



STATE OF FLORIDA

DEPARTMENT OF COMMUNITY AFFAIRS

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Secretary

July 28, 2003

Mr. Lorenzo Aghemo, Planning Director
Palm Beach County
100 Australian Avenue
West Palm Beach, Florida 33406

Dear Mr. Aghemo:

The Department has completed its review of Palm Beach County's proposed population projections and related methodology as submitted to the Department on May 28, 2003. Pursuant to Rule 9J-5.005(2)(e)2, Florida Administrative Code (F.A.C.), the Department must determine if the methodology is professionally acceptable within 60 days and advise the local government of its findings. The Department concludes that the County's methodology will require modification in order to be deemed "professionally acceptable." While we have concerns regarding the application of the Logistic Model, we support the County's fundamental approach in forecasting population growth based on land use constraints and would consider this approach as professionally acceptable with some adjustments as further discussed in this letter.

Rule 9J-5.005(2)(e), F.A.C., states that the comprehensive plan shall be based upon resident and seasonal population estimates and projections and that such projections "...shall be either those provided by University of Florida, Bureau of Economic and Business Research, those provided by the Executive Office of the Governor, or shall be generated by the local government." Rule 9J-5.005(2)(e)1., F.A.C., further states that if a local government chooses to prepare its own population projections, it shall submit the projections and a description of the methodologies utilized to generate the projections to the Department at the time the plan is due for compliance review or may submit in advance of compliance review. Palm Beach County elected to prepare its own population projections and submit the projections for review in advance of any plan amendments that would rely on the projections. Pursuant to Rule 9J-5.005(2)(e)2, F.A.C., the Department must "evaluate the application of the methodology utilized by a local government...and determine if the particular methodology is professionally accepted."

In conducting its review of the County's proposed methodology, the Department contracted with Dr. Stan Smith at the University of Florida to provide technical assistance to the Department. Dr. Smith is the director of the Bureau of Economic and Business Research (BEBR) and is eminently qualified as an expert in demography. He has substantial experience in studying Florida's demographic trends and in providing population projections for Florida counties. The Department's findings are based in part on Dr. Smith's conclusions regarding the

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proposed methodology. Dr. Smith's report is attached for your review and provides more detailed explanations regarding some of the concerns addressed in the Department's findings. The Department also considered written comments provided by interested parties.

The proposed methodology incorporates three key components. The Logistic method is used to project population for the East County, while simple Linear Regression is used to project population for the West County. In addition, the methodology incorporates a land use component that constrains growth based on the maximum densities allowed by the County's comprehensive plan and the comprehensive plans of the cities within Palm Beach County. The land use component is particularly important in the way that the projections work because the land use constraints define the asymptote, or maximum build-out population, that is used in the Logistic model, which in turn determines the growth rate for East County. Therefore, the assumptions used in the land use component are particularly critical to the reasonableness and professional acceptability of the projections. The following review addresses the use of the Logistic method for East County, the Linear Regression method for West County and the assumptions used in the land use component portion of the methodology.

Rule 9J-5.005(2)(e)2, F.A.C., states that the Department shall provide a guide to local governments to assist in the preparation of population projections and to provide examples of professionally accepted methodologies. The Department prepared a guide, Population Estimation and Projections Techniques, dated December 1986. The guidebook recognizes the use of the Logistic method as a professionally accepted methodology. However, in determining whether the population projections for a local government are professionally acceptable, the Department is required, pursuant to Rule 9J-5.005(2)(e)2., F.A.C., to review the specific application of the particular methodology and determine whether it is appropriate for the particular context of that local government. For example, the guidebook recognizes that a number of extrapolation techniques are acceptable including exponential curves. While the exponential method is considered a professionally accepted methodology, it would be professionally unacceptable to apply the exponential model for a local government that has exhibited linear growth or no growth. Thus, the Department's review must consider the application of the methodology to the context of the local government in determining its professional acceptability.

Logistic Model

The Logistic Method does not appear to be appropriate for use in Palm Beach County, given the historical growth rates of the County. The Logistic method is designed to account for growth that follows an S-shaped curve. The model is appropriate in situations where growth first increases slowly, then shifts to a period of more rapid growth, then shifts again as absolute changes in growth decline and the community approaches a maximum population threshold. In applying the method, the County has not demonstrated that historical growth has followed this

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pattern. Rather, the base period used actually incorporates BEBR projections from 2003 to 2010 in order to show a shift or decline in the growth rate. The historical growth rate indicates linear growth and does not evidence a second shift and consistent decline in growth. The methodology should demonstrate that historic growth trends exhibit a recent decline in growth that provides a good fit in comparing changes in the actual growth rate to changes modeled by the Logistic curve.

