

# Raritan Project Needs and Resources Assessment

Ginger Gibson ([gibson@aesop.rutgers.edu](mailto:gibson@aesop.rutgers.edu)), Christine Krupka ([krupka@rci.rutgers.edu](mailto:krupka@rci.rutgers.edu)) and Erin Beare ([beare@aesop.rutgers.edu](mailto:beare@aesop.rutgers.edu))

The New Jersey Department of Environmental Protection (NJDEP) created a statewide watershed management process to address issues of watershed pollutant loads, water withdrawals and land uses that cannot be addressed by regulatory programs alone. In the Raritan River Basin, NJDEP has developed a partnership with a number of existing agencies and organizations that had already formed a group to address watershed planning and management in that region. The project partners are currently conducting a characterization (current status and trends) and assessment (comparison of current status to the desired condition) for the entire watershed. The resulting Characterization and Assessment Report will be a basis for the next step—developing a Raritan River Basin Management Plan. Both the report and the plan will address water quality, water supply, stormwater impacts and ecological health in the watershed.

In early 2000, Raritan project team members interviewed 43 stakeholders from a wide range of groups about their needs, concerns and interests regarding the Raritan River Basin. This report summarizes the results of these interviews.

Thanks to all the respondents who spoke with us throughout this process and to all the people who conducted interviews from Raritan River Basin Watershed Management Project. Our thanks also goes to Jennifer Bulava, Caron Chess and BJ Hance.

## Needs and Resources Assessment: Stage Two

In early 2000, the Rutgers Center for Environmental Communication (CEC) and the Raritan Watershed Management Project Team conducted Stage Two of a two-phase "Needs and Resources Assessment" process of interviewing groups in the Raritan Watershed. The main goal of this process was to determine stakeholders' needs, interests and concerns. Results of the 43 interviews are presented in this report. Respondents were chosen by identifying a range of interest groups that the group wanted to contact and these groups represented a variety of local, regional and state agencies and organizations, including:

- Association of NJ Environmental Commissions
- Banisch Associates
- Delaware and Raritan Canal Commission
- Delaware and Raritan Greenway
- East Windsor Environmental Commission
- Glen Homeowners Association, Friends of Princeton Open Space
- Hopewell Township (2)
- Citizens Planning Council of the Sourlands Mountains
- Mercer County Planning Department
- Middlesex County Board of Agriculture
- Middlesex County Planning Department
- Middlesex Water Company
- Raritan Water Users Group (2)
- Monmouth County Planning Board
- National Association of Industrial and Office Parks, NJ Chapter
- NJ Beef Industry Council
- NJ Builders Association
- NJ Business and Industry Association
- NJ Farm Bureau
- NJ Rural Water Association
- NJ State Assembly
- NJ State Police, Office of Emergency Management
- NJDEP—Division of Watershed Management (6)
- Rutgers Cooperative Extension (Middlesex and Somerset County Agents)
- Sensible Transportation Options Partnership
- Somerset-Union Soil Conservation District
- Somerset County Planning Department
- Stony Brook Regional Sewerage Authority
- Township of Bethlehem Environmental Commission
- Township of Mt. Olive (2)
- Township of Raritan
- Trout Unlimited
- Washington Township Municipal Utilities Authority

## Overview of Findings

*Follow-up with respondents* — A wide range of respondents were contacted for this needs and resources assessment. Follow-up with these groups could include, at minimum, sending each interviewee notice that the report is available on the Raritan website. Other specific follow-up should be done by appropriate project team members, as some respondents suggested that they could provide data, or would be interested in attending Raritan meetings.

*Respondents' knowledge of the Raritan* — This needs and resources assessment has helped the Raritan Watershed Management Group to reach out to stakeholders, finding out what people know about the Raritan project, how they learned it and what else they need/want to know. Most respondents had learned of the project through word of mouth—highlighting one of the strengths of having a diversity of groups involved in the project. Based on the results of these interviews, the project has been successful in building on existing networks to draw in new project partners.

