

## James City County Citizens' Coalition Cumulative Impact Analysis

*No rezonings or special use permit requests (SUPs) should be considered until the cumulative impact of such development projects has been established.*

This was one of the key objectives set out in the 2007-2008 Plan for the James City County Citizens' Coalition (J4C). In August this year J4C set out its plan to execute this objective. This report summarizes the results of work to date. It provides a statement of the problem, the J4C approach to addressing this problem, and a presentation of the database developed to help evaluate these cumulative impacts.

**Problem:** The county's population has grown 3.3% per year since 1997, from 44,023 to 61,000 at mid-year 2007. The database we have developed, with the assistance of county staff, identifies more than 11,500 additional dwelling units already approved. At buildout this suggests a county population in excess of 90,000. Factoring in an additional 15,000 units which may be built under current zoning, population could grow to 130,000.

Four factors affect this growth scenario:

1. Adequacy of water supply
2. Potential for environmental degradation
3. Likelihood of traffic congestion
4. Financial strain

*Adequacy of Water Supply:* James City is the largest county in Virginia to rely almost entirely on ground water. The principal source of this ground water is the Piney Point aquifer, which provides 4.5 million gallons per day (mgd), and is under stress. The desalination plant, which provides an additional 5.0 mgd, treats brackish water from the lower and middle Potomac aquifers; the middle aquifer is overstressed, the lower less so. Water from these two sources will meet projected need through 2012; thereafter, additional sources are required. The county is a beneficiary of the planned King William Reservoir project, but water is not anticipated from

this source until at least 2020. The alternative of a second desalination plant is remote, as the Virginia Department of Environmental Quality has signaled that it is unlikely to issue the required water withdrawal permit. As a contingency James City Service Authority has contracted with Newport News waterworks for additional water after 2012. But, it is unclear whether Newport News will be able to provide adequate volume to meet growing demand.

*Potential for Environmental Degradation:* Environmental degradation is already evidenced in specific areas of the county affected by rapid development. Development along the Powhatan Creek has already resulted in decreasing water quality, increased soil erosion and storm water runoff in several areas - most particularly affecting such communities as Jamestown 1607, St. Georges Hundred and Fieldcrest. Impervious cover percentages are already exceeding dangerous levels in several subwatersheds experiencing rapid development, including New Town. The county has introduced a fee-based Stormwater Division to begin to push-back on the environmental degradation already experienced.

*Likelihood of Traffic Congestion.* Traffic problems are beginning to be experienced in specific locations around the county. Most apparent is the congestion being experienced along Monticello Avenue from News Road to Ironbound Road, on Longhill Road between Route 199 and Olde Towne Road, Ironbound Road west from Monticello Avenue, and Route 199 from Route 5 to Interstate 64.

*Financial Strain:* Accommodating rapid growth has an adverse impact on local government budgets and residential tax burden. At one time communities believed that growth was self-funding. That may have been true when growth was modest and infrastructure investment was limited. Properly planned infrastructure capacity could handle modest growth, and when small amounts of new investment were required it could be handled cost effectively. But when residential growth accelerates, exceeding 3%, the cost of providing needed infrastructure and services ratchets up. We are seeing that in the county currently, with budget increases in excess of 10% per year from 2006 to 2009. Contributing to the large increases in these years are major capital improvement projects, mainly school additions, but also other infrastructure projects for existing schools, parks, fire and safety,

and land acquisitions. Also, operating costs are growing to reflect the concomitant strain on service levels.

**J4C Approach:** Unchecked development and population growth is not sustainable. The county possesses a myriad of tools to manage growth. These include: the comprehensive plan, zoning ordinances, subdivision regulations, fiscal impact analyses on rezoning and special use permit requests, voluntary cash proffers, and land preservation programs such as Purchase of Development Rights and Greenspace acquisitions. What is missing is the consideration of the *cumulative impact* of all past and proposed actions on the four factors identified above: *water supply, environmental degradation, traffic congestion* and *financial strain*.

We propose that the staff studies on schools and traffic be completed and be coincident with the Comprehensive Plan and this study. The J4C first step is the development of a database to collect core information on existing subdivisions and newly approved developments, capturing the following data on each subdivision:

1. Location - within PSA or in Rural Lands
2. Type of development - residential, timeshare, apartment, trailer park, continuing care community
3. Source of water supply - JCSA, Newport News Waterworks, community well, individual wells
4. Watershed - Powhatan Creek, Yarmouth Creek, Gordon Creek, Skiffes Creek, College Creek, Mill Creek, Diascund Creek, Ware Creek, York River, James River
5. Traffic Corridor - Richmond Road, Monticello Avenue, Centerville Road, Route 199, Route 130, Jamestown Road, Route 5, etc.
6. Electoral District
7. Acreage
8. Zoning

This database needs to be made available for public scrutiny at the start of the comprehensive planning process. Over the next 18-to-22 month period studies should be conducted of the cumulative impact of the already approved 11,500 new residential units on water, the environment, traffic, and budgets and taxes, as well as the long-range impact of an additional 15,000

residential units which could be built under current zoning.

County Planning staff has already commenced a study, at Board direction, of the potential financial impact of projected population growth on Schools; this analysis is well-underway It has also undertaken a study of the impact of this projected growth on local transportation needs, based on the Hampton Roads Planning District Commission's Project 2030; this effort, however, is only in preliminary stages.

**Database Development:** We have completed development of the Cumulative Impact Database as noted above and generated two summary reports and one detailed report:

Summary Reports:

1. Residential Units - Buildout Analysis
2. Residential Units - Buildout Analysis. Projects Approved but Not Started

Detailed Report:

Subdivision Listing - Sorted by Electoral District

The database has been created as a comprehensive Excel file, which can be sorted in a variety of ways to provide data for detailed analysis. Two additional sorts planned are:

1. Subdivision listing - sorted by water source
2. Subdivision listing - sorted by watershed

Note: The current database will be updated as new data becomes available. One near-term update will incorporate data for continuing care retirement communities, when the Planning Division completes its study on these units.

**Conclusion:** We propose that the Board of Supervisors incorporate the Cumulative Impact Study as a core element in the 2008 Comprehensive Plan process and make it available to the public as soon as possible. Further, we propose that the Board adopt as their own the J4C objective restated below:

*No rezoning or special use permit requests (SUPs) should be considered until the cumulative impact of such development projects has been established.*

Exhibits

1. Summary Residential Units - Buildout Analysis
2. Residential Units - Buildout Analysis. Projects Approved But Not Started
3. Subdivision Listing - Sorted by Electoral District

James City County Citizens' Coalition  
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