For future work during Phases II and III Work Group 2 expects that Work Group 1 will provide a list of candidate sensitive areas together with their sensitivities and target sulfur deposition objectives. It is expected that many of these sensitive areas will coincide with those already selected for initial analysis.

The development of quantitative relationships between the sources and receptors identified above is an application for which LRT models are uniquely suited. Specifically, this entails computing how much pollution, in terms of concentration or deposition, arrives at a specified receptor area from a variety of source regions. This information can be presented in matrix form for all parameters of interest, as absolute values, percentages, or normalized values.

Mathematically, the transfer matrix concept may be expressed as

$$D_j = f_{ij} \, Q_i$$

where D_j is the deposition (or concentration) of the parameter of interest at receptor 'j'; Q_i is the strength of source 'i'; and f_{ij} is an element of the transfer matrix which describes the relationship between the two. The LRT models are used to determine the transfer matrix, examples of which are presented in Chapter 5.

An important future application would involve the estimation of the reduction in D_j (concentration or deposition) due to a reduction in emissions Q_i. Examples of the manipulations which can be undertaken with the relationship include: