Staff Response State Agency Comments January, 2010
Maryland Department of Planning Review Comments, Received October 29, 2009
"The most important amendments to include are in **bold.**"

- **The Calvert County Comprehensive Water and Sewerage Plan provides water and sewer demand forecasts through 2017; however, the planning period for the Calvert County WRE is through 2030. The WRE should provide water and sewer demand forecasts through 2030 to identify possible water resource constraints that could result from implementation of the land use plan.**

  Staff Comment: Greg Bowen is working with Department of Public Works on the forecasts. They will be provided at your meeting in February.

- Include Table 1 from the Calvert County Comprehensive Water and Sewerage Plan (p. 23) or a similar growth projection table to frame the discussion under the "Potable Water" and "Wastewater" sections of the WRE.

  Staff Comments:

  - Table 1 shows County Population for 2000 (by election districts) and county projections 2010 to 2030. County DP&Z projections (January 2006) are county-wide and by election district. MDP's projections are county-wide (September 2005).
  - 1. The 2004 Comprehensive Plan includes "County Data" on Page iv. Data includes county populations and projects 1970 to 2020 and build-out. This data should be updated. 2. Either include a reference to the County Data in the Land and Water Resources section, or add a graph showing County population & projections to 2030 in this section.

  Recommendation: Update the "County Data" on Page iv.

- SB276, passed in the 2009 Maryland legislative session, sets a statewide land use goal of increasing the current percentage of growth in Priority Funding Areas (PFAs) and decreasing the current percentage of growth outside of PFAs. SB276 also requires local governments to develop a percentage goal towards achieving the statewide goal. Although the new annual report requirements (including the local land use goal) under SB276 will not be filed until July 1, 2011, Calvert County should consider whether its estimates of the percentage of growth to be served by public water and sewer – 25% public water by 2017, 41% public sewer by 2017 (Tables 3B and 9, Calvert County Comprehensive Water and Sewerage Plan) – will be sufficient to achieve the statewide land use goal. Statewide in Maryland, the current percentage of growth in PFAs (not including "comment areas") is 68%-
  http://www.mdp.state.md.us/msdc/PFA/Resid_Growth/by_County/PFA_cnty_index.htm.

  Staff Comment: Considered. No changes proposed.

- To illustrate the increased amount of water and sewer demand resulting from a higher percentage of future growth within PFAs, the WRE could include tables that illustrate future water and sewer demand according to the two scenarios listed on page 36 (35% to 45% of growth within Town Centers) versus accelerated smart growth (80% of development within PFAs).

  Staff Comment: Will consider including future water and sewer demand in the County Guidance Document at a later date.

- Clarify whether the two development scenarios (Scenario 1 and Scenario 2) used for the pollution forecast are also used to develop the water and sewer demand forecasts listed in the Calvert County Comprehensive Water and Sewerage Plan (Tables 3b and 9). Also, clarify

whether achieving the differing amounts of growth within the Town Centers (under the two development scenarios) will depend on additional zoning changes or whether these estimates are based on previous growth patterns (if so, please cite the source data and respective time periods).

Staff Comments:

- Yes, the scenarios were also used for the County Water and Sewerage Plan. No changes proposed.
- The differing amounts of growth in the Town Centers (35% and 45%) do not depend upon any County zoning ordinance changes. The difference is based upon potential market demand (greater demand for multifamily/townhouses/ apartments).

- Clarify that water and sewer demand forecasts for each system also can be found in the Water and Sewerage Plan.

  Staff Comment: Add text to the Comprehensive Plan's proposed amendments in the Potable Water and the Wastewater sections.

- The County should be commended for including an action to ensure that watershed plan recommendations are considered by the Planning Commission when considering subdivisions and site plans (p. 39).

  Staff Comment: Thank you for the compliment.

- The County also should be commended for proposing different water quality standards for their urban watersheds compared to their rural watersheds as a method to enable Calvert County to accommodate PFA development (p. 39). Please work with MDE to explore the feasibility of this proposal.

  Staff Comments:

  - Thank you for the compliment.
  - Staff (Greg Bowen) has spoken with MDE regarding the proposal.

