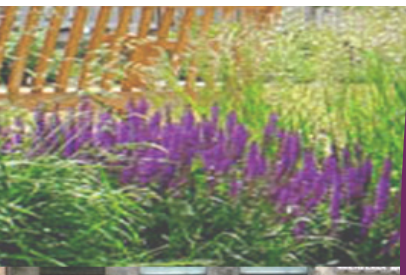
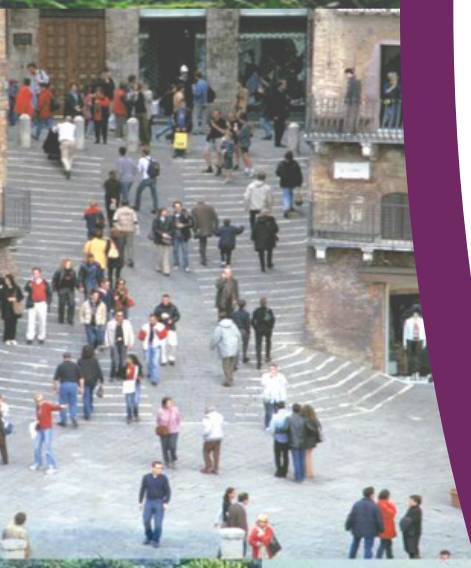
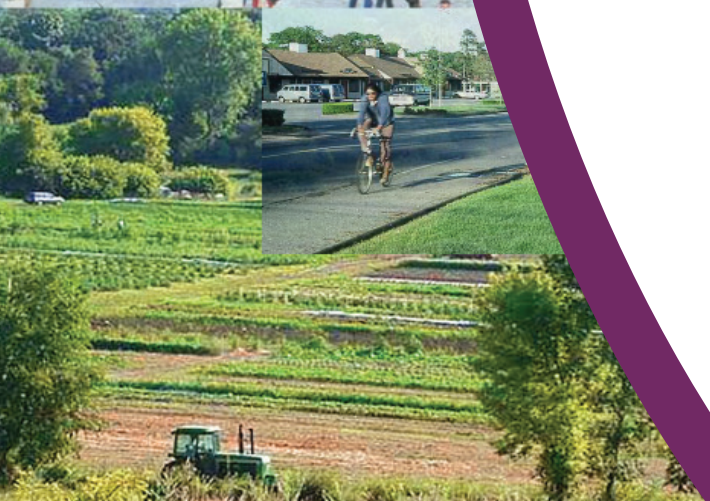
GREAT COMMUNITIES

FINAL REPORT







DECEMBER, 2006

Cogan Owens Cogan
SERA Architects
ECONorthwest
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Economic & Financial Analysis

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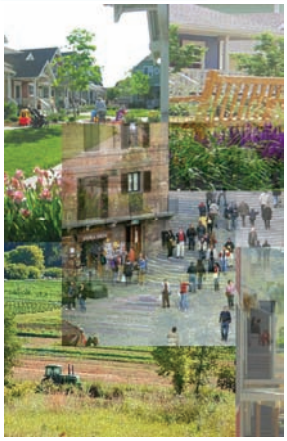

FINAL REPORT
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Introduction/Background

The Oregon Statewide Planning Program provides a framework of goals to foster development inside urban growth boundaries (UGB) in an orderly and efficient manner and to expand the UGB consistent with a land use hierarchy designed to protect agricultural and forest land. Utilizing this framework of goals, the Portland metropolitan region has successfully met many significant growth challenges over the years. However, growth pressures, goverannce, agricultural and natural resource protection and finance issues have contributed to more controversial decisions over time. Consequently, Metro launched a New Look at where and how the region should grow, that balances regional agricultural land needs with the protection of natural features and the creation of great communities.

Metro, in partnership with Clackamas, Multnomah and Washington Counties, the State Department of Land Conservation and Development (DLCD) and the Oregon Department of Agriculture (ODA) were tasked with identifying urbanization factors or characteristics that could be used to accommodate growth while ensuring the continued successful implementation of the Metro 2040 Growth Concept Plan and the Statewide Planning Program. This Great Communities project, which focuses on urban issues, is part of a regional effort to reconsider urbanization decisions that also includes agricultural and natural landscape features research.

A consulting team led by Cogan Owens Cogan and assisted by SERA Architects, ECONorthwest, Economic and Financial Analysis, Kittelson & Associates and David Evans and Associates, completed the Great Communities work program. The team was aided by a four-member national advisory panel and guided by a regional Project Management Team consisting of planning directors and growth management staff from the three counties, Metro, DLCD and ODA. The Ag/Urban Coordinating Committee, comprised of elected officials from throughout the region and the Department Directors of DLCD and ODA provided oversight. Funding for the project was provided by DLCD.

Scope of Work

The purpose of the study was to define and describe community characteristics that should be included in urbanization decision-making processes, as well as applied to existing communities, to ultimately create Great Communities in the region. The study focused on characteristics related to land use, governance,

urban services and finance issues. The study was composed of two parts. Phase one was devoted to research – to define the characteristics and attributes of "great communities" both nationally and internationally. Phase two included application of a refined set of characteristics and attributes to three test areas throughout the region. The purpose of this application was to test the characteristics and attributes to define those most important to urbanization decisions.

The three test areas, the Stafford area in Clackamas County, the Northwest Hills area in Multnomah County and the Forest Grove/Cornelius area in Washington County, were recommended by the Project Management Team to test different agricultural, topographic, governance and infrastructure conditions. Their selection does not reflect a prority for future expansions of the UGB nor does the work completed represent future concept planning for the areas.

This report includes a description of the methodology and results of analyses of both phases combined. The work was iterative and evolved throughout the process. Recommendations from a cost-revenue evaluation tool are integrated into this report and the executive summary. The Cost Revenue Evaluation Tool Methodology is available under separate cover.

Process of Developing Great Communities Characteristics from an Urbanization Perspective

Phase I: Research and Conclusions

In Phase I, vision, political will and financing are identified as foundations for the development of Great Communities. Great Communities share the attributes of innovation, energy, vitality and a self-perpetuating enthusiasm. They are created with intention, design and change over time. Common characteristics are excellent community design, a transparent and proactive government, a vital economy, a full range of housing, employment transportation, recreation, shopping and entertainment choices as well as attention to the environment. They are accompanied by the need for adequate physical infrastructure (roads, pipes, power lines, etc.), a design perspective such as ensuring that urbanized areas are safe, attractive and walkable. Both elements: the "hardware" (infrastructure, built environment, services) and the "software" (social infrastructure, governance, finance, public investment) are essential for the development of Great Communities.