*Top priority data issues* — Top priority issues for respondents included water quality and quantity, land use planning and development, flooding and natural resources conservation. Certain audiences had specific concerns; for example, stakeholders from the building, development and agricultural communities voiced apprehension about potential limitations on their businesses. These groups indicated that their particular issues should be addressed in the watershed management process.

*Meeting priority fact sheet needs* — The Raritan Education and Outreach committee has developed fact sheets that relate to riparian areas, impervious surfaces, critical habitats and water budget. These fact sheets roughly align with the top priority areas mentioned by respondents. Priority areas that have not been addressed through fact sheets include: land use and development, agricultural issues, municipal policy and stormwater management. Future fact sheets could be developed to target specific audience needs, such as agricultural landowners and municipalities, among others.

*Data collectors identified* — Because the watershed group must prioritize which data to collect, stakeholders were asked about what kind of information they need or want and where data might be obtained. Data needs varied widely, and respondents provided information about a number of organizations that collect data. This may be a double-edged sword: there are clearly many data sources available to the Project Team, but it may require a sizeable effort to synthesize and use this data.

*Report format* — Stakeholders were asked for recommendations on what format the report(s) should take to meet their needs. Answers varied, but most respondents wanted to have materials available both on the Internet and in printed form. Some respondents suggested that the report formats should be targeted to specific audiences. For example, people with technical backgrounds may want a comprehensive report, while the public may be better served by shorter, easily understood brochures or fact sheets. Websites, technical reports, videos and layperson's summaries were all suggested as potential report formats.

*Report uses* — Reports on the Raritan Watershed may reach a range of audiences, as respondents reported they would use the

report to inform land use planning, educate audiences, support policy and regulatory issues, bolster scientific understanding of the watershed and reach out to municipalities. This wide range of uses suggests that various reporting formats will be appropriate for different audiences. Further, pre-testing of these materials with different interest groups will be key to meeting their information needs.

*Representation and trust* — Many respondents indicated their trust that the range of stakeholders involved in Raritan watershed planning will ensure that a variety of perspectives are raised and respected. The wide range of interests and groups that were identified as “trusted” suggests that outreach should be not be led by any one organization, but by a range of organizations with messages targeted to audience needs. For target audiences, such as business or industry associations, outreach may be most successful when it relies on contact with an industry leader. Many of these individuals were named as influential by respondents.

*Reaching out to new organizations through respondents* — Each respondent brings a unique perspective and set of personal and professional contacts to the Raritan Watershed Project. Each person also suggested how they would like to be involved in the future, through participation on committees, technical review, or through education and outreach activities. Continued outreach to these individuals and follow-up on their specific suggestions should be done by the person who interviewed them or by the appropriate Raritan project team member.

## Summary of Questions A1 – A2

### **A1. Have you ever heard of the Raritan River Basin Project before today?**

Respondents have become aware of the Raritan River Basin Project through word of mouth, through the media, through their work on the project, and through mailing lists. The main way that people heard of the Project was through word of mouth. Only 4 people had not heard of the Project in the past.

### **A2. Are you currently involved in watershed planning or management in the Raritan?**

Twenty-three of the interviewed people had been previously involved in watershed planning or management activities in the Raritan watershed. Most of these people were involved in Raritan Basin activities through their employment at municipal, township and/or state levels of planning, (e.g., Public Advisory Committees (PACs) in other watersheds, greenway planning, South Branch Watershed Association, Delaware & Raritan Canal Commission, 319 planning process, etc.). Each person that knew of the project was already involved in water quality planning in some capacity.

## Key Issues

To help the Project Team focus its outreach efforts, respondents were asked about their priority issues in the Raritan watershed. Respondents cited data needs as well as long-

term concerns with the management of the watershed. There was an emphasis on water quality and quantity, land use planning and development and flooding.

A range of issues were mentioned regarding water quality, including concerns with biological and chemical water quality and TMDL (pollutant discharge) allotments. With regard to land use planning, some respondents suggested ways to conserve natural areas and control build-out, while others expressed a concern that land use planning not be used to "encourage no growth." Other priority issues mentioned were build-out and development, flooding and water quantity, agricultural issues, municipal policy and stormwater management. A detailed overview of each issue area is included below.

