CECIL COUNTY COMPREHENSIVE PLAN
WATER RESOURCES SUBCOMMITTEE
MEETING MINUTES
7th May 2008

Attendance

Member	Present
Eileen Butler (VCh)	Y
Dan Derr	Y
Robert Gell	Y
Randy Hutton	Y
Ann Jackson	Y
Phyllis Kilby (Secr.)	N
Daniel Polite	Y
Vic Priapi	Y
Rupert Rossetti (Ch)	Y
Henry (Dick) Shaffer	N
Chuck Smyser	Y
Tony DiGiacomo (Staff)	Y

Other Attendees	Affiliation
Tim Whittie	DPW
Jason Dubow	MDP
Matt Carter	Citizen
Joseph DiNunzio	Artesian
Tom McWilliams	Citizen

Call to Order *18:35, 7th May 2008, Cecil College North East – TC214*

Regrets received from Dick Shaffer.

Announcements

- **Chairs & Co-Chairs met on 6th May. Purpose was to clarify linkages between ERM and subcommittee work, define subcommittee deliverables, address overlaps and gaps, and outline the content of the next full meeting.**
    - **ERM will do any necessary data-gathering and will write the various chapters in the Comprehensive Plan document**
    - **Subcommittees will:**
        - **Identify key issues to be addressed**
        - **Provide a bulleted list of policy recommendations**
        - **Establish goals for the Comp Plan Element(s), and develop a set of measures to assess progress**
        - **Provide a list of reference materials used by the subcommittee**
    - **A Policy Statement in this context is a guide to local government around decision making in a specific topical area.**
    - **Next full COC meeting (21st May) will focus on presentations from each of the municipalities, each of which will have 10 minutes to talk about their growth issues.**

- **Each WRE subcommittee member should have received a link to the Draft of the Garrett County Comprehensive Plan, as well as a pdf file for their Chapter 5, the new Water Resources Element. ERM is the consultant for Garrett County, so this should be a good "Go By". Garrett also has eight municipalities and has a portion of their county draining outside the Chesapeake Bay watershed. Current status of Garrett's plan: in the 60 day review period (by the State agencies).**
- **Each WRE subcommittee member should have received**
  - **Three excerpts of the M&G 26 that speak to the linkage between WRE and Land Use, as well as suggesting policies.**
  - **Three excerpts from EPA documents, including a list of 75 policy recommendations and a paper on Water Resource Protection with high density development**
  - **Advice worth drinking**
  - **A Non-Point Source Education for Municipal Officials (NEMO) paper on imperviousness.**

ERM Update: Ben Sussman

- **See Garrett County status, above**
- **Ben & Maggie** are waiting on MDE's data, and do not want to deliver a full draft WRE without that data. It would be nice if that could occur by the June meeting, but the likelihood is that it will take longer. Once they have the MDE data, producing the draft WRE will be a matter of updating Maggie's previous work. We will definitely work to get an existing conditions version of the NPS model by the June meeting.

Impact of Imperviousness on water quality: Rupert

- **Intended as a level-set and foundation for the ensuing discussion. See PowerPoint presentation (attached as PDF)**
  - **Bottom line: Imperviousness has a negative impact on water quality. "Environmental Site Design" (ESD) techniques are intended to mimic natural (pre-development) conditions and manage the impact on the assimilative capacity of the receiving waters**
- **Discussion:**
  - **Tony D.: Planning issues are not simple, and there is a tension between the needs of water resources, the "new Urbanism" which urges dense development with lots of sidewalks and the related need to improve air quality by providing walkable communities centered around mass transit. Vehicle Miles Travelled (VMT) is a metric that we will need to consider.** Given our built environment, once we crank the WRE stormwater numbers, it is not beyond the realm of possibility that we could find ourselves in the position of not being able to direct more growth to our Towns and our Development District. What then?
  - **Tim Whittie: There is not much that he believes the Comprehensive Plan rewrite can do to help him. The ongoing rewrite of the Stormwater Management Regulations and the concurrent rewrite of the Municipal**

Separate Storm Water Sewer System (MS4) Permit for Montgomery County will completely change the approach to Stormwater management.