For the Phase I research, Cogan Owens Cogan worked with Doug Kelbaugh, Dean of the School of Urban Design, University of Michigan, Professor Kit McCullough and a team of fifteen graduate students to examine and identify examples of Great Communities throughout the world. Summary characteristics and their attributes included Community Design, Governance, Finance, Complete Communities, and Innovation. A report and descriptions of these five characteristics and their attributes, underlying community fact sheets and the research strategy also are included in the Phase I report documents in the appendix. The fact sheets highlight the most outstanding characteristics of each community.

The study shows that Great Communities allow for the safe and efficient flow of goods and circulation of people and services. In Great Communities, people feel safe and services are accessible. Public investment is a catalyst for private investment. The most successful examples are communities that add to their "edge" by redeveloping underutilized sites within or near urban areas, rather than constructing communities from the bottom up. However, there are notable examples exist of the latte as well.

The research confirmed the region's realization that the best utilization of scarce land and resources is to focus development to "grow up" before expanding out. Advisory Panel members agreed that the Portland Metro region should be on a national list of example Great Communities, citing the regional UGB, resource land protection, a history of transportation investments and other innovations.

Phase II: Application

The goal of Phase II was to test the application of the Great Communities characteristics and attributes identified in Phase I in three distinct geographic areas in order to refine the list of characteristics and attributes and limit the list to those critical from an urbanization perspective. This work included:

- Identification of limitations to building Great Communities.
- Recommendations on strategies for overcoming or mitigating limitations.
- Identification of creative public financing methods to supplement conventional methods.
- Descriptions of factors or criteria the region should use to evaluate and prioritize land for urbanization.
- Definitions of the scale and "building blocks" for Great Communities.
- Evaluation of the usefulness of the characteristics and attributes for decisions concerning future UGB expansions. This last issue became the overarching objective of the Phase II research.

The consulting and project management teams identified three areas to test how the Great Communities characteristics and attributes can likely be applied in a specific geographic area and also to identify factors or criteria the region should use to identify land for urbanization. The three are the Northwest Hills area in Multnomah County, the Stafford area in Clackamas County and the Forest Grove/Cornelius area in Washington County. Maps are included in the appendix.

Criteria for selecting test areas included physical/development challenges such as natural resources/features, agricultural land, level of parcelization; and jurisdictional, governance and financial issues. The areas are geographically dispersed, with at least one on the edge or adjacent to existing cities and one that may become a new city. They represent a range of development options – from the neighborhood level "building block", to village/town center to small city. The results are applicable to other areas in the region.

To evaluate the test areas, the team pared down the list of Great Communities characteristics and attributes developed in Phase I to a workable list of those that were relevant to making urbanization decisions. The characteristics and attributes included:

1. **Community Design**
   - Density levels
   - Connectivity
   - Active public spaces
   - Ecological buildings/infrastructure
   - Parks, open space, other natural features
   - Legibility
   - Maximizing public investment

2. **Governance**: support local initiatives and capitalize on governance opportunities
   - Can the area be governed?
   - Can services be provided to the area?
   - Is there a willingness to bring the area into the UGB?

3. **Finance**
   - Stable, predictable, equitable, efficient funding
   - Property tax policy designed to achieve development objectives
   - Citizens willing to support government for desired services

4. **Complete Communities**
   - Housing, employment, and recreational options for all sizes of households and people of all ages so that residents can live close to their jobs, families, and communities of choice
     - Build on local strengths in global markets
     - Build on local economic strengths and clusters
   - Education
     - Quality K-12 education
     - Higher education: training and workforce development
   - Affordable utilities and attainable services (see also finance and jobs/housing balance)

5. **Innovation**: communities recognized for their ability to redevelop and renew themselves over time
   - Sustainable infrastructure, ecological services

Team members then developed a set of criteria, evaluation questions and data needs to use in the analysis. Evaluation questions helped determine whether or not an area could meet the criteria. Data needs were identified for each workable characteristic. The consulting team's methodology and record of their results of their evaluation are included in the appendices to define a replicable path the region can use in future UGB expansions.

The consulting and project management teams held work sessions to identify any vision for each area; the desired outcomes of the analyses; to confirm any sub areas within the test area; to hear jurisdictional

representatives describe relevant issues, limitations, opportunities, connections and relationships; and to identify likely service providers and any additional data needs and sources.

The consulting team utilized the data given by the test area jurisdictions, accumulated additional information from surveys and phone interviews, refining the sketch maps developed at the work sessions to reflect this information. Refinements to the list of characteristics and attributes were made as the work progressed.

There were two parts of the analysis: first, to evaluate the likelihood of each area to meet the Great Communities characteristics in order to get a sense of the workability of the characteristic and second, to determine which characteristics are likely to be most useful in making urbanization decisions.

The exercise of assigning a score to a geographic area was useful to thin out the Great Community characteristics to those that are most useful in making urbanization decisions. The test area analysis illuminated ways in which the characteristics should be applied at varying scales.

Some of the characteristics, e.g., governance and finance remained strong through the evaluation process, while others that had initially been assumed less important, e.g. education and the economy, rose to the top. On the other hand, innovation did not remain on the final list as it is not crucial from an urbanization decision-making perspective.

The results are the eight Great Community urbanization characteristics that follow.

Great Community Characteristics

Following are summary descriptions of the eight essential characteristics the team and Advisory Panel believes are the most important in making urbanization decisions that will lead to Great Communities:

1. **Community Design**

   Density, connectivity and legibility are considered essential characteristics in attaining cohesive community interaction, active populations and thriving business districts. To support the characteristic of walkability, the area should have high enough densities and a diverse enough mix of uses within a quarter mile radius of centers to support walkability. A minimum of 12 to 16 dwelling units per acre in these areas is recommended. Additionally, the area should have the capacity to provide connectivity to and within the area for all automobiles, business-related trips, bicycles, pedestrians and transit. Legibility refers to areas that have rich, distinctive and site-specific attributes and forms that fit the natural environment and capitalize on unique and significant natural features. It also focuses on how people inside the area perceive the region as they move through it, in other words, how they define its sense of place. Features may include views of natural ordering elements such as Mount Hood, the presence of and visual access to significant local landmarks, the ability to

create edges to the community and pathway systems throughout an area, to create districts, nodes or centers and to develop gateways in to/out of the area. The Northwest Hills test area is a good example of an area in which it would be difficult to create the level of connectivity required for communities with great design. The topography makes it necessary to build many costly bridges between isolated centers to create any level of connectivity. In addition, the presence of Forest Park and the West Hills may give the area stronger value for the region to remain if it remains as is.