The County's use of the Logistic model is essentially predicated on an anticipated shift or decline in growth rather than an existing trend. This shift is anticipated as a result of the County implementing land use policy that would maintain the unincorporated Future Land Use Map in its current status without further amendments to increase maximum density. Similarly, the method is based on the assumption that incorporated areas would also develop according to the adopted future land use maps with no further density increases through map amendments. In this regard, the Logistic method is not used as a predictive model for growth, but instead simply interpolates or establishes the growth rate based on the asymptote (upper limit or build out threshold) that is determined as a result of the land use policy. This approach differs from the typical application of the Logistic method where the upper limit is derived from the actual data. In effect, the County's forecast is not based on the function of the Logistic model, but rather the outcomes that are anticipated from land use policy. Therefore, the Logistic model should not be used unless further analysis can demonstrate that growth has followed an S-shaped curve and that a reasonable upper limit can be derived using the model rather than imposing a cap.

Land Use Component

While the Department has concerns regarding the applicability of the Logistic model based on the County's historic growth pattern, this does not mean that the County's fundamental approach in recognizing land use constraints is inappropriate or professionally unacceptable. The Department recognizes local government policy discretion to limit urbanization and maintain the character and function of agricultural and rural lands. Local governments are not required to convert agricultural lands based solely on population trends without consideration for other planning objectives and needs recognized by Chapter 163, Florida Statutes and in local government comprehensive plans. This discretion is recognized in Section 163.3177(11), F.S., that states:

- (a) The Legislature recognizes the need for innovative planning and development strategies which will address the anticipated demands of continued urbanization of Florida's coastal and other environmentally sensitive areas, and which will accommodate the development of less populated regions of the state which seek economic development and which have suitable land and water resources to accommodate growth in an environmentally acceptable manner. The Legislature further recognizes the

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substantial advantages of innovative approaches to development which may better serve to protect environmentally sensitive areas, maintain the economic viability of agricultural and other predominantly rural land uses, and provide for the cost-efficient delivery of public facilities and services.

(b) It is the intent of the Legislature that the local government comprehensive plans and plan amendments adopted pursuant to the provisions of this part provide for a planning process which allows for land use efficiencies within existing urban areas and which also allows for the conversion of rural lands to other uses, **where appropriate and consistent with the other provisions of this part and the affected local comprehensive plans, through the application of innovative and flexible planning and development strategies and creative land use planning techniques, which may include, but not be limited to, urban villages, new towns, satellite communities, area-based allocations, clustering and open space provisions, mixed-use development, and sector planning.**

The statute clearly recognizes that protecting agricultural and rural lands is a legitimate public purpose and that local governments are not compelled to authorize unlimited or unchecked urbanization simply to accommodate past growth trends resulting from rapid urbanization. Rather, the statute recognizes that local governments may adopt innovative means to control and limit urbanization and protect rural lands, including such measures as sector plans and clustering, which Palm Beach County has embraced. The Department also recognizes the County's use of Planning Tiers as an innovative planning approach that provides for a balance between urban and rural uses and the separation of those uses, which is also consistent with the intent of the statute and Rule 9J-5, F.A.C., as a means of controlling urban sprawl. Moreover, limits on urbanization also serve to protect environmentally sensitive lands. In the case of Palm Beach County, limits on urbanization ensure further protection of the Everglades by limiting potential water demands from urban uses that compete with natural resource needs.

Section 163.3177(6)(a), Florida Statutes, also recognizes that the future land use plan should be based on a number of factors, including not just population projections, but also the character of undeveloped land, availability of public services and other planning objectives. This provision recognizes that rural communities should not be restricted from developing based solely on past growth trends that result in low growth population projections. The Department recognizes the same discretion for urban communities that seek to modify high growth trends and resulting population projections through land use policies that are based on legitimate public purposes and planning objectives. Thus, the Department supports Palm Beach County's use of land use policy as a means to produce population projections that constrain urbanization and resulting population growth.

While the Department supports the County's use of land use constraints as a basis for projecting population, several assumptions relied upon in the land use component warrant further analysis. These relate to potential annexations, redevelopment of underdeveloped lands (not developed to the maximum density allowed by comprehensive plans) within the unincorporated and incorporated areas, potential densification amendments within municipalities and the ability of the County to sustain the current policy of no further land use amendments in the unincorporated areas.