Stakeholders from the building, development and agricultural communities expressed apprehension about potential limitations on their businesses, indicating that these concerns should be addressed in the watershed management process. However, they also noted that they may not become directly involved in watershed management unless they can see a direct relevance to themselves. For example, an interviewee from the office park sector suggested that watershed management could be encouraged if it is shown to enhance their relationships with their customers.

The Raritan Education and Outreach committee has developed fact sheets that relate to riparian areas, impervious surfaces, critical habitats and water budget. These fact sheets roughly align with the top priority areas mentioned by respondents. Priority areas that have not been addressed through fact sheets are: land use and development, agricultural issues, municipal policy and stormwater management. Future fact sheets could be developed to target specific audience needs, such as agricultural landowners and municipalities.

### **B1: What are the key issues you are concerned about in this watershed?**

**All (5)**

#### **Water quality (17)**

Seventeen people named water quality as their key issue—but when they explained what aspect of water quality they were concerned with, there were many other issues raised. Some people spoke of a concern for drinking water, others about allotment of pollutant loadings or agriculture, others for nonpoint source pollution issues, and some were concerned with specific areas (e.g., Millstone River water quality), or with contamination from dischargers. Additional issues were:

- interbasin transfer of water
- runoff from farms (2)
- grassy swales not effective for water retention
- landowners' perceptions of water quality
- aquifer protection
- BOD, nutrients, pH, DO

#### **Land use planning and development (12)**

Land use planning had a range of related meanings for respondents, including an opportunity to build greenways, encourage best management practices, encourage redevelopment, conserve space and protect water quality. One person said, "we need action to protect marginal areas along stream beds...we need intelligent zoning other than industrial areas...there should be a 'greenbelt exception' even in industrial areas." However, a few people expressed concerns that land use planning be done fairly, and not be used "as no growth tools." Open space should be used to "ensure that developed plans are fair, not just protecting water resources at all costs. What do people really fear about new developments, and how can better locations and design address these fears?"

### **Natural resource/wildlife habitat protection/enhancement (9)**

Nine people were concerned with natural resource protection, including wetlands and habitat loss, threatened and endangered species, riparian and corridor health, and stream bank erosion.

### **Build-out/development (7)**

Human development of water supplies and land surfaces can have a significant impact on the water budget. For example, an increase in impervious surfaces (e.g., paved areas, buildings) will tend to increase runoff and decrease infiltration through soils to ground water, resulting in higher flows following storms, and lower stream flows during dry weather. Build-out and development was a concern to people because of its potential impact on water quality, quantity and biological health. A few people were concerned about the relation of build-out to flooding. In addition, a few people mentioned that build-out may be controlled through land purchases or through "large lot zoning," farmland preservation or community shade tree programs. One person felt that "municipalities are still very much caught up in the 'ratables' chase," and another asked whether the State Development and Redevelopment Plan will actually be used to focus investment dollars.

### **Water quantity/flooding (7)**

People concerned with water quantity emphasized that stream quantity should be connected to ground water quantity. One person suggested, "we need to get a handle on the quantity of water in the well. We need some sort of monitoring controls, or else we will end up with the 'haves' and 'have-nots' of water supply."

### **Agricultural issues (6)**

Six people discussed the implications of watershed management on the agricultural community, suggesting that the "finger shouldn't be pointed" at farmers. Concerns such as the limited amount of money and time that growers have to engage in these issues were raised: "I'm concerned that agriculture has a voice on the committees and that they have equal representation. Meetings need to be scheduled so that all groups can participate." Another person said, "I'm concerned that when regulations come about as a result of this project, that agricultural producers have adequate time to respond to these rules and aren't fined or put out of business."

### **Municipal policy/authority implications (5)**

The challenges of working within the context of New Jersey's municipal land use planning system were raised by several respondents. Respondents suggested that watershed planning should be localized, because "whatever is of interest to constituents, especially municipal officials, will be of concern to legislators." However, another person suggested that we "need a system that installs policies and plans away from the municipalities and looks at the larger picture." But a regional approach might be seen as too "top down" to address local issues, according to one respondent.