Comments on the proposed methods for protecting the town's source water:

- Consider including as an action, within the "Potable Water" section (p. 33), to develop a strategy for a coordinated effort with the other jurisdictions in the recharge areas to maximize infiltration in order to protect future withdrawals.

  Staff Comment: Considered. No changes proposed.

- The Calvert County Comprehensive Plan identifies the streams affected by land use impacts (p. 36) and identifies the WWTP discharge point location for the Chesapeake Beach regional WWTP (p. 35). The plan includes a point and nonpoint source pollution forecast, although comments below suggest more detail (pp. 36-37) but **does not yet include a discussion whether the streams are suitable receiving waters for expected land use impacts**.

  Staff Comment: Add sentence stating that until TMDLs are established, we do not know what water bodies are suitable receiving waters.

Comments on the sewer demand analysis include:

- Consider expanding Table II-B for systems smaller than 0.5 MGD.

  Staff Comment: Considered. No changes proposed. The 2008 Calvert County Comprehensive Water & Sewerage Plan has a list of all sewage treatment plants, including systems smaller than 0.5 million gallons per day (MGD). There are six systems listed for capacities 0 to 0.5 MGD. These systems' existing capacities range in size from 0.015 MGD for Marley Run to 0.075 MGD for the Naval Research Facility, Randle Cliffs and total 0.268 MGD.

- **For the upgrades to the Chesapeake Beach (p. 34) and Northern High School (p. 35) WWTPs mentioned as being planned, list the expected sewer demand by 2030, current and future point source pollution impact, and nutrient cap to demonstrate that the point source cap will not be exceeded.**

  Staff Comments:

  - Add the following information: Chesapeake Beach Sewage Treatment Plant's 2030 expected plant capacity will be 1.5 MGD. The proposed upgrade will accommodate this demand. A total maximum daily load (TMDL) study needs to be conducted prior to the TMDL nutrient cap being set for the Chesapeake Beach Sewage Treatment Plant.
  - Northern High School: Staff contacted George Leah at Calvert County Public Schools. He explained that there will be no significant increase in flows from this facility as long as it only serves the school campus. The Board anticipates the existing plant will be replaced with a new package plant that will be more efficient and address the current nitrate discharge issue. Recommendation: Add brief information about the Northern High School sewage treatment plant and mention that a total maximum daily load (TMDL) study needs to be conducted prior to the TMDL nutrient cap being set for the Northern High School Sewage Treatment Plant.

- Clarify the land application strategy. Specifically, in which cases is the effluent applied in:
  a. Impaired watersheds where nutrient concentration must be zero before applied water reaches groundwater levels.
  b. Un-impaired watersheds where nutrient concentrations need only meet drinking water standards at groundwater levels.
  - Staff Comment: No change proposed. The Lower Patuxent River and the Lower Chesapeake Bay adjacent to Calvert County are impaired waters. The Prince Frederick land application occurs in both the Patuxent and Chesapeake Bay watersheds (Hunting Creek and Parkers Creek watersheds). The Solomons land application occurs in the Patuxent watershed (St. Leonard Creek watershed).

Comments on identifying suitable receiving waters:

- **Discuss the suitability of receiving waters given expected land use plan impacts. If there is insufficient information to make this determination, indicate this.**

  Staff Comment: Staff will do so.

- Include a map of the Tier II watersheds.

  Staff Comment: Staff will do so.

- Consider including the Non-Point Source Spreadsheet provided by MDE as an appendix to tables I-C and I-D.

  Staff Comment: This level of detail should be in the Guidance Document, not the Comprehensive Plan.

- Tables I-C and I-D both show a reduction in point source loads while levels of development on sewer increase. Explain how nutrient loads will decrease while wastewater flows increase. Also, if Scenario 1 will have less development on community sewer than Scenario 2, indicate why Scenario 1 has higher point source loads than Scenario 2.

  Staff Comment: No change proposed. The nutrient load table is a product of MDE, so it would be only our speculation as to why the Bay model develops these conclusions based on our land use data.

- Calvert County has stated that they are reducing build out through zoning to 37,000 households by 2030. This is below what MDP is projecting (38,350) but is probably consistent with their newly calculated capacity. However, this could have implications for housing affordability (see below).