Annexations

The model assumes no further annexations that would result in land use amendments and increased densities on the annexed parcels. Department staff has studied the "planned" annexations as provided by County staff who extracted this information from municipal comprehensive plans. These areas are mostly developed with established single-family development patterns. Therefore, the Department concludes that annexation amendments for these lands would not pose a significant potential for increased density due to the difficulty of redeveloping developed, platted single-family areas at higher densities. However, the County should provide further analyses of these lands to confirm the Department's assessment. Department staff has also studied other adjacent unincorporated lands to assess the potential for annexation. It appears the potential exists for annexations to a limited extent in the northern portion of the County, but perhaps with a higher potential in the central and southern portions of the County. It appears annexation could potentially occur in the area of the Agricultural Reserve district where agricultural lands could be urbanized. It is likely the area would develop as low-density single family, if annexed, based on the established development patterns nearby, but additional analysis of this area should be conducted. Similarly, the central area west of Royal Palm Beach, including the Groves, Acreage and surrounding lands that could also be annexed. It is also likely this area would develop as low-density single family, if annexed, based on the established development patterns nearby, but additional analysis of this area should be conducted.

The analysis should evaluate the potential for annexation based on past annexation trends, established development patterns and the likelihood of annexation and urbanization based on the cost of providing urban services and facilities. Adjustments to the holding capacity of these areas should be incorporated based on the maximum density expected to occur for those areas projected to have a reasonable potential for annexation.

Redevelopment

The County's model assumes vacant lands will develop to the maximum allowed by the comprehensive plans, but the supporting analysis does not evaluate the extent of underdeveloped

lands that exist within unincorporated areas and within the municipalities. The analysis should document the extent of these lands and evaluate how much additional population growth would be expected if these lands were redeveloped to the maximum density allowed by the controlling comprehensive plans. The analysis should assess whether redevelopment potential exists based on past redevelopment trends, existing development patterns and other market considerations. For example, established single-family neighborhoods may not be projected to redevelop during the planning timeframe due to the difficulty of replatting. However, blighted single-family areas that would be eligible for CRA designations may have such potential. Underdeveloped multifamily sites and mixed use sites with development potential may also have potential for redevelopment and should be evaluated.

It should also be recognized that as constraints to urbanization are enforced at the urban edge, the potential and pressure for redevelopment should be expected to intensify within existing urban areas. Therefore, the analysis should also examine whether land use amendments are likely to occur within urban areas, particularly in eastern cities where higher densities have historically developed. Additional intergovernmental coordination should occur with these cities to explore the potential for such densification and to develop a reasonable method for forecasting such redevelopment based on agreed upon indicators, such as past redevelopment trends, recent growth rates, existing development patterns, blighted conditions, infrastructure capacity, and other market factors.

The extent of past plan amendments should also be reviewed. Department staff reviewed large-scale plan amendments adopted within the municipalities of Palm Beach County during the past three-year period. These amendments resulted in a net increase in the maximum density allowed on the effected parcels which equated to about 1,000 dwelling units per year and a future population increase of potentially over 2,300 persons per year. If these trends were to continue at that rate, the resulting population could increase by some 70,000 in the urban area by 2030 if the density was actually achieved. While not all parcels would likely achieve the maximum, further assessment of this potential is necessary. It should be noted that this evaluation did not include an assessment of small-scale amendments that occur frequently within the cities and result in significant density increases.

Finally, the Department recognizes that the County's assumptions regarding persons per household and proportion of seasonal units are consistent with the current trend. However, the lack of an established trend should not preclude the County from considering further adjustments to these variables. Given that the County is forecasting a revised trend for overall housing growth in the East based on its land use policy, the implications of the land use policy should also be recognized. While the extent of any changes to these two variables is clearly debatable, a conservative approach to avoid underestimating countywide growth would suggest some adjustment to account for this change.

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County Policy

It must also be recognized that the current County policy to disallow land use amendments for urbanization could change in the future. Philosophical changes occurring over time on the Board of County Commissioners could result in a change to allow urbanization in the future. Thus, the accuracy of the land use-based approach depends greatly on the ability of the County to maintain the current policies set forth in the comprehensive plan. If the plan were amended in the future to allow further urbanization, then the resulting population would exceed the proposed projections that are based on current future land use designations. If such changes in policy were to occur, the County would need to modify the population projections to reflect the shift in the policy. This would correct the population projection, but the previous projections would have underestimated growth and potentially result in a shortfall or deficit in planned infrastructure to support the population. While this concern does not preclude the County from using a land use-based approach, it underscores the need to ensure other aspects of the methodology, such as annexation and redevelopment, are fully evaluated. It also suggests that the County should be somewhat conservative and build in some additional increment of growth as a prudent planning measure.

