MARYLAND

BRAC

EXECUTIVE SUMMARY

SUBMITTED BY

MDP

Maryland Department of Planning

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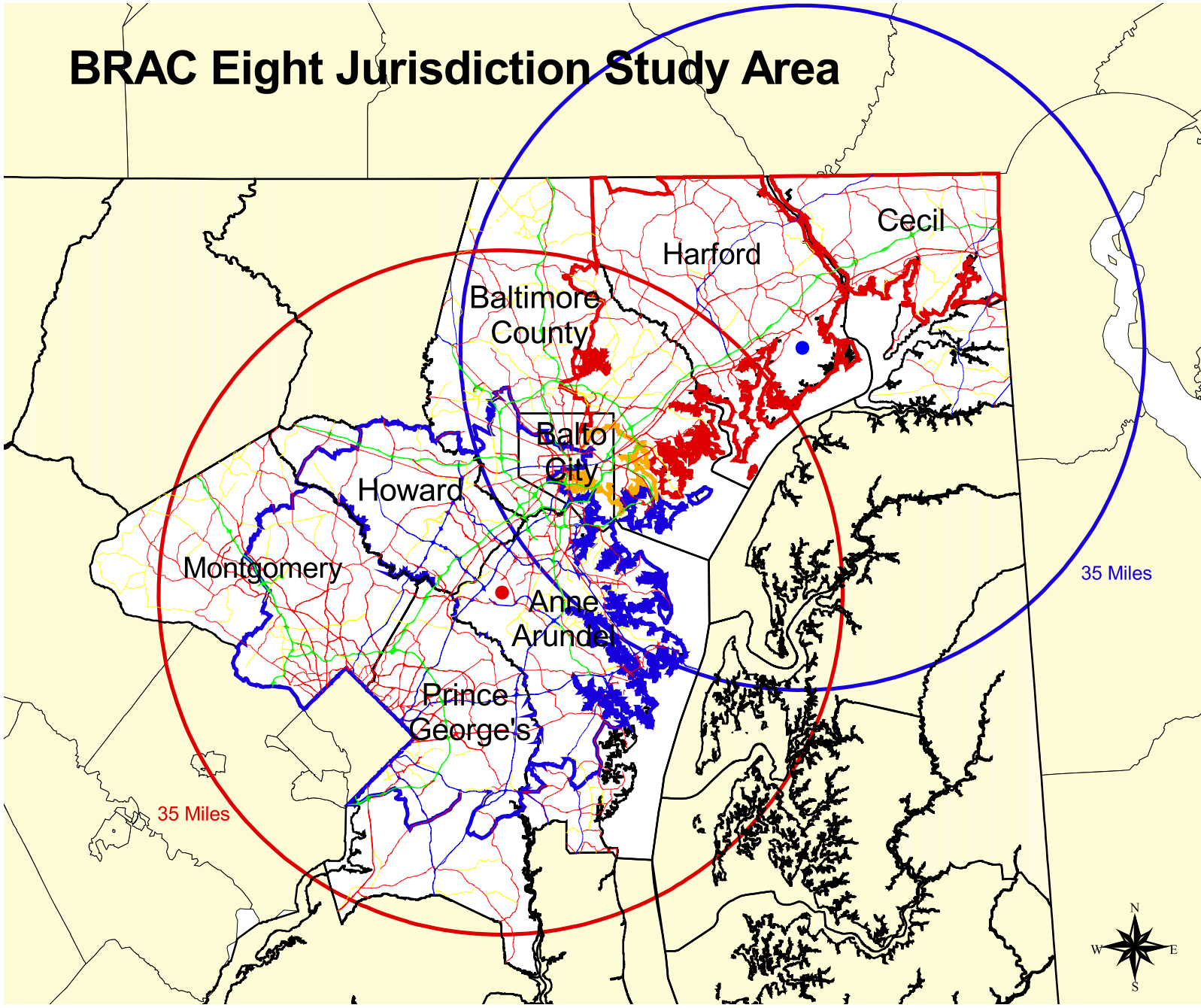
BRAC Eight Jurisdiction Study Area



Legend

Jurisdictions In Study Area

Jurisdictions Outside Study Area

BRAC Installations

Aberdeen Proving Ground (APG) and 35 Mile Distance Ring

Ft Meade (FTM) and 35 Mile Distance Ring

TZ Commute Sheds around APG and Ft. Meade Study Area

APG 45-Minute Commute

BOTH 45-Minute Commute, APG & FTM

FTM 45-Minute Commute

20 0 20 40 Miles

NOTE ON REPORT COVERAGE

Report Coverage

This report covers the impact from those jobs and associated household changes specifically tied into the Base Realignment and Closure (BRAC) Commission recommendations that became law in November 2005. The impacted bases in Maryland covered in this report include Aberdeen Proving Ground in Harford County, Andrews Air Force Base in Prince George's County, National Naval Medical Center in Montgomery County and Fort George G. Meade in Anne Arundel County.

It should be noted that this report does **NOT** cover additional job growth and associated households resulting from expansion of the National Security Agency (NSA) at Fort George G. Meade. It has been reported that beginning in 2004 the NSA has been adding 1,500 new jobs each year, and will have added a total of 7,500 jobs by the end of 2008.

I. INTRODUCTION

This report examines the growth impacts associated with BRAC-related employment changes at each of the following military installations:

- Aberdeen Proving Ground
- Fort Meade
- National Naval Medical Center
- Andrews Air Force Base

The study area for this report is the City of Baltimore and the following counties that are directly and indirectly impacted by the influx of BRAC related workers: Harford, Cecil, Baltimore, Anne Arundel, Howard, Prince George's and Montgomery. The analysis incorporates the employment projections reported by SAIC and the likely residence of BRAC-related workers (including indirect and induced workers) as reported by RESI of Towson University. The potential impacts of these projections are reviewed from several perspectives:

- housing supply and demand;
- water and sewer;
- power;
- fiber optic;
- transportation; and
- school impacts.

This report also includes a housing evaluation of each of the above-listed jurisdictions. This evaluation utilizes the employment projections and allocations from previous tasks, together with the income expectations that are associated with each employment segment, to determine the estimate of new household demand by jurisdiction and income grouping. Using this projected household demand, the analysis evaluates the capacity of each jurisdiction's existing and projected housing inventory to satisfy the expected demand.

Also included in this report are K-12 public and private school surveys in the eight-jurisdiction study area. For public schools, this survey includes the current capacity, future enrollments and individual school performance measures. For private schools, type of school and current enrollment information is listed.

II. EXECUTIVE SUMMARY

A. Key Findings

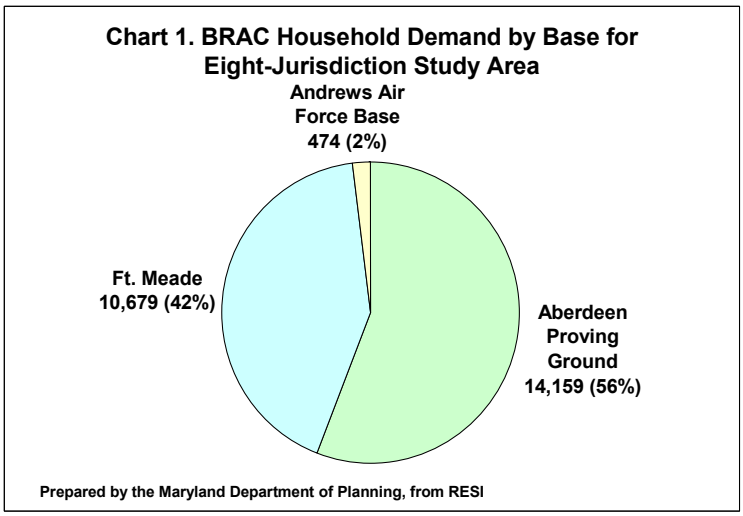
•Overall, the growth due to BRAC will increase development pressures in several jurisdictions in the context of what are already fairly high growth rates across much of the Baltimore-Washington, D.C. metropolitan area. These growth pressures will be strongest in Harford and Cecil counties based on an analysis of BRAC demand and anticipated supply of both new and existing housing units available to all in-migrants over the 2009 to 2015 time period, the seven-year period when BRAC housing demand is expected to be strongest.

•In light of the BRAC growth, many jurisdictions will need to take significant steps now to enable their growth areas (i.e., Priority Funding Areas (PFAs) and areas served by sewer and water, existing or soon to be served) to accommodate more development capacity (upzoning, providing infrastructure and public services, etc.). In addition, some jurisdictions need to take actions now to better protect their rural areas, principally due to weak rural zoning, given the anticipated additional development pressures from BRAC-related growth. Otherwise these areas could see faster build out of their Priority Funding Areas with increased development pressure spilling out to the remaining rural lands.

B. Housing Demand and Supply – Eight Jurisdiction Overview

•A total of 25,312 of the 28,176 total BRAC households are expected to locate to the eight-jurisdiction study area as a result of the BRAC-related jobs coming to Maryland.