2. Complete Communities

Considering the numerous impacts that are associated with urbanization, areas should be considered for addition to the regional UGB only if they are found to satisfy a legitimate regional or community need. One example is to complete an existing community by adding land for educational facilities or housing to serve employment areas. Another is when a new complete community can be created (e.g. Damascus). Factors such as affordable housing, parks and recreation and the accommodation for diversities in age and income may be made conditional upon approval of the decision to expand the UGB.

In every case, it is important to evaluate the impact of these decisions on existing affected communities. There are several good examples of this in the Stafford Triangle area. The team began the Stafford Triangle assessment by determining whether new development should stand alone or be an extension and/or completion of an existing community. They determined there are opportunities for both within the study area. Development at the eastern edge would complete the City of West Linn by providing residential neighborhoods northwest of the West Linn Civic Center. At the northern edge of the Stafford area, development of the Stafford Road interchange could provide the basis for a new community with employment, a mixed-use village center and surrounding residential neighborhoods.

3. Ecological Systems

In any Great Community, ecological systems should be preserved. While some requirements are met by current local, regional, state and federal laws, it is critical to the long-term health of the region that as urbanization occurs, it preserves essential regional natural systems, such as wildlife habitat, corridors, and water quality. Opportunities to utilize sustainable infrastructure, the regional "greenfrastructure" and ecological services should be maximized. In the Northwest Hills area for example, the buildable lands map revealed a major riparian system that feeds the Tualatin River as well as numerous riparian corridors within the rolling rural landscape. This ecological web modulates the landscape and defines potential development spaces. The team concurs that preservation of this important ecological area is likely more important to the region than urbanizing it, especially given the other constraints (lack of connectivity and developable land area) and significant opportunities (water quality and view).

Central to ecological systems and developing infrastructure in a sustainable manner is integrating infrastructure systems of the built environment with those of nature. Whereas traditional infrastructure simply "links" systems of the built and nature environment, sustainable infrastructure seeks to "integrate" these systems in way that utilizes, in a responsible manner, the carrying capacities of natural systems to provide infrastructure services (i.e., ecosystem services). This could include creating natural, low-impact stormwater systems to manage stormwater, utilizing solar or wind to generated energy, and creating wetlands to treat wastewater. As communities continue to grow and urbanize, the development of sustainable infrastructure systems should be a central strategy to ensure they operate within the community's economic and environmental carrying capacity.

4. Optimize Regional Public Investments

When the region makes urbanization decisions for long-term, 20 to 50-year growth, it is timely and appropriate to consider previous and future infrastructure investments. Additions to urban land should optimize existing investments and/or identify likely future major, regional public investments such as parks and greenspaces, transportation, sewer, water and other utilities such as light rail alignments. The Stafford area is a good example of how regional investments could be realized by urbanizing strategic areas. Development at the Stafford Road interchange with I-205 would reinforce the value of the highway investment and serve important workforce needs if employment were located along the freeway, closes to the interchange. Looking farther into the future, an extension of light rail along I-205 to the Stafford interchange, coupled with an extension of the Portland to Lake Oswego transit line to the area could provide a regional multi-modal transit facility. A new community at such a hub would support these future transportation investments. Likewise, residential and mixed-use development adjacent to the West Linn Civic Center would reinforce the public investment in that area.

5. Governance

Even though it is one of the most difficult aspects associated with urbanization, the governance issue, from large to small, area-specific scale, must be addressed. A central question is commitment from all entities to accepting a share of the region's growth. Considering existing limitations on annexation, alternate forms of governance and service provision may be needed. Scale matters, as large areas could support new local governments while smaller land areas that would complement existing communities should have governance agreements in place prior to annexations. In other words, some degree of governance responsibility should be expressed by some entity prior to the urbanization decision. An example of the issues involved in the application of the governance criterion is the Northwest Hills area. Of the three test areas, the Northwest Hills faces the greatest challenge for governance. Although the area is located in Multnomah County, its strongest connection to an existing community (and the accompanying services) is in Washington County and, more specifically, the City of Beaverton. While governing and providing services to this area in the future is possible through intergovernmental agreements, annexations, and creatively-financed infrastructure, it is

significantly complicated by the fact that there is not one governing body that can easily provide the core urban services needed to create a Great Community in that area.

6. Finance

Another important factor in assessing the feasibility of urbanizing a specific area is the cost of supplying public services and the governments' ability to finance these services. The capital costs of extending services should be reasonable and able to be sustained as the need increases. Three issues are critical to this analysis. First, to finance public services, a financially-capable local government - or consortium of local governments, such as cities, counties, special districts and regional agencies - needs to have the requisite financing authority. Secondly, before expanding into an existing rural area, the area needs to be evaluated to determine if the cost per unit of development (e.g., housing unit, per capita, or employee) of extending primary linear-public services (streets, sewer, water, transit, storm drainage) is reasonable. Furthermore, the costs should be evaluated in relation to those in existing urban areas and in relation to other possible areas for expansion. To this end, the consulting team has developed a cost-revenue evaluation tool that summarizes basic infrastructure costs and introduces the effects of underlying land use and planning decisions. The tool also includes a methodological approach to assessing the costs of some of these services for use in future urbanization decisions.

Third, in considering urbanization, a plan to finance at least the capital costs of each system must be developed. A number of public, private, and public-private partnership methods are currently available to local governments. Oregon does not prohibit the creation of new methods used elsewhere in the U.S. such as those that provide a greater role for private sector investment in public services and value-capture methods. The financing "toolbox" includes the following methods: stronger public/private partnerships (especially on large-scale developments); public infrastructure that is conducive to private development; extra territorial and/or statewide Tax Increment Financing (TIF); matrix financing (financing new development from a variety of public, private, academic and philanthropic sources with spatial and temporal dimensions); System Development Charges (SDCs) and other dedicated fees; private governance/leadership; conditioning approval of new development on desired outcomes; using infrastructure as leverage; rezoning areas and capturing the development rights; transfer taxes, especially for windfall situations; Transfer of Development Rights (TDR) for land assembly; and empowering local governments to collaborate with private entities for development purposes. Another option is to consider earmarking some fees that are logically related to the services provided. In all these cases, it will be important to coordinate jurisdictions to conduct their planning for public land acquisitions or reservations in advance of any UGB expansion, particularly in an Urban Reserve area.

