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The Basin Bulletin

Newsletter of the Raritan Basin Watershed Management Project

What to Do About Droughts?

By Tom Baxter, NJWSA

As droughts come and go (and this one will pass in time as well), we will record this drought as equal to or even surpassing the drought of record – that of the 1960's. This drought will certainly be seen as worse than the droughts of 1981, 1985 and the handful of the other dry spells that we have experienced in the 90's– even the one of the summer of 1999. Some will state the drought of the summer of 1999 never ended and we are in fact experiencing a three-year climatological event with a hurricane in the midst. Some will claim that the event was caused by "sprawl" and others will point out that it was caused by a severe lack of precipitation. Others will combine the two concepts and ask if we can continue to transform the face of the state as we are and expect our rivers and streams to respond in the same fashion as they have in previous decades. One thing is certain, at least in my opinion – in this drought we have eliminated far more trees from the face of the earth with the press generated than in any drought I have referred to above.

Droughts are unpredictable climatological events. While they are not predictable, plans can be made to mitigate their effects. The rainfall shortage in the Raritan Basin is as severe as anywhere else in the state; the shortage for the six months ending in February 2002 was more severe than even the drought of the 1960's Stream flows in the Basin were continually below average and on a regular basis set new daily low flow records. Through all this there has not been a shortage of surface water supplies in the reservoirs that serve central New Jersey. Raritan reservoir levels at their lowest point to date have not gone below a drought watch level. This is because the State took steps in the 1960's to plan and construct facilities that would mitigate the effects of severe droughts like that. Further, in 1981 the State created the NJ Water Supply Authority to effectively manage the State water supply facilities in this area. In fact, there has been sufficient reservoir water in central New Jersey to permit the transfer of water to northern New Jersey, which has been more severely affected by the drought. This transfer is being done through an interconnection designed and constructed as a result of the 1980's drought.

A similar story can be told in the region to the immediate east and south of the Raritan Basin. In response to the drought of the 1960's, the State had the NJWSA implement a water supply project in the Manasquan River Basin. This project has met the recent high demands for water, yet reservoir levels only dipped to drought warning levels this year, not drought emergency. This is in a region that in the 1980's was highly sensitive to drought declarations.

One can only imagine where northeast New Jersey would be had not the State prepared its 1982 Water Supply Master Plan and implemented the projects it identified in the northeast to mitigate deficits in that region. The Wanaque South Project and the Monksville Reservoir have served the northeast region well during the present drought conditions. *Continued on page 7*

What's Inside?

WHAT'S NEXT!?

BY DAN VAN ABS, NJWSA

As of Spring 2002, the Raritan Basin Watershed Management Project reached a major milestone. Tough as it has been, the Watershed Management Area Committees have developed a great set of goals and objectives that address the vital watershed issues of this Basin. These goals and objectives are critical to the watershed plan – with them, we can distinguish the plan from the sort of "wish list" of unrelated, uncoordinated and unrealistic action items that so many other "plans" become.

There are two major steps coming up that will comprise the bulk of our future work, and these steps may create one more. The first two are the TMDL process and strategy development. The third includes any projects that can be implemented before adoption of the Watershed Management Plan in 2004.

TMDLs

2004? Wasn't the plan due in 2003? Well, yes it was. However, the original schedule required that NJDEP provide the surface water quality models necessary to develop the famous "TMDLs," which basically are plans to improve water quality so that the streams and lakes meet all standards. Under the original schedule, NJDEP was to develop the models by mid-2002. Unfortunately, USEPA's efforts to create new rules for the TMDL process have been mired in controversy. The national uncertainty slowed the process and, combined with funding problems and contracting delays, pushed NJDEP's schedule back.

To overcome this problem in part, the Technical Advisory Committee and then the Raritan Basin Council endorsed a new approach suggested by the NJ Water Supply Authority and NJDEP. The Raritan Basin Watershed Management Plan now will be adopted in 2004, not 2003. The TMDL process will be split in two. TMDL models for watersheds that are impaired predominantly by nonpoint pollution sources will be incorporated into the plan. TMDLs for other impaired waters will begin according to a new schedule (to be developed), and added to the plan after 2004.

