



FIGURE 12.3 Fluctuating interest in urban surface water management (Source: Adapted from Debo, 1979)

J.D. CONLEY
Broker 778-5550

ACTION
REALTY

1124 E. GURLEY 

Two
"Problem" Lots



In Flood Plain: Probably not as bad as everyone else imagines. You can probably build 8 or more apartments. Very little site preparation. Only \$45,500⁰⁰. Drive by 300 block S. Virginia then call J.D. Conley. 778-0009.

A developer has hired you for expert advice on whether or not to invest in this undeveloped property that lies in a region of expected urban expansion. The developer is willing to take a certain amount of risk, but will sue you if his apartments are flooded out before he can sell them off to a buyer. He will also sue you if you advise him not to invest and someone else makes a killing on the development. No official zoning or floodplain mapping has been done for the area, but nevertheless the developer knows that the location is excellent and wants to buy now. You have one month to come up with an answer on how frequently the site will experience an extreme event.

YOU ARE GIVEN THE FOLLOWING CONDITIONS:

(You may provide your own assumptions about where the property is located. The advertisement actually appeared in a Prescott, AZ newspaper.)

- CASE # 1:
- 500 mi² watershed
 - 5 years of peak flow stream discharge records, then they shut down the gage
 - 40 years of stream discharge records for a neighboring watershed of similar size, but your watershed contains more complex terrain and a greater % of your basin is at higher elevations
 - no precipitation gage in the watershed, but a 25-year precipitation record is available for a town 70 mi away, but not in the watershed with the 40-year record
 - a dendrochronologist coring trees in your watershed in order to augment an existing regional master chronology

- CASE #2:
- 50 mi² watershed
 - 5 years of peak flow stream discharge records, then they shut down the gage
 - 2 precipitation gages in the watershed, each with 10 years of record, but from different decades

- CASE #3:
- 2000 mi² watershed
 - 50 years of peaks-above base stream discharge records at a gage in your watershed
 - 2 first order climate stations in the watershed with 75 years of record
 - a computer and a statistician

- CASE # 4:
- 100 mi² watershed
 - no nearby stream discharge or precipitation records
 - field equipment, topo maps, and a geomorphologist