I. Recommended Local Government Efforts:

Recognizing conservation of existing forests within the Bay model incentivizes localities to implement the following local efforts. (TMDL progress recognition is different than nutrient credits available for trading).

1. Planning activities should utilize existing and emerging resources to identify high conservation value (HCV) forests, wetlands and other green infrastructure assets. The following is a list of resources which are currently available. (page 131, 1.a and c)

   a) Existing Resources (VA):
   - Virginia DOF, High Conservation Value (HCV) Forest Land Map (2010)
   - Virginia DOF, Urban Tree Canopy Studies
   - Virginia DCR, Va. Natural Lands Assessment ("VNLA"), Natural Heritage data
   - Virginia DEQ, Coastal GEMS environmental GIS portal
   - Regional Green Infrastructure (GI) Plans/Maps (e.g. PDs 8, 9, 16, 15, 19 and 23)
   - Local Comprehensive Plans, Environmental/Open Space Elements
   - Inventory of lands under Agricultural/Forestal Districts, Forest Land Use, Federal, State and Local parklands, conservation and open space easements

   (VDOF staff is available to provide technical assistance in identification of local HCV forests.)

   c) New Resources:
   - 2013 High Resolution Land Cover imagery
   - LIDAR data
   - ESRI, free Green Infrastructure Initiative (see: http://www.esri.com/about-esri/greeninfrastructure)

2. Assess current local planning efforts and policies. (p.131, 2).
   a) Comprehensive Plan –
      i. Do you have a policy statement on the importance of conserving HCV forests?
      ii. Do you have an Environmental Assessment Chapter?
      iii. Does your Plan place a value on open space conservation, especially high conservation value forest land and wetlands?
      iv. Does your Plan provide or permit the establishment of sending and receiving zones to guide TDR and PDR actions?
      v. Does your Plan follow your public water and sewer master plans, and do these plans guide development where the Comp Plan proposes urban growth? In other words is there clear linkage from the Comp Plan to these utility master plans?
      vi. Does your Plan identify and define where urban growth or urban service areas will be located?

b) Land Development Ordinances-

i. Are your land use ordinances (zoning and subdivision, etc.) carrying out the environmental public policy directives featured in the Plan?
   * Zoning & Planned Development Ordinances: do they place a premium on forest and tree retention in defining the standards for development?
   * Do you utilize cluster zoning and PUDs for facilitate conservation forest and agriculture?

ii. Consider creating a forest retention overlay zoning district, using defined VDOF HCV map and/or regional or local green infrastructure plans, to set development standards, which might include the limited application of a tree protection ordinance as allowed under § 15.2-961.

iii. Use the overlay district as the area for TDR and PDR application.

iv. Natural Resource Protection Overlay Ordinance (e.g. Virginia's Chesapeake Bay RPAs)
   * How do established RPA areas coincide with defined forest and woody wetland and other wetland (e.g. NWI) boundaries?
   * Consider possible amendment of RPA boundaries based on hi-resolution land cover, and LIDAR data to better delineate RPA.

v. TDR & PDR Ordinance(s) –
   * Has your community developed and/or adopted either a TDR or PDR ordinance?
   * Do these ordinances define HCV forestland or green infrastructure cores and corridors as sending zones, allowing landowners to sell-off and retire (PDR) or sell-off and transfer (TDR) the by-right development units allowed under current zoning?
   * Has your community considered holding easements or have you identified a local land trust or other entity to hold easements or work with to help implement your TDR/PDR programs?

vi. Tree Protection Ordinance –
   * Does the community have a tree protection ordinance?
   * If one exists, is it followed and enforced?

3. Soil and Water Conservation Districts (p.132, 3)
   a) Is there coordination between your locality and the District on reporting TMDL efforts and progress?
   b) Coordinate with the District in all activities under #1 and 2 above; District can be crucial to engaging key constituencies (farmers, forest landowners, Farm Bureau, etc.).
   c) Draw on VDOF technical expertise in support of District forest-related efforts, including District activities and District support of local activities.