  Staff Comment: No change proposed. Currently, the County is not amending Chapter II, which includes Housing. However, the adopted Plan (2004) includes a number of affordable housing solutions, and the Zoning Ordinance also permits the Commissioners to waive Transferable Development Rights for affordable and workforce housing.

- The American Community Survey estimates that there are 29,141 households in Calvert County in 2007. To reach 37,000 households over the next 23 years, means that on average only 341 new households would be added each year.

  Staff Comment: No change proposed. The County is aware of this and notes that the number has not been exceeded for the last three years.

- This projected annual number is far below historic growth patterns for the County, which of course is what is desired by the County, but given the historic growth pressures that have been exhibited in the Southern Maryland Region in general, and in Calvert County in particular, there will most likely be upward pressures on housing prices in Calvert County, which already is one of the more expensive counties in the State.

  Staff Comment: No change proposed. The County is aware of this, but finds no easy solution. The Comprehensive Plan notes that the County has served as a bedroom community for urban areas for the last several generations. Being a rural fringe county, it is not conducive to jobs creation of urban areas with major airports and rail. If the County were to ease its development regulations, it would only facilitate sprawl and more long-distance commuting. Housing market prices are largely a function of proximity to urban centers and positive community characteristics. The County has no control of the former, and no desire to weaken the latter.

- As such, the County makes no provisions for affordable housing in its Plan and may well find it difficult to meet goal number seven of the 2009 Smart, Green and Growing Act: "a range of housing densities, types and sizes provides residential options for citizens of all ages and incomes."

  Staff Comment: No change proposed. The author of this comment should read Chapter II Housing in the current Plan as well as the Calvert County Zoning Ordinance. Affordable housing has been addressed better than most counties.

- In land use planning there is a need to take into account the difference between households and housing units. In 2000, Calvert County had a vacancy rate of 7.7 percent. If kept constant, this implies a build out of 40,100 housing units associated with 37,000 households.

  Staff Comment: No change proposed. The goal is to limit the number of households to 37,000. The County is aware of the difference between households and housing units.

- One of the recommended actions was to, "conduct a study to determine why retirees choose to move out of the County and look for ways to encourage them to stay…" to be completed by 2005. Has this study been completed? And, given the restricted household growth called for in the Plan, encouraging retirees to locate in Calvert may result in more of an impact on the aging of the population by 2030 than anticipated. This could have implications in many areas that are germane to long-range planning, including housing choice, transportation options and potential labor shortages for jobs located in the County.

Staff Comment: No change proposed. That study has not been conducted. If the County does not control growth, there will be greater impacts on transportation, water quality, the aquifers, etc. Those have been documented by the County.

- The County wants to adopt policies that will "promote the County as a desirable location for high-technology industries." Other than trying to make the County a nice place to live, the Plan does not address any specific policies that would make Calvert a choice for "high-tech" industries.

  Staff Comment: The author of this comment should read the (Chapter III) Economy Chapter of the current Plan which is not being amended at this time.

Capacity Analysis and Projections

- Page 3 the County states that they have implemented policies to reduce build out to 37,000 households by 2030. A status report on these policy changes reported in 2003 that the County had reduced the build out to 42,600 households. Not yet reaching their goal, the Board of County Commissioners implemented additional policies to further reduce the capacity. The plan states that "the Board reduced the zoning density so that residential build out should not exceed 37,000 households, 20% more than currently exist." Is this to say that zoning has reduced the total capacity in the County to 20% less than the 37,000 households? This is well below MDP's projection of 38,350 households by 2030. What is the current total household capacity of the County? It is difficult to determine the actual relationship between projected households and capacity at this time. MDP's most recent capacity analysis estimates that there is not currently sufficient capacity in the County to accommodate the 2030 projected growth.

  Staff Comment: Zoning changes have reduced the buildout to an estimated 37,000 households.

  Recommendation: Delete ", 20% more than currently exist."

In the context of planning it is important to strive for the proper balance between land supply and demand.

-Provide too little land for development (be it greenfields, redevelopment, or infill), and the land cost will become too high or development may spill over to adjacent areas.

-Provide too much land for development and it will tend to be used inefficiently. In addition, plans and growth controls will be marginalized because there are an abundance of locational options for each new development.

Staff Comment: No change proposed.

