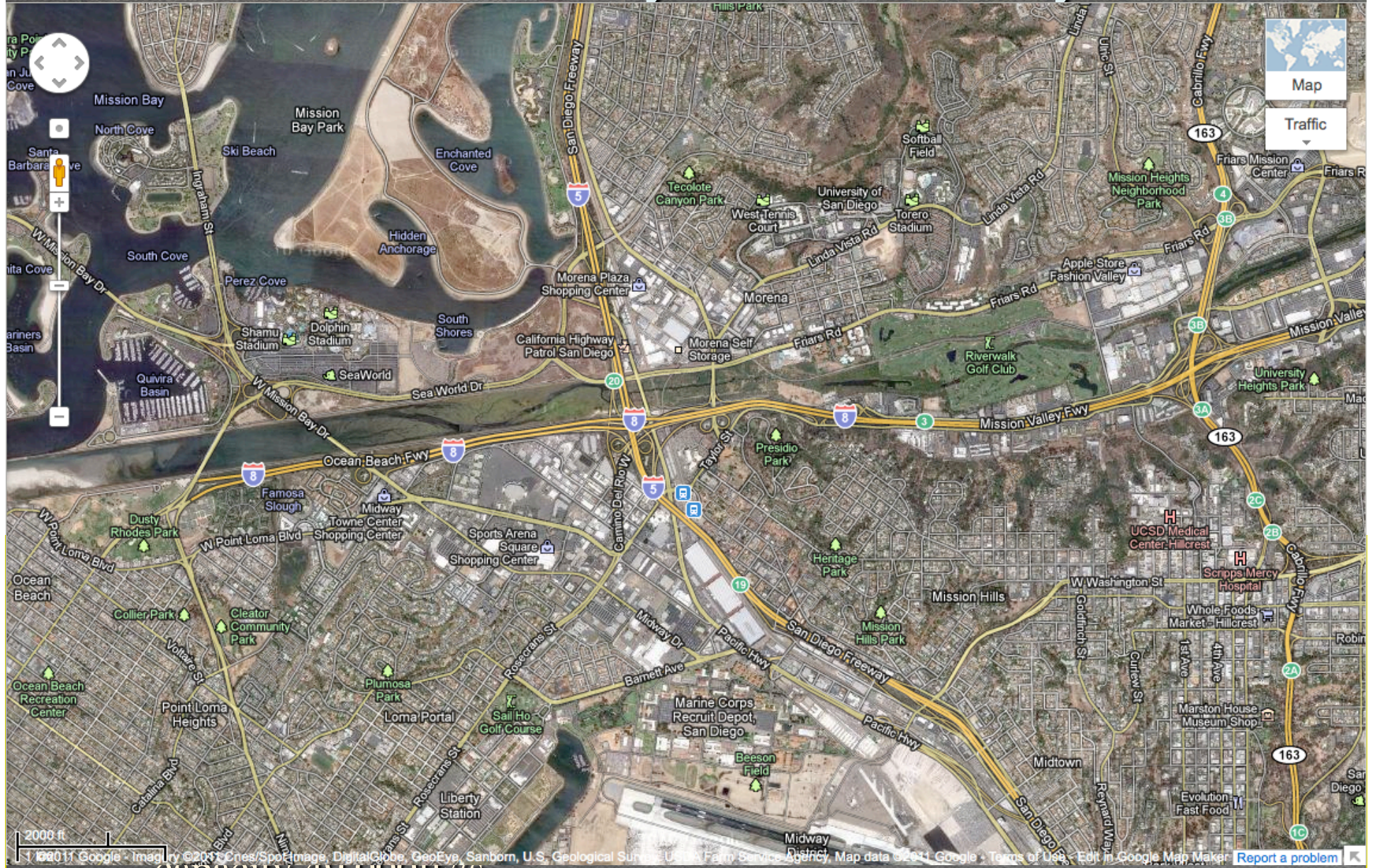


Mission Valley/Fashion Valley

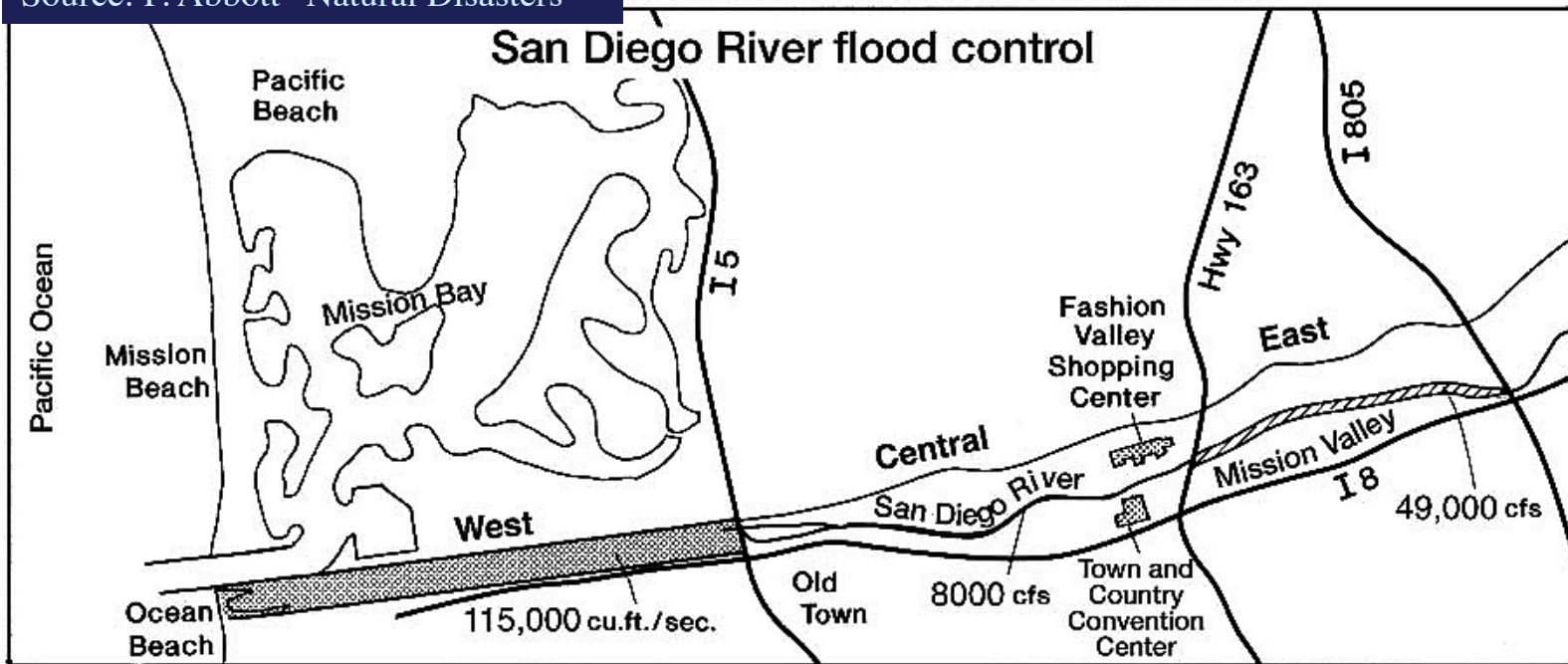


capacity 49,000 ft²s

Mission Valley/Fashion Valley

Source: P. Abbott "Natural Disasters"

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century's biggest flood: Jan 1916; discharge: 72,000ft³/s

1940ies: U.S. Army Corps of Engineers: 245m wide channel with natural floor;
capacity 115,000ft³/s

