Dec. 18, 2003

## Lower Susquehanna Water Resources Regional Committee List of Issues and Data Gaps

## Issues

- 1. Loss of measuring river flow/stream flow staff gauges due to budget finance issues/USGS is supplemented by private sector.
- 2. Groundwater recharge....suburban growth changing runoff characteristics
- 3. How/what is relationship for future water use SRBC vs. State of PA
- 4. Access to data by various private/public organizations for planning purposes
- 5. Water quality
- 6. Groundwater regulations
- 7. Groundwater domain is least regulated, yet being sought in higher frequency, as a source of supply- must figure out minimum regulatory requirements to protect public health and manage gw, well driller regulations, closeouts, etc.
- 8. Investigating water quantity and quality issues in an integrated fashion
- 9. Land use/water resource ties; increasing stress on recharge areas without adequate planning for land use/zoning policies.
- 10. Increasing nitrate levels in a number of groundwater and surface supplies
- 11. Using water to drive decisions about urban growth
- 12. Realistic releases during drought conditions
- 13. Agriculture use and recharge
- 14. Hydroelectric power use
- 15. Stormwater recharge
- 16. Sewage effluent reuse
- 17. Lack of conservation
- 18. Agriculture recharge/use (manure application is a recharge component)
- 19. Wastewater reuse/recharge (AMD- water- reuse- i.e. noncontact cooling etc.)
- 20. Alternative technologies to discourage direct discharge (treatments to improve water quality so that reuse/recharge is encouraged)
- 21. Land use connection with water needs/use/budgets (sprawl- lack of planning)
- 22. Prevention of Pollution emphasis to decrease needs to treat, wastewater infiltration vs. direct discharge = stormwater sloughing etc/erosion
- 23. Coordinate land use planning with water resources
- 24. Consumptive use by power plants, golf courses and other irrigation, outof-basins transfers, etc.
- 25. Increased stormwater runoff and decreased groundwater recharge due to increase in impervious surfaces and discharge of most stormwater to streams
- 26. Water loss and inefficient use of public water supplies

- 27. How TMDL's eventually get developed- to deal with nutrient loadings to Bay
- 28. Interbasin transfer/Consumptive use between Susquehanna and Delaware
- 29. Critical recharge areas for groundwater need definition (limestone vs. non-limestone basins)
- 30. Population stable statewide yet shuffling about in "sprawl" affecting water resources
- 31. Safe yield vs. quantity
- 32. Water quality and/or pollution abatement
- 33. Release rates
- 34. Water source protection
- 35. Agricultural water uses
- 36. Agricultural recharge
- 37. Groundwater availability
- 38. How will we get the data to make good regional decisions about how much water we have, how much we use and how much we'll need in the future?
- 39. Concern over sprawl and development affecting baseflow of streams
- 40. Concern over need to accelerate recharge and infiltration to regional aquifers

## Data Gaps

- 1. Groundwater quality information from private wells
- 2. Better stream quality information for refining "stream classifications"
- 3. Water use data (specifically focused on agricultural, commercial use and consumptive use information)
- 4. Recharge rates (empirical) at watershed level, geological/landcover correlations
- 5. Trend analysis of water quality data in subsurface domain
- 6. Safe yield information is spotty and conflicting for surface water and especially groundwater
- 7. Aquifer quantitative information (recharge vs. baseflow)
- 8. Sole source aquifers
- 9. Do we have reliable and enough groundwater?
- 10. Do we know how quickly if at all, we are depleting regional aquifers?
- 11. How much water is being lost daily or yearly due to leaks in distribution systems and what is being done about it?
- 12. Agricultural use
- 13. Industrial use
- 14. Consumptive use
- 15. Accurate safe yields
- 16. "Executive Summary" of pertinent information gathered in old SWP

- 17. Compiled information sources: SRBD/DRBC, Capital Region Water Board Report, Land use- water quality connection, source water assessments, river conservation plans----Problem- lots of data, but no one place to find it
- 18. Existing alternative technologies that address water quality
- 19.GIS mapping to combine POTWs in a watershed, water use in a watershed
- 20. Exact locations of aquifers (size, yield, availability)
- 21. Adequate groundwater level monitoring wells
- 22. Agricultural usage
- 23. Groundwater availability and quantity
- 24. Agricultural use statistics
- 25. Industrial use statistics
- 26. Sources and uses
- 27. DEP recommended data