General Comments

- The discussion preceding Tables I-C and I-D on pages 36 and 37 of the plan, discuss the various findings for the chart information. In this discussion the various bars are merely referenced as first, second, third bar and not by what they are labeled or showing in the chart. It would be helpful if the discussion referenced these as Scenario 1, 2…etc.

  Staff Comment: This discussion of the tables can be clarified. Note: Chart format was provided by MDE.

Transportation

- Staff has reviewed the draft Plan Amendments and found that the County's transportation policies and action strategies have not been significantly amended. The Plan continues to emphasize a multi-modal set of transportation alternatives and infrastructure and integrates these polices in throughout the plan such as discouraging additional capacity improvements in the Farm and Forest District to minimize potential new growth and development resulting from

highway improvements in rural and agriculture areas and recognizing the link between transportation , land use and energy consumption.

Staff Comment: No response requested or needed.

- Construction of Unit 3 at Calvert Cliffs and its temporary construction workforce will have significant impact on the existing roadway system. The County Plan does address current capacity constraints on MD 2/4 north of Calvert Cliffs area and on the Thomas Johnson Bridge.

  Staff Comment: The analysis consists of a simple before-and-after assessment of the change in nutrient loads due to proposed land changes, as well as a comparison among alternative future land use plan options. Results Summary and Charts and Graphs worksheets provide a synopsis of initial and future land use and local estimates from the Scenario worksheets, in tables, charts and graphs.

- These constraints could impede the arrival of construction worker traffic into the area. Although Construction of Unit 3 is not mentioned specifically in the Plan, the Plan proposes a number of actions to develop mitigation measures for congestion in the areas that will be most impacted by construction of Unit 3.

  Staff Comment: No response requested or needed. Development projects should not be specifically addressed in a Comprehensive Plan.

- Nor does the plan mention that a new emergency management plan need to be developed for the new plant at Calvert Cliffs by UniStar Nuclear Energy, LLC that will require consultation with State and county authorities.

  Staff Comment: No response requested or needed.

Schools

- Land Build out and changes to the counties Adequate Public Facilities Ordinances are discussed in the Plan; however, this section does not provide specific details such as information on the proximity of the schools in relationship to the communities that they serve, schools current capacity, enrollments, facility utilization, and the county's anticipated future public school facility needs.

  Staff Comment: No response requested or needed.

- While it is clear from the Plan that the County intends to "work with the BOE to upgrade the Northern High School Treatment Plant" – what is not clear is whether other coordinating efforts are underway to address equity and maintenance of public school facilities.

  Staff Comment: No response requested or needed.

- According to our office, Calvert County public school enrollments are expected in the next 10-years to increase in grades Kindergarten to 10th by 1,483 students. It is anticipated that the county will experience a decrease in enrollment for students in grades 11 to 12 in the next 10 years.

  Staff Comment: No response requested or needed.

MDE Air and Radiation Management Administration, Land Management Administration and Science Services Administration

The draft Calvert County Comprehensive Plan is consistent with the plans, programs and objectives of the Air and Radiation Management Administration (ARMA). ARMA also offers the following comment:

Calvert County should consider the relationship between this Comprehensive Plan and climate change. For additional information about MDE's air management programs, please contact Diane Franks, Program Administrator, Air Quality Planning Program, at 410-537-3250.

Staff Comment: No changes suggested.

Land Management Administration

The draft Calvert County Comprehensive Plan is consistent with the plans, programs and objectives of the Land Management Administration (LMA). LMA also offers the following comment:

The proposed Plan might involve the rehabilitation, redevelopment, revitalization, or property acquisition of commercial or industrial property. Accordingly, MDE's Brownfields Site Assessment and Voluntary Cleanup Programs (VCP) may provide valuable assistance to the County for these activities. These programs involve environmental site assessment in accordance with accepted industry and financial institution standards for property transfer. For specific information about MDE's programs and eligibility for assistance, please contact James Carroll, Program Administrator, Land Restoration Program, at 410-537-3437.

Staff Comment: No changes suggested.

Water Management Administration – Comments on Sensitive Areas

1) **General Comment**

Calvert County only amended and provided Chapter One of the Comprehensive Plan for review. If the complete Plan had been provided, additional comments might have been warranted.

Staff Comment: No changes suggested.

2) **Pages 3, 5 and 49-50: Sensitive Areas**

MDE notes that there are inconsistencies between the Priority Preservation Areas displayed on Figure I-A of the Plan and the areas identified by MDE in its *Priority Areas for Wetland Restoration, Preservation, and Mitigation*, available on MDE's website. MDE requires use of this document in meeting compensatory wetland mitigation requirements and recommends its use for land planning activities. This document would be useful in meeting the County's targeting for wetland restoration to benefit water quality, as both reference information and GIS analyses have been prepared.

The web page for the prioritization document is:
www.mde.state.md.us/Programs/WaterPrograms/Wetlands_Waterways/about_wetlands/pnor downloads.asp.

MDE recommends a meeting with the County to exchange information and to develop a consistent vision for the preservation of priority wetland areas. If Calvert County has compiled more recent and detailed information about wetland areas, MDE would be pleased to include this information in an update of MDE's *Priority Areas* document.

Staff Comment: No changes suggested. We will provide MDE the additional information.

3) **Page 50: Floodplains**

It is anticipated that new preliminary FEMA floodplain maps will be completed in the fall of 2010 and will be final approximately ten months later. The new maps might adjust the official FEMA floodplain boundaries. MDE strongly recommends that after the draft maps are released, the County compare the old floodplain boundaries to the new ones and contact affected property owners. If it is determined that a parcel of land is within the floodplain boundaries as a result of the new maps, then the land owner's lender may require the owner to carry flood insurance. Property owners should be given information about their options, including grandfathering, and where flood insurance policies may be purchased at a subsidized rate.

The new FEMA maps will be digital products that can be used with GIS systems and integrated with other data layers.

Staff Comment: No changes suggested. Staff has already received the new draft FEMA floodplain maps and suggested corrections. Staff will be working toward their adoption in 2010.

Water Management Administration – Comments on Water Supply

1) **Water Supply Information**
The Water Resources Element should be revised to include the following information:
   a) Specific information about the capacity and current demand for each community water system in the County (there are 33 community water systems in Calvert County);
   b) Specific information about projected future demand for each community water system and whether the current capacity will be adequate;
   c) A discussion of existing water sources and water availability issues related to those sources;
   d) A discussion of how the water systems are planning to meet future demand;
   e) A discussion of individual wells and related water issues;
   f) Maps of water service areas;
   g) Maps of source water protection areas; and
   h) A discussion of the findings of source water protection assessments and any measures the County intends to implement to protect water sources.

Staff Comment: No changes suggested. The purpose of the Water and Sewerage Plan is to implement the water and sewer policies of the Comprehensive Plan. The Water and Sewerage Plan is referenced in the Comprehensive Plan, so that those desiring that level of detail can find it there. If the water and sewer maps were added to the Comprehensive Plan, they could be out of date in a year.

2) **Interjurisdictional Coordination**
Development of the WRE should be a collaborative effort among Calvert County and the incorporated municipalities within the County, Chesapeake Beach and North Beach.

Staff Comment: No changes suggested. Staff agrees. Staff has provided Geographic Information System (GIS) maps to the municipalities and has met with municipal staff and Town Councils during the process of preparing the WRE.

3) **Water Supply Capacity**
The following community water systems in Calvert County exceeded 80% of their water appropriation permits in 2008:
   a) Regency Manor MHP
   b) Beaches Water Company, Inc.
   c) Western Shores Community
   d) Prince Frederick
   e) Lakewood Subdivision
   f) Town of Chesapeake Beach

The first four systems listed above exceeded their appropriation permits by significant percentages. Although the Beaches Water Company recently obtained a permit revision for an increased appropriation that should meet the needs of the system, the other three systems remain out of compliance with their permits. These systems should develop and implement plans for meeting their permit limits and/or apply for expanded permit limits.

Community water systems that provide more than 20,000 gallons per day (gpd) and that operate at 80% or more of their appropriation permit limits are required by MDE to prepare Water Capacity Management Plans (CMPs). The water systems listed above must prepare CMPs and develop plans for ensuring that water supplies will be adequate for future needs. It is recommended that all other water systems in the County develop CMPs and that the findings be presented in the WRE. Detailed guidance for calculating existing and future water use and water system capacity can be found in MDE's *Guidance Document: Water Supply Capacity Management Plans*, available at: http://www.mde.state.md.us/assets/document/water/WaterSupplyCapacityPlansGuidance.pdf.

