidate areas on the map will change over time. He said he did not want to give the impression that the PAC intuitively came up with lines. Instead, they used a lot of data, including watershed maps, topography maps, assessors' data, lot sizes, as well as the expertise of the committee, to develop recommendations for candidate rural reserve areas.

Doug then summarized the changes that were made to the proposed study area map. The most significant areas excluded from rural reserves included: an area in southeast Clackamas County that was determined to be far enough away from the UGB as not to be threatened by urban growth; an area in northeast Clackamas County near the Multnomah County line that is parcelized; and an area in Stafford that is already considered for a rural reserve area.

Councilor Harrington asked about additional areas between the Willamette River and the City of Canby that are excluded from the map.

Doug McClain noted those areas were excluded as candidate rural reserves in response to a request made by the City of Canby.

Commissioner Lehan noted that much of the area is a state park.

Craig Brown asked for clarification that the areas being discussed were only proposed candidate rural reserves and if so, if they would overlap with a map locating only candidate urban reserves.

Doug McClain responded that it is inevitable that there will be overlap and comparing the two maps of candidate urban and rural reserve areas is the next step.

Greg Specht asked if one could assume the percentage of land in the study area that has been designated as potential candidate rural areas would be about 80%.

Doug McClain responded yes.

Chuck Beasley reported on the progress made by the Multnomah County Citizens Advisory Committee (CAC) in assessing the suitability of the area. The approach they used was to try to apply the natural features and agriculture factors to the landscape in Multnomah County, as well as determine what it would take to urbanize an area. The CAC has held three meetings for this phase beginning in October 2008. Initially, it heard presentations with the objective of understanding

urban development needs and drawing conclusions about what areas are not subject to urbanization. There were discussions about what it takes to provide infrastructure.

The CAC also evaluated the factors related to the suitability concepts in the agriculture and forestry studies, and found that some of the factors are difficult to fully apply since there can be more than one question in the factor. The CAC anticipates that additional information in the areas of urbanization plans at the edges of Multnomah County, the efficiency of providing urban sewer, water, and transportation, and how much land the region needs for urban reserves will help inform further refinement of the study areas. CAC members noted some uncertainty about how to understand this all while thinking in terms of 40-50 years in the future.

Chuck provided a brief overview of the tentative CAC thinking about changes to the study area, noting that the CAC considered areas that correspond to existing county rural planning areas. On the east side of the county, the East of Sandy area has an unincorporated area that needs to have more discussion about potential for urbanization, the Sandy River canyon, to the west of Sandy is a potential rural reserve due to the amount of foundation agricultural land in the area. There is consensus that Sauvie Island, on the west side of the county, be a candidate rural reserve area due to concerns about threats of urbanization.

Councilor Harrington noted that the Steering Committee will be hearing more about the work of the county committees as they come up with more information.

Brent Curtis provided an update on efforts in Washington County. The Washington County process depends on the coordinating committee as well as the technical advisory committee that supports their efforts. He reiterated that the map provided for review should not be thought of as the final rural reserve candidate areas. The Washington County process will develop draft recommendations for urban reserves areas in February, and candidate urban and rural reserve areas will hopefully be agreed to in March.

Brent walked the group through a PowerPoint presentation. The first slide shows a depiction of the screens representing the information going through different levels of analysis. This analysis is the first screen of many. Washington County has been employing a GIS suitability analysis and reviewing a number of maps including maps of forest land, agricultural land, and natural features. In order to make choices using that information, Washington County used the administrative rule criteria and information from a GIS factors analysis. They developed a scoring system and assigned values to each of the factors. To develop the scoring system, Washington County picked objective data for six factors, mapped that information and evaluated them through GIS analysis. They then weighted each of the factors. The key point was that this was a staff exercise to see how changing the weighting of the factors changed the outcomes. Washington County is currently involved with talking to people to see how to weight each of the factors. A similar type of analysis is being conducted for urban reserves.

Washington County has also had a discussion about the threat of urbanization factor, whose components are proximity to the UGB as well as fair market value of the property. They conducted some analysis to determine if they could draw any conclusions about a possible correlation between the fair market value of a property and its proximity to the UGB. Work is still being conducted, but so far, analysis has not found a correlation.

Jim Labbe is concerned that the natural features were not included on the weighted list. He asked if natural features will be included as well.

Brent Curtis responded yes. The weighting example included initial staff thoughts. They are talking to other people and including new information and points of view. They have run examples of weighting from other points of view to show how that comes out, and no conclusions have been drawn yet.

Jim Labbe noted that what the factors are and what values they are assigned are different discussions.

Mary Kyle McCurdy asked what the role is of the Steering Committee and Metro staff in evaluating candidate areas. She asked if Steering Committee members should be giving feedback now about how the counties got to this point, or if they should provide feedback when it is time to narrow down the candidate areas to the real urban and rural reserves.

Brent Curtis said this point was discussed in the *Rural reserves initial screening* memo. The counties have a common work program and common steps they are taking. However, the jurisdictions may have different ways of doing the work and have reserved the right to look at it uniquely. There may be different styles, but the counties are sharing information and points of view.

Mary Kyle McCurdy asked how Steering Committee members should respond to the work program and the information they are given. She asked if it is the Steering Committee's role to respond to candidate areas at this time.

Brent Curtis said in his understanding of the Steering Committee role, there are two distinct groups. The Core 4 makes the decisions, and the Steering Committee is a conduit to deliver information to the Steering Committee and to report on that information to their constituents.

Doug McClain responded that to the extent Steering Committee members can provide feedback now, they should. If additional information is needed to inform this process or make better recommendations, Steering Committee members should let the Core 4 and staff know.

Deb Nudelman reiterated that the Steering Committee members can provide feedback now or they can discuss the information with their constituents and provide feedback later. The goal of this agenda item is to get people talking. Information will be available on the website, and the project management team is available over next month to discuss concerns as well.

Mary Kyle McCurdy said it is good to know the Steering Committee members' homework assignment over the next month is to speak with their constituents and provide the information and questions they need to understand to be able to recommend candidate areas. [Action Item]

Jim Johnson noted that he does have some questions about the factors and how they are being applied that he will bring up at the next meeting.

Deb Nudelman requested that if Steering Committee members have comments or questions, they provide them to Metro staff in writing so the materials can be circulated before the meeting. The

interest of this agenda item was to get this conversation going, and the more discussion that takes place before the next meeting, the better.

Councilor Harrington asked that the Core 4 and Steering Committee members be notified when new information is posted to the website.

Deb Nudelman confirmed that Laura Dawson-Bodner will send everyone an email when the information is available.

Deb Nudelman noted that the February Steering Committee meeting will include continued discussion of rural reserve areas, as well as discussion about the initial urban reserves. The discussion will continue at the March 16 Steering Committee meeting when the hope is to have recommendations to the Core 4.

Deb Nudelman noted it may be necessary to extend meetings in May, June, and July. She asked the group if they would prefer to have extended meetings or schedule a second meeting in the month.

Jim Johnson noted that certain dates will be difficult for people working with the legislature.

Deb Nudelman asked for a vote. Seeing no strong preference either way, she said that staff will explore both options.

V. SUMMARY

There being no further business, Deb Nudelman adjourned the meeting at 11:47 am.

Respectfully submitted by Kearns & West.

ATTACHMENTS TO THE PUBLIC RECORD FOR JANUARY 14, 2008

The following have been included as part of the official public record:

AGENDA ITEM	DOC TYPE	DOC DATE	DOCUMENT DESCRIPTION	DOCUMENT NO.
1.	Letter	1/12/09	To: Metro Council and Reserves Steering Committee From: Sue Marshall, Coalition for a Livable Future RE: Equity Considerations in Making the Greatest Place Planning Processes	011409rsc-01
1.	Memo	1/12/09	To: Washington County Reserves Coordinating Committee From: Brent Curtis RE: Washington County staff progress report on rural reserves designations	011409rsc-02
2.	Letter		From Sandy Baker	011409rsc-03
4.	Memo	1/13/09	To: Core 4, Reserves Steering Committee From: Core 4 Project Management Team RE: Rural reserves initial screening	011409rsc-04
4.	Presentation	1/14/09	Washington County Rural Reserves Designation Progress Report – January 14, 2009	011409rsc-05

Date: February 5, 2009
To: Core 4, Reserves Steering Committee
From: Core 4 Project Technical Team
Re: Urban reserves initial screening

Background

This memo provides an overview of the initial screening work underway for urban reserves. At the January 14, 2009 Reserves Steering Committee meeting you received a similar memo outlining the initial screening work for rural reserves. As previously discussed, we will use several "screens" to evaluate the suitability of the study area for potential urban and rural reserve designations. The first step is an initial screening of the entire area at a broad landscape scale utilizing certain key factors from the state administrative rules. More refined analysis will then be applied to those lands that pass through the first screening in order to develop a prioritized list of candidate reserve areas.

All work is accomplished through coordinated efforts of Clackamas County, Multnomah County, Washington County and Metro staffs. Discussions about the broad application of urban reserve factors have taken place at each county's advisory committee.