STRATEGIES

Everyone knows that strategies (plus luck) win the war. NJDEP's Strategic Plan defines strategies as "Multiple activities and tasks that are organized and employed to address one or more key issues." For the Raritan Project, each strategy is comprised of actions and tasks aimed at achieving a watershed objective. Our strategies will answer the questions "What, who, when, where, how and for how much?" Stakeholders have known from the start that there will be more objectives than can be solved by 2004. Therefore, work will focus on developing strategies for the highest priority objectives, and especially for objectives that are mandated by law.

PROJECTS FOR IMMEDIATE ACTION

At times, a strategy (or at least some of its action steps) could be implemented right away, before adoption of the plan. In some cases, it will be necessary to hold off due to lack of resources or possible impacts on other strategies. In other cases, controversy will prevent consensus. Some strategies or actions, though, will hit the "sweet spot" – no curves, no errors, no bad calls (please forgive the sports metaphors – it's spring!). In those cases, it will be appropriate to move forward as soon as consensus exists. Now that we have technical reports, goals and objectives, we can combine our strategy development efforts with implementation wherever it makes sense. Doing so will help the Raritan Basin, show results to skeptics, and create a cooperative spirit that should make plan implementation much easier. So, look for those "great strategies" and let's get busy!

What do People Care About? *By Dan Van Abs, NJWSA*

Most residents in central New Jersey are concerned about local rivers and lakes and about the quality of their drinking water, according to a Raritan Project public survey, and most support regulation and other actions to improve water quality. This support for environmental improvements is notable because the survey was conducted at a time when concern about security and the economy was high.

The Raritan Basin Watershed Management Project funded the public opinion survey of 801 residents of the Raritan River Basin performed by TechnoMetrica, Oradell, NJ. The telephone survey took place in late September and early October 2001 and has a margin error of 3.5%

The survey revealed that most residents are not highly knowledgeable about water issues, but their concern about water quality and development is quite high. They ranked four issues as important– drinking water quality (79%), ground water quality and surface water quality (67% and 65%), and the development of forests, wetlands and farmlands (62%).

In one of the most interesting sets of questions, residents were asked to weigh the importance of funding water protection against other public needs. Water protection was rated as more important than public parks or open space, reducing state and local taxes, reducing road congestion, and reducing unemployment. Although water protection ranked below law enforcement and education, over 30% of the respondents felt that both priorities were equal.

The survey also asked residents who is responsible for water issues. For the most part, individuals were not seen by most as playing a dominant role in water resource problems. Approximately one third said that individuals primarily caused water pollution and development, while less than one fifth said the same about stormwater runoff. However, blame for the lack of progress is shared – less than 20% of those surveyed said that municipal sewer systems, farmers, business and industry and homeowners are doing a good job at minimizing water pollution in the region. Government is given slightly better ratings, but still poor, with 63% saying that government is doing a fair, poor or very poor job of protecting water resources from the impacts of development.

People support improved control of development and more open space preservation by large margins (70% each); with smaller majorities supporting improved drinking water quality, ground water quality and surface water quality, and the reduction of flood damages. They support more regulation for a wide variety of pollutant sources, ranging from industrial wastewater treatment plants to lawn care chemicals and land development (all 70% or greater), and a majority also supported more regulation of municipal sewage treatment plants and stormwater runoff. Equal numbers said that agriculture should be regulated more or the same. For each question, seven percent or fewer called for less regulation.

Government was seen as the most appropriate source of funds for repairing problems such as stream bank erosion, reducing flood damages and managing stormwater by three-quarters or more of the respondents. Equal numbers supported government and farmer funding of agricultural pollutant controls, while most people felt that those with lawns should pay for the control of lawn care chemicals.

Rural residents, who typically have their own wells and septic systems, tend to be somewhat less concerned than urban and suburban residents about drinking water quality, but a majority of all three groups are somewhat or very concerned about drinking water health risks. Equal numbers rely primarily on tap water and bottled water (34% each) with the rest drinking both types or filtered tap water, but those with drinking water health concerns are more likely to drink bottled water.

More than half the people surveyed (55%) claim to read or watch news stories about water resource issues either frequently or almost always. However, when asked about water quality trends in major rivers of the region, more people responded that they did not know than any other answer. Of those with an opinion, more tend to feel that rivers have gotten better, but only by a narrow margin.