### **Stormwater management (5)**

Five people suggested that stormwater management may need more funding because of the need to reduce nonpoint source pollutants.

### **Watershed management process (4)**

A range of stakeholders need to be represented, according to respondents, so that one perspective will not overwhelm others. Key to this balance, will be to have strong

leadership so that local interests do not hinder a regional perspective. One person specifically suggested that small drinking water purveyors be involved.

**Scientific data (3)**

Three people suggested that understanding the causes of water pollution will be key to making reliable decisions.

**DATA NEEDS AND USES**

Because the watershed project must determine data collection priorities, stakeholders were asked what kinds of information they need and want and where data might be obtained. Data needs varied widely, and respondents provided information about a number of organizations that collect data. This may be a double-edged sword: there are clearly many data sources available to the Project Team, but it may require a sizeable effort to synthesize and use this data.

**Summary of questions C1-C2**

**C1. What kinds of information do you want or need about the Raritan watershed?**

Respondents have diverse perspectives on what kind of information they need. However, their data needs roughly correspond with those of project team members. Data needs that received the highest priority are: chemical water quality data, stormwater/flooding, farmland by type, build-out, and aquatic biological health data, among others. **Table 1** summarizes Stage Two respondents' answers, comparing them to the Project Team preferences. The project team should continue to be aware of a potential disparity between the team's and others' priorities for watershed data.

Many people thought the Raritan region is so large that it needs to be broken down into smaller regions in order for local municipal officials to understand it. Many felt that build-out analysis is important because it is "one of the tools to be relied on" and "it can be stunning with its impact."

**Table 1: Comparison of data priorities of Stage 2 respondents and Project Team**

<b>Stage 2 Respondents (43 responses)</b>	<b>Project Team (in order of priority)</b>
Chemical water quality data (13)	Chemical water quality data
Stormwater/flooding (12)	Aquatic biological monitoring
Farmland by type (9)	Buildout analysis for development
Buildout analysis (9)	Impervious surface data
Aquatic biological monitoring (9)	Riparian (stream corridor) health analysis
Water supply (8)	Water supply
Riparian (stream corridor) health analysis (8)	Critical habitats, forest and forest data
Critical habitats, forest and forest data (7)	Demographic data
All (5)	Farmland by type
Demographic data (5)	Stormwater/flooding
Impervious cover (4)	Discharge data
GIS (2)	
Nonpoint source contributions from development (2)	
Traffic flow/circulation data (1)	
Local ordinances (1)	
Fertilization guidelines (1)	
Environmental Impact Statement Requirements (1)	
Dischargers (1)	

## **C2. Do you collect this data or know who does?**

Whether or not they collected data themselves, all respondents suggested various data sources. These include:

- Monmouth County planning for volunteer water quality data; the health department also collects data
- Larger non-profits, water companies, and sewage authorities
- Banisch Associates have done build-out analyses for some communities
- “Princeton Township and Borough may have done some build-out analysis. NJ Conservation Foundation is doing an open space inventory for the whole state and developing priorities on which land should be saved first. The Watershed Associations conduct water quality testing.”
- Rutgers’ Snyder Farm has data on wildlife populations
- “Regarding the groundwater flow, I know several well monitoring sites in Middlesex [County]. Contaminated hazardous waste sites and other sites that had underground gasoline storage have monitoring wells.”
- US Census Bureau, NJDEP, NJ Office of State Planning, NJ Department of Community Affairs, Rutgers University, NJ State Police, FEMA
- Trout Unlimited monitors streams at various sites continually. They don’t publish a report, but they share the sampling information with the public
- “Water quality for a number of streams, in cooperation with the Musconetcong River Valley Watershed. This is a water testing/active stream testing program.”
- Water purveyors and dischargers collect water quality data
- Macroinvertebrate data to ensure it is consistent with DEP and EPA standards
- Township's health officer collects water quality data for public wellheads
- Soil conservation districts collect data on stormwater detention basins
- County Agriculture Development Boards map farmland information
- NJ Forest Service has information on larger tracts of forest land
- Regional Planning Partnership does build-out analyses
- Hopewell Township has development plans

### **Summary of questions D1-D2**

Stakeholders were asked for recommendations for what format the report(s) should take to meet their needs. Answers varied, but most respondents wanted to have materials available both on the Internet and in printed form. Some respondents suggested that the report formats should be targeted to specific audiences. For example, people with technical backgrounds may want a comprehensive report, while the public may be better served by shorter, easily understood brochures or fact sheets. Websites, technical reports, videos and layperson's summaries were all suggested as

potential report formats. Many people said they would review materials on the website; however, this method was not seen as the best information source for everyone.