The Steering Committee will consider both rural and urban reserves together from a regional perspective and will make a coordinated recommendation on candidate areas to the Core 4 by April 2009. This recommendation will allow staff to continue to work with local advisory committees on a more detailed analysis of these candidate areas so that the Core 4 and the steering committee can engage in a discussion leading to a final recommendation for urban and rural reserves in July 2009.

Initial screening

Administrative Rule (OAR 660-027-0050) factors one and three for designation of lands as urban reserves provide the framework for the initial screening assessment. These factors are:

> *UR-1: Can be developed at urban densities in a way that makes efficient use of existing and future public and private infrastructure investments.*
> *UR-3: Can be efficiently and cost-effectively served with public schools and other urban level public facilities and services by appropriate and financially capable service providers.*

Public facilities and services are defined in the Administrative Rule as sanitary sewer, water, transportation, storm water management and public parks. Due to the sheer size of the study area, the technical team looked at it through a broad landscape-scale lens to assess the suitability of the land for meeting these two urban reserve factors. This approach led to the technical team

limiting this first screen analysis to sanitary sewer, water and transportation. Service providers of storm water management, public schools and public parks confirmed this screening decision.

The ability to efficiently provide sanitary sewer, water and transportation services are largely dependent on the presence or absence of development constraints such as slope or floodplains on the landscape. Therefore, the reserves technical team staff, working with staff from numerous local jurisdictions and service providers, completed an initial relative efficiency / cost effectiveness evaluation of providing sanitary sewer, water and transportation services on a general scale of high/medium/low suitability to provide services. The table on page 4 of this memo provides more information regarding the development constraints considered and methodology used.

Technical reports describing the analysis in more detail, with accompanying suitability maps, are being developed and the technical team intends to distribute them to the group prior to the meeting on February 11th. The sanitary sewer and water suitability maps will be overlaid to create a composite map for these two related services. The transportation analysis map will then be compared with the sanitary sewer/water composite map to develop a candidate area map based on the suitability of providing all of these services together. A list of the jurisdictions and service providers who participated in these assessments is below.

Sanitary Sewer Assessment
Clean Water Services
Water Environment Services
City of Portland Bureau of Environmental Services
City of Wilsonville
City of Lake Oswego
City of Gresham

Water Assessment
City of Gresham
Sunrise Water Authority
Clackamas River Water
South Fork Water Board
City of Lake Oswego
Oak Lodge Water District
City of Wilsonville
City of Sherwood
City of Hillsboro
City of Forest Grove
Tualatin Valley Water District
City of Portland
Water Providers Consortium
Technical Committee

Transportation Assessment
Clackamas County
Multnomah County
Washington County
Metro
ODOT
TriMet
City of Gresham
City of Oregon City
City of Portland
City of Tualatin

Next Steps

Reserves technical team staff will present the transportation and sanitary sewer/water composite services map to the county advisory committees for discussion. Following the county discussions, urban and rural reserve candidate areas will be identified in a coordinated manner for consideration by the steering committee.

The candidate areas will be evaluated utilizing all of the Administrative Rule urban reserve factors. For reference, the additional urban reserve factors that will be applied to the candidate urban reserve areas, in addition to refining factors 1 and 3 are:

UR-2: Includes sufficient development capacity to support a healthy economy;
UR-4: Can be designed to be walkable and served with a well-connected system of streets, bikeways, recreation trails and public transit by appropriate service providers;

UR-5: Can be designed to preserve and enhance natural ecological systems;
UR-6: Includes sufficient land suitable for a range of needed housing types;
UR-7: Can be developed in a way that preserves important natural landscape features included in urban reserves; and
UR-8: Can be designed to avoid or minimize adverse effects on farm and forest practices, and adverse effects on important natural landscape features, on nearby land including land designated as rural reserves.

Initial Screening Process for Identification of Candidate Urban Reserve Areas			
Key Public Facilities & Services	*Efficiency/cost Effective Factors Considered*	*Methodology*	*Suitability for Providing Service*
Sewer	▪ Existing capacity, ease of expanding capacity ▪ Likely service provider ▪ Gravity flow access to existing or potential facilities ▪ Ease of providing treatment or transmission facilities ▪ Distance to existing or potential outfall ▪ Development constraints (floodplain, topography, wetlands, etc.)	Coordinated analysis by service providers GIS analysis	High Medium Low
Water	▪ Existing/future supply Existing infrastructure ▪ Proximity to existing infrastructure ▪ Development constraints (floodplain, topography, wetlands, public lands etc.)	Local analysis by service providers Review by Water Providers Consortium members	High Medium Low
Transportation	▪ Existing road network ▪ Existing rail lines ▪ Potential HCT corridors ▪ Development constraints (topography, floodplain wetlands etc.)	Transportation experts developed hypothetical urban-level roadway networks GIS analysis on network	High Medium Low

Reserves Steering Committee 2009 Meeting Schedule (REVISED)

Council Chamber, Metro Regional Center
600 NE Grand Avenue, Portland

The Reserves Steering Committee will meet once each month during 2009. These meetings are *usually* held on the second Wednesday of the month from 9:00 a.m. to noon.

All meetings are open to the public.

Wednesday, January 14
9:00 a.m. to noon

Wednesday, February 11
9:00 a.m. to noon

Monday, March 16~~March 11~~
9:00 a.m. to noon

Wednesday, April 8
9:00 a.m. to noon

Wednesday, May 13
9:00 a.m. to 4:00 p.m.

Wednesday, June 10
9:00 a.m. to 4:00 p.m.

Wednesday, July 8
9:00 a.m. to 4:00 p.m.

Wednesday, August 12
9:00 a.m. to noon

Wednesday, September 9
9:00 a.m. to noon

Wednesday, October 14
9:00 a.m. to noon

Wednesday, November 4
9:00 a.m. to noon

Wednesday, December 9
9:00 a.m. to noon

For more information about this schedule, please contact John Williams at 503-797-1635 or John.Williams@oregonmetro.gov.

Revised 01/28/09
T\Reserves\2009 MEETING SCHEDULES FOR RESERVES

Reserves Steering Committee Meeting Roster

As of January 26, 2009

Core 4

Metro Council		**Kathryn Harrington**
Clackamas County		**Charlotte Lehan**
Multnomah County		**Jeff Cogen**
Washington County		**Tom Brian**

Cities		**Member**		**Alternate**
Portland		**Susan Anderson**		**Bob Clay**
Beaverton		**Dennis (Denny) Doyle**		
Gresham		**Shane Bemis**		**Dick Strathern**
Hillsboro		**Jerry Willey**		**Aron Carleson**
Lake Oswego		**Jack Hoffman**		**Donna Jordan**
Oregon City		**Alice Norris**		**Jim Nicita**
Other cities – Clackamas County		**Tim Knapp**		**Teri Cummings** **February: Mike Weatherby, City of Fairview mayor** **March: Jim Kight, City of Troutdale mayor**
Other cities – Multnomah County		**David Fuller, Wood Village mayor**		**Julie Odell**
Other cities – Washington County		**Chris Barhyte, Tualatin city councilor**		**Richard Kidd, Forest Grove mayor**
Neighbor cities		**Kathy Figley, City of Woodburn Mayor**		**Melody Thompson, City of Canby Mayor**

Non-governmental stakeholders		**Member**		**Alternate**
Business		**Greg Manning**		**John Pinkstaff**
Construction/Real Estate		**Greg Specht**		**Bob LeFeber**
Urban Development		**Craig Brown**		**Drake Butsch**
Agriculture		**Jeff Stone**		**Shawn Cleave**
Natural Resources		**Mike Houck**		**Jim Labbe**
Land Use		**Mary Kyle McCurdy**		**Tara Sulzen**
Social/Economic Equity		**Sue Marshall**		**Ron Carley**

State Agencies		**Member**		**Alternate**
Department of Land Conservation and Development		**Richard Whitman**		**Bob Rindy**
Department of Transportation		**Lainie Smith**		**Lidwien Rahman**
Department of Forestry		**David Morman**		**Doug Decker**
Economic and Community Development Department		**Karen Goddin**		
Water Resources Department		**Bill Ferber**		**Sabrina White-Scarver**
Department of State Lands		**Kirk Jarvie**		**Peter Ryan**
Department of Environmental Quality		**Keith Johnson**		
Department of Agriculture		**Katy Coba**		**Jim Johnson**
Department of Fish and Wildlife		**Jeff Boechler**		**Susan Barnes**

Materials following this page were distributed at the meeting.

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COMMERCIAL REAL ESTATE DEVELOPMENT ASSOCIATION

OREGON CHAPTER

February 4, 2009

Metro
Reserves Steering Committee – County Core 4 Members
Charlotte Lehan, Clackamas County Commissioner
Jeff Cogen, Multnomah County Commissioner
Tom Brian, Washington County Chair
600 NE Grand Avenue
Portland, OR 97232-2736

Dear County Reserves Committee Chairs:

Following from our January 29, 2009, letter discussing the Business Advisory Group's mapping series as prepared by Group Mackenzie, and from the recent discussions of the Counties' candidate Rural Reserves areas at the Reserves Steering Committee, the undersigned business members of the Steering Committee recommend the following to the three respective County Reserves Committees:

- That the lands identified as "unconstrained" for employment/industrial development within the Regional Reserves Study Area, per the subject Group Mackenzie mapping series, be formally recommended by the County Reserves Committees as a portion of the candidate Urban Reserves areas to the County Boards of Commissioners; and/or

- That the same "unconstrained" lands not be excluded from the Urban Reserves candidate areas that are to be recommended by the County Reserves Committees to the County Boards of Commissioners.