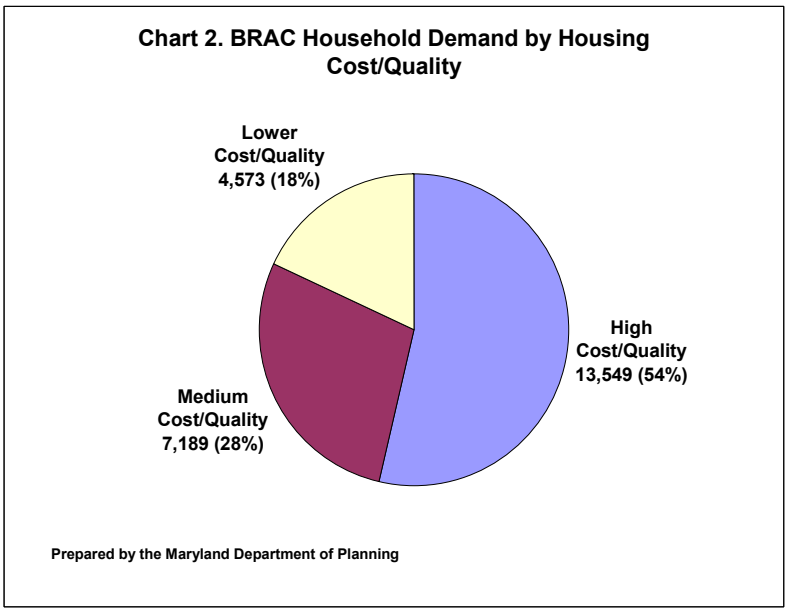
•The largest portion of new households are expected to be generated by expansion at Aberdeen Proving Ground (14,159, or 55.9%), with the bulk of the remaining households associated with expansion at Fort Meade (10,679, or 42.2%). Approximately 474 households (1.9%) are associated with new jobs at Andrews Air Force Base.[1] (See Chart 1.)



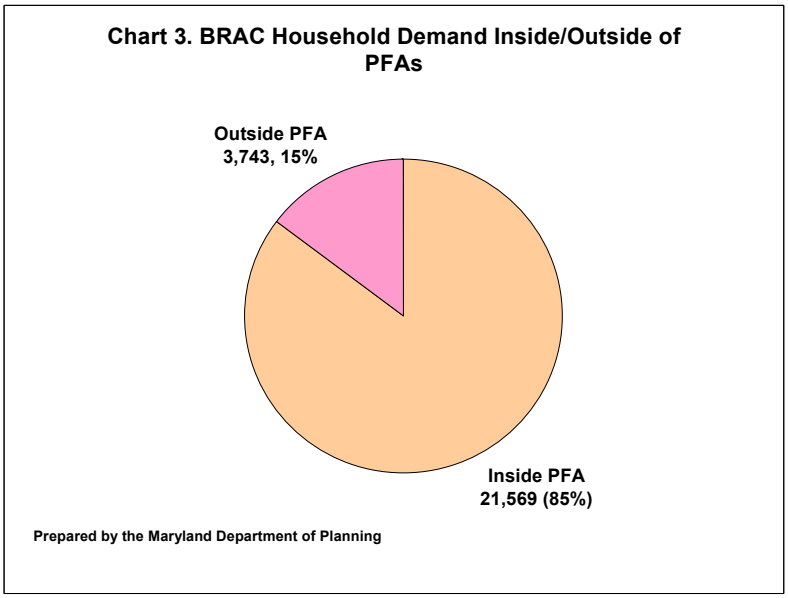
[1] For the purposes of this report, the shifting of 1,200 positions from the Walter Reed Army Medical Center in Washington, D.C. to the National Naval Medical Center in Montgomery County was viewed as a "wash" in terms of household impact since the two facilities are only six miles apart. The household impact of this move was also not evaluated by RESI. However, the increased staff levels were taken into account in the transportation analysis.

•Of these new households, approximately 3,500, or 13.9 percent, are expected to be renters, with the remaining portion homeowners.

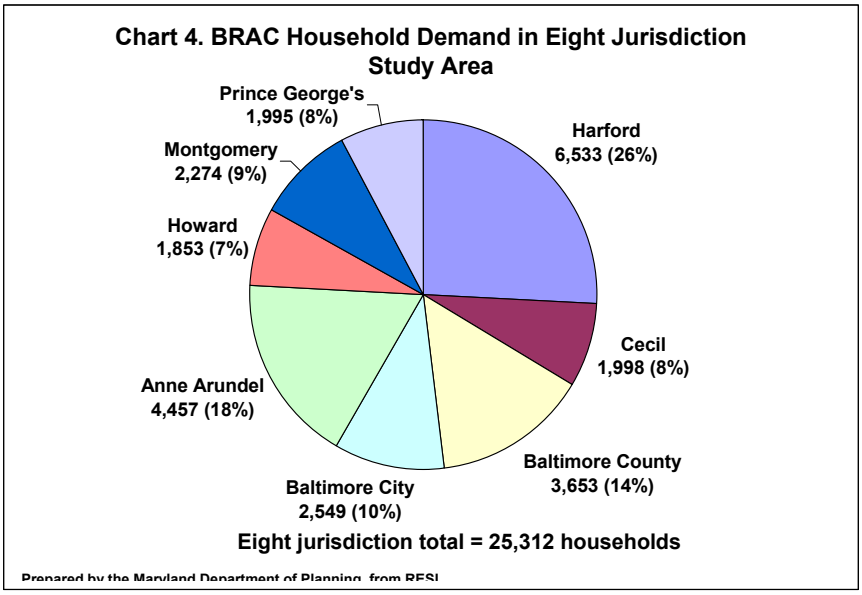
•Of the 25,312 new households, 13,549 (53.5%) are expected to look for housing of "higher cost/quality," 7,189 (28.4%) are expected to look for housing of "medium cost/quality," and 4,573 (18.1%) are expected to look for housing of "lower cost/quality." (See Chart 2.)



•Of the 25,312 households, 21,569, or 85.2 percent, are expected to locate within areas designated as Priority Funding Areas (PFAs) or served by sewer, existing or shortly planned, and 3,743, or 14.8 percent, are expected to locate outside of a PFA/sewer area. (See Chart 3.)



•Household totals are expected to be highest in Harford County (6,533, or 25.8%), and Anne Arundel County (4,457, or 17.6%), followed by Baltimore County (3,653, or 14.4%), Baltimore City (2,549, or 10.1%), Montgomery County (2,274, or 9.0%), Cecil County (1,998, or 7.9%), Prince George's County (1,995, or 7.9%) and Howard County (1,853, or 7.3%). (See Chart 4.)



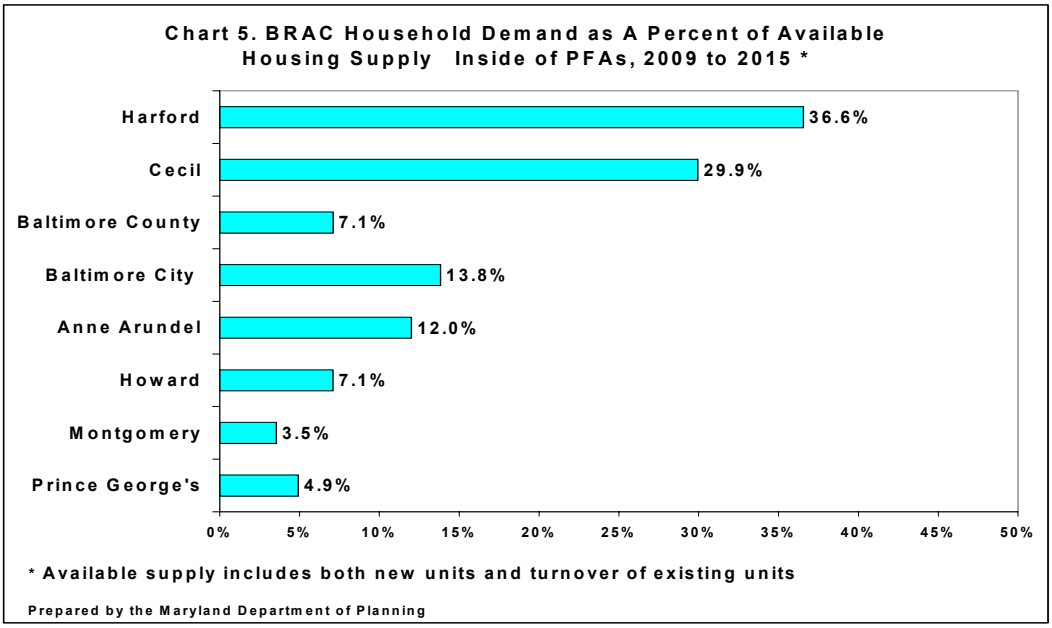
B.1 Housing Demand and Supply – Individual Jurisdictions

•**Harford County** appears to have the greatest development pressures from BRAC. BRAC households in Harford County (6,533) represent well over one-third (38.1%) of the County's supply of housing units expected to be available to all in-migrants over the 2009 to 2015 time period.[2] This pressure is higher outside of PFAs, where BRAC demand (1,501 households) is closer to one-half (44.5%) of expected available supply, while it is just over one-third (36.6%) of the expected supply within PFA/sewer areas (5,032 units). (See Charts 5 & 6.)

•With development pressure accelerating because of BRAC, there is an increased urgency for plans and actions now to address infrastructure and public services needs (especially water and sewer service, schools, and transportation). If BRAC development occurs without this investment, the likely consequences are further threats to rural land preservation in the County and/or further deflecting of growth outward to surrounding jurisdictions, specifically Cecil County in Maryland or out of state (Pennsylvania and Delaware).

[2] Available units are the sum of both new and existing units (through sales turnover) expected to be available to **all** new in-migrants (not just from BRAC) over the 2009 to 2015 time period. See Section E.1 for a discussion on the derivation of available housing to all in-migrants.

•Most Harford County BRAC households are expected to locate within a 45-minute commute of Aberdeen Proving Ground (APG). In this area, there is the possibility of substantial development pressure with respect to higher cost/quality housing both within and outside of PFA/sewer areas. Within PFA/sewer areas, BRAC demand (over 2,200 households) is seen as equaling two-thirds (66.7%) of the available supply of higher cost/quality housing to in-migrants, while outside the PFA areas, BRAC demand of just under 1,300 households is well over one-half (57.9%) of the expected available higher cost/quality housing supply.



•To a lesser extent, but still significant, pressures will also exist in the 45-minute commute shed to develop lower cost housing inside of PFAs. In this case, expected BRAC demand (1,150 households) is seen as making up nearly one-third (31.3%) of the available housing supply in this cost/quality range.

•If these potential development pressures, particularly from high-income households, are to not lead to accelerated loss of rural lands, then planning and support for infrastructure investments need to be made now to better match supply and demand.

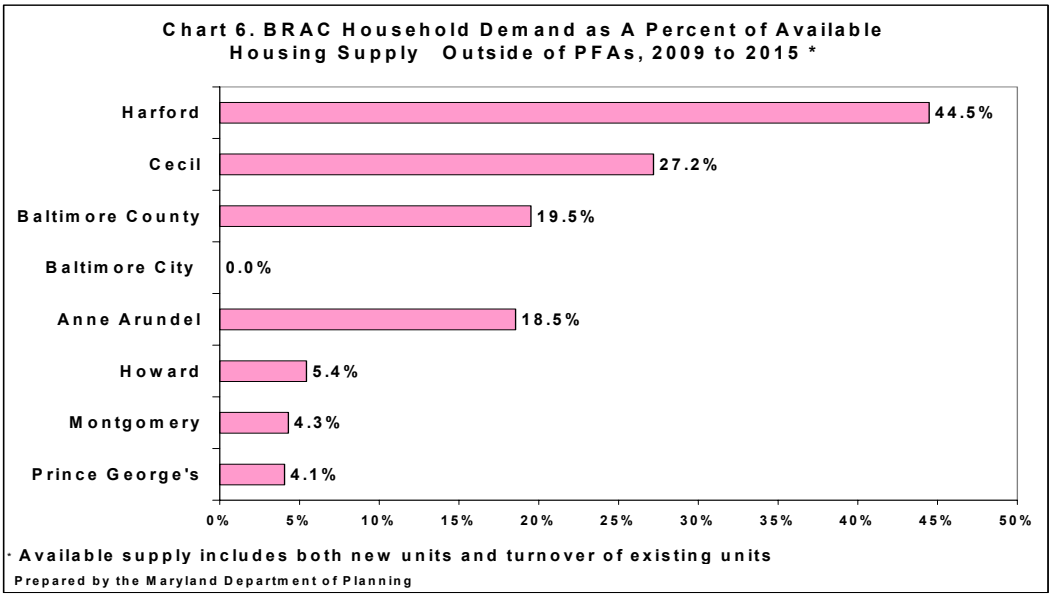
•**Cecil County** is expected to have the second strongest development pressure due to BRAC even though it is only expected to have the sixth highest number of BRAC households in the eight-jurisdiction study area. In Cecil County, the 1,998 BRAC households are estimated to represent 28.9 percent of the expected supply of housing available to all in-migrants over the 2009 to 2015 time period. These development pressures are slightly higher inside of PFAs (29.9%) than outside of PFAs (27.2%).

