

interface established with the near-real-time TriNet data.

If all these available data were integrated and used, the Safety Element database would be one of the most ambitious automated local government emergency management GIS programs in California, and would set a model for other jurisdictions to follow. As is true for all major undertakings, a great deal of investigation and analysis is needed to make this possibility a reality. Issues requiring attention include careful review of long-range system development priorities, future hardware and software enhancements, sequencing of data inputs, and a user-based review of database integration requirements.

5.5.4 User Responsive System Development

A common complaint about computer system applications is that they overlook specific user needs. Great effort has been expended in recent years to include users in the design of the database and other details of development and maintenance. This is a healthy trend that does not just apply to commercial software. As the County automates various Safety Element data layers and designs an emergency management GIS component, responding to ongoing user input will guarantee the most effective system.

To determine emergency management GIS system development priorities, it is important that developers and potential users consider both the worst-case, long-term disaster scenarios, for which the community will be conducting long-range mitigation, as well as short-term, critical data requirements which would be needed should a disaster occur tomorrow. For example, in a long-term scenario, the County might want to decide among retrofit compliance periods, say, three years versus seven, by analyzing inventories of unsafe structures in conjunction with geographic shaking intensity predictions to project the likely locations and degrees of loss associated with each time frame. A critical data requirement, on the other hand, might be the establishment of a basic street network layer, including vulnerable bridges, which would allow on-line routing of emergency vehicles and recording and updating of actual damage conditions during the critical hours following a disaster.

Such priorities cannot be determined by systems analysts alone, whether County staff or expert consultants. Some priorities will depend on the revised Safety Element itself. All priorities must be examined with the full involvement of all departments that will use the emergency management GIS data. This should be done, even if it involves greater short-term costs, to enhance the system's credibility among prospective users, and, more importantly, because it will be more expensive later to face costs associated with loss of life or property damage and system revisions, should such critical priorities be overlooked now.

