Precipitation is caused by several mechanisms including cyclones and tropical depressions, isolated thunderstorms, and orographic uplifting of trade-wind squalls over the high (300-600 m), mountainous ridge that runs the length of the island. Unlike many other Pacific Islands, the mountainous ridge runs parallel to the predominant wind direction, and does not cause a significant windward/leeward rainfall gradient. In Faga'alu watershed, rainfall records show average annual precipitation is 6,350 mm at Matafao Mtn. (653 m m.a.s.l), 5,280 mm at Matafao Reservoir (249 m m.a.s.l.) and about 3,800 mm on the coastal plain (Craig, 2009; Dames & Moore, 1981; Perreault, 2010; Tonkin & Taylor International Ltd., 1989; Wong, 1996). Mean annual potential evapotranspiration follows the opposite trend, varying from 890 mm at high elevation to 1,150 mm at sea level (Izuka, Giambelluca, & Nullet, 2005). Tropical cyclones are erratic but occurred on average every 1-13 years from 1981-2014 (Craig, 2009) and bring intense rainfall, flooding, landslides, and high sediment yield events (Buchanan-Banks, 1979).

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AM45 (Alex/Trent)

TO DO:

* Mitigation timeline pg 5
* Give before/after side-by-side quarry pics to Susie
* Reference QAPP?
  + deliverable to CRCP grant, post to CORIS?
  + send to Susie
* Change wording from journal article so not verbatim, self-plagiarism