•The greatest potential development pressure between demand and supply in Cecil County will be for higher cost/quality housing both inside and outside of PFA/sewer areas. Within PFAs, the BRAC household demand of 336 units is estimated to be over

one-half (57.0%) of the housing supply available to in-migrants over the 2009 to 2015 time period. Outside of the PFAs, the BRAC expected demand of 452 units is estimated to be just under one-half (48.1%) of the available supply.

•In contrast, development pressure for the medium and lower cost/quality housing inside of PFAs is expected to be much less, where BRAC demand is estimated to make up around one-fourth of available housing supply in each of these two categories.

•In general, Cecil County has the land capacity to absorb the expected BRAC households, but must immediately take the steps and get the appropriate funding necessary for the investments to meet infrastructure requirements which will support a more compact development pattern inside the PFA/sewer areas and reduce the more scattered pattern of development outside of PFA/sewer areas.



•**Anne Arundel County,** with the second largest total of BRAC related households (4,457) is expected to have the fourth strongest BRAC-related development pressure in the eight-jurisdiction study area. BRAC households are expected to make up 12.5 percent of the estimated housing supply available to in-migrants over the 2009 to 2015 time period. This development pressure is stronger outside of PFAs (18.5%) than inside of PFAs (12.0%).

•The overwhelming majority (96.7%) of BRAC households in Anne Arundel County are expected to locate within a 45-minute commute of Fort Meade. Less significant differences are seen between BRAC household demand and available housing supply to in-migrants in this area. BRAC housing demand as a percent of expected available housing supply is highest for higher cost/quality households outside of PFA areas, where the BRAC demand (500 households) is seen as taking up about one-fifth (20.1%) of the available housing supply for in-migrants compared to 16.9 percent (or just over 1,800 units) for higher cost/quality households inside the PFA areas. About the same share of

available supply is seen for BRAC demand associated with lower cost/quality housing inside of PFAs (19.6%, or just over 800 units).

•**Baltimore County**, unlike most other jurisdictions, will be impacted directly from expansions at both Fort Meade and APG. Just over 1,500 households out of 3,653 are expected to locate within a 45-minute commute of APG, mostly on the east side of Baltimore County. The relationship between expected demand and available supply is tightest here in the higher cost/quality areas inside PFAs where demand (nearly 500 households) makes up over one-half (57.0%) of expected available supply through 2015.

•The other major portion of BRAC-related households for Baltimore County is expected to locate within a 45-minute commute time of Fort Meade, mostly on the southwest side of the County (just over 700 households). Here, too, the demand for high cost/quality housing (about 350 units) is seen as comprising nearly two-thirds (64.8%) of the supply of housing expected to be available to all in-migrants over the 2009 to 2015 time period.

•Despite apparent potential growth pressures for areas of higher cost/quality housing, however, overall, BRAC household demand is seen as comprising only 8.1 percent of the housing supply available to all in-migrants over the 2009 to 2015 period. This pressure is less within PFAs (7.1%) than outside of PFAs (19.5%).

•**Baltimore City,** like Baltimore County, is expected to receive BRAC-related households from the expansions at both APG and Fort Meade. Areas of the City that are within both of the 45-mile commute sheds around APG and Fort Meade are expected to exhibit the most development pressure. Specifically, this pressure should be highest for higher cost/quality housing, where BRAC demand (just over 1,000 households) is expected to be just less than one-half (48.6%) of the estimated supply available to all in-migrants. For medium cost/quality housing, demand for about 250 units is estimated to be about one-fifth (21.6%) of expected supply. For lower cost/quality housing, BRAC demand is seen as being less than 10 percent of the anticipated supply in all affected areas of the City. Overall, BRAC household demand is seen as comprising 13.8 percent of the housing supply available to all in-migrants over the 2009 to 2015 period.

•**Montgomery County's** nearly 2,300 BRAC-related households represent less than 4.0 percent of the anticipated supply available to in-migrant households over the 2009 to 2015 period.[3] No major demand versus available supply issues are identifiable at the small area level.

•**Prince George's County's** nearly 2,000 BRAC-related households are less than 5.0 percent of the estimated housing supply to be available to all in-migrants over the 2009 to 2015 time period. Here, too, no major demand versus anticipated supply issues are identifiable at the sub-County level.

[3] The just over 1,700 households for Montgomery County are the total impact (direct, indirect and induced) from expansions at Aberdeen Proving Ground, Fort Meade and Andrews Air Force Base.

