

## Memorandum

*To: Kyra Hoffmann, Project Manager, NJDEP Office of Policy Implementation and Watershed Restoration*

*From: Metedeconk River Watershed Protection and Restoration Plan Project Team*

*Date: September 14, 2011*

*Subject: Metedeconk River Watershed Protection and Restoration Plan:  
Task 4 – Set Plan Objectives*

The goals and objectives process is central to successful watershed planning and implementation. In many cases, there is not a clear distinction made between goals and objectives, with the result that the development of strategies that directly address the project objectives is difficult and often unsuccessful. To avoid this, it is essential to clarify what goals and objectives represent.

Goals represent consensus on a series of “wishes” for the watershed. For example: “improve stream water quality” might be a goal. Many plans confuse goals with objectives, and end up with a “wish list” that is neither measurable nor easily translated into action.

Objectives translate the “wishes” into more specific and measurable quantities. These objectives must meet two minimum criteria: they must be measurable (to establish current conditions, and to set future milestones), and they must be concrete enough so that implementation strategies can be directly developed to achieve them. For example, the goal “improve water quality” can be made more concrete and measurable with one or more objectives such as “develop a phased approach to meeting fecal coliform TMDLs in dry weather and wet weather.”

For the Metedeconk River Watershed Protection and Restoration Plan, goals and objectives were identified and revisited at three separate periods within the project: 1) initially at the Stakeholder Advisory Committee kick-off meeting, held in January 2010; 2) revisited and refined by the project Steering Committee in March 2011, following review of the draft reports documenting the stream visual assessments and technical analysis; and 3) finalized at the third Stakeholder Advisory Committee meeting in July 2011, following completion of the stream visual assessment and technical analysis reports and review by the Stakeholder Advisory Committee.

A summary of the major findings from the stream visual assessments and the technical analysis is as follows:

- Stormwater is the major problem affecting the Metedeconk River watershed and addressing stormwater related problems should be a high priority;
- Impervious cover continues to increase throughout the watershed, up from 12% in 1997 to 15% in 2007;
  - Low Impact Development (LID) techniques should be encouraged and implemented to the fullest extent practical.
- Total flow of the Metedeconk River remains steady, but the baseflow component is declining;
- Groundwater withdrawals over the past seven years have declined;
  - However, although withdrawals from municipal sources have declined, agricultural and private water use should be further investigated as very limited pumpage data are available from NJDEP databases.
- Water quality data collected throughout the watershed by BTMUA indicate the following:
  - Nitrogen is increasing over time and downstream.
  - Specific conductance and total dissolved solids are also increasing over time and downstream.
  - Phosphorous concentrations generally have not exceeded the surface water quality criteria of 0.10 mg/L within the river, but have exceeded the surface water quality criteria for lakes (0.05 mg/L) frequently throughout the watershed.
  - TMDL management strategies should be implemented.
- Coordination of potential projects and stormwater management measures with surrounding municipalities, agencies and programs (NJDEP, USGS, BBP, Ocean County, others) is encouraged;
- Maintenance of stormwater management infrastructure is a concern and ordinances vary between townships;
  - Funding for maintenance programs should be identified and programs put into place.

- Antiquated stormwater infrastructure is common (i.e., direct outfalls, drainage ditches, detention basins).
- Smaller tributaries are more sensitive to development and runoff than the larger river branches; and
- Very few point sources of pollution have been identified.

The final goals and objectives were developed with these findings in mind in an open forum format at the third Stakeholder Advisory Committee meeting and are listed in **Table 1**. They will be used as the foundation for developing and ultimately implementing management strategies. Some of the objectives are applicable to more than one goal. For example, the objective of reducing nitrogen, phosphorus, pathogens, tds (total dissolved solids), and tss (total suspended solids) in the Metedeconk River will, by default, decrease nitrogen, phosphorus, pathogens and tss in the Barnegat Bay.

Management strategies relevant to the objectives are addressed in project Task 5. These strategies will be identified and presented to the Stakeholder Advisory Committee and prioritized for implementation.

cc: Stakeholder Advisory Committee Distribution

**Table 1**

**Final Goals and Objectives for the Development of a Metedeconk River Watershed Protection Restoration Plan**

<b>Goal</b>		<b>Objective</b>
<b>1</b>	<b>Provide a sustainable water supply to the human population while maintaining natural water regimes</b>	Improve natural freshwater flows
		Promote water conservation and implement water re-use demonstration projects (i.e., fully functioning with educational components) on public properties (e.g., golf-courses and other public facilities)
<b>2</b>	<b>Maintain Category 1 designation and eliminate water quality impairments</b>	Reduce stormwater flow via implementation of projects on public facilities and redevelopment projects
		Reduce nitrogen, phosphorus, pathogens, tds and tss
		Implement TMDLs (reference existing 303d list and develop priority implementation schedule with NJDEP and USEPA)
		Prevent habitat loss and support habitat restoration within riparian buffers to preserve and improve regional biodiversity
		Address data gaps for groundwater and tributary water quality within the Metedeconk River watershed
		Protect and restore critical wildlife habitat and natural lands identified by NJDEP, Trust for Public Land, Rutgers University, Ocean County Natural Lands Trust and others (e.g. riparian areas, forested areas, etc.)
		Minimize health risks to recreational contact water users from pathogens (i.e., make pathogen-impaired waters a priority for TMDL implementation)
		Improve soil health for biological, chemical, and physical function; implement demonstration projects on public and/or priority properties
<b>3</b>	<b>Support the health of the Barnegat Bay</b>	Identify multiple sources of funding for implementation of the plan
		Reduce nitrogen, phosphorus, pathogens and tss
		Reduce stormwater runoff to the bay
		Improve passive recreational access
<b>4</b>	<b>Improve the water quality of watershed lakes</b>	Protect natural shoreline buffers and open space; implement buffer setback
		Reduce pathogen and phosphorus inputs
<b>5</b>	<b>Promote Education and Outreach Regarding Watershed Impacts from Growth</b>	Address invasive plant species (e.g., identify priority species and develop management plans) and sediment accumulation (e.g., reduce stormwater runoff and protect shoreline buffers)
		Enlist involvement and support of all levels of government, specifically municipal and/or county planning and zoning boards and environmental commissions, stormwater coordinators, DPWs, etc., for sustained effectiveness in managing watershed resources
		Identify and encourage Low Impact Development standards appropriate for the Metedeconk basin
		Promote cooperation among the development community, such as board of realtors, shore builders assoc., etc., involved in watershed development
		Promote cooperation among various regulatory agencies involved in watershed resources and development
		Support Smart Growth standards and promote municipal participation in Sustainable NJ
		Support open space planning and preservation (work with towns and Green Acres to develop a for headwater protection)
		Work in concert with the Barnegat Bay Partnership and other organizations involved in education and outreach to: (1) expand the public's understanding of the watershed, (2) encourage public participation and support of improving watershed health, and (3) promote public involvement in restoration activities
<b>3</b>	<b>Support the health of the Barnegat Bay</b>	Increase public understanding of the Metedeconk watershed and the role the public plays in its health
		Involve stakeholders in defining problems, objectives and solutions