

resources potentially at risk from which actual damages remain to be derived.

The resource inventory has drawn on data from a variety of sources. Although none of it was compiled specifically for acidic deposition, the best estimates have been made using this information compiled for different purposes, in different ways and for various years. Attempts were made to ensure that the U.S. and Canadian inventories are reasonably comparable. Despite the minor differences it is believed that the inventory presented here represents the best data available. Additional data collection will be necessary to improve the inventory both in coverage and specificity (e.g., tree species).

## 8.2 AQUATIC ECOSYSTEM

For the purpose of defining potential resources at risk, the aquatic ecosystem identified here pertains only to lake and stream area measures. A census of surface water resources within each combination of sensitivity/deposition regimes has been taken to provide quantitative estimates of the total area of surface waters (i.e., lakes and streams) potentially at risk.

### 8.2.1 U.S. Aquatic Resources

The Work Group took as its starting point for an inventory of surface water areas the Geocology Data Base maintained by Oak Ridge National Laboratory (ORNL). The surface water inventory in the Geocology Data Base includes all lakes greater than 2 acres and permanent streams. The primary advantages of using the inventory in the Geocology Data Base are the completeness of the surface water inventory and that ORNL prepared the map of sensitive areas for the Aquatics Subgroup (Figure 3-10; Olson et al. 1982). The primary disadvantages of using the Geocology Data Base are the absence of data on surface water chemistry (i.e., alkalinity) and the inability to discriminate among various sizes of lakes and streams. The inventory includes several large lakes and streams which even in sensitive areas would probably not be adversely affected by acidic deposition.

The Work Group limited its inventory effort to 38 states; those east of the 100° meridian. The surface water area in all counties with 50% of the land area in urban and agriculture uses was assigned to a special category rather than one of the three sensitivity categories. Surface water in this category were assumed to be more adversely affected by urban and agricultural activities than by acidic deposition. The remaining surface water area was assigned to one of four deposition categories. The disaggregated results of the classification are included in Appendix Tables 8-1 to 8-3.