October 9, 2009

Regional Reserves Core 4 Committee
Washington County Board of Commissioners
Regional Reserves Steering Committee
Mr. Michael Jordan, Metro Chief Operating Officer
600 NE Grand Avenue
Portland, OR 97232

Hon. Councilors, Commissioners and Committee Members:

Each of the undersigned Cities in West Washington County has its own distinct land needs and views on the overall merits of the Urban Reserves recommendations of the Chief Operating Officer (COO) set forth in the *Strategies for a Sustainable and Prosperous Region.* However, we share one common view. The recommendations do not provide and distribute enough industrial Urban Reserves to accommodate the 40-50 year land needs of the mature high tech, the emerging silicon solar manufacturing and incubating bio-pharma industry clusters already rooted in West Washington County.

We believe the Region should take the analyses provided in recently completed Economic Opportunities Analyses (EOAs) for our cities into account when making a final decision about the location and extent of industrial Urban Reserves. We also point out that the amount of land requested for these reserves by the Westside cities is roughly half the total land need for industrial uses identified in our respective EOAs. **Therefore, we respectfully urge the Reserves Steering and Core 4 Committees to recommend adjusting the COO industrial reserves recommendation to accommodate the locations and acreage amounts summarized below:**

EOA-based Industrial Cluster Land Needs	Banks	Cornelius	Forest Grove	Hillsboro	North Plains
2060 Industry Cluster Absorption	218 Ac.	737 Ac.	679 Ac.	3,433 Ac.	516 Ac.

Key Issues:
Documents describing the technical reasons that underpin this request are also attached for your reference. In sum, they identify the following issues with several findings and conclusions in the draft Employment Urban Growth Report (UGR):

- Regional industrial manufacturing growth forecast in the UGR does not include any job growth in the silicon solar manufacturing cluster because that sector was erroneously attributed to the power generation/transmission (i.e., utility) sector. This fails to recognize the significant solar manufacturing job growth projected by the State Department of Energy and others contained in the Urban Reserve record. (See, September 29, 2009 Johnson Reid Memorandum.) Moreover, the UGR does not forecast future land needs in the Region for any industry cluster, including high tech, silicon solar manufacturing and bio-pharma – a very problematic omission because of its potentially detrimental long-term State, Regional and local economic base consequences.

- The "one-size-fits-all" UGR approach to industrial land supply and demand does not respond to the distinct large-lot *suitability and location* requirements of different industry sectors in the region. These requirements determine *a priori* whether large-lot employers in any industrial cluster will choose to locate in the Region in the first place. Thus, we believe the UGR large lot analysis substantially understates the true current UGB large-lot capacity and the corresponding long-term land needs of large employers.

Risk of Getting it Wrong
At MPAC, the Reserves Committee (9/23) meeting and at other venues, the COO noted how crucial it will be for the Region and State to carefully consider the risks and consequences of "oversupplying" or "undersupplying" the Region's short- and long-term housing and jobs land needs. We couldn't agree more, especially when it comes to the future land needs of the three major industry clusters in West Washington County. These clusters are mainstays and "economic drivers" for the State, Regional and local economies, contributing mightily to the economic "quality of life" of so many households in this County and throughout the Portland Region.

As noted above and in the attachments, we think the UGR substantially underestimates the short- and long-term land needs of the three industry clusters in West Washington County. The economic consequences at the State, Regional and local levels of severely underestimating the amount of land needed for our industry clusters would be devastating, and probably irrevocable in terms of preventing existing industry from continued expansion in the Metro area, lost new business recruitment opportunities and future market competitiveness of the Region. It would simply take Oregon out of the national and international competition for such businesses altogether.

Accommodating the 20- and 40 to 50-year land needs of the three industry clusters as outlined in the above table would go a long way toward avoiding the dire risk that, we believe, is posed by strict reliance on the draft Employment UGR findings and growth policy proposals.

