

A Proposed Theoretical Approach for the Estimation of Seismic Structural Vulnerability of Wastewater Treatment Plants

Ploutarchos N. Kerpelis ^{1,2,*}, Spyridon K. Goufopoulos ² and Dimitrios E. Alexakis ¹

¹ University of West Attica, Ancient Olive Grove Campus, 250 Thivon str., Egaleo GR-12244, Greece, kerpelis@uniwa.gr, d.alexakis@uniwa.gr

² University of Aegean, School of Engineering, Department of Financial and Management Engineering, 41 Kountourioti str., Chios GR-82132, Greece, s.goufopoulos@fme.aegean.gr

* Correspondence: kerpelis@uniwa.gr; Tel. +30-2105381364

Keywords: structural vulnerability; seismicity; Wastewater Treatment Plants; sustainability

Table S1. Abbreviations and definitions

ASCE	American Society of Civil Engineers
CIP	Critical Infrastructure Protection
EPCIP	European Programme for Critical Infrastructure Protection
EPPO	Earthquake Planning and Protection Organization
FEMA	Federal Emergency Management Agency
GCRC	Greek Code for Reinforced Concrete 2000
GCSRS	Greek Code for Seismic Resistant Structures 2000
GGG	Greek Government Gazette
HAZUS	Hazards United States
IBC	International Building Code
ICC	International Code Council
IEBC	International Existing Building Code
NDPs	Nationally Determined Parameters
RC	Reinforced Concrete
SD	Sustainability Development
SSD	Seismic Structural Vulnerability
USGS	United States Geological Survey
WTPs	Wastewater Treatment Plants