Exhibit H

Geologic and Soil Stability

Wheatridge Renewable Energy Facility East
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Prepared for
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Table of Contents

1.0 Introduction 1
2.0 Analysis Area 1
3.0 Geologic Report – OAR 345-021-0010(1)(h)(A) 1
3.1 Topographic Setting 2
3.2 Geologic Setting 2
3.2.1 Bedrock Geologic Units 2
3.2.2 Unconsolidated Geologic Units 2
4.0 Evidence of Consultation with DOGAMI – OAR 345-021-0010(1)(h)(B) 3
5.0 Site-Specific Geotechnical Investigation – OAR 345-021-0010(1)(h)(C) 3
6.0 Transmission Lines and Pipelines – OAR 345-021-0010(1)(h)(D) 4
7.0 Seismic Hazard Assessment – OAR 345-021-0010(1)(h)(E) 4
7.1 Methods 5
7.2 Maximum Considered Earthquake Ground Motion 5
7.2.1 Earthquake Sources 6
7.2.2 Recorded Earthquakes 7
7.2.3 Hazards Resulting from Seismic Events 9
7.2.4 Seismic Shaking or Ground Motion 10
7.2.5 Fault Rupture 10
7.2.6 Liquefaction 10
7.2.7 Seismically Induced Landslides 11
7.2.8 Subsidence 11
7.2.9 Seismic Hazard Mitigation 11
8.0 Non-Seismic Geological Hazards – OAR 345-021-0010(1)(h)(F) 12
8.1 Landslides 12
8.2 Volcanic Activity 12
8.3 Erosion 13
8.4 Flooding 13
8.5 Shrinking and Swelling Soils 14
8.6 Collapsing Soils 14
9.0 Disaster Resilience 14
10.0 Climate Change 15

11.0 Conclusions 16
12.0 References 17

List of Tables

Table H-1. Seismic Design Parameters – Maximum Considered Earthquake 6
Table H-2. Significant Historical Earthquakes within 50 Miles of the Amended Site Boundary 8

List of Figures

Figure H-1. Geologic Map

Figure H-2. Historical Seismicity and Potentially Active Faults

Figure H-3. Special Flood Hazard Areas

List of Attachments

Attachment H-1. Record of Correspondence with DOGAMI

Attachment H-2. Probabilistic Seismic Hazard Deaggregation – 475-Year Return Time

Attachment H-3. Probabilistic Seismic Hazard Deaggregation – 2,475-Year Return Time

Attachment H-4. Response Spectrum – Site Class B "Rock"

Attachment H-5. Response Spectrum – Site Class C "Very Dense Soil and Soft Rock"

Acronyms and Abbreviations

ASC	Application for Site Certificate
BMP	Best Management Practices
Certificate Holder	Wheatridge East Wind, LLC
DOGAMI	Oregon Department of Geology and Mineral Industries
ESCP	Erosion and Sediment Control Plan
Facility	Wheatridge Renewable Energy Facility East
IBC	International Building Code
FEMA	Federal Emergency Management Agency
kV	kilovolt
MW	megawatts
O&M	operations and maintenance
OSSC	Oregon Structural Specialty Code
PGA	peak ground acceleration
RFA	Request for Amendment
SLIDO	Statewide Landslide Information Database for Oregon
USGS	U.S. Geological Survey

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1.0 Introduction

The Wheatridge Renewable Energy Facility East (Facility) is an approved, but not yet constructed, wind energy generation facility consisting of up to 66 turbines and related or supporting facilities with a peak generating capacity of up to 200 megawatts (MW), to be located in an Approved Site Boundary of approximately 4,582 acres on over 42,000 acres of leased land in Morrow and Umatilla counties, Oregon. As part of Request for Amendment (RFA) 1 to the Facility Site Certificate, Wheatridge East Wind, LLC (Certificate Holder) is proposing to expand wind power generation at the Facility to provide the opportunity for increased power capacity and availability. This includes expanding the Site Boundary and micrositing corridors, increasing the peak generating capacity by adding more and newer turbines, changing the intraconnection routes, and extending the construction date. See the RFA 1's Division 27 document (*Request for Amendment #1 for the Wheatridge Renewable Energy Facility East*) for a more detailed summary of the proposed changes.

This Exhibit H was prepared to meet the submittal requirements in Oregon Administrative Rule (OAR) 345-021-0010(1)(h). Analysis in this exhibit incorporates and/or relies on reference information, analysis, and findings found in the Application for Site Certificate (ASC), previous RFAs, and Oregon Department of Energy Final Orders to demonstrate that the Facility, as modified by RFA 1, continues to comply with applicable Site Certificate conditions and the approval standard in OAR 345-022-0020.

2.0 Analysis Area

The Analysis Area for structural standards is the Amended Site Boundary (Figure H-1). The Amended Site Boundary is inclusive of portions of the Approved Site Boundary. The Analysis Area for historical and potentially active faults included a 50-mile buffer around the Amended Site Boundary.

3.0 Geologic Report – OAR 345-021-0010(1)(h)(A)

> *OAR 345-021-0010(1)(h) Information from reasonably available sources regarding the geological and soil stability within the analysis area, providing evidence to support findings by the Council as required by OAR 345-022-0020, including:*
>
> > *OAR 345-021-0010(1)(h)(A) A geologic report meeting the Oregon State Board of Geologist Examiners geologic report guidelines. Current guidelines must be determined based on consultation with the Oregon Department of Geology and Mineral Industries, as described in paragraph (B) of this subsection.*

OAR 345-021-0010(1)(h)(A) requires the Certificate Holder to submit a geological report following the Oregon State Board of Geologist Examiners geologic report guidelines. Current guidelines shall be determined in consultation with the Oregon Department of Geology and Mineral Industries (DOGAMI).

3.1 Topographic Setting

The Amended Site Boundary is in Morrow and Umatilla counties, approximately 5 miles northeast of Lexington and 7 miles northeast of Heppner. Morrow County spans from its northern border along the Columbia River south to the Blue Mountains. Morrow County topography varies from gently rolling plains adjoining the Columbia River to broad plateaus and rounded ridges in the county center. It merges with the more rugged terrain of a forested spur of the Blue Mountains in the southern part of the county (Morrow County Oregon 2017). Umatilla County topography also varies from gently rolling plains adjoining the Columbia River on its northern boundary, to steep Blue Mountain terrain along its eastern and southern boundaries. The Amended Site Boundary is in the gently rolling plains along Umatilla County's western edge.

The Facility occupies slopes from 0 to 76 percent, with an average of 20 percent. Elevations within the Amended Site Boundary range from 761 to 3,225 feet above mean sea level.

3.2 Geologic Setting

The geologic setting of the Facility is mostly weathered basalt bedrock overlying more competent basalt, with lesser areas of weak sedimentary rock overlying basalt bedrock. There are narrow alluvial deposits along drainages and streams throughout the Amended Site Boundary. The geologic descriptions below are summarized from a U.S. Geological Survey (USGS) geologic map prepared for the state of Oregon (USGS 2002) and two DOGAMI geologic maps (DOGAMI 2007, DOGAMI 2015). The geologic units within the Amended Site Boundary are shown in Figure H-1.

3.2.1 Bedrock Geologic Units

Basalt flows near the Amended Site Boundary include the Tertiary Grande Ronde Basalt formation and small sections of the Tertiary Wanapum Basalt formation in the northern and southwestern areas. The Grande Ronde Basalt is typically black, aphyric, and dense, with even grain size. The Wanapum Basalt is fine- to coarse-grained basalt, with reversed magnetic polarity. The basalt varies from intact to weathered. The Tertiary Alkali Canyon formation is in the northern portion of the Amended Site Boundary. It consists of vitric tuff, silty clay, silt, basalt gravel, and alluvial fan and braided stream deposits.

3.2.2 Unconsolidated Geologic Units

Quaternary alluvial deposits are located along drainages and streams throughout the Amended Site Boundary (Figure H-1). Alluvial deposits consist of loess, sand, and gravel from local, parent-material bedrock. The Oregon Statewide Landslide Database (SLIDO 4.4; DOGAMI 2022a) indicates

an alluvial fan northwest of the Amended Site Boundary (Figure H-1). Alluvial fans are triangular deposits of gravel, sand, and smaller sediments. Loess (wind-deposited fine sand and silt) mantles the uplands and flatter plateaus, including much of the Columbia Plateau. Most loess is between 15 and 30 feet thick but can be less than 3 feet thick in upland areas.

4.0 Evidence of Consultation with DOGAMI – OAR 345-021-0010(1)(h)(B)

OAR 345-021-0010(1)(h)(B) A summary of consultation with the Oregon Department of Geology and Mineral Industries regarding the appropriate methodology and scope of the seismic hazards and geology and soil-related hazards assessments, and the appropriate site-specific geotechnical work that must be performed before submitting the application for the Department to determine that the application is complete.

The Certificate Holder consulted DOGAMI while preparing the ASC (Wheatridge 2015). In addition, DOGAMI was consulted concerning RFA 1 on October 21, 2022. The results of the RFA 1 consultation discussion with Jason McClaughry, DOGAMI, the Certificate Holder, and Tetra Tech (Konkol, 2022, pers. comm.) are detailed in Attachment H-1.[1]

5.0 Site-Specific Geotechnical Investigation – OAR 345-021-0010(1)(h)(C)

OAR 345-021-0010(1)(h)(C) A description and schedule of site-specific geotechnical work that will be performed before construction for inclusion in the site certificate as conditions.

Tetra Tech completed a detailed literature review of the local and regional geology within the Analysis Area. This included evaluating existing reports for adjacent sites and reviewing other published literature and geologic mapping. The literature review included a detailed evaluation of seismic hazards at the Facility (see Section 7.0).

Consistent with Condition PRE-SS-01, the Certificate Holder will conduct a site-specific geological and geotechnical investigation before beginning construction and shall report its findings to DOGAMI and ODOE. This investigation will include consideration of any active faults, slope instability, and swelling/collapsing potential of loess soil (per Conditions PRE-SS-02, PRE-SS-03, and PRE-SS-04). ODOE shall review the report, in consultation with DOGAMI, to confirm that it adequately addresses the requirements in Condition PRE-SS-01. This report will guide the final Facility layout and design.

The site-specific geological and geotechnical investigation will address subsurface exploration plans, testing plans, and proposed methods of how the structures would tolerate long-duration

[1] Consultation with DOGAMI is ongoing.

ground motions. Subsurface exploration will be considered at faults, fault zones, and locations where ground shaking can influence the site response, such as near drainages with softer soil and areas with thick loess, as requested by DOGAMI.

6.0 Transmission Lines and Pipelines – OAR 345-021-0010(1)(h)(D)

OAR 345-021-0010(1)(h)(D) For all transmission lines, and for all pipelines that would carry explosive, flammable or hazardous materials, a description of locations along the proposed route where the applicant proposes to perform site specific geotechnical work, including but not limited to railroad crossings, major road crossings, river crossings, dead ends (for transmission lines), corners (for transmission lines), and portions of the proposed route where geologic reconnaissance and other site specific studies provide evidence of existing landslides, marginally stable slopes or potentially liquefiable soils that could be made unstable by the planned construction or experience impacts during the facility's operation.

The Facility would be electrically connected by the Intraconnection Line, either single or a double circuit 230-kV transmission line, approximately 26 miles in length. Two Intraconnection Line route options are proposed. The Intraconnection Line will run between the substations and the existing Blue Ridge Substation. The Intraconnection Line will be constructed with 1) A single circuit made of either H-frame or monopole structures or 2) Two circuits with either one monopole structure carrying both circuits, or two parallel monopole structures each carrying one circuit each.

Along the Intraconnection Line, the Certificate Holder will perform site-specific geotechnical work where other site studies indicate existing landslides, marginally stable slopes, or liquefiable soils that could be made unstable by construction. This work will inform the final design.

The Facility does not include pipelines carrying hazardous substances as described in OAR 345-021-0010(1)(h)(E).

7.0 Seismic Hazard Assessment – OAR 345-021-0010(1)(h)(E)

OAR 345-021-0010(1)(h)(E) An assessment of seismic hazards, in accordance with standard-of-practice methods and best practices, that addresses all issues relating to the consultation with the Oregon Department of Geology and Mineral Industries described in paragraph (B) of this subsection, and an explanation of how the applicant will design, engineer, construct, and operate the facility to avoid dangers to human safety and the environment from these seismic hazards. Furthermore, an explanation of how the applicant will design, engineer, construct and operate the facility to integrate disaster resilience design to ensure recovery of operations after major disasters. The applicant must include proposed design and engineering features,

applicable construction codes, and any monitoring and emergency measures for seismic hazards, including tsunami safety measures if the site is located in the DOGAMI-defined tsunami evacuation zone.

7.1 Methods

Available reference materials were reviewed, and a desktop seismic-hazard assessment was performed for the ASC. Topographic and geologic conditions and hazards within the Amended Site Boundary were evaluated using topographic and geologic maps, aerial photographs, existing geologic reports, and data from DOGAMI, the Oregon Water Resources Department, the USGS, and the Natural Resources Conservation Service.

A desktop seismic-hazard analysis characterized seismicity in the Facility's vicinity to evaluate potential seismic impacts. This work was based on the potential regional and local seismic activity described in the existing scientific literature and on subsurface soil and groundwater conditions found in the desktop evaluations. The seismic-hazard analysis consisted of the following tasks:

1. Detailed review of USGS, National Geophysical Data Center, and DOGAMI literature and databases.
2. Identification of potential seismic events and characterization of those events in terms of a series of design events.
3. Evaluation of seismic hazards, including potential fault rupture, earthquake-induced landslides, liquefaction and lateral spread, settlement, and subsidence.
4. Mitigation recommendations based on the characteristics of the subsurface soils and design earthquakes, including specific seismic events that might have a significant effect on the site, potential for seismic energy amplification at the site, and the site-specific acceleration response spectrum.

As described in Section 5.0, a site-specific geotechnical investigation will be conducted by a qualified engineer using current code requirements and state-of-practice methods to inform the final design. It will be reported to DOGAMI and ODOE following the 2014 Oregon State Board of Engineering Geology Reports guidelines.

7.2 Maximum Considered Earthquake Ground Motion

Overall, the DOGAMI HazView mapping tool (DOGAMI 2022) indicates that the Cascadia earthquake hazard is moderate, as is the general earthquake hazard in the Amended Site Boundary, except for the narrow alluvial deposits along drainages/streams that are mapped as very strong and landslides that are mapped as severe. The USGS Seismic Hazard Mapping Facility (USGS 2022a) developed ground motions using a probabilistic seismic hazard analysis that covered the Facility site. Though these motions are not site-specific, they reasonably estimate the ground motions within the Amended Site Boundary. For new construction, the site should be designed for the maximum considered earthquake, according to the most recently updated International Building Code (IBC; IBC 2021) supplemented by the Oregon Structural Specialty Code (OSSC; OSSC 2019; per

Condition GEN-SS-01). The USGS unified hazard tool analysis was re-run for the Amended Site Boundary, and the design event has a 2 percent probability of exceedance in 50 years (or a 2,475-year return period). This event has a peak ground acceleration (PGA) of 0.1854 acceleration from gravity at the bedrock surface for the Amended Site Boundary. The values of PGA on rock are an average representation of the acceleration most likely to occur at the site for all seismic events (crustal, intraplate, or subduction).

Seismic design parameters were developed following the IBC 2015. Using current information, the Facility would be designed for Site Class C, according to IBC requirements (Table H-1).

Table H-1. Seismic Design Parameters – Maximum Considered Earthquake

Location	Site Class	Earthquake Magnitude	Peak Horizontal Ground Acceleration	Return Period
Facility Amended Site Boundary	C	6.3	0.1854g	2,475 years
Facility Amended Site Boundary	B	6.35	0.3397g	2,475 years
Facility Amended Site Boundary	C	6.41	0.0746g	475 years
Facility Amended Site Boundary	B	6.47	0.0536g	475 years
Source: USGS 2022a.				

7.2.1 Earthquake Sources

In northern Oregon, seismicity is generated when the Juan de Fuca Plate and the North American Plate converge at the Cascadia Subduction Zone. These plates converge at a rate of 1 to 2 inches per year, accumulating large amounts of stress that release abruptly in earthquake events. The four sources of earthquakes and seismic activity in this region are crustal, intraplate, volcanic, and the deep subduction zone (DOGAMI 2010).

Overall, earthquakes in Oregon are associated with active faults in four regional seismicity zones: the Cascade seismic zone, the Portland Hills zone (the Portland, Oregon and Vancouver, Washington metropolitan area), the south-central zone (Klamath Falls), and northeastern Oregon zone (Niewendorp and Neuhaus 2003). Faults are considered active if there has been displacement in the last 10,000 years, and potentially active if there has been movement over the last Quaternary Period (1.6 million years). Regionally, seismicity has been attributed to crustal deformation from the Cascadia Subduction Zone and volcanism.

Earthquakes caused by movements along crustal faults, generally in the upper 10 to 15 miles of the earth's crust. In the vicinity of the Amended Site Boundary, earthquakes occur within the crust of

the North American tectonic plate when built-up stresses near the surface are released through fault rupture.

There are no known active faults within the Amended Site Boundary (USGS 2022b; Figure H-2). Faults shown in Figure H-1 are based on available scanned geologic maps (USGS 1996 and 1991). Most faults indicate shallow depths in unconsolidated materials, except fault #389 in the northern portion of the Amended Site Boundary, which shows contacts between rock units. Several undifferentiated, Quaternary-age faults are mapped within 50 miles of the Amended Site Boundary (Figure H-2). The DOGAMI Oregon HazVu: Statewide Geohazards Viewer earthquake hazard layer (DOGAMI 2022) and the USGS Geologic Hazards Science Center (USGS 2022b; Figure H-2) show that the nearest active faults (mid to late Quaternary) are about 20 miles northwest of the Amended Site Boundary. The faults in Figure H-2, within 50 miles of the Amended Site Boundary, present the largest potential for seismic contribution to the Facility. The site-specific geotechnical investigation will assess active faults within the Amended Site Boundary, as described in Section 5.0. The investigation will include a description of any potentially active faults, their potential risk to the Facility, and any additional mitigation measures the Certificate Holder will employ to design, construct, and operate the Facility safely.

The 2013 Oregon Resilience Plan by the Oregon Seismic Safety Policy Advisory Commission (OSSPAC 2013) simulated the impact of a magnitude 9.0 Cascadia earthquake scenario. This plan places the Amended Site Boundary into the "very light" shaking category. Meaning that a magnitude 9.0 Cascadia scenario earthquake would produce a very light shaking event that would be felt outdoors, wake sleepers, disturb or spill liquids, upset small unstable objects, and potentially swing doors or move pictures (OSSPAC 2013).

Probabilistic seismic-hazard deaggregation at 475-year intervals is shown in Attachment H-2 and at 2,475-year intervals in Attachment H-3.

7.2.2 Recorded Earthquakes

Recorded earthquake data agrees with what was reported in the ASC and is restated below for ease of reference. Figure H-2 displays the location and approximate magnitude of all recorded earthquakes within approximately 50 miles of the Amended Site Boundary. The seismic events are grouped by magnitude and displayed with differently-sized symbols based on the event's strength.

Table H-2 summarizes the earthquakes greater than magnitude 3.0 recorded within 50 miles of the Amended Site Boundary. Most of these earthquakes were between magnitude 3 and 4 and a Modified Mercalli Intensity (MMI) III associated with shaking that is "noticeable indoors but may not be recognized as an earthquake" (USGS 2022b).

Table H-2. Significant Historical Earthquakes within 50 Miles of the Amended Site Boundary

Year	Month	Day	Latitude	Longitude	Moment Magnitude	Miles from Amended Site Boundary
2013	12	23	45.3602	-118.206	3.0	49.87
1993	12	16	45.1958	-120.0898	3.0	31.76
1986	01	16	46.2515	-119.618	3.0	42.00
1998	02	03	45.8138	-120.1922	3.1	32.55
1997	03	23	45.2463	-120.0493	3.1	28.06
1997	03	23	45.1952	-120.0508	3.1	30.34
1995	11	02	46.15	-119.5643	3.1	34.53
1995	08	29	46.2082	-119.9055	3.1	46.14
1989	03	27	45.8158	-120.2615	3.1	35.49
1987	09	08	45.1912	-120.072	3.1	31.30
1985	03	20	45.9632	-119.9047	3.1	30.91
1984	06	18	45.2308	-118.6875	3.1	29.74
1977	03	11	45.8992	-119.6657	3.1	22.46
1976	07	23	46.0853	-118.7497	3.1	37.79
1975	06	15	46.234	-119.1132	3.1	38.94
1971	01	04	46.2308	-119.3632	3.1	37.96
2012	04	10	46.0455	-118.7123	3.2	37.12
2000	08	17	45.312	-120.0415	3.2	25.29
1997	04	17	45.1885	-120.082	3.2	31.79
1986	02	04	46.044	-118.81	3.2	33.73
1982	11	23	45.9973	-119.2887	3.2	21.76
1978	02	20	45.8965	-119.65	3.2	21.79
2011	05	01	46.4045	-119.2553	3.3	49.90
2004	02	28	46.0363	-119.0205	3.3	27.47
1995	06	12	46.4045	-119.2628	3.3	49.89
1984	03	23	45.996	-119.2922	3.3	21.66
1975	06	28	46.1053	-119.7037	3.3	34.79
2006	12	20	46.0948	-118.513	3.4	46.67
2000	01	30	45.1832	-120.1028	3.4	32.81
2015	01	23	45.711	-118.5503	3.5	35.34
1999	09	31	45.1863	-120.0908	3.5	32.22
1988	09	29	45.8498	-120.2597	3.5	36.63
1975	07	01	45.628	-120.002	3.5	18.84

Year	Month	Day	Latitude	Longitude	Moment Magnitude	Miles from Amended Site Boundary
2000	02	01	45.19	-120.1127	3.6	32.88
1979	02	17	46.1642	-119.9327	3.6	44.24
1976	10	10	45.2703	-120.4995	3.6	46.95
1975	07	01	45.6053	-120.0162	3.6	19.20
2008	05	18	46.1677	-119.5502	3.7	35.44
1983	03	22	45.992	-118.403	3.8	47.41
1975	06	28	46.099	-119.706	3.8	34.48
1997	03	22	45.1973	-120.0672	3.9	30.85
1992	08	07	45.8603	-119.5895	3.9	17.96
1985	02	10	45.7045	-119.6345	3.9	9.89
2000	01	30	45.1972	-120.1248	4.1	33.04
1979	04	08	45.9913	-118.3992	4.3	47.55
1936	07	16	46.031	-118.429	6.0	47.58

Source: USGS 2022b.

The Ground Response Spectra Assessment (Attachments H-4 and H-5) assessed the design response spectrum given in the 2015/2018 IBC using the ASCE 7 Hazard Tool (ASCE 2022). Response spectra are provided for the maximum considered earthquake at the Facility location. For the maximum considered earthquake, separate response spectra modified by the amplification factors for Site Class C are provided. Due to the presence of unconsolidated deposits in the Amended Site Boundary, the Facility should be designed for the most conservative Site Class C. However, an examination of the geology mapped for the site suggests that shallow bedrock formations (Wanapum Basalt and Grande Ronde Basalt) exist in most portions of the Amended Site Boundary, where the Site Class B response spectra would apply.

7.2.3 Hazards Resulting from Seismic Events

Potential seismic hazards from a design seismic event for this Facility include seismic shaking or ground motion, fault displacement, instability from landslides or subsurface movement, and adverse effects from groundwater or surface water. These risks are anticipated to be low, as discussed below. Since the Facility is far from the Oregon coast, and not in a DOGAMI-defined tsunami evacuation zone (DOGAMI 2022b), tsunami inundation is not considered a hazard.

7.2.4 Seismic Shaking or Ground Motion

The Facility will be designed to withstand the maximum risk-based design earthquake ground motions developed for the Facility site. The design seismic event has a 2,475-year recurrence interval. The State of Oregon has adopted the IBC 2018 code for structural design. Specifically, this is Section 1613 (Earthquake Loads) of the 2019 OSSC, which is in Chapter 16. Building codes are frequently updated; the IBC is updated every three years. The Certificate Holder will design, engineer, and construct the Facility following the latest IBC, OSSC, and building codes adopted by the State of Oregon at the time of construction (per Condition GEN-SS-01).

Based on geotechnical and geological information the soil/bedrock in the Amended Site Boundary is Site Class C. As described in Section 7.2.1, Site Class C (very dense soil to soft rock) is appropriate for the Facility.

Based on site-specific analyses, the original equipment manufacturer will provide the structural engineer with site-specific foundation loads and requirements. The structural engineer then completes the foundation analyses based on the design site-specific parameters. Generally, these include the following loads for turbine foundation design: extreme loads, load cases for up-lift, shear failure, tension loads (for pile foundations), earthquake loads, fatigue loads, subsoil properties, spring constants, verification procedures, and maximum allowable inclination. The geotechnical studies and analyses provide site-specific parameters, including but not limited to moisture content and density, soil/bedrock bearing capacity, bedrock depth, settlement characteristics, structural backfill characteristics, soil improvement (if required), and dynamic soil/bedrock properties, including shear modulus and Poisson's Ratio of the subgrade. The foundation design engineer will use these parameters to design a suitable foundation and verify that the foundation/soil interaction meets or exceeds the original equipment manufacturer's site-specific, minimum requirements.

7.2.5 Fault Rupture

Fault displacement is unlikely because there are no active faults within the Amended Site Boundary, and the nearest known or potentially active faults are over 25 miles away (Figure H-2). Unknown faults could exist, or new fault ruptures could form during a significant seismic event, but geologic investigations indicate that the likelihood is very low.

7.2.6 Liquefaction

Liquefaction is when saturated and cohesionless soils are subjected to dynamic forces like intense or prolonged ground shaking and temporarily lose their strength and liquefy. The soils in the Amended Site Boundary are not saturated and are generally cohesive. Along with the relatively low seismic event potential, this indicates that soil liquefaction within the Amended Site Boundary is unlikely. However, as discussed in Section 7.2, narrow areas along drainages/streams within the

Amended Site Boundary could have saturated alluvial deposits that would be susceptible to liquefaction.

7.2.7 Seismically Induced Landslides

While regional seismicity could potentially trigger landslides and mass wasting processes in the Amended Site Boundary, the risk is considered low to moderate for expected shaking in a Cascadia 9.0 magnitude event (DOGAMI 2022c). Figure H-1 shows several small historic landslides in the western portion of the Amended Site Boundary, mainly in drainages. Construction will avoid historic landslide areas and steep slopes. In addition, a review of HazView mapping (DOGAMI 2022) and slope data indicates that large portions of the Amended Site Boundary are in moderate to high landslide hazard areas. The site-specific geotechnical investigation will review evidence of active faults and landslides, which will inform the final Facility design and layout. More detailed discussion on the location and type of landslides is included in Section 8.1.

7.2.8 Subsidence

Subsidence is the sudden sinking or gradual downward settling of surface land, often caused by groundwater drawdown, compaction, tectonic movements, mining, or explosive activity. Subsidence due to a seismic event is highly unlikely in the Amended Site Boundary as the bedrock is relatively shallow and the overlying soils unsaturated.

7.2.9 Seismic Hazard Mitigation

The State of Oregon uses the 2018 IBC, with current amendments by the OSSC (State of Oregon 2019). Pertinent design codes relating to geology, seismicity, and near-surface soil are found in IBC Chapter 16, Section 1613, with slight modifications for current State amendments. Facility infrastructure will be designed to meet or exceed all current design code standards. Substation equipment will meet all requirements in the latest version of IEEE 693. Although the region has only a moderate seismicity potential, the wind turbines are designed to tolerate large wind loads, giving them ample capacity to resist seismic loads.

As discussed in Section 5.0, site-specific geotechnical exploration will provide data that will guide the Facility infrastructure design to mitigate potential seismic-event hazards. The hazard of a surficial rupture along a fault is low, given the seismic history of the site displayed in geologic mapping, and the low probability that a fault rupture would actually displace the ground surface at the location of one of the wind turbine structures. Because the Facility will be in a sparsely populated area, there is minimal human safety and environmental risk. Mitigation for potential fault rupture is not needed. No structures will be built on steep slopes prone to instability, thus avoiding potential impacts. Disaster resilience design guidelines are further described in Section 9.0.

The Certificate Holder will implement Condition GEN-GS-08 to ensure the Facility is designed, engineered, and constructed to avoid dangers to human safety presented by seismic hazards.

8.0 Non-Seismic Geological Hazards – OAR 345-021-0010(1)(h)(F)

OAR 345-021-0010(1)(h)(G) An assessment of geology and soil-related hazards which could, in the absence of a seismic event, adversely affect or be aggravated by the construction or operation of the facility, in accordance with standard-of-practice methods and best practices, that address all issues relating to the consultation with the Oregon Department of Geology and Mineral Industries described in paragraph (B) of this subsection. An explanation of how the applicant will design, engineer, construct and operate the facility to adequately avoid dangers to human safety and the environment presented by these hazards, as well as:

(i) An explanation of how the applicant will design, engineer, construct and operate the facility to integrate disaster resilience design to ensure recovery of operations after major disasters; and

(ii) An assessment of future climate conditions for the expected life span of the proposed facility and the potential impacts of those conditions on the proposed facility.

Non-seismic geologic hazards in the Columbia Plateau region include landslides, volcanic eruptions, collapsing soils, and erosion. The area in the Amended Site Boundary is relatively flat-lying basalt with a loess cover. The Facility will be constructed on the flat-lying part within the Amended Site Boundary. It will avoid steep slopes and drainages that could experience landslides and soil creep. A discussion of potential non-seismic geologic hazards is presented below.

8.1 Landslides

In 2021, DOGAMI released an update to the Statewide Landslide Information Database for Oregon (SLIDO-4.4; DOGAMI 2022). SLIDO is a statewide database of known landslides compiled from published maps. The database includes landslides, debris flows, alluvial fans, and colluvium or talus. The primary sources of this historical landslide information are published geologic reports and geologic hazard studies by the USGS and DOGAMI. The SLIDO-4.4 landslide database was used to overlay landslide areas or landslide-related features on Figure H-1. As seen on Figure H-1, there are small landslides identified in the southwestern portion of the Amended Site Boundary. In addition, a review of HazView mapping (DOGAMI 2022) indicates that large portions of the Amended Site Boundary are in moderate to high landslide hazard areas based on slope data.

If slope stability issues are identified in the final design geotechnical investigations, the structures will either be relocated during the micrositing process, or remedial measures to improve slope stability will be implemented.

8.2 Volcanic Activity

Volcanic activity in the Cascade Range is driven by the subduction of the Juan de Fuca Plate beneath the North American Plate. The closest volcanoes to the Amended Site Boundary are Mount Hood

and Mount Adams, each located approximately 100 miles away. Most of the potential volcanic hazard impacts would occur within a 50-mile radius of the erupting volcano. Depending on the prevailing wind direction at the time of the eruption and the source of the eruption, ash fallout in the region surrounding the Facility may occur. Because of the distance to the nearest volcanoes, the Facility's impacts from volcanic activity would be indirect and likely limited to ash fallout. In addition, the Facility is not located near any streams that would be subject to pyroclastic flows from a volcanic eruption from these close volcanoes. It is unlikely that there would be any adverse effects from volcanic activity on the construction or operation of the Facility.

8.3 Erosion

As discussed in Exhibit I, erosion can occur when soils are increasingly exposed to wind or water. Wind erosion is influenced by wind intensity, vegetative cover, soil texture, soil moisture, the grain size of the unprotected soil surface, topography, and the frequency of soil disturbance. Control measures will be implemented to mitigate wind erosion potential as identified in Exhibit I. Water erosion is primarily a function of soil type, vegetative cover, precipitation, and slope inclination. If left unmitigated, erosion from rainfall would be a hazard during construction. The runoff potential and water erosion hazard for site soils range from low to high. Steeper slopes, especially those exceeding 25 percent (see Exhibit I), have higher erosion risk. U.S. Climate Data (2022) reports that the site area receives approximately 14 inches of rain per year. The erosion potential and available precipitation make site soils sensitive to water erosion during winter and spring, particularly on steep slopes. A draft Erosion and Sediment Control Plan (ESCP) has been developed to reduce the potential for soil erosion. The ESCP includes structural and nonstructural Best Management Practices (BMP). Structural BMPs include the installation of silt fences or other physical controls to divert flows from exposed soils or otherwise limit runoff and pollutants from exposed areas. Nonstructural BMPs include the implementation of materials handling procedures, disposal requirements, and spill prevention methods.

The Certificate Holder will apply for a National Pollutant Discharge Elimination System stormwater construction permit though the Your DEQ Online platform (the draft ESCP is an attachment to Exhibit I). In addition, Exhibit I contains a comprehensive list of mitigation measures to avoid wind and water erosion and soil impacts.

8.4 Flooding

Federal Emergency Management Agency (FEMA) National Flood Hazard data (FEMA 2022) were compared to the temporary and permanent disturbance areas in the Amended Site Boundary to evaluate flood hazards. The Amended Site Boundary is not within an identified FEMA 100-year or 500-year floodplain (Figure H-3). However, DOGAMI HazVu Mapping (DOGAMI 2022) indicates that Morrow County has 100-year floodplains along the narrow alluvial deposits of major drainages/streams.

Seasonal thunderstorms can result in concentrated stormwater runoff and localized flooding. The Facility will be designed and engineered to comply with zoning ordinances and building codes that

establish flood protection standards for all construction to avoid dangers to the infrastructure, as well as human safety and the environment, including criteria to ensure that the foundation will withstand flood forces. The engineered access roads and drainages will direct stormwater runoff away from structures and into drainage ditches and culverts as required in the ESCP. Therefore, the risks and potential impacts to the Facility, human safety, and the environment from flood hazards are expected to be low.

8.5 Shrinking and Swelling Soils

Clayey soils are the most susceptible to shrinking and swelling. These soils were not found in the Facility soil data (see Exhibit I). The shrink-swell potential of the soils will be evaluated during the site-specific geotechnical investigations and laboratory testing and analysis during the final Facility design phase. If shrinking or swelling soils are present at foundation locations or along road alignments, soil improvement will be necessary. Soil improvement can include reworking and compacting onsite soils, over-excavating soils with shrink-swell potential and replacing with compacted structural fill, constructing impermeable barriers to prevent saturation, or mixing soils to reduce the potential for shrinking and swelling.

8.6 Collapsing Soils

Soil properties will be evaluated by laboratory testing and analysis. Subsurface soil conditions, such as loess or collapsing soils, will be identified during the site-specific geotechnical investigation and will inform the final design of turbine foundations. If collapsible soils are found, collapse potential will be mitigated by construction techniques (over-excavating and replacing with structural fill, wetting, and compacting) during subgrade preparation.

9.0 Disaster Resilience

The State of Oregon uses IBC 2021, with current amendments by the OSSC and local agencies. Pertinent design codes related to geology, seismicity, and near-surface soils are contained in IBC Chapter 16, Section 1613, with slight modifications by the current amendments of the State of Oregon and local agencies. The Facility will be designed to meet or exceed the minimum standards required by these design codes. The Certificate Holder acknowledges that DOGAMI encourages, but does not require, applicants to design and build for disaster resilience and future climate conditions using science, data, and community wisdom to protect against and adapt to risks. With this in mind, the Certificate Holder has extensive experience building energy facilities and designing projects to withstand non-seismic geologic hazards from a structural perspective.

The Facility will be designed, engineered, and constructed to meet all current standards to adequately avoid potential dangers to human safety presented by seismic hazards. A qualified engineer will assess and review the seismic, geologic, and soil hazards associated with the Facility infrastructure construction. Construction requirements will be modified, as needed, based on the site-specific characterization of seismic, geologic, and soil hazards. Substation structures will be

designed under the current version of the OSSC. Substation, transmission lines, and collector line equipment will be specified by the latest version of the Institute of Electrical and Electronics Engineers. The Facility infrastructure will be in sparsely populated areas; therefore, the risks to human safety and the environment due to seismic hazards will be minimal.

The Facility infrastructure will be designed, engineered, and constructed to meet or exceed all current standards. The Certificate Holder proposes to design, engineer, and construct the Facility to avoid dangers to human safety-related and non-seismic hazards in many ways, including conducting site-specific geotechnical evaluations for the facilities (see Section 5.0). Typical mitigation measures for non-seismic hazards include: avoiding potential hazards, conducting subsurface investigations to characterize the soils to adequately plan and design appropriate mitigation measures, creating detailed geologic hazard maps to aid in laying out facilities, providing warnings in the event of hazards, and purchasing insurance to cover the Facility in the event of hazards. In addition, structures meeting height limits will have lighting according to FAA standards. Each turbine and substation will be monitored by a Supervisory Control and Data Acquisition system for the Facility to come back online in the event of a disaster. Should Facility elements like access roads be damaged, they will be assessed, and repairs made quickly to ensure recovery of operations after a major storm event.

10.0 Climate Change

The University of Washington conducted a study to assess climate vulnerability and adaptation in the Columbia River Plateau, where the Facility is located (Michalak et al. 2014). The study involved downscaling five climate models (CCM3, CGM3.1, GISS-ER, MIROC3.2, and Hadley). Climate projections were downscaled to approximately a 1-kilometer resolution for over 40 different direct (mean annual temperature/precipitation) and derived (number of growing-degree days, actual and potential evapotranspiration) climate variables (Michalak et al. 2014). The downscaling of the climate models for this area led to future projections of greater annual average and summer temperatures, and more severe storm events and wildfires, among other changes. These specific changes are expected to increase stress on power lines in the region.

Reinforcing the local electric grid with wind power and new transmission lines increases energy grid resilience in this part of Oregon. This reinforcement will be direct, by upgrading a system that is anticipated to experience higher loads under rising temperatures and related increases in power demand for summer cooling. It is also indirect, by supporting the delivery of power generated through various sources, minimizing the potential reduction in hydro power's role under future conditions. All aspects of this Facility support resiliency in the face of future climate change. The Facility will be designed to withstand extreme events as explained above in Section 9.0.

11.0 Conclusions

The risk of seismic hazards to human safety at the Facility is low. The Certificate Holder reviewed regional geologic information and performed a site-specific desktop analysis of potential seismic, geologic, and soils hazards. In addition, a site-specific geotechnical investigation will be conducted, allowing the Certificate Holder to design, engineer, and construct the Facility to the most current standards at the time of construction (Condition PRE-SS-01). The site-specific geotechnical investigation will enforce Conditions PRE-SS-01, PRE-SS-02, PRE-SS-03, and PRE-SS-04. This exhibit reflects input from DOGAMI and demonstrates that the Certificate Holder can design, engineer, and construct the Facility to avoid dangers to human safety. The following supporting evidence is provided, with the remaining evidence to be provided before construction:

- The risk of seismic hazards to human safety at the proposed Facility is considered low. The Certificate Holder has adequately characterized the seismic hazard risk of the site under OAR 345-022-0020(1)(a) and considered seismic events and amplification for the Facility's site-specific subsurface profile. Facility components include wind turbine generators, site access roads, Intraconnection Line structures, meteorological data collection towers, a battery energy storage system, and two substations with equipment. The shared/existing Operations and Maintenance (O&M) building will be staffed; however, the probability of a large seismic event occurring while the shared/existing O&M building is occupied is much lower than for a typical building or facility. This very low probability results in minimal risk to human safety. During preconstruction geotechnical investigations, any potentially active faults in the vicinity will be surveyed (per Condition PRE-SS-02).
- The Certificate Holder has demonstrated that the Facility can be designed, engineered, and constructed to avoid dangers to human safety and the environment in case of a design seismic event by adhering to the most recently updated IBC requirements, following OAR 345- 022-0020(1)(b) and per Conditions GEN-GS-08 and GEN-SS-01. These standards require that for the design seismic event, the factors of safety used in the Facility design exceed specific values. For example, in the case of slope design, a factor of safety of at least 1.1 is usually required during seismic stability evaluation. This safety factor is introduced to account for uncertainties in the design process and ensure that performance is acceptable. If slope stability safety factors are not met, the Facility components will either be relocated during the micrositing process or remedial measures to improve slope stability will be implemented. For slope stability, the remedial measures could include the use of ground improvement methods (such as retaining structures) to limit the movement to acceptable levels. Given the relatively low level of risk for the Facility, adherence to the IBC requirements will ensure that appropriate protection measures for human safety are taken.
- The Certificate Holder has provided appropriate site-specific information and demonstrated (per OAR 345-022-0020(1)(c)) that the construction and operation of the proposed Facility, in the absence of a seismic event, will not adversely affect or aggravate the geological or soil conditions of the Facility site or vicinity. The risks posed by non-seismic geologic hazards

are generally considered low because the Facility can be designed to minimize or avoid the hazards of landslides and soil erosion. Landslide and slope stability issues will be identified during the final design and mitigated. Erosion hazard resulting from soil and wind action will be minimized by implementing erosion control plan. The Certificate Holder shall notify ODOE in the event that site investigations or trenching reveal conditions in the foundation rock different from what was evaluated, or if shear zones, artesian aquifers, deformations, or clastic dikes are found in the vicinity of the site (per Conditions GEN-GS-09 and GEN-GS-10).

- The Certificate Holder has demonstrated that the Facility can be designed, engineered, and constructed to avoid human safety and environment impacts from geological and soil hazards, per OAR 345-022-0020(1)(d). Accordingly, given the relatively small risks these hazards pose to human safety, standard methods of practice (including implementation of the current IBC) will be adequate for the design and construction of the Facility. Site-specific studies will be conducted, additional geotechnical work will be completed once the final locations of the structures are selected, and adequate measures will be implemented to control erosion (in adherence with Condition PRE-SS-01, PRE-SS-02, PRE-SS-03, and PRE-SS-04).
- Finally, the Certificate Holder has assessed future climate conditions for the expected life span of the Facility, and the potential impacts of those conditions on the Facility.

Therefore, for the reasons outlines in this Exhibit, the construction and operation will comply with the structural standards as outlined in OAR 345-022-0020.

12.0 References

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Wheatridge (Wheatridge Wind Energy, LLC). 2015. Wheatridge Wind Energy Facility Application for Site Certificate. Prepared by Tetra Tech, Inc. July 2015.

Figures

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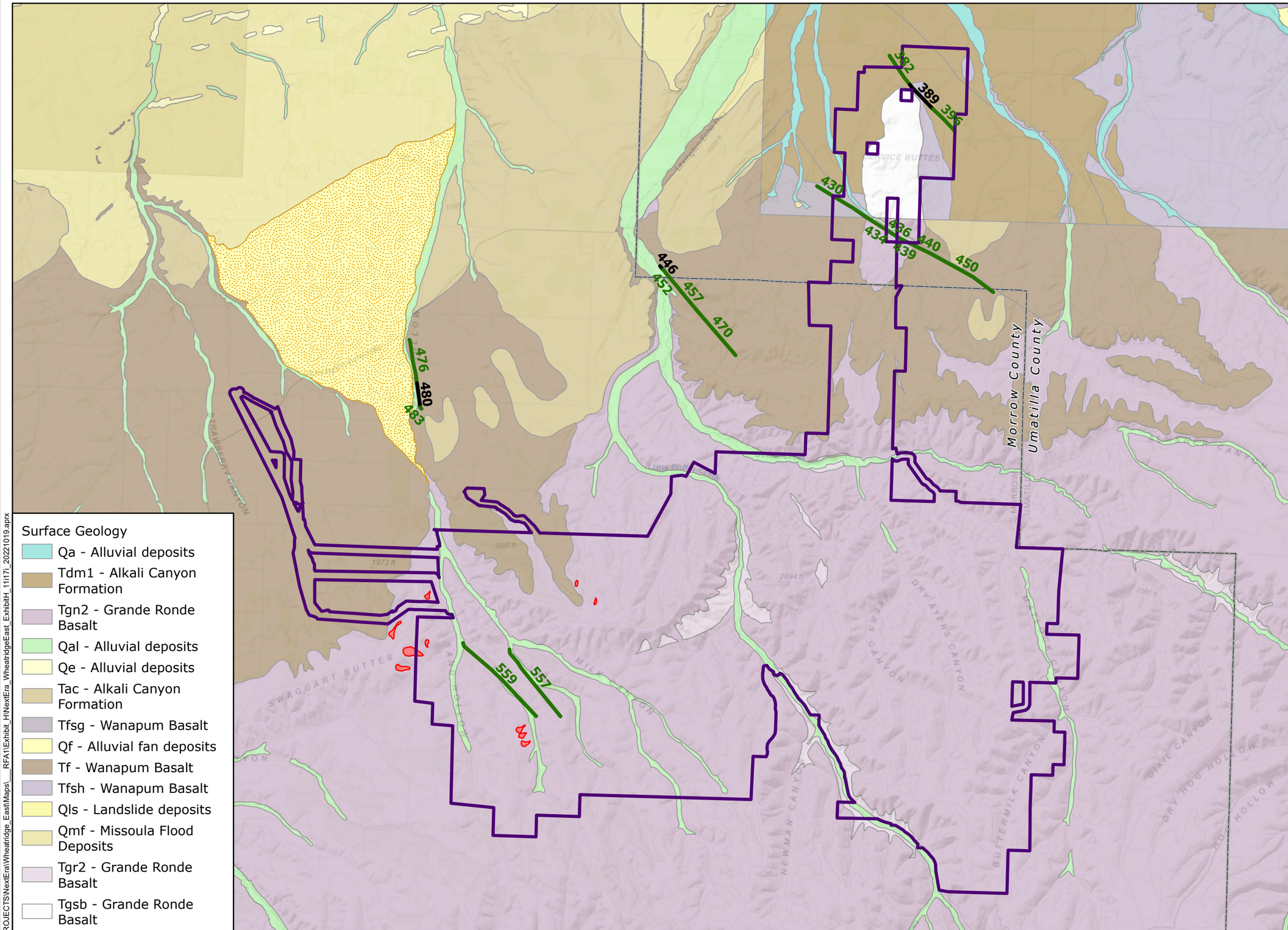
Wheatridge Renewable Energy Facility East

Figure H-1
Geologic Map

MORROW AND UMATILLA COUNTIES, OR

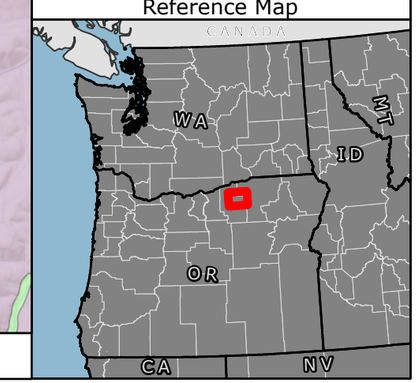


Amended Site Boundary
Fan
Landslide
Fault Line
Yes
No

TETRA TECH

NEXTera ENERGY RESOURCES

Reference Map



1:135,000

WGS 1984 UTM Zone 10N

0 0.5 1 2 3 4 Miles

NOT FOR CONSTRUCTION

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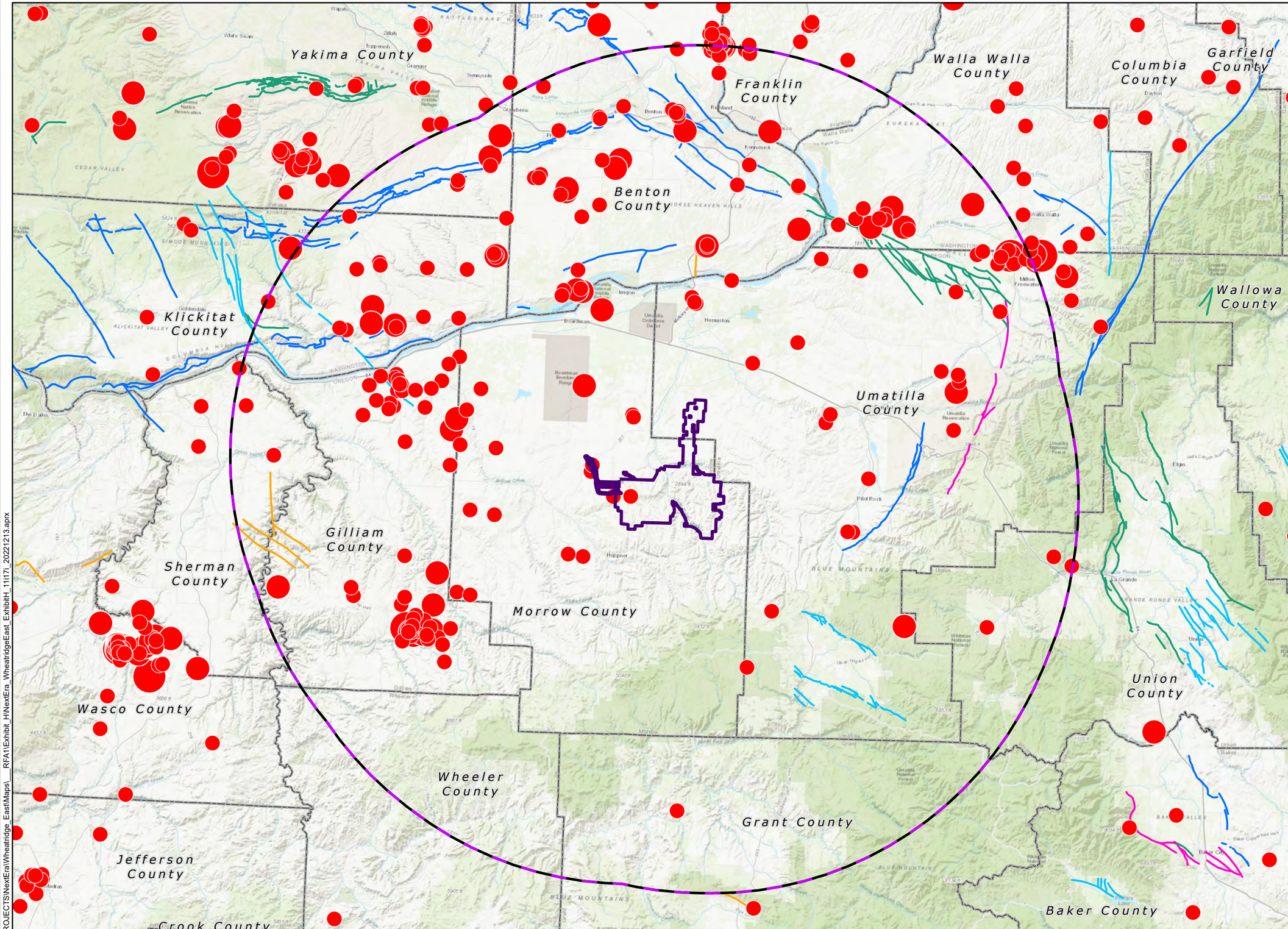
Wheatridge Renewable Energy Facility East

Figure H-2
Historical Seismicity and Potentially Active Faults

MORROW AND UMATILLA COUNTIES, OR



Amended Site Boundary

Analysis Area (50-mile Buffer)

County Boundary

Faults

Age

- class B
- late Quaternary
- latest Quaternary
- middle and late Quaternary
- undifferentiated Quaternary

Earthquakes

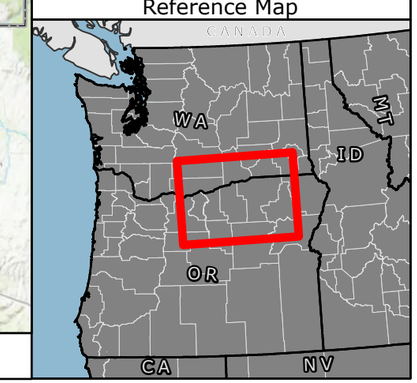
Magnitude

- 2.5 - 3.0
- 3.1 - 4.0
- 4.1 - 5.0

TETRA TECH

NEXTera ENERGY RESOURCES

Reference Map



1:825,000

WGS 1984 UTM Zone 11N

0 5 10 20 30 40 Miles

NOT FOR CONSTRUCTION

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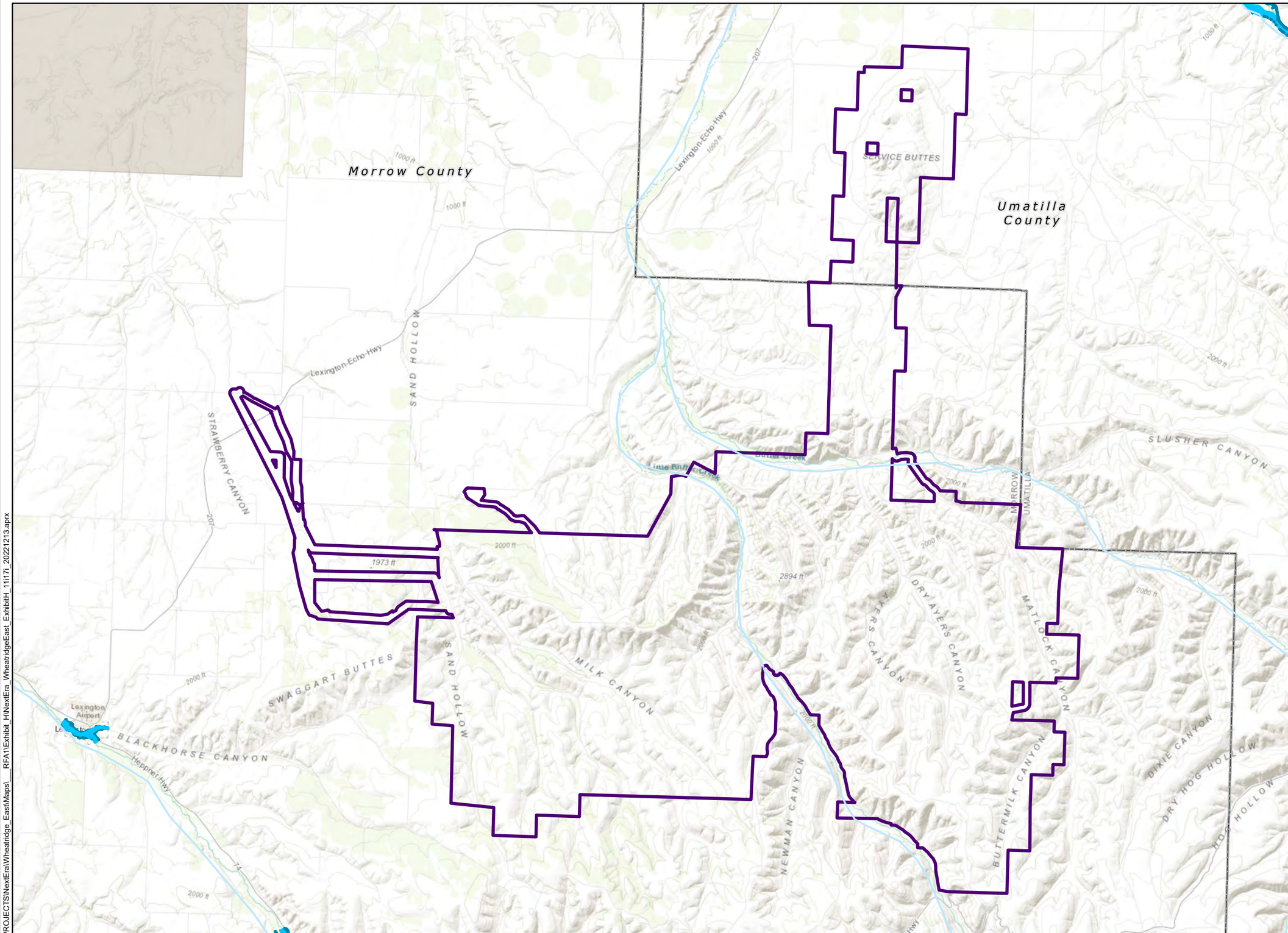
Wheatridge Renewable Energy Facility East

Figure H-3 Special Flood Hazard Areas

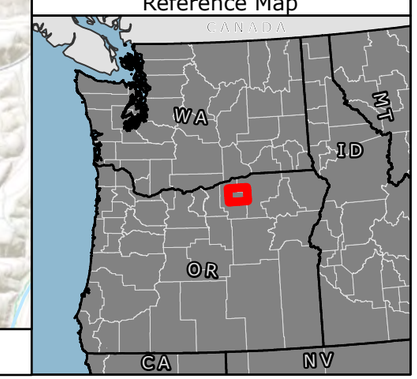
MORROW AND UMATILLA COUNTIES, OR



County Boundary
Amended Site Boundary
River/Stream
Special Flood Hazard Areas
500-year Flood Zone
Floodway

TETRA TECH
NEXTera ENERGY RESOURCES

Reference Map



1:135,000

WGS 1984 UTM Zone 11N

0 0.5 1 2 3 4 Miles

NOT FOR CONSTRUCTION

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Attachment H-1.
Record of Correspondence with DOGAMI

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AGENDA

Wheatridge Renewable Energy Facility East – DOGAMI Consultation

October 21, 2022
Teleconference
1:30 p.m. – 2:00 p.m.

Attendees: Jason McClaughry/DOGAMI
Reina Ferrer/NextEra
Carrie Konkol/Tetra Tech
Rachel Miller/Tetra Tech

Introductions	
Meeting Purpose	- OAR 345-021-0010(1)(h)(B) requires pre-application consultation with DOGAMI for new energy facilities - Meeting notes will be developed and included into Exhibit H of the Request for Amendment to the Application for Site Certificate
Project Overview (see slide deck)	- Project location and background - Permitting approach - Schedule - Geotechnical work scheduled for early spring 2023
Site Characteristics (see slide deck)	- Project description (Carrie) - Geology
Geotechnical Requirements	- Appropriate methodology and scope of the seismic hazards and geology and soil-related hazards assessments per OAR 345-021-0010(1)(h)(B)) - DOGAMI recommends using the geologic resources guide (see attachment) to review all resources available, HazVu in particular - DOGAMI indicated that the GIS is limited in detail for this area. HazView (https://www.oregongeology.org/hazvu/index.htm) has the following information: - * Near and distant earthquake potential - * Liquefaction - * Flood hazards - * Shaking potential - * Landslide susceptibility maps (Lidar-based)

From: MCCLAUGHRY Jason * DGMI
To: Konkol, Carrie
Subject: list of DOGAMI resources
Date: Friday, October 21, 2022 1:55:54 PM
Attachments: Helpful geologic resources for Geotechnical site investigations in Oregon.docx

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You don't often get email from jason.mcclaughry@dogami.oregon.gov. Learn why this is important

CAUTION: This email originated from an external sender. Verify the source before opening links or attachments.

As mentioned in the meeting.

Best Regards,
Jason

**Note: DOGAMI staff have been assigned new email addresses. I can be reached at jason.mcclaughry@dogami.oregon.gov. Please update your address lists to ensure timely delivery.

Jason D. McClaughry, RG
Interim Geological Survey and Services Program Manager|
Eastern Oregon Regional Geologist|
National Cooperative Geologic Mapping Program (STATEMAP) Coordinator for Oregon|
Oregon Department of Geology and Mineral Industries|Baker City Field Office
1995 3rd Street, Suite 130 | Baker City, Oregon 97814
Cell: (541) 519-3419
jason.mcclaughry@dogami.oregon.gov| https://www.oregongeology.org

Unless otherwise indicated, all information in this correspondence is classified as Level 1, "Published" according to State of Oregon statute and administrative policy.

Helpful geologic resources for Geotechnical site investigations in Oregon:
V1, June 10th, 2021

USGS Quaternary fault and fold database includes mapped potentially active faults
https://pubs.usgs.gov/fs/2004/3033/fs-2004-3033.html
Interactive fault map for the United States
https://usgs.maps.arcgis.com/apps/webappviewer/index.html?id=5a6038b3a1684561a9b0aadf88412ff
2008 USGS National Seismic Hazards Mapping, updated 2014
https://earthquake.usgs.gov/cfusion/hazfaults_2014_search/query_main.cfm
2016 USGS Earthquake Hazards Program, National Seismic Hazard Mapping Project; Earthquake Search Database
https://earthquake.usgs.gov/earthquakes/search/
2014 OSSC, Updated 2019, with amendments in 2021
https://www.oregon.gov/bcd/codes-stand/code-adoption/Pages/2019-ossc-adoption.aspx

The USGS national geologic map database is a good place to find detailed geologic maps published in your map area.
https://ngmdb.usgs.gov/ngmdb/ngmdb_home.html
Specific DOGAMI maps in the area can be found by using our publications center and doing a publication search.
https://www.oregongeology.org/pubs/index.htm

DOGAMI's interactive maps are here
https://www.oregongeology.org/gis/index.htm
Maps include viewers for all types of hazards (HazVu) including earthquake, flood, landslide, volcano.
https://www.oregongeology.org/hazvu/index.htm
Statewide Landslide Information Database for Oregon (SLIDO)
https://www.oregongeology.org/slido/data.htm
Geologic Map of Oregon, Oregon Geologic Data Compilation release 7 (OGDC-7)
https://www.oregongeology.org/geologicmap/index.htm

Franczyk, J. J., Madin, I. P., Duda, C. J. M., and McClaughry, J. D., 2020, Oregon geologic data compilation, release 7 [OGDC-7] (statewide): Oregon Department of Geology and Mineral Industries Digital Data Series OGDC-7, Esri geodatabase. https://www.oregongeology.org/pubs/dds/p-OGDC-7.htm

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Attachment H-2. Probabilistic Seismic Hazard Deaggregation – 475-Year Return Time

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*** Deaggregation of Seismic Hazard at One Period of Spectral Acceleration ***
*** Data from Dynamic: Conterminous U.S. 2014 (update) (v4.2.0) ****
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
vs30 = 1150 m/s (Site class B)
return period: 475 yrs.
#This deaggregation corresponds to: Total
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:
  Return period: 475 yrs
  Exceedance rate: 0.0021052632 yr^{-1}
  PGA ground motion: 0.053600771 g
Recovered targets:
  Return period: 482.15757 yrs
  Exceedance rate: 0.0020740108 yr^{-1}
Totals:
  Binned: 100 %
  Residual: 0 %
  Trace: 0.73 %
Mean (over all sources):
  m: 6.47
  r: 77.16 km
  ε_0: 0.17 σ
Mode (largest m-r bin):
  m: 5.1
  r: 11.99 km
  ε_0: -0.17 σ
  Contribution: 4.65 %
Mode (largest m-r-ε_0 bin):
  m: 5.5
  r: 23.85 km
  ε_0: 0.27 σ
  Contribution: 1.49 %
Discretization:
  r: min = 0.0, max = 1000.0, Δ = 20.0 km
  m: min = 4.4, max = 9.4, Δ = 0.2
  ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
  ε0: [-∞ .. -2.5)
  ε1: [-2.5 .. -2.0)
  ε2: [-2.0 .. -1.5)
  ε3: [-1.5 .. -1.0)
  ε4: [-1.0 .. -0.5)
  ε5: [-0.5 .. 0.0)
  ε6: [0.0 .. 0.5)
  ε7: [0.5 .. 1.0)
  ε8: [1.0 .. 1.5)
  ε9: [1.5 .. 2.0)
  ε10: [2.0 .. 2.5)
  ε11: [2.5 .. +∞]
Closest Distance, rRup (km) Magnitude (Mw) ALL_ε ε=(-∞,-2.5) ε=[-2.5,-2) ε=[-2,-1.5) ε=[-1.5,-1) ε=[-1,-0.5) ε=[-0.5,0) ε=[0,0.5) ε=[0.5,1) ε=[1,1.5) ε=[1.5,2) ε=[2,2.5) ε=[2.5,∞)

590 7.9 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000
570 7.9 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
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570 8.1 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000
550 7.9 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000
550 8.1 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000
530 7.9 0.001 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.001
0.000
530 8.1 0.001 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.001
0.000
530 8.3 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000
510 7.9 0.001 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.001
0.000
510 8.1 0.002 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.002
0.000
510 8.3 0.001 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.001
0.000
490 7.9 0.001 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.001
0.000
490 8.1 0.003 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.003
0.000
490 8.3 0.001 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.001 0.001
0.000
490 8.5 0.001 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.001 0.000
0.000
470 7.9 0.002 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.002
0.000
470 8.1 0.005 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.002 0.003
0.000
470 8.3 0.003 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.003 0.000
0.000
470 8.5 0.003 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.003 0.000
0.000
450 7.9 0.003 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.002
0.000
450 8.1 0.039 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.038 0.000
0.000
450 8.3 0.034 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.034 0.000
0.000
450 8.5 0.038 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.038 0.000
0.000
430 7.9 0.004 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.004 0.000
0.000
430 8.1 0.009 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.009 0.000
0.000
430 8.3 0.006 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.006 0.000
0.000
430 8.5 0.014 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.005 0.009 0.000
0.000
410 7.9 0.007 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.007 0.000
0.000
410 8.1 0.017 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.017 0.000

0.000
410 8.3 0.039 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.039 0.000
0.001
410 8.5 0.063 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.056 0.004 0.001
0.002
410 8.7 0.008 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.007 0.000 0.001
0.000
390 7.9 0.015 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.015 0.000
0.000
390 8.1 0.035 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.002 0.032 0.000
0.000
390 8.3 0.135 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.124 0.006 0.000
0.005
390 8.5 0.188 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.176 0.000 0.008
0.003
390 8.7 0.723 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.656 0.000 0.067
0.000
390 9.1 0.434 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.362 0.000 0.071 0.000
0.001
370 7.9 0.012 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.012 0.000
0.000
370 8.1 0.030 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.017 0.012 0.000
0.001
370 8.3 0.019 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.018 0.000 0.000
0.001
370 8.5 0.237 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.215 0.000 0.022
0.000
370 8.7 1.005 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.098 0.768 0.139 0.000
0.000
370 8.9 1.026 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.855 0.000 0.171 0.000
0.000
370 9.1 1.588 0.000 0.000 0.000 0.000 0.000 0.000 0.000 1.197 0.373 0.000 0.000
0.017
350 7.9 0.005 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.004 0.001 0.000
0.000
350 8.1 0.012 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.011 0.000 0.001
0.000
350 8.3 0.007 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.007 0.000 0.001
0.000
350 8.5 0.110 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.073 0.018 0.018 0.001
0.000
350 8.7 0.098 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.077 0.000 0.021 0.000
0.000
350 8.9 0.134 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.095 0.037 0.000 0.000
0.002
330 7.9 0.019 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.018 0.000 0.002
0.000
330 8.1 0.046 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.040 0.000 0.005
0.000
330 8.3 0.028 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.024 0.004 0.000
0.000
330 8.5 0.185 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.139 0.010 0.036 0.000
0.001
330 8.7 0.248 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.182 0.063 0.001 0.000
0.002
330 8.9 1.285 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.883 0.383 0.000 0.018
0.000

330	9.1	1.562	0.000	0.000	0.000	0.000	0.000	0.000	1.009	0.517	0.000	0.000	0.035
0.000													
330	9.3	2.177	0.000	0.000	0.000	0.000	0.000	0.000	1.239	0.819	0.000	0.119	0.000
0.000													
310	6.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
290	6.5	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.001													
290	6.7	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006
0.013													
290	6.9	0.066	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006	0.060
0.001													
290	7.1	0.135	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.122	0.013
0.001													
290	7.3	0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.014	0.004	0.000
0.000													
290	7.5	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.005	0.000	0.001
0.000													
290	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
290	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
270	6.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
270	6.5	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.005													
270	6.7	0.028	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.021
0.007													
270	6.9	0.077	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.040	0.037
0.000													
270	7.1	0.189	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.055	0.127	0.002
0.005													
270	7.3	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.029	0.001	0.002
0.000													
270	7.5	0.027	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.018	0.006	0.002	0.001
0.000													
270	7.7	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.001	0.000	0.000
0.000													
270	7.9	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.000
0.000													
250	6.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
250	6.5	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003
0.004													
250	6.7	0.024	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.021
0.000													
250	6.9	0.065	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.059	0.004
0.002													
250	7.1	0.147	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.101	0.034	0.010
0.002													
250	7.3	0.028	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.012	0.012	0.002	0.001
0.000													
250	7.5	0.022	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.018	0.001	0.003	0.000
0.000													
250	7.7	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.002	0.001	0.000	0.000
0.000													
250	7.9	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.002	0.000	0.000	0.000

0.000
230 6.1 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000
230 6.3 0.001 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.001
230 6.5 0.005 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.004
0.000
230 6.7 0.017 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.011 0.006
0.001
230 6.9 0.046 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.018 0.023 0.004
0.001
230 7.1 0.102 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.017 0.071 0.008 0.007
0.000
230 7.3 0.017 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.013 0.002 0.002 0.000
0.000
230 7.5 0.015 0.000 0.000 0.000 0.000 0.000 0.000 0.007 0.003 0.003 0.000 0.000
0.001
230 7.7 0.004 0.000 0.000 0.000 0.000 0.000 0.000 0.002 0.001 0.000 0.000 0.001
0.000
230 7.9 0.005 0.000 0.000 0.000 0.000 0.000 0.001 0.004 0.000 0.000 0.000 0.000
0.000
210 6.1 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000
210 6.3 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000
210 6.5 0.001 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.001
0.000
210 6.7 0.004 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.003 0.000
0.000
210 6.9 0.008 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.007 0.001 0.001
0.000
210 7.1 0.018 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.012 0.003 0.003 0.000
0.000
210 7.3 0.008 0.000 0.000 0.000 0.000 0.000 0.000 0.002 0.002 0.001 0.000 0.000
0.003
210 7.5 0.011 0.000 0.000 0.000 0.000 0.000 0.000 0.003 0.001 0.000 0.000 0.003
0.004
210 7.7 0.004 0.000 0.000 0.000 0.000 0.000 0.001 0.001 0.000 0.000 0.001 0.001
0.000
210 7.9 0.004 0.000 0.000 0.000 0.000 0.000 0.002 0.001 0.000 0.000 0.001 0.000
0.000
190 5.9 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000
190 6.1 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000
190 6.3 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000
190 6.5 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000
190 6.7 0.001 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.001 0.000 0.000
0.000
190 6.9 0.002 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.001 0.001 0.000 0.000
0.000
190 7.1 0.008 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.003 0.001 0.000 0.000
0.004
190 7.3 0.018 0.000 0.000 0.000 0.000 0.000 0.000 0.001 0.000 0.000 0.000 0.008
0.009

190	7.5	0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.012
0.003													
190	7.7	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.002
0.000													
190	7.9	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000
0.000													
170	5.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
170	5.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
170	6.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
170	6.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
170	6.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
170	6.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
170	6.9	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.004													
170	7.1	0.021	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.008
0.012													
170	7.3	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.034
0.004													
170	7.5	0.039	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.019	0.018
0.000													
170	7.7	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.005	0.001
0.000													
170	7.9	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.002	0.001	0.000
0.000													
150	5.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
150	5.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
150	5.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
150	6.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
150	6.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
150	6.5	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.002													
150	6.7	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.012													
150	6.9	0.039	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.021
0.018													
150	7.1	0.071	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.057
0.005													
150	7.3	0.099	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.063	0.031
0.000													
150	7.5	0.070	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.019	0.048	0.004
0.000													
150	7.7	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.007	0.003	0.000
0.000													
150	7.9	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.002	0.000	0.000
0.000													
130	5.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

130	5.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	5.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	5.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	6.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	6.3	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.010
130	6.5	0.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.012	0.020
130	6.7	0.056	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.041	0.015
130	6.9	0.101	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.024	0.076	0.000
130	7.1	0.161	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.130	0.026	0.000
130	7.3	0.234	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.105	0.129	0.001	0.000
130	7.5	0.155	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.021	0.110	0.025	0.000	0.000
130	7.7	0.024	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.012	0.011	0.000	0.000	0.000
130	7.9	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.003	0.001	0.000	0.000	0.000
110	5.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110	5.9	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
110	6.1	0.026	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.023
110	6.3	0.087	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.061	0.023
110	6.5	0.134	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.039	0.088	0.006
110	6.7	0.180	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.109	0.071	0.000
110	6.9	0.262	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.057	0.196	0.009	0.000
110	7.1	0.344	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.248	0.096	0.000	0.000
110	7.3	0.356	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.114	0.232	0.010	0.000	0.000
110	7.5	0.208	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.136	0.063	0.000	0.000	0.000
110	7.7	0.026	0.000	0.000	0.000	0.000	0.000	0.000	0.010	0.015	0.001	0.000	0.000	0.000
110	7.9	0.008	0.000	0.000	0.000	0.000	0.000	0.001	0.005	0.002	0.000	0.000	0.000	0.000
90	5.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
90	5.5	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.009
90	5.7	0.037	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.033

90 5.9 0.094 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.055
0.039
90 6.1 0.197 0.000 0.000 0.000 0.000 0.0000.0000.0000.0000.0000.0340.1470.016
90 6.3 0.3420.0000.0000.0000.0000.0000.0000.0000.0000.0320.2120.0980.000
90 6.5 0.4040.0000.0000.0000.0000.0000.0000.0000.0000.1300.2420.0320.000
90 6.7 0.4240.0000.0000.0000.0000.0000.0000.0000.0160.2310.1750.0020.000
90 6.9 0.5070.0000.0000.0000.0000.0000.0000.0000.1100.3580.0400.0000.000
90 7.1 0.5580.0000.0000.0000.0000.0000.0000.0050.3500.2030.0000.0000.000
90 7.3 0.5850.0000.0000.0000.0000.0000.0000.1270.4140.0440.0000.0000.000
90 7.5 0.3100.0000.0000.0000.0000.0000.0020.1680.1400.0000.0000.0000.000
90 7.7 0.0400.0000.0000.0000.0000.0000.0090.0270.0040.0000.0000.0000.000
90 7.9 0.0100.0000.0000.0000.0000.0010.0050.0040.0000.0000.0000.0000.000
70 5.1 0.0200.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.020
70 5.3 0.0640.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0230.042
70 5.5 0.1960.0000.0000.0000.0000.0000.0000.0000.0000.0000.0110.1300.054
70 5.7 0.3240.0000.0000.0000.0000.0000.0000.0000.0000.0000.0970.2040.023
70 5.9 0.4640.0000.0000.0000.0000.0000.0000.0000.0000.0000.3020.1600.003
70 6.1 0.6750.0000.0000.0000.0000.0000.0000.0000.0000.2150.4230.0370.000
70 6.3 0.9200.0000.0000.0000.0000.0000.0000.0000.1190.5990.2020.0000.000
70 6.5 1.1150.0000.0000.0000.0000.0000.0000.0000.4670.5870.0600.0000.000
70 6.7 1.1660.0000.0000.0000.0000.0000.0000.0730.7420.3460.0060.0000.000
70 6.9 1.1020.0000.0000.0000.0000.0000.0000.2950.7370.0700.0000.0000.000
70 7.1 1.1490.0000.0000.0000.0000.0000.0040.7780.3670.0000.0000.0000.000
70 7.3 1.0350.0000.0000.0000.0000.0000.2190.7480.0670.0000.0000.0000.000
70 7.5 0.5130.0000.0000.0000.0000.0020.2730.2360.0020.0000.0000.0000.000
70 7.7 0.0790.0000.0000.0000.0000.0110.0610.0060.0000.0000.0000.0000.000
70 7.9 0.0140.0000.0000.0000.0000.0060.0070.0000.0000.0000.0000.0000.000
50 5.1 0.3150.0000.0000.0000.0000.0000.0000.0000.0000.0000.0790.1800.056
50 5.3 0.5820.0000.0000.0000.0000.0000.0000.0000.0000.0050.2890.2580.030
50 5.5 1.0090.0000.0000.0000.0000.0000.0000.0000.0000.3060.5470.1550.002
50 5.7 1.2170.0000.0000.0000.0000.0000.0000.0000.0560.6650.4560.0400.000
50 5.9 1.3610.0000.0000.0000.0000.0000.0000.0000.3340.8210.2030.0020.000
50 6.1 1.7450.0000.0000.0000.0000.0000.0000.1000.9600.6520.0330.0000.000
50 6.3 1.8520.0000.0000.0000.0000.0000.0160.5961.0420.1980.0000.0000.000
50 6.5 1.7380.0000.0000.0000.0000.0000.1780.9030.6370.0190.0000.0000.000
50 6.7 1.5160.0000.0000.0000.0000.0000.2760.9050.3340.0000.0000.0000.000
50 6.9 1.3510.0000.0000.0000.0000.0130.5670.7310.0390.0000.0000.0000.000
50 7.1 1.1790.0000.0000.0000.0000.1180.7600.3000.0000.0000.0000.0000.000
50 7.3 0.9950.0000.0000.0000.0010.3390.5970.0580.0000.0000.0000.0000.000
50 7.5 0.4760.0000.0000.0000.0220.2630.1920.0000.0000.0000.0000.0000.000
50 7.7 0.0540.0000.0000.0000.0110.0370.0060.0000.0000.0000.0000.0000.000
50 7.9 0.0140.0000.0000.0010.0060.0070.0000.0000.0000.0000.0000.0000.000
30 5.1 2.7720.0000.0000.0000.0000.0000.0000.0880.8531.1100.5850.1360.001
30 5.3 3.4640.0000.0000.0000.0000.0000.0000.5561.4521.1080.3350.0130.000
30 5.5 4.0830.0000.0000.0000.0000.0000.3981.4871.4030.7180.0780.0000.000
30 5.7 3.8150.0000.0000.0000.0000.0000.8801.4211.2210.2930.0000.0000.000
30 5.9 3.3760.0000.0000.0000.0000.1901.0991.2250.8110.0490.0000.0000.000
30 6.1 3.2460.0000.0000.0000.0210.5951.2321.2020.1960.0000.0000.0000.000
30 6.3 2.8700.0000.0000.0000.1990.8491.1430.6760.0030.0000.0000.0000.000
30 6.5 2.2320.0000.0000.0140.3190.8120.8670.2200.0000.0000.0000.0000.000
30 6.7 1.7290.0000.0000.0380.3010.7070.6490.0340.0000.0000.0000.0000.000
30 6.9 1.5120.0000.0000.0970.4260.6760.3130.0000.0000.0000.0000.0000.000
30 7.1 1.2580.0000.0130.1480.4570.5650.0750.0000.0000.0000.0000.0000.000
30 7.3 1.0700.0000.0300.2020.4860.3510.0010.0000.0000.0000.0000.0000.000
30 7.5 0.5130.0000.0210.1330.2640.0940.0000.0000.0000.0000.0000.0000.000
30 7.7 0.0470.0000.0040.0170.0250.0020.0000.0000.0000.0000.0000.0000.000
30 7.9 0.0090.0000.0010.0040.0040.0000.0000.0000.0000.0000.0000.0000.000

```
10    5.1   4.6460.0000.0000.0000.3430.9981.3901.3340.5820.0000.0000.0000.000
10    5.3   4.1480.0000.0000.1720.7171.0901.3070.8470.0150.0000.0000.0000.000
10    5.5   3.4550.0000.1380.3960.7611.1140.9340.1120.0000.0000.0000.0000.000
10    5.7   2.6010.0100.1530.4500.6250.9720.3920.0000.0000.0000.0000.0000.000
10    5.9   1.9120.0510.1440.3770.5850.6800.0750.0000.0000.0000.0000.0000.000
10    6.1   2.0010.1450.3310.4530.6690.4030.0000.0000.0000.0000.0000.0000.000
10    6.3   1.5250.2000.3130.4430.4820.0870.0000.0000.0000.0000.0000.0000.000
10    6.5   1.2250.2410.2680.3700.3090.0370.0000.0000.0000.0000.0000.0000.000
10    6.7   0.9970.2180.2400.3150.2250.0000.0000.0000.0000.0000.0000.0000.000
10    6.9   0.7360.1980.2110.2500.0760.0000.0000.0000.0000.0000.0000.0000.000
10    7.1   0.5870.1680.2030.1850.0310.0000.0000.0000.0000.0000.0000.0000.000
10    7.3   0.4490.1440.1570.1420.0070.0000.0000.0000.0000.0000.0000.0000.000
10    7.5   0.1830.0660.0730.0450.0000.0000.0000.0000.0000.0000.0000.0000.000
10    7.7   0.0140.0060.0060.0020.0000.0000.0000.0000.0000.0000.0000.0000.000
10    7.9   0.0030.0010.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
Principal Sources (faults, subduction, random seismicity having > 3% contribution
WUSmap_2014_fixSm.ch.in (opt):
  Percent Contributed: 10.94
  Distance (km): 37.312266
  Magnitude: 6.1258702
  Epsilon (mean values): 0.06914528
noPuget_2014_fixSm.ch.in (opt):
  Percent Contributed: 10.94
  Distance (km): 37.309824
  Magnitude: 6.1258497
  Epsilon (mean values): 0.069107888
WUSmap_2014_fixSm.gr.in (opt):
  Percent Contributed: 10.78
  Distance (km): 36.767892
  Magnitude: 6.114525
  Epsilon (mean values): 0.058758927
noPuget_2014_fixSm.gr.in (opt):
  Percent Contributed: 10.78
  Distance (km): 36.765413
  Magnitude: 6.114504
  Epsilon (mean values): 0.058720926
noPuget_2014_adSm.ch.in (opt):
  Percent Contributed: 8.12
  Distance (km): 35.272385
  Magnitude: 6.0872008
  Epsilon (mean values): 0.0051946978
WUSmap_2014_adSm.ch.in (opt):
  Percent Contributed: 8.11
  Distance (km): 35.260964
  Magnitude: 6.0870309
  Epsilon (mean values): 0.0049332663
noPuget_2014_adSm.gr.in (opt):
  Percent Contributed: 8.03
  Distance (km): 34.851915
  Magnitude: 6.0784171
  Epsilon (mean values): -0.0031147868
WUSmap_2014_adSm.gr.in (opt):
  Percent Contributed: 8.02
  Distance (km): 34.841384
  Magnitude: 6.0782613
  Epsilon (mean values): -0.0033576799
sub0_ch_bot.in:
```

Percent Contributed: 4.85
Distance (km): 323.70483
Magnitude: 9.1185201
Epsilon (mean values): 0.61677308
Cascadia Megathrust - whole CSZ Characteristic:
Percent Contributed: 4.85
Distance (km): 323.70483
Magnitude: 9.1185201
Epsilon (mean values): 0.61677308
Azimuth: 287.96053
Latitude: 46.3
Longitude: -123.4132
sub0_ch_mid.in:
Percent Contributed: 3.46
Distance (km): 377.23061
Magnitude: 8.9260255
Epsilon (mean values): 1.0332049
Cascadia Megathrust - whole CSZ Characteristic:
Percent Contributed: 3.46
Distance (km): 377.23061
Magnitude: 8.9260255
Epsilon (mean values): 1.0332049
Azimuth: 285.79267
Latitude: 46.3
Longitude: -124.13677
WUSmap_2014_fixSm_M8.in (opt):
Percent Contributed: 2.69
Distance (km): 40.319287
Magnitude: 6.2528578
Epsilon (mean values): 0.039773571
noPuget_2014_fixSm_M8.in (opt):
Percent Contributed: 2.69
Distance (km): 40.300304
Magnitude: 6.252687
Epsilon (mean values): 0.039537404
noPuget_2014_adSm_M8.in (opt):
Percent Contributed: 1.98
Distance (km): 38.170618
Magnitude: 6.2069219
Epsilon (mean values): -0.018933532
WUSmap_2014_adSm_M8.in (opt):
Percent Contributed: 1.98
Distance (km): 38.161299
Magnitude: 6.2067046
Epsilon (mean values): -0.019147537
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
vs30 = 1150 m/s (Site class B)
return period: 475 yrs.
#This deaggregation corresponds to: GMM: Abrahamson, Silva & Kamai (2014)
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:
Return period: 475 yrs
Exceedance rate: 0.0021052632 yr^{-1}

PGA ground motion: 0.053600771 g
Recovered targets:
Return period: 482.15757 yrs
Exceedance rate: 0.0020740108 yr^{-1}
Totals:
Binned: 22.76 %
Residual: 0 %
Trace: 0.22 %
Mean (over all sources):
m: 6.07
r: 37.31 km
ε_0: 0.17 σ
Mode (largest m-r bin):
m: 5.1
r: 12.34 km
ε_0: -0.34 σ
Contribution: 1.39 %
Mode (largest m-r-ε_0 bin):
m: 5.1
r: 23.51 km
ε_0: 0.77 σ
Contribution: 0.56 %
Discretization:
r: min = 0.0, max = 1000.0, Δ = 20.0 km
m: min = 4.4, max = 9.4, Δ = 0.2
ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
ε0: [-∞ .. -2.5)
ε1: [-2.5 .. -2.0)
ε2: [-2.0 .. -1.5)
ε3: [-1.5 .. -1.0)
ε4: [-1.0 .. -0.5)
ε5: [-0.5 .. 0.0)
ε6: [0.0 .. 0.5)
ε7: [0.5 .. 1.0)
ε8: [1.0 .. 1.5)
ε9: [1.5 .. 2.0)
ε10: [2.0 .. 2.5)
ε11: [2.5 .. +∞]

Closest Distance, rRup (km)	Magnitude (Mw)	ALL_ε	ε=(-∞,-2.5)	ε=[-2.5,-2)	ε=[-2,-1.5)	ε=[-1.5,-1)	ε=[-1,-0.5)	ε=[-0.5,0)	ε=[0,0.5)	ε=[0.5,1)	ε=[1,1.5)	ε=[1.5,2)	ε=[2,2.5)	ε=[2.5,∞)
290	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
270	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
270	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
250	7.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
250	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
250	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
230	7.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
230	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
230	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
210	7.3	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
210	7.5	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
210	7.7	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
210	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	7.1	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
190	7.3	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.003
190	7.5	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.000	0.000

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190  7.7  0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0010.0000.000
190  7.9  0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  6.7  0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  6.9  0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.001
170  7.1  0.0050.0000.0000.0000.0000.0000.0000.0000.0000.0000.0020.0020.003
170  7.3  0.0120.0000.0000.0000.0000.0000.0000.0000.0000.0000.0110.0110.001
170  7.5  0.0100.0000.0000.0000.0000.0000.0000.0000.0000.0000.0050.0050.000
170  7.7  0.0020.0000.0000.0000.0000.0000.0000.0000.0000.0000.0020.0000.000
170  7.9  0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0010.0000.0000.000
150  6.3  0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  6.5  0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.001
150  6.7  0.0040.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.004
150  6.9  0.0110.0000.0000.0000.0000.0000.0000.0000.0000.0000.0050.0050.006
150  7.1  0.0190.0000.0000.0000.0000.0000.0000.0000.0000.0000.0180.0180.001
150  7.3  0.0260.0000.0000.0000.0000.0000.0000.0000.0000.0000.0190.0070.000
150  7.5  0.0190.0000.0000.0000.0000.0000.0000.0000.0000.0010.0180.0000.000
150  7.7  0.0030.0000.0000.0000.0000.0000.0000.0000.0000.0030.0000.0000.000
150  7.9  0.0010.0000.0000.0000.0000.0000.0000.0000.0010.0010.0000.0000.000
130  6.1  0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130  6.3  0.0040.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.004
130  6.5  0.0090.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0030.006
130  6.7  0.0140.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0100.004
130  6.9  0.0250.0000.0000.0000.0000.0000.0000.0000.0000.0000.0050.0200.000
130  7.1  0.0390.0000.0000.0000.0000.0000.0000.0000.0000.0000.0330.0060.000
130  7.3  0.0570.0000.0000.0000.0000.0000.0000.0000.0000.0190.0390.0000.000
130  7.5  0.0390.0000.0000.0000.0000.0000.0000.0000.0000.0370.0010.0000.000
130  7.7  0.0060.0000.0000.0000.0000.0000.0000.0000.0030.0030.0000.0000.000
130  7.9  0.0020.0000.0000.0000.0000.0000.0000.0000.0010.0000.0000.0000.000
110  5.9  0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.001
110  6.1  0.0090.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0010.008
110  6.3  0.0270.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0220.004
110  6.5  0.0350.0000.0000.0000.0000.0000.0000.0000.0000.0000.0050.0290.001
110  6.7  0.0430.0000.0000.0000.0000.0000.0000.0000.0000.0000.0240.0190.000
110  6.9  0.0630.0000.0000.0000.0000.0000.0000.0000.0000.0050.0580.0010.000
110  7.1  0.0830.0000.0000.0000.0000.0000.0000.0000.0000.0560.0260.0000.000
110  7.3  0.0870.0000.0000.0000.0000.0000.0000.0000.0140.0730.0000.0000.000
110  7.5  0.0520.0000.0000.0000.0000.0000.0000.0000.0390.0130.0000.0000.000
110  7.7  0.0070.0000.0000.0000.0000.0000.0000.0020.0050.0000.0000.0000.000
110  7.9  0.0020.0000.0000.0000.0000.0000.0000.0020.0000.0000.0000.0000.000
90   5.3  0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
90   5.5  0.0030.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.003
90   5.7  0.0130.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.013
90   5.9  0.0290.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0180.011
90   6.1  0.0540.0000.0000.0000.0000.0000.0000.0000.0000.0000.0080.0440.002
90   6.3  0.0920.0000.0000.0000.0000.0000.0000.0000.0000.0000.0700.0220.000
90   6.5  0.0970.0000.0000.0000.0000.0000.0000.0000.0000.0140.0800.0030.000
90   6.7  0.0960.0000.0000.0000.0000.0000.0000.0000.0000.0450.0510.0000.000
90   6.9  0.1190.0000.0000.0000.0000.0000.0000.0000.0080.1050.0060.0000.000
90   7.1  0.1320.0000.0000.0000.0000.0000.0000.0000.0740.0580.0000.0000.000
90   7.3  0.1410.0000.0000.0000.0000.0000.0000.0100.1260.0050.0000.0000.000
90   7.5  0.0760.0000.0000.0000.0000.0000.0000.0380.0380.0000.0000.0000.000
90   7.7  0.0100.0000.0000.0000.0000.0000.0010.0090.0000.0000.0000.0000.000
90   7.9  0.0020.0000.0000.0000.0000.0000.0020.0010.0000.0000.0000.0000.000
70   5.1  0.0200.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.020
70   5.3  0.0400.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0170.023
70   5.5  0.0660.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0500.015
70   5.7  0.0950.0000.0000.0000.0000.0000.0000.0000.0000.0000.0250.0670.003
```

```
70    5.9   0.1280.0000.0000.0000.0000.0000.0000.0000.0000.0000.0870.0400.000
70    6.1   0.1770.0000.0000.0000.0000.0000.0000.0000.0000.0520.1210.0050.000
70    6.3   0.2400.0000.0000.0000.0000.0000.0000.0000.0100.1850.0450.0000.000
70    6.5   0.2650.0000.0000.0000.0000.0000.0000.0000.0840.1730.0080.0000.000
70    6.7   0.2680.0000.0000.0000.0000.0000.0000.0000.1670.1010.0000.0000.000
70    6.9   0.2580.0000.0000.0000.0000.0000.0000.0240.2190.0140.0000.0000.000
70    7.1   0.2680.0000.0000.0000.0000.0000.0000.1540.1150.0000.0000.0000.000
70    7.3   0.2460.0000.0000.0000.0000.0000.0120.2250.0090.0000.0000.0000.000
70    7.5   0.1240.0000.0000.0000.0000.0000.0530.0710.0000.0000.0000.0000.000
70    7.7   0.0190.0000.0000.0000.0000.0000.0180.0010.0000.0000.0000.0000.000
70    7.9   0.0030.0000.0000.0000.0000.0010.0020.0000.0000.0000.0000.0000.000
50    5.1   0.2040.0000.0000.0000.0000.0000.0000.0000.0000.0000.0790.1160.008
50    5.3   0.2470.0000.0000.0000.0000.0000.0000.0000.0000.0050.1650.0770.000
50    5.5   0.2900.0000.0000.0000.0000.0000.0000.0000.0000.0730.1830.0340.000
50    5.7   0.3260.0000.0000.0000.0000.0000.0000.0000.0000.1940.1330.0000.000
50    5.9   0.3580.0000.0000.0000.0000.0000.0000.0000.0720.2410.0450.0000.000
50    6.1   0.4490.0000.0000.0000.0000.0000.0000.0130.2650.1710.0000.0000.000
50    6.3   0.4760.0000.0000.0000.0000.0000.0000.1510.2970.0270.0000.0000.000
50    6.5   0.4200.0000.0000.0000.0000.0000.0000.2250.1950.0000.0000.0000.000
50    6.7   0.3560.0000.0000.0000.0000.0000.0220.2300.1040.0000.0000.0000.000
50    6.9   0.3240.0000.0000.0000.0000.0000.1120.2040.0070.0000.0000.0000.000
50    7.1   0.2850.0000.0000.0000.0000.0000.1910.0940.0000.0000.0000.0000.000
50    7.3   0.2430.0000.0000.0000.0000.0600.1710.0120.0000.0000.0000.0000.000
50    7.5   0.1170.0000.0000.0000.0000.0610.0560.0000.0000.0000.0000.0000.000
50    7.7   0.0130.0000.0000.0000.0010.0110.0010.0000.0000.0000.0000.0000.000
50    7.9   0.0030.0000.0000.0000.0010.0020.0000.0000.0000.0000.0000.0000.000
30    5.1   1.1800.0000.0000.0000.0000.0000.0000.0880.5570.3850.1500.0000.000
30    5.3   1.1050.0000.0000.0000.0000.0000.0000.2510.4490.3700.0350.0000.000
30    5.5   1.0200.0000.0000.0000.0000.0000.0000.4260.3730.2210.0000.0000.000
30    5.7   0.9280.0000.0000.0000.0000.0000.1460.3680.3470.0670.0000.0000.000
30    5.9   0.8280.0000.0000.0000.0000.0000.2740.3300.2240.0000.0000.0000.000
30    6.1   0.7940.0000.0000.0000.0000.1080.3100.3370.0390.0000.0000.0000.000
30    6.3   0.7030.0000.0000.0000.0000.2060.3160.1810.0000.0000.0000.0000.000
30    6.5   0.5320.0000.0000.0000.0270.1830.2620.0590.0000.0000.0000.0000.000
30    6.7   0.4080.0000.0000.0000.0300.1590.2100.0090.0000.0000.0000.0000.000
30    6.9   0.3630.0000.0000.0000.0770.1740.1120.0000.0000.0000.0000.0000.000
30    7.1   0.3040.0000.0000.0030.1080.1730.0200.0000.0000.0000.0000.0000.000
30    7.3   0.2610.0000.0000.0170.1300.1130.0000.0000.0000.0000.0000.0000.000
30    7.5   0.1260.0000.0000.0190.0740.0330.0000.0000.0000.0000.0000.0000.000
30    7.7   0.0120.0000.0000.0030.0080.0000.0000.0000.0000.0000.0000.0000.000
30    7.9   0.0020.0000.0000.0010.0010.0000.0000.0000.0000.0000.0000.0000.000
10    5.1   1.3900.0000.0000.0000.1770.3480.4120.4530.0000.0000.0000.0000.000
10    5.3   1.0750.0000.0000.0000.2100.3240.3770.1640.0000.0000.0000.0000.000
10    5.5   0.8220.0000.0000.0610.1420.2740.3360.0080.0000.0000.0000.0000.000
10    5.7   0.6200.0000.0000.0830.1450.2230.1690.0000.0000.0000.0000.0000.000
10    5.9   0.4620.0000.0140.0740.1270.2150.0320.0000.0000.0000.0000.0000.000
10    6.1   0.4870.0000.0670.1090.1560.1540.0000.0000.0000.0000.0000.0000.000
10    6.3   0.3740.0150.0760.0920.1610.0300.0000.0000.0000.0000.0000.0000.000
10    6.5   0.3000.0260.0570.0780.1170.0220.0000.0000.0000.0000.0000.0000.000
10    6.7   0.2450.0280.0490.0730.0950.0000.0000.0000.0000.0000.0000.0000.000
10    6.9   0.1820.0290.0430.0790.0310.0000.0000.0000.0000.0000.0000.0000.000
10    7.1   0.1450.0220.0380.0730.0120.0000.0000.0000.0000.0000.0000.0000.000
10    7.3   0.1110.0190.0340.0590.0000.0000.0000.0000.0000.0000.0000.0000.000
10    7.5   0.0450.0090.0180.0180.0000.0000.0000.0000.0000.0000.0000.0000.000
10    7.7   0.0030.0010.0020.0010.0000.0000.0000.0000.0000.0000.0000.0000.000
10    7.9   0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
Principal Sources (faults, subduction, random seismicity having > 3% contribution
```

WUSmap_2014_fixSm.ch.in (opt):
  Percent Contributed: 2.86
  Distance (km): 37.161879
  Magnitude: 6.062282
  Epsilon (mean values): 0.18612108
noPuget_2014_fixSm.ch.in (opt):
  Percent Contributed: 2.86
  Distance (km): 37.159717
  Magnitude: 6.0622626
  Epsilon (mean values): 0.18608855
WUSmap_2014_fixSm.gr.in (opt):
  Percent Contributed: 2.83
  Distance (km): 36.672189
  Magnitude: 6.0512098
  Epsilon (mean values): 0.17758171
noPuget_2014_fixSm.gr.in (opt):
  Percent Contributed: 2.83
  Distance (km): 36.669994
  Magnitude: 6.05119
  Epsilon (mean values): 0.17754867
noPuget_2014_adSm.ch.in (opt):
  Percent Contributed: 2.13
  Distance (km): 35.171879
  Magnitude: 6.0251269
  Epsilon (mean values): 0.12379329
WUSmap_2014_adSm.ch.in (opt):
  Percent Contributed: 2.12
  Distance (km): 35.160797
  Magnitude: 6.0249585
  Epsilon (mean values): 0.12354779
noPuget_2014_adSm.gr.in (opt):
  Percent Contributed: 2.11
  Distance (km): 34.794117
  Magnitude: 6.0166002
  Epsilon (mean values): 0.11692947
WUSmap_2014_adSm.gr.in (opt):
  Percent Contributed: 2.1
  Distance (km): 34.783856
  Magnitude: 6.0164459
  Epsilon (mean values): 0.11669992
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
vs30 = 1150 m/s (Site class B)
return period: 475 yrs.
#This deaggregation corresponds to: GMM: Boore, Stewart, Seyhan & Atkinson (2014)
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:
  Return period: 475 yrs
  Exceedance rate: 0.0021052632 yr^{-1}
  PGA ground motion: 0.053600771 g
Recovered targets:
  Return period: 482.15757 yrs
  Exceedance rate: 0.0020740108 yr^{-1}
Totals:

Binned: 22.05 %
Residual: 0 %
Trace: 0.18 %
Mean (over all sources):
m: 6.08
r: 35.74 km
ε_0: 0.07 σ
Mode (largest m-r bin):
m: 5.5
r: 28.48 km
ε_0: 0.4 σ
Contribution: 1.36 %
Mode (largest m-r-ε_0 bin):
m: 5.5
r: 26.1 km
ε_0: 0.26 σ
Contribution: 0.5 %
Discretization:
r: min = 0.0, max = 1000.0, Δ = 20.0 km
m: min = 4.4, max = 9.4, Δ = 0.2
ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
ε0: [-∞ .. -2.5)
ε1: [-2.5 .. -2.0)
ε2: [-2.0 .. -1.5)
ε3: [-1.5 .. -1.0)
ε4: [-1.0 .. -0.5)
ε5: [-0.5 .. 0.0)
ε6: [0.0 .. 0.5)
ε7: [0.5 .. 1.0)
ε8: [1.0 .. 1.5)
ε9: [1.5 .. 2.0)
ε10: [2.0 .. 2.5)
ε11: [2.5 .. +∞]

Closest Distance, rRup (km)	Magnitude (Mw)	ALL_ε	ε=(-∞,-2.5)	ε=[-2.5,-2)	ε=[-2,-1.5)	ε=[-1.5,-1)	ε=[-1,-0.5)	ε=[-0.5,0)	ε=[0,0.5)	ε=[0.5,1)	ε=[1,1.5)	ε=[1.5,2)	ε=[2,2.5)	ε=[2.5,∞)
270	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
250	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
250	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
230	7.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
230	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
230	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
210	7.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
210	7.5	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
210	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
210	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	7.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	7.3	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
190	7.5	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
190	7.7	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
190	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	6.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	6.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
170	7.1	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003
170	7.3	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.002
170	7.5	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.000
170	7.7	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000

```
170  7.9  0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  6.5  0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  6.7  0.0020.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.002
150  6.9  0.0070.0000.0000.0000.0000.0000.0000.0000.0000.0000.0020.005
150  7.1  0.0120.0000.0000.0000.0000.0000.0000.0000.0000.0000.0090.002
150  7.3  0.0150.0000.0000.0000.0000.0000.0000.0000.0000.0030.0120.000
150  7.5  0.0100.0000.0000.0000.0000.0000.0000.0000.0000.0070.0030.000
150  7.7  0.0020.0000.0000.0000.0000.0000.0000.0000.0000.0010.0000.000
150  7.9  0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130  6.1  0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130  6.3  0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.001
130  6.5  0.0050.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.005
130  6.7  0.0110.0000.0000.0000.0000.0000.0000.0000.0000.0000.0060.005
130  6.9  0.0180.0000.0000.0000.0000.0000.0000.0000.0000.0000.0180.000
130  7.1  0.0270.0000.0000.0000.0000.0000.0000.0000.0000.0120.0150.000
130  7.3  0.0370.0000.0000.0000.0000.0000.0000.0000.0000.0360.0010.000
130  7.5  0.0240.0000.0000.0000.0000.0000.0000.0000.0070.0170.0000.000
130  7.7  0.0040.0000.0000.0000.0000.0000.0000.0000.0040.0000.0000.000
130  7.9  0.0010.0000.0000.0000.0000.0000.0000.0000.0010.0000.0000.000
110  5.7  0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110  5.9  0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.001
110  6.1  0.0060.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.006
110  6.3  0.0140.0000.0000.0000.0000.0000.0000.0000.0000.0000.0070.007
110  6.5  0.0230.0000.0000.0000.0000.0000.0000.0000.0000.0000.0210.002
110  6.7  0.0350.0000.0000.0000.0000.0000.0000.0000.0000.0110.0230.000
110  6.9  0.0470.0000.0000.0000.0000.0000.0000.0000.0000.0410.0060.000
110  7.1  0.0600.0000.0000.0000.0000.0000.0000.0000.0190.0410.0000.000
110  7.3  0.0600.0000.0000.0000.0000.0000.0000.0000.0500.0100.0000.000
110  7.5  0.0350.0000.0000.0000.0000.0000.0000.0030.0320.0000.0000.000
110  7.7  0.0040.0000.0000.0000.0000.0000.0000.0030.0010.0000.0000.000
110  7.9  0.0010.0000.0000.0000.0000.0000.0000.0010.0000.0000.0000.000
90   5.5  0.0060.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.006
90   5.7  0.0180.0000.0000.0000.0000.0000.0000.0000.0000.0000.0040.014
90   5.9  0.0330.0000.0000.0000.0000.0000.0000.0000.0000.0000.0230.010
90   6.1  0.0480.0000.0000.0000.0000.0000.0000.0000.0000.0020.0420.004
90   6.3  0.0630.0000.0000.0000.0000.0000.0000.0000.0000.0330.0310.000
90   6.5  0.0740.0000.0000.0000.0000.0000.0000.0000.0000.0640.0110.000
90   6.7  0.0860.0000.0000.0000.0000.0000.0000.0000.0290.0570.0000.000
90   6.9  0.0980.0000.0000.0000.0000.0000.0000.0000.0770.0210.0000.000
90   7.1  0.1050.0000.0000.0000.0000.0000.0000.0260.0790.0000.0000.000
90   7.3  0.1090.0000.0000.0000.0000.0000.0000.0750.0340.0000.0000.000
90   7.5  0.0580.0000.0000.0000.0000.0000.0010.0570.0000.0000.0000.000
90   7.7  0.0080.0000.0000.0000.0000.0000.0040.0030.0000.0000.0000.000
90   7.9  0.0020.0000.0000.0000.0000.0000.0020.0000.0000.0000.0000.000
70   5.1  0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
70   5.3  0.0180.0000.0000.0000.0000.0000.0000.0000.0000.0000.0050.013
70   5.5  0.0910.0000.0000.0000.0000.0000.0000.0000.0000.0110.0680.012
70   5.7  0.1300.0000.0000.0000.0000.0000.0000.0000.0000.0660.0630.000
70   5.9  0.1520.0000.0000.0000.0000.0000.0000.0000.0000.1180.0340.000
70   6.1  0.1740.0000.0000.0000.0000.0000.0000.0000.0520.1160.0060.000
70   6.3  0.1910.0000.0000.0000.0000.0000.0000.0000.1240.0670.0000.000
70   6.5  0.2300.0000.0000.0000.0000.0000.0000.0250.1900.0160.0000.000
70   6.7  0.2540.0000.0000.0000.0000.0000.0000.1380.1170.0000.0000.000
70   6.9  0.2340.0000.0000.0000.0000.0000.0060.1970.0310.0000.0000.000
70   7.1  0.2420.0000.0000.0000.0000.0000.0830.1580.0000.0000.0000.000
70   7.3  0.2150.0000.0000.0000.0000.0000.1630.0520.0000.0000.0000.000
70   7.5  0.1070.0000.0000.0000.0000.0070.0970.0020.0000.0000.0000.000
```