Per our January 29th letter and exhibits (attached) outlining observations from the mapping series, it is apparent that there is a limited supply of land unconstrained for employment/industrial development within the Regional Reserves Study Area, even under the broad assumptions and limited data of the subject mapping series.

Urban Reserves selection factors include "sufficient development capacity to support a healthy economy." For this reason, the business members of the Steering Committee are compelled to make this recommendation to the County Reserves Committees for the future employment growth of our region.

Thank you for your consideration.

Greg Manning Greg Specht Craig Brown

Metro Urban and Rural Reserves Steering Committee

cc: Chuck Beasley
Brent Curtis
Doug McClain

Enclosures: January 29, 2009, letter and exhibits

Framing Growth Forecasts in the Context of Urban Reserves
Draft Update - February 6, 2009

Framework: The original document (Feb 27, 2008) recommended a way to integrate growth forecasts and allocations of that growth around the region at the appropriate points in the urban reserves decision-making process. The February 2009 update simply incorporates current understanding of the timing of 2009 decisions and data availability.

1. The reserves process is intended to define the future shape of the Portland metropolitan region including where and how growth will occur.

2. Designation of urban reserves at the end of 2009 will require growth forecasts and allocations to make adequate findings.

3. Growth forecasts and allocations will need to reflect long-term economic and demographic trends to ensure that future businesses, jobs and people are accommodated.

4. Allocations regarding where and how growth will occur cannot be made until the following questions are answered:

   - Regional choices: What is the region's ability and willingness to provide the necessary public facilities and services, governance, and finance to support the creation of "Great Communities" which are sustainable and complete?

   - Local choices: What is the ability and willingness of local jurisdictions and service providers to achieve local aspirations in existing centers, corridors and employment areas (e.g., upzoning, targeted investments, transportation improvements)?

   - New land supply: What is the potential capacity and suitability of the reserve areas to accommodate future jobs and people in a way that creates "Great Communities?"

5. Each decision point along the reserves decision-making continuum will require a greater level of refinement in the growth forecasts and ultimately will lead to allocation of the forecasted population and employment incorporating regional and local agreements on the trends and policy choices described above.

6. Metro will prepare population and employment range forecasts that will be peer-reviewed by an expert review panel. The growth forecast expert review panel should include academic experts, state and local economic experts and local business experts.

Recommendations/Timeline:

1. May 2008: To guide development of reserve study areas, Metro released an initial 40 to 50-year population and employment range forecast and conducted an expert panel review that included an assessment of variables which affect the accuracy of the forecast.

2. Spring 2008 – Fall 2009: The region, the three counties and local governments will proceed through a planning process that will utilize and achieve successively greater levels of refinement regarding population and employment forecasts and allocation of the forecasted growth to various locations in the region.

3. October 2008 – March 2009: Urban and rural reserves initial screening work, evaluating suitability of lands within study area at a broad landscape scale to define candidate areas.

4. March ~~Spring~~ 2009:

    - Metro will release 20-year population and employment range forecast for public and expert panel review to guide development of Urban Growth Report (UGR).

    - Metro will release *final* 40 to 50-year population and employment range forecast to guide designation of urban reserves.

5. March ~~Summer~~ 2009: Metro will release residential component of the **preliminary** Urban Growth Report that reflects growth assumptions and local aspirations, summarizes residential trends and describes the region's capacity for accommodating future residential growth.

6. April ~~Summer~~ 2009: Metro will release employment component of the **preliminary** Urban Growth Report, which summarizes economic and employment trends and describes the region's capacity for accommodating future employment growth.

7. April – June 2009: Evaluation of urban and rural reserves candidate areas utilizing factors established under state law and administrative rules. Discussion of the region's capacity to accommodate future residential and employment growth over 40-50 year time frame.

8. July 2009: Regional Reserves Steering Committee recommends preliminary urban and rural reserve areas to Core 4.

9. Fall/Winter 2009: Metro Council adopts Urban Growth Report.

10. Fall/Winter 2009: Metro Council adopts urban reserves with 40 to 50-year population and employment forecast and growth allocation.

11. Winter 2010: Metro Council makes urban growth boundary decision.

Date:	February 9, 2009
To:	Core 4, Reserves Steering Committee
From:	Core 4 Technical Team
Re:	Preliminary Analysis of Providing Urban Level Water Service Within Reserves Study Area

Background & Overall Analysis Approach
The purpose of the Urban and Rural Reserves project is, in part, to designate appropriate land for each reserve type by addressing the factors listed in Oregon Administrative Rule 660 Section 27. The set of urban reserve factors that must be considered range in scale from assessing whether land can be served with public facilities and services in an efficient and cost-effective manner to determining whether areas can be designed to be walkable with a well-connected transportation system. For this reason, the Core 4 Technical Team (Tech Team), made up of staff from the three counties and Metro, chose to conduct a suitability of land analysis using a phased approach.

This memo describes the first step in this phased approach for urban level water service. It consists of an initial screening of the entire approximately 400,000-acre study area to address the following two urban reserve factors in the state rule:

UR-1: *Can be developed at urban densities in a way that makes efficient use of existing and future public and private infrastructure investments.*
UR-3*: Can be efficiently and cost-effectively served with public schools and other urban level public facilities and services by appropriate and financially capable service providers.*

The state rule defines 'public facilities and services' as sanitary sewer, water, transportation, storm water management facilities and public parks. Due to the sheer size of the study area, the Tech Team looked at it through a broad landscape-scale lens to assess suitability of the land for meeting these two reserve factors. This approach led to the Tech Team limiting this first screen analysis to sanitary sewer, water and transportation.

The particular methodology and results for the water element is discussed below. The result of this assessment is expressed graphically on a map that will be combined with a similar map from the sewer element, to create a composite map for these two similar services. This composite map will then be compared with two transportation maps, to form a preliminary assessment that begins to answer the two reserve factors above. The next phase of this process is described under Next Steps below.

Water Element Strategy & Methodology

While most of the major water providers only service areas inside the urban growth boundary, there are a number of providers that do service rural areas, such as Clackamas River Water and the Boring Water District. The infrastructure in these rural areas is sized to service a rural population and would need to be upgraded in the future if urbanization was to occur. Otherwise, most service providers have not planned for service to the rural areas beyond what is in current master plans or future vision documents. There are major water facilities located within rural areas, such as transmission lines, treatment plants and reservoirs.

The Regional Water Providers Consortium serves as a collaborative and coordinating organization to improve the planning and management of municipal water supplies in the Portland metropolitan region. Utilizing the Consortium's members, small groups of water providers were convened on a geographic basis to complete an initial assessment for providing water to the study area. Prior to the meeting, proposed criteria for evaluating the study area and a study area map were provided to each participant. The proposed criteria included:

- Proximity to a current service provider;
- Institutional capabilities;
- Topography;
- Efficient use of existing resources;
- Source of supply;
- Timing; and
- Water/wastewater interface.

During these initial discussions it became apparent that the key set of criteria for this first landscape scale analysis is proximity to a current service provider, topography, use of existing resources, and source. The other criteria will be included in the next level of analysis.

At the small group meetings, additional maps were provided that displayed the following GIS information: slopes greater than 25%, shaded relief, major rivers and streams, wetlands, floodplains, public lands and major arterials. During the discussions staff took notes and made comments on the maps. In evaluating the study area, it was assumed that water services would be provided from a service provider in the Metro region and not from a water provider in a neighboring city such as Sandy, Estacada or Molalla.

The following service providers participated: City of Gresham, Sunrise Water Authority, City of Lake Oswego, Oak Lodge Water District, South Fork Water Board, City of Hillsboro, Tualatin Valley Water District, Clackamas River Water, City of Portland, City of Wilsonville and City of Forest Grove. Follow-up meetings were scheduled with some of the service providers.

Staff presented preliminary mapped results to the Water Providers Consortium Technical Committee (CTC) in January 2009. Technical committee members present at the meeting included most of the districts/jurisdictions that participated in the initial meetings, as well as representatives from the City of Beaverton, City of Tualatin, and the City of Tigard. After the meeting the draft map was sent to all CTC members for review and comment. In addition, staff has since met with engineering staff from the City of Sherwood and the City of Oregon City.

Water Element Results

This exercise, while based on service provider expertise and knowledge of the local landscape, does not assign a particular unit cost to serving any of the areas. Cost estimates to serve an area can only be assessed after assumptions are made regarding the number of dwelling units and employment acres to be served, which in turn dictate facilities such as the number of reservoirs or pump stations.

Some general issues of providing water services surfaced during the discussions.