Residents tend to receive most of their news information about water issues from the TV and newspapers (40% each). However, more than half (54%) feel that the news media do not provide enough coverage of these issues (only 3% said there was too much coverage), and over half (60%) rate the quality of coverage as only fair or poor.

The Raritan Basin Watershed Management Project, funded by the NJDEP and the NJWSA, will use the results of this survey to target public education needs and to help develop the watershed management plan for the Raritan River Basin. More information on the project is available from the project Web site, **www.raritanbasin.org**.

For information on meeting dates, please go to the project Web site at **www.raritanbasin.org** or contact Sally Kean at 732/356-9344 x23 or skean@raritanbasin.org

One Year Into the Planning Process

By the NJWSA Watershed Management Staff

Three years ago, the NJ Water Supply Authority and a project team of watershed organizations and technical agencies convened the first public meeting of the Raritan Basin Watershed Management Project. So began Phase 1 – development of a series of characterization and assessment reports by the project team in cooperation with the Characterization Committee and the Executive Committee, and the development of a Web site that has received many accolades. In October 2000, a new phase of the project began, with a kick-off meeting for the planning process. As promised, after four months the Raritan Project had a completely new stakeholder structure to guide development of the Raritan Basin Watershed Management Plan. Watershed Management Area Committees for the North & South Branch, the Lower Raritan and the Millstone were formed, with coordination through the Raritan Basin Council and technical support and guidance from the Technical Advisory Committee.

These committees and the Council have now been meeting for one year, and a considerable amount has been accomplished, along with release of the last three technical reports. What follows is a brief summary of progress from each stakeholder group, as seen by the staff. In brief, the project staff have had a great time working with all of you, and salute your willingness to give time, ideas, more time and a real sense of how things need to work. Given a similar effort in the next two years (see "What's Next?" on page 4), we expect that the Watershed Management Plan will be a great model for New Jersey and beyond!

North & South Branch Raritan Watershed Management Area Committee

Members of the North and South Branch Raritan WMA decided last spring to maintain their "come one come all" public meeting structure and continue forward with just a WMA-wide Committee, rather than establishing a Steering Committee as the Lower Raritan and Millstone Watershed Management Areas have. The WMA Committee was chaired for the first year by Dave Peifer of the Upper Raritan Watershed Association, supported by vice chairs Geoff Knapp of the Morris County MUA, and Bob Colburn of NJ Land Improvement Contractors. At the Committee's first annual meeting, held on April 30, 2002 the chairs rotated positions and Bob Colburn became the new chair while Dave Peifer became a vice chair. After establishing a committee structure and operating principles late last spring, the Committee spent the summer identifying and prioritizing the critical issues of the WMA. The results of numerous issue-related discussions resulted in the formation of the Committee's four work groups last October: Education & Outreach, Headwaters & Stream Management, Land Use & Open Space and Stormwater Management & Hydrology.

Thus far, the work groups focused on the development of problem statements, goals and objectives for incorporation into the watershed management plan, while at the same time suggesting ideas for projects that can be implemented in the interim. The Education & Outreach work group is compiling a list of available publications for public use that focus specifically on the critical issues of the WMA. They coordinated the WMA Committee's annual meeting that highlighted areas in the WMA that have been experiencing ground water problems in recent years. Speakers from the NJDEP Bureau of Water Allocation and NJ Geological Survey as well as a local hydrogeologist participated in the April 30th meeting.

The Headwaters & Stream Management work group has been working on a fact sheet for all 38 WMA municipalities that will define and emphasize the importance of protecting headwater streams. The Land Use & Open Space work group has been working with the Millstone Open Space and Riparian Areas subcommittee to develop open space and riparian area protection criteria for the Raritan Basin. In addition, that work group is developing a municipal survey to determine open space preservation efforts in the WMA. The Stormwater Management & Hydrology work group started later, but managed to draft their goals and objectives in only two meetings! This work group is still looking for a willing volunteer to serve as chair.

To learn more about opportunities for involvement in the WMA or to review any of the WMA Committee's goals and objectives visit the North & South Branch Raritan web page on the Raritan Basin Project web site or contact Debbie Newcomb of the NJWSA for additional information.