```
70    7.7   0.0170.0000.0000.0000.0000.0000.0110.0060.0000.0000.0000.0000.000
70    7.9   0.0030.0000.0000.0000.0000.0000.0030.0000.0000.0000.0000.0000.000
50    5.1   0.0510.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0340.017
50    5.3   0.1790.0000.0000.0000.0000.0000.0000.0000.0000.0000.1000.0740.005
50    5.5   0.4100.0000.0000.0000.0000.0000.0000.0000.0000.2170.1790.0140.000
50    5.7   0.4480.0000.0000.0000.0000.0000.0000.0000.0560.2910.1010.0000.000
50    5.9   0.4290.0000.0000.0000.0000.0000.0000.0000.1620.2450.0210.0000.000
50    6.1   0.4600.0000.0000.0000.0000.0000.0000.0120.2780.1710.0000.0000.000
50    6.3   0.4210.0000.0000.0000.0000.0000.0000.0830.2720.0660.0000.0000.000
50    6.5   0.3920.0000.0000.0000.0000.0000.0000.1880.2040.0000.0000.0000.000
50    6.7   0.3560.0000.0000.0000.0000.0000.0230.2330.1010.0000.0000.0000.000
50    6.9   0.3090.0000.0000.0000.0000.0000.0820.2120.0150.0000.0000.0000.000
50    7.1   0.2670.0000.0000.0000.0000.0000.1460.1200.0000.0000.0000.0000.000
50    7.3   0.2250.0000.0000.0000.0000.0240.1600.0410.0000.0000.0000.0000.000
50    7.5   0.1080.0000.0000.0000.0000.0350.0730.0000.0000.0000.0000.0000.000
50    7.7   0.0120.0000.0000.0000.0000.0080.0050.0000.0000.0000.0000.0000.000
50    7.9   0.0030.0000.0000.0000.0000.0030.0000.0000.0000.0000.0000.0000.000
30    5.1   0.5720.0000.0000.0000.0000.0000.0000.0000.0990.2600.1710.0410.000
30    5.3   0.9740.0000.0000.0000.0000.0000.0000.1890.4280.2930.0640.0000.000
30    5.5   1.3560.0000.0000.0000.0000.0000.3020.4950.4450.1140.0000.0000.000
30    5.7   1.1800.0000.0000.0000.0000.0000.3880.4550.3370.0000.0000.0000.000
30    5.9   0.9460.0000.0000.0000.0000.0670.3660.3340.1790.0000.0000.0000.000
30    6.1   0.8230.0000.0000.0000.0000.1460.3330.3130.0310.0000.0000.0000.000
30    6.3   0.6770.0000.0000.0000.0090.1820.2620.2240.0000.0000.0000.0000.000
30    6.5   0.5250.0000.0000.0000.0180.1940.2450.0680.0000.0000.0000.0000.000
30    6.7   0.4150.0000.0000.0000.0400.1630.2060.0060.0000.0000.0000.0000.000
30    6.9   0.3600.0000.0000.0050.0830.1570.1150.0000.0000.0000.0000.0000.000
30    7.1   0.3000.0000.0000.0130.0910.1500.0450.0000.0000.0000.0000.0000.000
30    7.3   0.2560.0000.0000.0180.1050.1310.0010.0000.0000.0000.0000.0000.000
30    7.5   0.1230.0000.0000.0140.0640.0460.0000.0000.0000.0000.0000.0000.000
30    7.7   0.0110.0000.0000.0020.0070.0020.0000.0000.0000.0000.0000.0000.000
30    7.9   0.0020.0000.0000.0010.0010.0000.0000.0000.0000.0000.0000.0000.000
10    5.1   1.0850.0000.0000.0000.1120.1610.3270.2930.1910.0000.0000.0000.000
10    5.3   1.0820.0000.0000.1330.1790.2200.3770.1730.0000.0000.0000.0000.000
10    5.5   0.9470.0000.0950.1360.2480.3220.1460.0000.0000.0000.0000.0000.000
10    5.7   0.6910.0100.0660.1560.1730.2850.0000.0000.0000.0000.0000.0000.000
10    5.9   0.4910.0290.0470.1080.1430.1640.0000.0000.0000.0000.0000.0000.000
10    6.1   0.5000.0530.0770.0910.1560.1230.0000.0000.0000.0000.0000.0000.000
10    6.3   0.3760.0450.0640.0860.1380.0430.0000.0000.0000.0000.0000.0000.000
10    6.5   0.3010.0330.0580.0840.1100.0150.0000.0000.0000.0000.0000.0000.000
10    6.7   0.2450.0280.0540.0800.0830.0000.0000.0000.0000.0000.0000.0000.000
10    6.9   0.1810.0260.0420.0700.0420.0000.0000.0000.0000.0000.0000.0000.000
10    7.1   0.1450.0230.0360.0660.0190.0000.0000.0000.0000.0000.0000.0000.000
10    7.3   0.1110.0180.0320.0550.0060.0000.0000.0000.0000.0000.0000.0000.000
10    7.5   0.0450.0080.0160.0220.0000.0000.0000.0000.0000.0000.0000.0000.000
10    7.7   0.0030.0010.0010.0010.0000.0000.0000.0000.0000.0000.0000.0000.000
10    7.9   0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
Principal Sources (faults, subduction, random seismicity having > 3% contribution
WUSmap_2014_fixSm.ch.in (opt):
  Percent Contributed: 2.78
  Distance (km): 35.749907
  Magnitude: 6.0649981
  Epsilon (mean values): 0.093721976
noPuget_2014_fixSm.ch.in (opt):
  Percent Contributed: 2.78
  Distance (km): 35.748925
  Magnitude: 6.0649891
```

  Epsilon (mean values): 0.093705311
WUSmap_2014_fixSm.gr.in (opt):
  Percent Contributed: 2.75
  Distance (km): 35.296571
  Magnitude: 6.055004
  Epsilon (mean values): 0.083968386
noPuget_2014_fixSm.gr.in (opt):
  Percent Contributed: 2.75
  Distance (km): 35.295575
  Magnitude: 6.0549949
  Epsilon (mean values): 0.083951488
noPuget_2014_adSm.ch.in (opt):
  Percent Contributed: 2.07
  Distance (km): 33.858672
  Magnitude: 6.0311604
  Epsilon (mean values): 0.024079053
WUSmap_2014_adSm.ch.in (opt):
  Percent Contributed: 2.07
  Distance (km): 33.849789
  Magnitude: 6.0310263
  Epsilon (mean values): 0.023838536
noPuget_2014_adSm.gr.in (opt):
  Percent Contributed: 2.05
  Distance (km): 33.509931
  Magnitude: 6.0234765
  Epsilon (mean values): 0.016312902
WUSmap_2014_adSm.gr.in (opt):
  Percent Contributed: 2.05
  Distance (km): 33.501769
  Magnitude: 6.0233546
  Epsilon (mean values): 0.01608875
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
vs30 = 1150 m/s (Site class B)
return period: 475 yrs.
#This deaggregation corresponds to: GMM: Campbell & Bozorgnia (2014)
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:
  Return period: 475 yrs
  Exceedance rate: 0.0021052632 yr^{-1}
  PGA ground motion: 0.053600771 g
Recovered targets:
  Return period: 482.15757 yrs
  Exceedance rate: 0.0020740108 yr^{-1}
Totals:
  Binned: 23.48 %
  Residual: 0 %
  Trace: 0.27 %
Mean (over all sources):
  m: 6.2
  r: 39.33 km
  ε_0: -0.07 σ
Mode (largest m-r bin):
  m: 5.1

r: 11.85 km
ε₀: -0.07 σ
Contribution: 1.07 %
Mode (largest m-r-ε₀ bin):
m: 5.5
r: 23.5 km
ε₀: 0.25 σ
Contribution: 0.4 %
Discretization:
r: min = 0.0, max = 1000.0, Δ = 20.0 km
m: min = 4.4, max = 9.4, Δ = 0.2
ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
ε0: [-∞ .. -2.5)
ε1: [-2.5 .. -2.0)
ε2: [-2.0 .. -1.5)
ε3: [-1.5 .. -1.0)
ε4: [-1.0 .. -0.5)
ε5: [-0.5 .. 0.0)
ε6: [0.0 .. 0.5)
ε7: [0.5 .. 1.0)
ε8: [1.0 .. 1.5)
ε9: [1.5 .. 2.0)
ε10: [2.0 .. 2.5)
ε11: [2.5 .. +∞]

Closest Distance, rRup (km)	Magnitude (Mw)	ALL_ε	ε=(-∞,-2.5)	ε=[-2.5,-2)	ε=[-2,-1.5)	ε=[-1.5,-1)	ε=[-1,-0.5)	ε=[-0.5,0)	ε=[0,0.5)	ε=[0.5,1)	ε=[1,1.5)	ε=[1.5,2)	ε=[2,2.5)	ε=[2.5,∞)
270	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
250	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
250	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
230	7.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
230	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
230	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
210	7.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
210	7.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
210	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
210	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	7.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	7.3	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
190	7.5	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
190	7.7	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
190	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	6.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	6.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
170	7.1	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.003
170	7.3	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.001
170	7.5	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006	0.000
170	7.7	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000
170	7.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	6.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	6.5	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
150	6.7	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005
150	6.9	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.004
150	7.1	0.018	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.015	0.001
150	7.3	0.022	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.012	0.009	0.000
150	7.5	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.014	0.000	0.000
150	7.7	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.000

150 7.9 0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0010.0000.0000.000
130 6.1 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130 6.3 0.0050.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.004
130 6.5 0.0150.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0090.006
130 6.7 0.0210.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0200.002
130 6.9 0.0320.0000.0000.0000.0000.0000.0000.0000.0000.0000.0130.0190.000
130 7.1 0.0440.0000.0000.0000.0000.0000.0000.0000.0000.0000.0400.0040.000
130 7.3 0.0570.0000.0000.0000.0000.0000.0000.0000.0000.0200.0370.0000.000
130 7.5 0.0350.0000.0000.0000.0000.0000.0000.0000.0000.0300.0060.0000.000
130 7.7 0.0050.0000.0000.0000.0000.0000.0000.0000.0010.0040.0000.0000.000
130 7.9 0.0010.0000.0000.0000.0000.0000.0000.0000.0010.0000.0000.0000.000
110 5.9 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110 6.1 0.0080.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0020.006
110 6.3 0.0340.0000.0000.0000.0000.0000.0000.0000.0000.0000.0030.0270.003
110 6.5 0.0580.0000.0000.0000.0000.0000.0000.0000.0000.0000.0340.0240.000
110 6.7 0.0710.0000.0000.0000.0000.0000.0000.0000.0000.0000.0630.0080.000
110 6.9 0.0890.0000.0000.0000.0000.0000.0000.0000.0000.0420.0460.0000.000
110 7.1 0.1030.0000.0000.0000.0000.0000.0000.0000.0000.0900.0140.0000.000
110 7.3 0.0960.0000.0000.0000.0000.0000.0000.0000.0340.0620.0000.0000.000
110 7.5 0.0530.0000.0000.0000.0000.0000.0000.0000.0380.0140.0000.0000.000
110 7.7 0.0060.0000.0000.0000.0000.0000.0000.0010.0050.0000.0000.0000.000
110 7.9 0.0020.0000.0000.0000.0000.0000.0000.0010.0010.0000.0000.0000.000
90 5.5 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
90 5.7 0.0040.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.004
90 5.9 0.0230.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0140.009
90 6.1 0.0680.0000.0000.0000.0000.0000.0000.0000.0000.0000.0240.0410.002
90 6.3 0.1370.0000.0000.0000.0000.0000.0000.0000.0000.0320.0950.0100.000
90 6.5 0.1740.0000.0000.0000.0000.0000.0000.0000.0000.1160.0570.0000.000
90 6.7 0.1670.0000.0000.0000.0000.0000.0000.0000.0160.1380.0130.0000.000
90 6.9 0.1770.0000.0000.0000.0000.0000.0000.0000.0900.0860.0000.0000.000
90 7.1 0.1750.0000.0000.0000.0000.0000.0000.0050.1480.0220.0000.0000.000
90 7.3 0.1680.0000.0000.0000.0000.0000.0000.0580.1110.0000.0000.0000.000
90 7.5 0.0840.0000.0000.0000.0000.0000.0000.0550.0300.0000.0000.0000.000
90 7.7 0.0100.0000.0000.0000.0000.0000.0020.0090.0000.0000.0000.0000.000
90 7.9 0.0020.0000.0000.0000.0000.0000.0010.0010.0000.0000.0000.0000.000
70 5.3 0.0020.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.002
70 5.5 0.0230.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0090.014
70 5.7 0.0630.0000.0000.0000.0000.0000.0000.0000.0000.0000.0060.0500.008
70 5.9 0.1230.0000.0000.0000.0000.0000.0000.0000.0000.0000.0830.0390.000
70 6.1 0.2230.0000.0000.0000.0000.0000.0000.0000.0000.1110.1110.0000.000
70 6.3 0.3410.0000.0000.0000.0000.0000.0000.0000.1080.2260.0070.0000.000
70 6.5 0.4340.0000.0000.0000.0000.0000.0000.0000.3560.0790.0000.0000.000
70 6.7 0.4190.0000.0000.0000.0000.0000.0000.0730.3390.0070.0000.0000.000
70 6.9 0.3580.0000.0000.0000.0000.0000.0000.2300.1280.0000.0000.0000.000
70 7.1 0.3440.0000.0000.0000.0000.0000.0020.3260.0160.0000.0000.0000.000
70 7.3 0.2890.0000.0000.0000.0000.0000.0980.1910.0000.0000.0000.0000.000
70 7.5 0.1380.0000.0000.0000.0000.0000.0960.0410.0000.0000.0000.0000.000
70 7.7 0.0200.0000.0000.0000.0000.0010.0200.0000.0000.0000.0000.0000.000
70 7.9 0.0040.0000.0000.0000.0000.0020.0020.0000.0000.0000.0000.0000.000
50 5.1 0.0230.0000.0000.0000.000 0.000 0.000 0.000 0.000 0.000 0.000 0.011 0.013
50 5.3 0.077 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.015 0.050
0.012
50 5.5 0.185 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.016 0.119 0.050
0.000
50 5.7 0.275 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.147 0.119 0.010
0.000
50 5.9 0.363 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.100 0.215 0.048 0.000

0.000													
50	6.1	0.531	0.000	0.000	0.000	0.000	0.000	0.000	0.075	0.319	0.136	0.000	0.000
0.000													
50	6.3	0.605	0.000	0.000	0.000	0.000	0.000	0.016	0.341	0.248	0.000	0.000	0.000
0.000													
50	6.5	0.581	0.000	0.000	0.000	0.000	0.000	0.178	0.364	0.039	0.000	0.000	0.000
0.000													
50	6.7	0.478	0.000	0.000	0.000	0.000	0.000	0.213	0.265	0.000	0.000	0.000	0.000
0.000													
50	6.9	0.395	0.000	0.000	0.000	0.000	0.013	0.252	0.130	0.000	0.000	0.000	0.000
0.000													
50	7.1	0.325	0.000	0.000	0.000	0.000	0.076	0.226	0.023	0.000	0.000	0.000	0.000
0.000													
50	7.3	0.263	0.000	0.000	0.000	0.000	0.120	0.143	0.000	0.000	0.000	0.000	0.000
0.000													
50	7.5	0.123	0.000	0.000	0.000	0.000	0.083	0.040	0.000	0.000	0.000	0.000	0.000
0.000													
50	7.7	0.014	0.000	0.000	0.000	0.002	0.011	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
50	7.9	0.003	0.000	0.000	0.000	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
30	5.1	0.482	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.100	0.216	0.120	0.045
0.001													
30	5.3	0.737	0.000	0.000	0.000	0.000	0.000	0.000	0.096	0.308	0.214	0.111	0.008
0.000													
30	5.5	1.012	0.000	0.000	0.000	0.000	0.000	0.096	0.401	0.306	0.192	0.017	0.000
0.000													
30	5.7	1.010	0.000	0.000	0.000	0.000	0.000	0.294	0.336	0.307	0.073	0.000	0.000
0.000													
30	5.9	0.932	0.000	0.000	0.000	0.000	0.123	0.307	0.315	0.187	0.000	0.000	0.000
0.000													
30	6.1	0.928	0.000	0.000	0.000	0.021	0.287	0.325	0.294	0.000	0.000	0.000	0.000
0.000													
30	6.3	0.831	0.000	0.000	0.000	0.175	0.272	0.343	0.041	0.000	0.000	0.000	0.000
0.000													
30	6.5	0.646	0.000	0.000	0.014	0.205	0.266	0.160	0.000	0.000	0.000	0.000	0.000
0.000													
30	6.7	0.485	0.000	0.000	0.030	0.158	0.230	0.067	0.000	0.000	0.000	0.000	0.000
0.000													
30	6.9	0.407	0.000	0.000	0.058	0.149	0.191	0.010	0.000	0.000	0.000	0.000	0.000
0.000													
30	7.1	0.330	0.000	0.004	0.070	0.134	0.122	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
30	7.3	0.275	0.000	0.010	0.079	0.124	0.062	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
30	7.5	0.131	0.000	0.005	0.047	0.071	0.008	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
30	7.7	0.012	0.000	0.001	0.005	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
30	7.9	0.002	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
10	5.1	1.074	0.000	0.000	0.000	0.027	0.254	0.303	0.291	0.200	0.000	0.000	0.000
0.000													
10	5.3	1.044	0.000	0.000	0.040	0.186	0.293	0.298	0.226	0.000	0.000	0.000	0.000
0.000													
10	5.5	0.916	0.000	0.043	0.155	0.226	0.303	0.190	0.000	0.000	0.000	0.000	0.000
0.000													

10	5.7	0.689	0.000	0.086	0.137	0.153	0.304	0.008	0.000	0.000	0.000	0.000	0.000
0.000													
10	5.9	0.502	0.022	0.062	0.122	0.188	0.109	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
10	6.1	0.521	0.083	0.098	0.149	0.182	0.009	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
10	6.3	0.394	0.097	0.100	0.148	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
10	6.5	0.316	0.114	0.086	0.116	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
10	6.7	0.255	0.096	0.076	0.084	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
10	6.9	0.187	0.078	0.066	0.043	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
10	7.1	0.148	0.062	0.067	0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
10	7.3	0.113	0.050	0.047	0.016	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
10	7.5	0.046	0.021	0.022	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
10	7.7	0.003	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
10	7.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													

Principal Sources (faults, subduction, random seismicity having > 3% contribution
WUSmap_2014_fixSm.ch.in (opt):
  Percent Contributed: 2.95
  Distance (km): 39.224667
  Magnitude: 6.1886182
  Epsilon (mean values): -0.049814401
noPuget_2014_fixSm.ch.in (opt):
  Percent Contributed: 2.95
  Distance (km): 39.223611
  Magnitude: 6.1886091
  Epsilon (mean values): -0.049833515
WUSmap_2014_fixSm.gr.in (opt):
  Percent Contributed: 2.9
  Distance (km): 38.582404
  Magnitude: 6.1762986
  Epsilon (mean values): -0.062324548
noPuget_2014_fixSm.gr.in (opt):
  Percent Contributed: 2.9
  Distance (km): 38.581325
  Magnitude: 6.1762892
  Epsilon (mean values): -0.062344045
noPuget_2014_adSm.ch.in (opt):
  Percent Contributed: 2.17
  Distance (km): 37.033648
  Magnitude: 6.1481844
  Epsilon (mean values): -0.11588046
WUSmap_2014_adSm.ch.in (opt):
  Percent Contributed: 2.17
  Distance (km): 37.021388
  Magnitude: 6.1480117
  Epsilon (mean values): -0.11617469
noPuget_2014_adSm.gr.in (opt):
  Percent Contributed: 2.14

Distance (km): 36.53237
Magnitude: 6.1385091
Epsilon (mean values): -0.12595745
WUSmap_2014_adSm.gr.in (opt):
Percent Contributed: 2.14
Distance (km): 36.521138
Magnitude: 6.1383514
Epsilon (mean values): -0.12622968
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
vs30 = 1150 m/s (Site class B)
return period: 475 yrs.
#This deaggregation corresponds to: GMM: Chiou & Youngs (2014)
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:
Return period: 475 yrs
Exceedance rate: 0.0021052632 yr^{-1}
PGA ground motion: 0.053600771 g
Recovered targets:
Return period: 482.15757 yrs
Exceedance rate: 0.0020740108 yr^{-1}
Totals:
Binned: 18.85 %
Residual: 0 %
Trace: 0.27 %
Mean (over all sources):
m: 6.21
r: 37.53 km
ε_0: 0.03 σ
Mode (largest m-r bin):
m: 5.1
r: 11.9 km
ε_0: -0.08 σ
Contribution: 1.1 %
Mode (largest m-r-ε_0 bin):
m: 5.1
r: 10.43 km
ε_0: -0.24 σ
Contribution: 0.35 %
Discretization:
r: min = 0.0, max = 1000.0, Δ = 20.0 km
m: min = 4.4, max = 9.4, Δ = 0.2
ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
ε0: [-∞ .. -2.5)
ε1: [-2.5 .. -2.0)
ε2: [-2.0 .. -1.5)
ε3: [-1.5 .. -1.0)
ε4: [-1.0 .. -0.5)
ε5: [-0.5 .. 0.0)
ε6: [0.0 .. 0.5)
ε7: [0.5 .. 1.0)
ε8: [1.0 .. 1.5)
ε9: [1.5 .. 2.0)

ε10: [2.0 .. 2.5)
ε11: [2.5 .. +∞]

Closest Distance, rRup (km)	Magnitude (Mw)	ALL_ε	ε=(-∞,-2.5)	ε=[-2.5,-2)	ε=[-2,-1.5)	ε=[-1.5,-1)	ε=[-1,-0.5)	ε=[-0.5,0)	ε=[0,0.5)	ε=[0.5,1)	ε=[1,1.5)	ε=[1.5,2)	ε=[2,2.5)	ε=[2.5,∞)
290	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
290	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
270	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
270	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
250	7.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
250	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
250	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
230	7.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
230	7.5	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
230	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
230	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
210	7.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
210	7.3	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
210	7.5	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.030	0.001
210	7.7	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.010	0.000	0.000
210	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	6.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	7.1	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
190	7.3	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006	0.002	
190	7.5	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.006	0.000	
190	7.7	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	
190	7.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	
170	6.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	
170	7.1	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.002	
170	7.3	0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.011	0.000	
170	7.5	0.016	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.014	0.002	0.000	
170	7.7	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.001	0.000	0.000	
170	7.9	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.000	
150	6.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
150	6.7	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	
150	6.9	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.003	
150	7.1	0.022	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.014	0.001	
150	7.3	0.036	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.028	0.003	0.000	
150	7.5	0.027	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.018	0.009	0.000	0.000	
150	7.7	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.003	0.000	0.000	0.000	
150	7.9	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	
130	6.3	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	
130	6.5	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	
130	6.7	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.005	
130	6.9	0.026	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006	0.019	0.000	
130	7.1	0.051	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.045	0.002	0.000	
130	7.3	0.083	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.066	0.017	0.000	0.000	
130	7.5	0.058	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.021	0.036	0.000	0.000	
130	7.7	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.008	0.000	0.000	0.000	
130	7.9	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.001	0.000	0.000	0.000	
110	5.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
110	6.1	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	
110	6.3	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.007	
110	6.5	0.018	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.015	0.004	
110	6.7	0.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.011	0.021	0.000	
110	6.9	0.063	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.010	0.050	0.002	0.000	
110	7.1	0.098	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.083	0.015	0.000	0.000	
110	7.3	0.112	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.066	0.046	0.000	0.000	0.000

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110  7.5  0.0690.0000.0000.0000.0000.0000.0000.0090.0560.0040.0000.0000.000
110  7.7  0.0090.0000.0000.0000.0000.0000.0000.0070.0020.0000.0000.0000.000
110  7.9  0.0030.0000.0000.0000.0000.0000.0010.0010.0000.0000.0000.0000.000
90   5.5  0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
90   5.7  0.0020.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.002
90   5.9  0.0100.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0010.009
90   6.1  0.0270.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0190.008
90   6.3  0.0500.0000.0000.0000.0000.0000.0000.0000.0000.0000.0140.0360.000
90   6.5  0.0580.0000.0000.0000.0000.0000.0000.0000.0000.0000.0410.0180.000
90   6.7  0.0740.0000.0000.0000.0000.0000.0000.0000.0000.0180.0550.0010.000
90   6.9  0.1130.0000.0000.0000.0000.0000.0000.0000.0120.0890.0120.0000.000
90   7.1  0.1460.0000.0000.0000.0000.0000.0000.0000.1020.0440.0000.0000.000
90   7.3  0.1660.0000.0000.0000.0000.0000.0000.0590.1030.0050.0000.0000.000
90   7.5  0.0920.0000.0000.0000.0000.0000.0020.0740.0160.0000.0000.0000.000
90   7.7  0.0120.0000.0000.0000.0000.0000.0070.0050.0000.0000.0000.0000.000
90   7.9  0.0030.0000.0000.0000.0000.0010.0020.0000.0000.0000.0000.0000.000
70   5.1  0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
70   5.3  0.0030.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.003
70   5.5  0.0160.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0030.013
70   5.7  0.0360.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0240.012
70   5.9  0.0620.0000.0000.0000.0000.0000.0000.0000.0000.0000.0130.0460.003
70   6.1  0.1010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0750.0260.000
70   6.3  0.1480.0000.0000.0000.0000.0000.0000.0000.0000.0640.0840.0000.000
70   6.5  0.1850.0000.0000.0000.0000.0000.0000.0000.0030.1460.0360.0000.000
70   6.7  0.2250.0000.0000.0000.0000.0000.0000.0000.0980.1220.0050.0000.000
70   6.9  0.2530.0000.0000.0000.0000.0000.0000.0350.1930.0250.0000.0000.000
70   7.1  0.2950.0000.0000.0000.0000.0000.0020.2150.0770.0000.0000.0000.000
70   7.3  0.2840.0000.0000.0000.0000.0000.1090.1690.0050.0000.0000.0000.000
70   7.5  0.1440.0000.0000.0000.0000.0020.1160.0270.0000.0000.0000.0000.000
70   7.7  0.0230.0000.0000.0000.0000.0100.0120.0000.0000.0000.0000.0000.000
70   7.9  0.0040.0000.0000.0000.0000.0030.0000.0000.0000.0000.0000.0000.000
50   5.1  0.0360.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0180.018
50   5.3  0.0790.0000.0000.0000.0000.0000.0000.0000.0000.0000.0080.0580.013
50   5.5  0.1250.0000.0000.0000.0000.0000.0000.0000.0000.0000.0660.0570.002
50   5.7  0.1680.0000.0000.0000.0000.0000.0000.0000.0000.0340.1040.0300.000
50   5.9  0.2110.0000.0000.0000.0000.0000.0000.0000.0000.1190.0900.0020.000
50   6.1  0.3050.0000.0000.0000.0000.0000.0000.0000.0980.1740.0330.0000.000
50   6.3  0.3500.0000.0000.0000.0000.0000.0000.0210.2250.1050.0000.0000.000
50   6.5  0.3440.0000.0000.0000.0000.0000.0000.1260.1990.0190.0000.0000.000
50   6.7  0.3250.0000.0000.0000.0000.0000.0190.1780.1290.0000.0000.0000.000
50   6.9  0.3230.0000.0000.0000.0000.0000.1220.1840.0170.0000.0000.0000.000
50   7.1  0.3020.0000.0000.0000.0000.0420.1970.0630.0000.0000.0000.0000.000
50   7.3  0.2640.0000.0000.0000.0010.1350.1230.0060.0000.0000.0000.0000.000
50   7.5  0.1280.0000.0000.0000.0220.0830.0230.0000.0000.0000.0000.0000.000
50   7.7  0.0140.0000.0000.0000.0070.0070.0000.0000.0000.0000.0000.0000.000
50   7.9  0.0040.0000.0000.0010.0030.0010.0000.0000.0000.0000.0000.0000.000
30   5.1  0.5380.0000.0000.0000.0000.0000.0000.0000.0960.2480.1440.0500.000
30   5.3  0.6480.0000.0000.0000.0000.0000.0000.0210.2670.2310.1240.0060.000
30   5.5  0.6950.0000.0000.0000.0000.0000.0000.1640.2800.1910.0600.0000.000
30   5.7  0.6970.0000.0000.0000.0000.0000.0520.2620.2300.1540.0000.0000.000
30   5.9  0.6710.0000.0000.0000.0000.0000.1530.2470.2210.0490.0000.0000.000
30   6.1  0.7020.0000.0000.0000.0000.0540.2640.2580.1250.0000.0000.0000.000
30   6.3  0.6590.0000.0000.0000.0150.1900.2220.2300.0030.0000.0000.0000.000
30   6.5  0.5300.0000.0000.0000.0680.1690.2000.0930.0000.0000.0000.0000.000
30   6.7  0.4220.0000.0000.0080.0730.1560.1660.0190.0000.0000.0000.0000.000
30   6.9  0.3820.0000.0000.0350.1160.1550.0760.0000.0000.0000.0000.0000.000
30   7.1  0.3240.0000.0090.0610.1240.1200.0100.0000.0000.0000.0000.0000.000
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30    7.3   0.2780.0000.0210.0870.1260.0440.0000.0000.0000.0000.0000.0000.000
30    7.5   0.1330.0000.0170.0540.0560.0070.0000.0000.0000.0000.0000.0000.000
30    7.7   0.0120.0000.0030.0060.0030.0000.0000.0000.0000.0000.0000.0000.000
30    7.9   0.0020.0000.0010.0010.0000.0000.0000.0000.0000.0000.0000.0000.000
10    5.1   1.0970.0000.0000.0000.0260.2350.3480.2980.1900.0000.0000.0000.000
10    5.3   0.9470.0000.0000.0000.1420.2520.2540.2850.0140.0000.0000.0000.000
10    5.5   0.7690.0000.0000.0440.1450.2150.2630.1030.0000.0000.0000.0000.000
10    5.7   0.6010.0000.0000.0740.1530.1590.2150.0000.0000.0000.0000.0000.000
10    5.9   0.4570.0000.0220.0730.1280.1920.0430.0000.0000.0000.0000.0000.000
10    6.1   0.4930.0100.0880.1040.1740.1160.0000.0000.0000.0000.0000.0000.000
10    6.3   0.3810.0440.0740.1170.1330.0140.0000.0000.0000.0000.0000.0000.000
10    6.5   0.3080.0670.0670.0920.0810.0000.0000.0000.0000.0000.0000.0000.000
10    6.7   0.2510.0660.0610.0780.0460.0000.0000.0000.0000.0000.0000.0000.000
10    6.9   0.1860.0650.0600.0580.0030.0000.0000.0000.0000.0000.0000.0000.000
10    7.1   0.1480.0610.0610.0260.0000.0000.0000.0000.0000.0000.0000.0000.000
10    7.3   0.1130.0570.0440.0120.0000.0000.0000.0000.0000.0000.0000.0000.000
10    7.5   0.0460.0270.0160.0030.0000.0000.0000.0000.0000.0000.0000.0000.000
10    7.7   0.0030.0030.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
10    7.9   0.0010.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
Principal Sources (faults, subduction, random seismicity having > 3% contribution
WUSmap_2014_fixSm.ch.in (opt):
  Percent Contributed: 2.34
  Distance (km): 36.938694
  Magnitude: 6.1965835
  Epsilon (mean values): 0.047038252
noPuget_2014_fixSm.ch.in (opt):
  Percent Contributed: 2.34
  Distance (km): 36.932428
  Magnitude: 6.1965356
  Epsilon (mean values): 0.046947611
WUSmap_2014_fixSm.gr.in (opt):
  Percent Contributed: 2.31
  Distance (km): 36.354568
  Magnitude: 6.1851222
  Epsilon (mean values): 0.035522057
noPuget_2014_fixSm.gr.in (opt):
  Percent Contributed: 2.31
  Distance (km): 36.348205
  Magnitude: 6.1850733
  Epsilon (mean values): 0.035429896
noPuget_2014_adSm.ch.in (opt):
  Percent Contributed: 1.75
  Distance (km): 34.878229
  Magnitude: 6.1531719
  Epsilon (mean values): -0.010850926
WUSmap_2014_adSm.ch.in (opt):
  Percent Contributed: 1.75
  Distance (km): 34.864559
  Magnitude: 6.1529679
  Epsilon (mean values): -0.011122409
noPuget_2014_adSm.gr.in (opt):
  Percent Contributed: 1.73
  Distance (km): 34.429414
  Magnitude: 6.1443014
  Epsilon (mean values): -0.019957419
WUSmap_2014_adSm.gr.in (opt):
  Percent Contributed: 1.73
```

Distance (km): 34.416719
Magnitude: 6.1441115
Epsilon (mean values): -0.020208171
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
vs30 = 1150 m/s (Site class B)
return period: 475 yrs.
#This deaggregation corresponds to: GMM: Atkinson & Macias (2009) : Interface
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:
Return period: 475 yrs
Exceedance rate: 0.0021052632 yr^{-1}
PGA ground motion: 0.053600771 g
Recovered targets:
Return period: 482.15757 yrs
Exceedance rate: 0.0020740108 yr^{-1}
Totals:
Binned: 0.19 %
Residual: 0 %
Trace: 0 %
Mean (over all sources):
m: 9.2
r: 328.92 km
ε_0: 2 σ
Mode (largest m-r bin):
m: 9.34
r: 323.7 km
ε_0: 1.75 σ
Contribution: 0.12 %
Mode (largest m-r-ε_0 bin):
m: 9.34
r: 323.7 km
ε_0: 1.75 σ
Contribution: 0.12 %
Discretization:
r: min = 0.0, max = 1000.0, Δ = 20.0 km
m: min = 4.4, max = 9.4, Δ = 0.2
ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
ε0: [-∞ .. -2.5)
ε1: [-2.5 .. -2.0)
ε2: [-2.0 .. -1.5)
ε3: [-1.5 .. -1.0)
ε4: [-1.0 .. -0.5)
ε5: [-0.5 .. 0.0)
ε6: [0.0 .. 0.5)
ε7: [0.5 .. 1.0)
ε8: [1.0 .. 1.5)
ε9: [1.5 .. 2.0)
ε10: [2.0 .. 2.5)
ε11: [2.5 .. +∞]
Closest Distance, rRup (km) Magnitude (Mw) ALL_ε ε=(-∞,-2.5) ε=[-2.5,-2)ε=[-2,-1.5)ε=[-1.5,-1) ε=[-1,-0.5)ε=[-0.5,0) ε=[0,0.5) ε=[0.5,1) ε=[1,1.5) ε=[1.5,2) ε=[2,2.5) ε=[2.5,∞)
390 9.1 0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.001

370 9.1 0.0170.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.017
350 8.5 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
350 8.7 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
350 8.9 0.0020.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.002
330 8.5 0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.001
330 8.7 0.0020.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.002
330 8.9 0.0180.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0180.000
330 9.1 0.0350.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0350.000
330 9.3 0.1190.0000.0000.0000.0000.0000.0000.0000.0000.0000.1190.0000.000
Principal Sources (faults, subduction, random seismicity having > 3% contribution
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
vs30 = 1150 m/s (Site class B)
return period: 475 yrs.
#This deaggregation corresponds to: GMM: BC Hydro (2012) : Interface
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:
  Return period: 475 yrs
  Exceedance rate: 0.0021052632 yr^{-1}
  PGA ground motion: 0.053600771 g
Recovered targets:
  Return period: 482.15757 yrs
  Exceedance rate: 0.0020740108 yr^{-1}
Totals:
  Binned: 8.69 %
  Residual: 0 %
  Trace: 0.07 %
Mean (over all sources):
  m: 8.88
  r: 359.36 km
  ε_0: 0.8 σ
Mode (largest m-r bin):
  m: 9.34
  r: 323.7 km
  ε_0: 0.24 σ
  Contribution: 1.24 %
Mode (largest m-r-ε_0 bin):
  m: 9.34
  r: 323.7 km
  ε_0: 0.24 σ
  Contribution: 1.24 %
Discretization:
  r: min = 0.0, max = 1000.0, Δ = 20.0 km
  m: min = 4.4, max = 9.4, Δ = 0.2
  ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
  ε0: [-∞ .. -2.5)
  ε1: [-2.5 .. -2.0)
  ε2: [-2.0 .. -1.5)
  ε3: [-1.5 .. -1.0)
  ε4: [-1.0 .. -0.5)
  ε5: [-0.5 .. 0.0)
  ε6: [0.0 .. 0.5)
  ε7: [0.5 .. 1.0)

ε8: [1.0 .. 1.5)
ε9: [1.5 .. 2.0)
ε10: [2.0 .. 2.5)
ε11: [2.5 .. +∞]

Closest Distance, rRup (km)	Magnitude (Mw)	ALL_ε	ε=(-∞,-2.5)	ε=[-2.5,-2)	ε=[-2,-1.5)	ε=[-1.5,-1)	ε=[-1,-0.5)	ε=[-0.5,0)	ε=[0,0.5)	ε=[0.5,1)	ε=[1,1.5)	ε=[1.5,2)	ε=[2,2.5)	ε=[2.5,∞)
590	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
570	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
570	8.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
550	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
550	8.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
530	7.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
530	8.1	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
530	8.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
510	7.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
510	8.1	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000
510	8.3	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
490	7.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
490	8.1	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000
490	8.3	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000	
490	8.5	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	
470	7.9	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000
470	8.1	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.003	0.000	
470	8.3	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.000	
470	8.5	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.000	
450	7.9	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	
450	8.1	0.039	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.038	0.000	0.000	
450	8.3	0.034	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.034	0.000	0.000	
450	8.5	0.038	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.038	0.000	0.000	
430	7.9	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.000	0.000	
430	8.1	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.000	0.000	
430	8.3	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006	0.000	0.000	
430	8.5	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.009	0.000	0.000	
410	7.9	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.000	0.000	
410	8.1	0.017	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.017	0.000	0.000	
410	8.3	0.039	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.039	0.000	0.000	
410	8.5	0.060	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.056	0.004	0.000	0.000	
410	8.7	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.000	0.000	0.000	
390	7.9	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.015	0.000	0.000	
390	8.1	0.034	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.032	0.000	0.000	
390	8.3	0.130	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.124	0.006	0.000	0.000	
390	8.5	0.176	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.176	0.000	0.000	0.000	
390	8.7	0.656	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.656	0.000	0.000	0.000	
390	9.1	0.362	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.362	0.000	0.000	0.000	
370	7.9	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.012	0.000	0.000	
370	8.1	0.029	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.017	0.012	0.000	0.000	
370	8.3	0.018	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.018	0.000	0.000	0.000	
370	8.5	0.215	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.215	0.000	0.000	0.000	
370	8.7	0.866	0.000	0.000	0.000	0.000	0.000	0.000	0.098	0.768	0.000	0.000	0.000	
370	8.9	0.855	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.855	0.000	0.000	0.000	
370	9.1	1.197	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.197	0.000	0.000	0.000	
350	7.9	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.001	0.000	0.000	
350	8.1	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.011	0.000	0.000	0.000	
350	8.3	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.000	0.000	0.000	
350	8.5	0.091	0.000	0.000	0.000	0.000	0.000	0.000	0.073	0.018	0.000	0.000	0.000	
350	8.7	0.077	0.000	0.000	0.000	0.000	0.000	0.000	0.077	0.000	0.000	0.000	0.000	
350	8.9	0.095	0.000	0.000	0.000	0.000	0.000	0.000	0.095	0.000	0.000	0.000	0.000	

```
330   7.9    0.0180.0000.0000.0000.0000.0000.0000.0000.0000.0180.0000.0000.000
330   8.1    0.0400.0000.0000.0000.0000.0000.0000.0000.0000.0400.0000.0000.000
330   8.3    0.0240.0000.0000.0000.0000.0000.0000.0000.0000.0240.0000.0000.000
330   8.5    0.1450.0000.0000.0000.0000.0000.0000.0000.1390.0060.0000.0000.000
330   8.7    0.1820.0000.0000.0000.0000.0000.0000.0000.1820.0000.0000.0000.000
330   8.9    0.8830.0000.0000.0000.0000.0000.0000.0000.8830.0000.0000.0000.000
330   9.1    1.0090.0000.0000.0000.0000.0000.0001.0090.0000.0000.0000.0000.000
330   9.3    1.2390.0000.0000.0000.0000.0000.0001.2390.0000.0000.0000.0000.000
Principal Sources (faults, subduction, random seismicity having > 3% contribution
sub0_ch_bot.in:
  Percent Contributed: 3.02
  Distance (km): 323.70483
  Magnitude: 9.1016722
  Epsilon (mean values): 0.41710256
Cascadia Megathrust - whole CSZ Characteristic:
  Percent Contributed: 3.02
  Distance (km): 323.70483
  Magnitude: 9.1016722
  Epsilon (mean values): 0.41710256
  Azimuth: 287.96053
  Latitude: 46.3
  Longitude: -123.4132
sub0_ch_mid.in:
  Percent Contributed: 2.78
  Distance (km): 377.23061
  Magnitude: 8.9150328
  Epsilon (mean values): 0.88162676
Cascadia Megathrust - whole CSZ Characteristic:
  Percent Contributed: 2.78
  Distance (km): 377.23061
  Magnitude: 8.9150328
  Epsilon (mean values): 0.88162676
  Azimuth: 285.79267
  Latitude: 46.3
  Longitude: -124.13677
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
vs30 = 1150 m/s (Site class B)
return period: 475 yrs.
#This deaggregation corresponds to: GMM: BC Hydro (2012) : Slab
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:
  Return period: 475 yrs
  Exceedance rate: 0.0021052632 yr⁻¹
  PGA ground motion: 0.053600771 g
Recovered targets:
  Return period: 482.15757 yrs
  Exceedance rate: 0.0020740108 yr⁻¹
Totals:
  Binned: 1.1 %
  Residual: 0 %
  Trace: 0.07 %
Mean (over all sources):
  m: 7.07
```

r: 260.14 km
ε_0: 1.57 σ
Mode (largest m-r bin):
m: 7.11
r: 270.19 km
ε_0: 1.6 σ
Contribution: 0.18 %
Mode (largest m-r-ε_0 bin):
m: 7.09
r: 271.6 km
ε_0: 1.67 σ
Contribution: 0.13 %
Discretization:
r: min = 0.0, max = 1000.0, Δ = 20.0 km
m: min = 4.4, max = 9.4, Δ = 0.2
ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
ε0: [-∞ .. -2.5)
ε1: [-2.5 .. -2.0)
ε2: [-2.0 .. -1.5)
ε3: [-1.5 .. -1.0)
ε4: [-1.0 .. -0.5)
ε5: [-0.5 .. 0.0)
ε6: [0.0 .. 0.5)
ε7: [0.5 .. 1.0)
ε8: [1.0 .. 1.5)
ε9: [1.5 .. 2.0)
ε10: [2.0 .. 2.5)
ε11: [2.5 .. +∞]

Closest Distance, rRup (km)	Magnitude (Mw)	ALL_ε	ε=(-∞,-2.5)	ε=[-2.5,-2)	ε=[-2,-1.5)	ε=[-1.5,-1)	ε=[-1,-0.5)	ε=[-0.5,0)	ε=[0,0.5)	ε=[0.5,1)	ε=[1,1.5)	ε=[1.5,2)	ε=[2,2.5)	ε=[2.5,∞)
310	6.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
290	6.5	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
290	6.7	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006	0.013
290	6.9	0.066	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006	0.060	0.001
290	7.1	0.134	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.122	0.013	0.000
290	7.3	0.018	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.014	0.004	0.000	0.000
290	7.5	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.005	0.000	0.000	0.000
270	6.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
270	6.5	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005
270	6.7	0.028	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.021	0.007	
270	6.9	0.076	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.040	0.037	0.000	
270	7.1	0.182	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.055	0.127	0.000	0.000	
270	7.3	0.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.029	0.001	0.000	0.000
270	7.5	0.024	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.018	0.006	0.000	0.000	0.000
270	7.7	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.000	0.000	0.000	0.000
270	7.9	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.000
250	6.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
250	6.5	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.004	
250	6.7	0.024	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.021	0.000	
250	6.9	0.062	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.059	0.004	0.000	
250	7.1	0.135	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.101	0.034	0.000	0.000	
250	7.3	0.024	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.012	0.012	0.000	0.000	0.000
250	7.5	0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.018	0.000	0.000	0.000	0.000
250	7.7	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.001	0.000	0.000	0.000	0.000
250	7.9	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.000	0.000	0.000	0.000	0.000
230	6.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

```
230  6.3   0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.001
230  6.5   0.0050.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0040.000
230  6.7   0.0170.0000.0000.0000.0000.0000.0000.0000.0000.0000.0110.0060.000
230  6.9   0.0410.0000.0000.0000.0000.0000.0000.0000.0000.0180.0230.0000.000
230  7.1   0.0880.0000.0000.0000.0000.0000.0000.0000.0170.0710.0000.0000.000
230  7.3   0.0140.0000.0000.0000.0000.0000.0000.0000.0130.0010.0000.0000.000
230  7.5   0.0100.0000.0000.0000.0000.0000.0000.0070.0030.0000.0000.0000.000
230  7.7   0.0020.0000.0000.0000.0000.0000.0000.0020.0000.0000.0000.0000.000
230  7.9   0.0030.0000.0000.0000.0000.0000.0010.0020.0000.0000.0000.0000.000
210  6.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
210  6.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
210  6.5   0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0010.000
210  6.7   0.0030.0000.0000.0000.0000.0000.0000.0000.0000.0000.0030.0000.000
210  6.9   0.0070.0000.0000.0000.0000.0000.0000.0000.0000.0070.0000.0000.000
210  7.1   0.0140.0000.0000.0000.0000.0000.0000.0000.0120.0030.0000.0000.000
210  7.3   0.0040.0000.0000.0000.0000.0000.0000.0020.0020.0000.0000.0000.000
210  7.5   0.0030.0000.0000.0000.0000.0000.0000.0030.0000.0000.0000.0000.000
210  7.7   0.0010.0000.0000.0000.0000.0000.0010.0000.0000.0000.0000.0000.000
210  7.9   0.0010.0000.0000.0000.0000.0000.0010.0000.0000.0000.0000.0000.000
190  5.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
190  6.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
190  6.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
190  6.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
190  6.7   0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0010.0000.0000.000
190  6.9   0.0020.0000.0000.0000.0000.0000.0000.0000.0010.0010.0000.0000.000
190  7.1   0.0030.0000.0000.0000.0000.0000.0000.0000.0030.0000.0000.0000.000
190  7.3   0.0010.0000.0000.0000.0000.0000.0000.0010.0000.0000.0000.0000.000
190  7.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
190  7.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
190  7.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  5.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  5.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  6.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  6.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  6.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  6.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  6.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  7.1   0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  7.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  7.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  7.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  7.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  5.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  5.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  5.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  6.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  6.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  6.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  6.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  6.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  7.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  7.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  7.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  7.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  7.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130  5.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130  5.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
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130   5.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   6.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   6.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   6.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   6.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   6.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   7.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   7.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   7.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   7.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   7.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110   7.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110   7.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110   7.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110   7.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110   7.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
90    7.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
Principal Sources (faults, subduction, random seismicity having > 3% contribution
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
vs30 = 1150 m/s (Site class B)
return period: 475 yrs.
#This deaggregation corresponds to: GMM: Zhao et al. (2006) : Interface
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:
  Return period: 475 yrs
  Exceedance rate: 0.0021052632 yr⁻¹
  PGA ground motion: 0.053600771 g
Recovered targets:
  Return period: 482.15757 yrs
  Exceedance rate: 0.0020740108 yr⁻¹
Totals:
  Binned: 2.78 %
  Residual: 0 %
  Trace: 0.04 %
Mean (over all sources):
  m: 9.03
  r: 342.12 km
  ε₀: 1.18 σ
Mode (largest m-r bin):
  m: 9.34
  r: 323.7 km
  ε₀: 0.61 σ
  Contribution: 0.82 %
Mode (largest m-r-ε₀ bin):
  m: 9.34
  r: 323.7 km
  ε₀: 0.61 σ
  Contribution: 0.82 %
Discretization:
  r: min = 0.0, max = 1000.0, Δ = 20.0 km
  m: min = 4.4, max = 9.4, Δ = 0.2
  ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
```

ε0: [-∞ .. -2.5)
ε1: [-2.5 .. -2.0)
ε2: [-2.0 .. -1.5)
ε3: [-1.5 .. -1.0)
ε4: [-1.0 .. -0.5)
ε5: [-0.5 .. 0.0)
ε6: [0.0 .. 0.5)
ε7: [0.5 .. 1.0)
ε8: [1.0 .. 1.5)
ε9: [1.5 .. 2.0)
ε10: [2.0 .. 2.5)
ε11: [2.5 .. +∞]

Closest Distance, rRup (km)	Magnitude (Mw)	ALL_ε	ε=(-∞,-2.5)	ε=[-2.5,-2)	ε=[-2,-1.5)	ε=[-1.5,-1)	ε=[-1,-0.5)	ε=[-0.5,0)	ε=[0,0.5)	ε=[0.5,1)	ε=[1,1.5)	ε=[1.5,2)	ε=[2,2.5)	ε=[2.5,∞)
450	8.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
430	8.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
430	8.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
410	8.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
410	8.3	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
410	8.5	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.002
410	8.7	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
390	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
390	8.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
390	8.3	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005
390	8.5	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.008	0.003	
390	8.7	0.067	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.067	0.000	
390	9.1	0.071	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.071	0.000	0.000	
370	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
370	8.1	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	
370	8.3	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	
370	8.5	0.022	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.022	0.000	
370	8.7	0.139	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.139	0.000	0.000	
370	8.9	0.171	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.171	0.000	0.000	
370	9.1	0.373	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.373	0.000	0.000	
350	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
350	8.1	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	
350	8.3	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	
350	8.5	0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.018	0.001	0.000	
350	8.7	0.021	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.021	0.000	0.000	
350	8.9	0.037	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.037	0.000	0.000	0.000	
330	7.9	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000
330	8.1	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.000	
330	8.3	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.000	0.000	
330	8.5	0.039	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.036	0.000	0.000	
330	8.7	0.064	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.063	0.001	0.000	0.000	
330	8.9	0.383	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.383	0.000	0.000	0.000	
330	9.1	0.517	0.000	0.000	0.000	0.000	0.000	0.000	0.517	0.000	0.000	0.000	0.000	
330	9.3	0.819	0.000	0.000	0.000	0.000	0.000	0.000	0.819	0.000	0.000	0.000	0.000	

Principal Sources (faults, subduction, random seismicity having > 3% contribution
sub0_ch_bot.in:
Percent Contributed: 1.66
Distance (km): 323.70483
Magnitude: 9.1380666
Epsilon (mean values): 0.8471818
Cascadia Megathrust - whole CSZ Characteristic:
Percent Contributed: 1.66
Distance (km): 323.70483

Magnitude: 9.1380666
Epsilon (mean values): 0.8471818
Azimuth: 287.96053
Latitude: 46.3
Longitude: -123.4132
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
vs30 = 1150 m/s (Site class B)
return period: 475 yrs.
#This deaggregation corresponds to: GMM: Zhao et al. (2006) : Slab
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:
Return period: 475 yrs
Exceedance rate: 0.0021052632 yr^{-1}
PGA ground motion: 0.053600771 g
Recovered targets:
Return period: 482.15757 yrs
Exceedance rate: 0.0020740108 yr^{-1}
Totals:
Binned: 0.09 %
Residual: 0 %
Trace: 0.1 %
Mean (over all sources):
m: 7.26
r: 239.83 km
ε_0: 1.85 σ
Mode (largest m-r bin):
m: 7.11
r: 230.1 km
ε_0: 1.98 σ
Contribution: 0.01 %
Mode (largest m-r-ε_0 bin):
m: 7.13
r: 248.28 km
ε_0: 2.28 σ
Contribution: 0.01 %
Discretization:
r: min = 0.0, max = 1000.0, Δ = 20.0 km
m: min = 4.4, max = 9.4, Δ = 0.2
ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
ε0: [-∞ .. -2.5)
ε1: [-2.5 .. -2.0)
ε2: [-2.0 .. -1.5)
ε3: [-1.5 .. -1.0)
ε4: [-1.0 .. -0.5)
ε5: [-0.5 .. 0.0)
ε6: [0.0 .. 0.5)
ε7: [0.5 .. 1.0)
ε8: [1.0 .. 1.5)
ε9: [1.5 .. 2.0)
ε10: [2.0 .. 2.5)
ε11: [2.5 .. +∞]
Closest Distance, rRup (km) Magnitude (Mw) ALL_ε ε=(-∞,-2.5) ε=[-2.5,-2)ε=[-2,-1.5)ε=[-1.5,-1)

		ε=[-1,-0.5)	ε=[-0.5,0)	ε=[0,0.5)	ε=[0.5,1)	ε=[1,1.5)	ε=[1.5,2)	ε=[2,2.5)	ε=[2.5,∞)
290	7.1	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
290	7.3	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
290	7.5	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
270	6.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
270	7.1	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000
270	7.3	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000
270	7.5	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000
270	7.7	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
270	7.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
250	6.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
250	6.9	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000
250	7.1	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.010
250	7.3	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000
250	7.5	0.004	0.000	0.000	0.000	0.000	0.000	0.001	0.003
250	7.7	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000
250	7.9	0.003	0.000	0.000	0.000	0.000	0.000	0.002	0.000
230	6.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
230	6.7	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
230	6.9	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.004
230	7.1	0.015	0.000	0.000	0.000	0.000	0.000	0.008	0.007
230	7.3	0.003	0.000	0.000	0.000	0.000	0.000	0.001	0.002
230	7.5	0.003	0.000	0.000	0.000	0.000	0.000	0.003	0.000
230	7.7	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.000
230	7.9	0.002	0.000	0.000	0.000	0.000	0.002	0.000	0.000
210	6.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
210	6.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
210	6.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
210	6.9	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.001
210	7.1	0.004	0.000	0.000	0.000	0.000	0.000	0.001	0.003
210	7.3	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.000
210	7.5	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.000
210	7.7	0.001	0.000	0.000	0.000	0.000	0.001	0.000	0.000
210	7.9	0.001	0.000	0.000	0.000	0.000	0.001	0.000	0.000
190	6.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	6.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	6.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	6.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	6.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	7.1	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.000
190	7.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	7.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	5.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	5.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	6.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	6.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	6.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	6.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	6.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	7.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	7.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	7.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	5.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

```
150   5.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150   5.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150   6.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150   6.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150   6.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150   6.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150   6.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150   7.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150   7.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150   7.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150   7.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150   7.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   5.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   5.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   5.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   5.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   6.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   6.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   6.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   6.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   6.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   7.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   7.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   7.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   7.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   7.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110   7.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110   7.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110   7.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110   7.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110   7.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
90    7.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
Principal Sources (faults, subduction, random seismicity having > 3% contribution
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
vs30 = 1150 m/s (Site class B)
return period: 475 yrs.
#This deaggregation corresponds to: Source Type: Grid
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:
  Return period: 475 yrs
  Exceedance rate: 0.0021052632 yr⁻¹
  PGA ground motion: 0.053600771 g
Recovered targets:
  Return period: 482.15757 yrs
  Exceedance rate: 0.0020740108 yr⁻¹
Totals:
  Binned: 85.32 %
  Residual: 0 %
  Trace: 0.38 %
Mean (over all sources):
  m: 6.12
  r: 36.61 km
  ε₀: 0.04 σ
```

Mode (largest m-r bin):
  m: 5.1
  r: 11.99 km
  ε_0: -0.17 σ
  Contribution: 4.65 %
Mode (largest m-r-ε_0 bin):
  m: 5.5
  r: 23.85 km
  ε_0: 0.27 σ
  Contribution: 1.49 %
Discretization:
  r: min = 0.0, max = 1000.0, Δ = 20.0 km
  m: min = 4.4, max = 9.4, Δ = 0.2
  ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
  ε0: [-∞ .. -2.5)
  ε1: [-2.5 .. -2.0)
  ε2: [-2.0 .. -1.5)
  ε3: [-1.5 .. -1.0)
  ε4: [-1.0 .. -0.5)
  ε5: [-0.5 .. 0.0)
  ε6: [0.0 .. 0.5)
  ε7: [0.5 .. 1.0)
  ε8: [1.0 .. 1.5)
  ε9: [1.5 .. 2.0)
  ε10: [2.0 .. 2.5)
  ε11: [2.5 .. +∞]

Closest Distance, rRup (km)	Magnitude (Mw)	ALL_ε	ε=(-∞,-2.5)	ε=[-2.5,-2)	ε=[-2,-1.5)	ε=[-1.5,-1)	ε=[-1,-0.5)	ε=[-0.5,0)	ε=[0,0.5)	ε=[0.5,1)	ε=[1,1.5)	ε=[1.5,2)	ε=[2,2.5)	ε=[2.5,∞)
290	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
290	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
270	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
270	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
250	7.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
250	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
250	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
230	7.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
230	7.5	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
230	7.7	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
230	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
210	7.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
210	7.3	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003
210	7.5	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.004
210	7.7	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000
210	7.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000
190	6.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	7.1	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004
190	7.3	0.017	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.008	0.009
190	7.5	0.018	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.012	0.003
190	7.7	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.002	0.000
190	7.9	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.000
170	6.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	6.9	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004
170	7.1	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.008	0.012
170	7.3	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.034	0.004
170	7.5	0.039	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.019	0.018	0.000
170	7.7	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.005	0.001	0.000

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170  7.9  0.0040.0000.0000.0000.0000.0000.0000.0000.0010.0020.0010.0000.000
150  6.3  0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  6.5  0.0020.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.002
150  6.7  0.0080.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.008
150  6.9  0.0280.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0150.013
150  7.1  0.0560.0000.0000.0000.0000.0000.0000.0000.0000.0000.0070.0470.002
150  7.3  0.0930.0000.0000.0000.0000.0000.0000.0000.0000.0050.0620.0260.000
150  7.5  0.0690.0000.0000.0000.0000.0000.0000.0000.0000.0190.0470.0030.000
150  7.7  0.0130.0000.0000.0000.0000.0000.0000.0000.0020.0070.0030.0000.000
150  7.9  0.0050.0000.0000.0000.0000.0000.0000.0000.0020.0020.0000.0000.000
130  6.1  0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130  6.3  0.0110.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.010
130  6.5  0.0300.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0110.019
130  6.7  0.0480.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0360.012
130  6.9  0.0880.0000.0000.0000.0000.0000.0000.0000.0000.0000.0220.0650.000
130  7.1  0.1300.0000.0000.0000.0000.0000.0000.0000.0000.0050.1060.0190.000
130  7.3  0.1770.0000.0000.0000.0000.0000.0000.0000.0000.0850.0910.0010.000
130  7.5  0.1160.0000.0000.0000.0000.0000.0000.0000.0160.0820.0180.0000.000
130  7.7  0.0180.0000.0000.0000.0000.0000.0000.0010.0100.0070.0000.0000.000
130  7.9  0.0060.0000.0000.0000.0000.0000.0000.0020.0030.0010.0000.0000.000
110  5.7  0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110  5.9  0.0020.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.002
110  6.1  0.0260.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0030.023
110  6.3  0.0870.0000.0000.0000.0000.0000.0000.0000.0000.0000.0030.0610.023
110  6.5  0.1270.0000.0000.0000.0000.0000.0000.0000.0000.0000.0360.0840.006
110  6.7  0.1570.0000.0000.0000.0000.0000.0000.0000.0000.0000.0920.0640.000
110  6.9  0.2190.0000.0000.0000.0000.0000.0000.0000.0000.0450.1670.0080.000
110  7.1  0.2910.0000.0000.0000.0000.0000.0000.0000.0000.2060.0850.0000.000
110  7.3  0.3270.0000.0000.0000.0000.0000.0000.0000.1040.2130.0100.0000.000
110  7.5  0.2040.0000.0000.0000.0000.0000.0000.0080.1330.0630.0000.0000.000
110  7.7  0.0260.0000.0000.0000.0000.0000.0000.0100.0150.0010.0000.0000.000
110  7.9  0.0080.0000.0000.0000.0000.0000.0010.0050.0020.0000.0000.0000.000
90   5.3  0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
90   5.5  0.0090.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.009
90   5.7  0.0370.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0040.033
90   5.9  0.0940.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0550.039
90   6.1  0.1970.0000.0000.0000.0000.0000.0000.0000.0000.0000.0340.1470.016
90   6.3  0.3420.0000.0000.0000.0000.0000.0000.0000.0000.0320.2120.0980.000
90   6.5  0.4030.0000.0000.0000.0000.0000.0000.0000.0000.1300.2410.0310.000
90   6.7  0.4220.0000.0000.0000.0000.0000.0000.0000.0160.2300.1740.0010.000
90   6.9  0.5030.0000.0000.0000.0000.0000.0000.0000.1100.3540.0390.0000.000
90   7.1  0.5430.0000.0000.0000.0000.0000.0000.0050.3470.1910.0000.0000.000
90   7.3  0.5580.0000.0000.0000.0000.0000.0000.1270.3950.0360.0000.0000.000
90   7.5  0.2930.0000.0000.0000.0000.0000.0020.1680.1240.0000.0000.0000.000
90   7.7  0.0370.0000.0000.0000.0000.0000.0090.0250.0030.0000.0000.0000.000
90   7.9  0.0100.0000.0000.0000.0000.0010.0050.0040.0000.0000.0000.0000.000
70   5.1  0.0200.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.020
70   5.3  0.0640.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0230.042
70   5.5  0.1960.0000.0000.0000.0000.0000.0000.0000.0000.0000.0110.1300.054
70   5.7  0.3240.0000.0000.0000.0000.0000.0000.0000.0000.0000.0970.2040.023
70   5.9  0.4640.0000.0000.0000.0000.0000.0000.0000.0000.0000.3020.1600.003
70   6.1  0.6750.0000.0000.0000.0000.0000.0000.0000.0000.2150.4230.0370.000
70   6.3  0.9200.0000.0000.0000.0000.0000.0000.0000.1190.5990.2020.0000.000
70   6.5  0.9640.0000.0000.0000.0000.0000.0000.0000.3990.5070.0590.0000.000
70   6.7  0.8500.0000.0000.0000.0000.0000.0000.0500.5060.2880.0060.0000.000
70   6.9  0.8650.0000.0000.0000.0000.0000.0000.2040.5900.0700.0000.0000.000
70   7.1  0.8350.0000.0000.0000.0000.0000.0040.5350.2960.0000.0000.0000.000
```

70 7.3 0.7980.0000.0000.0000.0000.0000.1530.5790.0670.0000.0000.0000.000
70 7.5 0.4080.0000.0000.0000.0000.0020.2050.1990.0020.0000.0000.0000.000
70 7.7 0.0470.0000.0000.0000.0000.0070.0350.0050.0000.0000.0000.0000.000
70 7.9 0.0120.0000.0000.0000.0000.0050.0060.0000.0000.0000.0000.0000.000
50 5.1 0.3150.0000.0000.0000.0000.0000.0000.0000.0000.0000.0790.1800.056
50 5.3 0.5820.0000.0000.0000.0000.0000.0000.0000.0000.0050.2890.2580.030
50 5.5 1.0090.0000.0000.0000.0000.0000.0000.0000.0000.3060.5470.1550.002
50 5.7 1.2170.0000.0000.0000.0000.0000.0000.0000.0560.6650.4560.0400.000
50 5.9 1.3610.0000.0000.0000.0000.0000.0000.0000.3340.8210.2030.0020.000
50 6.1 1.7450.0000.0000.0000.0000.0000.0000.1000.9600.6520.0330.0000.000
50 6.3 1.8520.0000.0000.0000.0000.0000.0160.5961.0420.1980.0000.0000.000
50 6.5 1.7380.0000.0000.0000.0000.0000.1780.9030.6370.0190.0000.0000.000
50 6.7 1.5160.0000.0000.0000.0000.0000.2760.9050.3340.0000.0000.0000.000
50 6.9 1.3510.0000.0000.0000.0000.0130.5670.7310.0390.0000.0000.0000.000
50 7.1 1.1790.0000.0000.0000.0000.1180.7600.3000.0000.0000.0000.0000.000
50 7.3 0.9950.0000.0000.0000.0010.3390.5970.0580.0000.0000.0000.0000.000
50 7.5 0.4760.0000.0000.0000.0220.2630.1920.0000.0000.0000.0000.0000.000
50 7.7 0.0540.0000.0000.0000.0110.0370.0060.0000.0000.0000.0000.0000.000
50 7.9 0.0140.0000.0000.0010.0060.0070.0000.0000.0000.0000.0000.0000.000
30 5.1 2.7720.0000.0000.0000.0000.0000.0000.0880.8531.1100.5850.1360.001
30 5.3 3.4640.0000.0000.0000.0000.0000.0000.5561.4521.1080.3350.0130.000
30 5.5 4.0830.0000.0000.0000.0000.0000.3981.4871.4030.7180.0780.0000.000
30 5.7 3.8150.0000.0000.0000.0000.0000.8801.4211.2210.2930.0000.0000.000
30 5.9 3.3760.0000.0000.0000.0000.1901.0991.2250.8110.0490.0000.0000.000
30 6.1 3.2460.0000.0000.0000.0210.5951.2321.2020.1960.0000.0000.0000.000
30 6.3 2.8700.0000.0000.0000.1990.8491.1430.6760.0030.0000.0000.0000.000
30 6.5 2.2320.0000.0000.0140.3190.8120.8670.2200.0000.0000.0000.0000.000
30 6.7 1.7290.0000.0000.0380.3010.7070.6490.0340.0000.0000.0000.0000.000
30 6.9 1.5120.0000.0000.0970.4260.6760.3130.0000.0000.0000.0000.0000.000
30 7.1 1.2580.0000.0130.1480.4570.5650.0750.0000.0000.0000.0000.0000.000
30 7.3 1.0700.0000.0300.2020.4860.3510.0010.0000.0000.0000.0000.0000.000
30 7.5 0.5130.0000.0210.1330.2640.0940.0000.0000.0000.0000.0000.0000.000
30 7.7 0.0470.0000.0040.0170.0250.0020.0000.0000.0000.0000.0000.0000.000
30 7.9 0.0090.0000.0010.0040.0040.0000.0000.0000.0000.0000.0000.0000.000
10 5.1 4.6460.0000.0000.0000.3430.9981.3901.3340.5820.0000.0000.0000.000
10 5.3 4.1480.0000.0000.1720.7171.0901.3070.8470.0150.0000.0000.0000.000
10 5.5 3.4550.0000.1380.3960.7611.1140.9340.1120.0000.0000.0000.0000.000
10 5.7 2.6010.0100.1530.4500.6250.9720.3920.0000.0000.0000.0000.0000.000
10 5.9 1.9120.0510.1440.3770.5850.6800.0750.0000.0000.0000.0000.0000.000
10 6.1 2.001 0.145 0.331 0.453 0.669 0.403 0.000 0.000 0.000 0.000 0.000 0.000
0.000
10 6.3 1.525 0.200 0.313 0.443 0.482 0.087 0.000 0.000 0.000 0.000 0.000 0.000
0.000
10 6.5 1.225 0.241 0.268 0.370 0.309 0.037 0.000 0.000 0.000 0.000 0.000 0.000
0.000
10 6.7 0.997 0.218 0.240 0.315 0.225 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000
10 6.9 0.736 0.198 0.211 0.250 0.076 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000
10 7.1 0.587 0.168 0.203 0.185 0.031 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000
10 7.3 0.449 0.144 0.157 0.142 0.007 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000
10 7.5 0.183 0.066 0.073 0.045 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000
10 7.7 0.014 0.006 0.006 0.002 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000

10 7.9 0.003 0.001 0.001 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000
Principal Sources (faults, subduction, random seismicity having > 3% contribution
WUSmap_2014_fixSm.ch.in (opt):
  Percent Contributed: 10.94
  Distance (km): 37.312266
  Magnitude: 6.1258702
  Epsilon (mean values): 0.06914528
noPuget_2014_fixSm.ch.in (opt):
  Percent Contributed: 10.94
  Distance (km): 37.309824
  Magnitude: 6.1258497
  Epsilon (mean values): 0.069107888
WUSmap_2014_fixSm.gr.in (opt):
  Percent Contributed: 10.78
  Distance (km): 36.767892
  Magnitude: 6.114525
  Epsilon (mean values): 0.058758927
noPuget_2014_fixSm.gr.in (opt):
  Percent Contributed: 10.78
  Distance (km): 36.765413
  Magnitude: 6.114504
  Epsilon (mean values): 0.058720926
noPuget_2014_adSm.ch.in (opt):
  Percent Contributed: 8.12
  Distance (km): 35.272385
  Magnitude: 6.0872008
  Epsilon (mean values): 0.0051946978
WUSmap_2014_adSm.ch.in (opt):
  Percent Contributed: 8.11
  Distance (km): 35.260964
  Magnitude: 6.0870309
  Epsilon (mean values): 0.0049332663
noPuget_2014_adSm.gr.in (opt):
  Percent Contributed: 8.03
  Distance (km): 34.851915
  Magnitude: 6.0784171
  Epsilon (mean values): -0.0031147868
WUSmap_2014_adSm.gr.in (opt):
  Percent Contributed: 8.02
  Distance (km): 34.841384
  Magnitude: 6.0782613
  Epsilon (mean values): -0.0033576799
WUSmap_2014_fixSm_M8.in (opt):
  Percent Contributed: 2.69
  Distance (km): 40.319287
  Magnitude: 6.2528578
  Epsilon (mean values): 0.039773571
noPuget_2014_fixSm_M8.in (opt):
  Percent Contributed: 2.69
  Distance (km): 40.300304
  Magnitude: 6.252687
  Epsilon (mean values): 0.039537404
noPuget_2014_adSm_M8.in (opt):
  Percent Contributed: 1.98
  Distance (km): 38.170618
  Magnitude: 6.2069219

  Epsilon (mean values): -0.018933532
WUSmap_2014_adSm_M8.in (opt):
  Percent Contributed: 1.98
  Distance (km): 38.161299
  Magnitude: 6.2067046
  Epsilon (mean values): -0.019147537
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
vs30 = 1150 m/s (Site class B)
return period: 475 yrs.
#This deaggregation corresponds to: Source Type: Slab
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:
  Return period: 475 yrs
  Exceedance rate: 0.0021052632 yr^{-1}
  PGA ground motion: 0.053600771 g
Recovered targets:
  Return period: 482.15757 yrs
  Exceedance rate: 0.0020740108 yr^{-1}
Totals:
  Binned: 1.19 %
  Residual: 0 %
  Trace: 0.15 %
Mean (over all sources):
  m: 7.08
  r: 258.67 km
  ε_0: 1.59 σ
Mode (largest m-r bin):
  m: 7.11
  r: 270.11 km
  ε_0: 1.63 σ
  Contribution: 0.19 %
Mode (largest m-r-ε_0 bin):
  m: 7.09
  r: 271.6 km
  ε_0: 1.67 σ
  Contribution: 0.13 %
Discretization:
  r: min = 0.0, max = 1000.0, Δ = 20.0 km
  m: min = 4.4, max = 9.4, Δ = 0.2
  ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
  ε0: [-∞ .. -2.5)
  ε1: [-2.5 .. -2.0)
  ε2: [-2.0 .. -1.5)
  ε3: [-1.5 .. -1.0)
  ε4: [-1.0 .. -0.5)
  ε5: [-0.5 .. 0.0)
  ε6: [0.0 .. 0.5)
  ε7: [0.5 .. 1.0)
  ε8: [1.0 .. 1.5)
  ε9: [1.5 .. 2.0)
  ε10: [2.0 .. 2.5)
  ε11: [2.5 .. +∞]

Closest Distance, rRup (km)	Magnitude (Mw)	ALL_ε	ε=(-∞,-2.5)	ε=[-2.5,-2)	ε=[-2,-1.5)	ε=[-1.5,-1)	ε=[-1,-0.5)	ε=[-0.5,0)	ε=[0,0.5)	ε=[0.5,1)	ε=[1,1.5)	ε=[1.5,2)	ε=[2,2.5)	ε=[2.5,∞)
310	6.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
290	6.5	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
290	6.7	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006	0.013
290	6.9	0.066	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006	0.060	0.001
290	7.1	0.135	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.122	0.013	0.001
290	7.3	0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.014	0.004	0.000	0.000
290	7.5	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.005	0.000	0.001	0.000
270	6.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
270	6.5	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005
270	6.7	0.028	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.021	0.007
270	6.9	0.077	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.040	0.037	0.000
270	7.1	0.189	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.055	0.127	0.002	0.005
270	7.3	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.029	0.001	0.002	0.000
270	7.5	0.027	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.018	0.006	0.002	0.001	0.000
270	7.7	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.001	0.000	0.000	0.000
270	7.9	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.000
250	6.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
250	6.5	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.004
250	6.7	0.024	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.021	0.000
250	6.9	0.065	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.059	0.004	0.002
250	7.1	0.147	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.101	0.034	0.010	0.002
250	7.3	0.028	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.012	0.012	0.002	0.001	0.000
250	7.5	0.022	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.018	0.001	0.003	0.000	0.000
250	7.7	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.002	0.001	0.000	0.000	0.000
250	7.9	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.002	0.000	0.000	0.000	0.000
230	6.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
230	6.3	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	
230	6.5	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.000	

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230  6.7   0.0170.0000.0000.0000.0000.0000.0000.0000.0000.0000.0110.0060.001
230  6.9   0.0460.0000.0000.0000.0000.0000.0000.0000.0000.0180.0230.0040.001
230  7.1   0.1020.0000.0000.0000.0000.0000.0000.0000.0170.0710.0080.0070.000
230  7.3   0.0170.0000.0000.0000.0000.0000.0000.0000.0130.0020.0020.0000.000
230  7.5   0.0140.0000.0000.0000.0000.0000.0000.0070.0030.0030.0000.0000.000
230  7.7   0.0030.0000.0000.0000.0000.0000.0000.0020.0010.0000.0000.0000.000
230  7.9   0.0050.0000.0000.0000.0000.0000.0010.0040.0000.0000.0000.0000.000
210  6.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
210  6.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
210  6.5   0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0010.000
210  6.7   0.0040.0000.0000.0000.0000.0000.0000.0000.0000.0000.0030.0000.000
210  6.9   0.0080.0000.0000.0000.0000.0000.0000.0000.0000.0070.0010.0010.000
210  7.1   0.0180.0000.0000.0000.0000.0000.0000.0000.0120.0030.0030.0000.000
210  7.3   0.0050.0000.0000.0000.0000.0000.0000.0020.0020.0010.0000.0000.000
210  7.5   0.0040.0000.0000.0000.0000.0000.0000.0030.0010.0000.0000.0000.000
210  7.7   0.0020.0000.0000.0000.0000.0000.0010.0010.0000.0000.0000.0000.000
210  7.9   0.0030.0000.0000.0000.0000.0000.0020.0010.0000.0000.0000.0000.000
190  5.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
190  6.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
190  6.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
190  6.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
190  6.7   0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0010.0000.0000.000
190  6.9   0.0020.0000.0000.0000.0000.0000.0000.0000.0010.0010.0000.0000.000
190  7.1   0.0040.0000.0000.0000.0000.0000.0000.0000.0030.0010.0000.0000.000
190  7.3   0.0010.0000.0000.0000.0000.0000.0000.0010.0000.0000.0000.0000.000
190  7.5   0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
190  7.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
190  7.9   0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  5.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  5.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  6.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  6.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  6.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  6.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  6.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  7.1   0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  7.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  7.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  7.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  7.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  5.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  5.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  5.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  6.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  6.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  6.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  6.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  6.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  7.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  7.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  7.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  7.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  7.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130  5.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130  5.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130  5.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130  5.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
```