7. Economy

The role of the market is another important factor in Great Communities. Part of the challenge in land use planning is to provide for a sufficient supply of land to meet regional needs while maintaining the quality of life that keeps the region a desirable place to live. To ignore the market is as inappropriate as would allowing the market to be the sole determinant of urbanization decisions. The basic question is whether the addition of land to a specific economic sector would add to the economic vitality of the region by supporting existing and potential future business clusters and niches at a regional and/or subregional level. For example, leaders in the cities of Forest Grove and Cornelius have expressed the opinion that an addition of land for commercial or industrial development will help make their communities more complete. How this possible addition to their communities relates to the economic market of Washington County should be evaluated prior to consideration of expansion of the UGB. For example, there is some likelihood that satellite firms associated with the high tech industry in Hillsboro may find the Forest Grove/Cornelius area attractive.

8. Education and Workforce Development

Although schools are increasingly a defining element of how citizens relate to their communities, a K-12 school district's ability to accommodate projected growth has not been well integrated into the urbanization decision-making process. To insure that sufficient land for future school sites is available, some districts are speculating on land outside the UGB, not taking into consideration other infrastructure and land use planning efforts of other jurisdictions. Additionally, post-secondary educational facilities are important to creating and maintaining skilled workforces. The needs of both should be considered when making urbanization decisions. For example, Forest Grove and Hillsboro school districts are ready and willing to accommodate the influx of new students urbanization would create. Each has speculatively bought land just outside the UGB to prepare for the expansion they believe is inevitable. The Forest Grove School District has even prepared a detailed facilities plan that includes the test area as their preferred expansion area. The region should consider utilizing school population projections as building blocks in identifying the appropriate amount of land to include in a UGB expansion.

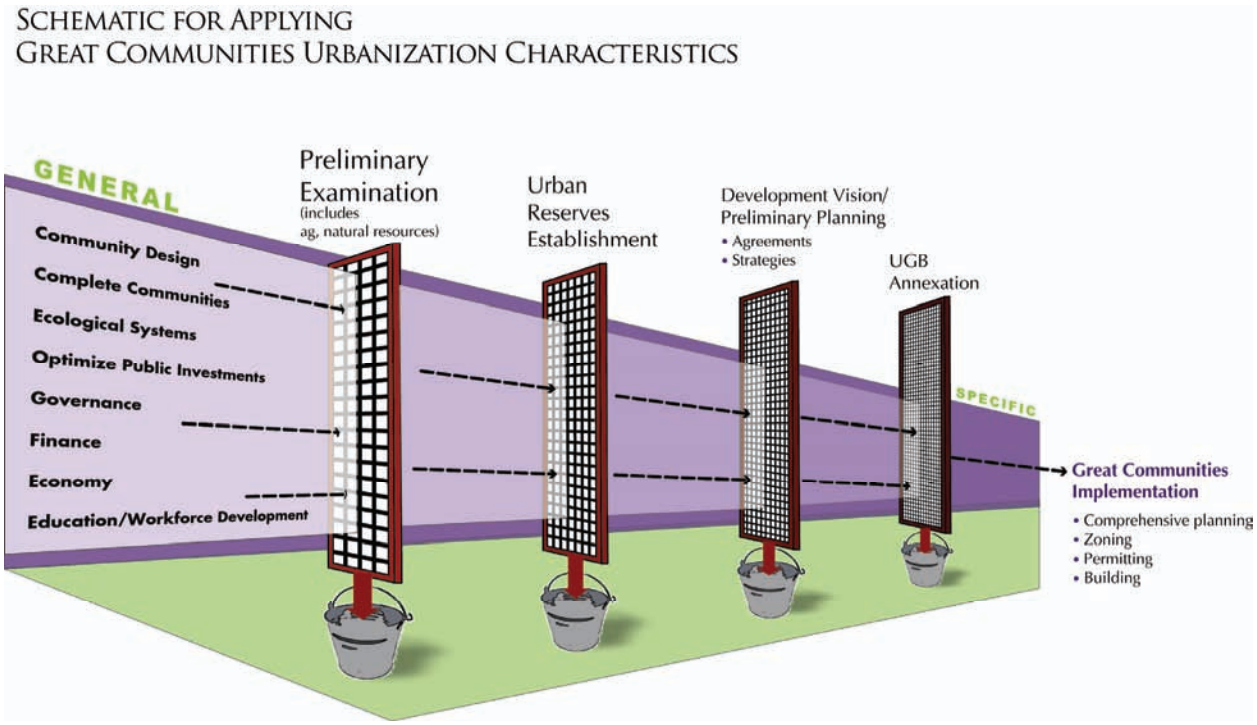
Upon reviewing the consultant's recommendations, the Advisory Panel and the Ag/Urban Coordinating Committee (AUCC) agreed that these were the eight most important driving characteristics for a Great Community.

Scale of Characteristic Application

The consulting team and Advisory Panel concluded that while all the final eight characteristics are likely to be important in making urbanization decisions that would lead to Great Communities, considering a temporal and changing geographic scale, not all should be applied in the same way. To illustrate this concept, the team developed a conceptual diagram that shows how potential areas would pass through a screening process using the eight characteristics at four spatial and temporal levels:

1. Preliminary examination
2. Urban reserves
3. Concept-type planning
4. UGB annexation/implementation

In other words, while the eight characteristics are significant enough to be considered while adding lands to the Urban Growth Boundary to increase the likelihood that newly annexed lands will develop into "Great Communities" over time, their application will vary at different scales and over time periods. Some will be most helpful when making decisions about large areas that should be considered for urban reserves while others may assist when considering specific UGB additions. Levels of decision-making and agreements also will vary over time.



Using this diagram as a model, an area being considered for urbanization should first need to meet the appropriate level of evaluation for each characteristic at the preliminary examination level. This would be the time to ask the big-picture questions. For example: how would the area meet regional needs according to each characteristic? If the area failed to pass the evaluation at this filter, the analysis about whether it should be brought into the urban reserves would discontinue.

The value of this screening process is that while all eight characteristics are important, not all are relevant at each level. For example, while the ability and willingness of an area to provide excellent educational opportunities is important to consider when making urbanization decisions, the questions asked about

education at the preliminary examination level would be very different from those asked at the point of UGB addition and implementation. At the preliminary level, broader questions such as, are there quality schools nearby, and can the school district expand to accommodate growth, would be appropriate. On the other hand, when a specific area is being considered for inclusion in the UGB, the questions become more focused, such as does the school district have the capacity to accommodate new students today? In a similar vein, optimizing public investment takes on a different level of significance when considering Urban Reserve decisions rather than a UGB revision. In the former, regional capital improvement planning becomes important, whereas in the latter, local capital improvement plans and strategies should be considered.