Lower Raritan Watershed Management Area Committees

Michael Rogers of Monroe Township MUA chaired the Lower Raritan Steering Committee during the first year. Many thanks to Mike for his hard work. Mike, who is stepping down in May, was assisted by two Vice Chairs, Jeannine der Bedrosian of East Brunswick and Alan Godber of Milltown. The Steering Committee had a busy first year that included: conducting a municipal survey on water resource issues, identification and prioritization of consultant needs, and approval of the goals and objectives developed by the subcommittees for the watershed management plan. The municipal survey, which was suggested simultaneously by several subcommittees, was distributed to the 50 municipalities that fall within the Lower Raritan. The results were then used to design a Municipal Forum, which attracted approximately 55 attendees. Speakers at the Forum included consultants working within the Raritan Basin, organizations such as the Morris Land Conservancy, NJDEP staff and project participants.

The Lower Raritan WMA has seven subcommittees that have been meeting on a (mostly) monthly basis for the past year. The subcommittees are: Education & Outreach; Legal, Institutional & Implementation; Land Management & Open Space; Land Use, Wastewater & Water Supply; Stormwater & Flooding; Watershed Restoration; and Water Quality Monitoring & Modeling.

The subcommittees spent the first year of Phase II selecting their chairs, developing goals and objectives for the watershed management plan, and beginning to develop strategies and tasks for the plan. The Education & Outreach subcommittee, in conjunction with NJDEP and NJWSA, developed a 'Welcome to Your Watershed' brochure for use in their outreach activities. The E&O subcommittee also represented the WMA Committee at several outreach events, including the Raritan River Fest, Project WET workshops and Cook College Ag Field Day.

The Water Quality Monitoring & Modeling subcommittee sponsored a seminar in March 2002 titled 'Water Quality Modeling for Beginners'. The seminar featured a presentation designed to introduce non-modelers to concepts they may encounter during the project. The Lower Raritan Subcommittees have many strategies in mind to accomplish their goals and objectives. Stay tuned to the project web page to see where you can help them reach their goals. We're always looking for new participants, so contact Kathy Hale!

Millstone Watershed Management Area Committees

The Millstone WMA participants organized themselves into six subcommittees and a Steering Committee. Mary Beth Koza of Bristol Myers Squibb and Heidi McLaughlin of the Stony Brook Regional Sewerage Authority are currently co-Chairing the Steering Committee. The subcommittees were chosen based on critical issues in the watershed and are: Education and Outreach; Nonpoint Sources, Stormwater, Flows, and Flooding; Open Space and Riparian Area Preservation; TMDL Implementation; and Water Supply. In an effort to minimize meetings, the Stormwater, Flows, and Flooding subcommittee business is conducted at the PL-566 Millstone River Flood Reduction and Watershed Protection Project. The TMDL committee is on hiatus until the TMDL work gets underway. All of the subcommittees drafted Problem Statements, Goals and Objectives for review by the full WMA Committee meeting in March 21, the anniversary of the Committee's first meeting in 2001.

Millstone WMA subcommittees have been working on other items of interest. The Education and Outreach subcommittee is evaluating how to best approach municipalities about the Watershed Management Plan, based on the Stony Brook Millstone Watershed Association's experience in promoting the watershed cause in the area. The subcommittee is also focusing on educating homeowners about soil testing and alternatives to fertilizers containing phosphorus, and is helping coordinate a seminar on "Drought and Water Supply in the Raritan Basin" with the Water Supply subcommittee. The Water Supply subcommittee will be investigating the current system of water budgeting and allocation in the Millstone WMA. The Nonpoint Source subcommittee is reviewing the technical reports, reviewing Montgomery Township's No-Net-Increase-in-NPS ordinance, and evaluating the NRCS phosphorus indexing method. The PL-566 subcommittee is determining recent flood damages (from Hurricane Floyd) and investigating options to mitigate flooding damages, protect habitats, and protect the watershed. The Open Space and Riparian Area Preservation subcommittee was asked by the Raritan Basin Council to take the lead on developing open space and riparian area protection criteria for the whole Raritan Basin and to share their work with other Raritan Basin WMA subcommittees. Contact Amy Shallcross to be involved – all are welcome!