Respectfully submitted:

Mayor Richard Kidd
City of Forest Grove

Mayor Bill Bash
City of Cornelius

Mayor Jerry Willey
City of Hillsboro

Mayor David Hatcher
City of North Plain

Mayor John Kinsky
City of Banks

Attachments:
- Staff Memorandum to Westside Planning Directors and City Managers (October 8, 2009)
- Johnson-Reid UGR Findings & Hillsboro Implications memo (September 29, 2009)

CITY OF HILLSBORO

8 October 2009

STAFF MEMORANDUM

TO: Planning Directors/City Managers: Cities of Banks, Cornelius, Forest Grove and North Plains

FROM: Alwin Turiel, AICP, Long Range Planning Supervisor

RE: *Chief Operating Officers Report – Traded Sector Industrial Land Need Comments*

City staff have reviewed Metro's Chief Operating Officer's report, *Strategies for a Sustainable and Prosperous Region*. The Draft Urban Growth Report (UGR) makes a strong case for an aggressive growth management strategy aimed at full realization of the Region's 2040 vision.

It is clear Metro staff is charting a course that will take our Region to new levels. While we look forward to being part of the Region's efforts to implement the 2040 vision, we have concerns regarding the employment lands need analysis and recommendations for urban reserves contained in the UGR. Specifically, our concerns include:

- The analysis of the traded sectors, including the assumptions made, policy choices relied upon and reliance on suitability analysis that does not consider specific industry needs. In particular, we are concerned with the lack of discussion about site specific needs of the traded sector industry anchors and clusters.
- The risk analysis alluded to in the report regarding future industrial sites throughout the Region.
- The conclusion that there is enough zoned capacity for at least the next 20 years for employment uses within the existing urban growth boundary.

Analysis of Traded Sector

We were somewhat confused by the report's recommendations for treatment of future industrial land needs. Large lot needs appear to be both portrayed as part of total land need and as a specific, special need that may need special accommodation in the years to come. Based on the input Metro has received regarding the specific needs of industry clusters and large lot employers, the emphasis should be on the specific, special needs of large lot users.

For example, the size, shape and location of a site are important factors in a company's determination of its suitability for their intended uses. We may have land available in the inventory, but it may not meet the needs of companies looking for land that meets the demands of their business model and their valuations of site attributes and tradeoffs against other factors, such as transportation costs and access to labor. Large lots are generally not "fungible" between industry types. For example, solar technology has specific workforce, water and energy supply needs. Therefore, the best locations in the Region for the solar industry are in western Washington County and Gresham. In contrast, metals fabricators find the best locations near other related businesses in their supply chains located around the Portland harbor.

The UGR should take into account the identified site-specific needs of industries when considering demand and supply of parcels region-wide. Those needs include:

- *Geology and physical characteristics:* Low-slope and seismic stability are crucial for many types of industries, as well as avoidance of engineering and the financial risk of infill/brownfields.
- *Ownership patterns*: Appropriately sized lots that are available and developable are crucial for anchor industries in particular. In order to meet future needs large lots should be in single ownership or require minimal assembly. The supply must also be sufficient to allow for competitive land pricing.
- *Utility needs*: High-capacity and redundant power and high-quality water are two of many crucial needs of different cluster employers. Absence of these will, in many instances, negate the possibility of an employer siting on a parcel, no matter how well-suited it is in other qualities.
- *Transportation infrastructure*: Adequate transportation for freight and people movement is a critical component when industries are considering relocation or expansion.
- *Cluster location*: Larger cluster employers, by definition of a cluster, will seek to physically be located to benefit from proximity of firm customer/vendor networks, labor force networks, and other synergistic connections, vendor/service location.
- *Workforce location:* Creative cluster employers (apparel, software, etc.) will likely prefer being closer to creative population centers in Portland -- just as high-tech manufacturers will prefer to be closer to the scientifically-trained workforce.
- *Permitting/Municipal Experience*: Reasonable development costs and certainty are key factors in industry location decisions. For clusters with more high-tech aspects, and therefore very dynamic facility growth plans, it is crucial for sites to be located in jurisdictions with experience in providing flexible, on-time project review and permitting processes. Delays and changes can cost millions of dollars for high-tech employers.

Also problematic is the reliance solely on land suitability for reserves determinations. While this is an important first step, it is not the last step for "right-sizing" urban reserves. The next step must be to determine the amount of land needed for future residential and employment lands. The table below illustrates the Economic Opportunities Analysis employment land demand findings for the five Westside cities. A similar analysis should be conducted for other Region subareas.