Detail on Great Community Characteristics

The following section includes the sample criteria, evaluation questions and data needs for evaluating the likelihood of an area to meet the eight characteristics through urbanization. In addition, some limitations the team discovered when testing the characteristics and test areas are listed, along with possible strategies to overcome those limitations. The level of detail provided here is intentionally such that the region can work from this base of experience as it refines any changes to UGB expansion process. A next step would be to refine these questions for each phase of the decision-making process. A matrix of sample question at each scale follows.

1. Community Design

Sample Criteria

Density

- Developable slopes
- Lack of environmental constraints
- Suitable site for center
- Adjacent existing/planned development densities
- Adjacent existing/planned centers
- Ability to support transit

Connectivity

- Walkable terrain, slopes
- Existing/future transit
- Proximity to town center and destinations
- Grid network with small block size
- Sidewalks
- Compatible origins and destinations within appropriate modal distances
- Functional roadway hierarchy to support land use patterns
- Ability to provide a high-level of roadway connectivity within the area and to the greater regional network
- Pedestrian paths and sidewalks that connect residential neighborhoods with transit stops, key commercial/employment areas, schools, and open spaces
- Bicycle lanes on key commuter routes
- Density to accommodate transit

- Transit stops within walking distance of neighborhoods and key commercial/employment centers
- Frequent transit headways on key transit routes
- Potential for future light rail or streetcar
- Well-defined grid network of streets
- Designated routes for local and regional freight movement

Legibility
- Views to natural ordering elements (e.g., Mt. Hood, local rivers, floodplains)
- Presence of, and visual access to significant landmarks
- Ability to create edges to community
- Ability to develop pathway systems through area
- Ability to create districts, nodes or centers
- Ability to create gateways into/out of area

Evaluation Questions

Density
- Are slopes buildable?
- Are there significant environmental barriers to development?
- Is there a developable site large enough to be a center of activity?
- Are adjacent densities (or plans) consistent with urbanization vision?
- Are there adjacent destinations?
- Can the area support densities to provide transit?
- Can parks and recreation be accommodated?

Connectivity
- Are slopes generally less than 6%?
- Is there/are there plans for transit to serve destinations?
- Is there a framework to support a grid network with 200-400 foot block spacing?
- Do sidewalks and paths exist?
- Do roadway connections exist? Could they easily be made to adjacent urbanized areas?
- What is the mix and layout of land uses?
- Are there opportunities to connect land use types via multiple modes of transportation?

Legibility
- Where are the significant landmarks located within the study area?
- What natural features create barriers or logical boundaries?
- What are the identifiable centers and edges? How do you know that you have arrived at or are leaving the study area?
- Are parks, squares, plazas and civic buildings located in areas that help inform the location and quantity of other uses?

Data Needs

Density
- Topographical maps
- Floodplains, wetlands, protected forests
- Property ownership
- Aerials/information on adjacent areas
- Buildable slope thresholds

Connectivity
- Topographical maps
- Transit service plans
- Existing roads and sidewalks
- Zoning and land use maps
- Roadway network, functional classifications, land use
- Roadway network, aerials

Legibility
- Location of historic landmarks, other significant natural features

Limitations
- Topography and other ecological lands for preservation. Preserved natural areas also can be an important part of a good design. Topography may not allow compact development nodes within walking distance of each other
- Some areas have limited ability to support cost effective connectivity (intervening streams, ravines, hills, etc.) that would also make development relatively expensive
- Finding a sub-area suitable for a mixed-use center
- Potential loss of important agricultural lands in areas that are easily developed
- Areas that score high on ability to create density may have low connectivity
- Flat, easily developed areas may encourage chaos and sprawl
- Measure 37 claims/impact

Strategies to Overcome Limitations
- Create a system of mixed-use centers with strong edges to give form to new development
- Focus some new growth areas at freeway interchanges or existing mixed-use nodes
- Limit development to areas easily accessible to existing and new roads
- Focus growth near transit nodes
- Allow for higher density
- Do not develop in areas that have difficult regional access and little opportunity to create good connectivity/walkability within them
- Do not develop on upper slopes, headwater areas
- Find alternative sites to accommodate development lost to areas with poor connectivity in other parts of the region with good connectivity. Such sites could provide a similar complement of land uses, accessibility and natural edges. They also could further reinforce existing and potential public investments and provide a catalyst for the transit extension.
- Limit extent of Measure 37 claims legislatively
- Work with Measure 37 property owners on creative solutions, including transfer of development rights
- Preserve areas as rural that are difficult to connect

2. Complete Communities

Sample Criteria
- The added area must fill a legitimate regional need
- The area can be a discrete community (can finance, govern, etc. without the help of other jurisdictions) and will help fill out, or "complete" an existing community
- Ability to provide affordable housing, accommodate age and income diversity, parks and recreation and a jobs/housing balance

Evaluation Questions

- Can the area support the range of activities essential to a vibrant, full service community?
- Will the area further complete or enhance an existing community?
- Should the area become a new community?

Data Needs

- Topographical maps
- Floodplains, wetlands, protected forests
- Property ownership
- Aerials/information on adjacent areas
- Buildable slope thresholds
- Transit service plans
- Existing roads and sidewalks
- Zoning and land use maps
- Roadway network, functional classifications, land use, aerial photographs
- Survey of local landowners and neighboring jurisdictions
- Concept plan or other information about how newly incorporated land would be developed
- Jobs/housing analysis

Limitations

- The team questions the value of developing new communities disconnected from developed areas. The level of public investment to support the density and connectivity of such a development may be difficult to justify
- Assurance that any new development achieves a balance of uses
- While topography and community design factors may indicate that an area should be added to an existing community, the appropriate jurisdiction may not be open to annexation
- Topography and community design factors may indicate that an area should be a new community, but there may not be any group of people/developer willing to take on the task/financial burden of creating the new community

Strategies to Overcome Limitations

- Careful planning and urban design with the goal of balanced uses
- Active local government to implement the plans
- Involvement of the community from the beginning to create buy-in
- See other strategies for overcoming governance limitations

3. Ecological Systems

Sample Criteria

- Land for new and redevelopment
- Lack of public facilities/infrastructure
- Existing and available water, sewer, electric, telecommunications systems
- Percentage coverage of forest canopy
- Percentage of historic streams, flood plains, intact open spaces
- Buildable south and west-facing slopes
- Ground water temperatures and soil types

- Prevailing winds
- Existing natural and constructed water holding areas

Evaluation Questions

- How is the area, in its existing condition, crucial to ecological systems?
- If developed, can the existing ecological function of the study area be preserved or maintained?
- Is there capacity in the existing infrastructure system to serve future development?
- Is there capacity in the existing ecological system to serve future development?