•**Howard County's** 1,853 BRAC-related households represent just 6.9 percent of the estimated supply available to all in-migrants in the 2009 to 2015 time period. One potential area of increased development pressure for the County is within the 45-minute commuting shed of Fort Meade where the BRAC housing demand in the lower cost/quality category (just under 300 households) makes up one-quarter of the estimated available supply.

C. Water and Sewer

•**Update Plans:** All jurisdictions should review the impact of BRAC on the water resources in their communities and promptly review and update their local Comprehensive Plans and County Water and Sewerage Plans. They should also initiate preparation of the newly required Water Resources Element. These plans must reflect and accommodate the BRAC growth and take into consideration the best water resources information available including any development limitations resulting from regulatory programs such as TMDLs, Tributary Strategies and the Chesapeake Bay Program.

•**Harford and Cecil Counties:** Harford and Cecil Counties and their municipalities are facing challenges for providing adequate community water supply resources and water and sewage treatment capacity. It is recommended that they accelerate efforts to resolve inter-jurisdictional planning, regulatory, and other related issues.

•**Federal and State Financial and Technical Assistance:** Federal and State financial and technical assistance should be provided to help all impacted local governments expedite meeting the planning prerequisites necessary to support the BRAC in migration in a manner consistent with State and local Smart Growth policies.

•**Rural Preservation Programs:** In conjunction with providing adequate community water and sewerage facilities to accommodate growth in designated growth areas, all counties should review and make appropriate improvements to their rural preservation programs to assure that the added growth pressure from BRAC will not damage rural economies and other important values. In particular, Harford and Cecil Counties should review their programs in this regard.

D. Power and Fiber Optic Capacity

•Residential growth attributable to BRAC does not concern BGE, the supplier of power in the area. Most of the residential development has been planned for with or without the influx of BRAC households.

•In all areas around each of the three military bases that BGE serves (APG, Fort Meade and NNMC) capacity is not an issue for the foreseeable future. However, because of the

expected upsurge in high tech business needs, BGE is currently evaluating its existing capacities in and around each of the three bases.

•All major cable and Internet companies indicate that they are fully prepared to provide or continue to provide service to all communities impacted by BRAC. No companies are changing their growth or expansion plans due to the influx of new employees to any of the Maryland military bases.

E. Transportation Overview

- Since BRAC does not bring new and different sources of funding with it, it will be necessary to work within Maryland's existing financial capabilities to address the most important transportation needs.

- It should be noted that MDOT does not have all the financial resources to construct all of the investments that are indicated in this report. Identifying priorities and coordinating resources among all parties (state agencies, local jurisdictions and the military communities) will remain critical in realizing effective transportation project starts. Partnering with local governments, developers, and other innovative strategies will be required to implement most of the studies and projects that are described herein.

- Many of the recommended transportation studies and investments would most likely be needed with or without BRAC. The necessity and feasibility of individual projects should be determined through additional study. Also, it will be vitally important for Maryland to identify additional funding sources such as Defense Access Funds to assist in the planning and construction of BRAC related transportation facilities. This does not supersede MDOT's own analyses of BRAC related transportation impacts as well as funding priorities and financial estimates for recommended facilities.

- As the impacts of BRAC-related growth continue to be realized, the Maryland Department of Transportation intends to partner with local governments, transit providers, and regional agencies to identify changing priorities and to explore creative new funding mechanisms that can bolster Maryland's Transportation Trust Fund.

E.1 Transportation Impacts by Individual Base

Andrews Air Force Base

- Address operational characteristics along MD 337 and MD 5/MD 337 interchange to accommodate increased peak period demand. Move forward with existing CTP highway projects at MD 4, MD 5 and I-95/I-495 in the vicinity of the installation.

- Explore Transportation Management Demand techniques to reduce single occupant mode split and reduce vehicle congestion during peak periods. Encourage increased use of local Metrorail transit by base employees and contractors through shuttle service and existing transit.

National Naval Medical Center

- Initiate studies to address operational characteristics at MD 355 and Cedar Lane, MD 355 at South Drive/Wood Road, MD 195 at Jones Bridge Road, and MD 355 at Pooks Hill Road to address increased congestion.

- Explore increased Transportation Management Demand including a "Vehicle Rate Reduction Cap" at this installation to reduce vehicle congestion during peak periods. Encourage increased use of existing Metrorail transit through intersection improvements including medians and timed pedestrian signal heads.

- A feasibility study of bus transit in the vicinity of the National Naval Medical Center in Bethesda should be conducted with particular emphasis on expansion of the number of bus transit bays at the Medical Center Metrorail Station or at a nearby location.

