



Brandywine-Christina Healthy Water Fund Feasibility Study
Regional Advisory Panel Meeting
Meeting Summary

Stroud Water Research Center
Avondale, Pennsylvania
January 14, 2015

Brandywine-Christina Healthy Water Fund

Welcome and Introduction – Richie Jones, Delaware State Director, The Nature Conservancy, Delaware Chapter

Richie delivered a brief introduction of the project and project team. The advisory panel and meeting attendees introduced themselves.

Update since the September 18th Regional Advisory Panel Meeting – Brian Boutin, Director of Conservation Programs, The Nature Conservancy, Delaware Chapter

Brian provided a brief overview and update of the project.

Review and Discussion of Draft Feasibility Study Recommendations – Ellen Kohler, Conservation Coordinator, The Nature Conservancy, Delaware Chapter

Ellen led a discussion on the nine recommendations, seeking feedback from the meeting attendees on each recommendation.

General Discussion

- Does the committee recommend that the fund be created?
- Should new watershed management plans be drawn up, or are existing plans from the region sufficient?
- The benefit cost analysis has been refined since the last meeting.
 - There will be additional refinement.
- Reviewed about 300 watershed funding programs and conducted an in-depth analysis of four case studies to develop recommendations and improve the success of the Brandywine-Christina Water Fund.
- Found 6 common themes among these studies:
 1. Develop strong public-private partnerships.
 2. Leverage state, federal, and private funding.
 3. Adopt a conservation/strategic plan.
 4. Depend on local champions and stewards.
 5. Start with seed money and over time develop a steady funding source.
 6. Adapt to the setting.
- Benefit/Cost Analysis Approach
 - Evaluated effectiveness of potential measures.
 - Provided examples to address goals (i.e. TMDLs).
 - Benefit cost analysis emphasized importance of low-cost alternatives.
 - Ag lands shown to be important (critical part of solution to address Nitrogen/Sediment).

Recommendation #1

Continue to draw upon the expertise, connections, and wisdom of the Regional Advisory Panel as necessary to further develop the Water Fund.

- Consider drawing people and resources from existing water funds (e.g. New York) to critically review/evaluate this plan.
- Expand panel to peer reviewed group; reconsider composition of advisory panel.
- Consider even paying for review from industry experts, possibly NY managers.
- Subgroups within advisory panel; use existing groups more effectively .
- More of a schedule and structured feedback, set time lines for feedback.
- Missing piece for all recommendations: “Strongly implied conclusion that the water fund is feasible and should be pursued - narrow down the ideas and key concepts”

Recommendation #2

Advance the dialogue with the stakeholders who have expressed interest in remaining involved in this process, focusing in particular on (a) understanding the costs stakeholders currently are facing to address water quality and quantity issues, (b) quantifying the alternative costs associated with equivalent conservation strategies, and (c) modeling the effectiveness of such conservation strategies.

- Shared understanding of the value of collaboration.
- Incorporate understanding of efforts already underway by stakeholders, eliminate overlap where possible.
- Quantity dropped from language why? (Not heard as a big concern from stakeholders...but what about flooding??). Quality and quantity need to be considered together.
- Concerns depend on the stakeholders’ viewpoint/goals: water purveyors are worried about having enough water, while stormwater managers are dictated by the regulations for the water flowing downstream.
- Quantity as it relates to flooding may greatly affect ag/farmers.
- Plan focuses on stormwater side
- Ag is missing from the stakeholder list on the slide but identified as a key constituent. Consider the language here and include ag as a stakeholder, not just on the implementation side.
- Is ‘stakeholders’ the correct term?

Recommendation #3

Build on the continuing dialogue with the Regional Advisory Panel and the stakeholders, develop a refined benefit cost analysis and assessment of conservation strategies that will result in a comprehensive conservation plan for the entire Brandywine-Christina watershed. Essential components of this analysis should include:

- Costs should be compared, especially when presented, to the potential cost of doing nothing, this was one of the main factors driving the NY State water fund.
- Overlay cost-effectiveness with possible temporal risk.