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130   6.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   6.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   6.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   6.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   6.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   7.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   7.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   7.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   7.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   7.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110   7.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110   7.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110   7.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110   7.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110   7.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
90    7.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
Principal Sources (faults, subduction, random seismicity having > 3% contribution
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
vs30 = 1150 m/s (Site class B)
return period: 475 yrs.
#This deaggregation corresponds to: Source Type: Interface
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:
  Return period: 475 yrs
  Exceedance rate: 0.0021052632 yr⁻¹
  PGA ground motion: 0.053600771 g
Recovered targets:
  Return period: 482.15757 yrs
  Exceedance rate: 0.0020740108 yr⁻¹
Totals:
  Binned: 11.67 %
  Residual: 0 %
  Trace: 0.16 %
Mean (over all sources):
  m: 8.92
  r: 354.74 km
  ε₀: 0.91 σ
Mode (largest m-r bin):
  m: 9.34
  r: 323.7 km
  ε₀: 0.46 σ
  Contribution: 2.18 %
Mode (largest m-r-ε₀ bin):
  m: 9.34
  r: 323.7 km
  ε₀: 0.24 σ
  Contribution: 1.24 %
Discretization:
  r: min = 0.0, max = 1000.0, Δ = 20.0 km
  m: min = 4.4, max = 9.4, Δ = 0.2
  ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
  ε0: [-∞ .. -2.5)
```

ε1: [-2.5 .. -2.0)
ε2: [-2.0 .. -1.5)
ε3: [-1.5 .. -1.0)
ε4: [-1.0 .. -0.5)
ε5: [-0.5 .. 0.0)
ε6: [0.0 .. 0.5)
ε7: [0.5 .. 1.0)
ε8: [1.0 .. 1.5)
ε9: [1.5 .. 2.0)
ε10: [2.0 .. 2.5)
ε11: [2.5 .. +∞]

Closest Distance, rRup (km)	Magnitude (Mw)	ALL_ε	ε=(-∞,-2.5)	ε=[-2.5,-2)	ε=[-2,-1.5)	ε=[-1.5,-1)	ε=[-1,-0.5)	ε=[-0.5,0)	ε=[0,0.5)	ε=[0.5,1)	ε=[1,1.5)	ε=[1.5,2)	ε=[2,2.5)	ε=[2.5,∞)
590	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
570	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
570	8.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
550	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
550	8.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
530	7.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
530	8.1	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
530	8.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
510	7.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
510	8.1	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000
510	8.3	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
490	7.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
490	8.1	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000
490	8.3	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000
490	8.5	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000
470	7.9	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000
470	8.1	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.003	0.000	0.000
470	8.3	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.000
470	8.5	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.000
450	7.9	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000
450	8.1	0.039	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.038	0.000	0.000	0.000
450	8.3	0.034	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.034	0.000	0.000	0.000
450	8.5	0.038	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.038	0.000	0.000	0.000
430	7.9	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.000	0.000	0.000
430	8.1	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.000	0.000	0.000
430	8.3	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006	0.000	0.000	0.000
430	8.5	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.009	0.000	0.000	0.000
410	7.9	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.000	0.000	0.000
410	8.1	0.017	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.017	0.000	0.000	0.000
410	8.3	0.039	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.039	0.000	0.000	0.001
410	8.5	0.063	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.056	0.004	0.001	0.000	0.002
410	8.7	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.000	0.001	0.000	0.000
390	7.9	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.015	0.000	0.000	0.000
390	8.1	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.032	0.000	0.000	0.000
390	8.3	0.135	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.124	0.006	0.000	0.005	
390	8.5	0.188	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.176	0.000	0.008	0.003	
390	8.7	0.723	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.656	0.000	0.067	0.000	
390	9.1	0.434	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.362	0.000	0.071	0.000	0.001
370	7.9	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.012	0.000	0.000	0.000
370	8.1	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.017	0.012	0.000	0.001	
370	8.3	0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.018	0.000	0.000	0.001	
370	8.5	0.237	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.215	0.000	0.022	0.000	
370	8.7	1.005	0.000	0.000	0.000	0.000	0.000	0.000	0.098	0.768	0.139	0.000	0.000	
370	8.9	1.026	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.855	0.000	0.171	0.000	0.000

370 9.1 1.5880.0000.0000.0000.0000.0000.0000.0001.1970.3730.0000.0000.017
350 7.9 0.0050.0000.0000.0000.0000.0000.0000.0000.0000.0040.0010.0000.000
350 8.1 0.0120.0000.0000.0000.0000.0000.0000.0000.0000.0110.0000.0010.000
350 8.3 0.0070.0000.0000.0000.0000.0000.0000.0000.0000.0070.0000.0010.000
350 8.5 0.1100.0000.0000.0000.0000.0000.0000.0000.0730.0180.0180.0010.000
350 8.7 0.0980.0000.0000.0000.0000.0000.0000.0000.0770.0000.0210.0000.000
350 8.9 0.1340.0000.0000.0000.0000.0000.0000.0000.0950.0370.0000.0000.002
330 7.9 0.0190.0000.0000.0000.0000.0000.0000.0000.0000.0180.0000.0020.000
330 8.1 0.0460.0000.0000.0000.0000.0000.0000.0000.0000.0400.0000.0050.000
330 8.3 0.0280.0000.0000.0000.0000.0000.0000.0000.0000.0240.0040.0000.000
330 8.5 0.1850.0000.0000.0000.0000.0000.0000.0000.1390.0100.0360.0000.001
330 8.7 0.2480.0000.0000.0000.0000.0000.0000.0000.1820.0630.0010.0000.002
330 8.9 1.2850.0000.0000.0000.0000.0000.0000.0000.8830.3830.0000.0180.000
330 9.1 1.5620.0000.0000.0000.0000.0000.0001.0090.5170.0000.0000.0350.000
330 9.3 2.1770.0000.0000.0000.0000.0000.0001.2390.8190.0000.1190.0000.000
Principal Sources (faults, subduction, random seismicity having > 3% contribution
sub0_ch_bot.in:
  Percent Contributed: 4.85
  Distance (km): 323.70483
  Magnitude: 9.1185201
  Epsilon (mean values): 0.61677308
Cascadia Megathrust - whole CSZ Characteristic:
  Percent Contributed: 4.85
  Distance (km): 323.70483
  Magnitude: 9.1185201
  Epsilon (mean values): 0.61677308
  Azimuth: 287.96053
  Latitude: 46.3
  Longitude: -123.4132
sub0_ch_mid.in:
  Percent Contributed: 3.46
  Distance (km): 377.23061
  Magnitude: 8.9260255
  Epsilon (mean values): 1.0332049
Cascadia Megathrust - whole CSZ Characteristic:
  Percent Contributed: 3.46
  Distance (km): 377.23061
  Magnitude: 8.9260255
  Epsilon (mean values): 1.0332049
  Azimuth: 285.79267
  Latitude: 46.3
  Longitude: -124.13677
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
vs30 = 1150 m/s (Site class B)
return period: 475 yrs.
#This deaggregation corresponds to: Source Type: Fault
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:
  Return period: 475 yrs
  Exceedance rate: 0.0021052632 yr^{-1}
  PGA ground motion: 0.053600771 g
Recovered targets:
  Return period: 482.15757 yrs

Exceedance rate: 0.0020740108 yr^{-1}
Totals:
Binned: 1.82 %
Residual: 0 %
Trace: 0.04 %
Mean (over all sources):
m: 7.04
r: 79.32 km
ε_0: 0.72 σ
Mode (largest m-r bin):
m: 6.73
r: 68.38 km
ε_0: 0.81 σ
Contribution: 0.32 %
Mode (largest m-r-ε_0 bin):
m: 7.11
r: 66.64 km
ε_0: 0.31 σ
Contribution: 0.24 %
Discretization:
r: min = 0.0, max = 1000.0, Δ = 20.0 km
m: min = 4.4, max = 9.4, Δ = 0.2
ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
ε0: [-∞ .. -2.5)
ε1: [-2.5 .. -2.0)
ε2: [-2.0 .. -1.5)
ε3: [-1.5 .. -1.0)
ε4: [-1.0 .. -0.5)
ε5: [-0.5 .. 0.0)
ε6: [0.0 .. 0.5)
ε7: [0.5 .. 1.0)
ε8: [1.0 .. 1.5)
ε9: [1.5 .. 2.0)
ε10: [2.0 .. 2.5)
ε11: [2.5 .. +∞]

Closest Distance, rRup (km)	Magnitude (Mw)	ALL_ε	ε=(-∞,-2.5)	ε=[-2.5,-2)	ε=[-2,-1.5)	ε=[-1.5,-1)	ε=[-1,-0.5)	ε=[-0.5,0)	ε=[0,0.5)	ε=[0.5,1)	ε=[1,1.5)	ε=[1.5,2)	ε=[2,2.5)	ε=[2.5,∞)
270	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
270	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
250	7.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
230	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
210	7.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
210	7.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
210	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
210	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	7.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	7.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	6.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	6.5	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
150	6.7	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004
150	6.9	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006	0.005	
150	7.1	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.010	0.003	
150	7.3	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.005	0.000	
150	7.5	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	
130	6.5	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	
130	6.7	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.002	

```
130  6.9   0.0130.0000.0000.0000.0000.0000.0000.0000.0000.0000.0020.0110.000
130  7.1   0.0310.0000.0000.0000.0000.0000.0000.0000.0000.0000.0240.0070.000
130  7.3   0.0570.0000.0000.0000.0000.0000.0000.0000.0000.0200.0370.0000.000
130  7.5   0.0390.0000.0000.0000.0000.0000.0000.0000.0050.0280.0070.0000.000
130  7.7   0.0060.0000.0000.0000.0000.0000.0000.0000.0030.0030.0000.0000.000
110  6.5   0.0070.0000.0000.0000.0000.0000.0000.0000.0000.0000.0030.0040.000
110  6.7   0.0230.0000.0000.0000.0000.0000.0000.0000.0000.0000.0160.0070.000
110  6.9   0.0430.0000.0000.0000.0000.0000.0000.0000.0000.0120.0290.0010.000
110  7.1   0.0520.0000.0000.0000.0000.0000.0000.0000.0000.0420.0100.0000.000
110  7.3   0.0290.0000.0000.0000.0000.0000.0000.0000.0100.0190.0000.0000.000
110  7.5   0.0040.0000.0000.0000.0000.0000.0000.0000.0030.0010.0000.0000.000
90   6.5   0.0020.0000.0000.0000.0000.0000.0000.0000.0000.0000.0010.0000.000
90   6.7   0.0020.0000.0000.0000.0000.0000.0000.0000.0000.0010.0010.0000.000
90   6.9   0.0040.0000.0000.0000.0000.0000.0000.0000.0000.0030.0010.0000.000
90   7.1   0.0150.0000.0000.0000.0000.0000.0000.0000.0030.0120.0000.0000.000
90   7.3   0.0270.0000.0000.0000.0000.0000.0000.0000.0190.0080.0000.0000.000
90   7.5   0.0170.0000.0000.0000.0000.0000.0000.0010.0160.0000.0000.0000.000
90   7.7   0.0020.0000.0000.0000.0000.0000.0000.0020.0010.0000.0000.0000.000
70   6.5   0.1510.0000.0000.0000.0000.0000.0000.0000.0690.0810.0020.0000.000
70   6.7   0.3170.0000.0000.0000.0000.0000.0000.0220.2360.0580.0000.0000.000
70   6.9   0.2380.0000.0000.0000.0000.0000.0000.0910.1470.0000.0000.0000.000
70   7.1   0.3140.0000.0000.0000.0000.0000.0000.2430.0710.0000.0000.0000.000
70   7.3   0.2360.0000.0000.0000.0000.0000.0670.1690.0000.0000.0000.0000.000
70   7.5   0.1050.0000.0000.0000.0000.0000.0680.0370.0000.0000.0000.0000.000
70   7.7   0.0320.0000.0000.0000.0000.0040.0270.0010.0000.0000.0000.0000.000
70   7.9   0.0020.0000.0000.0000.0000.0010.0010.0000.0000.0000.0000.0000.000
Principal Sources (faults, subduction, random seismicity having > 3% contribution
```

*** Deaggregation of Seismic Hazard at One Period of Spectral Acceleration ***
*** Data from Dynamic: Conterminous U.S. 2014 (update) (v4.2.0) ****
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
vs30 = 537 m/s (Site class C)
return period: 475 yrs.
#This deaggregation corresponds to: Total
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:
  Return period: 475 yrs
  Exceedance rate: 0.0021052632 yr^{-1}
  PGA ground motion: 0.074598628 g
Recovered targets:
  Return period: 481.13078 yrs
  Exceedance rate: 0.002078437 yr^{-1}
Totals:
  Binned: 100 %
  Residual: 0 %
  Trace: 0.7 %
Mean (over all sources):
  m: 6.41
  r: 70.8 km
  ε_0: 0.17 σ
Mode (largest m-r bin):
  m: 5.1
  r: 12.03 km
  ε_0: -0.19 σ
  Contribution: 4.69 %
Mode (largest m-r-ε_0 bin):
  m: 5.51
  r: 24.66 km
  ε_0: 0.25 σ
  Contribution: 1.54 %
Discretization:
  r: min = 0.0, max = 1000.0, Δ = 20.0 km
  m: min = 4.4, max = 9.4, Δ = 0.2
  ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
  ε0: [-∞ .. -2.5)
  ε1: [-2.5 .. -2.0)
  ε2: [-2.0 .. -1.5)
  ε3: [-1.5 .. -1.0)
  ε4: [-1.0 .. -0.5)
  ε5: [-0.5 .. 0.0)
  ε6: [0.0 .. 0.5)
  ε7: [0.5 .. 1.0)
  ε8: [1.0 .. 1.5)
  ε9: [1.5 .. 2.0)
  ε10: [2.0 .. 2.5)
  ε11: [2.5 .. +∞]
Closest Distance, rRup (km) Magnitude (Mw) ALL_ε ε=(-∞,-2.5) ε=[-2.5,-2) ε=[-2,-1.5) ε=[-1.5,-1) ε=[-1,-0.5) ε=[-0.5,0) ε=[0,0.5) ε=[0.5,1) ε=[1,1.5) ε=[1.5,2) ε=[2,2.5) ε=[2.5,∞)

590	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
570	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
570	8.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
550	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
550	8.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
530	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
530	8.1	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
530	8.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
510	7.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
510	8.1	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000
510	8.3	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
490	7.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
490	8.1	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000
490	8.3	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
490	8.5	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
470	7.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
470	8.1	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.000
470	8.3	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000
470	8.5	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000
450	7.9	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000
450	8.1	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.017	0.012	0.000
450	8.3	0.027	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.027	0.000	0.000
450	8.5	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.030	0.000	0.000
430	7.9	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000
430	8.1	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.000	0.000
430	8.3	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.000	0.000
430	8.5	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.010	0.000	0.000
410	7.9	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006	0.000	0.000
410	8.1	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.014	0.000	

0.000
410 8.3 0.031 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.031 0.000
0.000
410 8.5 0.050 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.034 0.014 0.000
0.002
410 8.7 0.006 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.006 0.000 0.000
0.000
390 7.9 0.012 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.012 0.000
0.000
390 8.1 0.027 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.027 0.000
0.000
390 8.3 0.108 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.105 0.000
0.003
390 8.5 0.151 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.097 0.047 0.003
0.004
390 8.7 0.586 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.542 0.000 0.045
0.000
390 9.1 0.357 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.305 0.052 0.000
0.000
370 7.9 0.010 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.010 0.000
0.000
370 8.1 0.024 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.001 0.022 0.000
0.000
370 8.3 0.015 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.014 0.001 0.000
0.001
370 8.5 0.192 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.177 0.000 0.014
0.001
370 8.7 0.821 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.723 0.006 0.092
0.000
370 8.9 0.842 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.719 0.124 0.000
0.000
370 9.1 1.322 0.000 0.000 0.000 0.000 0.000 0.000 0.000 1.023 0.000 0.285 0.000
0.014
350 7.9 0.004 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.004 0.000
0.000
350 8.1 0.010 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.008 0.001 0.000
0.000
350 8.3 0.006 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.005 0.000 0.001
0.000
350 8.5 0.090 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.076 0.012 0.002
0.000
350 8.7 0.081 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.065 0.000 0.015 0.000
0.000
350 8.9 0.112 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.082 0.029 0.000 0.000
0.001
330 7.9 0.016 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.015 0.000 0.001
0.000
330 8.1 0.037 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.033 0.000 0.004
0.000
330 8.3 0.023 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.020 0.000 0.003
0.000
330 8.5 0.152 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.086 0.036 0.029 0.000
0.000
330 8.7 0.206 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.155 0.017 0.033 0.000
0.001
330 8.9 1.078 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.761 0.302 0.000 0.001
0.014

330	9.1	1.324	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.876	0.417	0.000	0.030
0.000													
330	9.3	1.887	0.000	0.000	0.000	0.000	0.000	0.000	1.094	0.687	0.000	0.105	0.000
0.000													
290	6.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
290	6.7	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
0.011													
290	6.9	0.049	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.044
0.005													
290	7.1	0.105	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.084	0.022
0.000													
290	7.3	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.008	0.006	0.000
0.000													
290	7.5	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.000	0.000
0.000													
290	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
290	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
270	6.5	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.002													
270	6.7	0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.012
0.008													
270	6.9	0.058	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.017	0.041
0.000													
270	7.1	0.149	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.014	0.127	0.005
0.003													
270	7.3	0.028	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.024	0.003	0.001
0.000													
270	7.5	0.022	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.011	0.000	0.002
0.000													
270	7.7	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.000	0.001	0.000
0.000													
270	7.9	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000
0.000													
250	6.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
250	6.5	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
0.003													
250	6.7	0.018	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.017
0.001													
250	6.9	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.039	0.010
0.001													
250	7.1	0.117	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.056	0.053	0.005
0.003													
250	7.3	0.023	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.015	0.001	0.002
0.000													
250	7.5	0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.015	0.001	0.002	0.000
0.000													
250	7.7	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.003	0.001	0.000	0.000
0.000													
250	7.9	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.003	0.000	0.000	0.000
0.000													
230	6.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
230	6.5	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003

0.001
230 6.7 0.013 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.006 0.007
0.000
230 6.9 0.036 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.006 0.027 0.002
0.001
230 7.1 0.083 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.070 0.005 0.007
0.000
230 7.3 0.015 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.010 0.002 0.002 0.000
0.000
230 7.5 0.013 0.000 0.000 0.000 0.000 0.000 0.000 0.003 0.006 0.002 0.001 0.000
0.002
230 7.7 0.004 0.000 0.000 0.000 0.000 0.000 0.000 0.002 0.001 0.000 0.000 0.001
0.000
230 7.9 0.005 0.000 0.000 0.000 0.000 0.000 0.000 0.004 0.001 0.000 0.000 0.000
0.000
210 6.1 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000
210 6.3 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000
210 6.5 0.001 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.001
0.000
210 6.7 0.003 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.003 0.000
0.000
210 6.9 0.007 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.004 0.002 0.001
0.000
210 7.1 0.015 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.008 0.005 0.003 0.000
0.000
210 7.3 0.010 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.003 0.001 0.000 0.001
0.004
210 7.5 0.012 0.000 0.000 0.000 0.000 0.000 0.000 0.003 0.000 0.001 0.000 0.004
0.004
210 7.7 0.004 0.000 0.000 0.000 0.000 0.000 0.000 0.001 0.000 0.000 0.001 0.002
0.000
210 7.9 0.003 0.000 0.000 0.000 0.000 0.000 0.001 0.001 0.000 0.000 0.001 0.000
0.000
190 5.9 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000
190 6.1 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000
190 6.3 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000
190 6.5 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000
190 6.7 0.001 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000
190 6.9 0.002 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.001 0.000 0.000
0.000
190 7.1 0.010 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.003 0.001 0.000 0.001
0.006
190 7.3 0.022 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.013
0.009
190 7.5 0.022 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.005 0.015
0.002
190 7.7 0.006 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.001 0.003 0.002
0.000
190 7.9 0.003 0.000 0.000 0.000 0.000 0.000 0.001 0.000 0.000 0.001 0.001 0.000
0.000

170	5.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
170	5.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
170	6.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
170	6.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
170	6.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
170	6.7	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.001													
170	6.9	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.007													
170	7.1	0.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.014
0.010													
170	7.3	0.053	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.014	0.036
0.003													
170	7.5	0.043	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.026	0.015
0.001													
170	7.7	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.005	0.001
0.000													
170	7.9	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.002	0.001	0.000
0.000													
150	5.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
150	5.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
150	5.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
150	6.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
150	6.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
150	6.5	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.003													
150	6.7	0.016	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
0.015													
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0.016													
150	7.1	0.080	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.019	0.057
0.005													
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0.000													
150	7.5	0.076	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.028	0.044	0.004
0.000													
150	7.7	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.007	0.003	0.000
0.000													
150	7.9	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.002	0.000	0.000
0.000													
130	5.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
130	5.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
130	5.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
130	5.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

130	6.1	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	6.3	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	6.5	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.011	0.024
130	6.7	0.061	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.048	0.013
130	6.9	0.109	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.034	0.075	0.001
130	7.1	0.174	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.010	0.140	0.023	0.000
130	7.3	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.123	0.120	0.001	0.000
130	7.5	0.164	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.036	0.105	0.023	0.000	0.000
130	7.7	0.026	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.012	0.011	0.000	0.000	0.000
130	7.9	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.003	0.001	0.000	0.000	0.000
110	5.7	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
110	5.9	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.008
110	6.1	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.027
110	6.3	0.093	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.072	0.021
110	6.5	0.138	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.024	0.111	0.002
110	6.7	0.187	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.119	0.068	0.000
110	6.9	0.273	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.045	0.224	0.004	0.000
110	7.1	0.358	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.267	0.082	0.000	0.000
110	7.3	0.369	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.121	0.243	0.005	0.000	0.000
110	7.5	0.215	0.000	0.000	0.000	0.000	0.000	0.000	0.020	0.135	0.060	0.000	0.000	0.000
110	7.7	0.027	0.000	0.000	0.000	0.000	0.000	0.001	0.010	0.015	0.001	0.000	0.000	0.000
110	7.9	0.008	0.000	0.000	0.000	0.000	0.000	0.002	0.004	0.002	0.000	0.000	0.000	0.000
90	5.3	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
90	5.5	0.024	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.019
90	5.7	0.062	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.031	0.032
90	5.9	0.120	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.083	0.035
90	6.1	0.217	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.054	0.149	0.013
90	6.3	0.350	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.258	0.092	0.000

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```
10    5.7   2.5990.0660.1120.4220.7090.8290.4600.0000.0000.0000.0000.0000.000
10    5.9   1.9110.0460.1660.3690.5820.6880.0620.0000.0000.0000.0000.0000.000
10    6.1   2.0020.1270.3530.4170.7310.3740.0000.0000.0000.0000.0000.0000.000
10    6.3   1.5270.2050.2980.4580.5270.0390.0000.0000.0000.0000.0000.0000.000
10    6.5   1.2270.2410.2700.3740.3190.0220.0000.0000.0000.0000.0000.0000.000
10    6.7   0.9970.2270.2370.3080.2250.0000.0000.0000.0000.0000.0000.0000.000
10    6.9   0.7360.1900.2280.2720.0460.0000.0000.0000.0000.0000.0000.0000.000
10    7.1   0.5860.1660.2070.2040.0100.0000.0000.0000.0000.0000.0000.0000.000
10    7.3   0.4480.1430.1590.1470.0000.0000.0000.0000.0000.0000.0000.0000.000
10    7.5   0.1830.0670.0710.0440.0000.0000.0000.0000.0000.0000.0000.0000.000
10    7.7   0.0140.0060.0060.0020.0000.0000.0000.0000.0000.0000.0000.0000.000
10    7.9   0.0030.0010.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
Principal Sources (faults, subduction, random seismicity having > 3% contribution
WUSmap_2014_fixSm.ch.in (opt):
  Percent Contributed: 11.22
  Distance (km): 37.785283
  Magnitude: 6.1185152
  Epsilon (mean values): 0.079824356
noPuget_2014_fixSm.ch.in (opt):
  Percent Contributed: 11.22
  Distance (km): 37.782069
  Magnitude: 6.1184888
  Epsilon (mean values): 0.079776745
WUSmap_2014_fixSm.gr.in (opt):
  Percent Contributed: 11.06
  Distance (km): 37.246499
  Magnitude: 6.10712
  Epsilon (mean values): 0.069546909
noPuget_2014_fixSm.gr.in (opt):
  Percent Contributed: 11.06
  Distance (km): 37.24324
  Magnitude: 6.107093
  Epsilon (mean values): 0.069498581
noPuget_2014_adSm.ch.in (opt):
  Percent Contributed: 8.31
  Distance (km): 35.738938
  Magnitude: 6.0807212
  Epsilon (mean values): 0.014875818
WUSmap_2014_adSm.ch.in (opt):
  Percent Contributed: 8.31
  Distance (km): 35.7273
  Magnitude: 6.0805502
  Epsilon (mean values): 0.014608897
noPuget_2014_adSm.gr.in (opt):
  Percent Contributed: 8.23
  Distance (km): 35.32157
  Magnitude: 6.0718959
  Epsilon (mean values): 0.0066201199
WUSmap_2014_adSm.gr.in (opt):
  Percent Contributed: 8.22
  Distance (km): 35.310829
  Magnitude: 6.0717392
  Epsilon (mean values): 0.0063718065
sub0_ch_bot.in:
  Percent Contributed: 4.14
  Distance (km): 323.70483
  Magnitude: 9.1214301
```

Epsilon (mean values): 0.73028588
Cascadia Megathrust - whole CSZ Characteristic:
Percent Contributed: 4.14
Distance (km): 323.70483
Magnitude: 9.1214301
Epsilon (mean values): 0.73028588
Azimuth: 287.96053
Latitude: 46.3
Longitude: -123.4132
sub0_ch_mid.in:
Percent Contributed: 2.85
Distance (km): 377.23061
Magnitude: 8.9276131
Epsilon (mean values): 1.1316907
Cascadia Megathrust - whole CSZ Characteristic:
Percent Contributed: 2.85
Distance (km): 377.23061
Magnitude: 8.9276131
Epsilon (mean values): 1.1316907
Azimuth: 285.79267
Latitude: 46.3
Longitude: -124.13677
WUSmap_2014_fixSm_M8.in (opt):
Percent Contributed: 2.76
Distance (km): 40.815209
Magnitude: 6.2451749
Epsilon (mean values): 0.050179141
noPuget_2014_fixSm_M8.in (opt):
Percent Contributed: 2.76
Distance (km): 40.792648
Magnitude: 6.2449745
Epsilon (mean values): 0.049906461
noPuget_2014_adSm_M8.in (opt):
Percent Contributed: 2.03
Distance (km): 38.663199
Magnitude: 6.2002038
Epsilon (mean values): -0.0094228471
WUSmap_2014_adSm_M8.in (opt):
Percent Contributed: 2.03
Distance (km): 38.655477
Magnitude: 6.1999991
Epsilon (mean values): -0.0096208589
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
vs30 = 537 m/s (Site class C)
return period: 475 yrs.
#This deaggregation corresponds to: GMM: Abrahamson, Silva & Kamai (2014)
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:
Return period: 475 yrs
Exceedance rate: 0.0021052632 yr^{-1}
PGA ground motion: 0.074598628 g
Recovered targets:
Return period: 481.13078 yrs

Exceedance rate: 0.002078437 yr^{-1}
Totals:
Binned: 23.37 %
Residual: 0 %
Trace: 0.28 %
Mean (over all sources):
m: 6.07
r: 37.79 km
ε_0: 0.16 σ
Mode (largest m-r bin):
m: 5.1
r: 12.36 km
ε_0: -0.36 σ
Contribution: 1.4 %
Mode (largest m-r-ε_0 bin):
m: 5.09
r: 23.65 km
ε_0: 0.76 σ
Contribution: 0.61 %
Discretization:
r: min = 0.0, max = 1000.0, Δ = 20.0 km
m: min = 4.4, max = 9.4, Δ = 0.2
ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
ε0: [-∞ .. -2.5)
ε1: [-2.5 .. -2.0)
ε2: [-2.0 .. -1.5)
ε3: [-1.5 .. -1.0)
ε4: [-1.0 .. -0.5)
ε5: [-0.5 .. 0.0)
ε6: [0.0 .. 0.5)
ε7: [0.5 .. 1.0)
ε8: [1.0 .. 1.5)
ε9: [1.5 .. 2.0)
ε10: [2.0 .. 2.5)
ε11: [2.5 .. +∞]

Closest Distance, rRup (km)	Magnitude (Mw)	ALL_ε	ε=(-∞,-2.5)	ε=[-2.5,-2)	ε=[-2,-1.5)	ε=[-1.5,-1)	ε=[-1,-0.5)	ε=[-0.5,0)	ε=[0,0.5)	ε=[0.5,1)	ε=[1,1.5)	ε=[1.5,2)	ε=[2,2.5)	ε=[2.5,∞)
290	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
270	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
270	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
250	7.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
250	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
250	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
230	7.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
230	7.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
230	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
230	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
210	7.3	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
210	7.5	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
210	7.7	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
210	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	6.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	7.1	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
190	7.3	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.003
190	7.5	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.000	
190	7.7	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	

```
190  7.9  0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0010.0000.000
170  6.7  0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  6.9  0.0020.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.002
170  7.1  0.0060.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0020.003
170  7.3  0.0130.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0130.000
170  7.5  0.0110.0000.0000.0000.0000.0000.0000.0000.0000.0000.0070.0050.000
170  7.7  0.0030.0000.0000.0000.0000.0000.0000.0000.0000.0010.0020.0000.000
170  7.9  0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0010.0000.0000.000
150  6.3  0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  6.5  0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.001
150  6.7  0.0040.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.004
150  6.9  0.0130.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0070.005
150  7.1  0.0210.0000.0000.0000.0000.0000.0000.0000.0000.0000.0020.0190.000
150  7.3  0.0280.0000.0000.0000.0000.0000.0000.0000.0000.0000.0220.0060.000
150  7.5  0.0200.0000.0000.0000.0000.0000.0000.0000.0000.0020.0180.0000.000
150  7.7  0.0040.0000.0000.0000.0000.0000.0000.0000.0000.0030.0000.0000.000
150  7.9  0.0010.0000.0000.0000.0000.0000.0000.0000.0010.0010.0000.0000.000
130  6.1  0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130  6.3  0.0050.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.005
130  6.5  0.0110.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0040.007
130  6.7  0.0160.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0120.003
130  6.9  0.0270.0000.0000.0000.0000.0000.0000.0000.0000.0000.0070.0200.000
130  7.1  0.0420.0000.0000.0000.0000.0000.0000.0000.0000.0000.0370.0060.000
130  7.3  0.0610.0000.0000.0000.0000.0000.0000.0000.0000.0270.0340.0000.000
130  7.5  0.0410.0000.0000.0000.0000.0000.0000.0000.0010.0390.0010.0000.000
130  7.7  0.0070.0000.0000.0000.0000.0000.0000.0000.0040.0030.0000.0000.000
130  7.9  0.0020.0000.0000.0000.0000.0000.0000.0000.0010.0000.0000.0000.000
110  5.7  0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110  5.9  0.0020.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.002
110  6.1  0.0110.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0020.009
110  6.3  0.0300.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0260.004
110  6.5  0.0380.0000.0000.0000.0000.0000.0000.0000.0000.0000.0090.0290.000
110  6.7  0.0470.0000.0000.0000.0000.0000.0000.0000.0000.0000.0300.0170.000
110  6.9  0.0680.0000.0000.0000.0000.0000.0000.0000.0000.0090.0580.0000.000
110  7.1  0.0870.0000.0000.0000.0000.0000.0000.0000.0000.0670.0200.0000.000
110  7.3  0.0920.0000.0000.0000.0000.0000.0000.0000.0210.0710.0000.0000.000
110  7.5  0.0540.0000.0000.0000.0000.0000.0000.0000.0420.0120.0000.0000.000
110  7.7  0.0070.0000.0000.0000.0000.0000.0000.0020.0050.0000.0000.0000.000
110  7.9  0.0020.0000.0000.0000.0000.0000.0000.0020.0000.0000.0000.0000.000
90   5.3  0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
90   5.5  0.0050.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.005
90   5.7  0.0150.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0030.013
90   5.9  0.0320.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0210.011
90   6.1  0.0590.0000.0000.0000.0000.0000.0000.0000.0000.0000.0120.0450.002
90   6.3  0.0990.0000.0000.0000.0000.0000.0000.0000.0000.0000.0790.0200.000
90   6.5  0.1040.0000.0000.0000.0000.0000.0000.0000.0000.0220.0800.0020.000
90   6.7  0.1020.0000.0000.0000.0000.0000.0000.0000.0000.0540.0480.0000.000
90   6.9  0.1250.0000.0000.0000.0000.0000.0000.0000.0120.1090.0050.0000.000
90   7.1  0.1380.0000.0000.0000.0000.0000.0000.0000.0840.0550.0000.0000.000
90   7.3  0.1460.0000.0000.0000.0000.0000.0000.0160.1290.0010.0000.0000.000
90   7.5  0.0780.0000.0000.0000.0000.0000.0000.0430.0350.0000.0000.0000.000
90   7.7  0.0100.0000.0000.0000.0000.0000.0010.0090.0000.0000.0000.0000.000
90   7.9  0.0030.0000.0000.0000.0000.0000.0020.0010.0000.0000.0000.0000.000
70   5.1  0.0240.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.024
70   5.3  0.0460.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0230.023
70   5.5  0.0730.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0580.015
70   5.7  0.1030.0000.0000.0000.0000.0000.0000.0000.0000.0000.0330.0680.002
```

```
70    5.9   0.1370.0000.0000.0000.0000.0000.0000.0000.0000.0000.0980.0390.000
70    6.1   0.1890.0000.0000.0000.0000.0000.0000.0000.0000.0710.1160.0020.000
70    6.3   0.2530.0000.0000.0000.0000.0000.0000.0000.0200.1980.0350.0000.000
70    6.5   0.2780.0000.0000.0000.0000.0000.0000.0000.0950.1770.0050.0000.000
70    6.7   0.2790.0000.0000.0000.0000.0000.0000.0000.1860.0930.0000.0000.000
70    6.9   0.2670.0000.0000.0000.0000.0000.0000.0330.2260.0080.0000.0000.000
70    7.1   0.2760.0000.0000.0000.0000.0000.0000.1690.1070.0000.0000.0000.000
70    7.3   0.2520.0000.0000.0000.0000.0000.0170.2310.0040.0000.0000.0000.000
70    7.5   0.1260.0000.0000.0000.0000.0000.0570.0690.0000.0000.0000.0000.000
70    7.7   0.0190.0000.0000.0000.0000.0010.0180.0000.0000.0000.0000.0000.000
70    7.9   0.0040.0000.0000.0000.0000.0010.0020.0000.0000.0000.0000.0000.000
50    5.1   0.2200.0000.0000.0000.0000.0000.0000.0000.0000.0000.0950.1190.006
50    5.3   0.2640.0000.0000.0000.0000.0000.0000.0000.0000.0070.1790.0780.000
50    5.5   0.3080.0000.0000.0000.0000.0000.0000.0000.0000.1050.1780.0250.000
50    5.7   0.3450.0000.0000.0000.0000.0000.0000.0000.0000.2150.1290.0000.000
50    5.9   0.3760.0000.0000.0000.0000.0000.0000.0000.1060.2310.0380.0000.000
50    6.1   0.4670.0000.0000.0000.0000.0000.0000.0240.2750.1680.0000.0000.000
50    6.3   0.4910.0000.0000.0000.0000.0000.0000.1790.2950.0170.0000.0000.000
50    6.5   0.4320.0000.0000.0000.0000.0000.0000.2540.1790.0000.0000.0000.000
50    6.7   0.3650.0000.0000.0000.0000.0000.0310.2460.0890.0000.0000.0000.000
50    6.9   0.3300.0000.0000.0000.0000.0000.1240.2070.0000.0000.0000.0000.000
50    7.1   0.2890.0000.0000.0000.0000.0020.1980.0900.0000.0000.0000.0000.000
50    7.3   0.2460.0000.0000.0000.0000.0670.1740.0050.0000.0000.0000.0000.000
50    7.5   0.1180.0000.0000.0000.0000.0680.0500.0000.0000.0000.0000.0000.000
50    7.7   0.0130.0000.0000.0000.0020.0110.0010.0000.0000.0000.0000.0000.000
50    7.9   0.0030.0000.0000.0000.0020.0020.0000.0000.0000.0000.0000.0000.000
30    5.1   1.2240.0000.0000.0000.0000.0000.0000.0900.6050.3710.1590.0000.000
30    5.3   1.1420.0000.0000.0000.0000.0000.0000.2850.4750.3460.0370.0000.000
30    5.5   1.0500.0000.0000.0000.0000.0000.0000.4340.4030.2130.0000.0000.000
30    5.7   0.9520.0000.0000.0000.0000.0000.1740.3570.3670.0540.0000.0000.000
30    5.9   0.8460.0000.0000.0000.0000.0000.2780.3550.2130.0000.0000.0000.000
30    6.1   0.8070.0000.0000.0000.0000.1080.3300.3320.0370.0000.0000.0000.000
30    6.3   0.7120.0000.0000.0000.0000.2380.3030.1710.0000.0000.0000.0000.000
30    6.5   0.5380.0000.0000.0000.0300.1910.2730.0450.0000.0000.0000.0000.000
30    6.7   0.4120.0000.0000.0000.0300.1750.1990.0080.0000.0000.0000.0000.000
30    6.9   0.3650.0000.0000.0000.0800.1890.0960.0000.0000.0000.0000.0000.000
30    7.1   0.3060.0000.0000.0070.1060.1760.0160.0000.0000.0000.0000.0000.000
30    7.3   0.2620.0000.0000.0210.1280.1130.0000.0000.0000.0000.0000.0000.000
30    7.5   0.1260.0000.0000.0230.0760.0270.0000.0000.0000.0000.0000.0000.000
30    7.7   0.0120.0000.0000.0040.0080.0000.0000.0000.0000.0000.0000.0000.000
30    7.9   0.0020.0000.0000.0010.0010.0000.0000.0000.0000.0000.0000.0000.000
10    5.1   1.4050.0000.0000.0000.1780.3500.4500.4270.0000.0000.0000.0000.000
10    5.3   1.0850.0000.0000.0000.2100.3260.3820.1660.0000.0000.0000.0000.000
10    5.5   0.8280.0000.0000.0740.1290.2760.3490.0000.0000.0000.0000.0000.000
10    5.7   0.6240.0000.0000.0840.1630.2070.1710.0000.0000.0000.0000.0000.000
10    5.9   0.4640.0000.0300.0580.1390.2190.0170.0000.0000.0000.0000.0000.000
10    6.1   0.4880.0000.0760.1000.1810.1310.0000.0000.0000.0000.0000.0000.000
10    6.3   0.3740.0180.0720.1010.1590.0240.0000.0000.0000.0000.0000.0000.000
10    6.5   0.3000.0300.0620.0860.1000.0220.0000.0000.0000.0000.0000.0000.000
10    6.7   0.2450.0350.0490.0730.0890.0000.0000.0000.0000.0000.0000.0000.000
10    6.9   0.1820.0290.0460.0770.0300.0000.0000.0000.0000.0000.0000.0000.000
10    7.1   0.1450.0240.0450.0680.0080.0000.0000.0000.0000.0000.0000.0000.000
10    7.3   0.1110.0210.0350.0550.0000.0000.0000.0000.0000.0000.0000.0000.000
10    7.5   0.0450.0100.0190.0170.0000.0000.0000.0000.0000.0000.0000.0000.000
10    7.7   0.0030.0010.0020.0010.0000.0000.0000.0000.0000.0000.0000.0000.000
10    7.9   0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
Principal Sources (faults, subduction, random seismicity having > 3% contribution
```

WUSmap_2014_fixSm.ch.in (opt):
  Percent Contributed: 2.94
  Distance (km): 37.63147
  Magnitude: 6.0607443
  Epsilon (mean values): 0.18423576
noPuget_2014_fixSm.ch.in (opt):
  Percent Contributed: 2.94
  Distance (km): 37.629005
  Magnitude: 6.0607223
  Epsilon (mean values): 0.18419902
WUSmap_2014_fixSm.gr.in (opt):
  Percent Contributed: 2.9
  Distance (km): 37.136558
  Magnitude: 6.0495159
  Epsilon (mean values): 0.17578597
noPuget_2014_fixSm.gr.in (opt):
  Percent Contributed: 2.9
  Distance (km): 37.134055
  Magnitude: 6.0494935
  Epsilon (mean values): 0.17574866
noPuget_2014_adSm.ch.in (opt):
  Percent Contributed: 2.18
  Distance (km): 35.624293
  Magnitude: 6.0238013
  Epsilon (mean values): 0.12148404
WUSmap_2014_adSm.ch.in (opt):
  Percent Contributed: 2.18
  Distance (km): 35.612866
  Magnitude: 6.0236296
  Epsilon (mean values): 0.12123283
noPuget_2014_adSm.gr.in (opt):
  Percent Contributed: 2.16
  Distance (km): 35.24159
  Magnitude: 6.0151447
  Epsilon (mean values): 0.11466243
WUSmap_2014_adSm.gr.in (opt):
  Percent Contributed: 2.16
  Distance (km): 35.231008
  Magnitude: 6.0149873
  Epsilon (mean values): 0.11442735
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
vs30 = 537 m/s (Site class C)
return period: 475 yrs.
#This deaggregation corresponds to: GMM: Boore, Stewart, Seyhan & Atkinson (2014)
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:
  Return period: 475 yrs
  Exceedance rate: 0.0021052632 yr^{-1}
  PGA ground motion: 0.074598628 g
Recovered targets:
  Return period: 481.13078 yrs
  Exceedance rate: 0.002078437 yr^{-1}
Totals:

Binned: 26.45 %
Residual: 0 %
Trace: 0.24 %
Mean (over all sources):
m: 6.07
r: 38.53 km
ε_0: 0.05 σ
Mode (largest m-r bin):
m: 5.5
r: 28.81 km
ε_0: 0.24 σ
Contribution: 1.64 %
Mode (largest m-r-ε_0 bin):
m: 5.5
r: 28.33 km
ε_0: 0.23 σ
Contribution: 0.64 %
Discretization:
r: min = 0.0, max = 1000.0, Δ = 20.0 km
m: min = 4.4, max = 9.4, Δ = 0.2
ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
ε0: [-∞ .. -2.5)
ε1: [-2.5 .. -2.0)
ε2: [-2.0 .. -1.5)
ε3: [-1.5 .. -1.0)
ε4: [-1.0 .. -0.5)
ε5: [-0.5 .. 0.0)
ε6: [0.0 .. 0.5)
ε7: [0.5 .. 1.0)
ε8: [1.0 .. 1.5)
ε9: [1.5 .. 2.0)
ε10: [2.0 .. 2.5)
ε11: [2.5 .. +∞]

Closest Distance, rRup (km)	Magnitude (Mw)	ALL_ε	ε=(-∞,-2.5)	ε=[-2.5,-2)	ε=[-2,-1.5)	ε=[-1.5,-1)	ε=[-1,-0.5)	ε=[-0.5,0)	ε=[0,0.5)	ε=[0.5,1)	ε=[1,1.5)	ε=[1.5,2)	ε=[2,2.5)	ε=[2.5,∞)
290	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
270	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
270	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
250	7.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
250	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
250	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
230	7.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
230	7.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
230	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
230	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
210	7.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
210	7.3	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
210	7.5	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
210	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
210	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	6.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	7.1	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
190	7.3	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.003	
190	7.5	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.000	
190	7.7	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	
190	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

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170  6.7  0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  6.9  0.0030.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.003
170  7.1  0.0070.0000.0000.0000.0000.0000.0000.0000.0000.0000.0040.003
170  7.3  0.0120.0000.0000.0000.0000.0000.0000.0000.0000.0000.0120.000
170  7.5  0.0090.0000.0000.0000.0000.0000.0000.0000.0000.0030.0060.000
170  7.7  0.0020.0000.0000.0000.0000.0000.0000.0000.0000.0020.0000.000
170  7.9  0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  6.3  0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  6.5  0.0020.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.002
150  6.7  0.0070.0000.0000.0000.0000.0000.0000.0000.0000.0000.0010.006
150  6.9  0.0140.0000.0000.0000.0000.0000.0000.0000.0000.0000.0100.004
150  7.1  0.0210.0000.0000.0000.0000.0000.0000.0000.0000.0020.0190.001
150  7.3  0.0240.0000.0000.0000.0000.0000.0000.0000.0000.0170.0080.000
150  7.5  0.0160.0000.0000.0000.0000.0000.0000.0000.0000.0150.0000.000
150  7.7  0.0030.0000.0000.0000.0000.0000.0000.0000.0000.0020.0010.0000.000
150  7.9  0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0010.0000.0000.000
130  6.1  0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.001
130  6.3  0.0060.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.006
130  6.5  0.0130.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0060.007
130  6.7  0.0210.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0200.002
130  6.9  0.0310.0000.0000.0000.0000.0000.0000.0000.0000.0000.0110.0200.000
130  7.1  0.0430.0000.0000.0000.0000.0000.0000.0000.0000.0000.0390.0040.000
130  7.3  0.0550.0000.0000.0000.0000.0000.0000.0000.0000.0140.0420.0000.000
130  7.5  0.0340.0000.0000.0000.0000.0000.0000.0000.0000.0290.0060.0000.000
130  7.7  0.0050.0000.0000.0000.0000.0000.0000.0000.0010.0040.0000.0000.000
130  7.9  0.0010.0000.0000.0000.0000.0000.0000.0000.0010.0000.0000.0000.000
110  5.7  0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.001
110  5.9  0.0070.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.007
110  6.1  0.0170.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0060.011
110  6.3  0.0290.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0240.004
110  6.5  0.0410.0000.0000.0000.0000.0000.0000.0000.0000.0000.0100.0310.000
110  6.7  0.0570.0000.0000.0000.0000.0000.0000.0000.0000.0000.0440.0130.000
110  6.9  0.0730.0000.0000.0000.0000.0000.0000.0000.0000.0140.0590.0000.000
110  7.1  0.0880.0000.0000.0000.0000.0000.0000.0000.0000.0660.0220.0000.000
110  7.3  0.0840.0000.0000.0000.0000.0000.0000.0000.0110.0730.0000.0000.000
110  7.5  0.0470.0000.0000.0000.0000.0000.0000.0000.0270.0200.0000.0000.000
110  7.7  0.0060.0000.0000.0000.0000.0000.0000.0000.0050.0000.0000.0000.000
110  7.9  0.0020.0000.0000.0000.0000.0000.0000.0010.0010.0000.0000.0000.000
90   5.3  0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
90   5.5  0.0190.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0050.015
90   5.7  0.0430.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0280.015
90   5.9  0.0630.0000.0000.0000.0000.0000.0000.0000.0000.0000.0020.0550.006
90   6.1  0.0840.0000.0000.0000.0000.0000.0000.0000.0000.0000.0390.0450.000
90   6.3  0.1020.0000.0000.0000.0000.0000.0000.0000.0000.0000.0850.0170.000
90   6.5  0.1140.0000.0000.0000.0000.0000.0000.0000.0000.0300.0850.0000.000
90   6.7  0.1260.0000.0000.0000.0000.0000.0000.0000.0000.0900.0360.0000.000
90   6.9  0.1370.0000.0000.0000.0000.0000.0000.0000.0240.1130.0010.0000.000
90   7.1  0.1420.0000.0000.0000.0000.0000.0000.0000.0900.0520.0000.0000.000
90   7.3  0.1410.0000.0000.0000.0000.0000.0000.0100.1260.0050.0000.0000.000
90   7.5  0.0730.0000.0000.0000.0000.0000.0000.0300.0430.0000.0000.0000.000
90   7.7  0.0090.0000.0000.0000.0000.0000.0000.0080.0010.0000.0000.0000.000
90   7.9  0.0020.0000.0000.0000.0000.0000.0010.0010.0000.0000.0000.0000.000
70   5.1  0.0030.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.003
70   5.3  0.0440.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0230.022
70   5.5  0.1600.0000.0000.0000.0000.0000.0000.0000.0000.0000.0680.0870.005
70   5.7  0.2110.0000.0000.0000.0000.0000.0000.0000.0000.0000.1630.0480.000
70   5.9  0.2350.0000.0000.0000.0000.0000.0000.0000.0000.0710.1560.0090.000
```

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70    6.1   0.2580.0000.0000.0000.0000.0000.0000.0000.0000.1630.0950.0000.000
70    6.3   0.2720.0000.0000.0000.0000.0000.0000.0000.0290.2130.0310.0000.000
70    6.5   0.3150.0000.0000.0000.0000.0000.0000.0000.1630.1530.0000.0000.000
70    6.7   0.3360.0000.0000.0000.0000.0000.0000.0010.2770.0570.0000.0000.000
70    6.9   0.2980.0000.0000.0000.0000.0000.0000.0940.2040.0000.0000.0000.000
70    7.1   0.2980.0000.0000.0000.0000.0000.0000.2210.0770.0000.0000.0000.000
70    7.3   0.2580.0000.0000.0000.0000.0000.0250.2290.0040.0000.0000.0000.000
70    7.5   0.1250.0000.0000.0000.0000.0000.0590.0660.0000.0000.0000.0000.000
70    7.7   0.0190.0000.0000.0000.0000.0000.0180.0010.0000.0000.0000.0000.000
70    7.9   0.0030.0000.0000.0000.0000.0010.0030.0000.0000.0000.0000.0000.000
50    5.1   0.0960.0000.0000.0000.0000.0000.0000.0000.0000.0000.0120.0650.020
50    5.3   0.2820.0000.0000.0000.0000.0000.0000.0000.0000.0530.1570.0720.000
50    5.5   0.5910.0000.0000.0000.0000.0000.0000.0000.0860.3540.1510.0000.000
50    5.7   0.6210.0000.0000.0000.0000.0000.0000.0000.2490.3410.0320.0000.000
50    5.9   0.5760.0000.0000.0000.0000.0000.0000.0090.3510.2170.0000.0000.000
50    6.1   0.5990.0000.0000.0000.0000.0000.0000.1210.3730.1040.0000.0000.000
50    6.3   0.5320.0000.0000.0000.0000.0000.0000.2340.2950.0030.0000.0000.000
50    6.5   0.4810.0000.0000.0000.0000.0000.0220.3160.1430.0000.0000.0000.000
50    6.7   0.4250.0000.0000.0000.0000.0000.1210.2740.0300.0000.0000.0000.000
50    6.9   0.3600.0000.0000.0000.0000.0000.1880.1720.0000.0000.0000.0000.000
50    7.1   0.3040.0000.0000.0000.0000.0240.2240.0560.0000.0000.0000.0000.000
50    7.3   0.2510.0000.0000.0000.0000.0830.1660.0020.0000.0000.0000.0000.000
50    7.5   0.1190.0000.0000.0000.0000.0700.0490.0000.0000.0000.0000.0000.000
50    7.7   0.0130.0000.0000.0000.0010.0110.0010.0000.0000.0000.0000.0000.000
50    7.9   0.0030.0000.0000.0000.0010.0020.0000.0000.0000.0000.0000.0000.000
30    5.1   0.7820.0000.0000.0000.0000.0000.0000.0000.2620.3220.1780.0200.000
30    5.3   1.2490.0000.0000.0000.0000.0000.0000.3920.4950.3170.0450.0000.000
30    5.5   1.6370.0000.0000.0000.0000.0300.4650.6420.4910.0090.0000.0000.000
30    5.7   1.3900.0000.0000.0000.0000.1630.4980.4820.2470.0000.0000.0000.000
30    5.9   1.0940.0000.0000.0000.0000.1970.3990.4580.0400.0000.0000.0000.000
30    6.1   0.9340.0000.0000.0000.0000.2750.3630.2950.0000.0000.0000.0000.000
30    6.3   0.7550.0000.0000.0000.0310.2750.3240.1240.0000.0000.0000.0000.000
30    6.5   0.5750.0000.0000.0000.0840.2180.2690.0050.0000.0000.0000.0000.000
30    6.7   0.4490.0000.0000.0050.0830.2060.1550.0000.0000.0000.0000.0000.000
30    6.9   0.3840.0000.0000.0150.1190.1870.0630.0000.0000.0000.0000.0000.000
30    7.1   0.3160.0000.0000.0250.1310.1570.0030.0000.0000.0000.0000.0000.000
30    7.3   0.2670.0000.0000.0390.1360.0920.0000.0000.0000.0000.0000.0000.000
30    7.5   0.1280.0000.0010.0310.0720.0230.0000.0000.0000.0000.0000.0000.000
30    7.7   0.0120.0000.0000.0040.0070.0000.0000.0000.0000.0000.0000.0000.000
30    7.9   0.0020.0000.0000.0010.0010.0000.0000.0000.0000.0000.0000.0000.000
10    5.1   1.2180.0000.0000.0000.1790.2240.3410.3650.1090.0000.0000.0000.000
10    5.3   1.1680.0000.0620.0930.2160.3120.3810.1050.0000.0000.0000.0000.000
10    5.5   0.9890.0430.0970.1790.2220.4140.0340.0000.0000.0000.0000.0000.000
10    5.7   0.7150.0660.0680.1610.2100.2090.0000.0000.0000.0000.0000.0000.000
10    5.9   0.5050.0460.0470.1280.1820.1020.0000.0000.0000.0000.0000.0000.000
10    6.1   0.5110.0650.0920.1090.2080.0390.0000.0000.0000.0000.0000.0000.000
10    6.3   0.3820.0580.0630.1280.1330.0000.0000.0000.0000.0000.0000.0000.000
10    6.5   0.3060.0550.0580.0990.0950.0000.0000.0000.0000.0000.0000.0000.000
10    6.7   0.2490.0450.0600.0780.0650.0000.0000.0000.0000.0000.0000.0000.000
10    6.9   0.1830.0360.0550.0750.0160.0000.0000.0000.0000.0000.0000.0000.000
10    7.1   0.1460.0270.0530.0640.0020.0000.0000.0000.0000.0000.0000.0000.000
10    7.3   0.1120.0230.0420.0460.0000.0000.0000.0000.0000.0000.0000.0000.000
10    7.5   0.0450.0110.0190.0160.0000.0000.0000.0000.0000.0000.0000.0000.000
10    7.7   0.0030.0010.0020.0010.0000.0000.0000.0000.0000.0000.0000.0000.000
10    7.9   0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
Principal Sources (faults, subduction, random seismicity having > 3% contribution
WUSmap_2014_fixSm.ch.in (opt):
```