There were some differences of opinion expressed about non-traditional report formats. While some people felt they would like to have a video, another said, "A video is not useful or practical." Others felt there was a need for GIS maps, while others distrusted maps, cautioning that "there isn't enough QA/QC on the data and on the use of those data. The maps all look professional, so data shortcomings aren't obvious."

Stakeholders plan a variety of practical uses for the final report(s) including land use planning, education and outreach and policy development. Their responses to this section suggest that their input may be useful to the Project Team in preparing the report(s). Materials that are developed by project team members could be pre-tested with the intended audiences to ensure clarity and accessibility.

**D1. One or more reports will be prepared at the conclusion of this project with the information and data we collect. What format would be most useful for you?**

All (5) (website, technical summary, layperson's summary)

**Website (21)**

- Include PDF [downloadable] documents and links to other government sites, searchable, with references.

**Technical reports (13)**

- "We would like to see technical reports, model ordinances (particularly open space, and 'greenbelt' exceptions to industrial zoning, stream buffer ordinances."
- Loose-leaf book format "developed in sections so things can be updated"; include Action Now projects
- CD-ROM version would be very useful
- Report should "identify and give priority for issues—what is really important?"
- We need a "framework report" on the data gathering process. What did we look for, why, and where (what data sources). This report would be useful in generating thoughts on and reactions to the results. What are the biases of the data and data gatherers? Also, a clear explanation of the current surface water standards, classifications, and how they link to pollutant discharge results would be valuable. People need to understand where this is all going.
- Include data on past, present and future trends (2)

**Detailed report and "layperson's summary" (9)**

- "If we are setting pollutant discharge standards for the short term, then we need only a snapshot of today. However, if we are looking at setting levels for the long term, then we need to think what things will look like in 20 years and we must consider future base flow, land use, all of the land development issues etc. . . thus, we need the following report formats:
  - for the general citizen, there should be a slick one-page brochure
  - for the more sophisticated user, there needs to be an annotated technical report with references to the raw data. . ."
- Dischargers will need more than the public report (though that will be useful for board members), but won't need the full technical reports either. Perhaps if the technical reports have a solid executive summary, that will be most useful.
- "Builders will need the basics (in simple terms) plus technical information. There is an instinct to distrust what they don't understand or don't agree with."

**Layperson's summary (6)** (e.g., include in water purveyors' Consumer Confidence Reports)

- large report is “daunting,” “most people won't read it”
- series of brochures for the general public

**Video / audio (4)**

- “A video would also be nice . . . if the cost is too prohibitive, an audio tape that could be played at meetings would be useful.”

**GIS maps (2)**

- text should describe the data

**Educational materials (1)**

**D2. What might you use such a report for? (*Examples: planning, policy, local planning, changing your technology or implementing Best Management Practices (BMPs), developing ordinances, education, issue advocacy, other.*)**

Reports on the Raritan Basin may reach a range of audiences, as respondents reported that they would use the report to inform land use planning, educate audiences, support policy and regulatory issues, bolster the science on the watershed, and reach out to municipalities. This wide range of uses suggests that various reporting formats will be appropriate for different audiences. Further, pre-testing of these materials with audiences will be key to meeting their needs.