4. Local Board/Council engagement with Commissioner of Revenue to evaluate and consider how to enhance tax preference efforts such as Land Use Value Taxation (LUVT) and Agricultural and Forestal Districts (AFD). (p.133, 4 a and b).

II. Recommended State Efforts:

1. Strengthen the LUVT (p.104-107, 6) by addressing the Composite Index policy conflict.

   It was noted that to be successful, additional K-12 funding would need to be included in the state budget to hold the losers "harmless." One person commented that additional K-12 funding for this purpose would represent an increase in education funding for Chesapeake Bay cleanup and as such, it could be a multi-benefit investment. It could strengthen the LUVT program locally by offsetting some of the negative budget impact of the program.

   An alternative was recommended by one forest landowner of direct payments by the Commonwealth to localities for the deferred revenue for land use assessment on forest land (p.105).

2. Modify LUVT to allow localities greater flexibility in program administration by allow multi-year registration for landowner participation.

3. Continued State funding for non-point source pollution programs including ag BMPs cost share and the Stormwater Local Assistance Fund (p.108, 8). Minimum funding targets should be $xx million.

4. Continue to explore strategies to capitalize on the willingness to explore win-win-win opportunities (p.102, 118)

   Discussions with the stakeholders across the basin revealed common interests: a willingness of local governments, rural and urban/suburban, MS4 and non-MS4; to work together for their mutual benefit in efforts to address water quality goals of the Chesapeake Bay TMDL if the outcome is a "win-win". In this context, the "win" that MS4 jurisdictions seek is lower cost per pound to meet water quality permit requirements, while the "win" that non-MS4 jurisdictions seek is turning green assets (such as forests and wetlands) into an economic driver that benefits rural landowners and the local tax base. As this opportunity emerged a caution also emerged – that the economic trading transaction envisioned must truly reflect water quality improvement at the local, basin and Bay scales (another "win"). The project team's finding is that an opportunity exists for all parties to continue exploring strategies, possibly through the on-going WIP III planning process, to enable transactions with "win-win-win" outcomes. (p.102)

   The following concept is modeled after GreenTrees[61]*, currently the largest carbon*

61 See: https://www.green-trees.com

reforestation project in North America. That project is focused on reforesting one million acres in the Mississippi Alluvial Valley. The area is a flyway for 60 percent of all birds on the North American continent, drains 41 percent of the United States and is a major commercial artery. It is financed through carbon credit purchases made by the Norfolk Southern Corporation and Duke Power. Healthy Watersheds Forest team members met with the project sponsors and asked them for suggestions on how a similar model could be designed and employed in the Rappahannock River basin, and more broadly in the Chesapeake Bay Watershed. (p.118)

5. Consider expanding local authority to adopt an ordinance for tree replacement during land development (15.2-961) to all localities within the Chesapeake Bay Watershed. Currently limited to localities with densities greater than 75 persons per square mile.

6. Have DCR and DEQ establish a work group of key stakeholders to make recommendation to better align the variety of stream buffer widths between CBPA, allowances for ag encroachments and federal minimum requirements (p.124).

7. Improve the 1-meter land cover imagery to make it more user friendly relative to jurisdictional boundaries (p.125).

   These high-resolution land cover data are hosted on a web server by the Virginia Geographic Information Network (VGIN) as a mosaic of tiled image files which require significant technical capability to create more useful locality-specific datasets for the 134 independent cities and counties and 190 independent towns of the Commonwealth. The Virginia HWF/TMDL project team recommends that the Commonwealth pre-process such large spatial datasets to create downloadable files at the independent city, county and town level, providing more "user-friendly" data better related to the political geographies that make land use and stormwater management decisions.

Note: VDOF and RRBC staff are exploring grant opportunities to support a Phase III project which could include 2 efforts:

1. Training/technical assistance for 1 or more basin locality to conduct an evaluation (with the governing body, planning commission and staff) of the Comp Plan and the land development ordinances for possible revisions as outlined in I above, and
2. Engage the Mississippi Alluvial Valley Reforestation project sponsors to investigate opportunities to replicate a similar effort thereby addressing II.4 above.