Assumption of the 20-40 year need

We believe the dissonance between the EOAs produced for the five western cities and Metro's employment demand analysis must be resolved. Local EOAs are not merely aspirational but, rather, reflect rational demand forecasts prepared in accordance with accepted methodologies under

Statewide Planning Goal 9. According to the cities' EOAs, healthy expansion of the three key industry clusters (hi-tech, green energy and bio-pharma) will require enough market choice in an established supply of suitable large lots (i.e., over 50 acres in size) to support location of additional anchor industries in western Washington County (see table below). In contrast, Metro's report defines large sites as those in excess of 25 acres and estimates the need ***in the entire Region*** for 29 to 43 sites over the next 20 years.

According to several experts who have commented on the UGR, lands identified as suitable for industrial use are not sufficient to meet the estimated demand for the next 20 to 40 years, as determined by the State Goal 9 economic opportunities analysis (EOA) approach. The conclusion of the Hillsboro EOA is that *Hillsboro alone will need between 20 and 65 sites that are 25 acres or larger, which translates to between 800 and 2,980 acres of land*. The Metro Employment Urban Growth Report states that the analysis does not attempt to determine whether or not there is sufficient large lot capacity inside the current UGB to accommodate the need for large parcels. This question must be addressed in order to arrive at a rational conclusion about how much land will be needed for both the next 20 years, as well as to "right size" urban reserves for future industrial uses.

Risk of Getting it Wrong

Fundamentally, we disagree with the risk analysis alluded to in the report as it relates to the need for future industrial sites throughout the Region. If we accept the UGR, the Region will not provide sufficient land that experts have identified as necessary to accommodate the needs of industry, including: (1) large lots for anchor sites; and (2) a variety of lot sizes for traded sector cluster needs. Given the importance of industry clusters to the regional and state economy, do we, as a region, want to take the risk of underestimating the amount of land needed for industry clusters?

The importance of industry clusters and their impact on the regional and state economy cannot be underestimated. For example:

- Approximately 66% of all employment in the State's hi-tech sector is located in Washington County.
- The 2007 average semi-conductor wage in Washington County was $88,222. The industry has been a strong contributor to production of *family wage jobs* in the Region.
- In contrast, the 2007 average Washington County wage for all jobs was $50,036.
- The city EOAs estimate a multiplier effect of approximately 2 jobs throughout the region for every industrial job created.

We agree with comments previously made by the Port of Portland regarding the risks associated with not providing enough land for the market to operate properly when existing and new industrial employers are seeking sites for expansion. Though it is difficult to accurately estimate the potential opportunity costs of different UGR policy choices, it seems clear that job growth will only materialize if the location, type and quality of buildings and land are available, as specifically required by various industry sectors. In other words, growth capacity starts with a thorough understanding of the nature of land supply within the UGB, as determined by key industries and the jurisdictions planning for economic development, as required by Statewide Planning Goal 9.

The FCS Group "preliminary Vacant Land Supply Findings" indicates there are virtually no sites within the existing UGB that could accommodate a user similar to Intel or SolarWorld. Primary reliance on land assembly is not a realistic assumption for large anchor industries interested in expanding or locating within our Region. As the region has urbanized, land assembly has become increasingly challenging and costly for many employers.

Sadly, we will never know the exact number of missed opportunities that could result from lack of suitable industrial sites. If firms or their site selection consultants cannot find sites of suitable size and characteristics, they will not even contact an economic development agency in the Region. This leads us to believe there are substantial risks associated with not providing enough land for the market to properly operate.

Conclusion

The UGR should be refined to address the specific needs of traded sector industry clusters. Additional analysis must be included regarding site-specific needs of industries. For the reserves decisions, at a minimum, the Region should leave areas beyond the COO's recommendation determined to be suitable for industrial uses as undesignated to allow for corrections in the event regional industrial growth is greater than predicted in the UGR ultimately adopted.

