

**North & South Branch Raritan Watershed Management Area
Stormwater Management & Hydrology Work Group
Strategy Worksheet NSSM-S1C1**

Strategy Name: Watershed-Based Stormwater Management Plans NSSM-S1C1: Develop & implement watershed-based stormwater management plans for areas with significant existing or projected land uses that generate stormwater flows.	Strategy Priority: L (H/M/L)
Objectives Addressed by Strategy: NSSM-O1C: Minimization of stream damages caused by excessive stream flows.	Strategy Schedule: (Begin/End)
Narrative Description of Strategy: This strategy will involve modeling and assessments of individual subwatersheds to identify areas with significant existing or projected land uses that generate stormwater flows. Stormwater management plans will be developed for priority areas and will be adopted into Areawide WQM Plans. While many areas within the WMA experience localized flooding problems following periods of heavy rainfall, the majority of flooding problems occur at the confluence of the North & South Branch Raritan Rivers and even further downstream at the confluence of the mainstem Raritan River and Millstone River (just outside of the N&S Branch Raritan WMA). In 1999, Hurricane Floyd deluged parts of Branchburg, Bridgewater and Flemington and resulted in new peaks of record at five gauging stations within the WMA (i.e., Spruce Run at Glen Gardner, Neshanic River at Reaville, North Branch Raritan River at North Branch, North Branch near Raritan and North Branch at Old York Road). Although much of the land along the North and South Branch Raritan Rivers is predominantly agricultural (according to the 1995 NJDEP land use/land cover data), development pressure and suburban sprawl are converting a great deal of agricultural land to urban land uses. Along with urban land uses comes an increase in impervious cover that both increases stormwater runoff and decreases ground water recharge, along with bridges over streams, stormwater outfall structures and other changes to the stream corridor. If the appropriate mitigation measures are not taken, new development can result in flooding problems on-site and exacerbate existing flooding problems downstream.	
Areawide WQM Plan Consistency Determination Issues: Stormwater management plans will be adopted into Areawide Water Quality Management Plans.	

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. Determine which subwatersheds have significant existing or projected land uses that generate stormwater flows (i.e. within the WMA). Use results to rank watersheds for development of stormwater plans.	C: NJWSA R:	C: Raritan Project stakeholders R: N&S Branch WMAC & Raritan Project stakeholders	L	C: Existing resources R:	Challenge: Regional land use analyses will not always predict stormwater impacts correctly Challenge & Opportunity:	% impervious surface and projected growth rates Completion of analysis Completed inventory of outfalls and	Subwatershed %TIA analysis complete Population growth by municipality complete Growth by subwatershed --?

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; SCD=Soil Conservation District; CBT=Corporate Business Tax; BMP=Best Management Practices; NJWSA =NJ Water Supply Authority; %TIA=Percent Total Impervious Area

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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					Inventory all stormwater outfalls and BMP basins with GIS	basins	
2. Develop stormwater management plans for targeted areas by priority.	C: R: NJWSA, SCDs, Counties	C: NJDEP R: N&S Branch WMAC & Raritan Project stakeholders	H to VH	C: R: Section 319 Grants, CBT	Challenge: Technically complicated	Proposed plans	NJWSA – 2005 for Mulhockaway Creek watershed
3. Adopt stormwater management plans into Areawide Water Quality Management Plans.	C: NJDEP R:	C: NJDEP R: N&S Branch WMAC & Raritan Project stakeholders	M	C: NJDEP R:	Challenge: Technically complicated and potentially with significant public comment	Adopted plans	