Raritan Basin Council

The Council selected Nick Polanin, Rutgers Cooperative Extension Agent for Somerset County, as its chair. During the past year, the Council worked with the WMA Committees to develop: Council/Committee operating principles and communication guidelines, ten positive characteristics that the Raritan management plan should meet, a general outline of components the management plan should include, a Basin Education & Outreach Committee, general priorities for over 50 issues, a detailed work plan for FY2002, and key needs for consultant services. In addition, the Council agreed with TAC recommendations for changes to the TMDL (surface water pollution control) process to address delays in the NJDEP schedule for water quality modeling. Dan Van Abs is staff liaison to the Council.

Technical Advisory Committee

The Technical Advisory Committee is chaired by Rocco Ricci and vice-chaired by Dr. Robert Tucker. Both offer significant expertise in the watershed management issues the Project will face during Plan development. The TAC began where the "Issues" work group left off by scoring, validating and prioritizing the issues submitted by the public. The TAC then determined how to utilize the scores to categorize the issues as "high", "medium" and "low" priority. The TAC determined that an expert panel would be needed to aid in the development of the TMDL approach and approved criteria set for the panel. As the NJDEP schedule for TMDLs will be renegotiated with EPA, the TAC agreed that the project should move forward and approved a two-step approach for developing the TMDLs that focuses first on TMDL development for nonpoint source dominated watersheds. For the Raritan Basin Council, the TAC reviewed the WMA Committee suggestions for consultant needs. The TAC has recommended three projects to the Council: Development of Raritan Basin-specific NPS loading rates; Enhancement of build-out analyses methods/models to better predict water resources impacts; and, Development of a protocol to determine watershed based phosphorus criteria. Additional TAC participants are welcome – please contact Amy Shallcross.

Congratulations from the NJWSA Project Staff to the scores of people who are directly involved in these committees, and the hundreds of people who are following the project through emails, the Web site, etc. ***Many thanks!!!*** *from Tom Baxter, Dan Van Abs, Kathy Hale, Sally Kean, Debbie Newcomb, Amy Shallcross and Tom Stanuikynas.*

THREE SUB-WATERSHED GRANTS TO BE AWARDED

As the result of a Raritan Project Request for Proposals, three exciting projects were selected for funding. As of this writing, the contracts are on hold until the new State administration announces its new policy regarding the watershed planning process.

Stony Brook-Millstone Watershed Association Carnegie Lake Subwatershed Rapid Watershed Plan

Carnegie Lake is the focal point of the Millstone River Watershed. The Lake is the most visible water body to many people in central New Jersey. The Lake and its vicinity is an extraordinary natural habitat and recreational resource, which also is the home of development projects associated with the Route 1 corridor near Princeton Township. Developing and implementing a rapid watershed plan for Carnegie Lake can therefore potentially yield real benefits to the local environment while providing high visibility and momentum for the promise of watershed planning and action.

SBMWA will direct a rapid watershed planning effort in three stages. First, SBMWA will seek commitments of participation from key stakeholders. BMWA will also create a baseline assessment of existing conditions, focusing on impervious cover, land use changes and key natural resources. Second, SBMWA will convene a planning committee that will refine the assessment with local knowledge and identify key water quality issues that can be resolved in a timely and cost-effective fashion. Third, SBMWA will write and distribute a rapid watershed plan to reduce pollutants from identified sources. This process will be open, public and consensus-based. SBMWA will also outline key implementation tasks and track action even after the grant-funded work has been completed.

Based on the 1997 assessment of this subwatershed and sources listed above, the major problems identified in this watershed are sedimentation and high phosphate and nitrate levels (SBMWA, 1997). The 1997 report recommends further investigation be undertaken to pinpoint the areas that are introducing these pollutants and to outline specific recommendations for reductions.