WESTERN WASHINGTON COUNTY SUBAREA FUTURE CLUSTER JOBS DEMAND: 2008-2060

CITY	2030 TOTAL ACRES EMPLOYMENT LAND DEMAND	2030 EMPLOYMENT CLUSTERS ABSORPTION*	2060 TOTAL ACRES EMPLOYMENT LAND DEMAND	2060 EMPLOYMENT CLUSTERS ABSORPTION*
BANKS	164	29	697	218
CORNELIUS	253	74	782	354
FOREST GROVE	546	54	1,760	326
NORTH PLAINS	235	13	1,589	516
HILLSBORO	5,098	1,648	13,443	3,433
5-CITY TOTAL	**6,043**	**1,744**	**17,489**	**4,493**
PRELIMINARY CONCEPT PLANS				
	CITY/UGB JOBS CAPACITY	**URBAN RESERVES JOBS LAND (2060)**	**ALL EMPLOYMENT ACRES**	**UNMET NEED: JOBS LAND**
TOTAL ACRES	**2,025**	**6,942**	**8,967**	**8,522 – 49%**

**Source: Johnson-Reid EOAs, 2009; Medium Demand Estimates*

MEMORANDUM

DATE: September 29, 2009

TO: Patrick Ribellia, Esq., Planning Director, CITY OF HILLSBORO
Richard Meyer, Director of Development & Operations, CITY OF CORNELIUS
Jon Hollan, Community Development Director, CITY OF FOREST GROVE
Don Otterman, City Manager, City of NORTH PLAINS
Jim Hough, City Manager, City of BANKS

FROM: Bill Reid, Principal
JOHNSON REID, LLC

SUBJECT: Urban Growth Report Findings & Western Washington County Cluster Implications

JOHNSON REID has reviewed the September 15, 2009 Draft Urban Growth Report ("UGR"). With the Oregon Land Conservation & Development Commission ("LCDC") visiting Hillsboro to study urban land use issues, we specifically reviewed the UGR to understand any continued discrepancies between it and Hillsboro and the West Washington County Economic Opportunities Analyses ("EOAs") and resulting land need estimates. The West County Partners are particularly concerned about industry cluster opportunity cost should land be under-provided over the planning periods discussed. The focus of this memorandum, then, is a review of the UGR with specific focus on following UGR appendices which provide detailed analytical findings pertinent to west County's economic future:

- Appendix 3: Industry Cluster Forecast; and
- Appendix 4: Large employer/large lot analysis

Cluster Analysis Inconsistencies Between the UGR and West County EOAs

In the Draft UGR, Metro has added a formal industry cluster analysis apparently based on its broader trend economic forecasts. Figure 1 provides a contrast between the EOA industry cluster Medium and High Growth scenarios and the Metro Cluster analysis (Appendix 3) High Growth Scenario.

Based on the comparison and review of the Appendix 3 Industry Cluster Forecast, JOHNSON REID has strong concerns about the adequacy of the current analysis in indicating employment growth in the key, emerging Solar industry cluster.

- On Page A3-1, Metro attributes SolarWorld – photovoltaic ("PV") solar panel manufacturer – to the electric power generation, transmission, and distribution sector. This is a potentially serious problem in Metro's analysis that is worth revisiting, as SolarWorld manufactures silicon-based photo cell panels and is not actually in the business of power generation and transmission, i.e. a utility.
- SolarWorld and other PV panel manufacturers, as documented in the west County jurisdictions' EOA studies, are actually in the same industry classification as silicon-based microprocessor production like Intel and others prevalent in Washington County (NAICS 334).
- According to Metro's documented methodology, that would put SolarWorld and other future manufacturers in the "Advanced manufacturing" cluster as categorized by the Portland Development Commission.

Figure 1 on the following page provides a comparison of west Washington County key cluster growth through 2035 with analogous cluster growth estimate by Metro in Appendix 3.

By 2030, Metro anticipates the Advanced manufacturing cluster (definition analogous to the Existing High-Tech cluster in the Hillsboro area) to add roughly 8,900 jobs metro area-wide under its High growth scenario. In contrast, the west County EOAs estimates that existing High-Tech in west County can be expected to add between 6,100 and 24,700 jobs by 2035. Although we view Metro's estimate conservative, their number can be viewed as consistent with the slower cluster growth estimate for west County as the cluster and what remains of available land are greatly located in the vicinity of Hillsboro.