Staff Comment: No changes suggested. The Water and Sewer Division is aware that the systems have exceeded their water appropriation permits and is working on the development of Water Capacity Management Plans.

4) **Water Quality of Drinking Water**

Arsenic has been found in Calvert County wells at levels that exceed the drinking water standard. One community water system is currently in violation for exceeding the arsenic standard. The Plan should provide information about the aquifers that are affected by arsenic and a discussion of the public health impacts of arsenic. In particular, the County should develop plans for addressing the public health risks associated with elevated arsenic levels in individual wells. Neighboring counties with similar arsenic issues have developed and implemented plans to insure that new wells are drilled in aquifers or at depths where arsenic levels are below the drinking water standard, or have required homeowners to employ treatment methods to meet the drinking water standard. The County should also develop and implement a program to educate homeowners with existing wells about the health risks associated with arsenic ingestion and possible treatment alternatives.

Staff Comment: The arsenic issue is addressed in the Water and Sewerage Plan (page 40). Recommend that it also be mentioned in the Comprehensive Plan and added as an action.

5) **Water System Consolidation**

There are areas in Calvert County that have experienced substantial growth without the development of community water systems. In particular, there are many nontransient, noncommunity water systems in the Dunkirk area and a number of small community water systems south of Prince Frederick. The County should evaluate these small water systems and develop plans for ensuring the viability of these systems as they age over the next 20-30 years. It is recommended that the County consider developing centralized public water system(s) to replace these numerous small systems, and/or utilize existing systems to consolidate the smaller systems.

Staff Comment: No changes suggested. Systems with less than 50 residences are not good candidates for community systems. Expanding and connecting these systems will only facilitate sprawl.

6) **Water Conservation**

WMA encourages Calvert County to develop a detailed conservation plan as outlined in MDE's *Developing and Implementing a Water Conservation Plan*, available at: http://www.mde.maryland.gov/assets/document/water_cons/WCP_Guidance2003.pdf.

Additional information about developing a community water conservation plan can be found in the US Environmental Protection Agency's *Water Conservation Plan Guidelines*, available at: http://www.epa.gov/WaterSense/pubs/guide.htm.

Staff Comment: No changes suggested. The County has a water conservation plan in place.

7) **Wastewater Information**

WMA recommends that Calvert County include a list of the current flows and projected flows of the minor wastewater facilities within the County in the Comprehensive Plan.

Staff Comment: No changes suggested. The purpose of the Water and Sewerage Plan is to implement the water and sewer policies of the Comprehensive Plan. The Water and Sewerage Plan is referenced in the Comprehensive Plan, so that those desiring that level of detail can find it there. If the water and service area maps were added to the Comprehensive Plan, they could be out of date in a year.

Science Services Administration

I. WATER RESOURCES ELEMENT

In order to prepare the Water Resources Element of the Comprehensive Plan, Calvert County must provide a simple nonpoint source analysis to estimate changes in nutrient loads resulting from proposed land use changes. Although the County provided a Plan that contains a Water Resources Element and a Nonpoint Source (NPS) Loading Analysis, the NPS Analysis was not complete.

The NPS Analysis should be revised to address the following items:

1) The NPS Analysis should include Forest Acres and Loads (initial and future).

The Nonpoint source (NPS) analysis must provide, at a minimum, the following information:

1) Describe alternative land use options, if applicable.
2) Perform and document the NPS analysis (including nitrogen and phosphorus loads).
    a) Describe methods and justify assumptions that differ from the NPS spreadsheet that is available upon request from MDE. (See below)
3) Compare results for alternative options (Include initial and future).
    a) NPS nutrient loads
    b) Amount of impervious cover
    c) Point and nonpoint nutrient load implications
4) Include recommendations in the Comprehensive Plan for refining the NPS analyses in the future.

A more detailed description of the nonpoint source analysis can be found in *Water Resources Element Guidance – Models and Guidelines No. 26*. The Guidance document may be downloaded from the following website:
http://www.mdp.state.md.us/mgs/pdf/mg26.pdf.