- Determine/clearly identify the risk of flood (with size/impact) and drought for the area.
- *Work with partners in the watershed, evaluating the opportunities, relative implementation costs, and water quality improvements associated with three conservation strategies: land acquisition, conservation easements, and implementation of agricultural BMPs. Costs should include technical assistance and maintenance over the expected life of the projects.*
 - These three strategies are intertwined.
 - How do you blend these three strategies?
 - What does land acquisition cost? What do conservation easements cost? What does maintenance cost? This should be included in the benefit cost analysis.
 - All three strategies have a landowner component.
 - Consider the different costs in different areas.
 - Add land rights cost in the benefit cost analysis, this is an upfront cost.
 - How will you make the distinction between conservation, restoration and land acquisition? A clear distinction between activities is important when serving polluters and those affected.
 - Long-term valuation and costs of each should be clearly defined as best as possible, not just implementation costs.
- *Work with the agricultural community and partners in the watershed to conduct a subwatershed-scale analysis of existing agricultural BMPs and opportunities for implementation of additional agricultural BMPs.*
 - At a point will need to re-evaluate existing ag BMPs to see if they are effective.
 - William Penn suggested individual watershed or sub-watershed level analysis for recommendations. Wants it at the lowest possible scale.
- *Because current data reflects an increase in nitrogen levels in the watershed, implement real-time nitrogen monitoring at locations strategically selected to determine why levels are increasing and what the sources of the increased loads are.*
 - Nitrogen levels increasing around state borders.
 - Possibility of increased monitoring - possible help from Stroud.
 - National trends away from coal fired power having possible effect, hoping to see peak/downward side of a bell curve effect with nitrogen.
- *Develop a decision-making process for prioritizing implementation of the conservation plan and leveraging local investments with state, federal, and private foundation investments.*
 - Conservation vs. Restoration
 - Mirrors themes from case studies/existing watershed plans (want to consolidate plans).

- Why is the 'urban' excluded from this recommendation? At least half of stakeholders will be interested in the urban aspects.
- Recommends TMDL not be the 'end goal' because waterways will still be impaired.
- TMDLs should be a guideline, with fixing impaired streams as the end goal. Correct context of report.
- TMDLs based on 1996 assessment. 2014 DEP integrated the 303d list to augment the impaired maps.
- Scale of analysis is also important to remember: it's important what you do , when and where you do it
- Different strategies across the various subwatersheds, need to focus on the lowest possible scale - William Penn representative
- If we don't do anything, what is the cost? (Long term risk management assessment)
- Clarify that the focus on nitrogen and sediment is not the only way to go
- How do you include limits of future growth and development?
- Think about focus on demanders and suppliers rather than cost/benefit because it doesn't always gain traction. This puts you in a good economic framework.

Recommendation #4

Recognize that water purveyors and municipalities will have different motivations for participating, and structure the Water Fund to assure that the needs of both stakeholders groups are met.

- Are water purveyors concerned about Nitrogen? Are drinking water systems affected? Sediment and bacteria are the biggest concerns. At this time, water purveyors are more concerned with Phosphorus as a pollutant than Nitrogen but if the standard decreases things change.
- Lowering Nitrogen levels in the future could become exorbitantly expensive vs. addressing the pollutants now.
- Right now Phosphorus is serving as the limiting factor in waterways.

Recommendation #5

Work with partners who have preexisting relationships with the agricultural community to develop a firm understanding of the business realities, needs and concerns of that community. Structure the Water Fund to address those realities, needs, and concerns.

- Very general terms for complex issues.
- Focus on who is seeing what and the terms that are used, how do we communicate the nuances to the stakeholders that are relying on improvement that will make them want to work with this group?
- How to communicate these nuances to the ag community? There is a need for buy-in from the ag community.
- Think about being more straight-forward and honest, everyone (including urban) will have to "pony up"

- Think about your intended audience vs. the expected audience. Who will the audience really be? Focus energy on that. Think about the media.
 - Final report will be reviewed by William Penn, so must be to their standards/preferences.
 - Think about taking out “partners who have preexisting relationships with” and make it simply “work with the agricultural community.”
 - Ag operational sizes have a large range, must be taken into account, mushroom farms, etc.
 - Acknowledge a lack of understanding, convey desire to better understand needs
 - Hopefully to build Ag community’s trust.
- The Chesapeake model is “every BMP everywhere,” expand the targets to meet all conservation needs. The reality is all areas matter, the “packaging matters.”

Recommendation #6

Encourage regulators to consider alternative approaches to achieving regulatory compliance.

- Suggested as area of high importance.
- Recognition of this area being unique, therefore solutions will be unique/need to be tailored to fit.
- “Alternative” here meaning either in addition to existing plans/policies, or as a change to them.
- Emphasis on encouraging green infrastructure vs. pipes and pipelines.
- Presentation of options as a whole, as opposed to simply presenting effects on one area.
- On the regulatory side you need to meet a number, the flexibility is how.

