

**North & South Branch Raritan Watershed Management Area
Stormwater Management & Hydrology Work Group
Strategy Worksheet NSSM-S1C2 & S1B4**

<p>Strategy: Training Programs on Impacts of Stormwater Runoff NSSM-S1C2: Educate municipal officials and other pertinent stakeholders about the relationship of stormwater management programs to healthy watersheds and sustainable, cost effective development. NSSM-S1B4: Develop and implement a training program on stormwater BMPs for county and municipal officials and employees.</p>	<p>Strategy Priority: S1C2 - L S1B4 - M (H/M/L)</p>
<p>Objectives Addressed by Strategy: NSSM-O1C: Minimization of stream damages caused by excessive stream flows. NSSM-O1B: To have no increase in potential flood damages, by 2008.</p>	<p>Strategy Schedule: (Begin/End)</p>
<p>Narrative Description of Strategy: This strategy is aimed at developing several methods to educate municipal officials, consultants and developers about alternative design practices for managing stormwater runoff to minimize damage to stream channels and to mitigate flood damages. Incentives would be developed to encourage attendance at training programs. 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.</p>	
<p>Areawide WQM Plan Consistency Determination Issues: NA</p>	

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
<p>1. Develop a training program (i.e., seminar series or videos) to educate municipalities, developers and consultants regarding alternative design practices for managing stormwater runoff.</p>	<p>C: R: Rutgers Cooperative Extension, NJDEP, RBEO, NSEO</p>	<p>C: R: NJDEP, N&S Branch WMAC</p>	<p>L</p>	<p>C: R: Existing resources, foundation grants, USEPA Env. Ed. Grants Info. Developed as part of NSSM-S2B2, S1B5, S2B5</p>	<p>Challenges: Funding, encouraging attendance, identifying appropriate medium for each target audience</p>	<p>Development of training program</p>	

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; USEPA=US Environmental Protection Agency; CEU=Continuing Education Unit; BMP=Best Management Practices

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

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
2. Provide incentives (i.e., CEUs) to encourage attendance at training programs.	C: R: Rutgers Continuing Education	C: R: NJDEP, N&S Branch WMAC	L	C: R: Existing resources, foundation grants, USEPA Env. Ed. Grants	Opportunity: Use of program as part of continuing education programs, particularly for those to maintain certifications, may be an appropriate way to reach certain target audiences	Attendance at seminars	
3. Using the programs developed in Step 1, train decision makers in alternative design practices for managing stormwater runoff.	C: R: Rutgers Continuing Education, NJ Society of Municipal Engineers, Society of County Engineers, League of Municipalities	C: R: NJDEP, N&S Branch WMAC	L-M	C: R: Existing resources, foundation grants, USEPA Env. Ed. Grants	Challenges: Funding, getting appropriate people to attend programs, getting the message to the appropriate people	Number of people who attended training program	
4. Use a web-based system to distribute information to municipalities, developers and consultants regarding alternative design practices for managing stormwater runoff (e.g., Rutgers Cooperative Extension training).	C: R: Raritan Basin Project web master, NJDEP, N&S WMA Committee	C: R: NJDEP, N&S Branch WMAC	L	C: R: Existing resources	Challenge: Getting people to access the web site	Tracking number of people who sign up for on-line training	

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5. Develop and distribute a “how to” manual to achieve post development volume, flow, velocity, etc. not to exceed pre-development flow, etc.	C: R: NJDEP, N&S WMA Committee	C: R: NJDEP, N&S Branch WMAC	L-M	C: NJDEP Best Management Practices Manual R: Existing resources	Opportunity: Compilation of information to achieve goals of Raritan Plan	Completion of manual	
6. Give presentations to planning board members and consultants regarding alternative design practices for managing stormwater runoff.	C: R: NJDEP, RBEO, NSEO, N&S Stormwater work group	C: R: NJDEP, N&S Branch WMAC	L	C: R: Existing resources	Challenge: Attendance at meetings; getting the information to the “right” people		
7. Educate municipalities, developers and consultants regarding available BMPs through use of a demonstration site.	C: R: NJDEP, RBEO, NSEO, N&S WMA Committee	C: R: NJDEP, N&S Branch WMAC	L-M	C: R: Existing resources	Opportunity: Documentation of success and/or effectiveness of BMPs	Number of visitors to demonstration sites Educated practitioners about BMPs	
8. Create incentives to encourage buy-in by developers and municipal officials and to promote implementation of various BMPs.	C: R: NJDEP, N&S WMA Committee, N&S Stormwater work group	C: R: NJDEP, N&S Branch WMAC	L-M	C: R: Existing resources, foundation grants, USEPA Env. Ed. Grants	Challenge: Funding to implement BMPs	Implementation of BMPs	