1. Water is heavy; therefore it is expensive to distribute water over any distance.
2. Topography has a profound effect on the cost of distribution.
3. Crossing natural resource areas add additional cost to the distribution network.
4. System Development Charges (SDCs) are the typical way to fund expansion, therefore expected density also influences cost.
5. Operational cost for future services is minor compared to the cost of expanding the water system
6. Currently water supply is not an issue for most major water providers as they have existing capacity for a number of years (2020-2050), depending on the individual provider. In addition, planned expansions such as the Tualatin Supply Project (Scoggins Dam Raise), the City of Portland's statutory rights to increase surface water source in Bull Run, and the City of Wilsonville's extensive capacity at its treatment plant offer additional supply for the future.
7. Water coordination is still a challenge, the Regional Water Providers Consortium is addressing this matter.

The attached map indicates a number of sub-areas that were identified with a suitability rating of high, medium or low suitability for providing water services. The ratings on the map are defined below:

<u>High Suitability</u> – generally these areas will only require typical extensions of service – general distribution lines, reservoirs, no major facilities needed.

<u>Medium Suitability</u> – these areas require more than one substantial investment in facilities or other defining issues– examples include new/additional treatment capacity, additional reservoirs or significant upgrading of existing lines, water/waste water management issues.

<u>Low Suitability</u> – these areas require significant infrastructure improvements, usually associated with distance and topographic issues. The areas have a number of issues related to location of supply, reservoirs, pump stations, or great distances for distribution.

In many instances, the boundaries of the sub-areas are defined by features of the landscape, including extensive floodplains, edges of steep sloped areas or major water features, as these features tend to add cost to providing services. Existing water service boundaries as well as distance from existing service areas also influenced the sub-area boundaries. As noted above, water is expensive to move over long distances, thus it is not surprising that areas farther away from existing services or supplies were determined to be less suitable to serve. (The question of whether new sources could be developed for these areas was not discussed as there are too many variables involved, especially at this scale.) Areas of significant topographic constraints, such as the Chehalem and Tualatin Mountains were also determined to be less suitable, due to distance as well as the extra cost of pumping. The location of existing infrastructure also influenced the rating. For instance the Joint Water Committee's transmission lines or the Bull Run transmission line influenced the suitability of nearby areas. The Three Basin Rule in the Clackamas River sub-basin, which limits new or increased waste discharges to the river, also impacts water service in this sub-basin as it relates to the possible future need for a water re-use program.

This is an initial evaluation of a very large area of land, as additional analysis work is completed, smaller areas within the larger sub-areas, particularly those sub-areas closer to the existing service boundaries may be identified that have a different rating than the overall sub-area.

Next Steps

The water services map is one element to be used in creating a composite map, which will be the foundation of the first screen analysis. Information derived from this composite map should provide a basis for eliminating some of the study area from further consideration as urban reserves. The next screen analysis will involve more detailed analyses of the remaining potential urban reserve areas. These areas will be referred to as priority candidate urban reserve areas.

For reference, the additional urban reserve factors outlined in the Administrative Rule that will be applied to the candidate urban reserve areas, in addition to refining factors 1 and 3 are:

UR-2: Includes sufficient development capacity to support a healthy economy;
UR-4: Can be designed to be walkable and served with a well-connected system of streets, bikeways, recreation trails and public transit by appropriate service providers;
UR-5: Can be designed to preserve and enhance natural ecological systems;
UR-6: Includes sufficient land suitable for a range of needed housing types;
UR-7: Can be developed in a way that preserves important natural landscape features included in urban reserves; and
UR-8: Can be designed to avoid or minimize adverse effects on farm and forest practices, and adverse effects on important natural landscape features, on nearby land including land designated as rural reserves.

Urban and Rural Reserve Study Areas

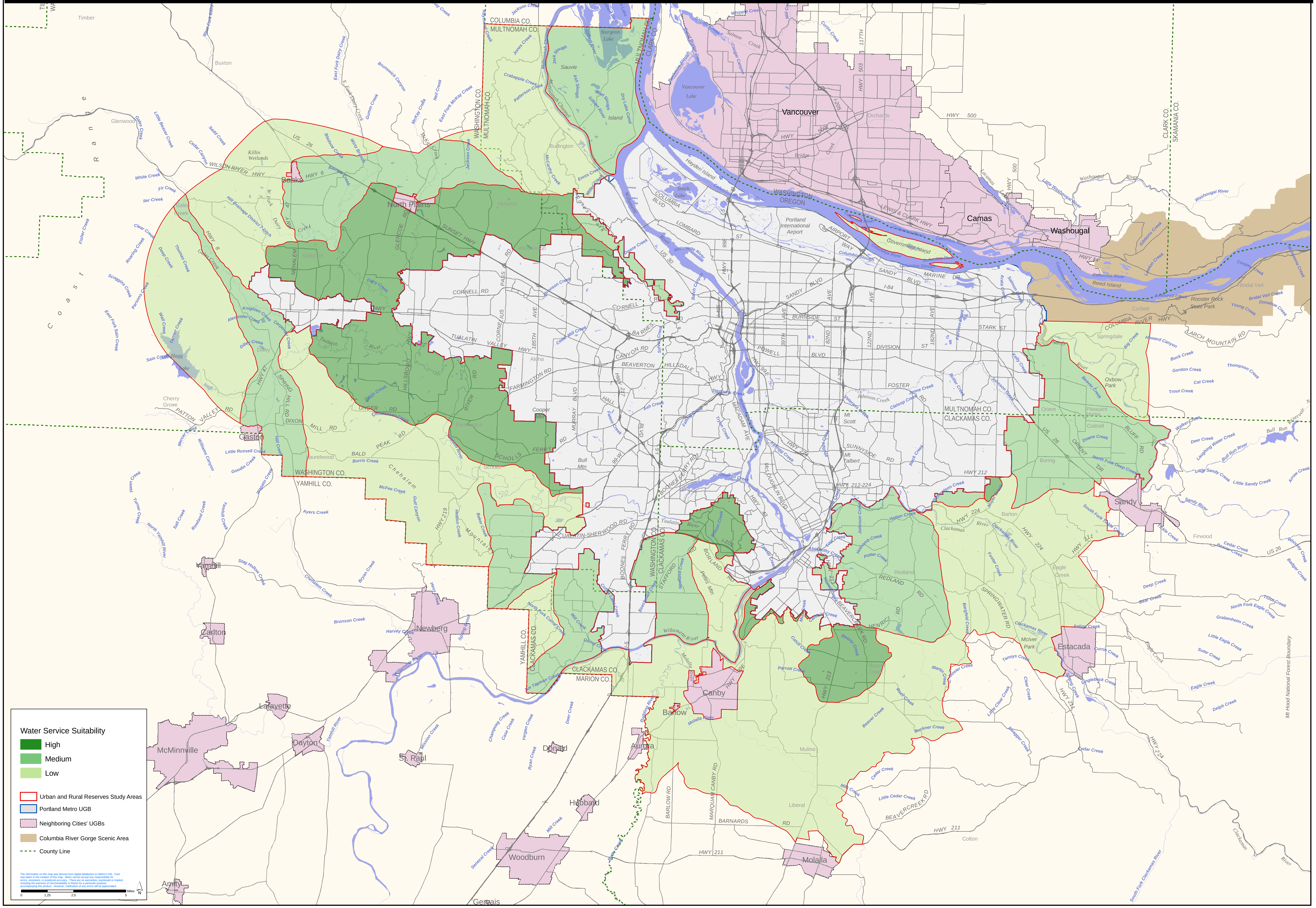
Preliminary Water Service Suitability

METRO
PEOPLE PLACES • OPEN SPACES

Multnomah County

Washington County

CLACKAMAS COUNTY



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Date:	February 09, 2009
To:	Core 4, Reserves Steering Committee, County Coordination Committees
From:	Core 4 Technical Team
Re:	Preliminary Analysis of Providing Urban Level Sanitary Sewer Service Within Reserves Study Area

Background & Overall Analysis Approach

The purpose of the Urban and Rural Reserves project is, in part, to designate appropriate land for each reserve type by addressing the factors listed in Oregon Administrative Rule 660 Section 27. The urban reserve factors that must be considered range in scale from assessing whether land can be served with public facilities and services in an efficient and cost-effective manner to determining whether areas can be designed to be walkable with a well-connected transportation system. For this reason, the Core 4 Technical Team (Tech Team), made up of staff from the three counties and Metro, chose to conduct a suitability of land analysis using a phased approach.

This memo describes the first step in this phased approach. It consists of an initial screening of the entire approximately 400,000-acre study area to address the following two urban reserve factors in the state rule:

UR-1: *Can be developed at urban densities in a way that makes efficient use of existing and future public and private infrastructure investments.*

UR-3*: Can be efficiently and cost-effectively served with public schools and other urban level public facilities and services by appropriate and financially capable service providers.*

The state rule defines 'public facilities and services' as sanitary sewer, water, transportation, storm water management facilities and public parks. Due to the sheer size of the study area, the Tech Team looked at it through a broad landscape-scale lens to assess suitability of the land for meeting these two reserve factors. This approach led to the Tech Team limiting this first screen analysis to sewer, water and transportation. Service providers of storm water management, public schools and public parks confirmed this screening decision.