- **There will be no more large storm water management ponds**
- **Developments will have to mirror existing drainage patterns and infiltrate at pre-development levels**
- **There will be a finite limit to development if receiving waters are impaired, which may constrain development in some of our watersheds.**
- **One of the dilemmas we need to address is how to increase development and at the same time show a net reduction in impervious surfaces**
- **There are some examples where the storm water management ponds in a development have been too effective, and have resulted in a loss of wetlands downstream in the watershed.**
- **Don't forget that septics are high polluters**

Impact of Nutrients – the WRE Non-Point Source (NPS) Spreadsheet – Ben S.

- **Ben Sussman reviewed the workings an implications of the NPS Spreadsheet**
  - **Considers what is in the run-off, limited to Nitrogen (N), Phosphorus (P) and Sediment**
  - **Cecil is initially going to be split into three watersheds**
    - **Lower Susquehanna (Conowingo creek to Mill Creek)**
    - **Eastern Shore (Principio Creek to Sassafras River, ex. Christina)**
    - **Christina River (flows into Delaware Bay)**
  - **Begins with a look at existing conditions by watershed**
    - **Begin by plugging in acres for each type of land use by watershed (pre-loaded based upon the latest (2002) Land Use data from MDP), as well as existing septics**
    - **Compute Terrestrial Runoff (lbs / Year N & P)**
    - **Compute Nitrogen Contribution from Septics (N only)**
    - **Compute total N Load (Terrestrial + Septics)**
    - **Plug in various land use scenarios and see the impact on run-off**
    - **Select the scenario that makes the most sense for the county, while paying attention to what makes sense for the Bay)**
  - **Limitations:**
    - **The load factors are not realistic and so should not be used as a precise assessment, but more as a tool for comparison purposes.**
      - **Load Factors for Land Use Categories 11 through 18 vary from watershed to watershed, but do not vary with land use, which varies from Low Density Residential to Commercial & Industrial.**
      - **We will enquire if it is possible to modify the Load Factors to better reflect reality, or whether the risk of corrupting the spreadsheet is too high.**

- **If the latter is true, then will have to interpret the spreadsheet outcomes, recognizing the load factor limitations.**
- **We will not be making decisions at the local watershed level about "stopping a particular development", this is more likely to happen at the Regulation and MS4 Permit level). The model at this level of granularity is comparative, not absolute.**

- **Ben & Maggie will deliver us a spreadsheet populated with the current conditions, updated for major new developments, and have requested MDP to generate a projection of land use changes in 2030 based upon current zoning.**
  - **As we plug in the various future land use scenarios we come up with, we will see the impact. Do they look similar or are they very different?**

NPS Issues and Discussion – Eileen

Non-point Source Issues to consider during Comprehensive Plan development

Goal: Developing at a sustainable level with the layout (topography) and limitations (natural resources) of the land in mind.

- Establish Conservation Design as the priority type of development for Cecil County
  - Compact Design – setbacks from sensitive resources, open space protection
  - Use ecosystem services provided by the site for
    - Flood control
    - Water filtration
    - Protecting water/air quality through riparian buffers and carbon sequestration associated with forest cover
    - Educate public on economic values of natural resource protection (tourism)

- Establish natural resource protection levels for wetlands, streams, floodplains, forests
  - Develop map that shows these natural resources, plus protected lands
  - Coordinate County/State land conservation plans
  - Maintain existing forest cover and promote contiguous forest connections
  - Establish land use policies that encourage and promote ecological guidelines for development
    - Ecological Guidelines are based on scientific research, ecological processes and how land use and development affects those processes
    - The Ecological Society of America first developed the following ecological guidelines to facilitate incorporation of ecological considerations into land sue decision-making in 2000:
      - Maintain large areas of contiguous habitat and avoid fragmenting these areas
        - Such habitats are usually more diverse, complex

- Maintain meaningful wildlife corridors and potential non-consumptive bike and pedestrian connections between habitat areas and adjacent land uses
- Protect rare landscape elements, sensitive elements and associated species
- Allow natural patters of disturbance to continue to maintain diversity and resilience of habitat types
- Minimize direct and indirect human disturbance and the introduction and spread of non-native species and favor native plant and animals
- Minimize human introduction of nutrients, chemicals, and pollutants
- Avoid land uses that deplete natural resources over a broad area and allocating such land uses to areas of minimal natural resource impacts
- Compensate for adverse effects of development on natural processes – mitigation

(Delaware is encouraging the use of these guidelines in areas identified as State Resource Areas (SRAs). In 1990 Delaware passed the Land Protection Act and it defines SRAs as "those open space lands duly identified by the Open Space Council and adopted by the Department of Natural Resources and Environmental Control for protection." We are talking about conservation lands (already protected), Green Infrastructure lands (parks, forests, greenways, open spaces), tidal and non-tidal wetlands, large forest blocks, key wildlife habitats identified in the state's Wildlife Action Plan, cultural resources, silvacultural or agricultural lands.