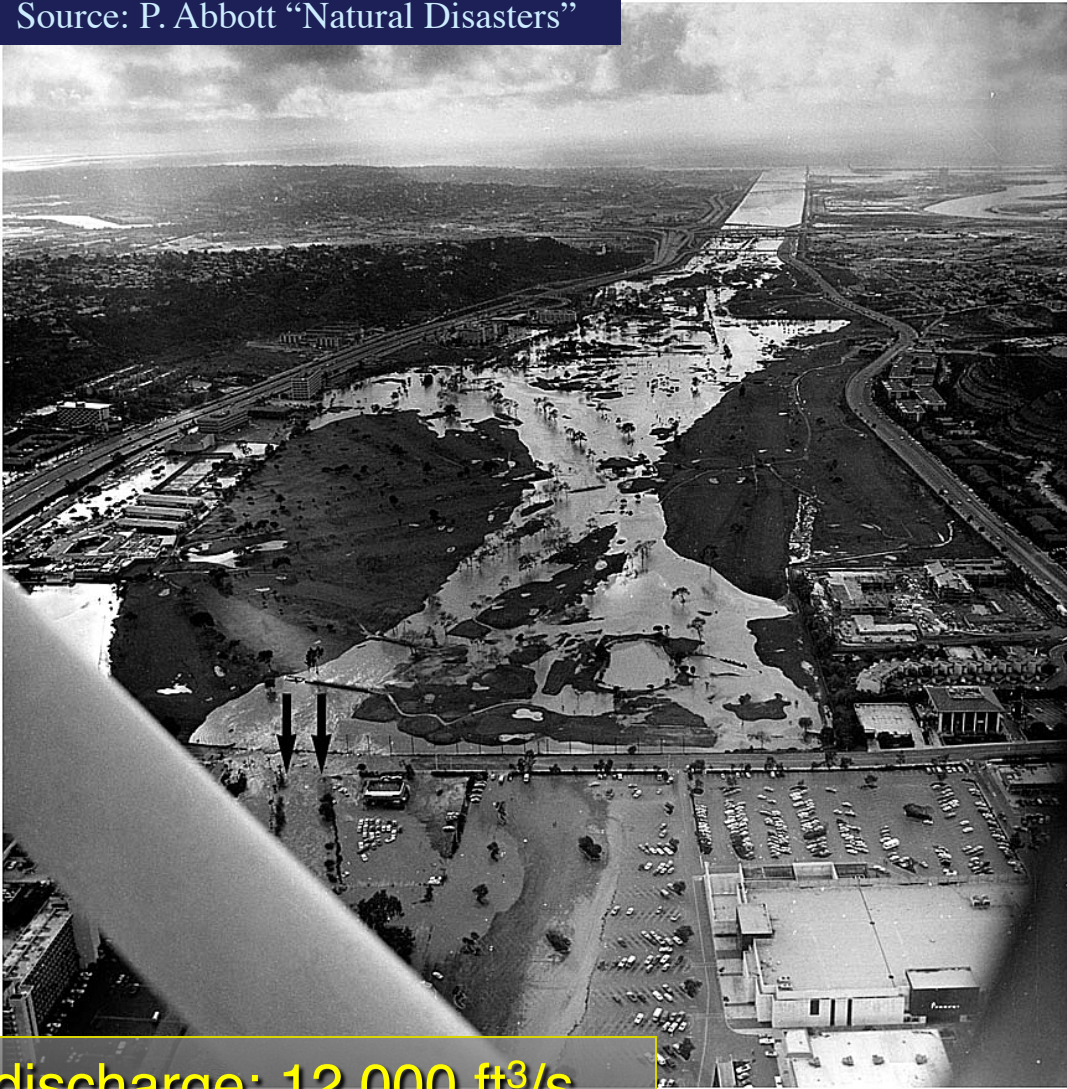
- 1950ies: development of Fashion Valley: 7.5m wide channel;
capacity 8,000ft³/s

- 1980ies: development of east Mission Valley: 110m wide channel;
capacity 49,000ft³/s

The 1979 Mission Valley Flood

Source: P. Abbott "Natural Disasters"

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Flood control

Mission Valley: 49,000 ft³/s

Fashion Valley: 8,000 ft³/s

- discharge: 12,000 ft³/s

Fashion Valley/Mission Valley, 26 Feb 2005



similar floods: winter 2011, 12, 18, 19, 20
-> Fashion Valley parking closed

big floods not (supposed to) happen since
1941/43 construction of El Capitan and
San Vicente reservoirs upstream



Fashion Valley, 11 Apr 2020

Fashion Valley Road



Mission Valley/Fashion Valley



new high-density housing plan
flood risk NEVER discussed



The Case San Diego

L.A. style channels: lined with concrete

- ✧ may be dry most of the year
- ✧ supposed to control runoff during winter storms

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Source: Abbott "Natural Disasters"

- have to be maintained vs. limited city budget
- rapid sedimentation
- littering
- growth of weeds

