Resiliency in the Face of Climate Change and Seismic Events

Greg Theisen – Port of Portland
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Key Messages of this Presentation

- Difficult to determine the big takeaways from this presentation given the short time we have
  - Following pages are critical points to remember about Portland, they get to the heart of “Portlandia.”
Critical Point #1 – Ice Cream

• Portland, Oregon is number 1 in consumption per capita
  – Each American consumes a yearly average of 22 lbs of ice cream, ice milk, sherbet, ices and other commercially produced frozen dairy products.
    • Average Portland resident consumes 41.7 quarts per year

  – Trending shops
    • Salt & Straw
    • Ruby Jewel
    • Cloud City
    • Cool Moon
    • What’s the Scoop
    • Fifty Licks
  – The average number of licks to polish off a single scoop ice cream cone is 50

Source: http://www.makeicecream.com
Critical Point #2 – Microbrew Beer

• The City of Portland has 58 breweries, more than any other city in the world.
  – There are 234 brewing facilities in the state of Oregon
  – 39.3% of all beer consumed in Portland is craft beer
  – In 2014, Oregon breweries produced nearly 1,641,000 barrels
  – Oregon is #2 in the nation for the production of hops, #9 for barley
  – 7,400 people are employed at Oregon’s breweries

• Some examples of types of Beer
  – Lager (pale, dry, dark)
  – Pilsner (German)
  – Ale (pale, dark)
  – Porter
  – Stout (imperial, Chocolate)

Source: Oregon Brewers Guild, www.oregonbeer.org
Critical Point #3 – Strip Bars

• Portland is home to more strip clubs per capita than any other city in the US – Bar Fly Magazine (www.barflymag.com)
  – “Two things that you can find a lot of in Portland, Ore., are vegans and strip clubs.” – NY Times Article, March 27th, 2008 (www.nytimes.com)
  – “The metro area is home to at least one strip club for every 9,578 resident, arguably more per capita than in any other city in the world.” – Willamette Week Article (www.wwweek.com)
    • In a recent analysis of strip bars per capita, Portland was found to be #1, with Tampa, FL. #2

• Strip clubs are so common, Portland doesn't even boast a designated "red light" district—just about every neighborhood has a strip bar
Portland
- 620,000 residents
- 133 square miles
- 76% White, 6% Black, 7% Asian, 9% Hispanic
- Economy
  - Export dependent
  - Advanced manufacturing
  - Athletic and outdoor wear
  - Clean tech
  - Software
Dual threats:
- Climate change (flooding)
- Seismic event
  - Ground shaking, amplification
  - Liquefaction
  - Landslides
Columbia River Basin

Climate Change Assumptions

- Greater frequency of flood events
- Significance to Port marine facilities
  - Flood control and power generation
  - Treaty considerations
  - Tidal fluctuations
  - River depths
  - Navigation impacts
Seismic Event Assumptions

- Earthquake hazards represent the greatest risk to the Port and the regional economy
- Significant events over past 10 years
  - Sumatra, Christchurch, China, Tohoku, Haiti, Chile, Nepal
- Heightens awareness of resilience
  - Resilient: Japan, Chile
  - Not Resilient: Sumatra, Christchurch, China, Haiti, Nepal
Critical Points Recap: Seismic event planning is the priority

Ice cream, beer .... and tidal fill lands can all suffer from liquefaction, lateral spread and flooding.

Port of Seattle
2001 M 6.8 Nisqually Earthquake

Port of Oakland
1989 M 6.9 Loma Prieta Earthquake
Thank you

There’s more to explore in discussion

Greg Theisen – Port of Portland
Greg.theisen@portofportland.com
503-415-6522
Oregon Resilience Plan: