## Case 12.

After Hurricane Katrina struck New Orleans in 2005, resulting in the breach of the complex levee system, Sacramento residents began to worry that the same fate might await them. Sacramento, situated at the confluence of the Sacramento and American Rivers, is nationally rated as the city at greatest risk of major flooding.

Farmers and private developers built many of the levees in northern California. In agricultural areas, levees were designed to protect fields, as well as permit periodic flooding. In several areas, these levees are little more than soil and peat mounds pushed against the riverbank and raised over the years by the addition of more material. Despite this complex history of private levee construction, a 1986 court ruling affirmed the state's liability for flood damages caused by levee failures.

At several locations in and around the metropolitan area, land elevation is lower than the elevation of nearby rivers. All areas of the metropolitan region are vulnerable to catastrophic flooding, in some areas to an estimated water depth of 20 feet. The Natomas neighborhood is particularly vulnerable as it was built in a natural flood basin in what was recently agricultural land. Including the tributaries flowing into the Sacramento River, Natomas is surrounded on three sides by major waterways.

In 1998, Sacramento lifted an eight-year building moratorium in the Natomas area, in response to the Army Core of Engineers' certification of the levees and a real estate market demanding ever-greater expansion into ever-riskier locations. Since then, the area has grown by 47,000 new residents. However, in July 2006, the ACE reversed its previous certification. According to Thomas E. Trainer, chief of the engineering division, "We can no longer support our original position regarding certification of the levees system," at the FEMA minimum of 100 year flood protection.

The city planned to build another 10,000 homes in the basin. In November 2006, the California Department of Water Resources, which is legally liable for maintaining the flood control system, requested that the city consider reinstating the building moratorium until the levees can be repaired.

According to Lester Snow, Director of DWR, "the area is at high risk and will continue to be at high risk for several years... It is imperative that additional measures be taken to reduce the threat to public safety and property." This risk is significant. Governor Schwarzenegger recently said, "We are literally one storm or one big earthquake away from a major disaster." Current estimates indicate it would take more than \$68 billion and 4 years to conclude the necessary repairs.

According to Graham Brownstein, director of the Environmental Council of Sacramento, "It just does not make any sense from a fiscal, environmental, or moral perspective to continue to plan and approve more housing in deep flood basins until we have real protection."

In response to the state agency's request, Sacramento city mayor Heather Fargo said, "We're not in denial over this... we're just trying to make sure that we make a wise decision."