The Case San Diego

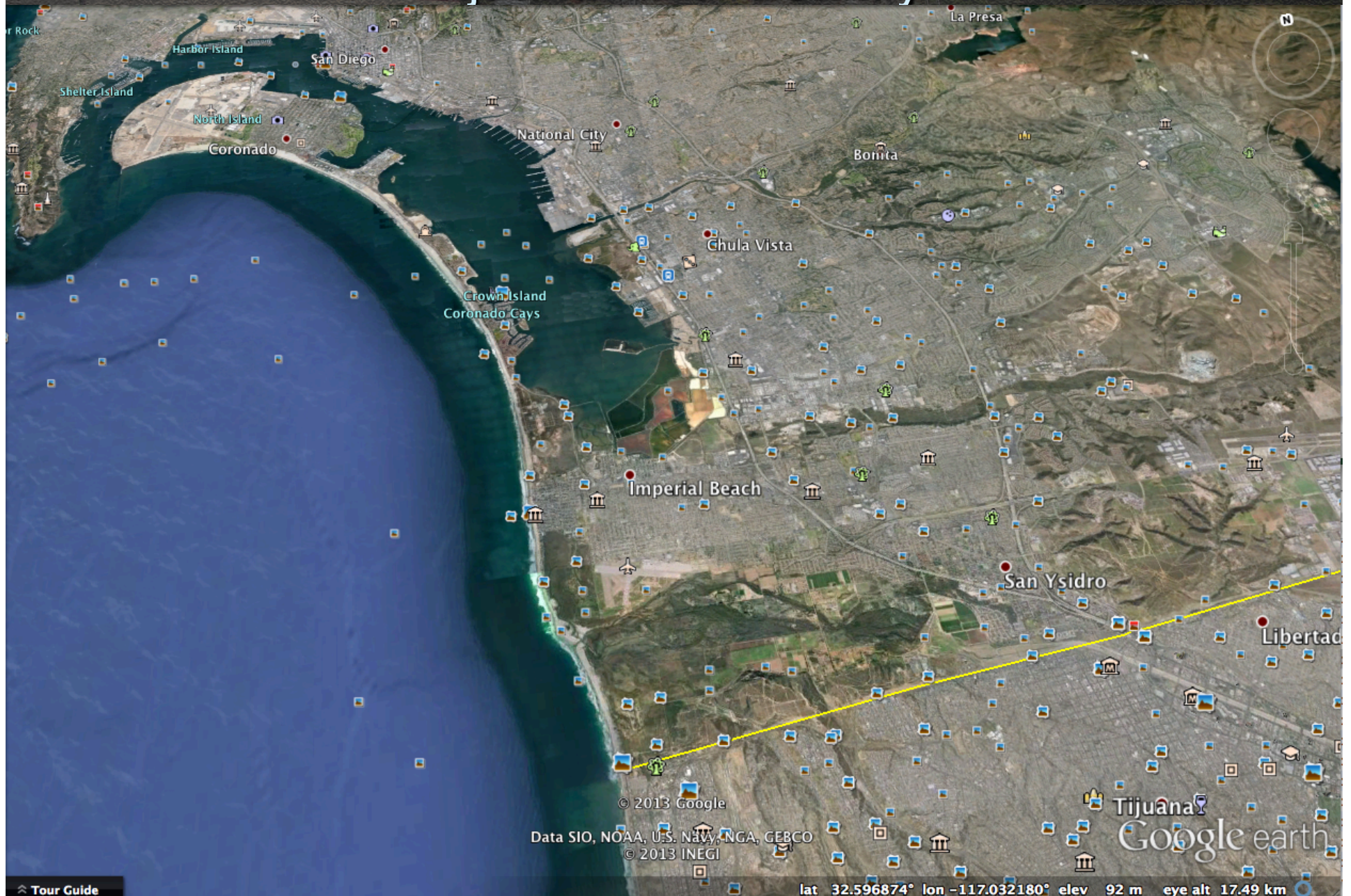
Source: P. Abbott "Natural Disasters"

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- breeding ground for disease-carrying insects

Tijuana River Estuary



Tour Guide

SIO15: Topic 14: Floods - Humans vs. Nature

17 Dec 2008 T.J. River Valley Flood

Source: SD Union Tribune

- 2 storms in 3 days
- after flooding by earlier 1 Dec storm
"a lot of flooding with small amounts of rain"
- flooding within 15-20 min (~4 ft)
"it felt like a tsunami coming in, a wall of brown water"
- flooding worst in 10 years



- dramatic rescue efforts for 21 people and 70 horses
- 1 fatality
- 4 horses, 15 goats drowned
- foul water killed plants at nursery
- (\$600,000 damage, no insurance)



Flooding of Tijuana River Estuary



Photo: SD Union Tribune

Smuggler's Gulch:
natural flood control channel
in the Tijuana River Estuary

Contributing factors to frequent flooding
several storms in short time
Tijuana River clogged with debris
construction of recent border fence
trash in Smuggler's Gulch