**All (7)**

**Land use planning (13)**

- incorporate the data into local planning, use in background reports conducted for the master planning process, future planning
- local planning, sustainable development, natural hazard risk management
- BMP implementation (3)
- convince land owners “to preserve property or put conservation easements on their property”
- provide scientific basis for protecting open space
- long-term planning and zoning
- Master Plan review and revision
- “convince others of importance of key issues by using the Raritan [project] as an ‘authoritative’ source”
- “Some builders may use the results in local planning board discussions, when the information helps make a key point.”
- Site-specific issues would be of greatest use – site management, site selection, disposing of (selling) sites. What issues will affect the market?
- The report must be used to justify the need for action or no action. It would be useful in focusing the expansion or not of sewer service areas and treatment plants.

**Education/outreach (11)**

- educate planning board, cultural and historic office, economic development, agricultural development, solid waste management, recycling, freeholders
- educating environmental commissions, homeowners, Friends of Princeton Open Space; “would be interested in helping summarize the technical reports and deciding what is actionable and what is realistic.”

- educational tools for farmers
- develop school curriculum
- “video would be used for meetings and outreach”
- use the report to lure people into the process. People don’t realize that they are and should be stakeholders. Need to get that message across.

**Policy/regulatory program (5)**

- support and justify regulatory program
- make adjustments to regulatory program
- rulemaking, planning and policy development

**Scientific uses (3)**

- compile data for DEP
- “better place monitoring stations in the future”
- “counter assumptions . . . scientifically-based information is powerful and access to it is very important”

**Municipal outreach (3)**

- “way of getting towns interested in the watershed and source water protection efforts. People are fascinated by maps and reports that put their town in a regional context.”
- “we would use this information to support township government action to preserve the watershed, justify adoption of programs and ordinances for intelligent planning.”

**Conservation (1)**

- in the long-term, would “take the information to help support the unique nature of the Sourland Mountains and the need to protect and preserve base flow in the area and preserve land for open space.”

**Water quality & treatment (1)**

**PROCESS AND STRUCTURE**

**Summary of questions E1-E5**

**E1. Who do you trust to raise the right issues in watershed management?**

There is no one organization or individual that emerged from the interviews as the most “trustworthy.” However, many individuals say they trust that the range of stakeholders involved in Raritan watershed planning will ensure that a variety of perspectives are raised and respected. One person responded, “I trust all of the stakeholders involved in the process to raise issues relevant to their needs. All parties involved have valid input in the issues that affect them.” Many respondents point out that each organization has its own bias, but the representation of many perspectives ensures that no one interest will override the others.

The current sample of interviews is still too small to generalize about the best means of outreach for specific groups. For example, one elected state official trusted legislative staff and municipal officials to raise “the right issues in that they are perceived to *be* issues and must be addressed in some fashion,” though this individual acknowledged that other Assembly members might trust others to raise the right issues. Nonetheless, the wide range of interests and groups that were identified as “trusted” suggests that outreach should not be led by any one organization, but by a range of organizations with messages targeted to specific audience needs.

Respondents named the following types of organizations as trustworthy: nonprofit organizations, government organizations, municipal organizations, state universities and trade associations. Specific trusted organizations that were named include: watershed associations, Rutgers Cooperative Extension, NJ Water Supply Authority, the Soil Conservation Districts, planners, the League of Women Voters, NJ Department of Environmental Protection, US Geological Survey, legislative staff, municipal officials, Farm Bureau, Environmental Commission and County Boards of Agriculture. One planner noted that he “trusts those [organizations] that are the least special-interest driven.”

Some mentioned local and state government as “less trusted” by them to raise the right issues. Mistrust of government, when mentioned, was largely linked to the respondents’ experience with a specific previous issue. Many respondents found municipal and state government to be very trustworthy. One individual said, “I trust the decisionmakers at the local level. We need to get them to make the right calls,” and another said, “I trust the DEP staff and watershed associations.”

Industry or business-oriented respondents tend to name their own associations as the group most trusted for raising the right issues in watershed management. For example, builders tend to look to the NJ Builders Association, while realtors tend to rely on consultants, lawyers or internal staff. Likewise, dischargers tend to rely on consultants for information on issues that may affect their interests, and the members of the NJ Association of Industrial and Office Parks look to their state trade associations to identify issues. “They rarely are involved directly unless a major issue is raised,” said one member of this group. Outreach to business or industry associations should rely on contact with an industry leader, such as those individuals named as influential in interviews. Short updates on Raritan work and goals could be sent to appropriate newsletters or email lists to inform members of these groups.