(This might take a while to download because this file is over 15 MB in size.)

Assistance in performing the nonpoint source analysis is available from the Maryland Department of the Environment (See below). MDE is able to provide a NPS loading spreadsheet tailored to each jurisdiction.

A municipality may choose to defer the nonpoint source analysis to the County provided that the municipality obtains correspondence from the County stating that the County has agreed to perform the analysis as part of its WRE.

To request additional assistance concerning the NPS Analysis, please contact Robin Pellicano by letter or email:

Robin Pellicano
Maryland Department of Environment
1800 Washington Blvd.
Baltimore MD 21230
rpellicano@mde.state.md.us

Staff Comment: All the tables were created but the level of detail may be more than should be in a Comprehensive Plan. Instead, they should be in the Guidance Document. Will check with Robin Pellicano to see if she thinks we need to add anything.

II. ADDITIONAL WATER QUALITY REQUIREMENTS

The following additional comments are intended to alert interested parties to issues regarding water quality standards. The comments address:

A. Impaired waters in the local vicinity, which are identified on Maryland's 303(d) List;
B. TMDLs in the local vicinity, which have been established for impaired waters;
C. Special protections for high-quality waters in the local vicinity, which are identified pursuant to Maryland's anti-degradation policy; and
D. General guidance.

A. Water Quality Impairments

Section 303(d) of the federal Clean Water Act requires the State to identify impaired waters and establish Total Maximum Daily Loads (TMDLs) for the substances causing the impairments. A TMDL is the maximum amount of a substance that can be assimilated by a waterbody such that it still meets water quality standards.

The County should be aware of existing water quality impairments identified on Maryland's 303(d) list. The County is situated in the following watersheds, which are identified by eight-digit codes:

Lower Chesapeake Bay - 02139998
Patuxent River lower - 02131101
Patuxent River middle - 02131102
West Chesapeake Bay - 02131006

Planners may find a list of nearby impaired waters by entering the 8-digit basin code into an on-line database linked to the following URL:
http://www.mde.state.md.us/Programs/WaterPrograms/TMDL/Maryland%20303%20dlist/303d_search/index.asp

This list is updated every even calendar year. Planners should review this list periodically to help ensure that local decisions consider water quality protection and restoration needs. **Briefly, the current impairments that are relevant to Calvert County include the following*:**

Lower Chesapeake Bay (0213999[illegible])
Nutrients: Tidal. A TMDL is pending development.
Sediments: Tidal. A TMDL is pending development.
Biological: Tidal. A TMDL is pending development.

Patuxent River lower (02131101)
Bacteria: Tidal. A TMDL has been written and approved by EPA.
Nutrients: Tidal. A TMDL is pending development.
Sediments: Tidal. A TMDL is pending development.
Toxics: Tidal. A TMDL for Chlorpyrifos has been written and approved by EPA.
Metals: Impoundment. A TMDL for methylmercury for Lake Lariat has been written and approved by EPA.
Biological: Non-tidal. A TMDL is pending development.

Patuxent River middle (02131102)
Nutrients: Tidal. A TMDL is pending development.
Biological: Non-tidal. A TMDL is pending development.

West Chesapeake Bay (02131005)
Nutrients: Tidal. A TMDL is pending development.
Sediments: Tidal. A TMDL is pending development.
Biological: Non-tidal. A TMDL is pending development.

(* Note that upstream jurisdictions also share in the responsibility for addressing downstream impairments, which might not be identified in the summary above. In addition, jurisdictions that eventually drain to the Chesapeake Bay have a general responsibility to control nutrients as part of the Chesapeake Bay Agreement Tributary Strategies.)

Staff Comment: TMDLs have not been established yet for Nutrients or Sediments. No change proposed.

B. TMDLs

Development and implementation of the Comprehensive Plan should take into account consistency with TMDLs developed for the impaired waterbodies referenced above. Government decisions made prior to the development of a TMDL should strive to ensure no net increase of impairing substances. TMDLs are made available on an updated basis at the following web site:
www.mde.state.md.us/Programs/WaterPrograms/TMDL/Sumittals/index.asp.