Linear Projection for West County

The County has projected very limited growth of only 32 persons per year to continue in the Glades area. This projection does not take into account the “spillover” effects that are likely to occur if the County effectively enforces its policy against further urbanization at the urban edge of the East County. Again, it must be recognized that regional economic factors, or push-pull factors, will continue to attract net migration to the south Florida region. As demand continues and urban land supply dwindles, spillover effects can be expected as the migrating population seeks alternative locations for housing. While some of this spillover has and will continue to occur to the north in St. Lucie County, the relative attractiveness of the Glades area can be expected to increase. Thus, further adjustment should be made to the Glades projections. Although a trend does not yet exist for this adjustment, the same is true for the adjustment the County is making to the East County. Therefore, the County should recognize the implication of its urban policy and make appropriate adjustments in the countywide projection to account for some additional growth in the Glades.

Conclusion

At this point, the Department cannot accept the County’s population projections and methodology as professionally acceptable. However, we believe that the County’s land use-based approach could be deemed professionally acceptable, provided that the assumptions are re-evaluated and the population projections adjusted to account for the concerns discussed herein. In considering our concerns, please refer to the attached report from Dr. Smith that further Mr. Aghemo

elaborates on some of these points. The Department recommends that the County reconsider whether to use the Logistic method in preparing its population projections. This method would not be considered appropriate unless the County can demonstrate that the historical data fit the basic form of the Logistic curve. If the County would like to test whether this is possible, Department staff would be pleased to assist in that effort. Our consultant has advised us of software that can be used to run Logistic Regression in a manner that would allow the Logistic function to determine the upper limit based on the historical data series. If the County is interested in pursuing this option, we will assist in that effort. Otherwise, we recommend that the County work on refinements to the land use approach to resolve the concerns related to the key assumptions.

Interested parties have expressed concerns about the implications of lower projections in regard to countywide infrastructure planning, water supply and school planning. Similarly, County staff have expressed concerns about how higher projections would affect planning in the cities and how population projections could be disaggregated into Traffic Analysis Zones, particularly if the projections build in projected land use amendments for the cities. Both of these concerns underscore the need for enhanced intergovernmental coordination as part of the planning process and in the development of the population projections. While we recognize that the County initiated such coordination with the cities last year and has continued to seek input, workgroup meetings may be necessary with many of the cities to evaluate the potential redevelopment patterns that could occur in the cities over the planning period.

If the Department ultimately accepts refined County population projections based on revised assumptions as previously discussed, further modifications to the County and cities' plans may be warranted to address infrastructure planning, water supply and school planning. It has been suggested that the population projections are inconsistent with existing plan, and therefore, should be deemed unacceptable by the Department for that reason. The Department does not concur with this view, but rather recognizes that planning efforts that are dependent on population projections must be revisited and modified as appropriate each time population projections are refined. This is necessary whether the local government relies on BEBR mid-range projections or chooses to develop its own projections.

The Department appreciates the efforts of the County to protect its agricultural and rural lands, and we recognize the significant work that has occurred to date in developing the database necessary to implement the land use component of the projections. We also appreciate the cooperative approach of County staff in working with our staff prior to submitting the projections and as our staff proceeded with the review of the projections. We look forward to continuing this cooperative approach in working through the remaining issues so that we may then accept the County's methodology and resulting projections. Our staff will contact you to arrange for meetings in the near future so that we may further discuss our findings and assist the

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County in responding to our concerns. If you have any questions regarding our findings or the process, please contact Ken Metcalf, Regional Planning Administrator, at (850) 487-4545.

Very truly yours,

Charles Gauthier, AICP, Chief
Office of Comprehensive Planning

Enclosure

CC: The Honorable Karen Marcus, Chair, Board Of County Commissioners
Skeet Jernigan, President, Community and Economic Development Council
Patricia Lebow, Chairwoman, Economic Council of Palm Beach
Ron Hyman, President, Gold Coast Builders Association
James Titcomb, Executive Director, Palm Beach County League of Cities, Inc.
Robert P. Diffenderfer (Lewis, Longman & Walker, P.A.)
Dr. John McHenry, Demographic Data for Decision Making, Inc.
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