Municipalities can be encouraged to look at their zoning and other ordinances, specifically sediment, soil erosion and stream corridor ordinances. Property owners can work to implement nonpoint-source pollution reduction projects, and industries with point-source discharges can understand their contribution. Projects to protect ground water supplies and wellhead protection areas could bring together local utilities, landowners, citizens and municipalities. At the end of nine months, a document will be accessible on the SBMWA website, which provides a summary characterization and assessment outlining the current status of the Carnegie Lake Subwatershed; the issues that need to be addressed; goals and objectives for each issue; identified leaders in implementing these goals; areas of potential funding; and a summary of the lessons learned from the project.

Manalapan Brook Subwatershed Project Proposal

The Manalapan Brook flows from its headwaters in Monmouth County through the coastal plain portion of Middlesex County to its confluence with the Matchaponix Brook. The combined brooks form the South River which joins the Raritan River at South River and Sayreville Boroughs. Middlesex County has recently implemented a major $1.5 million dredging project to restore Manalapan Lake on the Manalapan Brook at the County's Thompson Park. The removal of over 115,000 cubic yards of accumulated sediment in this park lake is for naught without a comprehensive watershed plan to assure that future sediment loadings and nonpoint pollution do not again destroy this valuable resource. In addition, many of the municipalities in the subwatershed rely predominantly on ground water for municipal water supply. Protection of remaining prime ground water recharge areas must also be a focus of a watershed plan.

The Manalapan Brook Subwatershed Project will result in a plan that presents appropriate actions to protect riparian corridors and aquifer recharge areas through a monitoring program, riparian and recharge restoration and municipal ordinance provisions that are implementable. This project will utilize "Rapid Watershed Planning" techniques and will be completed in a nine month planning period. The Manalapan Brook Subwatershed Project will address the reduction of stream bank and channel erosion and sedimentation impacts on impoundments within the subwatershed.

The protection of riparian corridors and aquifer recharge areas is also critical. Loss of riparian and recharge areas to new development and impervious surfaces will adversely impact ground water supplies and stream base flows. The Project will also address this issue. These issues are critical to the maintenance of potable water supplies for the Subwatershed and assurance of adequate stream base flows. These are amenable to the resources available to conduct "rapid watershed planning" in this subwatershed.

The Manalapan Brook Subwatershed Management Plan that will be produced is expected to achieve the following: identification of locations and a program for stream bank and channel stabilization to reduce erosion and sedimentation in the Manalapan Brook Subwatershed and help to maintain the depth and recharge contribution of the Manalapan Lake and De Voe Lake; identification of potential recharge augmentation and protection areas for use in open space preservation planning and programming and water supply management activities of municipal utilities agencies and water purveyors; and recommendation of recharge and riparian protection provisions in appropriate ordinances and master plans to be considered for adoption by municipalities.

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Outreach Mini Grants Available in the Raritan Basin

As part of the planning process, the Raritan Project has allocated $22,500 in mini-grants to fund special public education and outreach programs about watershed management issues. The purpose of the mini-grants is to increase stakeholder participation in the Raritan Project through educational programs directed to specific interest groups, especially interests that are currently underrepresented in the planning process. These grants are competitive. Projects will be funded up to $2,500, and should focus on target groups in categories such as: industry/business, recreational interests, academia, municipal officials and agriculture. Applicants are encouraged to focus on underrepresented groups in the Raritan Project such as minorities, urban or civic associations and small businesses. The first round of applications was due May 15, 2002. The mini-grants are awarded on a rolling basis, therefore the second round of applications is due November 15, 2002.

We urge you to apply for these grants. For more information contact the NJ Water Supply Authority at (732) 356-9344 x24 or email outreach@raritanbasin.org with any questions you have. A great deal of additional information, including technical reports and additional copies of the mini-grant guidance, is available from the Raritan Project Web site at www.raritanbasin.org.

TAC Leadership

The TAC has chosen its leadership with the selection of a Chair and Vice Chair at the end of 2001. Mr. Rocco Ricci serves as the TAC's Chair with over 50 years of public service as a civil engineer. Mr. Ricci served as a commissioner of the New Jersey Department of Environmental Protection, Chief Engineer for the Passaic Valley Sewerage Commission, and Executive Director of the New Jersey Water Supply Authority. Dr. Robert Tucker has assumed the role of the TAC's Vice Chair. Dr. Tucker, a biochemist by training, was formerly the director of NJDEP's Division of Science and Research and currently is the Director of Research for the Stony Brook Millstone Watershed Association. The Raritan Basin TAC members are pleased and delighted to welcome both Rocco and Bob to the project and look forward to working with them.

