



## **II. Is It Consistent With Goals, Objectives, Strategies of Watersheds?**

### **1. Engage and educate individuals, communities and governments in watershed stewardship. (p.76, 172)**

- Does project create and/or take advantage of opportunities for educating people about water resources?
- Does project actively create opportunities for people to participate in watershed stewardship?

### **2. Enhance water-based recreational and cultural resources. (p.77, 174)**

- Does project create opportunities to “connect” people to water features (trails, recreation areas, etc.)?
- Does project appropriately re-use or incorporate water-based historic/cultural resources?

### **3. Preserve natural resources. (p.78, 176)**

- Are natural resources inventoried?
- Are they adequately protected?
- Are first order streams recognized and protected?
- Does land preservation consider protection of first order streams, floodplains, riparian buffers, woodlands, and areas immediately surrounding public water supply wells?
- Are forested riparian buffers established and/or protected?
- Are stream channel crossings adequately addressed?
- Is ground water recharge / infiltration protected?

### **4. Improve water quality. (p.82, 183)**

- Does the location drain to streams that are impaired?
- Does stormwater management include water quality pre-treatment?
- Are forested riparian buffer networks included?
- Will nutrients and/or pesticides be routinely used on the site; if so are nutrient/pesticide management plans required?
- Will pollutants be generated on the site (hydrocarbons, flotables, nutrients, etc.) and if so are pollutant runoff controls included?
- Is there a public water supply intake located downstream? (if so water quality runoff protection is paramount concern)
- Is there a (or multiple) public water supply wells on site or downgradient? (if so, nutrient / pesticide application plans and/or industrial/commercial chemical controls should be considered)
- Is the underlying ground water contaminated; if so, are land uses designed to avoid spreading the contamination and/or assist in remediation of contamination?
- Is the site a Brownfield? If so, infiltration may not be appropriate.

## **5. Reduce stormwater runoff and flooding. (p.83, 187)**

- Are 10 principles of stormwater management incorporated? (pg.83 and 187)
  - Minimize impervious cover to reduce volume of stormwater generated
  - Except in urban areas and woodland, assume pre-development condition to be open meadow
  - Infiltrate net increase in volume of runoff of 2-year storm (where conditions allow) or of 1-inch storm (where site conditions are limited) (in urban areas, show reduction in total runoff or increase in infiltration from pre-development condition)
  - Capture runoff from 1 inch storm and remove pollutants prior to release to streams
  - Protect stable stream channel conditions
  - Reduce post-development peak discharge to open-meadow; where stormwater runoff contributes to areas of urban flooding, reduce post-development peak runoff to 90% of open-meadow
  - Insure permanent operation and maintenance of stormwater management facilities
  - Protect adjacent lands from erosion and flooding of stormwater discharges
  - Establish/protect forested riparian buffers
  - Protect wetlands and floodplains for flood storage and conveyance purposes.
- Are conservation design principles incorporated (not just cluster, but design principles that reduce directly-connected impervious cover and runoff)
- What is total percent of area cover by proposed project?
- Is area overlying carbonate geology? Is infiltration designed to protect against ground water contamination and sinkholes?
- Is it consistent with any completed Act 167 plans / ordinances?
- Does it recognize difference in stormwater management for urban versus newly developing suburban conditions?

## **6. Protect watershed water balances. (p.88, 193)**

- Is water conservation incorporated?
- Where is drinking water taken from (what watershed or stream or public system)
- Where is wastewater discharged to (is it the same watershed / stream that water supply is taken from?)
- Is stormwater discharged into same watershed that it was “rained” into?
- Further considerations apply here for water supply planning; see Part 6, p.109

## **7. Integrate utility and municipal planning to meet future water supply and wastewater needs. (p.96, 198)**

- Is there adequate quantity of water supply available (and of sufficient quality) to meet future water supply needs?
- Are areas planned for future public water and wastewater clearly, specifically and adequately delineated and defined? Do ordinances support / implement these delineations?
- Have all reasonable alternatives been considered and evaluated for meeting future water supply needs (ground water, reservoirs, existing public systems, new systems, etc.)?
- Have all reasonable alternatives been considered and evaluated for meeting future wastewater needs (land application, onlot systems, existing public systems, new community systems, etc.)
- If connection to public water/ wastewater systems is planned:
  - Is area within designated growth area per **Landscapes**?
  - Will water or wastewater pipelines be extended through rural areas?
  - If so, have techniques been formalized to protect the pipeline from undesired connections in the future (zoning, agreements, filed with PUC, etc.)?
- If project is located within a designated growth area, is it connecting to public water or wastewater system; if not, why not.
- Have source water protection measures been put in place to protect sources of drinking water supplies? (p. 98, 132, and 200)

### Other Watershed Plans (3/26/03)

	<b>Watershed</b>	<b>Rivers Conservation Plan</b>	<b>Federal Wild &amp; Scenic Plan</b>	<b>Watershed Action Plan</b>	<b>Act 167 Plan</b>	<b>Other</b>
1	Brandywine Creek	Underway		Yes		Christina
2	Chester Creek	Adopted		Yes	Underway	
3	Christina River	<i>Watersheds</i> Plan				Christina
4	Conestoga Creek	<i>Watersheds</i> Plan			Underway	
5	Crum Creek	Underway		Yes	Underway	
6	Darby Creek	Underway		Yes	Underway	
7	Elk Creek	Completed		Yes		
8	French Creek	Adopted		Yes		
9	Gulph Creek	<i>Watersheds</i> Plan				
10	Northeast Creek	<i>Watersheds</i> Plan				
11	Octoraro Creek	Completed		Yes		
12	Pequea Creek	<i>Watersheds</i> Plan				
13	Pickering Creek	Adopted		Yes		
14	Pigeon Creek	Adopted		Yes		
15	Red Clay Creek	<i>Watersheds</i> Plan		Yes		Christina
16	Ridley Creek	Adopted		Yes	DE Co only	
17	Schuylkill River Drainages	<i>Watersheds</i> Plan				
18	Stony Run	Adopted		Yes		
19	Trout Creek	<i>Watersheds</i> Plan		Yes		
20	Valley Creek	<i>Watersheds</i> Plan		Yes	Underway	
21	White Clay Creek	<i>Watersheds</i> Plan	Adopted	Yes		Christina & Watershed Mgmt Plan