The particular methodology and results for the sanitary sewer element is discussed below. The result of this element is expressed graphically on the attached map showing areas that are rated , 'high', 'medium' or 'low' for serviceability. This map, combined with those from the water and transportation elements, will be used to create a composite map that will begin to address the two reserve factors above.

Sanitary Sewer Element Strategy & Methodology

Under Oregon law, sanitary sewer service is generally not allowed to be provided outside an Urban Growth Boundary (UGB). Because of this the Reserves study area currently has no sewer service[1]. Also, because providing sewer capacity is very expensive and because there has been no way for local service providers to predict which areas will be brought into the UGB in the future, there is very little capacity currently available in existing treatment and conveyance facilities beyond that needed to serve the existing UGB. Likewise, very little planning work has been undertaken to understand how sewer services could be provided to areas outside the existing UGB. An "expert group" of engineers and key staff from the potentially impacted service providers worked together to develop an assessment of serviceability of the study area, based on their professional expertise and knowledge of nearby areas and facilities.

The sanitary sewers expert group[2] was convened in November 2008 to complete an initial assessment for the potential to provide sanitary sewer service to the study area, should it become urbanized. Prior to the meeting, each participant was provided with a study area map, divided into subareas delineated by watersheds, as well as proposed criteria for evaluating the study area. The purpose of the meeting was to answer the following questions for the entire Reserves Study Area:

How efficiently can the area use infrastructure *if the area is urbanized*

- Does it exist or can it be efficiently provided in the future?
- How efficiently and cost-effectively can an area be served?

Who would provide facilities and services? Are they "appropriate and financially capable" providers?

- What are the characteristics of an "appropriate and financially capable service provider?"
- Who is the logical service provider?
- Which of these categories do the listed service providers fall into?

During the meeting, it became apparent that the key set of criteria for this first landscape scale analysis includes topography, proximity to a current waste water treatment plant, existing capacity of that treatment plant, and the ability of the treatment plant to expand.

The sewers expert group worked on base maps that showed watersheds, topography, major rivers and streams, wetlands, floodplains, and major streets. During the discussion, staff and participants marked-up and made comments on the maps. They were also provided a ratings sheet, which was filled out for each sub-area. These ratings are reflected in Table A-1 in the Appendix to this memo. Serviceability rating factors included:

- Existing service availability
- Local system improvements that would be needed
- Area-wide improvements that would be needed (i.e. new major trunk lines or full system expansion)
- Service extension requirements
- Treatment capacity at likely facility
- Discharge issues

As part of the expert group review, information was provided about current treatment and transmission facilities. Current status of existing waste water treatment plants (WWTPs) in the Portland metropolitan area is briefly described in Table 1, below. This information is important to the serviceability ratings of

1 Except for the Boring rural center; this has a small plant intended to resolve a health hazard that is not adequate to serve additional development.

2 The Sanitary Sewers Expert Group included: Ted Kyle from Clackamas County Water Environment Services (WES); Carrie Pak and Nora Curtis from Washington County Clear Water Services (CWS); Jim Montgomery from the City of Gresham, Mike Stone from the City of Wilsonville, Lana Danaher from the Portland Bureau of Environmental Services (BES), Stephan Lashbrook from the City of Lake Oswego. These represented the likely existing service providers for the study area. These experts were also able to speak for the neighboring cities that provide their own sewer services, such as Canby.

the study area because, as noted, simply the fact that there is a plant located near an area being studied does not necessarily mean that it could serve new areas. Many existing plants will be at or near capacity in the foreseeable future.

Table 1. Existing Waste Water Treatment Plants

Plant/Provider	Current Status/ Capacity	Expansion Possibility/Comments
Durham/Clean Water Services (CWS)	Currently have a master-plan to serve surrounding areas that completely utilizes the capacity of the plant site.	Limited site size. If additional geographic areas are added to the service area beyond what is included in the master plan – will need to add to the site, which would be very difficult (there may not be enough room), or accommodate the new geography with another plant.
Hillsboro/CWS	Winter discharge only. Little to no additional capacity	No room to expand.
Forest Grove/CWS	Winter discharge only.	Summer discharge may be possible Has room to expand.
Rock Creek/CWS	Little to no additional capacity	Has room to expand.
Lake Oswego/BES	Little to no additional capacity	Area of service is essentially fully developed – no way to get additional flow to site because of topography.
Columbia Blvd/BES	Little to no additional capacity	Has potential to expand
Wilsonville/City	Currently has 4 M gal/day capacity and plans to expand to 7 M gal/day. This larger facility will max out the current site and the current trunk lines with the expected growth of the city by 2020.	No room to expand beyond 7M gal/day on-site
Gresham/City	Currently has a 20 M gal/day capacity plant and is using 12 M gal/day.	Has room to expand. They have limited conveyance; however, the incremental cost for Gresham to serve areas is less than incremental cost for Troutdale.
Tri City/WES	Currently expanding to 8M gal/day – larger facility will accommodate 5-8 years of expected growth (plus excess from Kellogg)	Has land and approved land use decision to further expand up to a 40 M gal/day facility
Oak Lodge/WES	Plant technologically obsolete	Area of service is essentially fully developed
Kellogg/WES	Currently over-capacity	Will be off-loading some excess to expanded Tri City plant
Boring/WES	Serves 100 hook-ups, no additional capacity	Very small, expensive-to-operate facility built to resolve a health hazard. If area is urbanized, this facility probably will be replaced.
Canby/City		Has a permitted outfall on the Willamette River.
Troutdale/City	3 M gal/day facility built in 2001-has not yet reached capacity	Has land to expand
Sandy, Estacada, Molalla	Limited capacity	Limited because winter discharge only (into streams); need to have enough farmland for summertime discharge onto agricultural land

The efficiency ratings were sketched on the maps by the expert group, then digitized in GIS. This digital map was sent to all the participating service providers for comment. This map shows the sewer serviceability of the study area considering availability of all treatment plants in the area, including the neighboring cities. To see *Map A-1 -- Sewer Serviceability for the Reserves Study Area including areas that might be served by neighboring cities*, please go to the Appendix of this report. Table A-1 summarizes the rationale for the categories shown on the map.

When technical staff for the Reserves project reviewed the map produced by the expert group, they determined that information about the ease of servicing areas that would be logically served by neighboring cities does not provide useful information about the best possible locations for future expansion of the Portland Metro UGB, and also requested that the four categories of information created by the expert group be rolled-up to three categories to be more compatible with the water and transportation maps. Therefore, staff produced Map 1 as shown in this memo, which focuses on serviceability for Portland Metro service providers.

Sanitary Sewer Element Results

The assessment of suitability for sewer services is not based on engineering or cost estimates, which cannot be produced without more information about employment, dwelling units, location of future facilities, and future regulations. General (not site-specific) issues that pertain to sanitary sewer service include the following.

1. Conveyance costs are generally the same on the east and west sides; however, on the west side (Tualatin basin) treatment requirements are more stringent (and therefore more expensive) than on the east side. The longer-term trend may be for higher level of treatment for all plants.

2. DEQ has stringent requirements for new outfalls into the Clackamas River basin, as specified in the Three Basin Rule for the Santiam, Clackamas and Mackenzie basins. Because of this, sanitary sewage generated in the Clackamas River basin has to be piped to the Willamette.

3. There are many existing state and federal environmental regulations as well as regulations under consideration that constrain how and where sanitary sewer treatment can be provided, including issues about nutrient discharge, fish standards, total load allocations and water temperature standards.

4. There are many unknowns to the future of sanitary sewer provision in this area. These include possible future changes in regulations the service providers must meet, and in the technology the providers have available to use.

5. There are potential relationships between sanitary sewage provision and designated rural reserves:
   - In the long run there may be an opportunity to link rural reserves with reclaimed sewage treatment water – we wouldn't necessarily need new outfalls if water could be discharged onto agricultural land, particularly nurseries. However, what would be done with the water in the winter? This works now (part of the year) for the neighboring cities with relatively small discharges.
   - CWS is using swales and floodplains in the rural area as part of its temperature management plan – would an Urban Reserve have an effect on this? Could they keep reserves/buffers around affected streams in Washington County with the designation of new urban reserves?

6. The expert group agreed that from their perspective all the likely service providers for the study area were "appropriate and financially capable."

The attached map *(Map 1 -- Sewer serviceability for potential Portland Metro UGB urban reserve sewer providers)* indicates areas that were identified as high, medium or low suitability for providing sanitary sewer services. For the most part, the boundaries of the sub-areas are defined by drainage basins. The analysis was an initial evaluation of a very large area of land, so there may be small areas for which a more detailed review would show a different rating than for the overall sub-area.

The map shows four categories of information:

High suitability for sewer service – generally these areas are the easiest and least costly to serve. This includes those few areas where there is capacity in a nearby treatment plant or conveyance facility, or those areas where capacity could be relatively easily provided. It also includes areas that require substantial improvements, but relatively easy ones for which there is land available or no major issues identified. These also include areas for which topography enables primarily gravity flow to an existing plant. For the most part, these areas will primarily require investment in facilities located inside the area to be developed, but be able to hook up to existing facilities inside the current UGB.

