

9.0 CONCLUSIONS

The Delaware River Basin (DRB) CEMRI effort described in this document points to several opportunities for national and regional collaboration strategies that could greatly improve the interpretive power of our environmental monitoring programs. Linking water quality data from deterministically selected, frequently sampled monitoring stations with regional survey data embeds the intensively sampled stations in a regional context and thus allows interpretations not possible if the data are collected in isolation. Likewise, linking terrestrial data on forest and soil conditions with data on surface water quality at local and regional scales has long been advocated by researchers but yet to be achieved in any systematic manner in the United States.

The Delaware CEMRI did not supply all the answers about effectively linking every one of the Nation's major environmental monitoring programs into a broad national database. Key programs that would logically be part of that national strategy did not participate in the DRB pilot test of the monitoring framework; some gaps in data collection and scientific analytical capacity were not filled by existing programs. However, the DRB CEMRI did provide a fairly comprehensive test of the framework concept for forested landscapes and sufficient evidence of the potential for collaborative monitoring strategies to justify an expansion of the concept to other regions of the United States. Resource managers need integrated whole-system assessments of environmental issues to develop effective management policy. They also need to understand how resources are linked to one another, and they must have access to information about how trends in one resource might be linked to trends in other resources. No one environmental monitoring program can afford to provide that comprehensive information: only through scientifically rigorous collaborations among programs will the needs of resource managers be met.