

BACKGROUND

The “*designated uses*” of water resources are established by the NC Department of Environment and Natural Resources (NCDENR) and include water supply, aquatic habitat, and recreation. If it is determined that a water body can not support a designated use, NCDENR characterizes the water body as “*impaired*” and establishes a process to develop a water resource improvement plan to restore the designated use of the water body.

For example, in 2008, the North Carolina Division of Water Quality (DWQ) found that the chlorophyll-a concentrations at certain locations in Falls Lake exceeded the water quality standard DWQ included Falls Lake on its draft 2008 list of *impaired* waters, submitted to the US Environmental Protection Agency. This list of impaired waters is called the 303(d) list in reference to Section 303(d) of the US Clean Water Act referring to waters of the state with water quality violations resulting in the failure to meet the designated and protected uses.

GOAL STATEMENTS

1. Provide clean water resources for current and future generations at reasonable and predictable costs.
2. Reduce the impact and concern for drought events.
3. Develop non-potable sources of water for non-potable water uses.
4. Preserve and protect the quality and quantity of groundwater resources.
5. Improve regional planning, coordination, and collaboration for water resource management.
6. Provide clean water resources to support quality economic development, a healthy population, participation in outdoor recreation, productive wildlife habitats, and agricultural production.
7. Citizens have the information and tools to understand the need to protect and promote healthy water resources.

STF comments from 2/17/2011 are underlined and red if reading this in color.

WECO responses are italicized and blue if reading this in color.

Background — As written, this only references water quality issues. The missing background information has to do with water quantity/supply. I recommend adding some facts like: Water supply for Wake County comes from man-made reservoirs, and Falls Lake (primary source for Raleigh and Eastern Wake) is shallow. The Piedmont region is increasingly susceptible to frequent drought, so ensuring long-term water supply is critical to sustainability of current and future growth. According to Raleigh Public Utilities water supply plan, demand will exceed supply for water by 2040, unless new sources and efficiencies are instituted.

Goals — very good

Strategies — over all, very good. Good compilation of subcommittee discussion!

1. Conduct full benefit-cost comparative analyses to define the full costs and benefits of water resources, including drinking water, wastewater, and stormwater. Analyses and products should include but not be limited to:
 - Comparative? - compared to each other or to other counties?
 - a) Water supply, treatment, and distribution facilities and programs that includes full costs for rehabilitation and replacement of infrastructure and full costs for developing future water supply sources.
 - b) Stormwater and wastewater management facilities and programs, that includes full benefits and costs for rehabilitation and replacement of infrastructure, and for restoring and maintaining the designated uses of water resources in Wake County.
 - c) Developing of pricing models that recover full cost of water resources.
 - life cycle costs
 - d) Identify alternative funding methods and models to recover the full cost of water resources, and assign costs proportionate to the impacts that individual parties impose on water resources (such as a stormwater utility).
 - Include the purchase of open space and stream buffers in critical water supply watersheds
 - I like it.
 - Seems very repetitive
 - Substitute this: Conduct a comparative cost analysis that includes all aspects of the potable water supply, delivery systems and waste water treatment systes in order to develop

dynamic pricing models(that include changes in supply and demand) in order to facilitate the efficient allocation of potable water and treatment of wastewater.

WECO response:

We'll remove "comparative" since we are not sure what is being compared. To try to incorporate the last comment's interest, we will add "dynamic" and "facilitate efficient allocation" to (c). We'll streamline a-d by removing "full costs and benefits" from these since it is in the heading (1). Otherwise we recommend keeping the rest of the strategy to reflect the multiple interests expressed by the group.

2. Evaluate existing building codes, development ordinances, and other policies to identify limitations to, and opportunities for allowing water reuse, efficiency, conservation, and reclamation (including stormwater, rainwater, wastewater, and grey water.)

- Copy edit - Evaluate existing policies, such as...
- Replace limitations with impediments that limit
- Ensure allow doesn't become mandate
- Similar to #8 - combine them?
- Is it possible to combine with #8. Why are they 2 separate strategies? Is there some driving reason?
- Combine 2 and 8
- I like it
- I like it

a) Work with the state Department of Insurance to develop and lobby for these changes as it develops new statewide building codes.

b) Work with the appropriate health agencies to identify contradictions to public health laws.