What to Do About Droughts?

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Absent these facilities, northeast New Jersey would find itself in dire circumstances, the social and financial consequences of which would stagger the imagination. Long-term conservation measures, such as low-flow toilets, also helped the situation by reducing demand. Had the 1996 Statewide Water Supply Plan been implemented, these physical facilities would have been augmented by new management tools, such as a water supply operations models, that would have improved conditions even more.

A lesson that can be learned from this. There is no way to predict a drought but there are ways through wise planning, engineering and project implementation that drought forestalling measures can be put into place. In my opinion, there is one more very important tool for drought planning and drought mitigation and that is watershed planning. Watershed planning leads to a better understanding of water budget and water availability. It leads to the best understanding of effect of human activities on water availability in a watershed. It leads to an understanding of activities that are detrimental to the water resources and those that would help to mitigate past damages. Watershed management plans will be the tools used to control future harmful activities and encourage sound resource management. In short, watershed planning has the best chance in the long term to address future droughts.

SUB-WATERSHED GRANTS TO BE AWARDED

Continued from Page 6

"Planning to Protect Local and Regional Water Supply"

This project focuses on the Mulhockaway Creek upstream of Spruce Run Reservoir. ANJEC (Association of New Jersey Environmental Commissions) will partner with Union and Bethlehem Townships to protect surface and ground water resources that supply drinking water for much of Central New Jersey and the local community. Stormwater management is also of concern to the Environmental Commissions, in the face of increasing development.

The approach is based on the Rapid Watershed Planning Handbook, using the subwatershed scale steps. The project will focus on the Sensitive Stream, Water Supply Reservoir and Aquifer Protection Categories to customize the subwatershed plan to meet Township goals. Development of Stormwater Best Management Practices is also necessary to address local concerns. Work has already begun to establish a baseline, using the Technical Reports of the Raritan River Basin Project and discussing with Union and Bethlehem Townships their needs, stakeholders and infrastructure.

The Townships recognize their stewardship role to help protect Spruce Run Reservoir. ANJEC intends to develop a subwatershed management plan focused on the needs Union and Bethlehem Townships have identified, providing customized goals for implementation within a 6-9 month timeframe.

This project will focus on protecting the water source to Spruce Run Reservoir, a regional public water supply; the critical habitat and water quality in the tributary wetlands and sensitive Mulhockaway Creek upstream of Spruce Run; and the local aquifers that provides all water supplies. Stormwater management is also important to the subwatershed management plan to handle increased flows resulting from recent development. Without better management, increased stormwater flow and its associated pollutant loading will adversely impact the reservoir, aquifer and sensitive streams. By focusing on these issues on a subwatershed basis, they become manageable and actionable using the rapid watershed planning approach.

The grant will be leveraged by other watershed management work completed and under way. Current work on stream assessment and restoration, protection of ground water resources and septic management has direct bearing on this project. The local Environmental Commissions, Hunterdon County Planning Office, NJWSA, New Jersey Institute of Technology-Pollution Prevention Office, and NJ Department of Environmental Protection will also provide services and expertise to this project as partners or public agencies.

The expected result is to provide the Townships and the NJWSA with a focused subwatershed management plan that can be used in concert with the overall Raritan River Basin Plan. This plan of action will include analyses and activities designed to protect the water source for Spruce Run Reservoir, habitat in Mulhockaway Creek and its tributary wetlands, as well as the local drinking water source aquifer. We also expect to provide the Township with an analysis of their existing stormwater management situation and recommendations on both retrofit methods and Best Management Practices that will help protect property and water quality. The plan will also include an analysis of potential funding sources to implement these activities and additional planning deemed necessary.

The Raritan Project
c/o NJ Water Supply Authority
PO Box 287
South Bound Brook, NJ 08880

GOT NEWS???

If you have a newsletter contribution, please contact Christine Hirt @ 609/777-1406 or christine.hirt@dep.state.nj.us

To receive copies of this newsletter, please contact Sally Kean at skean@raritanbasin.org or call 732/356-9344 ext. 23.