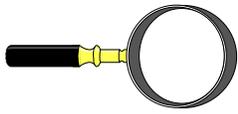


Risk Management

To be effective and meaningful, risk management must be an integral part of the overall management of a system. (Haimes 1995, 4)

This model uses the **risk management process** identified by the National Research Council (1991: Appendix), which indicates communities concerned with hazard reduction should take the following steps:



1. *Identify natural hazards (location, intensity, frequency).*
2. *Map hazard-prone areas and environmentally sensitive areas.*
3. *Inventory structures and areas vulnerable to hazards (e.g., unreinforced masonry, mobile homes).*
4. *Inventory critical facilities and resources (e.g., hospitals, schools, utilities, and endangered species).*
5. *Inventory sites containing hazardous and toxic materials, determine vulnerability.*
6. *Inventory special-needs groups (e.g., elderly, people with handicaps).*
7. *Conduct hazard and risk assessments (vulnerability of population and natural resources to specific hazards).*
8. *Prepare hazard overlay maps in order to depict vulnerable areas and populations.*
9. *Digitize hazard and risk assessments (e.g., geographic information systems).*
10. *Develop procedures and schedule for updating hazard and risk assessments.*
11. *Translate hazard and risk assessments into recommendations for action (e.g., community public awareness, mitigation, preparedness programs).*

This process allows the committee to identify:

- those hazards which are likely to occur and will have a high impact upon the community;
- those hazards which are unlikely to occur and will have a low impact upon the community;
- those areas in the community which are at greatest risk; and
- those areas in the community which are at least risk.

According to Hattis and Goble (1995, 108), for example, "no priority system should be applied too strictly in the allocation of resources; a 'portfolio approach' is desirable that spreads some efforts to lower-priority candidates."