Data Needs

- Detailed infrastructure plans
- Ecological function data (RLIS)
- Regional ecological data (RLIS)
- Inventories/other research on local/regional ecological assets

Limitations

- Incomplete data/data that is difficult to measure (infrastructure plans, regional ecological and ecological function information)
- It may be difficult to determine the significance of certain areas to the regional ecology, especially for those not typically protected, such as uplands
- Evaluations identifying the carrying capacities of ecosystems and their services are not readily available
- Analysis of ecological data for each new study area may be time-consuming

Strategies to Overcome Limitations

- Utilize opportunities for storm water management, recreation and other ecological infrastructure
- Develop a methodology for integrating existing data and new research into an accurate picture of significant regional ecological systems
- Consider further refining Metro's mapping inventory efforts to include this level of detail

4. Optimize Major Public Investments

Sample Criteria

- Encourage/require infill development first as a threshold for expansion
- Reinforce, build upon existing infrastructure investments

Evaluation Questions

- Does the proposed development reinforce the core area as a vibrant place to live, work and play?
- Will development complete or enhance an existing community?
- Does it take advantage of major regional infrastructure investments?

Data Needs

- Infrastructure facilities
- Aerials/statistics on adjacent areas
- Relationships to developed area

Limitations

- The current plan for regional transit/light rail may not extend to the area

Strategies to Overcome Limitations

- Limit development to areas with existing infrastructure, closest to town centers
- Develop plans for transit service when considering a vision/pre-concept plan for the area
- Create a system of mixed-use centers with strong edges to give form to new development. Use these as a backbone for connecting to major regional public investments.

5. Governance

Sample Criteria

- Can the area be governed?
- Can services be provided to the area?
- Is there a willingness to bring the area into the UGB?

Evaluation questions

- Is there an existing community with a vision for its future?
- Is the area of sufficient size to support its own local government?
- Are providers willing and able to provide services?
- Does some existing city want to annex the area? Do the people who currently live there want to have their properties brought into the UGB?

Data Needs

- Community vision
- Stated desire of property owners to urbanize. Ideally, this would be through a survey or some other measure of their preferences.
- Number of acres per owner. This is to assess the ability of the area (is it large enough?) to provide an adequate tax base and the amount of land assembly needed to provide services.
- Stated ability and willingness of providers to serve the area
- Assessment of the likelihood of annexation if the area is not of sufficient size to form its own city

Limitations

- Annexations may run into opposition
- High cost of service provision
- Unclear which jurisdiction should govern
- Disputes over the area to annex

Strategies to Overcome Limitations

- Hold discussions during the pre-concept planning phase to negotiate the size of area
- Conduct recommended data review
- Assess public and property owners' sentiments
- Develop methods to equalize benefits, impacts
- Draft intergovernmental agreements for service provision, annex area to a nearby city, or do not include the area in the UGB
- Resolve long-term barriers to urban service provision and annexation through legislation, local agreements

6. Finance

Sample Criteria

- Developable slopes
- Integration with adjacent systems
- Ability to expand existing infrastructure
- Stable tax base that doesn't change with recessions
- Taxes that are elastic with costs
- An obvious notion of equity exists
- Tax or charges do not impede the private economy relative to competing areas
- Cross subsidization between existing and new development does not occur
- Taxes are sufficient to cover costs
- Taxes are coupled with other funding mechanisms to achieve affordable tax rates
- Taxes provide obvious benefits
- Benefits of the service exceed the taxes to provide it
- Benefits are in rough proportion to taxes paid
- Tax incidence is roughly proportionate to personal and corporate incomes

Evaluation Questions

- Are there logical roadway connections to adjacent areas?
- Is the existing road network a hierarchical grid network that can be expanded in a cost-effective manner?
- Can other infrastructure, such as sewer and water, be expanded in a cost-effective manner?
- Is there an opportunity to maximize opportunities to fund services in an equitable manner?
- What is the history of tax measures in the area?
- Have there been fluctuations in taxes in recent time?
- Have companies or other entities left the area because of taxation practices?
- Is there any evidence of a willingness or lack of it to provide and pay for services?

Data Needs

- Assessment and taxation information
- Topographical maps
- Road network
- Local and regional sewer and water system
- Record of voting patterns on tax measures
- A logical and affordable financial plan (pro forma)
- A sound forecast of assessed value
- A sound forecast of tax rates and impacts
- Tally of taxes levied in the area, by year
- Financial history of existing service providers
- Assessed value of land by parcel, use, planned use
- Existing rates and charges of existing or potential service providers
- Preliminary design and construction costs for backbone transportation, sewer and water systems

Limitations

- Sloped property lacking water storage systems and pressure lines to get water to reservoirs
- Annexations may run into opposition

- Cities may be responsible for providing main trunk lines for sewer, water, and storm water, but have little funding to do so
- Limitations addressed under governance are also relevant to finance
- Without a financial plan, no public investments can be made to permit private development

Strategies to Overcome Limitations

- Identify water, sewer and storm drainage suppliers through negotiated agreements
- Partner with service providers to install trunk lines. Find a party to finance up-front costs.
- Develop a logical and affordable financial plan/pro forma
- See also strategies addressed under governance

7. Economy

Sample Criteria

- Jobs/housing balance
- Identify existing and potential future clusters and niches
- Growing sectors in the local economy

Evaluation Questions

- Is the area being considered close to a growing economic cluster in the region? Is it likely to be a factor in the expansion of that cluster?
- What are the strengths of the existing local economy? Is there a market for expanding the associated businesses or adding new ones? Are there satellite companies that would benefit from agglomeration that cannot locate near existing businesses because there is not adequate land available?
- Are there transportation constraints to market?
- Is adequate communication infrastructure available?
- Are there potential new niche markets that might grow as a result of adding the land?
- Are there significant economic strengths that will be lost as a result of urbanization?

Data Needs

- Cluster analysis of local economy: Which clusters are strong now? Which are likely to be strong in the future?
- Economic development or other strategic plans for the potential new area and/or for the nearby jurisdictions
- Buildable lands analysis identifying the need for new industrial lands
- Analysis of what is produced on the potential new land prior to adding it to the UGB and its importance to the local economy

Limitations

- It may be unlikely that an area could contribute more to any industry or cluster as part of Metro's UGB
- It may be difficult to assess how an expansion will impact the regional economy; this is especially true of very small inclusions
- Lack of an agreed-upon plan for urbanizing an area
- Some areas may make a strong contribution to the region's economy in an un-urbanized state

Strategies to Overcome Limitations

- If the land is near an existing cluster or sector that is projected to grow, adding industrial or commercial lands nearby could provide the space needed for agglomeration of businesses and growth. On the other hand, if the potential new area does not meet a need for business and job growth, it should not automatically be excluded.
- In areas where there is limited area to accommodate a regional need, cluster development nearest to urban centers. This upholds the community design findings as well.
- Conduct cluster analyses and consult/develop economic development or strategic plans for potential new areas.
- Conduct pre-concept planning for urbanization

8. Education and Workforce Development

Sample Criteria

K-12 Education

- Population and age demographics
- School service area
- School district, capacity, and plans
- Training and apprenticeship opportunities in non-traditional trades and arts
- PTA and/or other active school/civic institutions
- Presence of existing planning, general government, and special district organizations (e.g., CPOs)
- Existing or emerging special interest groups

Higher Education/Training

- Type of training programs that are available to compare to the sectors and clusters that are expected to grow
- Number and location of universities, community colleges, and vocational-technical programs
- Other sources of training programs
- Existence of any plans to build or support new educational opportunities
- Community college and university campus commute time

Evaluation Questions

K-12 Education

- Are there quality schools nearby?
- Who is the provider?
- Can the school district expand to accommodate new growth?
- What resources and networks exist for training in the trades or arts?
- What formal or informal special interest organizations exist or are emerging in the area?

Higher Education/Training

- Are there quality schools nearby that serve the local area?
- Who is the provider?
- What educational programs do they have?
- Do existing or planned programs fill a local workforce need?
- Can the school accommodate new growth?

Data Needs

K-12 Education

- Population forecast
- School district projections
- Overall enrollment vs. capacity numbers for the school districts
- A map of school locations/district boundaries relative to the study area
- Interviews with school districts
- State assessments

Higher Education

- Names and locations of schools
- Interviews with school districts
- Enrollment: where students are traveling from/service area of institution
- Workforce needs (economy)/programs school provides

Limitations

K-12 Education

- Funding and time for acquiring land and designing and building new schools with the new demand urbanization brings
- Availability of land suitable to build on (right size, slope characteristics, etc.)
- If the school is not able to keep up with increasing population growth and increased likelihood of future growth with urbanization, this could compromise the quality of local education
- Although some schools have long-range plans that include projections and strategies to meet future demand from population growth within the current UGB, they do not include speculative projections about future UGB expansions. For these reasons, it may be especially difficult to find the resources to meet the increased need with urbanization

Higher Education

- It is difficult to assess how higher education institutions serve local areas
- Because higher education institutions may not focus on the local area, it is difficult to assess the likely impact of UGB expansions directly

Strategies to Overcome Limitations

K-12 Education

- Set aside land for new schools when the UGB expands
- Help school districts come up with funding strategies that are proactive, rather than reactive. Currently, they must be able to garner political will to get bond levies passed, so it is inherently difficult to plan ahead for funding needs for growth they project they will have, let alone UGB expansions that they cannot predict.
- Make sure the timing is right to meet expansion needs
- Provide the funding necessary to ensure schools are built/upgraded at the right time with urbanization

Higher Education

- Find reliable data sources
- Assess higher education and workforce development as a factor of economic success

Sample Questions for Each Characteristic at Four Spatial/Temporal Scales

The purpose of the following matrix is to help determine whether or not a given area is likely to become a Great Community with urbanization. It expands upon the spatial/temporal diagram by delineating which questions might be asked about each characteristic at each level.

Sample Questions for Each Characteristic at Four Spatial/Temporal Scales

Characteristic	Preliminary Analysis	Urban Reserves	Concept-type Planning	UGB Expansion/ Implementation
1. Community Design	■ Can Great Community densities be achieved for development, recreation and active living? ■ Does the area "fit" within the natural landscape? Is there a sense of legibility, recognition, from both within and outside of the site? ■ Can the area be well connected from a transportation perspective to surrounding areas and linked by transit to the region?	■ What are the 2040 design type building blocks expected for the area? ■ What is needed to connect transportation and transit to the area?	■ How much density (residential and employment) is expected? ■ How will density, legibility and connectivity be satisfied? ■ Can Title II criteria be met?	■ Will adequate design standards be in place?
2. Complete Communities	■ What benefits would inclusion of the area produce for the region? ■ What need is satisfied? ■ Does the location recognize agricultural and natural features?	■ Are existing urban areas sufficiently developed? ■ How would the addition complete and not negatively impact existing areas? ■ What mitigation would be needed?	■ Will this create new urban centers? ■ Can social and economic diversity be addressed? ■ Are there competing areas of higher priority/readiness for expansion/annexation?	■ Is there a regional need for a particular type of housing, jobs or recreational amenities that is not being met? If so, can the area accommodate it? ■ How will a range of housing types (affordability) be accomplished?
3. Governance	■ Can urban services be provided over time? ■ Is there community support for inclusion of the area?	■ What governance structures are needed to manage long-term growth and development of the area?	■ How will intergovernmental coordination be implemented? ■ Who are the providers for each service, including education, parks, recreation, and libraries?	■ Are all needed intergovernmental agreements in place? ■ Who will be the overall coordinating entity?

Characteristic	Preliminary Analysis	Urban Reserves	Concept-type Planning	UGB expansion/ Implementation
4. Finance	■ What capital schemes could be developed to finance development of the area? ■ What is the relationship to governance?	■ What will the public sector do to attract private development? ■ What infrastructure investments are needed and how will they be financed?	■ What kinds of public/private partnerships and incentives are needed? ■ What is the rate of return and over how long a time period on public and private investments? ■ What can the public sector add to induce private investment?	■ Will finances be stable over time and meet needs? ■ What agreements are in place to provide and pay for services? ■ What public investments are needed to achieve Great Community goals (connectivity, affordability)?
5. Economy	■ Is the area appropriate to satisfy an economic need to support existing and emerging economic clusters? ■ How will an expansion of the UGB enhance the region's position in the global market?	■ Are there environmental and economic justice impacts to be considered? ■ How much employment land is needed and for what types of industries? ■ How will productive resource lands adjacent to urban reserves be protected?	■ How will the jobs/housing balance be met? ■ What employment lands are anticipated?	■ To what extent does the expansion strengthen the local area and regional economy, and support existing or emerging clusters?
6. Education and Workforce Development	■ Who are the regional providers of education (K-12 and higher education)? ■ What are their concerns?	■ Are the providers interested in extending services? ■ Are there sufficient large parcels for location of schools, colleges?	■ What providers will accommodate demand?	■ Who will accommodate educational demand and workforce training? ■ How can schools help shape the area included in the UGB?
7. Optimize Regional Public Investments	■ What significant regional infrastructure (including "greenfrastructure") investments are in place or needed?	■ Where are the areas for the most logical extensions of public services? ■ Who would be the providers?	■ How will the proposed expansion take advantage of major regional infrastructure investments?	■ Does the area optimize regional public investments?
8. Ecological Systems	■ What significant ecological systems are in place? ■ Is there capacity in the existing infrastructure system to serve future development?	■ Are locations connected to an ecological system, e.g., drainage basin? ■ How will these systems be preserved?	■ If developed, can the existing ecological function of the study area be preserved or maintained?	■ How will ecological systems be preserved? ■ What innovative/sustainable infrastructure techniques can be employed?

Lessons Learned from Applying the Characteristics

At least some degree of professional judgment was required to apply the characteristics to the test areas. At issue here is the ability of researchers to reconcile the theoretical—the characteristics that make a community great—with the practical—the region's decision-making process for expanding the UGB. While data and analysis can move us toward answers about the likelihood that an area will become a Great Community if it is urbanized, it is simply not possible to determine with certainty, even given perfect information. While analysis and data about these characteristics provide a foundation for decisions, some amount of professional judgment was required on the part of the consultant team, and will likely be required of the region if it uses these characteristics to make UGB decisions.

Having jurisdictional participation in the analysis was important to the success the application of the characteristics. At the test area work sessions held in September, representatives of the counties and cities surrounding the test areas presented their thoughts about how they might go about urbanizing the test areas once included in the UGB. These work sessions were extremely useful. During the sessions, the consultant team learned (among other important lessons) that there is no clear leadership for urbanization projects in the Northwest Hills test area, while in Cornelius and Forest Grove, preliminary concept plans were created that address many of the characteristics with which this study is concerned.
The advantages:

- Directly involves jurisdictions in the process from the beginning of making urbanization decisions.
- Gives jurisdictions the responsibility to advocate for the inclusion of particular areas. If no jurisdiction is willing to advocate for the inclusion of an area, it might not be the best place to expand the UGB.
- Gives Metro and the region a chance to ask questions about plans for urbanization and gain an understanding of the degree of enthusiasm and readiness for change in the process.

The characteristics can be used to make urban reserve decisions. The team feels that an analysis of the characteristics defined in this research is a useful addition to the region's decision-making toolkit regarding what land to designate as an urban reserve.

The characteristics provide a useful framework for annexation and incorporation decisions, but a more thoroughly-considered methodology is needed for this purpose. A complete methodology would need to go beyond analysis related to the characteristics that this research considers. At a minimum, the methodology should:

- Consider current annexation and incorporation laws.
- Describe exactly how stakeholders (including the public and local leaders) would be included in the decision-making process.
- Describe how data and analysis related to the characteristics would be incorporated into decision making processes.

While the characteristics in this research have limitations as applied to urbanization decisions, the team is reasonably confident that they are the right characteristics. By "right," the team simply means that together they capture the essence of the future development pattern that the region wants in its urban areas. All of the people involved in this research—from the consultant team to the Advisory Panel (experts in land use, finance, governance and development from around the country)—generally agree that these characteristics can be used to improve decision-making around UGB expansion.

The final list of characteristics must be limited to those practical for use in UGB expansion decisions. The initial list of characteristics produced in Phase I of this project was intentionally broad and too general for use in the UGB expansion process. Through a rigorous process, the team shortened a lengthy list of characteristics to just those that might reasonably be measured and applied.

The characteristics are not equally important in every community and in every stage of an urbanization decision. The team found that some characteristics were so important that they should be considered first, including governance, finance and density. If, for example, there is no jurisdiction willing or able to provide urban-level services to an area, that area should not be designated as an urban reserve nor brought into the UGB.

What gets built on the ground is heavily influenced by the ability of communities to finance public infrastructure improvements, and by the ability of developers to finance high-quality development. One way to address this is to make available "patient capital," which is capital that does not require an immediate return. This concept is described in *The Need for Patient Equity in Creating Great Places* by Christopher B. Lineberger, University of Michigan. The idea of value-latching introduced in Lineberger's article could be an important concept to explore, or at least introduce in this research, as it would be an incentive for developers to carry out the steps necessary for creating Great Communities.

The use of 2040 design types and strong urban design standards are critical inside the boundary. In addition, the use of phasing can help insure infrastructure and development are appropriately timed.

Recommendations

- Integrate the eight Great Communities characteristics into the region's urbanization decision-making processes and included in the Statewide Planning Program, Metro's Regional Framework Plan and local government initiatives.

- Undertake a greater level of planning prior to all urbanization decisions, from the designation of urban reserves to the inclusion of areas inside the UGB. This type of planning is intended to balance urban, natural resources and agricultural and forest interests early in the process. It also provides for the creation of a vision for an area and certainty for urban service providers, local governments, property owners and developers. Transferable development rights and other tools to increase the shared benefits of urbanization should continue to be explored.

- Develop a 50-year capital improvement plan for regional facilities to facilitate the pre-planning integral to the development of Great Communities. Public facilities that are most land intensive and likely to vary in cost among geographic areas are transportation, sewer, water, storm drainage and transit. Other services such as police, fire, social services and libraries use insignificant amounts of land and can be placed in a variety of locations within an urban area.

- Institute regional financing to provide the backbone to accommodate future growth and development in an efficient and cost-effective manner. This should be comprehensive and address all the major development needs from land assembly and other investment assistance for infrastructure and other services.

- Inform the public and private sectors on the desired Great Communities characteristics and incentives and barriers. Focus on the opportunities for public-private partnerships to address the essential needs of infrastructure development and financing to develop and redevelop Great Communities over time.