Medium suitability for sewer service – generally those areas would require new facilities located both inside and outside the area to be served. For example, treatment facilities would be needed that aren't planned or sited; existing conveyance facilities located between the area and the plant may be too small and need to be re-built. These areas may also have more topography, longer distances to potential outfalls, more pump stations, or other issues that make them less suitable, but no major issues that were identified by the expert group.

Low suitability for sewer service – generally these were areas for which difficult concerns were identified. They would require relatively larger investments both inside the area to be served and to treatment and conveyance facilities outside the area. Connections to these areas are sometimes difficult. For these areas it would be more difficult to figure out how to provide services and more costly to provide services. Low suitability areas included areas with steep topography, areas separated from transmission facilities by natural features, areas that were located long distances from potential outfalls or areas that were in drainage basins not served by a permitted outfall.

Areas logically served by neighboring cities – these are areas for which the logical service provider is the city of Sandy, Estacada, Molalla, or Canby. The neighboring cities in Washington County (Gaston, Banks, and North Plains) are served by Clean Water Services, which is a Portland Metro area service provider.

Next Steps

The sanitary sewer service analysis map is one element to be used in creating a composite map, which will be the foundation of the first screen analysis. Information derived from this composite map should provide a basis for eliminating some of the study area from further consideration as urban reserves. The next screen analysis will involve more detailed analyses of the remaining potential urban reserve areas. These areas will be referred to as priority candidate urban reserve areas.

For reference, the additional urban reserve factors outlined in the Administrative Rule that will be applied to the candidate urban reserve areas, in addition to refining factors 1 and 3 are:

UR-2: Includes sufficient development capacity to support a healthy economy;

UR-4: Can be designed to be walkable and served with a well-connected system of streets, bikeways, recreation trails and public transit by appropriate service providers;

UR-5: Can be designed to preserve and enhance natural ecological systems;

UR-6: Includes sufficient land suitable for a range of needed housing types;

UR-7: Can be developed in a way that preserves important natural landscape features included in urban reserves; and

UR-8: Can be designed to avoid or minimize adverse effects on farm and forest practices, and adverse effects on important natural landscape features, on nearby land including land designated as rural reserves.

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Multnomah County

WASHINGTON COUNTY OREGON

CLACKAMAS COUNTY

Urban and Rural Reserve Study Areas

Preliminary Sewer Service Suitability

Sewer Suitability
- High Suitability
- Medium Suitability
- Low Suitability
- To Neighboring City

- Urban and Rural Reserves Study Areas
- Portland Metro UGB
- Neighboring Cities' UGBs
- Columbia River Gorge Scenic Area
- County Line

0 1.25 2.5 5 Miles

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APPENDIX 1

Map A-1 Sewer serviceability for the Reserves Study Area, including areas that might be served by neighboring cities, is the map produced by the sewers expert group. It is included in this appendix along with Table A-1, which explains the rationale behind each designation. Map 1, the map included in the main body of the memo, is derived directly from map A-1 as follows:

- Areas characterized in Map A-1 as "Efficient" and "Moderately Efficient" were rolled into one category, the "High suitability" category.
- Areas characterized in Map A-1 as "Moderately Difficult" were shown on Map 1 as "Medium suitability"
- Areas characterized in Map A-1 as "Difficult" were shown on Map 1 as "Low suitability"
- When Table 1 shows the most likely service provider to be the WWTP of one of the neighboring cities that is not a part of the Portland Metro UGB, these areas were shown on Map 1 as "neighboring city" regardless of the Map A-1 sewer efficiency rating.

The expert group rated drainage basins for the relative efficiency and cost of providing sanitary sewer services. Four categories were mapped and illustrated in Map A-1:

Efficient. These areas are the easiest and least costly to serve. They would require relatively simple extensions of the existing system within the area to be urbanized, and could connect directly to existing facilities in the existing urban area. These areas are the few areas for which the treatment and conveyance systems inside the current UGB appear to have capacity to serve areas outside the current UGB.

Moderately efficient. These are areas that will require substantial improvements, but relatively easy ones. Within the area, facilities would be relatively easy to provide. Out of area improvements would be required, but, again, they would be relatively easy .An example would be an area that would require a treatment plant expansion, but where there is sufficient land available to expand the plant.

Moderately difficult. These areas would require substantial improvements inside the area itself, and also substantial improvements outside the area. These are areas where providing sewer services would require construction of treatment facilities that are not currently sited, expensive expansions of existing trunk lines, or that have moderately difficult topography or natural features impacting services.

Difficult to serve. These are areas for which difficult concerns have been identified. Substantial and difficult –to-provide improvements would be needed both inside and outside the areas. For example, these are areas with steep slope, difficult river crossings, long conveyances, or gravity flow to areas that can't be served by an existing permitted outfall.

Table A-1 below shows specific information for areas shown in Map A-1, including a brief description of the rationale behind the expert group's designation. Areas are numbered S-1, S-2, etc, as shown on the map; these areas correspond very roughly to drainage basins.

Sub-Area	Suitability	Comments	Potential Waste Water Treatment Provider (WWTP)
S1	Difficult	Require new trunk lines and river crossing, maybe tunnel; most land is floodplain	Gresham
S2	Difficult	Major pipelines and system expansion needed; Sandy River area very difficult because of topography and river	Troutdale or Gresham
S3	Moderately efficient	N of Hwy 26 - Major pipelines and system expansion needed; capacity available at existing plant(s)	Troutdale or Gresham
		SW of Hwy 26 - Major pipelines and system expansion needed; could go west to Tri City plant. Timing matters – could size Damascus conveyance to include this area.	Tri City
S4	Moderately difficult	Require new plant or long conveyance to Willamette River	Tri City or pump to Gresham
S5	Moderately difficult	Plateau between two creeks, steep topography on both sides	Tri City
S6	Difficult	No nearby facility; difficult topography; pump to Willamette River	Tri City
S7	Moderately difficult possibly served by neighboring city	Possibly pipe to Estacada WWTP	Estacada
S8	Difficult	No nearby facility; would require long conveyance, possibly to Tri City	Tri City
S9	Moderately efficient	Require new conveyance to planned new major line just north (inside existing UGB) or new trunk directly to Tri City WWTP; both require Clackamas River crossing; expansion of plant possible	Tri City
S10	Efficient	Require new conveyance to Tri City WWTP; may have capacity at plant – transmission line exists/has capacity	Tri City
S11	Moderately difficult	Require longer conveyance to Tri-Cities WWTP; would require expansion of capacity at plant	Tri City

Sub-Area	Suitability	Comments	Potential Waste Water Treatment Provider (WWTP)
S12	Difficult/ possibly served by neighboring city	Major system expansion needed; require new or expanded plant in Oregon City or Canby; steep topography that slopes away from existing sewers in Oregon City	Tri City or possibly Canby
S13	Efficient/Moderately efficient / possibly served by neighboring city	Require relative short new conveyance to Canby WWTP; limited existing capacity at plant	Canby
S14	Moderately difficult/possibly served by neighboring city	No close discharge; flat area – difficulty to serve with gravity system; potential for part of area to be served by Molalla	Canby/ Molalla
S15	Difficult	Floods	Canby
S16	Difficult/ portion possibly served by neighboring city	Difficult topography; would require a new regional pump station upstream of Willamette Falls that would have to pump across Tualatin or Willamette River	Tri City and/or Canby
S17	Efficient	W Stafford basin - relatively easy to serve	Durham
		NE Stafford basin - gravity flow to an existing pump station, then pump to Tri City WWTP	Tri City
S18	Moderately efficient	New trunk line to serve small portion of Boeckman Creek Basin in already in plan; additional trunk line is needed	Wilsonville
S19	Difficult	Require new pump station; trunk line and plant expansion; difficulty crossing river (current crossing maxed out with Charbonneau)	Wilsonville
S20	Moderately efficient	Mostly gravity flow to pump station	Wilsonville
S21	Moderately difficult	Steep topography; relatively small net developable area	Durham
S22	Moderately efficient	Large wetland areas near Tualatin River; potential for development area maybe south of Sherwood Rd; upgrade of Onion Flat PS currently planned to be completed within five years; may need to be upgraded to accommodate additional flows	Durham

Sub-Area	Suitability	Comments	Potential Waste Water Treatment Provider
S23	Moderately difficult	Potential of two or more new PS; wetland areas near Tualatin River	Rock Creek
S24	Moderately difficult	Potential of four or more PS; wetland areas near Tualatin River	Rock Creek
S25	Difficult	Steep terrain w/ deep ravines; questionable development potentials	Rock Creek
S26	Efficient	Contiguous to existing UGB; new PS and FM needed near Rosedale Rd and River Rd	Rock Creek
S27	Moderately efficient	New PS and FM needed near Meyer's Pond	Rock Creek
S28	Efficient	Contiguous to existing UGB; relatively small developable land	Forest Grove– winter Rock Creek - summer
S29	Efficient	Contiguous to existing UGB; relatively small developable land	Forest Grove – winter Rock Creek - summer
S30	Moderately efficient	PS and FM upgrade needed; wetlands and floodplain near Tualatin River but should not significantly impact sanitary; net developable land may be limited due to natural resources	Forest Grove – winter Rock Creek - summer
S31	Difficult	Steep terrain; Hagg Lake located here; very little net developable area	N/A
S32	Difficult	Steep terrain; very little net developable land due to terrain	Hillsboro– winter Rock Creek - summer
S33	Moderately difficult	Vast areas of wetlands; Dairy Creek has high value natural resources; some potential for developable land but will require careful planning to avoid natural resources	Hillsboro – winter Rock Creek - summer
S34	Moderately efficient	Contiguous to existing UGB	Hillsboro – winter Rock Creek - summer
S35	Moderately efficient	New PS needed near of Hwy 26 and McKay Creek; relatively large areas of wetland and floodplain near McKay Creek north of Hwy 26	Hillsboro – winter Rock Creek - summer
S36	Efficient	No real issues identified; will require upsizing of existing trunk line or adding new trunk lines	Rock Creek

