

ABBREVIATIONS

α	slope angle
ACI	American Concrete Institute
ALA	American Lifelines Alliance
ASCE	American Society of Civil Engineers
AWWA	American Water Works Association
CEMP	Comprehensive Emergency Management Plan
CESSL	Cedar Eastside Supply Line
COOP	Continuity of Operations Plan
CMU	concrete masonry unit
CRPL	Cedar River Pipeline
CSZ	Cascadia Subduction Zone
Cygn	Cygn Energy Services
EOP	Emergency Operations Plan
EPANET	hydraulic modeling software developed by the Environmental Protection Agency
ERDIP	earthquake-resistant ductile-iron pipe
EWD	emergency drinking water distribution
FEMA	Federal Emergency Management Agency
FERC	Federal Energy Regulatory Commission
FS	factor of safety
g	acceleration due to gravity
G&E	G&E Engineering Systems Inc.
GMPEs	ground motion prediction equations

ABBREVIATIONS

gpm	gallons per minute
HDPE	high-density polyethylene
HSS	hollow structural section
ISO	International Organization for Standardization
KN	kilonewton
k_y	ground acceleration that triggers landsliding
LADWP	Los Angeles Department of Water and Power
LCI	Lettis Consultants International
M7.0, M9.0, etc.	magnitude 7, magnitude 9, etc.
M7.0 SFZ	magnitude 7.0 Seattle Fault Zone
M9.0 CSZ	magnitude 9.0 Cascadia Subduction Zone
mg	million gallons
mgd	million gallons per day
NGA West2	Phase 2 of Next Generation Attenuation Models
OCC	Operations and Control Center
OSSPAC	Oregon Seismic Safety Policy Advisory Commission
PGA	peak ground acceleration
PGD	permanent ground displacement
PGV	peak ground velocity
psi	pounds per square inch
PVC	polyvinyl chloride
SCADA	supervisory control and data acquisition

ABBREVIATIONS

SEI	Structural Engineering Institute
SFZ	Seattle Fault Zone
SODO	south of downtown or south of the King Dome
SPU	Seattle Public Utilities
SSI	soil structure interaction
SSRA	System Storage and Reliability Analysis
SWIF	South Whidbey Island Fault
TCA	TCA Architecture Planning
TESSL	Tolt Eastside Supply Line
TIC	Tank Industry Consultants
TPL	Tolt Pipeline
UBC	Uniform Building Code
USGS	United States Geological Survey
V_{s30}	average shear wave velocity in the top 30 meters of the earth's surface