- Add in: opportunities to strengthen public health laws.

c) Identify local and state government case studies that highlight opportunities to help Wake County and NC to amend local and state codes , ordinances and other policies

- Add in: 'and best practices to help wake county

Recommend adding: d) Work with municipalities to adopt additional water conservation measures/incentives at the local level.

WECO response:

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We understand the desire to combine 2 & 8 to streamline the strategies, however the purpose of #2 is to conserve drinking water and the purpose of #8 is to protect water quality. There may be some overlap when it comes to cisterns and stormwater re-use, but beyond those the codes and ordinances that impact the design and use of water systems in a house are likely different than the codes and ordinances that impact development design and land conservation.

3. Expand regional water supply partnerships to conduct collaborative assessments of water supply availability in the region. Regional partners can work cooperatively to optimize existing water supply availability and realize financial savings on the development of new or expanded water supply sources.

- What is meant by regional?
- Potable or nonpotable?
- Possibly use a different word than “can”. What do we want them to do? Sentence structure doesn’t trend like a strategy. Maybe delete second sentence entirely.
- Add : ...expanded nonpotable water supply sources
- No, we don’t want larger water monopoly providers
- How can we do this without the water supply people here?
- See comment on #9. I believe there is tremendous opportunity to unify regional education and associated marketing efforts.

WECO response:

The second sentence will be simplified to reflect the action item of leveraging resources to optimize existing water supply. This can mean expanding nonpotable uses, and could also incorporate education and marketing if partners choose this as a method for optimizing existing water sources.

4. Gather and analyze existing data on surface and groundwater to create inventory of watershed impacts, identify data gaps, and collect additional data as needed to understand conditions.
 - a) Improve coordination with organizations that are monitoring water resources to increase surface and ground water monitoring and assessments, and to better organize and publicize the results.
- Goal [#4] states only groundwater but this states surface and agroundwater.

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- Need to protect recharge areas
- Strike 4 and replace with a. Suspect data is available but coordination can always improve
- This is a good idea
- So is this saying to get info from DENR to construct one database for Wake County? from monitoring reports, CAPs, CSAs, UST remediation reports, etc.

WECO response:

The purpose we heard from the subcommittee is to better organize and provide better access to data, so we will clarify the need for improved access.

5. Collaborate with municipalities and stakeholders to review data, set goals, identify, prioritize and implement management and protection strategies that restore and protect designated uses of water resources and protect private property.
 - “protect private property” private landowners cannot do whatever they want on their land(s). Sometimes their actions affect others.
 - Delete #5. Does not specify to restore to what level. Too open ended.
 - Delete “stakeholders” and use “special interest groups” instead
 - “protect private property” - how does this relate?
 - This one is really a part of #3 and does not really add to meeting the goals
 - “protect private property” - should not be a major focus. Property owner protects their property. County protects the public property. Shouldn't do something to purposely produce a negative impact on private property
 - I think this includes the county working with municipalities to develop and implement stormwater ordinances that are strong enough to meet goals of achieving designated uses. If not, I'd recommend clarifying that.

WECO response:

This strategy, plus the preceding strategy (4), includes the activities that US EPA requires (defined by EPA as watershed planning) in order to access any funds for restoring or maintaining the designated uses of water bodies. We could take this strategy out, but Wake County and partners are still going to have to do these activities to access US EPA resources. We recommend leaving it in. By “private property” we were trying to reflect the goal expressed by the subcommittee of protecting property,

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public or private, from damaging floods and streambank erosion. It had nothing to do with private property rights. We will re-word it. (The state's designated uses of waters are not intended to protect property from flood damages- they protect the uses of water, such as for recreation, drinking, providing aquatic habitat).

6. Reduce the volume and velocity of stormwater runoff for new and existing development to:

- Is stormwater runoff the only issue with this goal?
 - Reduce by how much?
 - Reduce the impacts, not just reduce
 - Should include "maintaining stormwater BMPs to avoid BMP failure"
 - Impacts were the issue, not reduce. Reduce by how much? Too open ended.
 - Minimize building in floodplain and stream buffers
 - Possibly add something about turbidity reduction
 - I like it
 - I like it
 - I like it
 - Delete 'reduce' and substitute 'impact' of stormwater
- a. Restore and maintain the designated uses of water resources in Wake County
 - b. Protect public health and safety from flood hazards
 - c. Protect downstream property owners from property damage resulting from flooding
 - Covered under #5 too?
 - d. Implement the Jordan Lake and Falls Lake rules
 - Delete item "d"