Environmental groups were named as both potentially biased and critically important. A few individuals said that environmental groups should be involved early on, both to make sure that certain issues are raised and to avoid problems in the future where they could “discredit the procedure and science at the policy stage.”

## **E2. Would you like to be involved further with the Raritan River Basin Project?**

Respondents’ responses to this question ranged from a desire for full involvement in the workgroups to no involvement at all. Eight people said that they would like to be more involved, while nine indicated that they would like to be kept informed through mailing lists, newsletters or individual contact with members of the Raritan workgroup. One individual offered to provide information as needed, five respondents said that they were already involved and two individuals said they would be able to involve their staff members. Five people did not specify how they wanted to be involved. Only one person did not want any further involvement in the project.

## **E3. How would you like to be involved in the project, or how could you be most effective? What could you bring to the project? (For example, do you collect data? Are you involved in drafting ordinances or recommending policy? Etc.)**

Each interviewee brings a unique perspective and set of personal and professional contacts to the Raritan Watershed Project. For example, one individual’s contacts include environmental commissions and municipal officials, while another brings 25 years of experience in the Canal Commission to the group. Each person also had ideas about the most appropriate way to communicate with particular groups. For example,

one interviewee is involved in a Nonpoint Education for Municipal Officials (NEMO) education program. Each interviewee mentioned how they would like to be involved, and made suggestions for outreach to target audiences. Instead of listing these suggestions in full, responses are summarized and grouped below. Continued outreach to these individuals and follow up on their specific suggestions should be done by the person who interviewed them or by the appropriate Raritan project team member.

*Education and outreach* — Respondents have strong links with environmental commissions, builders association, and municipal officials, especially in Hopewell Township. Many respondents suggested that they could digest and interpret Raritan workgroup information for specific audiences; for example, one individual is involved with the building community and suggested ways to involve builders, while the Rural Water Association representative wanted to communicate with small drinking water purveyors. Likewise, the Farm Bureau interviewee suggested that this organization could communicate with both farmers and homeowner groups about agricultural issues. Follow-up with these groups should be done by the appropriate workgroup member. Target audiences and roles for outreach that were suggested include:

- Drinking water purveyors: information to small drinking water purveyors (NJ Water Rural Water Association)
- Home owners and Open Space Board: involved in local forums, government meetings, getting local people interested. Would provide material to those in home owners associations (Homeowners Association, Open Space Board, NJ Conservation Foundation)
- Public education: basic public education through normal legislative functions. Focus on key issues and fundamentals. (Assembly member)
- Farm Bureau: Farm Bureau could help with farmer training and farm self-assessment. Could also help present information, not just to agriculture, but also to wildlife and homeowner groups to explain some agriculture issues.
- Association of NJ Environmental Commissions: provide education and outreach to environmental commissions and municipal officials
- Hopewell Township: can provide education and outreach to town, planning and zoning committees, public in Hopewell. Involvement with municipal level in Hopewell township and with large businesses (trying to get funds for water quality testing/GIS program)

*Research and technical review*—Many of the groups contacted by Project Team members are interested in providing data or technical review of Raritan data. These individuals should be involved, where appropriate, throughout Raritan project planning.

- Involvement in data gathering and determining trends (7)
- Somerset Union Soil Conservation District: provide technical review, stormwater data and serve as information source
- Rutgers Cooperative Extension: serve as an agriculture liaison and assist with developing other media outlets for information. Rutgers University could potentially get involved and help provide money to host meetings, demonstrations, research, etc.
- Involving farmers/growers in getting information or reviewing data
- Can provide HP plotter

- Partnering on source water assessments (NJ Rural Water Association)
- Somerset County Planner: technical “ground truthing”
- Office of Emergency Management: data sharing, expertise on flood control, reduction and planning
- Farm Bureau could help collect data.
- Provide information on our ordinances and local issues and concerns (2)

*Participating on committees*—A few individuals suggested they might join committees, or simply stay on those committees they are already on.

