Berkeley's Adaptations to Sea Level Rise

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Berkeley Sea Level Rise Scenarios

"95% probability sea level rise will be less than 1.8 m by 2100"

Jevrejeva *et al* 2014 *Environ. Res. Lett.* **9**
http://iopscience.iop.org/1748-9326/9/10/104008/

"We conclude that [the Amundson Sea] sector of West Antarctica is undergoing a marine ice sheet instability that will significantly contribute to sea level rise in decades to centuries to come."

Rignot *et al* 2014 *Geophysical Research Letters 9*
http://onlinelibrary.wiley.com/doi/10.1002/2014GL060140/full

Prudent range for planning is 1 to 3 m by 2100

Berkeley Sea Level Rise Scenarios

http://geology.com/sea-level-rise/san-francisco.shtml

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Practical Effects of Sea Level Rise

Infrastructure Location

- Rail
- Freeways

Planning and Permitting

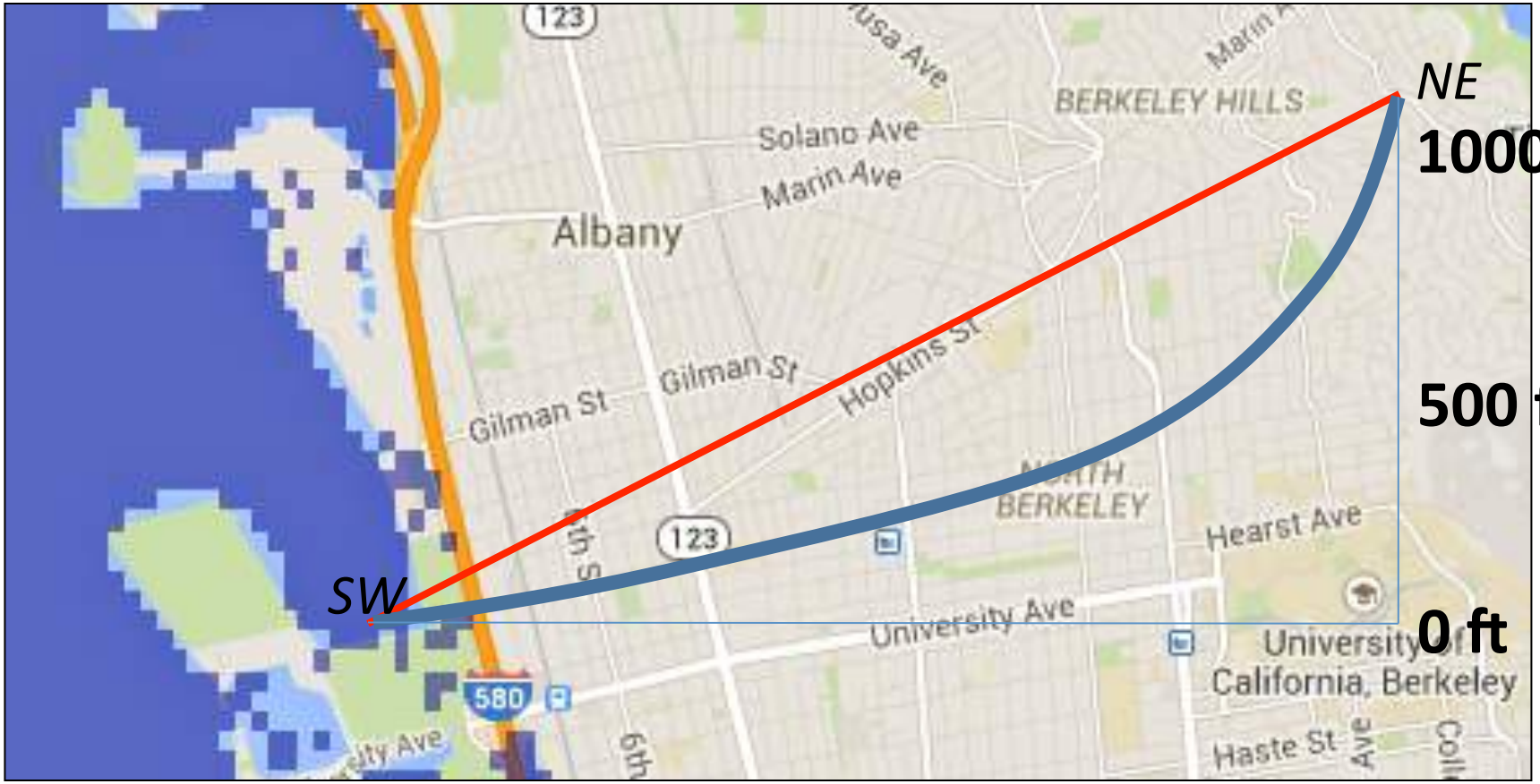
- Business and residential locations
- Insurance and liability