WECO response:

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Regarding whether to reduce “impacts” or to reduce “runoff”, the impacts of runoff are experienced in the stream when it reaches the stream. We will reword the strategy to reflect that. By “how much” is however much must be reduced or prevented to maintain or restore the State’s designated use. To restore a degraded system, reducing by how much depends on the particular watershed and must be calculated on a watershed basis. Much literature exists on how to maintain designated use in a stream that is not degraded- in general it requires keeping post development hydrology as close as possible to pre-development hydrology, which prevents runoff and associated pollutants from entering streams. This strategy works together with strategies 4 & 5- they all need to be done to achieve the goals.

7. Identify, prioritize, and conserve land that serves as headwater and groundwater recharge sources through voluntary actions and incentives.

- [I like it](#)
- [I like it](#)
- [Thumbs up](#)
- [Add “without using eminent domain”](#)
- [Don’t rule out involuntary actions because water is so important we also condemn for lesser public purposes](#)
- [Great](#)
- [Excellent](#)
- [Add “and stream buffers” after ‘recharge sources’](#)
- [I recommend adding “and public financing.” to the end. Land conservation of important watershed areas cannot be done solely with private funding and incentives \(and Wake County, Raleigh, Cary are already using public funds for this reason\)](#)

WECO response:

We believe “through voluntary actions and incentives” reflects that eminent domain will not be used. Most seem to like this one as is, so we’ll leave it.

8. Evaluate development ordinances, *building* codes, and other policies to identify limitations to, and opportunities for allowing conservation development design and low impact development design to protect watersheds and groundwater recharge areas.

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- Combine with #2 ?
- Delete 'and opportunities for allowing'
- Delete entire #8. Building codes should be policy neutral - only health and safety
- Add "implement policies to protect watershed
- #7 and #8 should read: ...to reduce runoff, protect watersheds, and protect groundwater recharge areas. (it needs to be specific, rather than just protect watersheds.)
- Use current planning staff to prepare plans for natural resource conservation projects on existing parcels use GIS data and Greenprint concept.
- Add to the end. "Update municipal ordinances to encourage low impact development." Just evaluating does not go far enough to get the job done.

WECO response:

See our response after #2. Many codes and ordinances were put in place before the impacts on water resources of these practices were known. The wording of 2 and 8 was carefully crafted based on the subcommittee feedback, to "allow" for these practices, without putting undue burden on anyone. We think they reflect a compromise between the interests represented on the Task Force.

9. Support youth and adult science-based education programs about the hydrologic cycle; land use impacts on water; efficiency; conservation; pricing; and economic principles of water protection, supply and management
 - Does adult mean college?
 - Include things they can do to conserve and protect water.
 - What do you mean by science-based? Biology? Chemistry? Limnology?
 - Should read science economics based
 - Pricing and economic principles is repetitive
 - Is 'economic principles' defined somewhere?
 - Must state "science and economic based. Delete all after 'pricing'
 - For pricing, do you mean life cycle costs? Or cost to run/operate only certain aspects?
 - This should be about water, its source, natural hydrology, just natural science - no pricing, no costs. Everyone knows that's what this is about. Stop pandering to one.
 - Adding in economics and pricing in an education and outreach strategy is just a way to meet the needs of one special interest group.
 - Unsure of what support means. Does this imply financial resources, educational resources, curricula, etc.

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- Provide public notice or PR so residents know the program exist.
- What about general education and outreach to public - seems it is missing.
- I believe these efforts are worthwhile and encourage Wake Co to take leadership role in pooling regional resources to fund development of unified marketing message and for getting that message into primetime media outlets for maximum regional exposure and efeictiveness.

WECO response:

Since economics is the only field of science explicitly mentioned in this strategy, we will suggest "economics" can be encompassed under "science-based" along with all the other fields of science that were not specifically discussed here. "Science-based" is meant to imply that information contained in educational programs supported by the County is not advocacy-based, but reflect the best available science at the time. This strategy used to have the word "objective" as a descriptor, but that word was suggested as too "subjective" so it became "science-based". The need for the public to understand the reasons behind pricing has been stated by many, so we suggest leaving that in.

General comment about all recommendations: Lots of overlapping elements. Makes it confusing to read. Possibly have broad categories or strategies, such as: research and analysis, actionable items, outreach, etc.