- NJ Beef Association: stay on committees on (agricultural): ordinance development, recommending policy and planning
- Sewerage Authority: management planning and policy
- Planner: policy committee meetings, as long as they are held in the daytime

*Contributing information*—Finally, some individuals commented that they could simply be an extra voice and bring local knowledge to the group, as needed.

**E4. Detailed contact information for each respondent will be provided to the Project Team in a separate, confidential report.**

**E5. Do you have any other thoughts or comments?**

A number of final comments were made by respondents about outreach, technical issues (including pollutant discharge development - TMDLs), processes for decisionmaking, attaining a balance of opinions, the authority and legal status of the Raritan report(s), data coordination, behavior change, and the structure and process of the Raritan Watershed Management Group. Comments are summarized below.

*Behavior change* — “We must keep in mind that, if we want to change behavior, it takes 3 generations. An example is recycling, that my generation began.”

*Process* — “There needs to be a consensus reaching/building process. In making recommendations for ordinances be careful to have broad support and understanding. Continue the project on a course that is not reactionary or regulatory, but practical and realistic.”

*Legal status of report* — “I’m concerned about what authority this report will have and that when we come up with the final data that another department won’t override you. I’m also concerned that people will wait to the last minute to give input. I would like more information on what authority this report will have.”

*Balance of concerns* — “A balance of environmental and economic concerns with community viability is needed.”

*Technical issues* — A few people suggested that more work needs to be done on stormwater outfalls, including getting more feedback from municipalities. "I would like to see more action now projects actually implemented—fix some of these things we know are a problem and also deal with storm water issues on- site rather than off-site." Another person said, "we need to speed up the focus on areas of problems we already

know exist. Root cause analysis needs to be done and action now projects need to be started."

*Pollutant discharge (TMDLs)* — Two people commented that TMDL development should not drive the process, but should instead be part of a process that involves municipalities early on and is part of a balanced approach. "A holistic, watershed approach is preferable."

*Process and general comments* — Many positive comments were made about the process and the project.

- Make the process about better growth, not no growth.
- It is great that this type of project is going on in the region.
- Well conceived and thought out process. NJWSA is doing an excellent job facilitating the meetings
- Process is going well. There are lots of meetings, which is difficult but necessary to get people together. Doing a good job at keeping focussed at the meetings. Need to focus on what is good for the basin.
- This is a very important project and glad that we are trying to attempt it.

## Summary of Conclusions

*Follow-up with respondents* — Follow-up with respondents could include, at minimum, sending each interviewee notice that the report is available on the Raritan website.

*Respondents' knowledge of the Raritan* — Most respondents had learned of the project through word of mouth—highlighting one of the strengths of having a diversity of groups involved in the project. Based on the results of these interviews, the project has been successful in building on existing networks to draw in new project partners.

*Top priority data issues* — Top priority issues for respondents included water quality and quantity, land use planning and development, flooding and natural resources conservation.

*Meeting priority fact sheet needs* — The Raritan Education and Outreach committee has developed fact sheets roughly align with the top priority areas mentioned by respondents. Priority areas that have not been addressed through fact sheets include: land use and development, agricultural issues, municipal policy and stormwater management. Future fact sheets could be developed to target specific audience needs, such as agricultural landowners and municipalities, among others.

*Data collectors identified* — Data needs varied widely, and respondents provided information about a number of organizations that collect data.

*Report format* — Most respondents wanted to have materials available both on the Internet and in printed form. Websites,

technical reports, videos and layperson's summaries were all suggested as potential report formats.

*Report uses* — Reports on the Raritan Watershed may reach a range of audiences, as respondents reported they would use the report to inform land use planning, educate audiences, support policy and regulatory issues, bolster scientific understanding of the watershed and reach out to municipalities.

*Representation and trust* — Many respondents indicated their trust that the range of stakeholders involved in Raritan watershed planning will ensure that a variety of perspectives are raised and respected.

*Reaching out to new organizations through respondents* — Continued outreach to these individuals and follow-up on their specific suggestions should be done by the person who interviewed them or by the appropriate Raritan project team member.