Sub-Area	Suitability	Comments	Potential Waste Water Treatment Provider
S37	Difficult	Very difficult topography, many areas would require conveyance through Forest Park	Columbia Blvd
S38	Moderately efficient	Relatively short conveyance, mostly through urban land; would require river crossing. There is potential to expand plant.	Columbia Blvd

MAP A-1

Sewer Serviceability for the Reserves Study Area

Including areas that might be served by neighboring cities

Sewer Efficiency Ratings

- Efficient
- Moderately Efficient
- Moderately Difficult
- Difficult

- Rural Reserves Study Area Boundary
- Areas within the Urban Growth Boundary
- Sewer Treatment Plants
- Outfall

2 1 0 Miles

1:76,000

CLACKAMAS COUNTY

Clackamas County DTD | R.GRAY | Planning\GrowthManagement\Sewer_Efficiency_rev2.MXD | Feb 2009

Date:	February 11, 2009
To:	Core 4, Reserves Steering Committee
From:	Core 4 Technical Team
Re:	Preliminary Analysis of Providing Urban Level Transportation Service Within Reserves Study Area

Background & Overall Analysis Approach

The purpose of the Urban and Rural Reserves project is, in part, to designate appropriate land for each reserve type by addressing the factors listed in Oregon Administrative Rule 660 Section 27. The set of urban reserve factors that must be considered range in scale from assessing whether land can be served with public facilities and services in an efficient and cost-effective manner to determining whether areas can be designed to be walkable with a well-connected transportation system. For this reason, the Core 4 Technical Team (Tech Team), made up of staff from the three counties and Metro, chose to conduct a suitability of land analysis using a phased approach.

This memo describes the first step in this phased approach. It consists of an initial screening of the entire approximately 400,000-acre study area to address the following two urban reserve factors in the state rule:
UR-1: *Can be developed at urban densities in a way that makes efficient use of existing and future public and private infrastructure investments.*
UR-3*: Can be efficiently and cost-effectively served with public schools and other urban level public facilities and services by appropriate and financially capable service providers.*

The state rule defines 'public facilities and services' as sanitary sewer, water, transportation, storm water management facilities and public parks. Due to the sheer size of the study area, the Tech Team looked at it through a broad landscape-scale lens to assess suitability of the land for meeting these two reserve factors. This approach led to the Tech Team limiting this first screen analysis to sewer, water and transportation. Service providers of storm water management, public schools and public parks confirmed this screening decision.

The particular methodology and results for the transportation element is discussed below. The result of this element is expressed graphically on the attached maps showing areas that are ranked as 'higher', 'medium' or 'lower' to serve. This map, combined with those from the sewer and water elements, will be used to form a primarily assessment that begins to answer the two reserve factors above. The next phase of this process is described under Next Steps below.

Transportation Element Strategy & Methodology

A group of experts in the transportation field representing local jurisdictions and agencies was convened in October 2008 to undertake an exercise to assess the potential within the Reserves study area for accommodating an urban level of transportation service. This exercise consisted of developing a theoretical road network using the connectivity standards in the Regional Transportation Plan (RTP). The experts were able to use their knowledge of the land and existing rural transportation system to make informed decisions on where to place arterial and collector level roadways to attempt to meet the RTP standard. The ideal spacing for arterials is one mile apart, and the ideal spacing for collectors is one-half mile from another collector or arterial. This strategy reflects the evidence that such a connected system best accommodates an urban-level development pattern including vehicular, transit, bicycle and pedestrian travel.

To facilitate the exercise, Tech Team staff provided maps to the group with the following information:

- Existing rural road network
- Existing RR lines
- Topographical information in increments of 0%-7%, 7%-25% and over 25% slope
- Floodplains, streams & wetlands
- Proposed HCT corridors

In addition, a Google-earth terminal was set up to check actual on-the-ground development and features. Participating in this exercise were representatives from the following organizations: Clackamas, Multnomah and Washington counties; the cities of Gresham, Oregon City, Portland and Tualatin; ODOT; Tri-met; and Metro.

After completion of the exercise, Metro staff digitized the road network and set up a database of information that could be queried for such things as number of lane miles, both existing and added, number of intersections and distance to destinations. This information was used, in part, to develop a rough capital cost estimate of the improved network for specific geographic sub areas. The costing approach was derived from the ODOT Highway Economic Requirements System (HERS), which is used for planning-level capital costs for roadway projects. This methodology includes assigning higher roadway costs to major bridge crossings, wetlands and steep slope areas. It includes a standard right of way cost factor and is expressed as a unit cost per lane mile.

This exercise is a first screen for illustrating an arterial/collector level system upon the landscape and assessing whether an area is suitable for accommodating urban level development. From the GIS-level data, a rough cost comparison can be made among sub-areas. It is not meant to depict an actual complete urban roadway network or reflect detailed costs for construction of such a system, but rather provide preliminary information on how certain sub areas compare relative to other sub areas. Transit considerations for potential candidate urban areas, as well as a specific sub area's impact on major roadways connecting to the existing UGB will be analyzed during the next screening process; the former through working with Tri-met staff, the latter likely through transportation modeling of chosen sub areas.

In order to make a first-cut choice on which areas to query and thus enable a comparative analysis of sub areas, the Tech Team overlaid the sanitary sewer and water maps to derive areas for further exploration. These two maps are the products of consultation with experts in their respective fields.[1] The team chose areas on the sewer and water maps that indicated a higher ability to serve future urban development.

[1] For more information, see the two memos and associated maps on sanitary sewer service and water service.

Transportation Results

The results of the digitized roadway networks and interpretation of data is shown on the three attached maps. As indicated above, the sub areas were derived from the sewer and water service analyses. There are 15 distinct sub areas shown on the map. Each sub area has been ranked to indicate its ability to accommodate urban-levels of development.

The suitability rankings are based on three data sets: Cost per system lane mile; cost per added land mile; and number of intersections per square mile. The first two rankings are rough, preliminary cost estimates and do not factor in the cost of local streets or needed improvements to mobility corridors and other connections back into the existing urban area. They reflect the higher cost of constructing arterial and collector roadways in areas with steeper topography and natural resource features (cost per added lane mile) and in areas with fewer existing roadways (cost per system lane mile). The connectivity ranking is expressed in intersections per square mile, which is a good indicator of the relative density of streets in a given network. This, in turn, is an indicator of how well an area can be served by a connected transportation network, which facilitates better access to various land uses and creates the most efficient travel patterns for all modes of travel. The sub areas are ranked for the three suitability factors as follows:

Higher Suitability – The particular data set showed that these areas are among the most suitable for providing a transportation system capable of accommodating urban levels of development.

Medium Suitability - The particular data set showed that these areas are somewhat suitable for providing a transportation system capable of accommodating urban levels of development.

Lower Suitability - The particular data set showed that these areas are among the least suitable for providing a transportation system capable of accommodating urban levels of development.

Based on this initial analysis of the three suitability factors, some general observations can be made and caveats should be noted:

1. Flatter areas rank as higher (more suitable) for connectivity, due to the ability to construct a more complete grid system; though they often rank medium to lower (less suitable) for cost per system lane mile, in part, due to the very limited existing rural road network. These same areas are scattered from higher to lower suitability for cost per added lane mile, depending on the amount of natural resource land present.
2. The geographic extent of the sub areas, while initially based on preliminary sewer and water provision mapping, were in some cases modified to account for the particular needs of constructing a transportation network. Increasing, decreasing or otherwise modifying these areas could, of course, result in different rankings. Indeed, such modification will take place as candidate urban reserve areas become refined to better reflect subsequent finer-texture screens resulting from analysis of the six remaining urban factors listed under Next Steps below.
3. For this exercise, each sub area was isolated as much as possible in order to allow a first-screen comparison of them with each other. For this reason, the connections from the sub areas not adjacent to the existing UGB that would be needed were not factored in to the two cost factors during this screen. These areas would likely have higher costs to construct an urban-level arterial/collector network without urbanizing the intervening study areas.

These initial screening results offer an opportunity to look at the relative trade-offs of various sub areas within the overall Reserves Study Area. It is a way of starting to assess the viability of such areas to accommodate an urban level network and should be combined with the information from the sanitary sewer and water suitability efforts to narrow down this overall study area into candidate urban reserve areas.