Aberdeen Proving Ground

- The feasibility of value pricing options and transportation demand management should be studied for I-95 to accommodate BRAC-related increase travel demand on crossing roadways in the interchange areas.

- Reexamine the Perryman Access Study to provide improved access from the Perryman Peninsula to the state road network and to APG**.**

- Initiate feasibility or planning studies of, MD 7, MD 543, MD 22, MD 152, MD 715, and MD 155 as the need arises to alleviate forecasted congestion resulting from BRAC related expansion at Aberdeen.

- Explore expansion of a variety of rail and transit services in the Aberdeen area to meet forecasted demand associated with BRAC employee growth. Exploration of Aberdeen multi-modal transit center is recommended.

- Explore a variety of Transportation Management Demand techniques and base shuttle service to reduce single occupant vehicle use and reduce overall vehicle congestion including a "Vehicle Rate Reduction Cap" to manage forecasted vehicular congestion.

- Operational improvements to local thoroughfares in Aberdeen including improvement studies at MD 22 and MD 715 should be initiated or accelerated to alleviate projected vehicular congestion. Sidewalk connections and bicycle access should be incorporated.

- Explore the feasibility of regular Shuttle Bus Service to/from the existing/relocated MARC Station to APG to encourage increased use of MARC and AMTRAK service by employees and contractors at APG.

Fort Meade

- Complete current project planning and seek construction of MD 175, MD 198, and MD 3 to meet projected BRAC demand. Sidewalk and bicycle access should be incorporated from the Odenton MARC station.

- Initiate planning of segments of I-95, MD 170, MD 713, MD 32 and US 1 to address forecasted congestion resulting from BRAC related growth at Fort Meade.

- Explore a variety of Transportation Management Demand techniques and base shuttle service to reduce single occupant vehicle use and reduce overall vehicle congestion including a "Vehicle Rate Reduction Cap" to manage forecasted vehicular congestion.

- Explore expansion of a variety of rail and transit services in the Fort Meade area to meet forecasted demand associated with BRAC employee growth. Accelerate planning and construction of Central Maryland Transit Operations Facility to serve as a local transit hub.

- Initiate feasibility study of WMATA Green Line to Fort Meade as a long- term horizon project.

F. Public Schools

- The anticipated in-migration of households associated with projected employment growth at the four BRAC installations will result in what is currently an undetermined increase in the number of school-aged children in each of the affected jurisdictions. Affected LEAs should review BRAC household demand in Table 2 of this report to assist in their determination of estimates of school enrollment forecasts resulting from BRAC household in-migration. These forecasts should be used in the development of BRAC related public school construction requests for the upcoming FY 2009 CIP cycle.

- Any additional school capacity, including that potentially generated by BRAC, must be substantiated by a county's Local Education Agency (LEA) and approved by the State through established mechanisms. The Interagency Committee on School Construction (IAC) determines whether requested building improvements are warranted, and considers them based on formulas for State construction assistance and guidelines for assessing facility needs that are established in State law and in regulation. Priority of need is a top consideration, and a constant factor during review

is the equitable distribution of CIP funding throughout the State and fulfillment of State commitments for providing equal educational opportunities across the State. It is very important for LEAs to effectively analyze BRAC related enrollment increments and to phase enrollment and capacity needs over several years in order to meet projected school needs in 2015.

- The recently submitted FY 2008 CIP requests from the BRAC impacted jurisdictions do not appear to incorporate hard data to assess the projected BRAC school impact needs in the eight jurisdictions covered in this report. This should be corrected for the FY 2009 CIP cycle.

- The finite amount of State funding allocated each year for school construction projects does not currently meet the total needs submitted by LEAs, and in future years it will not likely meet the additional funding needs resulting from BRAC.

- In order to meet BRAC related school construction needs, it may become necessary to develop a supplemental procedure for out of cycle funding. It may also become necessary to seek supplemental funding from federal sources for those school districts that are most heavily impacted by BRAC-related population increases. Should the need arise, an additional round of funding could be considered if it is determined that the initial BRAC related school construction needs cannot be addressed through the FY 2009 CIP process which begins in the autumn of 2007.

- It is recommended that the BRAC school construction process prioritize school construction needs based upon school location and Priority Funding Area/Sewer Area status. Proximity to the military installations should be a factor in determination of school funding priorities. Through this process, both the proximity to the affected military installation and whether or not the school facility resides in a certified Priority Funding Area/sewerage area should be considered in the CIP prioritization process with school facilities located nearer to BRAC sites and in Priority Funding Areas receiving higher priorities.