Recommendation #7

Develop a legal and governance structure for the Water Fund that reflects the needs of stakeholders and addresses any issues related to the interstate nature of the watershed.

- Provide for geographic equity.
- Keep it simple but respect state line. What are the state’s roles?
- Most case studies reviewed were not state driven they were generally locally-driven.
- Some interviewed parties made it clear that they would not participate if government was leading/involved (not sure to what extent).
- Important to leverage private and public dollars.

Recommendation #8

Finance the Water Fund in stages to assure its viability, possibly beginning with voluntary contributions from a first round of stakeholders and adding additional phases of investment according to the needs of other stakeholders and investors.

- Need to see the focus of the study to get a concept of what is being funded, present the results of the study - not the next stage. Make the findings clear.
- Include the context. Are recommendations #1-#6 a continuing discussion or are we definitely planning on following up?
- Strike implementation, you are still developing.

- Make it clear that it is efficient to build another entity to distribute funds, or not?
- Clarify funding strategies, this will drive others involvement. The current strategy language is too loose and needs to be further defined.
- Work with experts from other panels (i.e. UMD, EFC) on the finance discussion.
- Suggestion to begin with smaller scale funding, before moving up to larger scale/more sustainable sources.
- Possibly start with private money to set up infrastructure, which will hopefully open up more avenues of investment.
- Existing plans may be sufficient, no need for another plan.

Recommendation #9

Employ coordinated and robust communications and outreach strategies to assure that all necessary constituencies (e.g. ratepayers, legislators, regulators, and the agricultural community) understand and support the Water Fund.

- “Need to edit what you are representing to be accurate”
- Reported that work is underway to develop fundraising structure but premature to release in report.
- Use wording that is clear to potential future partners and investors.
- Communications system/network should be adaptable, and able to easily incorporate new members.

Meeting Attendees

ADVISORY PANEL MEMBERS	
Jennifer Adkins	Partnership for the Delaware Estuary
Ed Ambrogio	USEPA, Region 3
Jan Bowers	Chester County Water Resources Authority/CTIP
Kevin Donnelly	New Castle Conservation District
John Goodall	Brandywine Conservancy
Michael Leff	Urban Waters Federal Partnership
Rhonda Manning	Pennsylvania DEP, Southeast Regional Office
Adam Mowrey	Chester County Conservation District
Kenneth Najjar	Delaware River Basin Commission
Donna Siter	Western Chester County Chamber of Commerce
Christian Strohmaier	Chester County Conservation District/CTIP
Bob Struble	Brandywine Valley Association/CTIP
Brittany Sturgis	Delaware DNREC
Bern Sweeney	Stroud Water Research Center

PROJECT TEAM MEMBERS	
Brian Boutin	Project Team Member, The Nature Conservancy - Delaware Chapter
Andrew Homsey	Project Team Member, University of Delaware - Water Resources Agency
Richard Jones Jr.	Project Team Member, The Nature Conservancy - Delaware Chapter
Gerald Kauffman	Project Team Member, University of Delaware - Water Resources Agency
Ellen Kohler	Project Team Member, The Nature Conservancy, Delaware Chapter
Martha Narvaez	Project Team Member, University of Delaware - Water Resources Agency
Kash Srinivasan	Project Team Member, KS Group LLC
Martin Wollaston	Project Team Member, University of Delaware - Water Resources Agency

INTERVIEWED STAKEHOLDERS AND OTHER MEETING ATTENDEES	
Laura Asken	University of Delaware, Water Resources Agency
Seung Ah Byun	Brandywine Conservancy
Clare Billett	William Penn Foundation
Tom Coleman	City of Newark
Jen Holloran	University of Delaware, Water Resources Agency
Ann Hutchinson	Natural Lands Trust
Tony Fernandes	Aqua PA
Amy Kincaid	Institute for Conservation Leadership
Matt Ludington	University of Delaware, Water Resources Agency
Matt Miller	City of Wilmington
Kristen Molfetta	University of Delaware, Water Resources Agency
Shane Morgan	White Clay Wild and Scenic
Dan Nees	University of Maryland, Environmental Finance Center
Joanne Rufft	Artesian Water
David Shields	Brandywine Conservancy
Naomi Standing	University of Maryland, Environmental Finance Center
Joanne Throwe	University of Maryland, Environmental Finance Center