Percent Contributed: 3.34
Distance (km): 38.509919
Magnitude: 6.0544189
Epsilon (mean values): 0.070539747
noPuget_2014_fixSm.ch.in (opt):
Percent Contributed: 3.34
Distance (km): 38.507838
Magnitude: 6.0544006
Epsilon (mean values): 0.070506073
WUSmap_2014_fixSm.gr.in (opt):
Percent Contributed: 3.3
Distance (km): 38.026617
Magnitude: 6.0434594
Epsilon (mean values): 0.061287231
noPuget_2014_fixSm.gr.in (opt):
Percent Contributed: 3.3
Distance (km): 38.024504
Magnitude: 6.0434406
Epsilon (mean values): 0.06125303
noPuget_2014_adSm.ch.in (opt):
Percent Contributed: 2.47
Distance (km): 36.518676
Magnitude: 6.021451
Epsilon (mean values): -0.00067835045
WUSmap_2014_adSm.ch.in (opt):
Percent Contributed: 2.46
Distance (km): 36.507968
Magnitude: 6.0212994
Epsilon (mean values): -0.00095351696
noPuget_2014_adSm.gr.in (opt):
Percent Contributed: 2.44
Distance (km): 36.141781
Magnitude: 6.0129667
Epsilon (mean values): -0.0082112795
WUSmap_2014_adSm.gr.in (opt):
Percent Contributed: 2.44
Distance (km): 36.131912
Magnitude: 6.0128293
Epsilon (mean values): -0.0084689918
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
vs30 = 537 m/s (Site class C)
return period: 475 yrs.
#This deaggregation corresponds to: GMM: Campbell & Bozorgnia (2014)
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:
Return period: 475 yrs
Exceedance rate: 0.0021052632 yr^{-1}
PGA ground motion: 0.074598628 g
Recovered targets:
Return period: 481.13078 yrs
Exceedance rate: 0.002078437 yr^{-1}
Totals:
Binned: 19.38 %

Residual: 0 %
Trace: 0.21 %
Mean (over all sources):
m: 6.21
r: 36.72 km
ε_0: -0.01 σ
Mode (largest m-r bin):
m: 5.3
r: 12.24 km
ε_0: -0.35 σ
Contribution: 0.93 %
Mode (largest m-r-ε_0 bin):
m: 6.1
r: 26.24 km
ε_0: -0.26 σ
Contribution: 0.3 %
Discretization:
r: min = 0.0, max = 1000.0, Δ = 20.0 km
m: min = 4.4, max = 9.4, Δ = 0.2
ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
ε0: [-∞ .. -2.5)
ε1: [-2.5 .. -2.0)
ε2: [-2.0 .. -1.5)
ε3: [-1.5 .. -1.0)
ε4: [-1.0 .. -0.5)
ε5: [-0.5 .. 0.0)
ε6: [0.0 .. 0.5)
ε7: [0.5 .. 1.0)
ε8: [1.0 .. 1.5)
ε9: [1.5 .. 2.0)
ε10: [2.0 .. 2.5)
ε11: [2.5 .. +∞]

Closest Distance, rRup (km)	Magnitude (Mw)	ALL_ε	ε=(-∞,-2.5)	ε=[-2.5,-2)	ε=[-2,-1.5)	ε=[-1.5,-1)	ε=[-1,-0.5)	ε=[-0.5,0)	ε=[0,0.5)	ε=[0.5,1)	ε=[1,1.5)	ε=[1.5,2)	ε=[2,2.5)	ε=[2.5,∞)
250	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
230	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
230	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
210	7.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
210	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
210	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	7.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	7.3	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
190	7.5	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
190	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	6.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	7.1	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
170	7.3	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.002
170	7.5	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000
170	7.7	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
170	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	6.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	6.7	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
150	6.9	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.004	
150	7.1	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.003	
150	7.3	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.011	0.000	

```
150  7.5  0.0090.0000.0000.0000.0000.0000.0000.0000.0000.0000.0050.0030.000
150  7.7  0.0020.0000.0000.0000.0000.0000.0000.0000.0000.0000.0010.0000.000
150  7.9  0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130  6.3  0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.001
130  6.5  0.0070.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.006
130  6.7  0.0110.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0070.004
130  6.9  0.0190.0000.0000.0000.0000.0000.0000.0000.0000.0000.0010.0170.001
130  7.1  0.0270.0000.0000.0000.0000.0000.0000.0000.0000.0000.0150.0130.000
130  7.3  0.0370.0000.0000.0000.0000.0000.0000.0000.0000.0000.0360.0010.000
130  7.5  0.0240.0000.0000.0000.0000.0000.0000.0000.0000.0080.0160.0000.000
130  7.7  0.0040.0000.0000.0000.0000.0000.0000.0000.0000.0040.0000.0000.000
130  7.9  0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0010.0000.0000.000
110  6.1  0.0030.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.003
110  6.3  0.0180.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0120.006
110  6.5  0.0350.0000.0000.0000.0000.0000.0000.0000.0000.0000.0050.0290.000
110  6.7  0.0440.0000.0000.0000.0000.0000.0000.0000.0000.0000.0260.0180.000
110  6.9  0.0580.0000.0000.0000.0000.0000.0000.0000.0000.0020.0530.0030.000
110  7.1  0.0710.0000.0000.0000.0000.0000.0000.0000.0000.0400.0310.0000.000
110  7.3  0.0680.0000.0000.0000.0000.0000.0000.0000.0000.0630.0050.0000.000
110  7.5  0.0380.0000.0000.0000.0000.0000.0000.0000.0120.0260.0000.0000.000
110  7.7  0.0050.0000.0000.0000.0000.0000.0000.0000.0040.0010.0000.0000.000
110  7.9  0.0010.0000.0000.0000.0000.0000.0000.0000.0010.0000.0000.0000.000
90   5.7  0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.001
90   5.9  0.0100.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0030.007
90   6.1  0.0390.0000.0000.0000.0000.0000.0000.0000.0000.0000.0030.0300.006
90   6.3  0.0880.0000.0000.0000.0000.0000.0000.0000.0000.0000.0640.0230.000
90   6.5  0.1170.0000.0000.0000.0000.0000.0000.0000.0000.0420.0750.0000.000
90   6.7  0.1160.0000.0000.0000.0000.0000.0000.0000.0000.0740.0420.0000.000
90   6.9  0.1270.0000.0000.0000.0000.0000.0000.0000.0160.1040.0060.0000.000
90   7.1  0.1300.0000.0000.0000.0000.0000.0000.0000.0690.0600.0000.0000.000
90   7.3  0.1280.0000.0000.0000.0000.0000.0000.0030.1100.0150.0000.0000.000
90   7.5  0.0660.0000.0000.0000.0000.0000.0000.0180.0480.0000.0000.0000.000
90   7.7  0.0080.0000.0000.0000.0000.0000.0000.0060.0020.0000.0000.0000.000
90   7.9  0.0020.0000.0000.0000.0000.0000.0000.0020.0000.0000.0000.0000.000
70   5.3  0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
70   5.5  0.0090.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.009
70   5.7  0.0330.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0220.011
70   5.9  0.0740.0000.0000.0000.0000.0000.0000.0000.0000.0000.0260.0460.002
70   6.1  0.1470.0000.0000.0000.0000.0000.0000.0000.0000.0270.1090.0110.000
70   6.3  0.2410.0000.0000.0000.0000.0000.0000.0000.0150.1860.0400.0000.000
70   6.5  0.3200.0000.0000.0000.0000.0000.0000.0000.1620.1590.0000.0000.000
70   6.7  0.3170.0000.0000.0000.0000.0000.0000.0000.2500.0660.0000.0000.000
70   6.9  0.2790.0000.0000.0000.0000.0000.0000.0420.2360.0000.0000.0000.000
70   7.1  0.2750.0000.0000.0000.0000.0000.0000.1620.1130.0000.0000.0000.000
70   7.3  0.2370.0000.0000.0000.0000.0000.0000.2230.0140.0000.0000.0000.000
70   7.5  0.1150.0000.0000.0000.0000.0000.0210.0940.0000.0000.0000.0000.000
70   7.7  0.0180.0000.0000.0000.0000.0000.0150.0030.0000.0000.0000.0000.000
70   7.9  0.0030.0000.0000.0000.0000.0000.0030.0000.0000.0000.0000.0000.000
50   5.1  0.0100.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0020.009
50   5.3  0.0430.0000.0000.0000.000  0.000  0.000  0.000  0.000  0.000  0.000  0.030  0.012
50   5.5  0.114  0.000  0.000  0.000  0.000  0.000  0.000  0.000  0.000  0.000  0.060  0.051
0.003
50   5.7  0.181  0.000  0.000  0.000  0.000  0.000  0.000  0.000  0.000  0.046  0.108  0.027
0.000
50   5.9  0.253  0.000  0.000  0.000  0.000  0.000  0.000  0.000  0.017  0.153  0.082  0.000
0.000
50   6.1  0.393  0.000  0.000  0.000  0.000  0.000  0.000  0.002  0.210  0.172  0.009  0.000
```

0.000													
50	6.3	0.473	0.000	0.000	0.000	0.000	0.000	0.000	0.153	0.286	0.034	0.000	0.000
0.000													
50	6.5	0.471	0.000	0.000	0.000	0.000	0.000	0.013	0.304	0.154	0.000	0.000	0.000
0.000													
50	6.7	0.394	0.000	0.000	0.000	0.000	0.000	0.072	0.259	0.063	0.000	0.000	0.000
0.000													
50	6.9	0.333	0.000	0.000	0.000	0.000	0.000	0.132	0.201	0.000	0.000	0.000	0.000
0.000													
50	7.1	0.280	0.000	0.000	0.000	0.000	0.002	0.177	0.101	0.000	0.000	0.000	0.000
0.000													
50	7.3	0.231	0.000	0.000	0.000	0.000	0.034	0.176	0.022	0.000	0.000	0.000	0.000
0.000													
50	7.5	0.110	0.000	0.000	0.000	0.000	0.042	0.068	0.000	0.000	0.000	0.000	0.000
0.000													
50	7.7	0.012	0.000	0.000	0.000	0.000	0.008	0.004	0.000	0.000	0.000	0.000	0.000
0.000													
50	7.9	0.003	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
30	5.1	0.344	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.021	0.159	0.110	0.049
0.003													
30	5.3	0.543	0.000	0.000	0.000	0.000	0.000	0.000	0.020	0.197	0.200	0.106	0.020
0.000													
30	5.5	0.777	0.000	0.000	0.000	0.000	0.000	0.000	0.257	0.283	0.186	0.050	0.000
0.000													
30	5.7	0.802	0.000	0.000	0.000	0.000	0.000	0.147	0.287	0.235	0.133	0.000	0.000
0.000													
30	5.9	0.765	0.000	0.000	0.000	0.000	0.015	0.242	0.254	0.234	0.020	0.000	0.000
0.000													
30	6.1	0.794	0.000	0.000	0.000	0.000	0.135	0.304	0.300	0.054	0.000	0.000	0.000
0.000													
30	6.3	0.738	0.000	0.000	0.000	0.064	0.239	0.276	0.159	0.000	0.000	0.000	0.000
0.000													
30	6.5	0.587	0.000	0.000	0.000	0.119	0.204	0.264	0.000	0.000	0.000	0.000	0.000
0.000													
30	6.7	0.445	0.000	0.000	0.005	0.107	0.180	0.153	0.000	0.000	0.000	0.000	0.000
0.000													
30	6.9	0.379	0.000	0.000	0.015	0.115	0.166	0.083	0.000	0.000	0.000	0.000	0.000
0.000													
30	7.1	0.310	0.000	0.000	0.033	0.107	0.151	0.019	0.000	0.000	0.000	0.000	0.000
0.000													
30	7.3	0.261	0.000	0.000	0.041	0.102	0.119	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
30	7.5	0.125	0.000	0.001	0.022	0.063	0.039	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
30	7.7	0.011	0.000	0.000	0.003	0.006	0.002	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
30	7.9	0.002	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
10	5.1	0.922	0.000	0.000	0.000	0.000	0.149	0.271	0.260	0.221	0.020	0.000	0.000
0.000													
10	5.3	0.928	0.000	0.000	0.000	0.140	0.238	0.244	0.263	0.044	0.000	0.000	0.000
0.000													
10	5.5	0.845	0.000	0.000	0.121	0.191	0.218	0.290	0.024	0.000	0.000	0.000	0.000
0.000													
10	5.7	0.647	0.000	0.043	0.094	0.173	0.226	0.110	0.000	0.000	0.000	0.000	0.000
0.000													

10	5.9	0.478	0.000	0.060	0.101	0.127	0.185	0.005	0.000	0.000	0.000	0.000	0.000	0.000
10	6.1	0.505	0.052	0.087	0.108	0.168	0.091	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	6.3	0.387	0.075	0.081	0.113	0.118	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	6.5	0.311	0.084	0.073	0.097	0.057	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	6.7	0.252	0.077	0.061	0.082	0.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	6.9	0.185	0.057	0.060	0.068	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	7.1	0.147	0.049	0.049	0.049	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	7.3	0.112	0.036	0.040	0.036	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	7.5	0.046	0.016	0.018	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	7.7	0.003	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	7.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Principal Sources (faults, subduction, random seismicity having > 3% contribution
WUSmap_2014_fixSm.ch.in (opt):
  Percent Contributed: 2.43
  Distance (km): 36.657462
  Magnitude: 6.1985921
  Epsilon (mean values): 0.005321079
noPuget_2014_fixSm.ch.in (opt):
  Percent Contributed: 2.43
  Distance (km): 36.656928
  Magnitude: 6.1985873
  Epsilon (mean values): 0.0053111168
WUSmap_2014_fixSm.gr.in (opt):
  Percent Contributed: 2.39
  Distance (km): 36.051191
  Magnitude: 6.1873492
  Epsilon (mean values): -0.0078244302
noPuget_2014_fixSm.gr.in (opt):
  Percent Contributed: 2.39
  Distance (km): 36.050647
  Magnitude: 6.1873443
  Epsilon (mean values): -0.0078345665
noPuget_2014_adSm.ch.in (opt):
  Percent Contributed: 1.8
  Distance (km): 34.547198
  Magnitude: 6.1580096
  Epsilon (mean values): -0.060213695
WUSmap_2014_adSm.ch.in (opt):
  Percent Contributed: 1.8
  Distance (km): 34.536792
  Magnitude: 6.1578564
  Epsilon (mean values): -0.060475301
noPuget_2014_adSm.gr.in (opt):
  Percent Contributed: 1.78
  Distance (km): 34.079391
  Magnitude: 6.1492354

  Epsilon (mean values): -0.07061664
WUSmap_2014_adSm.gr.in (opt):
  Percent Contributed: 1.78
  Distance (km): 34.069894
  Magnitude: 6.1490954
  Epsilon (mean values): -0.070857362
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
vs30 = 537 m/s (Site class C)
return period: 475 yrs.
#This deaggregation corresponds to: GMM: Chiou & Youngs (2014)
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:
  Return period: 475 yrs
  Exceedance rate: 0.0021052632 yr^{-1}
  PGA ground motion: 0.074598628 g
Recovered targets:
  Return period: 481.13078 yrs
  Exceedance rate: 0.002078437 yr^{-1}
Totals:
  Binned: 20.13 %
  Residual: 0 %
  Trace: 0.28 %
Mean (over all sources):
  m: 6.21
  r: 38.72 km
  ε_0: 0.03 σ
Mode (largest m-r bin):
  m: 5.1
  r: 11.97 km
  ε_0: -0.12 σ
  Contribution: 1.14 %
Mode (largest m-r-ε_0 bin):
  m: 5.1
  r: 10.58 km
  ε_0: -0.27 σ
  Contribution: 0.35 %
Discretization:
  r: min = 0.0, max = 1000.0, Δ = 20.0 km
  m: min = 4.4, max = 9.4, Δ = 0.2
  ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
  ε0: [-∞ .. -2.5)
  ε1: [-2.5 .. -2.0)
  ε2: [-2.0 .. -1.5)
  ε3: [-1.5 .. -1.0)
  ε4: [-1.0 .. -0.5)
  ε5: [-0.5 .. 0.0)
  ε6: [0.0 .. 0.5)
  ε7: [0.5 .. 1.0)
  ε8: [1.0 .. 1.5)
  ε9: [1.5 .. 2.0)
  ε10: [2.0 .. 2.5)
  ε11: [2.5 .. +∞]

Closest Distance, rRup (km)	Magnitude (Mw)	ALL_ε	ε=(-∞,-2.5)	ε=[-2.5,-2)	ε=[-2,-1.5)	ε=[-1.5,-1)	ε=[-1,-0.5)	ε=[-0.5,0)	ε=[0,0.5)	ε=[0.5,1)	ε=[1,1.5)	ε=[1.5,2)	ε=[2,2.5)	ε=[2.5,∞)
290	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
290	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
270	7.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
270	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
270	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
250	7.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
250	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
250	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
230	7.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
230	7.5	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
230	7.7	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
230	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
210	7.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
210	7.3	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.002
210	7.5	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.001	
210	7.7	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	
210	7.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
190	6.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	7.1	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.003	
190	7.3	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.002	
190	7.5	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.005	0.000	
190	7.7	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.002	0.000	0.000	
190	7.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	
170	6.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	6.9	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
170	7.1	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.008	0.002	
170	7.3	0.023	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.013	0.010	0.000	
170	7.5	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.017	0.001	0.000	
170	7.7	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.001	0.000	0.000	
170	7.9	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.000
150	6.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	6.7	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003
150	6.9	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.010	0.003	
150	7.1	0.028	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.015	0.012	0.001	
150	7.3	0.043	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.010	0.030	0.003	0.000	
150	7.5	0.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.026	0.006	0.000	0.000	
150	7.7	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.002	0.000	0.000	0.000
150	7.9	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000
130	6.3	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
130	6.5	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005
130	6.7	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.004	
130	6.9	0.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.015	0.017	0.000	
130	7.1	0.061	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.010	0.049	0.001	0.000	
130	7.3	0.096	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.082	0.009	0.000	0.000	
130	7.5	0.065	0.000	0.000	0.000	0.000	0.000	0.000	0.036	0.029	0.000	0.000	0.000	
130	7.7	0.010	0.000	0.000	0.000	0.000	0.000	0.002	0.007	0.000	0.000	0.000	0.000	
130	7.9	0.002	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	
110	5.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110	6.1	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005
110	6.3	0.016	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.007	
110	6.5	0.024	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.022	0.002	
110	6.7	0.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.020	0.020	0.000	
110	6.9	0.074	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.020	0.053	0.001	0.000	
110	7.1	0.112	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.094	0.009	0.000	0.000	
110	7.3	0.126	0.000	0.000	0.000	0.000	0.000	0.000	0.090	0.036	0.000	0.000	0.000	

```
110  7.5  0.0750.0000.0000.0000.0000.0000.0000.0200.0540.0020.0000.0000.000
110  7.7  0.0100.0000.0000.0000.0000.0000.0010.0080.0010.0000.0000.0000.000
110  7.9  0.0030.0000.0000.0000.0000.0000.0020.0010.0000.0000.0000.0000.000
90   5.5  0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
90   5.7  0.0030.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.003
90   5.9  0.0140.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0040.011
90   6.1  0.0350.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0290.006
90   6.3  0.0610.0000.0000.0000.0000.0000.0000.0000.0000.0000.0300.0320.000
90   6.5  0.0710.0000.0000.0000.0000.0000.0000.0000.0000.0000.0590.0120.000
90   6.7  0.0880.0000.0000.0000.0000.0000.0000.0000.0000.0350.0520.0010.000
90   6.9  0.1300.0000.0000.0000.0000.0000.0000.0000.0220.1030.0050.0000.000
90   7.1  0.1620.0000.0000.0000.0000.0000.0000.0050.1250.0310.0000.0000.000
90   7.3  0.1810.0000.0000.0000.0000.0000.0000.0950.0850.0010.0000.0000.000
90   7.5  0.0980.0000.0000.0000.0000.0000.0060.0790.0130.0000.0000.0000.000
90   7.7  0.0130.0000.0000.0000.0000.0000.0080.0040.0000.0000.0000.0000.000
90   7.9  0.0030.0000.0000.0000.0000.0010.0020.0000.0000.0000.0000.0000.000
70   5.1  0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
70   5.3  0.0060.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.006
70   5.5  0.0220.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0080.015
70   5.7  0.0460.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0360.011
70   5.9  0.0760.0000.0000.0000.0000.0000.0000.0000.0000.0000.0260.0480.001
70   6.1  0.1210.0000.0000.0000.0000.0000.0000.0000.0000.0070.0960.0180.000
70   6.3  0.1720.0000.0000.0000.0000.0000.0000.0000.0000.0970.0750.0000.000
70   6.5  0.2120.0000.0000.0000.0000.0000.0000.0000.0180.1690.0250.0000.000
70   6.7  0.2530.0000.0000.0000.0000.0000.0000.0000.1430.1080.0020.0000.000
70   6.9  0.2780.0000.0000.0000.0000.0000.0000.0690.1970.0110.0000.0000.000
70   7.1  0.3180.0000.0000.0000.0000.0000.0100.2550.0530.0000.0000.0000.000
70   7.3  0.3010.0000.0000.0000.0000.0000.1490.1500.0020.0000.0000.0000.000
70   7.5  0.1510.0000.0000.0000.0000.0060.1260.0180.0000.0000.0000.0000.000
70   7.7  0.0230.0000.0000.0000.0000.0180.0050.0000.0000.0000.0000.0000.000
70   7.9  0.0040.0000.0000.0000.0010.0030.0000.0000.0000.0000.0000.0000.000
50   5.1  0.0470.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0290.018
50   5.3  0.0960.0000.0000.0000.0000.0000.0000.0000.0000.0000.0230.0630.011
50   5.5  0.1480.0000.0000.0000.0000.0000.0000.0000.0000.0000.0910.0570.000
50   5.7  0.1950.0000.0000.0000.0000.0000.0000.0000.0000.0490.1240.0220.000
50   5.9  0.2420.0000.0000.0000.0000.0000.0000.0000.0050.1460.0910.0000.000
50   6.1  0.3420.0000.0000.0000.0000.0000.0000.0000.1340.1890.0190.0000.000
50   6.3  0.3870.0000.0000.0000.0000.0000.0000.0610.2380.0880.0000.0000.000
50   6.5  0.3760.0000.0000.0000.0000.0000.0000.1680.2020.0060.0000.0000.000
50   6.7  0.3510.0000.0000.0000.0000.0000.0310.2120.1080.0000.0000.0000.000
50   6.9  0.3430.0000.0000.0000.0000.0040.1540.1780.0070.0000.0000.0000.000
50   7.1  0.3160.0000.0000.0000.0000.0710.1940.0510.0000.0000.0000.0000.000
50   7.3  0.2730.0000.0000.0000.0110.1520.1090.0020.0000.0000.0000.0000.000
50   7.5  0.1310.0000.0000.0000.0300.0870.0140.0000.0000.0000.0000.0000.000
50   7.7  0.0150.0000.0000.0010.0090.0050.0000.0000.0000.0000.0000.0000.000
50   7.9  0.0040.0000.0000.0010.0020.0000.0000.0000.0000.0000.0000.0000.000
30   5.1  0.6020.0000.0000.0000.0000.0000.0000.0000.1660.2490.1470.0400.000
30   5.3  0.7140.0000.0000.0000.0000.0000.0000.0670.3020.2210.1230.0000.000
30   5.5  0.7580.0000.0000.0000.0000.0000.0000.2090.2920.2190.0370.0000.000
30   5.7  0.7520.0000.0000.0000.0000.0000.0720.2910.2510.1380.0000.0000.000
30   5.9  0.7160.0000.0000.0000.0000.0000.1910.2560.2420.0270.0000.0000.000
30   6.1  0.7400.0000.0000.0000.0000.1080.2530.2670.1110.0000.0000.0000.000
30   6.3  0.6870.0000.0000.0000.0240.2070.2450.2110.0000.0000.0000.0000.000
30   6.5  0.5490.0000.0000.0000.0940.1720.2180.0650.0000.0000.0000.0000.000
30   6.7  0.4340.0000.0000.0120.0840.1690.1610.0080.0000.0000.0000.0000.000
30   6.9  0.3900.0000.0000.0460.1230.1610.0600.0000.0000.0000.0000.0000.000
30   7.1  0.3290.0000.0140.0690.1320.1090.0050.0000.0000.0000.0000.0000.000
```

```
30    7.3   0.2800.0000.0280.0880.1300.0340.0000.0000.0000.0000.0000.0000.000
30    7.5   0.1340.0010.0200.0600.0490.0040.0000.0000.0000.0000.0000.0000.000
30    7.7   0.0120.0010.0030.0060.0020.0000.0000.0000.0000.0000.0000.0000.000
30    7.9   0.0020.0000.0010.0010.0000.0000.0000.0000.0000.0000.0000.0000.000
10    5.1   1.1410.0000.0000.0000.0780.2080.3530.3370.1660.0000.0000.0000.000
10    5.3   0.9780.0000.0000.0000.1430.2750.2570.3030.0000.0000.0000.0000.000
10    5.5   0.7890.0000.0000.0580.1330.2280.3010.0700.0000.0000.0000.0000.000
10    5.7   0.6130.0000.0000.0840.1630.1870.1790.0000.0000.0000.0000.0000.000
10    5.9   0.4640.0000.0290.0810.1330.1820.0390.0000.0000.0000.0000.0000.000
10    6.1   0.4970.0100.0980.1010.1750.1140.0000.0000.0000.0000.0000.0000.000
10    6.3   0.3830.0530.0820.1160.1180.0140.0000.0000.0000.0000.0000.0000.000
10    6.5   0.3090.0720.0770.0930.0670.0000.0000.0000.0000.0000.0000.0000.000
10    6.7   0.2520.0700.0670.0750.0400.0000.0000.0000.0000.0000.0000.0000.000
10    6.9   0.1860.0670.0660.0520.0000.0000.0000.0000.0000.0000.0000.0000.000
10    7.1   0.1480.0670.0590.0230.0000.0000.0000.0000.0000.0000.0000.0000.000
10    7.3   0.1130.0630.0410.0100.0000.0000.0000.0000.0000.0000.0000.0000.000
10    7.5   0.0460.0310.0150.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
10    7.7   0.0030.0030.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
10    7.9   0.0010.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
Principal Sources (faults, subduction, random seismicity having > 3% contribution
WUSmap_2014_fixSm.ch.in (opt):
  Percent Contributed: 2.51
  Distance (km): 38.093857
  Magnitude: 6.1940321
  Epsilon (mean values): 0.042030861
noPuget_2014_fixSm.ch.in (opt):
  Percent Contributed: 2.51
  Distance (km): 38.085678
  Magnitude: 6.1939705
  Epsilon (mean values): 0.041914995
WUSmap_2014_fixSm.gr.in (opt):
  Percent Contributed: 2.47
  Distance (km): 37.492204
  Magnitude: 6.1821492
  Epsilon (mean values): 0.030695365
noPuget_2014_fixSm.gr.in (opt):
  Percent Contributed: 2.47
  Distance (km): 37.483913
  Magnitude: 6.1820863
  Epsilon (mean values): 0.030577764
noPuget_2014_adSm.ch.in (opt):
  Percent Contributed: 1.86
  Distance (km): 35.994921
  Magnitude: 6.1509458
  Epsilon (mean values): -0.016571653
WUSmap_2014_adSm.ch.in (opt):
  Percent Contributed: 1.86
  Distance (km): 35.980633
  Magnitude: 6.1507342
  Epsilon (mean values): -0.016851666
noPuget_2014_adSm.gr.in (opt):
  Percent Contributed: 1.84
  Distance (km): 35.529979
  Magnitude: 6.1417206
  Epsilon (mean values): -0.025614896
WUSmap_2014_adSm.gr.in (opt):
  Percent Contributed: 1.84
```

Distance (km): 35.516713
Magnitude: 6.1415238
Epsilon (mean values): -0.025873757
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
vs30 = 537 m/s (Site class C)
return period: 475 yrs.
#This deaggregation corresponds to: GMM: Atkinson & Macias (2009) : Interface
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:
Return period: 475 yrs
Exceedance rate: 0.0021052632 yr^{-1}
PGA ground motion: 0.074598628 g
Recovered targets:
Return period: 481.13078 yrs
Exceedance rate: 0.002078437 yr^{-1}
Totals:
Binned: 0.17 %
Residual: 0 %
Trace: 0 %
Mean (over all sources):
m: 9.21
r: 328.34 km
ε_0: 2.04 σ
Mode (largest m-r bin):
m: 9.34
r: 323.7 km
ε_0: 1.8 σ
Contribution: 0.11 %
Mode (largest m-r-ε_0 bin):
m: 9.34
r: 323.7 km
ε_0: 1.8 σ
Contribution: 0.11 %
Discretization:
r: min = 0.0, max = 1000.0, Δ = 20.0 km
m: min = 4.4, max = 9.4, Δ = 0.2
ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
ε0: [-∞ .. -2.5)
ε1: [-2.5 .. -2.0)
ε2: [-2.0 .. -1.5)
ε3: [-1.5 .. -1.0)
ε4: [-1.0 .. -0.5)
ε5: [-0.5 .. 0.0)
ε6: [0.0 .. 0.5)
ε7: [0.5 .. 1.0)
ε8: [1.0 .. 1.5)
ε9: [1.5 .. 2.0)
ε10: [2.0 .. 2.5)
ε11: [2.5 .. +∞]
Closest Distance, rRup (km) Magnitude (Mw) ALL_ε ε=(-∞,-2.5) ε=[-2.5,-2)ε=[-2,-1.5)ε=[-1.5,-1) ε=[-1,-0.5)ε=[-0.5,0) ε=[0,0.5) ε=[0.5,1) ε=[1,1.5) ε=[1.5,2) ε=[2,2.5) ε=[2.5,∞)
390 9.1 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000

```
370   9.1    0.0140.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.014
350   8.5    0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
350   8.7    0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
350   8.9    0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.001
330   8.5    0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
330   8.7    0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.001
330   8.9    0.0150.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0010.014
330   9.1    0.0300.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0300.000
330   9.3    0.1050.0000.0000.0000.0000.0000.0000.0000.0000.0000.1050.0000.000
Principal Sources (faults, subduction, random seismicity having > 3% contribution
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
vs30 = 537 m/s (Site class C)
return period: 475 yrs.
#This deaggregation corresponds to: GMM: BC Hydro (2012) : Interface
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:
  Return period: 475 yrs
  Exceedance rate: 0.0021052632 yr⁻¹
  PGA ground motion: 0.074598628 g
Recovered targets:
  Return period: 481.13078 yrs
  Exceedance rate: 0.002078437 yr⁻¹
Totals:
  Binned: 7.38 %
  Residual: 0 %
  Trace: 0.05 %
Mean (over all sources):
  m: 8.89
  r: 358.62 km
  ε₀: 0.91 σ
Mode (largest m-r bin):
  m: 9.34
  r: 323.7 km
  ε₀: 0.36 σ
  Contribution: 1.09 %
Mode (largest m-r-ε₀ bin):
  m: 9.34
  r: 323.7 km
  ε₀: 0.36 σ
  Contribution: 1.09 %
Discretization:
  r: min = 0.0, max = 1000.0, Δ = 20.0 km
  m: min = 4.4, max = 9.4, Δ = 0.2
  ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
  ε0: [-∞ .. -2.5)
  ε1: [-2.5 .. -2.0)
  ε2: [-2.0 .. -1.5)
  ε3: [-1.5 .. -1.0)
  ε4: [-1.0 .. -0.5)
  ε5: [-0.5 .. 0.0)
  ε6: [0.0 .. 0.5)
  ε7: [0.5 .. 1.0)
```

ε8: [1.0 .. 1.5)
ε9: [1.5 .. 2.0)
ε10: [2.0 .. 2.5)
ε11: [2.5 .. +∞]

Closest Distance, rRup (km)	Magnitude (Mw)	ALL_ε	ε=(-∞,-2.5)	ε=[-2.5,-2)	ε=[-2,-1.5)	ε=[-1.5,-1)	ε=[-1,-0.5)	ε=[-0.5,0)	ε=[0,0.5)	ε=[0.5,1)	ε=[1,1.5)	ε=[1.5,2)	ε=[2,2.5)	ε=[2.5,∞)
590	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
570	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
570	8.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
550	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
550	8.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
530	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
530	8.1	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
530	8.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
510	7.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
510	8.1	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000
510	8.3	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
490	7.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
490	8.1	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000
490	8.3	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
490	8.5	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
470	7.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
470	8.1	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.000
470	8.3	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000
470	8.5	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000
450	7.9	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000
450	8.1	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.017	0.012	0.000
450	8.3	0.027	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.027	0.000	0.000
450	8.5	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.030	0.000	0.000
430	7.9	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000
430	8.1	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.000	0.000
430	8.3	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.000	0.000
430	8.5	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.010	0.000	0.000
410	7.9	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006	0.000	0.000
410	8.1	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.014	0.000	0.000
410	8.3	0.031	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.031	0.000	0.000
410	8.5	0.049	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.034	0.014	0.000	0.000
410	8.7	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006	0.000	0.000	0.000
390	7.9	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.012	0.000	0.000
390	8.1	0.027	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.027	0.000	0.000
390	8.3	0.105	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.105	0.000	0.000
390	8.5	0.144	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.097	0.047	0.000	0.000
390	8.7	0.542	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.542	0.000	0.000	0.000
390	9.1	0.305	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.305	0.000	0.000	0.000
370	7.9	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.010	0.000	0.000
370	8.1	0.023	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.022	0.000	0.000
370	8.3	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.014	0.001	0.000	0.000
370	8.5	0.177	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.177	0.000	0.000	0.000
370	8.7	0.723	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.723	0.000	0.000	0.000
370	8.9	0.719	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.719	0.000	0.000	0.000
370	9.1	1.023	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.023	0.000	0.000	0.000	0.000
350	7.9	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.000	0.000
350	8.1	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.008	0.001	0.000	0.000
350	8.3	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.000	0.000	0.000
350	8.5	0.076	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.076	0.000	0.000	0.000
350	8.7	0.065	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.065	0.000	0.000	0.000	0.000
350	8.9	0.082	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.082	0.000	0.000	0.000	0.000

330 7.9 0.0150.0000.0000.0000.0000.0000.0000.0000.0000.0150.0000.0000.000
330 8.1 0.0330.0000.0000.0000.0000.0000.0000.0000.0000.0330.0000.0000.000
330 8.3 0.0200.0000.0000.0000.0000.0000.0000.0000.0000.0200.0000.0000.000
330 8.5 0.1220.0000.0000.0000.0000.0000.0000.0000.0860.0360.0000.0000.000
330 8.7 0.1550.0000.0000.0000.0000.0000.0000.0000.1550.0000.0000.0000.000
330 8.9 0.7610.0000.0000.0000.0000.0000.0000.0000.7610.0000.0000.0000.000
330 9.1 0.8760.0000.0000.0000.0000.0000.0000.0000.8760.0000.0000.0000.000
330 9.3 1.0940.0000.0000.0000.0000.0000.0001.0940.0000.0000.0000.0000.000
Principal Sources (faults, subduction, random seismicity having > 3% contribution
sub0_ch_bot.in:
  Percent Contributed: 2.63
  Distance (km): 323.70483
  Magnitude: 9.103877
  Epsilon (mean values): 0.53449475
Cascadia Megathrust - whole CSZ Characteristic:
  Percent Contributed: 2.63
  Distance (km): 323.70483
  Magnitude: 9.103877
  Epsilon (mean values): 0.53449475
  Azimuth: 287.96053
  Latitude: 46.3
  Longitude: -123.4132
sub0_ch_mid.in:
  Percent Contributed: 2.35
  Distance (km): 377.23061
  Magnitude: 8.9169924
  Epsilon (mean values): 0.99204368
Cascadia Megathrust - whole CSZ Characteristic:
  Percent Contributed: 2.35
  Distance (km): 377.23061
  Magnitude: 8.9169924
  Epsilon (mean values): 0.99204368
  Azimuth: 285.79267
  Latitude: 46.3
  Longitude: -124.13677
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
vs30 = 537 m/s (Site class C)
return period: 475 yrs.
#This deaggregation corresponds to: GMM: BC Hydro (2012) : Slab
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:
  Return period: 475 yrs
  Exceedance rate: 0.0021052632 yr^{-1}
  PGA ground motion: 0.074598628 g
Recovered targets:
  Return period: 481.13078 yrs
  Exceedance rate: 0.002078437 yr^{-1}
Totals:
  Binned: 0.87 %
  Residual: 0 %
  Trace: 0.07 %
Mean (over all sources):
  m: 7.08

r: 259.48 km
ε₀: 1.64 σ
Mode (largest m-r bin):
m: 7.11
r: 270.15 km
ε₀: 1.7 σ
Contribution: 0.15 %
Mode (largest m-r-ε₀ bin):
m: 7.11
r: 270.79 km
ε₀: 1.71 σ
Contribution: 0.13 %
Discretization:
r: min = 0.0, max = 1000.0, Δ = 20.0 km
m: min = 4.4, max = 9.4, Δ = 0.2
ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
ε0: [-∞ .. -2.5)
ε1: [-2.5 .. -2.0)
ε2: [-2.0 .. -1.5)
ε3: [-1.5 .. -1.0)
ε4: [-1.0 .. -0.5)
ε5: [-0.5 .. 0.0)
ε6: [0.0 .. 0.5)
ε7: [0.5 .. 1.0)
ε8: [1.0 .. 1.5)
ε9: [1.5 .. 2.0)
ε10: [2.0 .. 2.5)
ε11: [2.5 .. +∞]

Closest Distance, rRup (km)	Magnitude (Mw)	ALL_ε	ε=(-∞,-2.5)	ε=[-2.5,-2)	ε=[-2,-1.5)	ε=[-1.5,-1)	ε=[-1,-0.5)	ε=[-0.5,0)	ε=[0,0.5)	ε=[0.5,1)	ε=[1,1.5)	ε=[1.5,2)	ε=[2,2.5)	ε=[2.5,∞)
290	6.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
290	6.7	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.011	
290	6.9	0.049	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.044	0.005	
290	7.1	0.105	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.084	0.022	0.000	
290	7.3	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.008	0.006	0.000	0.000	
290	7.5	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.000	0.000	0.000	
270	6.5	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	
270	6.7	0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.012	0.008	
270	6.9	0.058	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.017	0.041	0.000	
270	7.1	0.145	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.014	0.127	0.005	0.000	
270	7.3	0.027	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.024	0.003	0.000	0.000	
270	7.5	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.011	0.000	0.000	0.000	
270	7.7	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.000	0.000	0.000	0.000	
270	7.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	
250	6.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
250	6.5	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.003	
250	6.7	0.018	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.017	0.001	
250	6.9	0.049	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.039	0.010	0.000	
250	7.1	0.110	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.056	0.053	0.000	0.000	
250	7.3	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.015	0.000	0.000	
250	7.5	0.016	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.015	0.001	0.000	0.000	
250	7.7	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.002	0.000	0.000	0.000	
250	7.9	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.001	0.000	0.000	0.000	
230	6.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
230	6.5	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.001	
230	6.7	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006	0.007	0.000	

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230  6.9   0.0330.0000.0000.0000.0000.0000.0000.0000.0000.0060.0270.0000.000
230  7.1   0.0730.0000.0000.0000.0000.0000.0000.0000.0000.0700.0030.0000.000
230  7.3   0.0120.0000.0000.0000.0000.0000.0000.0000.0100.0020.0000.0000.000
230  7.5   0.0090.0000.0000.0000.0000.0000.0000.0030.0060.0000.0000.0000.000
230  7.7   0.0020.0000.0000.0000.0000.0000.0000.0020.0000.0000.0000.0000.000
230  7.9   0.0020.0000.0000.0000.0000.0000.0000.0020.0000.0000.0000.0000.000
210  6.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
210  6.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
210  6.5   0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0010.000
210  6.7   0.0030.0000.0000.0000.0000.0000.0000.0000.0000.0000.0030.0000.000
210  6.9   0.0060.0000.0000.0000.0000.0000.0000.0000.0000.0040.0020.0000.000
210  7.1   0.0120.0000.0000.0000.0000.0000.0000.0000.0080.0050.0000.0000.000
210  7.3   0.0030.0000.0000.0000.0000.0000.0000.0000.0030.0000.0000.0000.000
210  7.5   0.0030.0000.0000.0000.0000.0000.0000.0030.0000.0000.0000.0000.000
210  7.7   0.0010.0000.0000.0000.0000.0000.0000.0010.0000.0000.0000.0000.000
210  7.9   0.0010.0000.0000.0000.0000.0000.0010.0000.0000.0000.0000.0000.000
190  5.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
190  6.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
190  6.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
190  6.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
190  6.7   0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
190  6.9   0.0020.0000.0000.0000.0000.0000.0000.0000.0000.0010.0000.0000.000
190  7.1   0.0030.0000.0000.0000.0000.0000.0000.0000.0030.0000.0000.0000.000
190  7.3   0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
190  7.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
190  7.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
190  7.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  5.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  5.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  6.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  6.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  6.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  6.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  6.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  7.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  7.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  7.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  7.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  7.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  5.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  5.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  5.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  6.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  6.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  6.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  6.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  6.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  7.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  7.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  7.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  7.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  7.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130  5.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130  5.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130  5.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130  6.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130  6.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
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130   6.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   6.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   6.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   7.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   7.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   7.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   7.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   7.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110   7.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110   7.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110   7.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110   7.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110   7.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
90    7.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
Principal Sources (faults, subduction, random seismicity having > 3% contribution
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
vs30 = 537 m/s (Site class C)
return period: 475 yrs.
#This deaggregation corresponds to: GMM: Zhao et al. (2006) : Interface
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:
  Return period: 475 yrs
  Exceedance rate: 0.0021052632 yr⁻¹
  PGA ground motion: 0.074598628 g
Recovered targets:
  Return period: 481.13078 yrs
  Exceedance rate: 0.002078437 yr⁻¹
Totals:
  Binned: 2.18 %
  Residual: 0 %
  Trace: 0.04 %
Mean (over all sources):
  m: 9.05
  r: 340.7 km
  ε₀: 1.28 σ
Mode (largest m-r bin):
  m: 9.34
  r: 323.7 km
  ε₀: 0.75 σ
  Contribution: 0.69 %
Mode (largest m-r-ε₀ bin):
  m: 9.34
  r: 323.7 km
  ε₀: 0.75 σ
  Contribution: 0.69 %
Discretization:
  r: min = 0.0, max = 1000.0, Δ = 20.0 km
  m: min = 4.4, max = 9.4, Δ = 0.2
  ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
  ε0: [-∞ .. -2.5)
  ε1: [-2.5 .. -2.0)
  ε2: [-2.0 .. -1.5)
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ε3: [-1.5 .. -1.0)
ε4: [-1.0 .. -0.5)
ε5: [-0.5 .. 0.0)
ε6: [0.0 .. 0.5)
ε7: [0.5 .. 1.0)
ε8: [1.0 .. 1.5)
ε9: [1.5 .. 2.0)
ε10: [2.0 .. 2.5)
ε11: [2.5 .. +∞]

Closest Distance, rRup (km)	Magnitude (Mw)	ALL_ε	ε=(-∞,-2.5)	ε=[-2.5,-2)	ε=[-2,-1.5)	ε=[-1.5,-1)	ε=[-1,-0.5)	ε=[-0.5,0)	ε=[0,0.5)	ε=[0.5,1)	ε=[1,1.5)	ε=[1.5,2)	ε=[2,2.5)	ε=[2.5,∞)
430	8.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
410	8.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
410	8.5	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
410	8.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
390	8.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
390	8.3	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003
390	8.5	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.004	
390	8.7	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.045	0.000	
390	9.1	0.052	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.052	0.000	0.000	
370	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
370	8.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
370	8.3	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
370	8.5	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.014	0.001	
370	8.7	0.098	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006	0.092	0.000	
370	8.9	0.124	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.124	0.000	0.000	
370	9.1	0.285	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.285	0.000	0.000	
350	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
350	8.1	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
350	8.3	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	
350	8.5	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.012	0.002	0.000	
350	8.7	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.015	0.000	0.000	
350	8.9	0.029	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.029	0.000	0.000	0.000	
330	7.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	
330	8.1	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.000	
330	8.3	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000	
330	8.5	0.029	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.029	0.000	0.000	
330	8.7	0.049	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.017	0.033	0.000	0.000	
330	8.9	0.302	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.302	0.000	0.000	0.000	
330	9.1	0.417	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.417	0.000	0.000	0.000	
330	9.3	0.687	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.687	0.000	0.000	0.000	

Principal Sources (faults, subduction, random seismicity having > 3% contribution
sub0_ch_bot.in:
Percent Contributed: 1.36
Distance (km): 323.70483
Magnitude: 9.1435036
Epsilon (mean values): 0.97575945
Cascadia Megathrust - whole CSZ Characteristic:
Percent Contributed: 1.36
Distance (km): 323.70483
Magnitude: 9.1435036
Epsilon (mean values): 0.97575945
Azimuth: 287.96053
Latitude: 46.3
Longitude: -123.4132
PSHA Deaggregation. %contributions.
site: Test

longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
vs30 = 537 m/s (Site class C)
return period: 475 yrs.
#This deaggregation corresponds to: GMM: Zhao et al. (2006) : Slab
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:
  Return period: 475 yrs
  Exceedance rate: 0.0021052632 yr^{-1}
  PGA ground motion: 0.074598628 g
Recovered targets:
  Return period: 481.13078 yrs
  Exceedance rate: 0.002078437 yr^{-1}
Totals:
  Binned: 0.06 %
  Residual: 0 %
  Trace: 0.1 %
Mean (over all sources):
  m: 7.3
  r: 237.41 km
  ε_0: 1.87 σ
Mode (largest m-r bin):
  m: 7.11
  r: 229.95 km
  ε_0: 2.12 σ
  Contribution: 0.01 %
Mode (largest m-r-ε_0 bin):
  m: 7.1
  r: 231.82 km
  ε_0: 2.17 σ
  Contribution: 0.01 %
Discretization:
  r: min = 0.0, max = 1000.0, Δ = 20.0 km
  m: min = 4.4, max = 9.4, Δ = 0.2
  ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
  ε0: [-∞ .. -2.5)
  ε1: [-2.5 .. -2.0)
  ε2: [-2.0 .. -1.5)
  ε3: [-1.5 .. -1.0)
  ε4: [-1.0 .. -0.5)
  ε5: [-0.5 .. 0.0)
  ε6: [0.0 .. 0.5)
  ε7: [0.5 .. 1.0)
  ε8: [1.0 .. 1.5)
  ε9: [1.5 .. 2.0)
  ε10: [2.0 .. 2.5)
  ε11: [2.5 .. +∞]

Closest Distance, rRup (km)	Magnitude (Mw)	ALL_ε	ε=(-∞,-2.5)	ε=[-2.5,-2)	ε=[-2,-1.5)	ε=[-1.5,-1)	ε=[-1,-0.5)	ε=[-0.5,0)	ε=[0,0.5)	ε=[0.5,1)	ε=[1,1.5)	ε=[1.5,2)	ε=[2,2.5)	ε=[2.5,∞)
290	7.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
290	7.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
290	7.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
270	6.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
270	7.1	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003
270	7.3	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000

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270  7.5   0.0020.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0020.000
270  7.7   0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0010.0000.000
270  7.9   0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
250  6.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
250  6.9   0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.001
250  7.1   0.0070.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0050.003
250  7.3   0.0020.0000.0000.0000.0000.0000.0000.0000.0000.0000.0010.0020.000
250  7.5   0.0030.0000.0000.0000.0000.0000.0000.0000.0000.0000.0020.0000.000
250  7.7   0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0010.0000.0000.000
250  7.9   0.0020.0000.0000.0000.0000.0000.0000.0000.0020.0000.0000.0000.000
230  6.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
230  6.9   0.0030.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0010.001
230  7.1   0.0100.0000.0000.0000.0000.0000.0000.0000.0000.0000.0030.0070.000
230  7.3   0.0020.0000.0000.0000.0000.0000.0000.0000.0000.0000.0020.0000.000
230  7.5   0.0020.0000.0000.0000.0000.0000.0000.0000.0000.0020.0010.0000.000
230  7.7   0.0010.0000.0000.0000.0000.0000.0000.0000.0010.0000.0000.0000.000
230  7.9   0.0020.0000.0000.0000.0000.0000.0000.0010.0010.0000.0000.0000.000
210  6.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
210  6.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
210  6.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
210  6.9   0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0010.000
210  7.1   0.0030.0000.0000.0000.0000.0000.0000.0000.0000.0000.0030.0000.000
210  7.3   0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0010.0000.0000.000
210  7.5   0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0010.0000.0000.000
210  7.7   0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
210  7.9   0.0010.0000.0000.0000.0000.0000.0000.0010.0000.0000.0000.0000.000
190  6.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
190  6.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
190  6.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
190  6.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
190  6.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
190  7.1   0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0010.0000.0000.000
190  7.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
190  7.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
190  7.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
190  7.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  5.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  6.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  6.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  6.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  6.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  6.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  7.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  7.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  7.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  7.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  7.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  5.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  5.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  5.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  6.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  6.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  6.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  6.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  6.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  7.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  7.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
```

```
150   7.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150   7.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150   7.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   5.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   5.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   5.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   5.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   6.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   6.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   6.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   6.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   6.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   7.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   7.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   7.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   7.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   7.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110   7.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110   7.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110   7.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110   7.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110   7.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
90    7.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
Principal Sources (faults, subduction, random seismicity having > 3% contribution
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
vs30 = 537 m/s (Site class C)
return period: 475 yrs.
#This deaggregation corresponds to: Source Type: Grid
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:
  Return period: 475 yrs
  Exceedance rate: 0.0021052632 yr⁻¹
  PGA ground motion: 0.074598628 g
Recovered targets:
  Return period: 481.13078 yrs
  Exceedance rate: 0.002078437 yr⁻¹
Totals:
  Binned: 87.48 %
  Residual: 0 %
  Trace: 0.35 %
Mean (over all sources):
  m: 6.11
  r: 37.1 km
  ε₀: 0.05 σ
Mode (largest m-r bin):
  m: 5.1
  r: 12.03 km
  ε₀: -0.19 σ
  Contribution: 4.69 %
Mode (largest m-r-ε₀ bin):
  m: 5.51
  r: 24.66 km
  ε₀: 0.25 σ
```

Contribution: 1.54 %
Discretization:
r: min = 0.0, max = 1000.0, Δ = 20.0 km
m: min = 4.4, max = 9.4, Δ = 0.2
ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
ε0: [-∞ .. -2.5)
ε1: [-2.5 .. -2.0)
ε2: [-2.0 .. -1.5)
ε3: [-1.5 .. -1.0)
ε4: [-1.0 .. -0.5)
ε5: [-0.5 .. 0.0)
ε6: [0.0 .. 0.5)
ε7: [0.5 .. 1.0)
ε8: [1.0 .. 1.5)
ε9: [1.5 .. 2.0)
ε10: [2.0 .. 2.5)
ε11: [2.5 .. +∞]

Closest Distance, rRup (km)	Magnitude (Mw)	ALL_ε	ε=(-∞,-2.5)	ε=[-2.5,-2)	ε=[-2,-1.5)	ε=[-1.5,-1)	ε=[-1,-0.5)	ε=[-0.5,0)	ε=[0,0.5)	ε=[0.5,1)	ε=[1,1.5)	ε=[1.5,2)	ε=[2,2.5)	ε=[2.5,∞)
290	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
290	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
270	7.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
270	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
270	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
250	7.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
250	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
250	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
230	7.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
230	7.5	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
230	7.7	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
230	7.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
210	7.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
210	7.3	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.004
210	7.5	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.004	
210	7.7	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000
210	7.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000
190	6.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	7.1	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.006
190	7.3	0.022	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.013	0.009	
190	7.5	0.022	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.015	0.002	
190	7.7	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.003	0.002	0.000
190	7.9	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.000
170	6.7	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
170	6.9	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007
170	7.1	0.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.014	0.010	
170	7.3	0.053	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.014	0.036	0.003	
170	7.5	0.043	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.026	0.015	0.001
170	7.7	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.005	0.001	0.000
170	7.9	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.002	0.001	0.000	0.000
150	6.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	6.5	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
150	6.7	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.010	
150	6.9	0.033	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.022	0.011	
150	7.1	0.063	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.015	0.046	0.002	
150	7.3	0.102	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.010	0.070	0.022	0.000	
150	7.5	0.075	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.028	0.043	0.004	0.000	

```
150  7.7  0.0140.0000.0000.0000.0000.0000.0000.0000.0040.0070.0030.0000.000
150  7.9  0.0050.0000.0000.0000.0000.0000.0000.0000.0020.0020.0000.0000.000
130  6.1  0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.001
130  6.3  0.0140.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.014
130  6.5  0.0320.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0100.023
130  6.7  0.0530.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0420.011
130  6.9  0.0950.0000.0000.0000.0000.0000.0000.0000.0000.0000.0310.0640.000
130  7.1  0.1400.0000.0000.0000.0000.0000.0000.0000.0000.0100.1130.0170.000
130  7.3  0.1880.0000.0000.0000.0000.0000.0000.0000.0050.0970.0860.0010.000
130  7.5  0.1220.0000.0000.0000.0000.0000.0000.0000.0250.0810.0160.0000.000
130  7.7  0.0190.0000.0000.0000.0000.0000.0000.0020.0090.0070.0000.0000.000
130  7.9  0.0060.0000.0000.0000.0000.0000.0000.0020.0030.0010.0000.0000.000
110  5.7  0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.001
110  5.9  0.0080.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.008
110  6.1  0.0350.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0090.027
110  6.3  0.0930.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0720.021
110  6.5  0.1300.0000.0000.0000.0000.0000.0000.0000.0000.0000.0220.1060.002
110  6.7  0.1630.0000.0000.0000.0000.0000.0000.0000.0000.0000.1010.0620.000
110  6.9  0.2290.0000.0000.0000.0000.0000.0000.0000.0000.0370.1880.0040.000
110  7.1  0.3040.0000.0000.0000.0000.0000.0000.0000.0090.2170.0770.0000.000
110  7.3  0.3390.0000.0000.0000.0000.0000.0000.0000.1110.2230.0050.0000.000
110  7.5  0.2110.0000.0000.0000.0000.0000.0000.0190.1320.0600.0000.0000.000
110  7.7  0.0270.0000.0000.0000.0000.0000.0010.0100.0150.0010.0000.0000.000
110  7.9  0.0080.0000.0000.0000.0000.0000.0020.0040.0020.0000.0000.0000.000
90   5.3  0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.001
90   5.5  0.0240.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0050.019
90   5.7  0.0620.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0310.032
90   5.9  0.1200.0000.0000.0000.0000.0000.0000.0000.0000.0000.0020.0830.035
90   6.1  0.2170.0000.0000.0000.0000.0000.0000.0000.0000.0000.0540.1490.013
90   6.3  0.3500.0000.0000.0000.0000.0000.0000.0000.0000.0000.2580.0920.000
90   6.5  0.4050.0000.0000.0000.0000.0000.0000.0000.0000.0930.2970.0140.000
90   6.7  0.4290.0000.0000.0000.0000.0000.0000.0000.0000.2540.1750.0010.000
90   6.9  0.5140.0000.0000.0000.0000.0000.0000.0000.0740.4240.0160.0000.000
90   7.1  0.5560.0000.0000.0000.0000.0000.0000.0050.3680.1830.0000.0000.000
90   7.3  0.5700.0000.0000.0000.0000.0000.0000.1240.4290.0170.0000.0000.000
90   7.5  0.2980.0000.0000.0000.0000.0000.0060.1690.1230.0000.0000.0000.000
90   7.7  0.0380.0000.0000.0000.0000.0000.0100.0250.0030.0000.0000.0000.000
90   7.9  0.0100.0000.0000.0000.0000.0010.0050.0040.0000.0000.0000.0000.000
70   5.1  0.0270.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.027
70   5.3  0.0960.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0460.050
70   5.5  0.2640.0000.0000.0000.0000.0000.0000.0000.0000.0000.0680.1520.044
70   5.7  0.3940.0000.0000.0000.0000.0000.0000.0000.0000.0000.1960.1740.024
70   5.9  0.5230.0000.0000.0000.0000.0000.0000.0000.0000.0710.3060.1420.003
70   6.1  0.7140.0000.0000.0000.0000.0000.0000.0000.0000.2680.4150.0310.000
70   6.3  0.9370.0000.0000.0000.0000.0000.0000.0000.0630.6940.1800.0000.000
70   6.5  0.9730.0000.0000.0000.0000.0000.0000.0000.3610.5820.0300.0000.000
70   6.7  0.8630.0000.0000.0000.0000.0000.0000.0010.5630.2970.0020.0000.000
70   6.9  0.8800.0000.0000.0000.0000.0000.0000.1770.6830.0200.0000.0000.000
70   7.1  0.8480.0000.0000.0000.0000.0000.0100.5320.3070.0000.0000.0000.000
70   7.3  0.8090.0000.0000.0000.0000.0000.1380.6460.0250.0000.0000.0000.000
70   7.5  0.4120.0000.0000.0000.0000.0060.1990.2060.0000.0000.0000.0000.000
70   7.7  0.0470.0000.0000.0000.0000.0090.0330.0050.0000.0000.0000.0000.000
70   7.9  0.0120.0000.0000.0000.0010.0050.0060.0000.0000.0000.0000.0000.000
50   5.1  0.3740.0000.0000.0000.0000.0000.0000.0000.0000.0000.1070.2140.052
50   5.3  0.6860.0000.0000.0000.0000.0000.0000.0000.0000.0600.3590.2430.023
50   5.5  1.1620.0000.0000.0000.0000.0000.0000.0000.0860.4590.4810.1320.004
50   5.7  1.3420.0000.0000.0000.0000.0000.0000.0000.2490.6520.3930.0490.000
```

```
50    5.9   1.4460.0000.0000.0000.0000.0000.0000.0090.4790.7470.2110.0000.000
50    6.1   1.8010.0000.0000.0000.0000.0000.0000.1470.9930.6320.0280.0000.000
50    6.3   1.8820.0000.0000.0000.0000.0000.0000.6261.1140.1420.0000.0000.000
50    6.5   1.7600.0000.0000.0000.0000.0000.0341.0420.6770.0060.0000.0000.000
50    6.7   1.5360.0000.0000.0000.0000.0000.2550.9910.2900.0000.0000.0000.000
50    6.9   1.3660.0000.0000.0000.0000.0040.5970.7570.0080.0000.0000.0000.000
50    7.1   1.1890.0000.0000.0000.0000.1000.7920.2980.0000.0000.0000.0000.000
50    7.3   1.0010.0000.0000.0000.0110.3350.6240.0310.0000.0000.0000.0000.000
50    7.5   0.4780.0000.0000.0000.0300.2660.1810.0000.0000.0000.0000.0000.000
50    7.7   0.0540.0000.0000.0010.0120.0350.0060.0000.0000.0000.0000.0000.000
50    7.9   0.0140.0000.0000.0010.0050.0070.0000.0000.0000.0000.0000.0000.000
30    5.1   2.9520.0000.0000.0000.0000.0000.0000.0901.0551.1000.5940.1090.003
30    5.3   3.6490.0000.0000.0000.0000.0000.0000.7641.4691.0840.3120.0200.000
30    5.5   4.2210.0000.0000.0000.0000.0300.4651.5431.4690.6270.0880.0000.000
30    5.7   3.8960.0000.0000.0000.0000.1630.8911.4171.1000.3250.0000.0000.000
30    5.9   3.4220.0000.0000.0000.0000.2121.1101.3230.7300.0470.0000.0000.000
30    6.1   3.2760.0000.0000.0000.0000.6281.2501.1950.2030.0000.0000.0000.000
30    6.3   2.8930.0000.0000.0000.1190.9591.1490.6660.0000.0000.0000.0000.000
30    6.5   2.2490.0000.0000.0000.3260.7851.0240.1140.0000.0000.0000.0000.000
30    6.7   1.7400.0000.0000.0210.3050.7290.6690.0170.0000.0000.0000.0000.000
30    6.9   1.5180.0000.0000.0770.4380.7020.3020.0000.0000.0000.0000.0000.000
30    7.1   1.2610.0000.0140.1340.4770.5940.0420.0000.0000.0000.0000.0000.000
30    7.3   1.0700.0000.0280.1890.4950.3580.0000.0000.0000.0000.0000.0000.000
30    7.5   0.5130.0010.0230.1360.2600.0930.0000.0000.0000.0000.0000.0000.000
30    7.7   0.0470.0010.0040.0170.0230.0020.0000.0000.0000.0000.0000.0000.000
30    7.9   0.0090.0000.0010.0040.0040.0000.0000.0000.0000.0000.0000.0000.000
10    5.1   4.6860.0000.0000.0000.4340.9321.4151.3890.4960.0200.0000.0000.000
10    5.3   4.1590.0000.0620.0930.7091.1511.2630.8370.0440.0000.0000.0000.000
10    5.5   3.4510.0430.0970.4320.6751.1370.9730.0930.0000.0000.0000.0000.000
10    5.7   2.5990.0660.1120.4220.7090.8290.4600.0000.0000.0000.0000.0000.000
10    5.9   1.9110.0460.1660.3690.5820.6880.0620.0000.0000.0000.0000.0000.000
10    6.1   2.0020.1270.3530.4170.7310.3740.0000.0000.0000.0000.0000.0000.000
10    6.3   1.5270.2050.2980.4580.5270.0390.0000.0000.0000.0000.0000.0000.000
10    6.5   1.2270.2410.2700.3740.3190.0220.0000.0000.0000.0000.0000.0000.000
10    6.7   0.9970.2270.2370.3080.2250.0000.0000.0000.0000.0000.0000.0000.000
10    6.9   0.7360.1900.2280.2720.0460.0000.0000.0000.0000.0000.0000.0000.000
10    7.1   0.5860.1660.2070.2040.0100.0000.0000.0000.0000.0000.0000.0000.000
10    7.3   0.4480.1430.1590.1470.0000.0000.0000.0000.0000.0000.0000.0000.000
10    7.5   0.1830.0670.0710.0440.0000.0000.000    0.000   0.000   0.000   0.000   0.000   0.000
10    7.7    0.014   0.006   0.006   0.002   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000
0.000
10    7.9    0.003   0.001   0.001   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000
0.000
Principal Sources (faults, subduction, random seismicity having > 3% contribution
WUSmap_2014_fixSm.ch.in (opt):
  Percent Contributed: 11.22
  Distance (km): 37.785283
  Magnitude: 6.1185152
  Epsilon (mean values): 0.079824356
noPuget_2014_fixSm.ch.in (opt):
  Percent Contributed: 11.22
  Distance (km): 37.782069
  Magnitude: 6.1184888
  Epsilon (mean values): 0.079776745
WUSmap_2014_fixSm.gr.in (opt):
  Percent Contributed: 11.06
  Distance (km): 37.246499
```

Magnitude: 6.10712
Epsilon (mean values): 0.069546909
noPuget_2014_fixSm.gr.in (opt):
Percent Contributed: 11.06
Distance (km): 37.24324
Magnitude: 6.107093
Epsilon (mean values): 0.069498581
noPuget_2014_adSm.ch.in (opt):
Percent Contributed: 8.31
Distance (km): 35.738938
Magnitude: 6.0807212
Epsilon (mean values): 0.014875818
WUSmap_2014_adSm.ch.in (opt):
Percent Contributed: 8.31
Distance (km): 35.7273
Magnitude: 6.0805502
Epsilon (mean values): 0.014608897
noPuget_2014_adSm.gr.in (opt):
Percent Contributed: 8.23
Distance (km): 35.32157
Magnitude: 6.0718959
Epsilon (mean values): 0.0066201199
WUSmap_2014_adSm.gr.in (opt):
Percent Contributed: 8.22
Distance (km): 35.310829
Magnitude: 6.0717392
Epsilon (mean values): 0.0063718065
WUSmap_2014_fixSm_M8.in (opt):
Percent Contributed: 2.76
Distance (km): 40.815209
Magnitude: 6.2451749
Epsilon (mean values): 0.050179141
noPuget_2014_fixSm_M8.in (opt):
Percent Contributed: 2.76
Distance (km): 40.792648
Magnitude: 6.2449745
Epsilon (mean values): 0.049906461
noPuget_2014_adSm_M8.in (opt):
Percent Contributed: 2.03
Distance (km): 38.663199
Magnitude: 6.2002038
Epsilon (mean values): -0.0094228471
WUSmap_2014_adSm_M8.in (opt):
Percent Contributed: 2.03
Distance (km): 38.655477
Magnitude: 6.1999991
Epsilon (mean values): -0.0096208589
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
vs30 = 537 m/s (Site class C)
return period: 475 yrs.
#This deaggregation corresponds to: Source Type: Slab
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:

Return period: 475 yrs
Exceedance rate: 0.0021052632 yr^{-1}
PGA ground motion: 0.074598628 g
Recovered targets:
Return period: 481.13078 yrs
Exceedance rate: 0.002078437 yr^{-1}
Totals:
Binned: 0.93 %
Residual: 0 %
Trace: 0.17 %
Mean (over all sources):
m: 7.09
r: 258.13 km
ε_0: 1.66 σ
Mode (largest m-r bin):
m: 7.11
r: 270.09 km
ε_0: 1.72 σ
Contribution: 0.15 %
Mode (largest m-r-ε_0 bin):
m: 7.11
r: 270.79 km
ε_0: 1.71 σ
Contribution: 0.13 %
Discretization:
r: min = 0.0, max = 1000.0, Δ = 20.0 km
m: min = 4.4, max = 9.4, Δ = 0.2
ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
ε0: [-∞ .. -2.5)
ε1: [-2.5 .. -2.0)
ε2: [-2.0 .. -1.5)
ε3: [-1.5 .. -1.0)
ε4: [-1.0 .. -0.5)
ε5: [-0.5 .. 0.0)
ε6: [0.0 .. 0.5)
ε7: [0.5 .. 1.0)
ε8: [1.0 .. 1.5)
ε9: [1.5 .. 2.0)
ε10: [2.0 .. 2.5)
ε11: [2.5 .. +∞]

Closest Distance, rRup (km)	Magnitude (Mw)	ALL_ε	ε=(-∞,-2.5)	ε=[-2.5,-2)	ε=[-2,-1.5)	ε=[-1.5,-1)	ε=[-1,-0.5)	ε=[-0.5,0)	ε=[0,0.5)	ε=[0.5,1)	ε=[1,1.5)	ε=[1.5,2)	ε=[2,2.5)	ε=[2.5,∞)
290	6.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
290	6.7	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.011
290	6.9	0.049	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.044	0.005
290	7.1	0.105	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.084	0.022	0.000
290	7.3	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.008	0.006	0.000	0.000
290	7.5	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.000	0.000	0.000
270	6.5	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

0.002
270 6.7 0.019 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.012
0.008
270 6.9 0.058 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.017 0.041
0.000
270 7.1 0.149 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.014 0.127 0.005
0.003
270 7.3 0.028 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.024 0.003 0.001
0.000
270 7.5 0.022 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.009 0.011 0.000 0.002
0.000
270 7.7 0.004 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.004 0.000 0.001 0.000
0.000
270 7.9 0.002 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.001 0.000 0.000 0.000
0.000
250 6.3 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000
250 6.5 0.004 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.001
0.003
250 6.7 0.018 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.017
0.001
250 6.9 0.050 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.039 0.010
0.001
250 7.1 0.117 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.056 0.053 0.005
0.003
250 7.3 0.023 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.005 0.015 0.001 0.002
0.000
250 7.5 0.019 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.015 0.001 0.002 0.000
0.000
250 7.7 0.004 0.000 0.000 0.000 0.000 0.000 0.000 0.001 0.003 0.001 0.000 0.000
0.000
250 7.9 0.006 0.000 0.000 0.000 0.000 0.000 0.000 0.003 0.003 0.000 0.000 0.000
0.000
230 6.3 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000
230 6.5 0.004 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.003
0.001
230 6.7 0.013 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.006 0.007
0.000
230 6.9 0.036 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.006 0.027 0.002
0.001
230 7.1 0.083 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.070 0.005 0.007
0.000
230 7.3 0.014 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.010 0.002 0.002 0.000
0.000
230 7.5 0.012 0.000 0.000 0.000 0.000 0.000 0.000 0.003 0.006 0.002 0.001 0.000
0.000
230 7.7 0.003 0.000 0.000 0.000 0.000 0.000 0.000 0.002 0.001 0.000 0.000 0.000
0.000
230 7.9 0.004 0.000 0.000 0.000 0.000 0.000 0.000 0.004 0.001 0.000 0.000 0.000
0.000
210 6.1 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000
210 6.3 0.000 0.000 0.000 0.0000.0000.0000.0000.0000.0000.0000.0000.000
210 6.5 0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0010.000
210 6.7 0.0030.0000.0000.0000.0000.0000.0000.0000.0000.0030.0000.000
210 6.9 0.0070.0000.0000.0000.0000.0000.0000.0000.0000.0040.0020.0010.000

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210  7.1   0.0150.0000.0000.0000.0000.0000.0000.0000.0080.0050.0030.0000.000
210  7.3   0.0040.0000.0000.0000.0000.0000.0000.0000.0030.0010.0000.0000.000
210  7.5   0.0040.0000.0000.0000.0000.0000.0000.0030.0000.0010.0000.0000.000
210  7.7   0.0020.0000.0000.0000.0000.0000.0000.0010.0000.0000.0000.0000.000
210  7.9   0.0020.0000.0000.0000.0000.0000.0010.0010.0000.0000.0000.0000.000
190  5.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
190  6.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
190  6.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
190  6.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
190  6.7   0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
190  6.9   0.0020.0000.0000.0000.0000.0000.0000.0000.0000.0010.0000.0000.000
190  7.1   0.0040.0000.0000.0000.0000.0000.0000.0000.0030.0010.0000.0000.000
190  7.3   0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
190  7.5   0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
190  7.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
190  7.9   0.0010.0000.0000.0000.0000.0000.0010.0000.0000.0000.0000.0000.000
170  5.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  5.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  6.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  6.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  6.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  6.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  6.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  7.1   0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  7.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  7.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  7.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  7.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  5.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  5.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  5.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  6.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  6.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  6.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  6.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  6.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  7.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  7.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  7.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  7.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  7.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130  5.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130  5.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130  5.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130  5.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130  6.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130  6.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130  6.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130  6.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130  6.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130  7.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130  7.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130  7.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130  7.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130  7.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110  7.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110  7.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
```

110 7.5 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110 7.7 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110 7.9 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
90 7.9 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
Principal Sources (faults, subduction, random seismicity having > 3% contribution
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
vs30 = 537 m/s (Site class C)
return period: 475 yrs.
#This deaggregation corresponds to: Source Type: Interface
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:
  Return period: 475 yrs
  Exceedance rate: 0.0021052632 yr^{-1}
  PGA ground motion: 0.074598628 g
Recovered targets:
  Return period: 481.13078 yrs
  Exceedance rate: 0.002078437 yr^{-1}
Totals:
  Binned: 9.73 %
  Residual: 0 %
  Trace: 0.13 %
Mean (over all sources):
  m: 8.93
  r: 354.08 km
  ε_0: 1.01 σ
Mode (largest m-r bin):
  m: 9.34
  r: 323.7 km
  ε_0: 0.58 σ
  Contribution: 1.89 %
Mode (largest m-r-ε_0 bin):
  m: 9.34
  r: 323.7 km
  ε_0: 0.36 σ
  Contribution: 1.09 %
Discretization:
  r: min = 0.0, max = 1000.0, Δ = 20.0 km
  m: min = 4.4, max = 9.4, Δ = 0.2
  ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
  ε0: [-∞ .. -2.5)
  ε1: [-2.5 .. -2.0)
  ε2: [-2.0 .. -1.5)
  ε3: [-1.5 .. -1.0)
  ε4: [-1.0 .. -0.5)
  ε5: [-0.5 .. 0.0)
  ε6: [0.0 .. 0.5)
  ε7: [0.5 .. 1.0)
  ε8: [1.0 .. 1.5)
  ε9: [1.5 .. 2.0)
  ε10: [2.0 .. 2.5)
  ε11: [2.5 .. +∞]
Closest Distance, rRup (km) Magnitude (Mw) ALL_ε ε=(-∞,-2.5) ε=[-2.5,-2)ε=[-2,-1.5)ε=[-1.5,-1)

		ε=[-1,-0.5)	ε=[-0.5,0)	ε=[0,0.5)	ε=[0.5,1)	ε=[1,1.5)	ε=[1.5,2)	ε=[2,2.5)	ε=[2.5,∞)
590	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
570	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
570	8.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
550	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
550	8.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
530	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
530	8.1	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001
530	8.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
510	7.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001
510	8.1	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.002
510	8.3	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001
490	7.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001
490	8.1	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.002
490	8.3	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001
490	8.5	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
470	7.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001
470	8.1	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.004
470	8.3	0.002	0.000	0.000	0.000	0.000	0.000	0.001	0.001
470	8.5	0.002	0.000	0.000	0.000	0.000	0.000	0.002	0.000
450	7.9	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.002
450	8.1	0.030	0.000	0.000	0.000	0.000	0.000	0.017	0.012
450	8.3	0.027	0.000	0.000	0.000	0.000	0.000	0.027	0.000
450	8.5	0.030	0.000	0.000	0.000	0.000	0.000	0.030	0.000
430	7.9	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.003
430	8.1	0.007	0.000	0.000	0.000	0.000	0.000	0.007	0.000
430	8.3	0.004	0.000	0.000	0.000	0.000	0.000	0.004	0.000
430	8.5	0.011	0.000	0.000	0.000	0.000	0.001	0.010	0.000
410	7.9	0.006	0.000	0.000	0.000	0.000	0.000	0.006	0.000
410	8.1	0.014	0.000	0.000	0.000	0.000	0.000	0.014	0.000
410	8.3	0.031	0.000	0.000	0.000	0.000	0.000	0.031	0.000
410	8.5	0.050	0.000	0.000	0.000	0.000	0.034	0.014	0.000
410	8.7	0.006	0.000	0.000	0.000	0.000	0.006	0.000	0.000
390	7.9	0.012	0.000	0.000	0.000	0.000	0.000	0.012	0.000
390	8.1	0.027	0.000	0.000	0.000	0.000	0.000	0.027	0.000
390	8.3	0.108	0.000	0.000	0.000	0.000	0.000	0.105	0.000
390	8.5	0.151	0.000	0.000	0.000	0.000	0.097	0.047	0.003
390	8.7	0.586	0.000	0.000	0.000	0.000	0.542	0.000	0.045
390	9.1	0.357	0.000	0.000	0.000	0.000	0.305	0.052	0.000
370	7.9	0.010	0.000	0.000	0.000	0.000	0.000	0.010	0.000
370	8.1	0.024	0.000	0.000	0.000	0.000	0.001	0.022	0.000
370	8.3	0.015	0.000	0.000	0.000	0.000	0.014	0.001	0.000
370	8.5	0.192	0.000	0.000	0.000	0.000	0.177	0.000	0.014
370	8.7	0.821	0.000	0.000	0.000	0.000	0.723	0.006	0.092
370	8.9	0.842	0.000	0.000	0.000	0.000	0.719	0.124	0.000
370	9.1	1.322	0.000	0.000	0.000	0.000	1.023	0.000	0.285
350	7.9	0.004	0.000	0.000	0.000	0.000	0.000	0.004	0.000
350	8.1	0.010	0.000	0.000	0.000	0.000	0.008	0.001	0.000
350	8.3	0.006	0.000	0.000	0.000	0.000	0.005	0.000	0.001
350	8.5	0.090	0.000	0.000	0.000	0.000	0.076	0.012	0.002
350	8.7	0.081	0.000	0.000	0.000	0.000	0.065	0.000	0.015
350	8.9	0.112	0.000	0.000	0.000	0.000	0.082	0.029	0.000
330	7.9	0.016	0.000	0.000	0.000	0.000	0.015	0.000	0.001
330	8.1	0.037	0.000	0.000	0.000	0.000	0.033	0.000	0.004
330	8.3	0.023	0.000	0.000	0.000	0.000	0.020	0.000	0.003
330	8.5	0.152	0.000	0.000	0.000	0.000	0.086	0.036	0.029
330	8.7	0.206	0.000	0.000	0.000	0.000	0.155	0.017	0.033

330 8.9 1.0780.0000.0000.0000.0000.0000.0000.0000.7610.3020.0000.0010.014
330 9.1 1.3240.0000.0000.0000.0000.0000.0000.0000.8760.4170.0000.0300.000
330 9.3 1.8870.0000.0000.0000.0000.0000.0001.0940.6870.0000.1050.0000.000
Principal Sources (faults, subduction, random seismicity having > 3% contribution
sub0_ch_bot.in:
  Percent Contributed: 4.14
  Distance (km): 323.70483
  Magnitude: 9.1214301
  Epsilon (mean values): 0.73028588
Cascadia Megathrust - whole CSZ Characteristic:
  Percent Contributed: 4.14
  Distance (km): 323.70483
  Magnitude: 9.1214301
  Epsilon (mean values): 0.73028588
  Azimuth: 287.96053
  Latitude: 46.3
  Longitude: -123.4132
sub0_ch_mid.in:
  Percent Contributed: 2.85
  Distance (km): 377.23061
  Magnitude: 8.9276131
  Epsilon (mean values): 1.1316907
Cascadia Megathrust - whole CSZ Characteristic:
  Percent Contributed: 2.85
  Distance (km): 377.23061
  Magnitude: 8.9276131
  Epsilon (mean values): 1.1316907
  Azimuth: 285.79267
  Latitude: 46.3
  Longitude: -124.13677
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
vs30 = 537 m/s (Site class C)
return period: 475 yrs.
#This deaggregation corresponds to: Source Type: Fault
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:
  Return period: 475 yrs
  Exceedance rate: 0.0021052632 yr^{-1}
  PGA ground motion: 0.074598628 g
Recovered targets:
  Return period: 481.13078 yrs
  Exceedance rate: 0.002078437 yr^{-1}
Totals:
  Binned: 1.86 %
  Residual: 0 %
  Trace: 0.05 %
Mean (over all sources):
  m: 7.04
  r: 79.79 km
  ε_0: 0.73 σ
Mode (largest m-r bin):
  m: 6.73
  r: 68.38 km

ε_0: 0.82 σ
Contribution: 0.32 %
Mode (largest m-r-ε_0 bin):
m: 6.73
r: 68.13 km
ε_0: 0.79 σ
Contribution: 0.29 %
Discretization:
r: min = 0.0, max = 1000.0, Δ = 20.0 km
m: min = 4.4, max = 9.4, Δ = 0.2
ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
ε0: [-∞ .. -2.5)
ε1: [-2.5 .. -2.0)
ε2: [-2.0 .. -1.5)
ε3: [-1.5 .. -1.0)
ε4: [-1.0 .. -0.5)
ε5: [-0.5 .. 0.0)
ε6: [0.0 .. 0.5)
ε7: [0.5 .. 1.0)
ε8: [1.0 .. 1.5)
ε9: [1.5 .. 2.0)
ε10: [2.0 .. 2.5)
ε11: [2.5 .. +∞]

Closest Distance, rRup (km)	Magnitude (Mw)	ALL_ε	ε=(-∞,-2.5)	ε=[-2.5,-2)	ε=[-2,-1.5)	ε=[-1.5,-1)	ε=[-1,-0.5)	ε=[-0.5,0)	ε=[0,0.5)	ε=[0.5,1)	ε=[1,1.5)	ε=[1.5,2)	ε=[2,2.5)	ε=[2.5,∞)
290	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
270	7.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
270	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
270	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
250	7.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
230	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
210	7.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
210	7.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
210	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
210	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	7.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	7.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	6.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	6.5	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
150	6.7	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.004
150	6.9	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.008	0.005
150	7.1	0.017	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.011	0.003
150	7.3	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.006	0.000
150	7.5	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000
130	6.5	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.002
130	6.7	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006	0.002
130	6.9	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.011	0.000
130	7.1	0.033	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.027	0.006	0.000	0.000
130	7.3	0.061	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.026	0.035	0.000	0.000
130	7.5	0.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.011	0.024	0.006	0.000	0.000
130	7.7	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.003	0.000	0.000	0.000
110	6.5	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.005	0.000	0.000
110	6.7	0.024	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.018	0.006	0.000	0.000
110	6.9	0.044	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.035	0.000	0.000	0.000
110	7.1	0.054	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.050	0.005	0.000	0.000	0.000
110	7.3	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.010	0.020	0.000	0.000	0.000

```
110  7.5  0.0040.0000.0000.0000.0000.0000.0000.0000.0030.0000.0000.0000.000
90   6.5  0.0020.0000.0000.0000.0000.0000.0000.0000.0000.0010.0010.0000.000
90   6.7  0.0020.0000.0000.0000.0000.0000.0000.0000.0000.0000.0020.0000.000
90   6.9  0.0050.0000.0000.0000.0000.0000.0000.0000.0000.0040.0010.0000.000
90   7.1  0.0150.0000.0000.0000.0000.0000.0000.0000.0000.0150.0000.0000.000
90   7.3  0.0280.0000.0000.0000.0000.0000.0000.0000.0230.0050.0000.0000.000
90   7.5  0.0170.0000.0000.0000.0000.0000.0000.0010.0170.0000.0000.0000.000
90   7.7  0.0030.0000.0000.0000.0000.0000.0000.0020.0000.0000.0000.0000.000
70   6.5  0.1520.0000.0000.0000.0000.0000.0000.0000.0770.0750.0010.0000.000
70   6.7  0.3220.0000.0000.0000.0000.0000.0000.0000.2940.0280.0000.0000.000
70   6.9  0.2420.0000.0000.0000.0000.0000.0000.0610.1800.0000.0000.0000.000
70   7.1  0.3190.0000.0000.0000.0000.0000.0000.2760.0430.0000.0000.0000.000
70   7.3  0.2390.0000.0000.0000.0000.0000.0520.1870.0000.0000.0000.0000.000
70   7.5  0.1060.0000.0000.0000.0000.0000.0640.0410.0000.0000.0000.0000.000
70   7.7  0.0320.0000.0000.0000.0000.0100.0230.0000.0000.0000.0000.0000.000
70   7.9  0.0020.0000.0000.0000.0000.0010.0010.0000.0000.0000.0000.0000.000
Principal Sources (faults, subduction, random seismicity having > 3% contribution
```

Attachment H-3. Probabilistic Seismic Hazard Deaggregation – 2,475-Year Return Time

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*** Deaggregation of Seismic Hazard at One Period of Spectral Acceleration ***
*** Data from Dynamic: Conterminous U.S. 2014 (update) (v4.2.0) ****
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
vs30 = 1150 m/s (Site class B)
return period: 2475 yrs.
#This deaggregation corresponds to: Total
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:
  Return period: 2475 yrs
  Exceedance rate: 0.0004040404 yr^{-1}
  PGA ground motion: 0.13397286 g
Recovered targets:
  Return period: 2548.853 yrs
  Exceedance rate: 0.00039233334 yr^{-1}
Totals:
  Binned: 100 %
  Residual: 0 %
  Trace: 0.38 %
Mean (over all sources):
  m: 6.35
  r: 38.11 km
  ε_0: 0.52 σ
Mode (largest m-r bin):
  m: 5.5
  r: 11.34 km
  ε_0: 0.31 σ
  Contribution: 6.9 %
Mode (largest m-r-ε_0 bin):
  m: 5.5
  r: 10.43 km
  ε_0: 0.25 σ
  Contribution: 2.07 %
Discretization:
  r: min = 0.0, max = 1000.0, Δ = 20.0 km
  m: min = 4.4, max = 9.4, Δ = 0.2
  ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
  ε0: [-∞ .. -2.5)
  ε1: [-2.5 .. -2.0)
  ε2: [-2.0 .. -1.5)
  ε3: [-1.5 .. -1.0)
  ε4: [-1.0 .. -0.5)
  ε5: [-0.5 .. 0.0)
  ε6: [0.0 .. 0.5)
  ε7: [0.5 .. 1.0)
  ε8: [1.0 .. 1.5)
  ε9: [1.5 .. 2.0)
  ε10: [2.0 .. 2.5)
  ε11: [2.5 .. +∞]
Closest Distance, rRup (km) Magnitude (Mw) ALL_ε ε=(-∞,-2.5) ε=[-2.5,-2) ε=[-2,-1.5) ε=[-1.5,-1) ε=[-1,-0.5) ε=[-0.5,0) ε=[0,0.5) ε=[0.5,1) ε=[1,1.5) ε=[1.5,2) ε=[2,2.5) ε=[2.5,∞)

470 8.5 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
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450 8.3 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
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450 8.5 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
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430 8.1 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000
430 8.3 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000
430 8.5 0.002 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.002
410 8.1 0.001 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.001
410 8.3 0.001 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.001
410 8.5 0.007 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.007
410 8.7 0.002 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.002
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390 7.9 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
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390 8.1 0.003 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
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390 8.3 0.021 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
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390 8.5 0.038 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.010
0.028
390 8.7 0.187 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.187
0.000
390 9.1 0.152 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.152
0.000
370 7.9 0.001 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.001
370 8.1 0.004 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.004
370 8.3 0.004 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.004
370 8.5 0.058 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.039
0.020
370 8.7 0.304 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.304
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370 8.9 0.343 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.343
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370 9.1 0.698 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.643 0.000
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350 7.9 0.001 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
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350 8.1 0.003 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
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350 8.3 0.002 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.002
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350 8.5 0.035 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.035
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350 8.7 0.036 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.034
0.001
350 8.9 0.063 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.055 0.000

0.008													
330	7.9	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.004													
330	8.1	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.011
0.001													
330	8.3	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.008
0.000													
330	8.5	0.067	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.064
0.003													
330	8.7	0.107	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.069	0.027
0.011													
330	8.9	0.639	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.538	0.101
0.000													
330	9.1	0.886	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.703	0.184
0.000													
330	9.3	1.577	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.114	0.463	0.000
0.000													
290	7.1	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.003													
290	7.3	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
0.002													
290	7.5	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003
0.000													
270	6.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
270	7.1	0.017	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.017													
270	7.3	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006
0.002													
270	7.5	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.009
0.000													
270	7.7	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000
0.000													
270	7.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
0.000													
250	6.9	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.002													
250	7.1	0.026	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.009
0.017													
250	7.3	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.009
0.000													
250	7.5	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.008	0.002
0.000													
250	7.7	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000
0.000													
250	7.9	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.003	0.001
0.000													
230	6.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
230	6.9	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.005													
230	7.1	0.027	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.023
0.004													
230	7.3	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.003
0.000													
230	7.5	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.000
0.000													

230	7.7	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000
0.000													
230	7.9	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.001	0.000
0.000													
210	6.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
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210	6.9	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
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210	7.1	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.005
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210	7.3	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000
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210	7.5	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.001	0.000
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210	7.7	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000
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210	7.9	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.002	0.000	0.000
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190	6.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
190	6.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
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190	6.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
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190	7.1	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
0.000													
190	7.3	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
190	7.5	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000
0.000													
190	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
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190	7.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000
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170	6.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
170	6.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
170	6.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
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170	6.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
170	7.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
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170	7.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
170	7.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
170	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
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170	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
150	6.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
150	6.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
150	6.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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130 7.1 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
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130 7.3 0.003 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
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130 7.7 0.004 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.003
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110 6.7 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
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110 6.9 0.001 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.001
110 7.1 0.013 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.013
110 7.3 0.039 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.015
0.024
110 7.5 0.038 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.030
0.008
110 7.7 0.008 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.004 0.004
0.000
110 7.9 0.003 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.002 0.001
0.000
90 6.3 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000
90 6.5 0.006 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
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90 6.7 0.016 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.001
0.014
90 6.9 0.047 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.017
0.030

90	7.1	0.096	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.070
0.026													
90	7.3	0.154	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.035	0.113
0.006													
90	7.5	0.112	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.067	0.045
0.000													
90	7.7	0.021	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.015	0.001
0.000													
90	7.9	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.002	0.000
0.000													
70	5.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
70	6.1	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.010													
70	6.3	0.072	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.020
0.052													
70	6.5	0.158	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.103
0.055													
70	6.7	0.229	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.010	0.178
0.041													
70	6.9	0.312	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.099	0.202
0.010													
70	7.1	0.444	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.316	0.128
0.000													
70	7.3	0.546	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.074	0.450	0.022
0.000													
70	7.5	0.343	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.189	0.153	0.001
0.000													
70	7.7	0.072	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.008	0.059	0.005	0.000
0.000													
70	7.9	0.016	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.008	0.008	0.000	0.000
0.000													
50	5.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
50	5.3	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.007													
50	5.5	0.034	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.034													
50	5.7	0.084	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.021
0.062													
50	5.9	0.164	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.087
0.076													
50	6.1	0.365	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.040	0.259
0.066													
50	6.3	0.594	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.288	0.281
0.022													
50	6.5	0.731	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.108	0.439	0.178
0.006													
50	6.7	0.759	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.184	0.480	0.093
0.001													
50	6.9	0.863	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.438	0.402	0.019
0.000													
50	7.1	0.961	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.082	0.673	0.206	0.000
0.000													
50	7.3	1.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.383	0.609	0.039	0.000
0.000													
50	7.5	0.595	0.000	0.000	0.000	0.000	0.000	0.000	0.015	0.367	0.212	0.000	0.000

0.000													
50	7.7	0.085	0.000	0.000	0.000	0.000	0.000	0.000	0.018	0.059	0.007	0.000	0.000
0.000													
50	7.9	0.026	0.000	0.000	0.000	0.000	0.000	0.001	0.012	0.013	0.000	0.000	0.000
0.000													
30	5.1	0.829	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.305	0.401
0.124													
30	5.3	1.231	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.046	0.646	0.435
0.104													
30	5.5	1.862	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.496	0.888	0.411
0.068													
30	5.7	2.117	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.944	0.817	0.325
0.030													
30	5.9	2.265	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.263	1.113	0.655	0.230
0.004													
30	6.1	2.774	0.000	0.000	0.000	0.000	0.000	0.000	0.017	0.832	1.219	0.653	0.053
0.000													
30	6.3	3.133	0.000	0.000	0.000	0.000	0.000	0.000	0.318	1.371	1.073	0.367	0.004
0.000													
30	6.5	2.843	0.000	0.000	0.000	0.000	0.000	0.021	0.630	1.194	0.862	0.136	0.000
0.000													
30	6.7	2.434	0.000	0.000	0.000	0.000	0.000	0.075	0.607	1.076	0.645	0.031	0.000
0.000													
30	6.9	2.544	0.000	0.000	0.000	0.000	0.000	0.221	0.937	1.032	0.354	0.000	0.000
0.000													
30	7.1	2.457	0.000	0.000	0.000	0.000	0.012	0.387	1.037	0.932	0.090	0.000	0.000
0.000													
30	7.3	2.388	0.000	0.000	0.000	0.000	0.068	0.568	1.097	0.652	0.004	0.000	0.000
0.000													
30	7.5	1.265	0.000	0.000	0.000	0.000	0.065	0.376	0.655	0.168	0.000	0.000	0.000
0.000													
30	7.7	0.128	0.000	0.000	0.000	0.001	0.010	0.051	0.062	0.004	0.000	0.000	0.000
0.000													
30	7.9	0.028	0.000	0.000	0.000	0.000	0.004	0.014	0.010	0.000	0.000	0.000	0.000
0.000													
10	5.1	6.459	0.000	0.000	0.000	0.000	0.000	0.366	1.662	2.016	1.720	0.619	0.075
0.000													
10	5.3	6.815	0.000	0.000	0.000	0.000	0.000	1.106	2.057	1.957	1.387	0.307	0.000
0.000													
10	5.5	6.903	0.000	0.000	0.000	0.000	0.516	1.603	2.067	1.756	0.949	0.011	0.000
0.000													
10	5.7	5.826	0.000	0.000	0.000	0.045	0.627	1.484	1.769	1.658	0.244	0.000	0.000
0.000													
10	5.9	4.748	0.000	0.000	0.000	0.194	0.744	1.302	1.335	1.161	0.012	0.000	0.000
0.000													
10	6.1	5.844	0.000	0.000	0.000	0.675	1.441	1.412	1.689	0.628	0.000	0.000	0.000
0.000													
10	6.3	4.981	0.000	0.000	0.125	0.856	1.234	1.450	1.192	0.124	0.000	0.000	0.000
0.000													
10	6.5	4.243	0.000	0.024	0.284	0.788	1.054	1.240	0.747	0.106	0.000	0.000	0.000
0.000													
10	6.7	3.564	0.000	0.045	0.303	0.646	0.931	1.073	0.559	0.006	0.000	0.000	0.000
0.000													
10	6.9	2.826	0.000	0.038	0.228	0.593	0.877	0.884	0.205	0.000	0.000	0.000	0.000
0.000													
10	7.1	2.314	0.000	0.039	0.204	0.487	0.851	0.673	0.060	0.000	0.000	0.000	0.000
0.000													

10 7.3 1.813 0.000 0.043 0.181 0.404 0.644 0.513 0.027 0.000 0.000 0.000 0.000
0.000
10 7.5 0.762 0.000 0.018 0.089 0.191 0.288 0.176 0.000 0.000 0.000 0.000 0.000
0.000
10 7.7 0.060 0.0000.0020.0080.0180.0260.0070.0000.0000.0000.0000.0000.000
10 7.9 0.0120.0000.0010.0020.0040.0050.0010.0000.0000.0000.0000.0000.000
Principal Sources (faults, subduction, random seismicity having > 3% contribution
WUSmap_2014_fixSm.ch.in (opt):
  Percent Contributed: 11.68
  Distance (km): 20.651257
  Magnitude: 6.1914307
  Epsilon (mean values): 0.44746269
PointSourceFinite: -119.420, 45.506:
  Percent Contributed: 1.01
  Distance (km): 6.2787389
  Magnitude: 5.6527213
  Epsilon (mean values): -0.53526747
  Azimuth: 0
  Latitude: 45.506386
  Longitude: -119.42
noPuget_2014_fixSm.ch.in (opt):
  Percent Contributed: 11.68
  Distance (km): 20.651255
  Magnitude: 6.1914306
  Epsilon (mean values): 0.44746265
PointSourceFinite: -119.420, 45.506:
  Percent Contributed: 1.01
  Distance (km): 6.2787389
  Magnitude: 5.6527213
  Epsilon (mean values): -0.53526747
  Azimuth: 0
  Latitude: 45.506386
  Longitude: -119.42
WUSmap_2014_fixSm.gr.in (opt):
  Percent Contributed: 11.64
  Distance (km): 20.489823
  Magnitude: 6.1884239
  Epsilon (mean values): 0.44216881
PointSourceFinite: -119.420, 45.506:
  Percent Contributed: 1.01
  Distance (km): 6.2787389
  Magnitude: 5.6527213
  Epsilon (mean values): -0.53526747
  Azimuth: 0
  Latitude: 45.506386
  Longitude: -119.42
noPuget_2014_fixSm.gr.in (opt):
  Percent Contributed: 11.64
  Distance (km): 20.489821
  Magnitude: 6.1884239
  Epsilon (mean values): 0.44216876
PointSourceFinite: -119.420, 45.506:
  Percent Contributed: 1.01
  Distance (km): 6.2787389
  Magnitude: 5.6527213
  Epsilon (mean values): -0.53526747
  Azimuth: 0

Latitude: 45.506386
Longitude: -119.42
noPuget_2014_adSm.ch.in (opt):
Percent Contributed: 9.21
Distance (km): 19.661014
Magnitude: 6.1611344
Epsilon (mean values): 0.40843475
WUSmap_2014_adSm.ch.in (opt):
Percent Contributed: 9.2
Distance (km): 19.658829
Magnitude: 6.1610789
Epsilon (mean values): 0.40836037
noPuget_2014_adSm.gr.in (opt):
Percent Contributed: 9.18
Distance (km): 19.544746
Magnitude: 6.1589336
Epsilon (mean values): 0.40456697
WUSmap_2014_adSm.gr.in (opt):
Percent Contributed: 9.18
Distance (km): 19.542722
Magnitude: 6.1588809
Epsilon (mean values): 0.40449803
sub0_ch_bot.in:
Percent Contributed: 3.01
Distance (km): 323.70483
Magnitude: 9.1514414
Epsilon (mean values): 1.7290075
Cascadia Megathrust - whole CSZ Characteristic:
Percent Contributed: 3.01
Distance (km): 323.70483
Magnitude: 9.1514414
Epsilon (mean values): 1.7290075
Azimuth: 287.96053
Latitude: 46.3
Longitude: -123.4132
WUSmap_2014_fixSm_M8.in (opt):
Percent Contributed: 2.91
Distance (km): 22.65582
Magnitude: 6.3290955
Epsilon (mean values): 0.43483655
noPuget_2014_fixSm_M8.in (opt):
Percent Contributed: 2.91
Distance (km): 22.655659
Magnitude: 6.3290937
Epsilon (mean values): 0.43483397
noPuget_2014_adSm_M8.in (opt):
Percent Contributed: 2.27
Distance (km): 21.399473
Magnitude: 6.2874446
Epsilon (mean values): 0.39345627
WUSmap_2014_adSm_M8.in (opt):
Percent Contributed: 2.27
Distance (km): 21.395285
Magnitude: 6.2873378
Epsilon (mean values): 0.39334686
sub0_ch_mid.in:
Percent Contributed: 1.29

Distance (km): 377.23061
Magnitude: 8.9563842
Epsilon (mean values): 2.1182919
Cascadia Megathrust - whole CSZ Characteristic:
Percent Contributed: 1.29
Distance (km): 377.23061
Magnitude: 8.9563842
Epsilon (mean values): 2.1182919
Azimuth: 285.79267
Latitude: 46.3
Longitude: -124.13677
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
vs30 = 1150 m/s (Site class B)
return period: 2475 yrs.
#This deaggregation corresponds to: GMM: Abrahamson, Silva & Kamai (2014)
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:
Return period: 2475 yrs
Exceedance rate: 0.0004040404 yr^{-1}
PGA ground motion: 0.13397286 g
Recovered targets:
Return period: 2548.853 yrs
Exceedance rate: 0.00039233334 yr^{-1}
Totals:
Binned: 25.35 %
Residual: 0 %
Trace: 0.11 %
Mean (over all sources):
m: 6.12
r: 21.1 km
ε_0: 0.57 σ
Mode (largest m-r bin):
m: 5.1
r: 10.9 km
ε_0: 0.65 σ
Contribution: 2.44 %
Mode (largest m-r-ε_0 bin):
m: 5.1
r: 10.99 km
ε_0: 0.71 σ
Contribution: 0.8 %
Discretization:
r: min = 0.0, max = 1000.0, Δ = 20.0 km
m: min = 4.4, max = 9.4, Δ = 0.2
ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
ε0: [-∞ .. -2.5)
ε1: [-2.5 .. -2.0)
ε2: [-2.0 .. -1.5)
ε3: [-1.5 .. -1.0)
ε4: [-1.0 .. -0.5)
ε5: [-0.5 .. 0.0)
ε6: [0.0 .. 0.5)

ε7: [0.5 .. 1.0)
ε8: [1.0 .. 1.5)
ε9: [1.5 .. 2.0)
ε10: [2.0 .. 2.5)
ε11: [2.5 .. +∞]

Closest Distance, rRup (km)	Magnitude (Mw)	ALL_ε	ε=(-∞,-2.5)	ε=[-2.5,-2)	ε=[-2,-1.5)	ε=[-1.5,-1)	ε=[-1,-0.5)	ε=[-0.5,0)	ε=[0,0.5)	ε=[0.5,1)	ε=[1,1.5)	ε=[1.5,2)	ε=[2,2.5)	ε=[2.5,∞)
190	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	7.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	7.3	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
130	7.5	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003
130	7.7	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
130	7.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110	6.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110	7.1	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004
110	7.3	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.008	
110	7.5	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.011	0.002	
110	7.7	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000	
110	7.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	
90	6.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
90	6.5	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
90	6.7	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004
90	6.9	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.011	
90	7.1	0.027	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.021	0.007	
90	7.3	0.044	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.008	0.036	0.000	
90	7.5	0.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.021	0.011	0.000	
90	7.7	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.005	0.000	0.000
90	7.9	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000
70	5.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
70	6.1	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006
70	6.3	0.028	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.021	
70	6.5	0.047	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.029	0.018	
70	6.7	0.061	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.050	0.011	
70	6.9	0.083	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.019	0.063	0.001	
70	7.1	0.115	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.083	0.032	0.000	
70	7.3	0.144	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.017	0.127	0.000	0.000	
70	7.5	0.091	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.052	0.040	0.000	0.000	
70	7.7	0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.017	0.000	0.000	0.000	
70	7.9	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.002	0.000	0.000	0.000	
50	5.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
50	5.3	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007
50	5.5	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.020
50	5.7	0.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.013	0.027	
50	5.9	0.066	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.043	0.023	
50	6.1	0.127	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.017	0.094	0.016	
50	6.3	0.194	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.114	0.080	0.000	
50	6.5	0.206	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.016	0.143	0.048	0.000	
50	6.7	0.197	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.032	0.144	0.022	0.000	
50	6.9	0.227	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.116	0.111	0.000	0.000	
50	7.1	0.251	0.000	0.000	0.000	0.000	0.000	0.000	0.012	0.191	0.048	0.000	0.000	
50	7.3	0.270	0.000	0.000	0.000	0.000	0.000	0.000	0.106	0.165	0.000	0.000	0.000	
50	7.5	0.156	0.000	0.000	0.000	0.000	0.000	0.000	0.108	0.048	0.000	0.000	0.000	
50	7.7	0.022	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.017	0.000	0.000	0.000	0.000

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50    7.9   0.0070.0000.0000.0000.0000.0000.0000.0040.0030.0000.0000.0000.000
30    5.1   0.5410.0000.0000.0000.0000.0000.0000.0000.0000.2930.2010.046
30    5.3   0.5760.0000.0000.0000.0000.0000.0000.0000.0000.0460.3550.1410.034
30    5.5   0.6040.0000.0000.0000.0000.0000.0000.0000.0000.1770.2780.1360.013
30    5.7   0.6260.0000.0000.0000.0000.0000.0000.0000.0000.2730.2560.0970.000
30    5.9   0.6420.0000.0000.0000.0000.0000.0000.0000.0520.3520.1820.0570.000
30    6.1   0.7500.0000.0000.0000.0000.0000.0000.0000.2260.3390.1850.0000.000
30    6.3   0.8290.0000.0000.0000.0000.0000.0000.0060.4210.3330.0700.0000.000
30    6.5   0.6920.0000.0000.0000.0000.0000.0000.0930.3240.2570.0180.0000.000
30    6.7   0.5620.0000.0000.0000.0000.0000.0000.0950.2850.1830.0000.0000.000
30    6.9   0.5990.0000.0000.0000.0000.0000.0000.2170.2840.0970.0000.0000.000
30    7.1   0.5800.0000.0000.0000.0000.0000.0260.2770.2680.0100.0000.0000.000
30    7.3   0.5690.0000.0000.0000.0000.0000.0860.3050.1780.0000.0000.0000.000
30    7.5   0.3040.0000.0000.0000.0000.0000.0730.1930.0390.0000.0000.0000.000
30    7.7   0.0310.0000.0000.0000.0000.0010.0120.0180.0000.0000.0000.0000.000
30    7.9   0.0070.0000.0000.0000.0000.0000.0040.0030.0000.0000.0000.0000.000
10    5.1   2.4360.0000.0000.0000.0000.0000.3660.5790.7960.6630.0320.0000.000
10    5.3   2.0260.0000.0000.0000.0000.0000.4120.5850.5470.4830.0000.0000.000
10    5.5   1.6750.0000.0000.0000.0000.0000.3960.5500.4610.2680.0000.0000.000
10    5.7   1.3780.0000.0000.0000.0000.0760.3000.5030.4450.0530.0000.0000.000
10    5.9   1.1250.0000.0000.0000.0000.1490.3040.3590.3130.0000.0000.0000.000
10    6.1   1.3780.0000.0000.0000.0430.3480.3480.4500.1890.0000.0000.0000.000
10    6.3   1.1800.0000.0000.0000.1330.2950.3630.3890.0000.0000.0000.0000.000
10    6.5   0.9890.0000.0000.0230.1440.2580.2750.2500.0400.0000.0000.0000.000
10    6.7   0.8340.0000.0000.0350.1370.2000.2530.2090.0000.0000.0000.0000.000
10    6.9   0.6690.0000.0000.0250.1150.1960.2680.0650.0000.0000.0000.0000.000
10    7.1   0.5510.0000.0000.0290.0950.1780.2380.0110.0000.0000.0000.0000.000
10    7.3   0.4340.0000.0000.0300.0760.1460.1820.0000.0000.0000.0000.0000.000
10    7.5   0.1830.0000.0000.0120.0380.0720.0610.0000.0000.0000.0000.0000.000
10    7.7   0.0150.0000.0000.0010.0040.0070.0020.0000.0000.0000.0000.0000.000
10    7.9   0.0030.0000.0000.0000.0010.0020.0000.0000.0000.0000.0000.0000.000
Principal Sources (faults, subduction, random seismicity having > 3% contribution
WUSmap_2014_fixSm.ch.in (opt):
  Percent Contributed: 3.14
  Distance (km): 21.1412
  Magnitude: 6.1099151
  Epsilon (mean values): 0.58777965
noPuget_2014_fixSm.ch.in (opt):
  Percent Contributed: 3.14
  Distance (km): 21.141198
  Magnitude: 6.1099151
  Epsilon (mean values): 0.5877796
WUSmap_2014_fixSm.gr.in (opt):
  Percent Contributed: 3.12
  Distance (km): 20.980484
  Magnitude: 6.1065747
  Epsilon (mean values): 0.58299683
noPuget_2014_fixSm.gr.in (opt):
  Percent Contributed: 3.12
  Distance (km): 20.980482
  Magnitude: 6.1065747
  Epsilon (mean values): 0.58299678
noPuget_2014_adSm.ch.in (opt):
  Percent Contributed: 2.47
  Distance (km): 20.129747
  Magnitude: 6.079008
  Epsilon (mean values): 0.54972628
```

WUSmap_2014_adSm.ch.in (opt):
  Percent Contributed: 2.47
  Distance (km): 20.12747
  Magnitude: 6.078949
  Epsilon (mean values): 0.54965404
noPuget_2014_adSm.gr.in (opt):
  Percent Contributed: 2.46
  Distance (km): 20.014022
  Magnitude: 6.0765681
  Epsilon (mean values): 0.54622675
WUSmap_2014_adSm.gr.in (opt):
  Percent Contributed: 2.46
  Distance (km): 20.011906
  Magnitude: 6.0765122
  Epsilon (mean values): 0.54615946
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
vs30 = 1150 m/s (Site class B)
return period: 2475 yrs.
#This deaggregation corresponds to: GMM: Boore, Stewart, Seyhan & Atkinson (2014)
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:
  Return period: 2475 yrs
  Exceedance rate: 0.0004040404 yr^{-1}
  PGA ground motion: 0.13397286 g
Recovered targets:
  Return period: 2548.853 yrs
  Exceedance rate: 0.00039233334 yr^{-1}
Totals:
  Binned: 22.41 %
  Residual: 0 %
  Trace: 0.08 %
Mean (over all sources):
  m: 6.14
  r: 19.44 km
  ε_0: 0.46 σ
Mode (largest m-r bin):
  m: 5.5
  r: 11.39 km
  ε_0: 0.12 σ
  Contribution: 2.06 %
Mode (largest m-r-ε_0 bin):
  m: 5.49
  r: 11.28 km
  ε_0: 0.22 σ
  Contribution: 0.54 %
Discretization:
  r: min = 0.0, max = 1000.0, Δ = 20.0 km
  m: min = 4.4, max = 9.4, Δ = 0.2
  ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
  ε0: [-∞ .. -2.5)
  ε1: [-2.5 .. -2.0)
  ε2: [-2.0 .. -1.5)

ε3: [-1.5 .. -1.0)
ε4: [-1.0 .. -0.5)
ε5: [-0.5 .. 0.0)
ε6: [0.0 .. 0.5)
ε7: [0.5 .. 1.0)
ε8: [1.0 .. 1.5)
ε9: [1.5 .. 2.0)
ε10: [2.0 .. 2.5)
ε11: [2.5 .. +∞]

Closest Distance, rRup (km)	Magnitude (Mw)	ALL_ε	ε=(-∞,-2.5)	ε=[-2.5,-2)	ε=[-2,-1.5)	ε=[-1.5,-1)	ε=[-1,-0.5)	ε=[-0.5,0)	ε=[0,0.5)	ε=[0.5,1)	ε=[1,1.5)	ε=[1.5,2)	ε=[2,2.5)	ε=[2.5,∞)
170	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	7.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	7.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110	7.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110	7.3	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003
110	7.5	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003
110	7.7	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
110	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
90	6.7	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
90	6.9	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005
90	7.1	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.008	
90	7.3	0.021	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.016	0.005	
90	7.5	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.015	0.000	
90	7.7	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.001	0.000	
90	7.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	
70	5.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
70	6.1	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	
70	6.3	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007	
70	6.5	0.021	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.017	
70	6.7	0.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.027	0.014	
70	6.9	0.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.050	0.005	
70	7.1	0.078	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.031	0.047	0.000	
70	7.3	0.092	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.076	0.017	0.000	
70	7.5	0.057	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.052	0.001	0.000	
70	7.7	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.005	0.000	0.000	
70	7.9	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	
50	5.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
50	5.5	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.014	
50	5.7	0.034	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.008	0.026		
50	5.9	0.054	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.031	0.023		
50	6.1	0.089	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.067	0.017	
50	6.3	0.111	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.029	0.073	0.009	
50	6.5	0.139	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.081	0.058	0.000	
50	6.7	0.163	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.010	0.121	0.032	0.000	
50	6.9	0.177	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.063	0.107	0.006	0.000	
50	7.1	0.191	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.120	0.071	0.000	0.000	
50	7.3	0.200	0.000	0.000	0.000	0.000	0.000	0.000	0.024	0.147	0.029	0.000	0.000	
50	7.5	0.115	0.000	0.000	0.000	0.000	0.000	0.000	0.044	0.070	0.000	0.000	0.000	
50	7.7	0.016	0.000	0.000	0.000	0.000	0.000	0.000	0.011	0.005	0.000	0.000	0.000	
50	7.9	0.005	0.000	0.000	0.000	0.000	0.000	0.001	0.004	0.000	0.000	0.000	0.000	
30	5.1	0.085	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.059	0.026	
30	5.3	0.274	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.140	0.109	0.025	

```
30    5.5   0.6290.0000.0000.0000.0000.0000.0000.0000.0000.2380.2610.1150.015
30    5.7   0.6710.0000.0000.0000.0000.0000.0000.0000.0000.3500.2320.0890.000
30    5.9   0.6300.0000.0000.0000.0000.0000.0000.0000.0850.3260.1660.0540.000
30    6.1   0.6540.0000.0000.0000.0000.0000.0000.0000.1500.3240.1700.0110.000
30    6.3   0.6380.0000.0000.0000.0000.0000.0000.0110.2600.2300.1380.0000.000
30    6.5   0.5790.0000.0000.0000.0000.0000.0000.0380.2500.2390.0520.0000.000
30    6.7   0.5320.0000.0000.0000.0000.0000.0000.0830.2460.1970.0050.0000.000
30    6.9   0.5420.0000.0000.0000.0000.0000.0140.1610.2490.1170.0000.0000.000
30    7.1   0.5180.0000.0000.0000.0000.0000.0400.1840.2390.0560.0000.0000.000
30    7.3   0.5020.0000.0000.0000.0000.0000.0490.2360.2120.0040.0000.0000.000
30    7.5   0.2660.0000.0000.0000.0000.0000.0420.1470.0770.0000.0000.0000.000
30    7.7   0.0270.0000.0000.0000.0000.0000.0070.0160.0040.0000.0000.0000.000
30    7.9   0.0060.0000.0000.0000.0000.0000.0020.0040.0000.0000.0000.0000.000
10    5.1   1.2980.0000.0000.0000.0000.0000.0000.4340.3360.3150.1790.0350.000
10    5.3   1.7500.0000.0000.0000.0000.0000.4510.4240.4700.3220.0830.0000.000
10    5.5   2.0640.0000.0000.0000.0000.4030.4420.5420.5180.1590.0000.0000.000
10    5.7   1.6590.0000.0000.0000.0450.2470.4580.4230.4870.0000.0000.0000.000
10    5.9   1.2520.0000.0000.0000.1310.1880.3420.3090.2820.0000.0000.0000.000
10    6.1   1.4290.0000.0000.0000.2460.3110.2590.4020.2110.0000.0000.0000.000
10    6.3   1.1470.0000.0000.0000.2100.2610.2750.3180.0820.0000.0000.0000.000
10    6.5   0.9570.0000.0000.0000.1570.2220.2920.2380.0480.0000.0000.0000.000
10    6.7   0.8050.0000.0000.0000.1320.2140.2650.1870.0060.0000.0000.0000.000
10    6.9   0.6360.0000.0000.0060.1100.1810.2310.1090.0000.0000.0000.0000.000
10    7.1   0.5200.0000.0000.0160.0870.1530.2150.0490.0000.0000.0000.0000.000
10    7.3   0.4090.0000.0000.0180.0660.1310.1680.0270.0000.0000.0000.0000.000
10    7.5   0.1730.0000.0000.0070.0290.0650.0720.0000.0000.0000.0000.0000.000
10    7.7   0.0140.0000.0000.0010.0030.0060.0040.0000.0000.0000.0000.0000.000
10    7.9   0.0030.0000.0000.0000.0010.0010.0010.0000.0000.0000.0000.0000.000
Principal Sources (faults, subduction, random seismicity having > 3% contribution
WUSmap_2014_fixSm.ch.in (opt):
  Percent Contributed: 2.77
  Distance (km): 19.506989
  Magnitude: 6.1377969
  Epsilon (mean values): 0.47025054
noPuget_2014_fixSm.ch.in (opt):
  Percent Contributed: 2.77
  Distance (km): 19.506988
  Magnitude: 6.1377969
  Epsilon (mean values): 0.47025053
WUSmap_2014_fixSm.gr.in (opt):
  Percent Contributed: 2.76
  Distance (km): 19.387056
  Magnitude: 6.1354255
  Epsilon (mean values): 0.46602148
noPuget_2014_fixSm.gr.in (opt):
  Percent Contributed: 2.76
  Distance (km): 19.387056
  Magnitude: 6.1354255
  Epsilon (mean values): 0.46602147
noPuget_2014_adSm.ch.in (opt):
  Percent Contributed: 2.2
  Distance (km): 18.656467
  Magnitude: 6.1110141
  Epsilon (mean values): 0.43055495
WUSmap_2014_adSm.ch.in (opt):
  Percent Contributed: 2.2
  Distance (km): 18.654852
```

  Magnitude: 6.1109693
  Epsilon (mean values): 0.43049008
noPuget_2014_adSm.gr.in (opt):
  Percent Contributed: 2.19
  Distance (km): 18.569848
  Magnitude: 6.1092825
  Epsilon (mean values): 0.42745541
WUSmap_2014_adSm.gr.in (opt):
  Percent Contributed: 2.19
  Distance (km): 18.568351
  Magnitude: 6.1092399
  Epsilon (mean values): 0.42739481
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
vs30 = 1150 m/s (Site class B)
return period: 2475 yrs.
#This deaggregation corresponds to: GMM: Campbell & Bozorgnia (2014)
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:
  Return period: 2475 yrs
  Exceedance rate: 0.0004040404 yr^{-1}
  PGA ground motion: 0.13397286 g
Recovered targets:
  Return period: 2548.853 yrs
  Exceedance rate: 0.00039233334 yr^{-1}
Totals:
  Binned: 25.89 %
  Residual: 0 %
  Trace: 0.12 %
Mean (over all sources):
  m: 6.28
  r: 21.82 km
  ε_0: 0.31 σ
Mode (largest m-r bin):
  m: 5.5
  r: 11.26 km
  ε_0: 0.29 σ
  Contribution: 1.77 %
Mode (largest m-r-ε_0 bin):
  m: 5.5
  r: 10.79 km
  ε_0: 0.25 σ
  Contribution: 0.58 %
Discretization:
  r: min = 0.0, max = 1000.0, Δ = 20.0 km
  m: min = 4.4, max = 9.4, Δ = 0.2
  ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
  ε0: [-∞ .. -2.5)
  ε1: [-2.5 .. -2.0)
  ε2: [-2.0 .. -1.5)
  ε3: [-1.5 .. -1.0)
  ε4: [-1.0 .. -0.5)
  ε5: [-0.5 .. 0.0)

ε6: [0.0 .. 0.5)
ε7: [0.5 .. 1.0)
ε8: [1.0 .. 1.5)
ε9: [1.5 .. 2.0)
ε10: [2.0 .. 2.5)
ε11: [2.5 .. +∞]

Closest Distance, rRup (km)	Magnitude (Mw)	ALL_ε	ε=(-∞,-2.5)	ε=[-2.5,-2)	ε=[-2,-1.5)	ε=[-1.5,-1)	ε=[-1,-0.5)	ε=[-0.5,0)	ε=[0,0.5)	ε=[0.5,1)	ε=[1,1.5)	ε=[1.5,2)	ε=[2,2.5)	ε=[2.5,∞)
170	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	7.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	7.5	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
130	7.7	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110	6.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110	6.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
110	7.1	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005
110	7.3	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.007
110	7.5	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006	0.002
110	7.7	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
110	7.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
90	6.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
90	6.5	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005
90	6.7	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.010	0.010
90	6.9	0.024	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.014	0.010	0.000
90	7.1	0.036	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.032	0.004	0.000
90	7.3	0.048	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.017	0.031	0.000	0.000
90	7.5	0.031	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.020	0.011	0.000	0.000
90	7.7	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.004	0.000	0.000	0.000
90	7.9	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.000
70	6.1	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004
70	6.3	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.013	0.022	
70	6.5	0.084	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.070	0.014	
70	6.7	0.107	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.010	0.094	0.003	
70	6.9	0.124	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.076	0.047	0.000	
70	7.1	0.153	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.141	0.013	0.000	
70	7.3	0.165	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.032	0.133	0.000	0.000	
70	7.5	0.095	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.063	0.032	0.000	0.000	
70	7.7	0.018	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.018	0.000	0.000	0.000	
70	7.9	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.003	0.000	0.000	
50	5.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
50	5.7	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006	
50	5.9	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.013	0.018	
50	6.1	0.109	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.018	0.074	0.017	
50	6.3	0.221	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.141	0.076	0.001	
50	6.5	0.302	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.093	0.183	0.026	0.000	
50	6.7	0.292	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.141	0.148	0.002	0.000	
50	6.9	0.295	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.201	0.089	0.000	0.000	
50	7.1	0.294	0.000	0.000	0.000	0.000	0.000	0.000	0.047	0.218	0.028	0.000	0.000	
50	7.3	0.286	0.000	0.000	0.000	0.000	0.000	0.000	0.130	0.156	0.000	0.000	0.000	
50	7.5	0.155	0.000	0.000	0.000	0.000	0.000	0.000	0.104	0.052	0.000	0.000	0.000	
50	7.7	0.021	0.000	0.000	0.000	0.000	0.000	0.002	0.017	0.001	0.000	0.000	0.000	
50	7.9	0.006	0.000	0.000	0.000	0.000	0.000	0.002	0.004	0.000	0.000	0.000	0.000	
30	5.1	0.072	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.048	0.024	
30	5.3	0.169	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.057	0.091	0.020	
30	5.5	0.344	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.066	0.186	0.074	0.019	

```
30    5.7   0.4750.0000.0000.0000.0000.0000.0000.0000.0000.2150.1710.0740.014
30    5.9   0.5980.0000.0000.0000.0000.0000.0000.0000.1270.2510.1630.0570.000
30    6.1   0.8530.0000.0000.0000.0000.0000.0000.0170.3710.2960.1610.0070.000
30    6.3   1.0620.0000.0000.0000.0000.0000.0000.2840.4200.3170.0400.0000.000
30    6.5   1.0200.0000.0000.0000.0000.0000.0210.4220.3860.1910.0000.0000.000
30    6.7   0.8290.0000.0000.0000.0000.0000.0710.3100.3420.1060.0000.0000.000
30    6.9   0.7940.0000.0000.0000.0000.0000.1520.3250.2850.0320.0000.0000.000
30    7.1   0.7130.0000.0000.0000.0000.0060.1770.3080.2220.0000.0000.0000.000
30    7.3   0.6530.0000.0000.0000.0000.0200.2170.2790.1370.0000.0000.0000.000
30    7.5   0.3330.0000.0000.0000.0000.0170.1210.1650.0300.0000.0000.0000.000
30    7.7   0.0320.0000.0000.0000.0000.0020.0130.0170.0000.0000.0000.0000.000
30    7.9   0.0070.0000.0000.0000.0000.0010.0030.0030.0000.0000.0000.0000.000
10    5.1   1.2180.0000.0000.0000.0000.0000.0000.2430.4220.3420.1780.0330.000
10    5.3   1.5290.0000.0000.0000.0000.0000.1830.4880.4530.3010.1030.0000.000
10    5.5   1.7690.0000.0000.0000.0000.1130.4740.5830.3460.2530.0000.0000.000
10    5.7   1.5630.0000.0000.0000.0000.2660.4100.4350.3970.0540.0000.0000.000
10    5.9   1.3190.0000.0000.0000.0630.2610.3970.3610.2370.0000.0000.0000.000
10    6.1   1.6720.0000.0000.0000.3420.3800.4760.4300.0430.0000.0000.0000.000
10    6.3   1.4540.0000.0000.1250.3260.3740.4500.1790.0000.0000.0000.0000.000
10    6.5   1.2560.0000.0240.2140.2500.3470.3570.0640.0000.0000.0000.0000.000
10    6.7   1.0340.0000.0370.1780.2240.2810.3040.0100.0000.0000.0000.0000.000
10    6.9   0.7890.0000.0250.1240.2140.2530.1730.0000.0000.0000.0000.0000.000
10    7.1   0.6310.0000.0260.0810.1600.2850.0790.0000.0000.0000.0000.0000.000
10    7.3   0.4850.0000.0180.0670.1270.1880.0840.0000.0000.0000.0000.0000.000
10    7.5   0.2010.0000.0070.0330.0580.0750.0270.0000.0000.0000.0000.0000.000
10    7.7   0.0160.0000.0010.0030.0050.0070.0000.0000.0000.0000.0000.0000.000
10    7.9   0.0030.0000.0000.0010.0010.0010.0000.0000.0000.0000.0000.0000.000
Principal Sources (faults, subduction, random seismicity having > 3% contribution
WUSmap_2014_fixSm.ch.in (opt):
  Percent Contributed: 3.21
  Distance (km): 21.864593
  Magnitude: 6.2733308
  Epsilon (mean values): 0.32206895
noPuget_2014_fixSm.ch.in (opt):
  Percent Contributed: 3.21
  Distance (km): 21.864593
  Magnitude: 6.2733307
  Epsilon (mean values): 0.32206893
WUSmap_2014_fixSm.gr.in (opt):
  Percent Contributed: 3.19
  Distance (km): 21.649277
  Magnitude: 6.2698977
  Epsilon (mean values): 0.31454206
noPuget_2014_fixSm.gr.in (opt):
  Percent Contributed: 3.19
  Distance (km): 21.649276
  Magnitude: 6.2698977
  Epsilon (mean values): 0.31454203
noPuget_2014_adSm.ch.in (opt):
  Percent Contributed: 2.51
  Distance (km): 20.743423
  Magnitude: 6.2426831
  Epsilon (mean values): 0.27680071
WUSmap_2014_adSm.ch.in (opt):
  Percent Contributed: 2.51
  Distance (km): 20.740876
  Magnitude: 6.242626
```

  Epsilon (mean values): 0.27670848
noPuget_2014_adSm.gr.in (opt):
  Percent Contributed: 2.5
  Distance (km): 20.586691
  Magnitude: 6.2401352
  Epsilon (mean values): 0.27125163
WUSmap_2014_adSm.gr.in (opt):
  Percent Contributed: 2.5
  Distance (km): 20.584369
  Magnitude: 6.2400813
  Epsilon (mean values): 0.27116738
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
vs30 = 1150 m/s (Site class B)
return period: 2475 yrs.
#This deaggregation corresponds to: GMM: Chiou & Youngs (2014)
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:
  Return period: 2475 yrs
  Exceedance rate: 0.0004040404 yr^{-1}
  PGA ground motion: 0.13397286 g
Recovered targets:
  Return period: 2548.853 yrs
  Exceedance rate: 0.00039233334 yr^{-1}
Totals:
  Binned: 20.9 %
  Residual: 0 %
  Trace: 0.16 %
Mean (over all sources):
  m: 6.26
  r: 19.92 km
  ε_0: 0.4 σ
Mode (largest m-r bin):
  m: 5.3
  r: 10.72 km
  ε_0: 0.69 σ
  Contribution: 1.51 %
Mode (largest m-r-ε_0 bin):
  m: 5.29
  r: 7.37 km
  ε_0: 0.22 σ
  Contribution: 0.56 %
Discretization:
  r: min = 0.0, max = 1000.0, Δ = 20.0 km
  m: min = 4.4, max = 9.4, Δ = 0.2
  ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
  ε0: [-∞ .. -2.5)
  ε1: [-2.5 .. -2.0)
  ε2: [-2.0 .. -1.5)
  ε3: [-1.5 .. -1.0)
  ε4: [-1.0 .. -0.5)
  ε5: [-0.5 .. 0.0)
  ε6: [0.0 .. 0.5)

ε7: [0.5 .. 1.0)
ε8: [1.0 .. 1.5)
ε9: [1.5 .. 2.0)
ε10: [2.0 .. 2.5)
ε11: [2.5 .. +∞]

Closest Distance, rRup (km)	Magnitude (Mw)	ALL_ε	ε=(-∞,-2.5)	ε=[-2.5,-2)	ε=[-2,-1.5)	ε=[-1.5,-1)	ε=[-1,-0.5)	ε=[-0.5,0)	ε=[0,0.5)	ε=[0.5,1)	ε=[1,1.5)	ε=[1.5,2)	ε=[2,2.5)	ε=[2.5,∞)
210	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	7.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	7.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	7.7	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	7.3	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
130	7.5	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.004
130	7.7	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000
130	7.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110	6.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110	7.1	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003
110	7.3	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.006	
110	7.5	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.013	0.001	
110	7.7	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.001	0.000	
110	7.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	
90	6.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
90	6.9	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005
90	7.1	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.013	0.007	
90	7.3	0.041	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.010	0.030	0.001	
90	7.5	0.034	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.026	0.008	0.000	
90	7.7	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.004	0.000	0.000	
90	7.9	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	
70	6.3	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
70	6.5	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006
70	6.7	0.021	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.008	0.013	
70	6.9	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.041	0.005	
70	7.1	0.097	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.061	0.036	0.000	
70	7.3	0.145	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.025	0.114	0.005	0.000	
70	7.5	0.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.071	0.029	0.000	0.000	
70	7.7	0.023	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006	0.016	0.000	0.000	
70	7.9	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.001	0.000	0.000	
50	5.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
50	5.7	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004
50	5.9	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.012	
50	6.1	0.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.023	0.016	
50	6.3	0.069	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.053	0.012	
50	6.5	0.084	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.032	0.046	0.006	
50	6.7	0.108	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.068	0.038	0.001	
50	6.9	0.165	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.057	0.096	0.012	0.000	
50	7.1	0.225	0.000	0.000	0.000	0.000	0.000	0.000	0.022	0.144	0.059	0.000	0.000	
50	7.3	0.274	0.000	0.000	0.000	0.000	0.000	0.000	0.124	0.141	0.009	0.000	0.000	
50	7.5	0.169	0.000	0.000	0.000	0.000	0.000	0.015	0.111	0.043	0.000	0.000	0.000	
50	7.7	0.025	0.000	0.000	0.000	0.000	0.000	0.011	0.013	0.001	0.000	0.000	0.000	
50	7.9	0.008	0.000	0.000	0.000	0.000	0.000	0.001	0.005	0.002	0.000	0.000	0.000	
30	5.1	0.131	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.011	0.093	0.027	
30	5.3	0.212	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.094	0.094	0.024	

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30    5.5   0.2850.0000.0000.0000.0000.0000.0000.0000.0000.0160.1620.0860.021
30    5.7   0.3440.0000.0000.0000.0000.0000.0000.0000.0000.1060.1580.0640.016
30    5.9   0.3950.0000.0000.0000.0000.0000.0000.0000.0000.1850.1450.0610.004
30    6.1   0.5170.0000.0000.0000.0000.0000.0000.0000.0850.2600.1370.0360.000
30    6.3   0.6040.0000.0000.0000.0000.0000.0000.0180.2700.1940.1190.0040.000
30    6.5   0.5510.0000.0000.0000.0000.0000.0000.0760.2330.1760.0670.0000.000
30    6.7   0.5110.0000.0000.0000.0000.0000.0040.1190.2030.1590.0260.0000.000
30    6.9   0.6100.0000.0000.0000.0000.0000.0550.2340.2140.1070.0000.0000.000
30    7.1   0.6460.0000.0000.0000.0000.0060.1440.2680.2030.0240.0000.0000.000
30    7.3   0.6640.0000.0000.0000.0000.0480.2160.2760.1240.0000.0000.0000.000
30    7.5   0.3610.0000.0000.0000.0000.0480.1400.1510.0220.0000.0000.0000.000
30    7.7   0.0370.0000.0000.0000.0010.0070.0180.0110.0000.0000.0000.0000.000
30    7.9   0.0080.0000.0000.0000.0000.0030.0040.0010.0000.0000.0000.0000.000
10    5.1   1.5050.0000.0000.0000.0000.0000.0000.4060.4610.4010.2300.0070.000
10    5.3   1.5100.0000.0000.0000.0000.0000.0600.5600.4880.2810.1210.0000.000
10    5.5   1.3940.0000.0000.0000.0000.0000.2900.3920.4310.2690.0110.0000.000
10    5.7   1.2260.0000.0000.0000.0000.0370.3160.4070.3290.1370.0000.0000.000
10    5.9   1.0520.0000.0000.0000.0000.1460.2600.3060.3290.0120.0000.0000.000
10    6.1   1.3650.0000.0000.0000.0440.4010.3280.4070.1850.0000.0000.0000.000
10    6.3   1.2000.0000.0000.0000.1860.3040.3630.3060.0420.0000.0000.0000.000
10    6.5   1.0410.0000.0000.0470.2370.2270.3160.1960.0180.0000.0000.0000.000
10    6.7   0.8910.0000.0080.0900.1530.2360.2510.1530.0000.0000.0000.0000.000
10    6.9   0.7310.0000.0130.0740.1540.2460.2130.0310.0000.0000.0000.0000.000
10    7.1   0.6110.0000.0130.0770.1450.2350.1410.0000.0000.0000.0000.0000.000
10    7.3   0.4850.0000.0250.0660.1360.1790.0790.0000.0000.0000.0000.0000.000
10    7.5   0.2050.0000.0100.0360.0650.0770.0170.0000.0000.0000.0000.0000.000
10    7.7   0.0160.0000.0010.0040.0060.0050.0000.0000.0000.0000.0000.0000.000
10    7.9   0.0030.0000.0000.0010.0010.0010.0000.0000.0000.0000.0000.0000.000
Principal Sources (faults, subduction, random seismicity having > 3% contribution
WUSmap_2014_fixSm.ch.in (opt):
  Percent Contributed: 2.57
  Distance (km): 19.772934
  Magnitude: 6.2465507
  Epsilon (mean values): 0.40809084
noPuget_2014_fixSm.ch.in (opt):
  Percent Contributed: 2.57
  Distance (km): 19.77293
  Magnitude: 6.2465506
  Epsilon (mean values): 0.40809074
WUSmap_2014_fixSm.gr.in (opt):
  Percent Contributed: 2.56
  Distance (km): 19.636526
  Magnitude: 6.2439441
  Epsilon (mean values): 0.40361426
noPuget_2014_fixSm.gr.in (opt):
  Percent Contributed: 2.56
  Distance (km): 19.636522
  Magnitude: 6.243944
  Epsilon (mean values): 0.40361417
noPuget_2014_adSm.ch.in (opt):
  Percent Contributed: 2.03
  Distance (km): 18.840535
  Magnitude: 6.2144462
  Epsilon (mean values): 0.3753434
WUSmap_2014_adSm.ch.in (opt):
  Percent Contributed: 2.03
  Distance (km): 18.838327
```

  Magnitude: 6.2143871
  Epsilon (mean values): 0.37527624
noPuget_2014_adSm.gr.in (opt):
  Percent Contributed: 2.03
  Distance (km): 18.74376
  Magnitude: 6.2125602
  Epsilon (mean values): 0.37212241
WUSmap_2014_adSm.gr.in (opt):
  Percent Contributed: 2.03
  Distance (km): 18.741679
  Magnitude: 6.2125034
  Epsilon (mean values): 0.37205957
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
vs30 = 1150 m/s (Site class B)
return period: 2475 yrs.
#This deaggregation corresponds to: GMM: Atkinson & Macias (2009) : Interface
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:
  Return period: 2475 yrs
  Exceedance rate: 0.0004040404 yr^{-1}
  PGA ground motion: 0.13397286 g
Recovered targets:
  Return period: 2548.853 yrs
  Exceedance rate: 0.00039233334 yr^{-1}
Totals:
  Binned: 0 %
  Residual: 0 %
  Trace: 0 %
Mean (over all sources):
  m: null
  r: null km
  ε_0: null σ
Mode (largest m-r bin):
  m: null
  r: null km
  ε_0: null σ
  Contribution: 0 %
Mode (largest m-r-ε_0 bin):
  m: null
  r: null km
  ε_0: null σ
  Contribution: 0 %
Discretization:
  r: min = 0.0, max = 1000.0, Δ = 20.0 km
  m: min = 4.4, max = 9.4, Δ = 0.2
  ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
  ε0: [-∞ .. -2.5)
  ε1: [-2.5 .. -2.0)
  ε2: [-2.0 .. -1.5)
  ε3: [-1.5 .. -1.0)
  ε4: [-1.0 .. -0.5)
  ε5: [-0.5 .. 0.0)

ε6: [0.0 .. 0.5)
ε7: [0.5 .. 1.0)
ε8: [1.0 .. 1.5)
ε9: [1.5 .. 2.0)
ε10: [2.0 .. 2.5)
ε11: [2.5 .. +∞]
Closest Distance, rRup (km) Magnitude (Mw) ALL_ε ε=(-∞,-2.5) ε=[-2.5,-2)ε=[-2,-1.5)ε=[-1.5,-1) ε=[-1,-0.5)ε=[-0.5,0) ε=[0,0.5) ε=[0.5,1) ε=[1,1.5) ε=[1.5,2) ε=[2,2.5) ε=[2.5,∞)

Principal Sources (faults, subduction, random seismicity having > 3% contribution
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
vs30 = 1150 m/s (Site class B)
return period: 2475 yrs.
#This deaggregation corresponds to: GMM: BC Hydro (2012) : Interface
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:
Return period: 2475 yrs
Exceedance rate: 0.0004040404 yr^{-1}
PGA ground motion: 0.13397286 g
Recovered targets:
Return period: 2548.853 yrs
Exceedance rate: 0.00039233334 yr^{-1}
Totals:
Binned: 4.44 %
Residual: 0 %
Trace: 0.03 %
Mean (over all sources):
m: 9
r: 347.55 km
ε_0: 1.88 σ
Mode (largest m-r bin):
m: 9.34
r: 323.7 km
ε_0: 1.47 σ
Contribution: 1.11 %
Mode (largest m-r-ε_0 bin):
m: 9.34
r: 323.7 km
ε_0: 1.47 σ
Contribution: 1.11 %
Discretization:
r: min = 0.0, max = 1000.0, Δ = 20.0 km
m: min = 4.4, max = 9.4, Δ = 0.2
ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
ε0: [-∞ .. -2.5)
ε1: [-2.5 .. -2.0)
ε2: [-2.0 .. -1.5)
ε3: [-1.5 .. -1.0)
ε4: [-1.0 .. -0.5)
ε5: [-0.5 .. 0.0)
ε6: [0.0 .. 0.5)
ε7: [0.5 .. 1.0)

ε8: [1.0 .. 1.5)
ε9: [1.5 .. 2.0)
ε10: [2.0 .. 2.5)
ε11: [2.5 .. +∞]

Closest Distance, rRup (km)	Magnitude (Mw)	ALL_ε	ε=(-∞,-2.5)	ε=[-2.5,-2)	ε=[-2,-1.5)	ε=[-1.5,-1)	ε=[-1,-0.5)	ε=[-0.5,0)	ε=[0,0.5)	ε=[0.5,1)	ε=[1,1.5)	ε=[1.5,2)	ε=[2,2.5)	ε=[2.5,∞)
470	8.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
450	8.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
450	8.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
430	8.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
430	8.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
430	8.5	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
410	8.1	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
410	8.3	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
410	8.5	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007
410	8.7	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000
390	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
390	8.1	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003
390	8.3	0.021	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.021
390	8.5	0.038	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.010	0.028
390	8.7	0.187	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.187	0.000
390	9.1	0.152	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.152	0.000
370	7.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
370	8.1	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004
370	8.3	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004
370	8.5	0.058	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.039	0.020
370	8.7	0.304	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.304	0.000
370	8.9	0.343	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.343	0.000
370	9.1	0.643	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.643	0.000	0.000
350	7.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
350	8.1	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
350	8.3	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000
350	8.5	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.035	0.000
350	8.7	0.034	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.034	

0.000
350 8.9 0.055 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.055 0.000
0.000
330 7.9 0.004 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.004
330 8.1 0.012 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.011
0.001
330 8.3 0.008 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.008
0.000
330 8.5 0.064 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.064
0.000
330 8.7 0.096 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.069 0.027
0.000
330 8.9 0.538 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.538 0.000
0.000
330 9.1 0.703 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.703 0.000
0.000
330 9.3 1.114 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 1.114 0.000 0.000
0.000
Principal Sources (faults, subduction, random seismicity having > 3% contribution
sub0_ch_bot.in:
  Percent Contributed: 2.28
  Distance (km): 323.70483
  Magnitude: 9.1361801
  Epsilon (mean values): 1.628701
Cascadia Megathrust - whole CSZ Characteristic:
  Percent Contributed: 2.28
  Distance (km): 323.70483
  Magnitude: 9.1361801
  Epsilon (mean values): 1.628701
  Azimuth: 287.96053
  Latitude: 46.3
  Longitude: -123.4132
sub0_ch_mid.in:
  Percent Contributed: 1.24
  Distance (km): 377.23061
  Magnitude: 8.9491701
  Epsilon (mean values): 2.0922716
Cascadia Megathrust - whole CSZ Characteristic:
  Percent Contributed: 1.24
  Distance (km): 377.23061
  Magnitude: 8.9491701
  Epsilon (mean values): 2.0922716
  Azimuth: 285.79267
  Latitude: 46.3
  Longitude: -124.13677
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
vs30 = 1150 m/s (Site class B)
return period: 2475 yrs.
#This deaggregation corresponds to: GMM: BC Hydro (2012) : Slab
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:
  Return period: 2475 yrs

Exceedance rate: 0.0004040404 yr^{-1}
PGA ground motion: 0.13397286 g
Recovered targets:
Return period: 2548.853 yrs
Exceedance rate: 0.00039233334 yr^{-1}
Totals:
Binned: 0.18 %
Residual: 0 %
Trace: 0.08 %
Mean (over all sources):
m: 7.28
r: 244.9 km
ε_0: 2.23 σ
Mode (largest m-r bin):
m: 7.11
r: 230.32 km
ε_0: 2.35 σ
Contribution: 0.03 %
Mode (largest m-r-ε_0 bin):
m: 7.12
r: 229.23 km
ε_0: 2.31 σ
Contribution: 0.02 %
Discretization:
r: min = 0.0, max = 1000.0, Δ = 20.0 km
m: min = 4.4, max = 9.4, Δ = 0.2
ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
ε0: [-∞ .. -2.5)
ε1: [-2.5 .. -2.0)
ε2: [-2.0 .. -1.5)
ε3: [-1.5 .. -1.0)
ε4: [-1.0 .. -0.5)
ε5: [-0.5 .. 0.0)
ε6: [0.0 .. 0.5)
ε7: [0.5 .. 1.0)
ε8: [1.0 .. 1.5)
ε9: [1.5 .. 2.0)
ε10: [2.0 .. 2.5)
ε11: [2.5 .. +∞]

Closest Distance, rRup (km)	Magnitude (Mw)	ALL_ε	ε=(-∞,-2.5)	ε=[-2.5,-2)	ε=[-2,-1.5)	ε=[-1.5,-1)	ε=[-1,-0.5)	ε=[-0.5,0)	ε=[0,0.5)	ε=[0.5,1)	ε=[1,1.5)	ε=[1.5,2)	ε=[2,2.5)	ε=[2.5,∞)
290	7.1	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003
290	7.3	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.002
290	7.5	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000
270	6.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
270	7.1	0.017	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.017
270	7.3	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006	0.002	
270	7.5	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.009	0.000	
270	7.7	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	
270	7.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	
250	6.9	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	
250	7.1	0.026	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.017	
250	7.3	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.000	

```
250  7.5   0.0100.0000.0000.0000.0000.0000.0000.0000.0000.0000.0080.0020.000
250  7.7   0.0030.0000.0000.0000.0000.0000.0000.0000.0000.0000.0030.0000.000
250  7.9   0.0030.0000.0000.0000.0000.0000.0000.0000.0000.0010.0020.0000.000
230  6.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
230  6.9   0.0050.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.005
230  7.1   0.0270.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0230.004
230  7.3   0.0070.0000.0000.0000.0000.0000.0000.0000.0000.0000.0040.0030.000
230  7.5   0.0080.0000.0000.0000.0000.0000.0000.0000.0000.0000.0070.0000.000
230  7.7   0.0020.0000.0000.0000.0000.0000.0000.0000.0000.0010.0010.0000.000
230  7.9   0.0030.0000.0000.0000.0000.0000.0000.0000.0000.0030.0000.0000.000
210  6.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
210  6.9   0.0020.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0010.001
210  7.1   0.0070.0000.0000.0000.0000.0000.0000.0000.0000.0000.0010.0050.000
210  7.3   0.0020.0000.0000.0000.0000.0000.0000.0000.0000.0000.0020.0000.000
210  7.5   0.0030.0000.0000.0000.0000.0000.0000.0000.0000.0020.0010.0000.000
210  7.7   0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0010.0000.0000.000
210  7.9   0.0020.0000.0000.0000.0000.0000.0000.0000.0010.0010.0000.0000.000
190  6.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
190  6.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
190  6.9   0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0010.000
190  7.1   0.0020.0000.0000.0000.0000.0000.0000.0000.0000.0000.0010.0000.000
190  7.3   0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
190  7.5   0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0010.0000.0000.000
190  7.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
190  7.9   0.0010.0000.0000.0000.0000.0000.0000.0000.0010.0000.0000.0000.000
170  6.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  6.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  6.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  6.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  7.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  7.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  7.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  7.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  7.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  6.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  6.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  6.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  6.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  6.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  7.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  7.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  7.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  7.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  7.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130  6.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130  6.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130  6.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130  6.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130  6.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130  7.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130  7.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130  7.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130  7.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130  7.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110  7.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110  7.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110  7.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
```

110 7.7 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110 7.9 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
90 7.9 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
Principal Sources (faults, subduction, random seismicity having > 3% contribution
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
vs30 = 1150 m/s (Site class B)
return period: 2475 yrs.
#This deaggregation corresponds to: GMM: Zhao et al. (2006) : Interface
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:
  Return period: 2475 yrs
  Exceedance rate: 0.0004040404 yr^{-1}
  PGA ground motion: 0.13397286 g
Recovered targets:
  Return period: 2548.853 yrs
  Exceedance rate: 0.00039233334 yr^{-1}
Totals:
  Binned: 0.82 %
  Residual: 0 %
  Trace: 0 %
Mean (over all sources):
  m: 9.18
  r: 327.45 km
  ε_0: 2.11 σ
Mode (largest m-r bin):
  m: 9.34
  r: 323.7 km
  ε_0: 1.88 σ
  Contribution: 0.46 %
Mode (largest m-r-ε_0 bin):
  m: 9.34
  r: 323.7 km
  ε_0: 1.88 σ
  Contribution: 0.46 %
Discretization:
  r: min = 0.0, max = 1000.0, Δ = 20.0 km
  m: min = 4.4, max = 9.4, Δ = 0.2
  ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
  ε0: [-∞ .. -2.5)
  ε1: [-2.5 .. -2.0)
  ε2: [-2.0 .. -1.5)
  ε3: [-1.5 .. -1.0)
  ε4: [-1.0 .. -0.5)
  ε5: [-0.5 .. 0.0)
  ε6: [0.0 .. 0.5)
  ε7: [0.5 .. 1.0)
  ε8: [1.0 .. 1.5)
  ε9: [1.5 .. 2.0)
  ε10: [2.0 .. 2.5)
  ε11: [2.5 .. +∞]
Closest Distance, rRup (km) Magnitude (Mw) ALL_ε ε=(-∞,-2.5) ε=[-2.5,-2)ε=[-2,-1.5)ε=[-1.5,-1) ε=[-1,-0.5)ε=[-0.5,0) ε=[0,0.5) ε=[0.5,1) ε=[1,1.5) ε=[1.5,2) ε=[2,2.5) ε=[2.5,∞)

```
370   9.1    0.0550.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.055
350   8.5    0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
350   8.7    0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.001
350   8.9    0.0080.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.008
330   8.5    0.0030.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.003
330   8.7    0.0110.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.011
330   8.9    0.1010.0000.0000.0000.0000.0000.0000.0000.0000.0000.1010.000
330   9.1    0.1840.0000.0000.0000.0000.0000.0000.0000.0000.0000.1840.000
330   9.3    0.4630.0000.0000.0000.0000.0000.0000.0000.0000.0000.4630.0000.000
Principal Sources (faults, subduction, random seismicity having > 3% contribution
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
vs30 = 1150 m/s (Site class B)
return period: 2475 yrs.
#This deaggregation corresponds to: GMM: Zhao et al. (2006) : Slab
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:
  Return period: 2475 yrs
  Exceedance rate: 0.0004040404 yr⁻¹
  PGA ground motion: 0.13397286 g
Recovered targets:
  Return period: 2548.853 yrs
  Exceedance rate: 0.00039233334 yr⁻¹
Totals:
  Binned: 0.01 %
  Residual: 0 %
  Trace: 0.06 %
Mean (over all sources):
  m: 7.73
  r: 222.49 km
  ε₀: 1.87 σ
Mode (largest m-r bin):
  m: 7.91
  r: 229.92 km
  ε₀: 1.62 σ
  Contribution: 0 %
Mode (largest m-r-ε₀ bin):
  m: 7.9
  r: 231.55 km
  ε₀: 1.69 σ
  Contribution: 0 %
Discretization:
  r: min = 0.0, max = 1000.0, Δ = 20.0 km
  m: min = 4.4, max = 9.4, Δ = 0.2
  ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
  ε0: [-∞ .. -2.5)
  ε1: [-2.5 .. -2.0)
  ε2: [-2.0 .. -1.5)
  ε3: [-1.5 .. -1.0)
  ε4: [-1.0 .. -0.5)
  ε5: [-0.5 .. 0.0)
  ε6: [0.0 .. 0.5)
  ε7: [0.5 .. 1.0)
```

ε8: [1.0 .. 1.5)
ε9: [1.5 .. 2.0)
ε10: [2.0 .. 2.5)
ε11: [2.5 .. +∞]

Closest Distance, rRup (km)	Magnitude (Mw)	ALL_ε	ε=(-∞,-2.5)	ε=[-2.5,-2)	ε=[-2,-1.5)	ε=[-1.5,-1)	ε=[-1,-0.5)	ε=[-0.5,0)	ε=[0,0.5)	ε=[0.5,1)	ε=[1,1.5)	ε=[1.5,2)	ε=[2,2.5)	ε=[2.5,∞)
270	7.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
270	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
270	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
250	7.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
250	7.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
250	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
250	7.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000
230	7.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
230	7.5	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
230	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
230	7.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000
210	7.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
210	7.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
210	7.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
210	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
210	7.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000
190	6.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	7.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	7.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	7.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	6.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	6.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	7.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	7.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	7.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	6.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	6.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	6.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	6.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	7.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	7.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	7.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	6.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	6.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	6.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	6.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	6.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	7.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	7.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	7.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110	7.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110	7.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110	7.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

110 7.7 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110 7.9 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
90 7.9 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
Principal Sources (faults, subduction, random seismicity having > 3% contribution
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
vs30 = 1150 m/s (Site class B)
return period: 2475 yrs.
#This deaggregation corresponds to: Source Type: Grid
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:
  Return period: 2475 yrs
  Exceedance rate: 0.0004040404 yr^{-1}
  PGA ground motion: 0.13397286 g
Recovered targets:
  Return period: 2548.853 yrs
  Exceedance rate: 0.00039233334 yr^{-1}
Totals:
  Binned: 94 %
  Residual: 0 %
  Trace: 0.2 %
Mean (over all sources):
  m: 6.19
  r: 20.36 km
  ε_0: 0.43 σ
Mode (largest m-r bin):
  m: 5.5
  r: 11.34 km
  ε_0: 0.31 σ
  Contribution: 6.9 %
Mode (largest m-r-ε_0 bin):
  m: 5.5
  r: 10.43 km
  ε_0: 0.25 σ
  Contribution: 2.07 %
Discretization:
  r: min = 0.0, max = 1000.0, Δ = 20.0 km
  m: min = 4.4, max = 9.4, Δ = 0.2
  ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
  ε0: [-∞ .. -2.5)
  ε1: [-2.5 .. -2.0)
  ε2: [-2.0 .. -1.5)
  ε3: [-1.5 .. -1.0)
  ε4: [-1.0 .. -0.5)
  ε5: [-0.5 .. 0.0)
  ε6: [0.0 .. 0.5)
  ε7: [0.5 .. 1.0)
  ε8: [1.0 .. 1.5)
  ε9: [1.5 .. 2.0)
  ε10: [2.0 .. 2.5)
  ε11: [2.5 .. +∞]
Closest Distance, rRup (km) Magnitude (Mw) ALL_ε ε=(-∞,-2.5) ε=[-2.5,-2)ε=[-2,-1.5)ε=[-1.5,-1) ε=[-1,-0.5)ε=[-0.5,0) ε=[0,0.5) ε=[0.5,1) ε=[1,1.5) ε=[1.5,2) ε=[2,2.5) ε=[2.5,∞)

```
210  7.9  0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
190  7.7  0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
190  7.9  0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  7.5  0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  7.7  0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170  7.9  0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  7.5  0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150  7.7  0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.001
150  7.9  0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130  7.3  0.0030.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.003
130  7.5  0.0070.0000.0000.0000.0000.0000.0000.0000.0000.0000.0010.007
130  7.7  0.0030.0000.0000.0000.0000.0000.0000.0000.0000.0000.0020.001
130  7.9  0.0020.0000.0000.0000.0000.0000.0000.0000.0000.0010.0010.000
110  6.9  0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.001
110  7.1  0.0100.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.010
110  7.3  0.0360.0000.0000.0000.0000.0000.0000.0000.0000.0000.0140.022
110  7.5  0.0380.0000.0000.0000.0000.0000.0000.0000.0000.0000.0290.008
110  7.7  0.0080.0000.0000.0000.0000.0000.0000.0000.0000.0040.0040.000
110  7.9  0.0030.0000.0000.0000.0000.0000.0000.0000.0000.0020.0010.000
90   6.3  0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
90   6.5  0.0060.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.006
90   6.7  0.0160.0000.0000.0000.0000.0000.0000.0000.0000.0000.0010.014
90   6.9  0.0470.0000.0000.0000.0000.0000.0000.0000.0000.0000.0170.030
90   7.1  0.0940.0000.0000.0000.0000.0000.0000.0000.0000.0000.0690.025
90   7.3  0.1490.0000.0000.0000.0000.0000.0000.0000.0000.0350.1100.005
90   7.5  0.1070.0000.0000.0000.0000.0000.0000.0000.0000.0670.0400.000
90   7.7  0.0200.0000.0000.0000.0000.0000.0000.0000.0050.0140.0010.000
90   7.9  0.0070.0000.0000.0000.0000.0000.0000.0000.0050.0020.0000.000
70   5.9  0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
70   6.1  0.0100.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.010
70   6.3  0.0720.0000.0000.0000.0000.0000.0000.0000.0000.0000.0200.052
70   6.5  0.1350.0000.0000.0000.0000.0000.0000.0000.0000.0000.0870.048
70   6.7  0.1600.0000.0000.0000.0000.0000.0000.0000.0000.0090.1190.032
70   6.9  0.2380.0000.0000.0000.0000.0000.0000.0000.0000.0700.1570.010
70   7.1  0.3170.0000.0000.0000.0000.0000.0000.0000.0000.2160.1010.000
70   7.3  0.4140.0000.0000.0000.0000.0000.0000.0000.0000.0700.3230.0220.000
70   7.5  0.2680.0000.0000.0000.0000.0000.0000.0000.0000.1350.1320.0010.000
70   7.7  0.0430.0000.0000.0000.0000.0000.0000.0000.0060.0340.0030.0000.000
70   7.9  0.0140.0000.0000.0000.0000.0000.0000.0000.0070.0060.0000.0000.000
50   5.1  0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
50   5.3  0.0070.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.007
50   5.5  0.0340.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.034
50   5.7  0.0840.0000.0000.0000.0000.0000.0000.0000.0000.0000.0210.062
50   5.9  0.1640.0000.0000.0000.0000.0000.0000.0000.0000.0000.0870.076
50   6.1  0.3650.0000.0000.0000.0000.0000.0000.0000.0000.0400.2590.066
50   6.3  0.5940.0000.0000.0000.0000.0000.0000.0000.0030.2880.2810.022
50   6.5  0.7310.0000.0000.0000.0000.0000.0000.0000.1080.4390.1780.006
50   6.7  0.7590.0000.0000.0000.0000.0000.0000.0000.1840.4800.0930.001
50   6.9  0.8630.0000.0000.0000.0000.0000.0000.0050.4380.4020.0190.000
50   7.1  0.9610.0000.0000.0000.0000.0000.0000.0820.6730.2060.0000.000
50   7.3  1.0300.0000.0000.0000.0000.0000.0000.3830.6090.0390.0000.000
50   7.5  0.5950.0000.0000.0000.0000.0000.0150.3670.2120.0000.0000.000
50   7.7  0.0850.0000.0000.0000.0000.0000.0180.0590.0070.0000.0000.000
50   7.9  0.0260.0000.0000.0000.0000.0010.0120.0130.0000.0000.0000.000
30   5.1  0.8290.0000.0000.0000.0000.0000.0000.0000.0000.3050.4010.124
30   5.3  1.2310.0000.0000.0000.0000.0000.0000.0000.0460.6460.4350.104
30   5.5  1.8620.0000.0000.0000.0000.0000.0000.0000.4960.8880.4110.068
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30    5.7   2.1170.0000.0000.0000.0000.0000.0000.0000.9440.8170.3250.030
30    5.9   2.2650.0000.0000.0000.0000.0000.0000.2631.1130.6550.2300.004
30    6.1   2.7740.0000.0000.0000.0000.0000.0170.8321.2190.6530.0530.000
30    6.3   3.1330.0000.0000.0000.0000.0000.3181.3711.0730.3670.0040.000
30    6.5   2.8430.0000.0000.0000.0000.0210.6301.1940.8620.1360.0000.000
30    6.7   2.4340.0000.0000.0000.0000.0750.6071.0760.6450.0310.0000.000
30    6.9   2.5440.0000.0000.0000.0000.2210.9371.0320.3540.0000.0000.000
30    7.1   2.4570.0000.0000.0000.0120.3871.0370.9320.0900.0000.0000.000
30    7.3   2.3880.0000.0000.0000.0680.5681.0970.6520.0040.0000.0000.000
30    7.5   1.2650.0000.0000.0000.0650.3760.6550.1680.0000.0000.0000.000
30    7.7   0.1280.0000.0000.0010.0100.0510.0620.0040.0000.0000.0000.000
30    7.9   0.0280.0000.0000.0000.0040.0140.0100.0000.0000.0000.0000.000
10    5.1   6.4590.0000.0000.0000.0000.3661.6622.0161.7200.6190.0750.000
10    5.3   6.8150.0000.0000.0000.0001.1062.0571.9571.3870.3070.0000.000
10    5.5   6.9030.0000.0000.0000.5161.6032.0671.7560.9490.0110.0000.000
10    5.7   5.8260.0000.0000.0450.6271.4841.7691.6580.2440.0000.0000.000
10    5.9   4.7480.0000.0000.1940.7441.3021.3351.1610.0120.0000.0000.000
10    6.1   5.8440.0000.0000.6751.4411.4121.6890.6280.0000.0000.0000.000
10    6.3   4.9810.0000.1250.8561.2341.4501.1920.1240.0000.0000.0000.000
10    6.5   4.2430.0000.0240.2840.7881.0541.2400.7470.1060.0000.0000.000
10    6.7   3.5640.0000.0450.3030.6460.9311.0730.5590.0060.0000.0000.000
10    6.9   2.8260.0000.0380.2280.5930.8770.8840.2050.0000.0000.0000.000
10    7.1   2.3140.0000.0390.2040.4870.8510.6730.0600.0000.0000.0000.000
10    7.3   1.8130.0000.0430.1810.4040.6440.5130.0270.0000.0000.0000.000
10    7.5   0.7620.0000.0180.0890.1910.2880.1760.0000.0000.0000.0000.000
10    7.7   0.0600.0000.0020.0080.0180.0260.0070.0000.0000.0000.0000.000
10    7.9   0.0120.0000.0010.0020.0040.0050.0010.0000.0000.0000.0000.000
Principal Sources (faults, subduction, random seismicity having > 3% contribution
WUSmap_2014_fixSm.ch.in (opt):
  Percent Contributed: 11.68
  Distance (km): 20.651257
  Magnitude: 6.1914307
  Epsilon (mean values): 0.44746269
PointSourceFinite: -119.420, 45.506:
  Percent Contributed: 1.01
  Distance (km): 6.2787389
  Magnitude: 5.6527213
  Epsilon (mean values): -0.53526747
  Azimuth: 0
  Latitude: 45.506386
  Longitude: -119.42
noPuget_2014_fixSm.ch.in (opt):
  Percent Contributed: 11.68
  Distance (km): 20.651255
  Magnitude: 6.1914306
  Epsilon (mean values): 0.44746265
PointSourceFinite: -119.420, 45.506:
  Percent Contributed: 1.01
  Distance (km): 6.2787389
  Magnitude: 5.6527213
  Epsilon (mean values): -0.53526747
  Azimuth: 0
  Latitude: 45.506386
  Longitude: -119.42
WUSmap_2014_fixSm.gr.in (opt):
  Percent Contributed: 11.64
  Distance (km): 20.489823
```

```
  Magnitude: 6.1884239
  Epsilon (mean values): 0.44216881
PointSourceFinite: -119.420, 45.506:
  Percent Contributed: 1.01
  Distance (km): 6.2787389
  Magnitude: 5.6527213
  Epsilon (mean values): -0.53526747
  Azimuth: 0
  Latitude: 45.506386
  Longitude: -119.42
noPuget_2014_fixSm.gr.in (opt):
  Percent Contributed: 11.64
  Distance (km): 20.489821
  Magnitude: 6.1884239
  Epsilon (mean values): 0.44216876
PointSourceFinite: -119.420, 45.506:
  Percent Contributed: 1.01
  Distance (km): 6.2787389
  Magnitude: 5.6527213
  Epsilon (mean values): -0.53526747
  Azimuth: 0
  Latitude: 45.506386
  Longitude: -119.42
noPuget_2014_adSm.ch.in (opt):
  Percent Contributed: 9.21
  Distance (km): 19.661014
  Magnitude: 6.1611344
  Epsilon (mean values): 0.40843475
WUSmap_2014_adSm.ch.in (opt):
  Percent Contributed: 9.2
  Distance (km): 19.658829
  Magnitude: 6.1610789
  Epsilon (mean values): 0.40836037
noPuget_2014_adSm.gr.in (opt):
  Percent Contributed: 9.18
  Distance (km): 19.544746
  Magnitude: 6.1589336
  Epsilon (mean values): 0.40456697
WUSmap_2014_adSm.gr.in (opt):
  Percent Contributed: 9.18
  Distance (km): 19.542722
  Magnitude: 6.1588809
  Epsilon (mean values): 0.40449803
WUSmap_2014_fixSm_M8.in (opt):
  Percent Contributed: 2.91
  Distance (km): 22.65582
  Magnitude: 6.3290955
  Epsilon (mean values): 0.43483655
noPuget_2014_fixSm_M8.in (opt):
  Percent Contributed: 2.91
  Distance (km): 22.655659
  Magnitude: 6.3290937
  Epsilon (mean values): 0.43483397
noPuget_2014_adSm_M8.in (opt):
  Percent Contributed: 2.27
  Distance (km): 21.399473
  Magnitude: 6.2874446
```

  Epsilon (mean values): 0.39345627
WUSmap_2014_adSm_M8.in (opt):
  Percent Contributed: 2.27
  Distance (km): 21.395285
  Magnitude: 6.2873378
  Epsilon (mean values): 0.39334686
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
vs30 = 1150 m/s (Site class B)
return period: 2475 yrs.
#This deaggregation corresponds to: Source Type: Slab
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:
  Return period: 2475 yrs
  Exceedance rate: 0.0004040404 yr^{-1}
  PGA ground motion: 0.13397286 g
Recovered targets:
  Return period: 2548.853 yrs
  Exceedance rate: 0.00039233334 yr^{-1}
Totals:
  Binned: 0.19 %
  Residual: 0 %
  Trace: 0.12 %
Mean (over all sources):
  m: 7.3
  r: 243.89 km
  ε_0: 2.21 σ
Mode (largest m-r bin):
  m: 7.11
  r: 230.32 km
  ε_0: 2.35 σ
  Contribution: 0.03 %
Mode (largest m-r-ε_0 bin):
  m: 7.12
  r: 229.23 km
  ε_0: 2.31 σ
  Contribution: 0.02 %
Discretization:
  r: min = 0.0, max = 1000.0, Δ = 20.0 km
  m: min = 4.4, max = 9.4, Δ = 0.2
  ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
  ε0: [-∞ .. -2.5)
  ε1: [-2.5 .. -2.0)
  ε2: [-2.0 .. -1.5)
  ε3: [-1.5 .. -1.0)
  ε4: [-1.0 .. -0.5)
  ε5: [-0.5 .. 0.0)
  ε6: [0.0 .. 0.5)
  ε7: [0.5 .. 1.0)
  ε8: [1.0 .. 1.5)
  ε9: [1.5 .. 2.0)
  ε10: [2.0 .. 2.5)
  ε11: [2.5 .. +∞]

Closest Distance, rRup (km) Magnitude (Mw) ALL_ε ε=(-∞,-2.5) ε=[-2.5,-2)ε=[-2,-1.5)ε=[-1.5,-1) ε=[-1,-0.5)ε=[-0.5,0) ε=[0,0.5) ε=[0.5,1) ε=[1,1.5) ε=[1.5,2) ε=[2,2.5) ε=[2.5,∞)

290 7.1 0.0030.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.003
290 7.3 0.0030.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0010.002
290 7.5 0.0030.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0030.000
270 6.9 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
270 7.1 0.0170.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.017
270 7.3 0.0090.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0060.002
270 7.5 0.0100.0000.0000.0000.0000.0000.0000.0000.0000.0000.0010.0090.000
270 7.7 0.0030.0000.0000.0000.0000.0000.0000.0000.0000.0000.0020.0000.000
270 7.9 0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0010.0000.000
250 6.9 0.0020.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.002
250 7.1 0.0260.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0090.017
250 7.3 0.0090.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0090.000
250 7.5 0.0110.0000.0000.0000.0000.0000.0000.0000.0000.0000.0080.0020.000
250 7.7 0.0030.0000.0000.0000.0000.0000.0000.0000.0000.0000.0030.0000.000
250 7.9 0.0050.0000.0000.0000.0000.0000.0000.0000.0000.0010.0030.0010.000
230 6.7 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
230 6.9 0.0050.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.005
230 7.1 0.0270.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0230.004
230 7.3 0.0070.0000.0000.0000.0000.0000.0000.0000.0000.0000.0040.0030.000
230 7.5 0.0080.0000.0000.0000.0000.0000.0000.0000.0000.0000.0070.0000.000
230 7.7 0.0020.0000.0000.0000.0000.0000.0000.0000.0000.0010.0010.0000.000
230 7.9 0.0040.0000.0000.0000.0000.0000.0000.0000.0000.0030.0010.0000.000
210 6.7 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
210 6.9 0.0020.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0010.001
210 7.1 0.0070.0000.0000.0000.0000.0000.0000.0000.0000.0000.0010.0050.000
210 7.3 0.0030.0000.0000.0000.0000.0000.0000.0000.0000.0000.0020.0000.000
210 7.5 0.0030.0000.0000.0000.0000.0000.0000.0000.0000.0020.0010.0000.000
210 7.7 0.0020.0000.0000.0000.0000.0000.0000.0000.0000.0010.0000.0000.000
210 7.9 0.0030.0000.0000.0000.0000.0000.0000.0000.0010.0020.0000.0000.000
190 6.5 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
190 6.7 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
190 6.9 0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0010.000
190 7.1 0.0020.0000.0000.0000.0000.0000.0000.0000.0000.0000.0010.0000.000
190 7.3 0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
190 7.5 0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0010.0000.0000.000
190 7.7 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
190 7.9 0.0010.0000.0000.0000.0000.0000.0000.0000.0010.0000.0000.0000.000
170 6.3 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170 6.5 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170 6.7 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170 6.9 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170 7.1 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170 7.3 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170 7.5 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170 7.7 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170 7.9 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150 6.1 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150 6.3 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150 6.5 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150 6.7 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150 6.9 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150 7.1 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150 7.3 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150 7.5 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150 7.7 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000

```
150   7.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   6.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   6.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   6.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   6.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   6.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   7.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   7.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   7.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   7.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   7.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110   7.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110   7.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110   7.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110   7.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110   7.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
90    7.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
Principal Sources (faults, subduction, random seismicity having > 3% contribution
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
vs30 = 1150 m/s (Site class B)
return period: 2475 yrs.
#This deaggregation corresponds to: Source Type: Interface
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:
  Return period: 2475 yrs
  Exceedance rate: 0.0004040404 yr⁻¹
  PGA ground motion: 0.13397286 g
Recovered targets:
  Return period: 2548.853 yrs
  Exceedance rate: 0.00039233334 yr⁻¹
Totals:
  Binned: 5.27 %
  Residual: 0 %
  Trace: 0.03 %
Mean (over all sources):
  m: 9.02
  r: 344.4 km
  ε₀: 1.92 σ
Mode (largest m-r bin):
  m: 9.34
  r: 323.7 km
  ε₀: 1.59 σ
  Contribution: 1.58 %
Mode (largest m-r-ε₀ bin):
  m: 9.34
  r: 323.7 km
  ε₀: 1.47 σ
  Contribution: 1.11 %
Discretization:
  r: min = 0.0, max = 1000.0, Δ = 20.0 km
  m: min = 4.4, max = 9.4, Δ = 0.2
  ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
```

ε0: [-∞ .. -2.5)
ε1: [-2.5 .. -2.0)
ε2: [-2.0 .. -1.5)
ε3: [-1.5 .. -1.0)
ε4: [-1.0 .. -0.5)
ε5: [-0.5 .. 0.0)
ε6: [0.0 .. 0.5)
ε7: [0.5 .. 1.0)
ε8: [1.0 .. 1.5)
ε9: [1.5 .. 2.0)
ε10: [2.0 .. 2.5)
ε11: [2.5 .. +∞]