Flood Mitigation

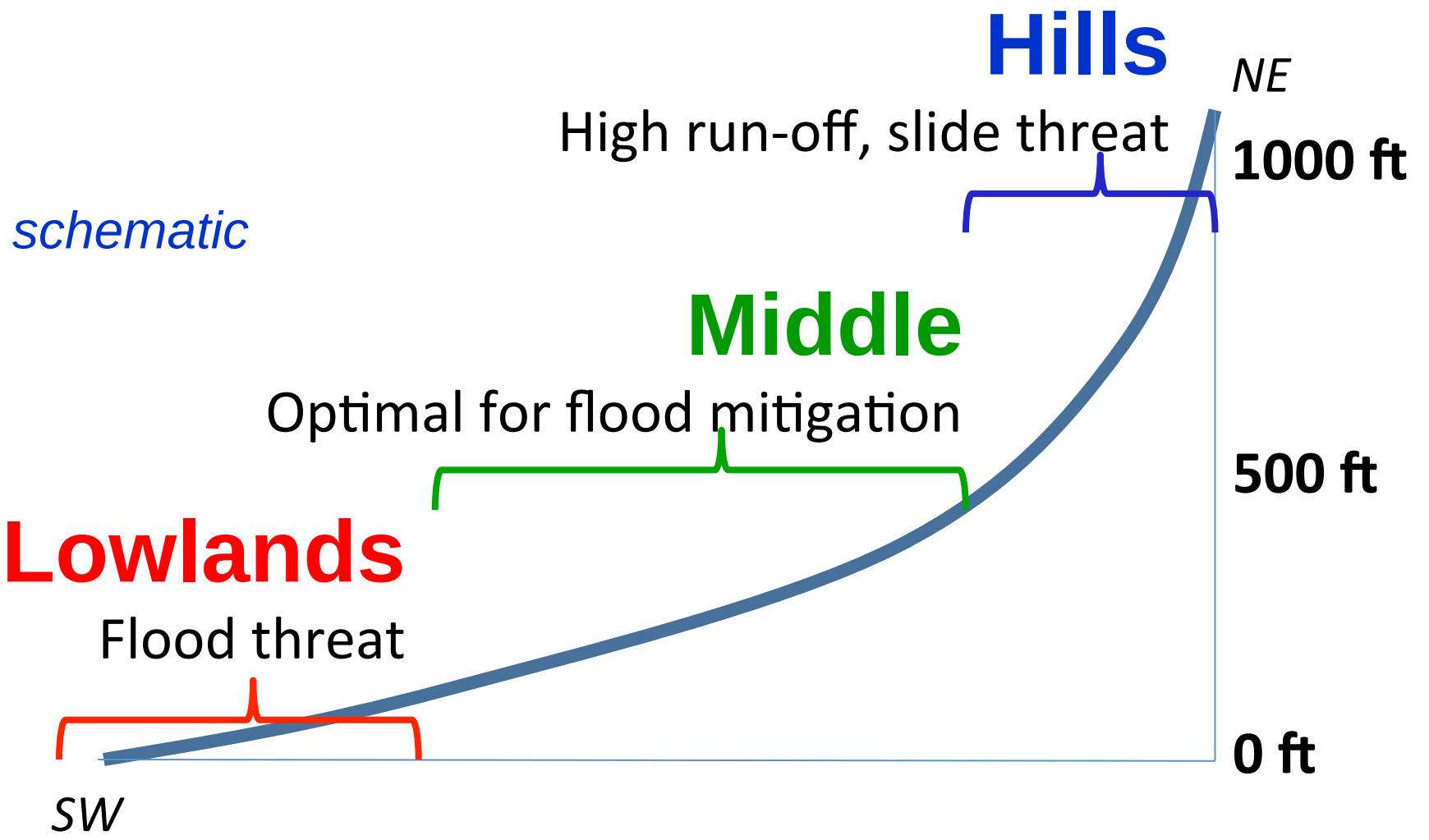
Berkeley Topography

Berkeley Topography

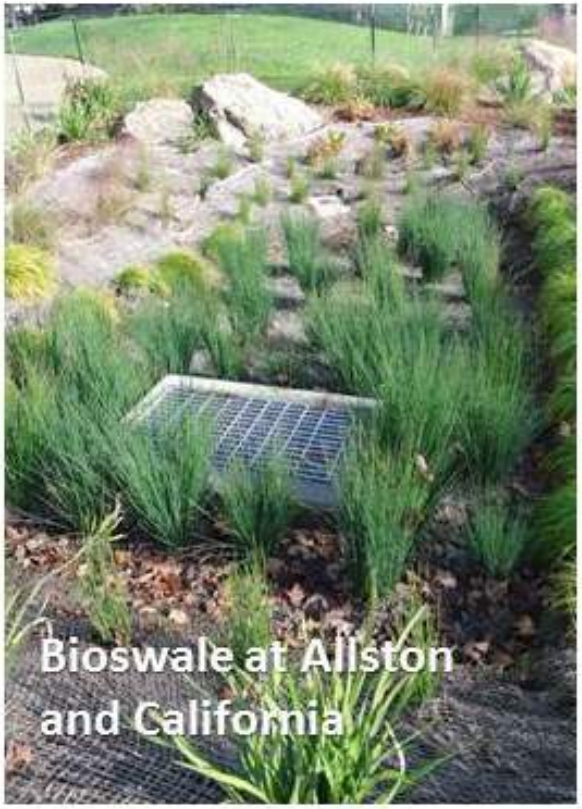
Berkeley Topography

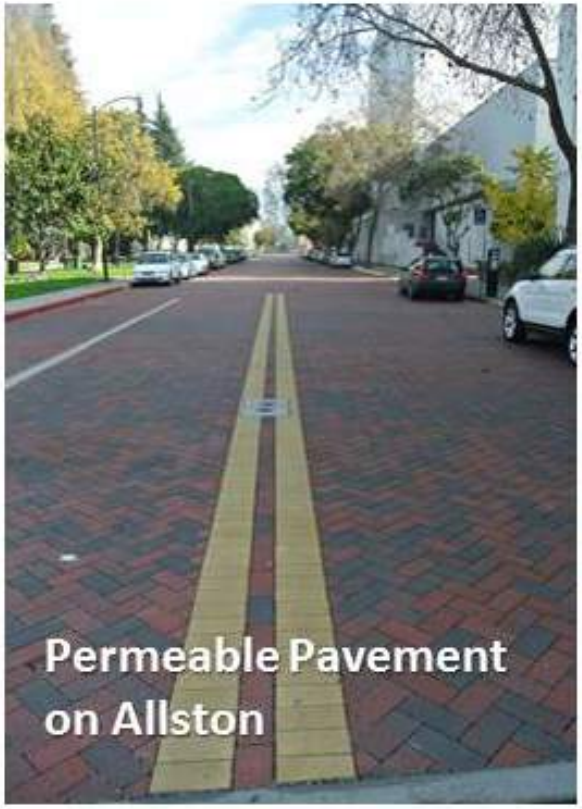


Berkeley Topography



Flood Mitigation – Slow Runoff





Also filters and cleans runoff

Stormwater Catchment

Types of Catchment

- Cisterns
- Catchment Basins

Water Handling

- Allowed to percolate to slow runoff
- Captured for later use in irrigation or fire control

Cautions

Prudent Management

- We'll know a lot more about magnitude and rate of sea level rise as studies are done

Start Now

- Cities move slowly
- Public Works projects last decades or more