FIGURE 1: WEST COUNTY CLUSTER GROWTH COMPARISON, EOA & METRO UGR

Hillsboro Cluster	Hillsboro EOA New Jobs to 2035 Medium Growth	Hillsboro EOA New Jobs to 2035 High Growth	Metro UGR 2030 New Jobs Metro UGB (High)
Solar			
Primary Manufacturing	5,477	8,849	
Induced Manufacturing	2,028	3,265	See Existing High-Tech
Induced Other Activity	2,713	4,360	
Subtotal	*10,218*	*16,474*	
Bio-Tech			
Primary Manufacture	262	876	
Induced Manufacture	96	321	
Induced Other Activity	128	428	
Subtotal	*486*	*1,625*	~3,800
Existing High-Tech			
Primary; Manufacture	1,754	7,044	
Induced Manufacture	752	3,019	
Induced Other Activity	3,633	14,592	
Subtotal	*6,139*	*24,655*	~8,900

SOURCE: City of Hillsboro EOA & Metro Draft 2009-2030 Urban Growth Report

Based on review, we would recommend discussions with Metro to revisit the apparent absence of Solar manufacturing from its cluster analysis in coordination with West Washington County jurisdictions. By Metro's own description, Solar should be included in their Advanced materials job forecast (NAICS 334), but presently it is not.

Interviews with solar firms, industry experts, Business Oregon, and examination of numerous national green/clean energy industry studies – along with a formal forecast methodology we developed with the assistance of the Oregon Department of Energy – all conducted by JOHNSON REID indicate that west County should see anywhere from a total of 10,200 to 16,474 Solar cluster jobs. Those would include the Solar firms themselves (Primary), supply and parts manufacturing vendors (Induced Manufacturing), and all other service, wholesaling, etc. commerce that would be generated as well and locate in west County (Induced Other Activity).

Recommendations by Metro regarding land need and UGB sufficiency currently appear to under-appreciate the growth potential of Solar manufacturing in western Washington County and Portland metro region-wide. SolarWorld is already building North America's largest solar panel manufacturing facility. And as the west County EOA analyses indicate, the Solar energy cluster can exceed 54,000 jobs metro area wide based on

Oregon Department of Energy solar megawatt capacity expectations. There is, then, an opportunity for west Washington County jurisdictions to share information with Metro to refine understanding of the Solar PV industry.

However, until the Solar PV manufacturing industry and emerging cluster is better accounted in Metro's analysis, there is a significant lost economic opportunity for west Washington County, as well as for regional and State efforts to attract and grow clean energy industry in terms of land demand and provision for that emerging cluster.

Large Lot Demand Inconsistencies Between the UGR and the West County EOAs

In the Draft UGR, Metro has conducted additional analysis of large parcel/lot demand resulting from 20-year economic growth. Despite these refinements, and until the Solar manufacturing cluster is discussed further, we caution that there is underestimate of large parcel demand in the current, Draft UGR. Additional consideration by Metro of the issue will likely resolve discrepancies in west County and Metro analyses.

Despite that, however, we would urge west County jurisdictions to further coordinate with Metro regarding some additional refinements that will benefit land need modeling. In general, current Metro large lot methodology does the following:

- Translates industry job growth forecasts into a distribution of firms by size.
- Translates firms by size into likely land use categories by size.
- Translates firms by land category into a distribution of single/aggregated parcel demand.
- Metro then matches demand for large parcels based on firm sizes to the metro *region-wide* supply of parcels sized 20 acres or greater.

Although the analysis is a welcome addition to the UGR, JOHNSON REID recommends that additional consideration be provided from the perspective of industry/cluster need characteristics rather than a ledger-type comparison of firms by size and parcels by size, all else equal. Although ultimately parcel need is the topic in question for employers, different industry clusters have very different and varied location, infrastructure and workforce needs that in many cases are more important than purely parcel size itself. Following is a review of primary issues that merit additional consideration when considering demand and supply of parcels region-wide.

- Geology and physical characteristics: Low-slope and seismic stability are crucial for many types of industries, as well as avoidance of engineering and financial risk of infill/brownfields.
- Utility needs: High-capacity and redundant power and high-quality water are two of many crucial needs of different cluster employers. Absence of these will in many instances negate the possibility of an employer siting at a parcel, no matter how well-suited it is in other qualities.
- Workforce location: Creative cluster employers (Apparel, Software, etc.) will likely prefer being closer to creative population centers in Portland for instance, just as high-tech manufacturers will prefer to be closer to scientifically-trained workforce.
- Cluster location: Larger cluster employers, by definition of a cluster, will seek to physically be located to benefit from proximity of firm customer/vendor networks, labor force networks, and other synergistic connections., vendor/service location.
- Permitting/Municipal Experience: For clusters with more high-tech aspects, and therefore very dynamic facility growth plans, it is crucial for sites to be located in jurisdictions with experience to provide flexible, on-time project review and permitting process. Delays and changes can cost millions of dollars for high-tech employers.

All of these factors are well documented and specific to each cluster in different State and regional studies, including the West County EOAs. We would encourage west County jurisdictions to partner with Metro to better account industry land needs by cluster rather than the current, more ledger-style UGR approach.

For many employers, each of the above site qualities – in addition to parcel size alone – amount to a "must have" for location and growth. Without most of the above qualities ensured, firms will not consider a site no matter how perfectly sized it is. In other words, a more elaborate discussion of large parcel need by cluster industries is merited in the UGR. Without such analysis, many parcels currently considered adequate based largely on size are likely not suitable at all. This reinforces comments made in UGR focus groups to the effect of firms increasingly having to look outside of the metro area for sites over 20 acres – a reflection of industry/firm needs, not purely site size.

General Inconsistencies Between the UGR and West County EOAs

Finally, it is important to note how fundamentally the UGR and the west County EOA analyses differ in overall approach. The UGR is an assessment of long-term land use patterns and needs based on regionally-identified and adopted land use policies preferences, existing and future policy tools and investments to facilitate land use efficiency aspirations, and resulting urbanized land need based on land use policy preferences. Like the west County EOAs, UGR land need estimates are based on employment growth forecasts. Unlike the EOAs, employment growth as forecast by Metro is highly based on national trend and regional trend since 2002. This has the following broad implications:

- 2002 to 2006 marked lack-luster growth in the region's high-tech sector compared to well-documented industry growth in the 1990s. In other words, the Hillsboro area specifically is capable of growing far faster than purely trend forecast would indicate, particularly informed by 2002-2008 or 2008. This is already being evidenced by the fact that SolarWorld's facility is the largest of its kind in North America.
- The Metro forecast is highly informed by the Global Insight's proprietary national economic forecast. Accordingly, the resulting Portland metro area forecast for key manufacturing sectors are informed by national manufacturing trends, which for more than two decades have generally been declining. However, as is obvious in Washington County, high-tech manufacturing industry employment if planned and nurtured can both grow dramatically and highly contrary to national industry trends over the long-haul.
- The Metro UGR never considered lands north of the existing West Washington County UGB as candidate expansion areas for employment growth, modeling, and employment land capacity study (Appendix 2: Documentation of Metroscope Scenario Assumptions). This is important, as the EOAs documented from numerous industry and cluster interviews that the Hillsboro vicinity and Gresham areas are the only two specific submarkets in the Portland metro area that are suitable for existing and critical water and electricity infrastructure, workforce, and access for the vast majority of high-tech manufacturing growth prospects, particularly solar and likely biotech for at least the 20-year planning horizon. Therefore, the attribution of high-tech manufacturing industry growth to locate outside of these two specific geographies should be reconsidered.

The bottom line to these general differences is the following: Western Washington County jurisdictions examined economic opportunities from the "bottom up," i.e. detailed examination of industry growth and need potential unique to the existing and emerging high-tech firms among others. By comparison, the Metro UGR relies on national and regional trend economic analysis, an econometric model shaped by policy preferences, and mathematically-derived growth capture factors further shaped by candidate urban expansion areas, or a "top down" approach. The UGR process did include outreach to industries with focus groups, but the emphasis of those meetings was more on built environment trends for different uses. This contrasts with industry cluster growth potential, unique industry needs, economic development recruitment priorities, and other issues that the west County EOA process did cover. There is accordingly an opportunity for information gathered during the west County EOA process to assist Metro with its approach to key regional industries.