Next Steps
The three transportation suitability maps are one component to be used in assessing the first screen analysis for candidate urban reserve areas. Information derived from these maps in conjunction with the sanitary sewer and water suitability maps should provide a basis for eliminating some of the study area from further consideration as urban reserves. The next screen analysis will involve more detailed analyses of the remaining potential urban reserve areas. These areas will be referred to as priority candidate urban reserve areas.

For reference, the additional urban reserve factors outlined in the Administrative Rule that will be applied to the candidate urban reserve areas, in addition to refining factors 1 and 3 are:

UR-2: Includes sufficient development capacity to support a healthy economy;
UR-4: Can be designed to be walkable and served with a well-connected system of streets, bikeways, recreation trails and public transit by appropriate service providers;
UR-5: Can be designed to preserve and enhance natural ecological systems;
UR-6: Includes sufficient land suitable for a range of needed housing types;
UR-7: Can be developed in a way that preserves important natural landscape features included in urban reserves; and
UR-8: Can be designed to avoid or minimize adverse effects on farm and forest practices, and adverse effects on important natural landscape features, on nearby land including land designated as rural reserves.

Map attachments:

1. Preliminary System Lane Cost Suitability
2. Preliminary Added Lane Cost Suitability
3. Preliminary Connectivity Suitability

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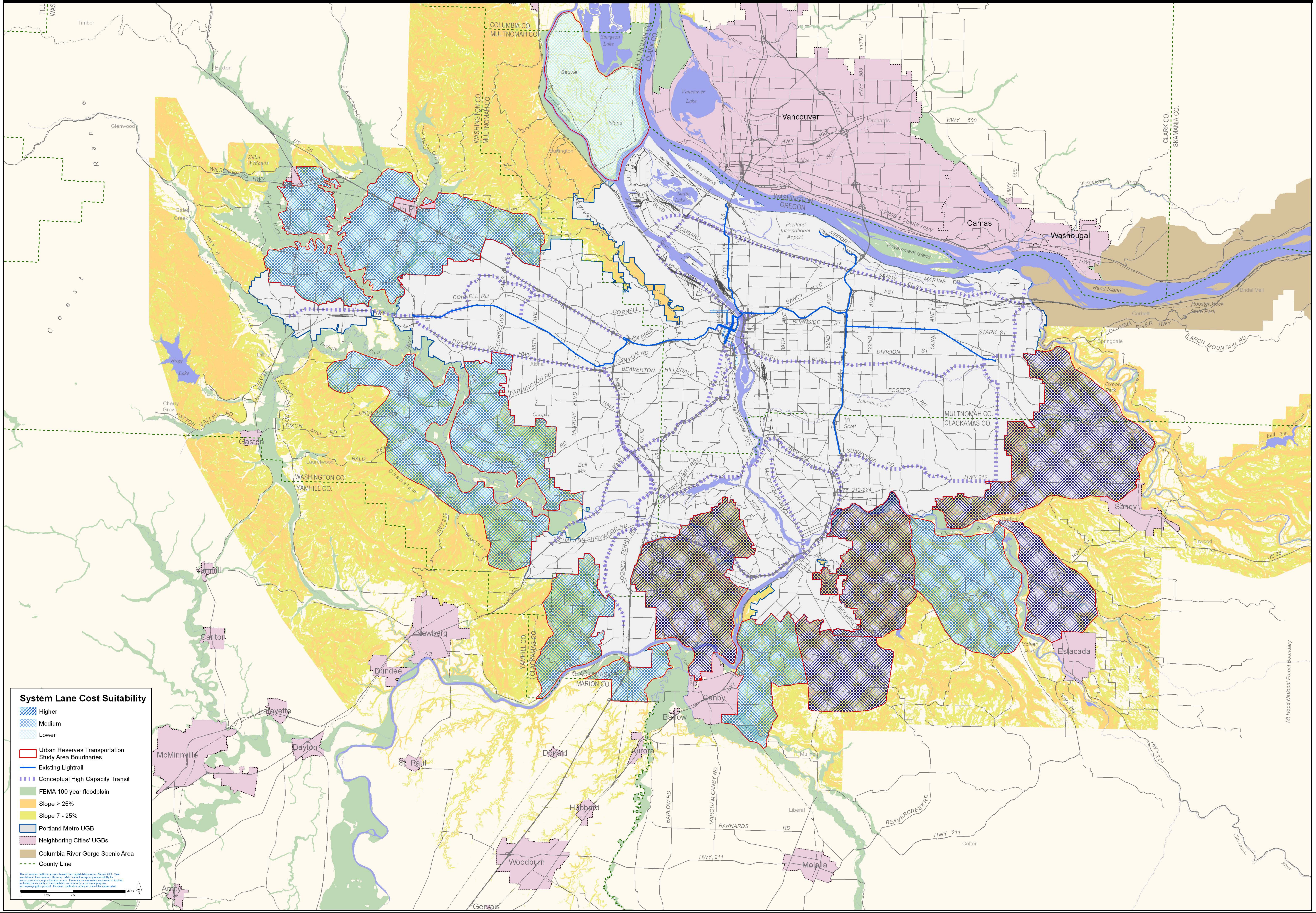
Urban Reserve Transportation Study Areas
Preliminary System Lane Cost Suitability



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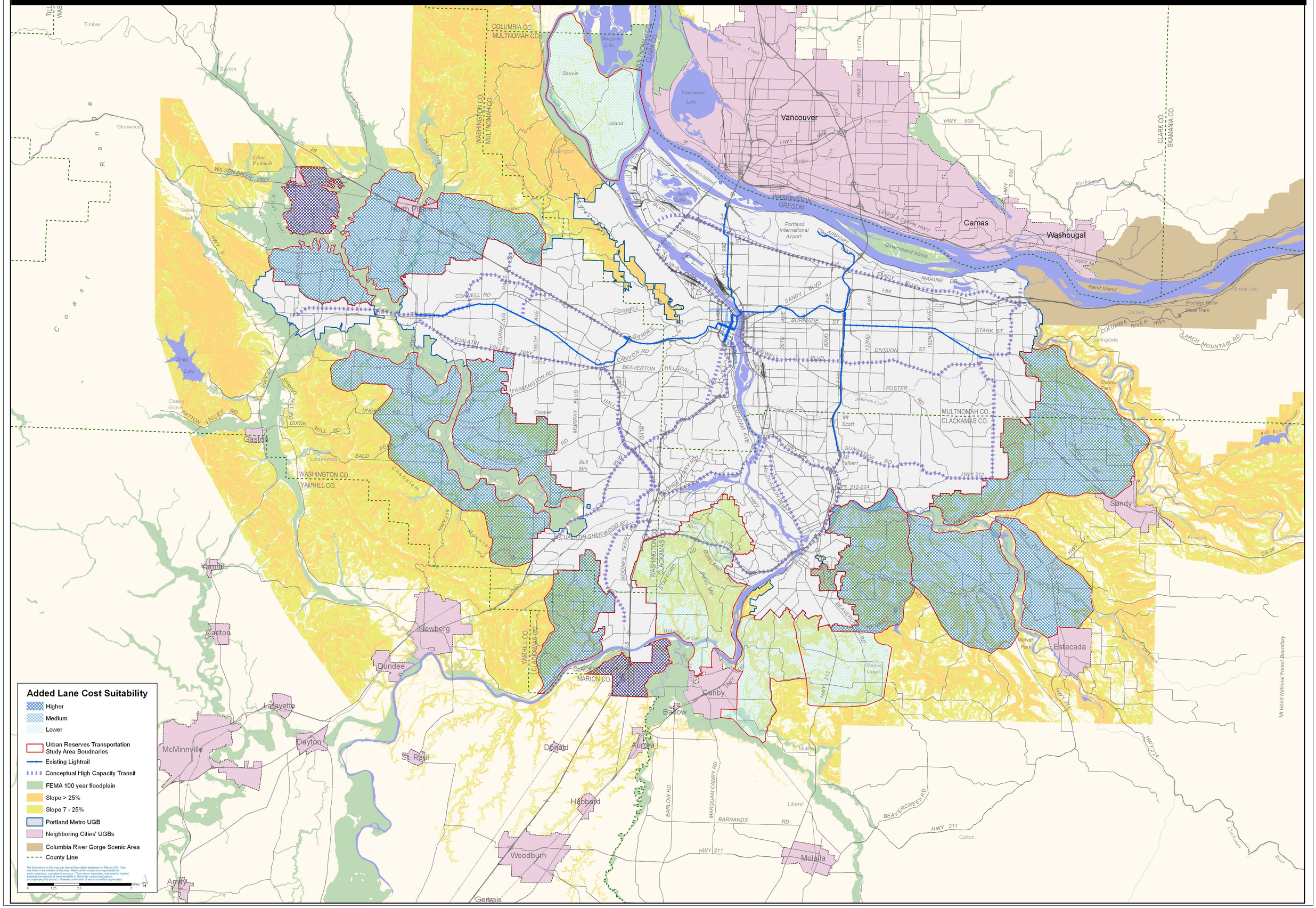
Urban Reserve Transportation Study Areas

Preliminary Added Lane Cost Suitability



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Urban Reserve Transportation Study Areas

Preliminary Connectivity Suitability