Staff Comment: TMDLs have not been established yet for Nutrients or Sediments. No change proposed.

C. Anti-degradation of Water Quality

The State of Maryland requires special protections for waters of very high quality (Tier II waters). The policies and procedures that govern these special waters are commonly called "anti-degradation policies."

Lyons Creek 1 and Lyons Creek 2have been designated as Tier II streams. (See attached map)

Planners should be aware of legal obligations related to Tier II waters described in the Code of Maryland Regulations (COMAR) 26.08.02.04 with respect to current and future land use plans. Information on Tier II waters may be obtained online at: http://www.dsd.state.md.us/comar/26/26.08.02.04%2D1.htm.

Planners should also note that the Code of Maryland Regulations is subject to periodic updates. A list of Tier II waters pending Departmental listing in COMAR can be found, with a discussion and maps for each county, at the following website: http://www.mde.state.md.us/ResearchCenter/Data/waterQualityStandards/Antidegradation/index.asp.

For the purpose of comprehensive planning, Calvert County should consider both the Tier II segments that have been formally designated as well as those stream segments that are pending Tier II designation.

To request the Tier II GIS information, please contact Angel Valdez at AValdez@mde.state.md.us or Matt Stover at mstover@mde.state.md.us.

Staff Comment: A map of the Tier II streams will be included in the Plan. Staff is aware that special regulations apply.

D. General Guidance

Land use planning should reflect the limits on pollutant loads necessary to meet water quality standards. Techniques now exist to support land development that minimizes the generation of the pollutants that are impairing our waters. It will be in the interest of local jurisdictions to adopt these techniques to optimize growth in a manner that is consistent with TMDLs and the Tributary Strategies for nutrient reduction developed under the 2000 Chesapeake Bay Agreement.

Examples of planning techniques that consider TMDLs:

1) Consider alternatives to surface water discharges, where applicable. For example, consider identifying land for future spray irrigation of treated municipal waste if the direct discharge of effluent to a stream could become limited by a TMDL or the Bay Agreement nutrient allocations.

2) Consider land use planning that will maximize the preservation of forested land, which contributes the least amount of nutrient loading per acre.

3) Consider giving priority to site designs that minimize impervious area and nutrient loads per unit of development.

For more general guidance, please see the following publications:

Protecting Water Resources with Smart Growth
http://www.epa.gov/smartgrowth/water_resource.htm

Best Development Primer
http://www.epa.gov/smartgrowth/pdf/bestdevprimer.pdf

Maryland's 2006 TMDL Implementation Guidance for Local Governments
http://www.mde.state.md.us/Programs/WaterPrograms/TMDL/TMDL_implementation_2006_guidance_document.asp

Better Site Design: A Handbook for Changing Development Rules in Your Community
http://www.cwp.org/better_site_design.htm

Staff Comment: No changes suggested. These details will be included in Subwatershed Plans.

III. ADDITIONAL COMMENTS

1) Development or re-development should include Maryland Stormwater Management Controls. Designs that reduce impervious surfaces and BMPs that increase runoff infiltration are highly encouraged. Engineers should incorporate Environmental Site Design to the Maximum Extent Practicable into site designs and architects should consider "Green Building" alternatives for building designs.

Staff Comment: No changes suggested. These details will be included in Subwatershed Plans.

2) Alternate land use options should discourage development in forested areas or include options to reforest other areas to prevent overall loss of forest land. Forest Conservation should be a priority.

Staff Comment: No changes suggested. These details will be included in Subwatershed Plans.

3) With the completion of the Chesapeake Bay TMDL, the Chesapeake Bay Program Office (CBPO) will be able to provide loading data at a more refined scale than in the past. MDE will be able to use the CBPO data to estimate nonpoint source pollution allocations at the county jurisdictional level and these allocations will be used in the next cycle of WREs. Jurisdictions with planning and zoning authority are required to prepare a WRE once every six years. For the next cycle of WREs, jurisdictions will be required to provide detailed land use analyses that are consistent with the Bay TMDL and local TMDLs, where they exist. In this way, MDE will ensure that implementation of the TMDLs and local planning efforts will be closely linked.

Staff Comment: No changes suggested. These details will be included in Subwatershed Plans.