

CITY OF TACOMA

University of Washington Tacoma Urban Design and Planning URDP 549: Hazard Mitigation Planning Instructor: Bob Freitag City of Tacoma Project Lead: Tory Green Report Author: Zoe van Duivenbode

MITIGATING THE IMPACTS FOR PORT-RELATED VULNERABILITIES

Introduction

The Port of Tacoma encompasses more than 2,700 acres of industrial tide flat land at the mouth of the Puyallup River in Puget Sound. Local, national and international businesses rely heavily upon the Port for trade, financial revenue, and employment. The Port is vulnerable to multiple natural hazards: it is located near an active volcano, adjacent to several major earthquake faults, and lies within the tsunami inundation zone. In addition, the area has man-made hazards resulting from historical landfill techniques and building Mitigation Planning course, collaborated with the Port of Tacoma and the City of Tacoma to research ways to increase Port safety and protect the viability of Port operations following a hazard event.

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Shipping containers at the Port of Tacoma.

materials used as Tacoma developed. The University of Washington graduate students participating in URBDP Hazard

Key Findings

With guidance from professor Bob Freitag, students explored novel solutions for hazard mitigation at the Port, centering on the concerns and priorities of the City and Port. Students teams focused on the following topics: hazard mitigation planning; evacuation and safety; Unreinforced Masonry (URM) Structures and landfill development; and implementation of green infrastructure. In order to develop valuable and effective recommendations for the City and the Port, the groups used a number of research approaches, including GIS mapping, evacuation modeling and graphic design.



Mount Rainier overlooking the Port of Tacoma.

Photo Credit: Wikimedia Commons

Recommendations

Each team developed recommendations for the City and the Port related to the social, economic, and ecological impacts of hazard events. Strategies shared between teams included hazard education for Port employees and the public, development and implementation of a business continuity plan, relocation of nonessential and non-location dependent facilities and activities off of Port property, zoning based on hazards, and improvement to evacuation routes. Finally, students highlighted potentials for the Port and the City to more expediently implement hazard mitigation measures, and for improved coordination and communication between regional jurisdictions.



Aerial photo of the Port of Tacoma.

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