

**North & South Branch Raritan Watershed Management Area
Stormwater Management & Hydrology Work Group
Strategy Worksheet NSSM-S3B2**

Strategy: Pollutant Load Reductions from “Hot Spots” NSSM-S3B2: Require specific load reductions to manage discharges from ‘hot spots’ (i.e., land uses or activities with higher proven loadings) in order to achieve the surface water quality standards.	Strategy Priority: M (H/M/L)
Objectives Addressed by Strategy: NSSM-O3B: By 2020, achieve surface water quality standards for physical, biological and chemical parameters in all subwatersheds of the Watershed Management Area.	Strategy Schedule: (Begin/End)
<p>Narrative Description of Strategy: This strategy would define and identify specific “hot spots” throughout the WMA and would identify and evaluate specific methods to manage pollutant loads from “hot spots.” Recommendations would be implemented through adoption of ordinances and best management practices that would require pollutant load reductions. Alternative regulatory approaches include a voluntary approach backed by NJDEP and use of NJPDES permits for specific sources that do not voluntarily comply.</p> <p>Development pressure and suburban sprawl are converting a great deal of forested and agricultural land to urban land uses within the WMA. Along with urban land uses comes an increase in impervious cover that increases stormwater runoff, decreases ground water recharge and baseflow, and degrades water quality of surface and ground water resources. New urban land also increases the number of bridges over streams, increases the number of stormwater outfall structures that discharge to streams, and physically alters the stream corridor. The surface waters of the WMA have documented pollutant loadings from non-point sources. For the South Branch Raritan watershed, according to the 1996 NJ State Water Quality Inventory Report, there has been a “gradual” decline in agricultural non-point source pollution and a “rapid” increase in suburban non-point source pollution. Agricultural non-point source pollutants are suspected of contributing nutrient and sediment loads. The construction of housing and roads, known sources of sediment loading, along with runoff from the suburban landscape and storm drains, known sources of nutrient, fecal coliform bacteria and sediment loading, all contribute to the suburban non-point source pollution. The primary source of non-point pollutants for the North Branch Raritan watershed is from suburban landscape runoff and development. Primary concerns within the WMA include: temperature, pH, fecal coliform, total phosphorus.</p>	
Areawide WQM Plan Consistency Determination Issues: Potential TMDL implementation method	

Action Plan (Steps or Tasks)	Responsible Parties for Planning, Design & Implementation	Responsible Parties for Oversight	Resource Needs (L,M,H,VH)	Committed or Recommended Resources	Major Challenges and Opportunities	Evaluation Method & Indicators	Schedule and Milestones for Implementation
1. Define ‘hot spots’, based on types or intensity of land uses, generation of particular pollutants or impact to environmentally sensitive areas.	C: R: NJDEP, NSSM	C: R: N&S WMA Committee, Raritan Basin TAC	L	C: R: 319 grant, 604b grant	Challenge: Consensus on definitions of hot spots	Definition of hot spots	

C = Committed; R = Recommended

General Estimates: Low = \$5,000 - \$50,000; Moderate = \$50,000 - \$250,000; High = \$250,000 - \$1 million; Very High = over \$1 million

Acronyms: NJDEP=NJ Department of Environmental Protection; CBT=Corporate Business Tax; SCD=Soil Conservation District

Committee Abbreviations: N&S Branch WMAC = North & South Branch Raritan Watershed Management Area Committee; NSSM = North & South Branch Raritan Stormwater Management & Hydrology Work Group; NSHW = North & South Branch Headwaters & Stream Management Work Group; NSEO = North & South Branch Raritan Education & Outreach Work Group; RBEO = Raritan Basin Education & Outreach Committee; RBC = Raritan Basin Council; TAC = Technical Advisory Committee

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2. Identify and classify specific “hot spots” in the N&S Branch Raritan WMA. Where possible, identify the pollutant sources associated with each hot spot.	C: R: NJDEP, NSSM	C: R: N&S WMA Committee	L	C: R: 319 grants, CBT		List, classification and description of “hot spots” and effects	
3. Determine if there are additional appropriate guidelines and best management practices to manage the types of hot spots developed in Action Step 1.	C: R: NJDEP, NSSM, SCDs	C: R: N&S WMA Committee, Raritan Basin TAC	L	C: 2002 NJDEP BMP Manual R: 319 grant, CBT	Opportunity: Identification of appropriate BMPs for the N&S Branch Raritan WMA	Identification of guidelines and BMPs	NJDEP BMP Manual – late 2002
4. Develop a package of technical information, such as numerical standards, removal efficiencies and benefits of BMPs, to enable engineers and planners to compare different BMPs identified in this strategy.	C: R: NJDEP	C: R: N&S WMA Committee, Raritan Basin TAC	L-M	C: R: Existing studies regarding removal efficiencies, 319 grant, CBT	Challenge: Lack of data on removal efficiencies of some methods, particularly for NJ	Completion of package	

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<p>5. Enforce current regulations, ordinances and resolutions regarding management of hot spots. Where necessary, implement guidelines and BMPs for various types of hot spots through ordinances and resolutions that require load reductions, BMPs etc. The guidelines shall require specific responses or removal rates for various types of pollutants or land use activities.</p>	<p>C: R: Municipalities, Counties, NSSM, landowners</p>	<p>C: R: N&S WMA Committee</p>	<p>L-M per project</p>	<p>C: R: 319 grant, CBT, existing resources, development application fees</p>	<p>Opportunities: -Reduction in pollutant loads -A way to ensure that municipalities, counties and the state enforce current ordinances, resolutions and regulations must be identified. Challenges: -Funding -Education of municipal engineers -Development of proper level of awareness at Planning Board level</p>	<p>Percentage of municipalities and counties adopting recommended ordinances and BMPs Implementation of BMPs</p>	
<p>6. Where ordinances are not appropriate or effective, implement programs where pollutant sources are provided an opportunity for voluntary control, with incentives where available.</p>	<p>C: R: NJDEP, SCDs</p>	<p>C: R: N&S WMA Committee</p>	<p>L-M for most sources</p>	<p>C: R: 319 grant, CBT</p>	<p>Challenge: Developing incentives for voluntary programs</p>	<p>Pollution mitigation achieved</p>	