- Land Use planning should be implemented at a watershed level
- Growth should occur where water supply source can support it
- Set impervious cover limitations at a watershed level
    - Limit impervious cover to 10% in Sensitive Areas
- Manage stormwater to promote recharge/infiltration
- Use nutrient loading limits to guide development approvals
- Consider cumulative site-level development-related impacts during approval process at watershed level
- Wastewater disposal capacity allocation and water quality protection should be part of the development approval process
- Do State agencies review development proposals (especially those programs that do not require a permit)? If so, which agencies: Should we include more?

Goal: Coordinate and complement Land Trust and State/County land acquisition activity

- What has been protected already? Where? What are the future preservation priority areas?
    - This should be a part of the Sensitive Areas Element, but we should be aware of it for water supply purposes.

Goal: Water conservation initiatives

- Public Works should implement initiatives now, not in the future. Craft policy to encourage water conservation through pricing, water re-use, education, give-aways or incentives on low flow structures (e.g., showerheads)

- Require rain gardens and rain barrels in new developments
- Wastewater disposal capacity – all new systems should meet proposed demand for future growth.
    - Require approval process for new development to include meeting verified assimilative capacity prior to final approval
- Develop and use water supply capacity management plans
    - Only permit development that would not go over capacity
- Establish wellhead protection areas and water resource protection areas (to protect recharge areas)

Non-point source loading is a direct result of land use decisions. The best chance to get it right is now.

General Discussion – a combination of points from Ben's talk and Eileen's follow-up

- **What-Ifs:**
    - **What kind of land use options do we want to consider?**
    - **Route 40 / I-95 Corridor is the biggest concentration of Green Infrastructure outside Elk Neck. What happens as we develop the corridor?**
    - **What about the underlying soils? Their infiltration rates vary quite a bit.**
    - **What policies can we put in place to reduce imperviousness and better manage nutrient loads**
    - **How can we ensure that our Forest Conservation areas count towards Green Infrastructure?**
    - **Does the County want to channel growth away from the Green Infrastructure?**
        - **Can we follow the Ebenezer Howard approach and have Green Belts between the towns along the growth corridor?**
        - **If we were to move the growth away from the existing corridor, where would it go?**

The meeting adjourned at approx 9:00 p.m.

Questions for the Subcommittee (items in blue are the questions we need to answer per the WRE component chart from ERM)

- What is the discharge of nutrients (N, P) from non-point sources to the Bay?
  - Stormwater runoff (urban, rural, agricultural sources).
  - Location of new septic systems

Questions for Staff

Ben, should I contact MDE re. the pros / cons of changing Load Factors in the spreadsheet, or will you?

Carry-overs from prior months

April:

1. Elk Neck Groundwater wells: Where are the recharge areas? Please ask the consultant to provide them.
2. Where is the latest draft of the Source Water Protection ordinance?

March:

1. Do we need to take a position on sump pump and downspout connection to sewer lines, or is this already covered in the county code?
2. ~~What is the status of the County Master Water & Sewer Plan and how does it complement the DPW Action Plan~~
3. What is the origin and breakdown of the 9-12 million gals per day WWTP capacity needed in the growth area? Is this county only, or county and municipalities?
4. What percentage of the county population is on sewer and what percentage on septics? Do these numbers include Municipalities?
5. Where are the areas of failed septics?
6. Follow-up questions for Scott & Tim: What is the current split between residential and commercial/industrial WWTP capacity for both "current usage" and for "allocated but as yet unused"? Can you break it down by WWTP?

Recommendations/Action Items for Staff and Consultants

1. **See Questions for Staff**

Recommendations/Action Items for Oversight Committee

1. **None at present**

Adjournment

Next meeting: June 4th, 6:30 pm at Cecil College North East Campus Room TC 214, will focus on synthesizing the outcome from the past three meetings.

Minutes Prepared by: Rupert Rossetti **Date: 14th May 2008**