Closest Distance, rRup (km)	Magnitude (Mw)	ALL_ε	ε=(-∞,-2.5)	ε=[-2.5,-2)	ε=[-2,-1.5)	ε=[-1.5,-1)	ε=[-1,-0.5)	ε=[-0.5,0)	ε=[0,0.5)	ε=[0.5,1)	ε=[1,1.5)	ε=[1.5,2)	ε=[2,2.5)	ε=[2.5,∞)
470	8.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
450	8.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
450	8.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
430	8.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
430	8.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
430	8.5	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
410	8.1	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
410	8.3	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
410	8.5	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007
410	8.7	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000
390	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
390	8.1	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003
390	8.3	0.021	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.021
390	8.5	0.038	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.010	0.028	
390	8.7	0.187	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.187	0.000	
390	9.1	0.152	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.152	0.000	
370	7.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	
370	8.1	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	
370	8.3	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	
370	8.5	0.058	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.039	0.020	
370	8.7	0.304	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.304	0.000	
370	8.9	0.343	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.343	0.000	
370	9.1	0.698	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.643	0.000	0.055	
350	7.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	
350	8.1	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	
350	8.3	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	
350	8.5	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.035	0.000	
350	8.7	0.036	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.034	0.001	
350	8.9	0.063	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.055	0.000	0.008	
330	7.9	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	
330	8.1	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.011	0.001	
330	8.3	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.008	0.000	
330	8.5	0.067	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.064	0.003	
330	8.7	0.107	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.069	0.027	0.011	
330	8.9	0.639	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.538	0.101	0.000	
330	9.1	0.886	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.703	0.184	0.000	
330	9.3	1.577	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.114	0.463	0.000	0.000	

Principal Sources (faults, subduction, random seismicity having > 3% contribution
sub0_ch_bot.in:
Percent Contributed: 3.01
Distance (km): 323.70483
Magnitude: 9.1514414
Epsilon (mean values): 1.7290075

Cascadia Megathrust - whole CSZ Characteristic:
  Percent Contributed: 3.01
  Distance (km): 323.70483
  Magnitude: 9.1514414
  Epsilon (mean values): 1.7290075
  Azimuth: 287.96053
  Latitude: 46.3
  Longitude: -123.4132
sub0_ch_mid.in:
  Percent Contributed: 1.29
  Distance (km): 377.23061
  Magnitude: 8.9563842
  Epsilon (mean values): 2.1182919
Cascadia Megathrust - whole CSZ Characteristic:
  Percent Contributed: 1.29
  Distance (km): 377.23061
  Magnitude: 8.9563842
  Epsilon (mean values): 2.1182919
  Azimuth: 285.79267
  Latitude: 46.3
  Longitude: -124.13677
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
vs30 = 1150 m/s (Site class B)
return period: 2475 yrs.
#This deaggregation corresponds to: Source Type: Fault
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:
  Return period: 2475 yrs
  Exceedance rate: 0.0004040404 yr^{-1}
  PGA ground motion: 0.13397286 g
Recovered targets:
  Return period: 2548.853 yrs
  Exceedance rate: 0.00039233334 yr^{-1}
Totals:
  Binned: 0.55 %
  Residual: 0 %
  Trace: 0.01 %
Mean (over all sources):
  m: 7.16
  r: 68.9 km
  ε_0: 1.85 σ
Mode (largest m-r bin):
  m: 7.32
  r: 67.43 km
  ε_0: 1.65 σ
  Contribution: 0.13 %
Mode (largest m-r-ε_0 bin):
  m: 7.32
  r: 67.52 km
  ε_0: 1.66 σ
  Contribution: 0.13 %
Discretization:
  r: min = 0.0, max = 1000.0, Δ = 20.0 km

m: min = 4.4, max = 9.4, Δ = 0.2
ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
ε0: [-∞ .. -2.5)
ε1: [-2.5 .. -2.0)
ε2: [-2.0 .. -1.5)
ε3: [-1.5 .. -1.0)
ε4: [-1.0 .. -0.5)
ε5: [-0.5 .. 0.0)
ε6: [0.0 .. 0.5)
ε7: [0.5 .. 1.0)
ε8: [1.0 .. 1.5)
ε9: [1.5 .. 2.0)
ε10: [2.0 .. 2.5)
ε11: [2.5 .. +∞]

Closest Distance, rRup (km)	Magnitude (Mw)	ALL_ε	ε=(-∞,-2.5)	ε=[-2.5,-2)	ε=[-2,-1.5)	ε=[-1.5,-1)	ε=[-1,-0.5)	ε=[-0.5,0)	ε=[0,0.5)	ε=[0.5,1)	ε=[1,1.5)	ε=[1.5,2)	ε=[2,2.5)	ε=[2.5,∞)
130	7.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	7.5	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
130	7.7	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
110	6.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110	6.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110	7.1	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
110	7.3	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.003
110	7.5	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
90	6.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
90	6.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
90	6.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
90	7.1	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
90	7.3	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.001
90	7.5	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.000
90	7.7	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000
70	6.5	0.023	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.016	0.007	
70	6.7	0.070	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.059	0.009	
70	6.9	0.074	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.029	0.046	0.000	
70	7.1	0.127	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.100	0.027	0.000	
70	7.3	0.131	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.127	0.000	0.000	
70	7.5	0.075	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.054	0.021	0.000	0.000	
70	7.7	0.029	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.025	0.002	0.000	0.000	
70	7.9	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.002	0.000	0.000	0.000	

Principal Sources (faults, subduction, random seismicity having > 3% contribution

*** Deaggregation of Seismic Hazard at One Period of Spectral Acceleration ***
*** Data from Dynamic: Conterminous U.S. 2014 (update) (v4.2.0) ****
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
vs30 = 537 m/s (Site class C)
return period: 2475 yrs.
#This deaggregation corresponds to: Total
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:
  Return period: 2475 yrs
  Exceedance rate: 0.0004040404 yr^{-1}
  PGA ground motion: 0.18539539 g
Recovered targets:
  Return period: 2555.6443 yrs
  Exceedance rate: 0.00039129076 yr^{-1}
Totals:
  Binned: 100 %
  Residual: 0 %
  Trace: 0.36 %
Mean (over all sources):
  m: 6.3
  r: 33.92 km
  ε_0: 0.52 σ
Mode (largest m-r bin):
  m: 5.5
  r: 11.41 km
  ε_0: 0.3 σ
  Contribution: 6.93 %
Mode (largest m-r-ε_0 bin):
  m: 5.1
  r: 9.73 km
  ε_0: 0.75 σ
  Contribution: 2.07 %
Discretization:
  r: min = 0.0, max = 1000.0, Δ = 20.0 km
  m: min = 4.4, max = 9.4, Δ = 0.2
  ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
  ε0: [-∞ .. -2.5)
  ε1: [-2.5 .. -2.0)
  ε2: [-2.0 .. -1.5)
  ε3: [-1.5 .. -1.0)
  ε4: [-1.0 .. -0.5)
  ε5: [-0.5 .. 0.0)
  ε6: [0.0 .. 0.5)
  ε7: [0.5 .. 1.0)
  ε8: [1.0 .. 1.5)
  ε9: [1.5 .. 2.0)
  ε10: [2.0 .. 2.5)
  ε11: [2.5 .. +∞]
Closest Distance, rRup (km) Magnitude (Mw) ALL_ε ε=(-∞,-2.5) ε=[-2.5,-2) ε=[-2,-1.5) ε=[-1.5,-1) ε=[-1,-0.5) ε=[-0.5,0) ε=[0,0.5) ε=[0.5,1) ε=[1,1.5) ε=[1.5,2) ε=[2,2.5) ε=[2.5,∞)

450	8.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
430	8.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
430	8.5	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
410	8.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
410	8.3	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
410	8.5	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007
410	8.7	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
390	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
390	8.1	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
390	8.3	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.013
390	8.5	0.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.024
390	8.7	0.131	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.070	0.061
390	9.1	0.114	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.114	0.000
370	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
370	8.1	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
370	8.3	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
370	8.5	0.041	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.008	0.033
370	8.7	0.222	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.222	0.000
370	8.9	0.254	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.254	0.000
370	9.1	0.518	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.492	0.025
350	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
350	8.1	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
350	8.3	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
350	8.5	0.026	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.026	0.000
350	8.7	0.026	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.026	0.000
350	8.9	0.047	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.042	0.005
330	7.9	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003
330	8.1	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.005
330	8.3	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006	

0.000
330 8.5 0.049 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.048
0.001
330 8.7 0.079 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.073
0.006
330 8.9 0.480 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.416 0.000
0.064
330 9.1 0.674 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.550 0.125
0.000
330 9.3 1.227 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.887 0.340
0.000
290 7.1 0.001 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.001
290 7.3 0.002 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.002
290 7.5 0.002 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.002
0.000
270 7.1 0.008 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.008
270 7.3 0.006 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.003
0.003
270 7.5 0.008 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.007
0.000
270 7.7 0.002 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.001 0.001
0.000
270 7.9 0.001 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.001 0.000
0.000
250 6.9 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000
250 7.1 0.016 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.001
0.016
250 7.3 0.007 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.006
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250 7.5 0.008 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.003 0.004
0.000
250 7.7 0.002 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.002 0.000
0.000
250 7.9 0.004 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.003 0.001
0.000
230 6.9 0.003 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.003
230 7.1 0.020 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.013
0.006
230 7.3 0.006 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.002 0.004
0.000
230 7.5 0.006 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.006 0.000
0.000
230 7.7 0.002 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.001 0.000
0.000
230 7.9 0.003 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.002 0.001 0.000
0.000
210 6.7 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000
210 6.9 0.001 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.001
210 7.1 0.005 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.005
0.000

210	7.3	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000
0.000													
210	7.5	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.002	0.000
0.000													
210	7.7	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000
0.000													
210	7.9	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000
0.000													
190	6.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
190	6.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
190	6.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
190	7.1	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
0.000													
190	7.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
190	7.5	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
190	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
190	7.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
170	6.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
170	6.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
170	6.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
170	6.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
170	7.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
170	7.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
170	7.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
170	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
170	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
150	6.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
150	6.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
150	6.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
150	6.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
150	7.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
150	7.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000													
150	7.5	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.001													
150	7.7	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

150	7.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
130	6.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	6.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	6.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	6.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	6.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	7.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	7.3	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006
130	7.5	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.010
130	7.7	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.001
130	7.9	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000
110	6.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
110	7.1	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.015
110	7.3	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.021	0.024
110	7.5	0.043	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.035	0.007
110	7.7	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.004	0.000
110	7.9	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.002	0.001	0.000
90	6.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
90	6.5	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003
90	6.7	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.014
90	6.9	0.048	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.011	0.037
90	7.1	0.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.075	0.025
90	7.3	0.162	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.034	0.122	0.006
90	7.5	0.117	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.076	0.040	0.000
90	7.7	0.022	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006	0.014	0.001	0.000
90	7.9	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.002	0.000	0.000
70	5.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
70	5.9	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002

70	6.1	0.017	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.017													
70	6.3	0.072	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.016
0.056													
70	6.5	0.152	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.088
0.064													
70	6.7	0.230	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.190
0.040													
70	6.9	0.318	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.080	0.231
0.007													
70	7.1	0.457	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.328	0.129
0.000													
70	7.3	0.562	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.103	0.441	0.019
0.000													
70	7.5	0.353	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.201	0.150	0.000
0.000													
70	7.7	0.073	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.010	0.056	0.007	0.000
0.000													
70	7.9	0.016	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.008	0.008	0.000	0.000
0.000													
50	5.1	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.001													
50	5.3	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.012													
50	5.5	0.070	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.016
0.054													
50	5.7	0.136	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.068
0.068													
50	5.9	0.218	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.141
0.073													
50	6.1	0.408	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.077	0.269
0.063													
50	6.3	0.608	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.295	0.294
0.019													
50	6.5	0.726	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.032	0.494	0.196
0.004													
50	6.7	0.765	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.167	0.501	0.096
0.000													
50	6.9	0.875	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.449	0.414	0.012
0.000													
50	7.1	0.977	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.081	0.695	0.201	0.000
0.000													
50	7.3	1.046	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.398	0.610	0.039	0.000
0.000													
50	7.5	0.603	0.000	0.000	0.000	0.000	0.000	0.000	0.032	0.366	0.204	0.001	0.000
0.000													
50	7.7	0.085	0.000	0.000	0.000	0.000	0.000	0.000	0.023	0.054	0.008	0.000	0.000
0.000													
50	7.9	0.026	0.000	0.000	0.000	0.000	0.000	0.001	0.012	0.012	0.001	0.000	0.000
0.000													
30	5.1	0.942	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.374	0.440
0.127													
30	5.3	1.416	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.140	0.732	0.435
0.109													
30	5.5	2.120	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.037	0.650	0.944	0.443
0.046													
30	5.7	2.319	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.211	0.940	0.827	0.314

0.027
30 5.9 2.393 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.382 1.099 0.718 0.188
0.006
30 6.1 2.827 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.990 1.153 0.623 0.061
0.000
30 6.3 3.120 0.000 0.000 0.000 0.000 0.000 0.000 0.118 1.508 1.115 0.378 0.000
0.000
30 6.5 2.811 0.000 0.000 0.000 0.000 0.000 0.000 0.494 1.293 0.923 0.100 0.000
0.000
30 6.7 2.419 0.000 0.000 0.000 0.000 0.000 0.031 0.585 1.099 0.683 0.021 0.000
0.000
30 6.9 2.535 0.000 0.000 0.000 0.000 0.000 0.143 0.944 1.074 0.373 0.000 0.000
0.000
30 7.1 2.450 0.000 0.000 0.000 0.000 0.021 0.309 1.095 0.941 0.085 0.000 0.000
0.000
30 7.3 2.381 0.000 0.000 0.000 0.000 0.059 0.527 1.148 0.638 0.009 0.000 0.000
0.000
30 7.5 1.260 0.000 0.000 0.000 0.000 0.057 0.379 0.642 0.181 0.000 0.000 0.000
0.000
30 7.7 0.127 0.000 0.000 0.000 0.001 0.011 0.050 0.058 0.006 0.000 0.000 0.000
0.000
30 7.9 0.028 0.000 0.000 0.000 0.001 0.004 0.014 0.009 0.000 0.000 0.000 0.000
0.000
10 5.1 6.623 0.000 0.000 0.000 0.000 0.000 0.701 1.446 2.074 1.661 0.674 0.068
0.000
10 5.3 6.918 0.000 0.000 0.000 0.000 0.241 1.094 1.896 1.944 1.496 0.242 0.005
0.000
10 5.5 6.926 0.000 0.000 0.000 0.197 0.397 1.606 2.009 1.815 0.875 0.026 0.000
0.000
10 5.7 5.814 0.000 0.000 0.000 0.304 0.457 1.466 1.773 1.436 0.378 0.000 0.000
0.000
10 5.9 4.725 0.000 0.000 0.000 0.213 0.638 1.337 1.398 1.089 0.049 0.000 0.000
0.000
10 6.1 5.810 0.000 0.000 0.000 0.538 1.533 1.356 1.726 0.656 0.000 0.000 0.000
0.000
10 6.3 4.960 0.000 0.000 0.017 0.849 1.192 1.516 1.345 0.041 0.000 0.000 0.000
0.000
10 6.5 4.235 0.000 0.000 0.178 0.850 1.041 1.243 0.903 0.020 0.000 0.000 0.000
0.000
10 6.7 3.558 0.000 0.008 0.269 0.646 0.988 0.987 0.659 0.000 0.000 0.000 0.000
0.000
10 6.9 2.821 0.000 0.013 0.216 0.567 0.909 0.967 0.148 0.000 0.000 0.000 0.000
0.000
10 7.1 2.309 0.000 0.018 0.187 0.489 0.802 0.786 0.028 0.000 0.000 0.000 0.000
0.000
10 7.3 1.807 0.000 0.025 0.178 0.384 0.662 0.557 0.000 0.000 0.000 0.000 0.000
0.000
10 7.5 0.759 0.000 0.011 0.086 0.187 0.288 0.187 0.000 0.000 0.000 0.000 0.000
0.000
10 7.7 0.060 0.000 0.001 0.008 0.018 0.024 0.008 0.000 0.000 0.000 0.000 0.000
0.000
10 7.9 0.012 0.000 0.000 0.002 0.004 0.005 0.001 0.000 0.000 0.000 0.000 0.000
0.000
Principal Sources (faults, subduction, random seismicity having > 3% contribution
WUSmap_2014_fixSm.ch.in (opt):
  Percent Contributed: 11.85
  Distance (km): 20.846083

```
    Magnitude: 6.1818869
    Epsilon (mean values): 0.47112429
  PointSourceFinite: -119.420, 45.506:
    Percent Contributed: 1.01
    Distance (km): 6.2765438
    Magnitude: 5.6530336
    Epsilon (mean values): -0.53475732
    Azimuth: 0
    Latitude: 45.506386
    Longitude: -119.42
  noPuget_2014_fixSm.ch.in (opt):
    Percent Contributed: 11.85
    Distance (km): 20.84608
    Magnitude: 6.1818868
    Epsilon (mean values): 0.47112423
  PointSourceFinite: -119.420, 45.506:
    Percent Contributed: 1.01
    Distance (km): 6.2765438
    Magnitude: 5.6530336
    Epsilon (mean values): -0.53475732
    Azimuth: 0
    Latitude: 45.506386
    Longitude: -119.42
  WUSmap_2014_fixSm.gr.in (opt):
    Percent Contributed: 11.81
    Distance (km): 20.684332
    Magnitude: 6.1788179
    Epsilon (mean values): 0.4658691
  PointSourceFinite: -119.420, 45.506:
    Percent Contributed: 1.01
    Distance (km): 6.2765438
    Magnitude: 5.6530336
    Epsilon (mean values): -0.53475732
    Azimuth: 0
    Latitude: 45.506386
    Longitude: -119.42
  noPuget_2014_fixSm.gr.in (opt):
    Percent Contributed: 11.81
    Distance (km): 20.684329
    Magnitude: 6.1788179
    Epsilon (mean values): 0.46586905
  PointSourceFinite: -119.420, 45.506:
    Percent Contributed: 1.01
    Distance (km): 6.2765438
    Magnitude: 5.6530336
    Epsilon (mean values): -0.53475732
    Azimuth: 0
    Latitude: 45.506386
    Longitude: -119.42
  noPuget_2014_adSm.ch.in (opt):
    Percent Contributed: 9.34
    Distance (km): 19.848355
    Magnitude: 6.1518603
    Epsilon (mean values): 0.43154439
  WUSmap_2014_adSm.ch.in (opt):
    Percent Contributed: 9.33
    Distance (km): 19.846124
```

Magnitude: 6.1518043
Epsilon (mean values): 0.43146885
noPuget_2014_adSm.gr.in (opt):
Percent Contributed: 9.31
Distance (km): 19.731835
Magnitude: 6.1496154
Epsilon (mean values): 0.4277012
WUSmap_2014_adSm.gr.in (opt):
Percent Contributed: 9.31
Distance (km): 19.729766
Magnitude: 6.1495623
Epsilon (mean values): 0.42763106
WUSmap_2014_fixSm_M8.in (opt):
Percent Contributed: 2.95
Distance (km): 22.873818
Magnitude: 6.3199307
Epsilon (mean values): 0.45769109
noPuget_2014_fixSm_M8.in (opt):
Percent Contributed: 2.95
Distance (km): 22.873594
Magnitude: 6.3199281
Epsilon (mean values): 0.45768764
sub0_ch_bot.in:
Percent Contributed: 2.31
Distance (km): 323.70483
Magnitude: 9.1544681
Epsilon (mean values): 1.8322232
Cascadia Megathrust - whole CSZ Characteristic:
Percent Contributed: 2.31
Distance (km): 323.70483
Magnitude: 9.1544681
Epsilon (mean values): 1.8322232
Azimuth: 287.96053
Latitude: 46.3
Longitude: -123.4132
noPuget_2014_adSm_M8.in (opt):
Percent Contributed: 2.3
Distance (km): 21.608288
Magnitude: 6.2784486
Epsilon (mean values): 0.41607904
WUSmap_2014_adSm_M8.in (opt):
Percent Contributed: 2.3
Distance (km): 21.603947
Magnitude: 6.2783394
Epsilon (mean values): 0.4159682
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
vs30 = 537 m/s (Site class C)
return period: 2475 yrs.
#This deaggregation corresponds to: GMM: Abrahamson, Silva & Kamai (2014)
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:
Return period: 2475 yrs
Exceedance rate: 0.0004040404 yr^{-1}

PGA ground motion: 0.18539539 g
Recovered targets:
Return period: 2555.6443 yrs
Exceedance rate: 0.00039129076 yr^{-1}
Totals:
Binned: 26.06 %
Residual: 0 %
Trace: 0.13 %
Mean (over all sources):
m: 6.11
r: 21.41 km
ε_0: 0.58 σ
Mode (largest m-r bin):
m: 5.1
r: 10.94 km
ε_0: 0.64 σ
Contribution: 2.49 %
Mode (largest m-r-ε_0 bin):
m: 5.1
r: 10.99 km
ε_0: 0.69 σ
Contribution: 0.81 %
Discretization:
r: min = 0.0, max = 1000.0, Δ = 20.0 km
m: min = 4.4, max = 9.4, Δ = 0.2
ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
ε0: [-∞ .. -2.5)
ε1: [-2.5 .. -2.0)
ε2: [-2.0 .. -1.5)
ε3: [-1.5 .. -1.0)
ε4: [-1.0 .. -0.5)
ε5: [-0.5 .. 0.0)
ε6: [0.0 .. 0.5)
ε7: [0.5 .. 1.0)
ε8: [1.0 .. 1.5)
ε9: [1.5 .. 2.0)
ε10: [2.0 .. 2.5)
ε11: [2.5 .. +∞]

Closest Distance, rRup (km)	Magnitude (Mw)	ALL_ε	ε=(-∞,-2.5)	ε=[-2.5,-2)	ε=[-2,-1.5)	ε=[-1.5,-1)	ε=[-1,-0.5)	ε=[-0.5,0)	ε=[0,0.5)	ε=[0.5,1)	ε=[1,1.5)	ε=[1.5,2)	ε=[2,2.5)	ε=[2.5,∞)
190	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	7.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	7.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	7.3	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
130	7.5	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004
130	7.7	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
130	7.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110	6.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110	7.1	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006
110	7.3	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.007
110	7.5	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.012	0.001	
110	7.7	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.001	0.000	

```
110  7.9  0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0010.0000.000
90   6.3  0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
90   6.5  0.0020.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.002
90   6.7  0.0050.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.005
90   6.9  0.0160.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0040.012
90   7.1  0.0310.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0250.005
90   7.3  0.0480.0000.0000.0000.0000.0000.0000.0000.0000.0000.0120.0360.000
90   7.5  0.0340.0000.0000.0000.0000.0000.0000.0000.0000.0000.0260.0090.000
90   7.7  0.0060.0000.0000.0000.0000.0000.0000.0000.0000.0020.0050.0000.000
90   7.9  0.0020.0000.0000.0000.0000.0000.0000.0000.0000.0020.0000.0000.000
70   5.9  0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
70   6.1  0.0080.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.008
70   6.3  0.0330.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0110.022
70   6.5  0.0530.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0350.018
70   6.7  0.0680.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0590.009
70   6.9  0.0910.0000.0000.0000.0000.0000.0000.0000.0000.0000.0290.0610.000
70   7.1  0.1240.0000.0000.0000.0000.0000.0000.0000.0000.0000.0940.0300.000
70   7.3  0.1530.0000.0000.0000.0000.0000.0000.0000.0000.0250.1280.0000.000
70   7.5  0.0960.0000.0000.0000.0000.0000.0000.0000.0000.0630.0330.0000.000
70   7.7  0.0190.0000.0000.0000.0000.0000.0000.0000.0020.0180.0000.0000.000
70   7.9  0.0050.0000.0000.0000.0000.0000.0000.0000.0030.0020.0000.0000.000
50   5.1  0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.001
50   5.3  0.0090.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.009
50   5.5  0.0240.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.024
50   5.7  0.0460.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0170.029
50   5.9  0.0750.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0500.025
50   6.1  0.1390.0000.0000.0000.0000.0000.0000.0000.0000.0000.0290.0950.016
50   6.3  0.2090.0000.0000.0000.0000.0000.0000.0000.0000.0000.1310.0780.000
50   6.5  0.2210.0000.0000.0000.0000.0000.0000.0000.0000.0170.1570.0470.000
50   6.7  0.2100.0000.0000.0000.0000.0000.0000.0000.0000.0470.1440.0180.000
50   6.9  0.2390.0000.0000.0000.0000.0000.0000.0000.0000.1370.1030.0000.000
50   7.1  0.2630.0000.0000.0000.0000.0000.0000.0000.0160.2070.0400.0000.000
50   7.3  0.2800.0000.0000.0000.0000.0000.0000.0000.1190.1610.0000.0000.000
50   7.5  0.1610.0000.0000.0000.0000.0000.0000.0000.1150.0460.0000.0000.000
50   7.7  0.0230.0000.0000.0000.0000.0000.0000.0060.0170.0000.0000.0000.000
50   7.9  0.0070.0000.0000.0000.0000.0000.0000.0040.0030.0000.0000.0000.000
30   5.1  0.5830.0000.0000.0000.0000.0000.0000.0000.0000.0000.3280.2060.049
30   5.3  0.6160.0000.0000.0000.0000.0000.0000.0000.0000.0710.3730.1390.033
30   5.5  0.6410.0000.0000.0000.0000.0000.0000.0000.0000.1900.3010.1420.008
30   5.7  0.6610.0000.0000.0000.0000.0000.0000.0000.0000.3030.2680.0910.000
30   5.9  0.6730.0000.0000.0000.0000.0000.0000.0000.1130.3170.1960.0470.000
30   6.1  0.7810.0000.0000.0000.0000.0000.0000.0000.2850.3260.1710.0000.000
30   6.3  0.8570.0000.0000.0000.0000.0000.0000.0110.4350.3500.0610.0000.000
30   6.5  0.7130.0000.0000.0000.0000.0000.0000.0950.3520.2490.0170.0000.000
30   6.7  0.5790.0000.0000.0000.0000.0000.0000.0970.2990.1830.0000.0000.000
30   6.9  0.6130.0000.0000.0000.0000.0000.0000.2260.2900.0970.0000.0000.000
30   7.1  0.5920.0000.0000.0000.0000.0000.0260.2870.2720.0060.0000.0000.000
30   7.3  0.5780.0000.0000.0000.0000.0000.0910.3080.1790.0000.0000.0000.000
30   7.5  0.3090.0000.0000.0000.0000.0000.0870.1850.0370.0000.0000.0000.000
30   7.7  0.0320.0000.0000.0000.0000.0010.0130.0180.0000.0000.0000.0000.000
30   7.9  0.0070.0000.0000.0000.0000.0000.0040.0020.0000.0000.0000.0000.000
10   5.1  2.4880.0000.0000.0000.0000.0000.4500.5050.8130.6870.0340.0000.000
10   5.3  2.0650.0000.0000.0000.0000.0000.4150.5920.6040.4540.0000.0000.000
10   5.5  1.7040.0000.0000.0000.0000.0000.3990.5570.4880.2600.0000.0000.000
10   5.7  1.3990.0000.0000.0000.0000.0760.3020.5100.4560.0550.0000.0000.000
10   5.9  1.1390.0000.0000.0000.0000.1490.3060.3640.3200.0000.0000.0000.000
10   6.1  1.3920.0000.0000.0000.0440.3850.3300.4400.1930.0000.0000.0000.000
```

```
10    6.3   1.1900.0000.0000.0000.1330.2960.3650.3950.0000.0000.0000.0000.000
10    6.5   0.9960.0000.0000.0230.1440.2590.2770.2930.0000.0000.0000.0000.000
10    6.7   0.8390.0000.0000.0350.1370.2160.2520.1980.0000.0000.0000.0000.000
10    6.9   0.6730.0000.0000.0250.1160.1970.2700.0650.0000.0000.0000.0000.000
10    7.1   0.5530.0000.0000.0290.0950.1790.2400.0110.0000.0000.0000.0000.000
10    7.3   0.4360.0000.0000.0300.0760.1470.1830.0000.0000.0000.0000.0000.000
10    7.5   0.1840.0000.0000.0130.0380.0730.0610.0000.0000.0000.0000.0000.000
10    7.7   0.0150.0000.0000.0010.0040.0080.0020.0000.0000.0000.0000.0000.000
10    7.9   0.0030.0000.0000.0000.0010.0020.0000.0000.0000.0000.0000.0000.000
Principal Sources (faults, subduction, random seismicity having > 3% contribution
WUSmap_2014_fixSm.ch.in (opt):
  Percent Contributed: 3.22
  Distance (km): 21.452736
  Magnitude: 6.1079951
  Epsilon (mean values): 0.59493295
noPuget_2014_fixSm.ch.in (opt):
  Percent Contributed: 3.22
  Distance (km): 21.452733
  Magnitude: 6.1079951
  Epsilon (mean values): 0.59493289
WUSmap_2014_fixSm.gr.in (opt):
  Percent Contributed: 3.21
  Distance (km): 21.283728
  Magnitude: 6.1044885
  Epsilon (mean values): 0.58998619
noPuget_2014_fixSm.gr.in (opt):
  Percent Contributed: 3.21
  Distance (km): 21.283726
  Magnitude: 6.1044885
  Epsilon (mean values): 0.58998613
noPuget_2014_adSm.ch.in (opt):
  Percent Contributed: 2.54
  Distance (km): 20.413808
  Magnitude: 6.0768292
  Epsilon (mean values): 0.55628141
WUSmap_2014_adSm.ch.in (opt):
  Percent Contributed: 2.53
  Distance (km): 20.41142
  Magnitude: 6.0767686
  Epsilon (mean values): 0.55620681
noPuget_2014_adSm.gr.in (opt):
  Percent Contributed: 2.53
  Distance (km): 20.292034
  Magnitude: 6.0742657
  Epsilon (mean values): 0.55265862
WUSmap_2014_adSm.gr.in (opt):
  Percent Contributed: 2.53
  Distance (km): 20.289817
  Magnitude: 6.0742084
  Epsilon (mean values): 0.55258918
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
vs30 = 537 m/s (Site class C)
return period: 2475 yrs.
```

#This deaggregation corresponds to: GMM: Boore, Stewart, Seyhan & Atkinson (2014)
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:
  Return period: 2475 yrs
  Exceedance rate: 0.0004040404 yr^{-1}
  PGA ground motion: 0.18539539 g
Recovered targets:
  Return period: 2555.6443 yrs
  Exceedance rate: 0.00039129076 yr^{-1}
Totals:
  Binned: 27.93 %
  Residual: 0 %
  Trace: 0.15 %
Mean (over all sources):
  m: 6.13
  r: 21.15 km
  ε_0: 0.43 σ
Mode (largest m-r bin):
  m: 5.5
  r: 11.67 km
  ε_0: 0.01 σ
  Contribution: 2.4 %
Mode (largest m-r-ε_0 bin):
  m: 5.49
  r: 16.32 km
  ε_0: 0.72 σ
  Contribution: 0.67 %
Discretization:
  r: min = 0.0, max = 1000.0, Δ = 20.0 km
  m: min = 4.4, max = 9.4, Δ = 0.2
  ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
  ε0: [-∞ .. -2.5)
  ε1: [-2.5 .. -2.0)
  ε2: [-2.0 .. -1.5)
  ε3: [-1.5 .. -1.0)
  ε4: [-1.0 .. -0.5)
  ε5: [-0.5 .. 0.0)
  ε6: [0.0 .. 0.5)
  ε7: [0.5 .. 1.0)
  ε8: [1.0 .. 1.5)
  ε9: [1.5 .. 2.0)
  ε10: [2.0 .. 2.5)
  ε11: [2.5 .. +∞]

Closest Distance, rRup (km)	Magnitude (Mw)	ALL_ε	ε=(-∞,-2.5)	ε=[-2.5,-2)	ε=[-2,-1.5)	ε=[-1.5,-1)	ε=[-1,-0.5)	ε=[-0.5,0)	ε=[0,0.5)	ε=[0.5,1)	ε=[1,1.5)	ε=[1.5,2)	ε=[2,2.5)	ε=[2.5,∞)
190	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	7.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	7.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	7.5	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
130	7.7	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110	6.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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110  7.1  0.0040.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.004
110  7.3  0.0090.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0020.008
110  7.5  0.0080.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0060.003
110  7.7  0.0020.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0010.000
110  7.9  0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
90   6.5  0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.001
90   6.7  0.0060.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.006
90   6.9  0.0150.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0040.011
90   7.1  0.0260.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0200.007
90   7.3  0.0380.0000.0000.0000.0000.0000.0000.0000.0000.0000.0030.0340.001
90   7.5  0.0260.0000.0000.0000.0000.0000.0000.0000.0000.0000.0130.0130.000
90   7.7  0.0040.0000.0000.0000.0000.0000.0000.0000.0000.0000.0040.0000.000
90   7.9  0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0010.0010.0000.000
70   5.7  0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
70   5.9  0.0020.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.002
70   6.1  0.0100.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.010
70   6.3  0.0240.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0050.019
70   6.5  0.0490.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0330.016
70   6.7  0.0780.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0700.008
70   6.9  0.0970.0000.0000.0000.0000.0000.0000.0000.0000.0000.0390.0580.000
70   7.1  0.1280.0000.0000.0000.0000.0000.0000.0000.0000.0000.1040.0240.000
70   7.3  0.1430.0000.0000.0000.0000.0000.0000.0000.0000.0180.1220.0030.000
70   7.5  0.0850.0000.0000.0000.0000.0000.0000.0000.0000.0460.0390.0000.000
70   7.7  0.0170.0000.0000.0000.0000.0000.0000.0000.0000.0160.0010.0000.000
70   7.9  0.0040.0000.0000.0000.0000.0000.0000.0000.0010.0030.0000.0000.000
50   5.3  0.0030.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.003
50   5.5  0.0450.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0160.029
50   5.7  0.0820.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0510.031
50   5.9  0.1120.0000.0000.0000.0000.0000.0000.0000.0000.0000.0030.0860.023
50   6.1  0.1630.0000.0000.0000.0000.0000.0000.0000.0000.0000.0480.1010.014
50   6.3  0.1880.0000.0000.0000.0000.0000.0000.0000.0000.0000.1080.0800.001
50   6.5  0.2230.0000.0000.0000.0000.0000.0000.0000.0000.0150.1630.0440.000
50   6.7  0.2480.0000.0000.0000.0000.0000.0000.0000.0000.0920.1450.0110.000
50   6.9  0.2600.0000.0000.0000.0000.0000.0000.0000.0000.1610.0990.0000.000
50   7.1  0.2710.0000.0000.0000.0000.0000.0000.0000.0280.2000.0420.0000.000
50   7.3  0.2740.0000.0000.0000.0000.0000.0000.0000.1110.1610.0010.0000.000
50   7.5  0.1520.0000.0000.0000.0000.0000.0000.0000.1010.0510.0000.0000.000
50   7.7  0.0210.0000.0000.0000.0000.0000.0000.0030.0170.0010.0000.0000.000
50   7.9  0.0060.0000.0000.0000.0000.0000.0000.0030.0040.0000.0000.0000.000
30   5.1  0.1620.0000.0000.0000.0000.0000.0000.0000.0000.0000.0330.0980.031
30   5.3  0.4560.0000.0000.0000.0000.0000.0000.0000.0000.0690.2290.1250.032
30   5.5  0.9500.0000.0000.0000.0000.0000.0000.0000.0370.4420.3340.1350.001
30   5.7  0.9790.0000.0000.0000.0000.0000.0000.0000.2110.4280.2620.0780.000
30   5.9  0.8950.0000.0000.0000.0000.0000.0000.0000.2510.3940.2370.0140.000
30   6.1  0.9040.0000.0000.0000.0000.0000.0000.0000.4040.3340.1670.0000.000
30   6.3  0.8580.0000.0000.0000.0000.0000.0000.0660.4190.2960.0780.0000.000
30   6.5  0.7600.0000.0000.0000.0000.0000.0000.1280.3760.2530.0030.0000.000
30   6.7  0.6810.0000.0000.0000.0000.0000.0140.1870.3190.1620.0000.0000.000
30   6.9  0.6760.0000.0000.0000.0000.0000.0460.2590.3010.0700.0000.0000.000
30   7.1  0.6330.0000.0000.0000.0000.0000.0770.3060.2460.0030.0000.0000.000
30   7.3  0.6010.0000.0000.0000.0000.0000.1250.3150.1620.0000.0000.0000.000
30   7.5  0.3140.0000.0000.0000.0000.0040.0910.1770.0430.0000.0000.0000.000
30   7.7  0.0320.0000.0000.0000.0000.0010.0120.0180.0000.0000.0000.0000.000
30   7.9  0.0070.0000.0000.0000.0000.0010.0040.0030.0000.0000.0000.0000.000
10   5.1  1.6420.0000.0000.0000.0000.0000.2510.4090.3650.3670.2430.0070.000
10   5.3  2.1210.0000.0000.0000.0000.2410.4350.4940.4820.4460.0220.0000.000
10   5.5  2.4020.0000.0000.0000.1970.3970.5730.5350.6730.0260.0000.0000.000
```

```
10    5.7   1.9060.0000.0000.0000.3040.2670.5100.4300.3960.0000.0000.0000.000
10    5.9   1.4260.0000.0000.0000.2130.1910.4210.4160.1850.0000.0000.0000.000
10    6.1   1.5960.0000.0000.0000.3090.3770.3470.4920.0710.0000.0000.0000.000
10    6.3   1.2690.0000.0000.0170.2610.2640.4150.3120.0000.0000.0000.0000.000
10    6.5   1.0520.0000.0000.0480.1920.2560.3230.2330.0000.0000.0000.0000.000
10    6.7   0.8810.0000.0000.0530.1540.2540.2580.1630.0000.0000.0000.0000.000
10    6.9   0.6900.0000.0000.0370.1360.2250.2480.0440.0000.0000.0000.0000.000
10    7.1   0.5620.0000.0000.0260.0990.2180.2130.0060.0000.0000.0000.0000.000
10    7.3   0.4400.0000.0000.0240.0870.1730.1550.0000.0000.0000.0000.0000.000
10    7.5   0.1850.0000.0000.0150.0360.0780.0560.0000.0000.0000.0000.0000.000
10    7.7   0.0150.0000.0000.0010.0040.0070.0020.0000.0000.0000.0000.0000.000
10    7.9   0.0030.0000.0000.0000.0010.0020.0000.0000.0000.0000.0000.0000.000
Principal Sources (faults, subduction, random seismicity having > 3% contribution
WUSmap_2014_fixSm.ch.in (opt):
  Percent Contributed: 3.46
  Distance (km): 21.220667
  Magnitude: 6.1278115
  Epsilon (mean values): 0.44205035
noPuget_2014_fixSm.ch.in (opt):
  Percent Contributed: 3.46
  Distance (km): 21.220666
  Magnitude: 6.1278115
  Epsilon (mean values): 0.44205032
WUSmap_2014_fixSm.gr.in (opt):
  Percent Contributed: 3.45
  Distance (km): 21.059237
  Magnitude: 6.1246304
  Epsilon (mean values): 0.4366884
noPuget_2014_fixSm.gr.in (opt):
  Percent Contributed: 3.45
  Distance (km): 21.059236
  Magnitude: 6.1246303
  Epsilon (mean values): 0.43668838
noPuget_2014_adSm.ch.in (opt):
  Percent Contributed: 2.72
  Distance (km): 20.228524
  Magnitude: 6.099136
  Epsilon (mean values): 0.39816757
WUSmap_2014_adSm.ch.in (opt):
  Percent Contributed: 2.72
  Distance (km): 20.226439
  Magnitude: 6.0990835
  Epsilon (mean values): 0.39808923
noPuget_2014_adSm.gr.in (opt):
  Percent Contributed: 2.72
  Distance (km): 20.111504
  Magnitude: 6.0968001
  Epsilon (mean values): 0.39421879
WUSmap_2014_adSm.gr.in (opt):
  Percent Contributed: 2.71
  Distance (km): 20.109584
  Magnitude: 6.0967506
  Epsilon (mean values): 0.39414605
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
```

imt: Peak Ground Acceleration
vs30 = 537 m/s (Site class C)
return period: 2475 yrs.
#This deaggregation corresponds to: GMM: Campbell & Bozorgnia (2014)
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:
  Return period: 2475 yrs
  Exceedance rate: 0.0004040404 yr^{-1}
  PGA ground motion: 0.18539539 g
Recovered targets:
  Return period: 2555.6443 yrs
  Exceedance rate: 0.00039129076 yr^{-1}
Totals:
  Binned: 19.53 %
  Residual: 0 %
  Trace: 0.1 %
Mean (over all sources):
  m: 6.29
  r: 20.02 km
  ε_0: 0.41 σ
Mode (largest m-r bin):
  m: 6.1
  r: 11.88 km
  ε_0: -0.19 σ
  Contribution: 1.4 %
Mode (largest m-r-ε_0 bin):
  m: 5.51
  r: 9.32 km
  ε_0: 0.26 σ
  Contribution: 0.42 %
Discretization:
  r: min = 0.0, max = 1000.0, Δ = 20.0 km
  m: min = 4.4, max = 9.4, Δ = 0.2
  ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
  ε0: [-∞ .. -2.5)
  ε1: [-2.5 .. -2.0)
  ε2: [-2.0 .. -1.5)
  ε3: [-1.5 .. -1.0)
  ε4: [-1.0 .. -0.5)
  ε5: [-0.5 .. 0.0)
  ε6: [0.0 .. 0.5)
  ε7: [0.5 .. 1.0)
  ε8: [1.0 .. 1.5)
  ε9: [1.5 .. 2.0)
  ε10: [2.0 .. 2.5)
  ε11: [2.5 .. +∞]

Closest Distance, rRup (km)	Magnitude (Mw)	ALL_ε	ε=(-∞,-2.5)	ε=[-2.5,-2)	ε=[-2,-1.5)	ε=[-1.5,-1)	ε=[-1,-0.5)	ε=[-0.5,0)	ε=[0,0.5)	ε=[0.5,1)	ε=[1,1.5)	ε=[1.5,2)	ε=[2,2.5)	ε=[2.5,∞)
150	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	7.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110	6.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110	7.1	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
110	7.3	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003

```
110  7.5  0.0040.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0010.003
110  7.7  0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0010.000
110  7.9  0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
90   6.5  0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
90   6.7  0.0030.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.003
90   6.9  0.0090.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0010.008
90   7.1  0.0170.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0100.007
90   7.3  0.0260.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0220.004
90   7.5  0.0170.0000.0000.0000.0000.0000.0000.0000.0000.0000.0040.0140.000
90   7.7  0.0030.0000.0000.0000.0000.0000.0000.0000.0000.0000.0020.0010.000
90   7.9  0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0010.0000.000
70   6.1  0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
70   6.3  0.0120.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.012
70   6.5  0.0400.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0200.020
70   6.7  0.0550.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0450.010
70   6.9  0.0690.0000.0000.0000.0000.0000.0000.0000.0000.0000.0040.0620.002
70   7.1  0.0890.0000.0000.0000.0000.0000.0000.0000.0000.0000.0480.0410.000
70   7.3  0.1000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0870.0130.000
70   7.5  0.0590.0000.0000.0000.0000.0000.0000.0000.0000.0010.0570.0000.000
70   7.7  0.0120.0000.0000.0000.0000.0000.0000.0000.0000.0060.0060.0000.000
70   7.9  0.0030.0000.0000.0000.0000.0000.0000.0000.0000.0020.0000.0000.000
50   5.7  0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.001
50   5.9  0.0100.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.010
50   6.1  0.0530.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0360.017
50   6.3  0.1240.0000.0000.0000.0000.0000.0000.0000.0000.0000.0440.0740.007
50   6.5  0.1800.0000.0000.0000.0000.0000.0000.0000.0000.0000.1270.0540.000
50   6.7  0.1790.0000.0000.0000.0000.0000.0000.0000.0000.0190.1290.0300.000
50   6.9  0.1860.0000.0000.0000.0000.0000.0000.0000.0000.0670.1140.0040.000
50   7.1  0.1910.0000.0000.0000.0000.0000.0000.0000.0000.1200.0710.0000.000
50   7.3  0.1910.0000.0000.0000.0000.0000.0000.0000.0080.1500.0320.0000.000
50   7.5  0.1060.0000.0000.0000.0000.0000.0000.0000.0320.0740.0010.0000.000
50   7.7  0.0140.0000.0000.0000.0000.0000.0000.0000.0080.0060.0000.0000.000
50   7.9  0.0040.0000.0000.0000.0000.0000.0000.0000.0040.0010.0000.0000.000
30   5.1  0.0350.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0180.018
30   5.3  0.0900.0000.0000.0000.0000.0000.0000.0000.0000.0000.0080.0630.019
30   5.5  0.1940.0000.0000.0000.0000.0000.0000.0000.0000.0000.1110.0670.016
30   5.7  0.2820.0000.0000.0000.0000.0000.0000.0000.0000.0730.1260.0690.014
30   5.9  0.3740.0000.0000.0000.0000.0000.0000.0000.0000.1740.1320.0630.006
30   6.1  0.5620.0000.0000.0000.0000.0000.0000.0000.1440.2440.1440.0310.000
30   6.3  0.7370.0000.0000.0000.0000.0000.0000.0110.3620.2520.1120.0000.000
30   6.5  0.7310.0000.0000.0000.0000.0000.0000.1660.3090.2340.0220.0000.000
30   6.7  0.6010.0000.0000.0000.0000.0000.0040.1580.2620.1780.0000.0000.000
30   6.9  0.5910.0000.0000.0000.0000.0000.0150.2220.2440.1100.0000.0000.000
30   7.1  0.5400.0000.0000.0000.0000.0000.0460.2210.2140.0590.0000.0000.000
30   7.3  0.5040.0000.0000.0000.0000.0000.0600.2350.2000.0090.0000.0000.000
30   7.5  0.2600.0000.0000.0000.0000.0000.0440.1300.0860.0000.0000.0000.000
30   7.7  0.0260.0000.0000.0000.0000.0000.0060.0130.0060.0000.0000.0000.000
30   7.9  0.0060.0000.0000.0000.0000.0000.0020.0030.0000.0000.0000.0000.000
10   5.1  0.8730.0000.0000.0000.0000.0000.0000.0530.3150.2860.1570.0610.000
10   5.3  1.1220.0000.0000.0000.0000.0000.0000.3730.3720.2210.1510.0050.000
10   5.5  1.3420.0000.0000.0000.0000.0000.2940.4200.3220.2800.0260.0000.000
10   5.7  1.2160.0000.0000.0000.0000.0750.2950.3860.2870.1730.0000.0000.000
10   5.9  1.0560.0000.0000.0000.0000.1490.3060.2810.2830.0370.0000.0000.000
10   6.1  1.4030.0000.0000.0000.1150.3680.3290.3880.2020.0000.0000.0000.000
10   6.3  1.2620.0000.0000.0000.2530.3080.3550.3330.0140.0000.0000.0000.000
10   6.5  1.1140.0000.0000.0590.2730.2640.3210.1960.0000.0000.0000.0000.000
10   6.7  0.9220.0000.0000.0910.1780.2470.2570.1490.0000.0000.0000.0000.000
```

10 6.9 0.7120.0000.0000.0630.1480.2330.2420.0260.0000.0000.0000.0000.000
10 7.1 0.5700.0000.0000.0510.1210.1730.2140.0110.0000.0000.0000.0000.000
10 7.3 0.4380.0000.0000.0450.0780.1550.1610.0000.0000.0000.0000.0000.000
10 7.5 0.1820.0000.0000.0190.0370.0690.0580.0000.0000.0000.0000.0000.000
10 7.7 0.0140.0000.0000.0010.0040.0050.0040.0000.0000.0000.0000.0000.000
10 7.9 0.0030.0000.0000.0000.0010.0010.0000.0000.0000.0000.0000.0000.000
Principal Sources (faults, subduction, random seismicity having > 3% contribution
WUSmap_2014_fixSm.ch.in (opt):
  Percent Contributed: 2.41
  Distance (km): 20.075041
  Magnitude: 6.2898219
  Epsilon (mean values): 0.42414005
noPuget_2014_fixSm.ch.in (opt):
  Percent Contributed: 2.41
  Distance (km): 20.07504
  Magnitude: 6.2898219
  Epsilon (mean values): 0.42414004
WUSmap_2014_fixSm.gr.in (opt):
  Percent Contributed: 2.4
  Distance (km): 19.91286
  Magnitude: 6.2872758
  Epsilon (mean values): 0.41828712
noPuget_2014_fixSm.gr.in (opt):
  Percent Contributed: 2.4
  Distance (km): 19.91286
  Magnitude: 6.2872758
  Epsilon (mean values): 0.41828711
noPuget_2014_adSm.ch.in (opt):
  Percent Contributed: 1.9
  Distance (km): 19.112383
  Magnitude: 6.2622581
  Epsilon (mean values): 0.38357922
WUSmap_2014_adSm.ch.in (opt):
  Percent Contributed: 1.9
  Distance (km): 19.110399
  Magnitude: 6.2622107
  Epsilon (mean values): 0.38350376
noPuget_2014_adSm.gr.in (opt):
  Percent Contributed: 1.9
  Distance (km): 18.994945
  Magnitude: 6.2603841
  Epsilon (mean values): 0.3792881
WUSmap_2014_adSm.gr.in (opt):
  Percent Contributed: 1.9
  Distance (km): 18.993127
  Magnitude: 6.2603391
  Epsilon (mean values): 0.37921868
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
vs30 = 537 m/s (Site class C)
return period: 2475 yrs.
#This deaggregation corresponds to: GMM: Chiou & Youngs (2014)
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:

Return period: 2475 yrs
Exceedance rate: 0.0004040404 yr^{-1}
PGA ground motion: 0.18539539 g
Recovered targets:
Return period: 2555.6443 yrs
Exceedance rate: 0.00039129076 yr^{-1}
Totals:
Binned: 22.4 %
Residual: 0 %
Trace: 0.14 %
Mean (over all sources):
m: 6.25
r: 20.5 km
ε_0: 0.39 σ
Mode (largest m-r bin):
m: 5.1
r: 10.34 km
ε_0: 0.86 σ
Contribution: 1.62 %
Mode (largest m-r-ε_0 bin):
m: 5.1
r: 9.6 km
ε_0: 0.79 σ
Contribution: 0.58 %
Discretization:
r: min = 0.0, max = 1000.0, Δ = 20.0 km
m: min = 4.4, max = 9.4, Δ = 0.2
ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
ε0: [-∞ .. -2.5)
ε1: [-2.5 .. -2.0)
ε2: [-2.0 .. -1.5)
ε3: [-1.5 .. -1.0)
ε4: [-1.0 .. -0.5)
ε5: [-0.5 .. 0.0)
ε6: [0.0 .. 0.5)
ε7: [0.5 .. 1.0)
ε8: [1.0 .. 1.5)
ε9: [1.5 .. 2.0)
ε10: [2.0 .. 2.5)
ε11: [2.5 .. +∞]

Closest Distance, rRup (km)	Magnitude (Mw)	ALL_ε	ε=(-∞,-2.5)	ε=[-2.5,-2)	ε=[-2,-1.5)	ε=[-1.5,-1)	ε=[-1,-0.5)	ε=[-0.5,0)	ε=[0,0.5)	ε=[0.5,1)	ε=[1,1.5)	ε=[1.5,2)	ε=[2,2.5)	ε=[2.5,∞)
210	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	7.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	7.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	7.5	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
150	7.7	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	7.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	7.3	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003
130	7.5	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.004	
130	7.7	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	

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130  7.9  0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0010.0000.000
110  6.9  0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110  7.1  0.0050.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.005
110  7.3  0.0170.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0110.006
110  7.5  0.0170.0000.0000.0000.0000.0000.0000.0000.0000.0000.0010.0160.001
110  7.7  0.0040.0000.0000.0000.0000.0000.0000.0000.0000.0000.0030.0010.000
110  7.9  0.0020.0000.0000.0000.0000.0000.0000.0000.0000.0010.0010.0000.000
90   6.5  0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
90   6.7  0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
90   6.9  0.0080.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0010.007
90   7.1  0.0260.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0200.006
90   7.3  0.0500.0000.0000.0000.0000.0000.0000.0000.0000.0000.0190.0300.001
90   7.5  0.0400.0000.0000.0000.0000.0000.0000.0000.0000.0010.0340.0050.000
90   7.7  0.0080.0000.0000.0000.0000.0000.0000.0000.0000.0050.0030.0000.000
90   7.9  0.0030.0000.0000.0000.0000.0000.0000.0000.0000.0020.0000.0000.000
70   6.1  0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
70   6.3  0.0040.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.004
70   6.5  0.0100.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.010
70   6.7  0.0290.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0150.013
70   6.9  0.0620.0000.0000.0000.0000.0000.0000.0000.0000.0000.0080.0500.004
70   7.1  0.1160.0000.0000.0000.0000.0000.0000.0000.0000.0000.0820.0340.000
70   7.3  0.1670.0000.0000.0000.0000.0000.0000.0000.0000.0600.1040.0030.000
70   7.5  0.1130.0000.0000.0000.0000.0000.0000.0000.0010.0900.0210.0000.000
70   7.7  0.0250.0000.0000.0000.0000.0000.0000.0000.0090.0160.0000.0000.000
70   7.9  0.0060.0000.0000.0000.0000.0000.0000.0000.0050.0010.0000.0000.000
50   5.5  0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.001
50   5.7  0.0070.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.007
50   5.9  0.0200.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0050.015
50   6.1  0.0530.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0370.016
50   6.3  0.0870.0000.0000.0000.0000.0000.0000.0000.0000.0000.0130.0620.012
50   6.5  0.1030.0000.0000.0000.0000.0000.0000.0000.0000.0000.0470.0510.004
50   6.7  0.1280.0000.0000.0000.0000.0000.0000.0000.0000.0080.0830.0370.000
50   6.9  0.1900.0000.0000.0000.0000.0000.0000.0000.0000.0840.0980.0080.000
50   7.1  0.2530.0000.0000.0000.0000.0000.0000.0000.0370.1680.0480.0000.000
50   7.3  0.3020.0000.0000.0000.0000.0000.0000.0000.1600.1370.0050.0000.000
50   7.5  0.1840.0000.0000.0000.0000.0000.0000.0320.1180.0340.0000.0000.000
50   7.7  0.0270.0000.0000.0000.0000.0000.0000.0140.0120.0010.0000.0000.000
50   7.9  0.0080.0000.0000.0000.0000.0000.0010.0060.0010.0000.0000.0000.000
30   5.1  0.1610.0000.0000.0000.0000.0000.0000.0000.0000.0000.0130.1190.030
30   5.3  0.2540.0000.0000.0000.0000.0000.0000.0000.0000.0000.1220.1080.024
30   5.5  0.3350.0000.0000.0000.0000.0000.0000.0000.0000.0170.1970.0990.021
30   5.7  0.3970.0000.0000.0000.0000.0000.0000.0000.0000.1360.1710.0770.013
30   5.9  0.4500.0000.0000.0000.0000.0000.0000.0000.0180.2140.1530.0650.001
30   6.1  0.5790.0000.0000.0000.0000.0000.0000.0000.1580.2490.1410.0300.000
30   6.3  0.6680.0000.0000.0000.0000.0000.0000.0310.2920.2170.1280.0000.000
30   6.5  0.6060.0000.0000.0000.0000.0000.0000.1050.2570.1870.0580.0000.000
30   6.7  0.5570.0000.0000.0000.0000.0000.0140.1430.2200.1590.0210.0000.000
30   6.9  0.6550.0000.0000.0000.0000.0000.0830.2370.2390.0950.0000.0000.000
30   7.1  0.6860.0000.0000.0000.0000.0210.1600.2800.2080.0160.0000.0000.000
30   7.3  0.6980.0000.0000.0000.0000.0590.2520.2900.0970.0000.0000.0000.000
30   7.5  0.3770.0000.0000.0000.0000.0530.1570.1500.0160.0000.0000.0000.000
30   7.7  0.0390.0000.0000.0000.0010.0090.0190.0090.0000.0000.0000.0000.000
30   7.9  0.0080.0000.0000.0000.0010.0030.0040.0010.0000.0000.0000.0000.000
10   5.1  1.6200.0000.0000.0000.0000.0000.0000.4780.5800.3200.2410.0000.000
10   5.3  1.6110.0000.0000.0000.0000.0000.2440.4370.4860.3750.0690.0000.000
10   5.5  1.4780.0000.0000.0000.0000.0000.3400.4970.3320.3080.0000.0000.000
10   5.7  1.2930.0000.0000.0000.0000.0380.3590.4480.2980.1490.0000.0000.000
```

```
10    5.9   1.1030.0000.0000.0000.0000.1490.3040.3370.3010.0130.0000.0000.000
10    6.1   1.4180.0000.0000.0000.0700.4030.3490.4060.1900.0000.0000.0000.000
10    6.3   1.2400.0000.0000.0000.2030.3240.3810.3050.0270.0000.0000.0000.000
10    6.5   1.0720.0000.0000.0470.2400.2620.3220.1810.0200.0000.0000.0000.000
10    6.7   0.9150.0000.0080.0900.1780.2710.2200.1480.0000.0000.0000.0000.000
10    6.9   0.7470.0000.0130.0910.1670.2550.2080.0130.0000.0000.0000.0000.000
10    7.1   0.6230.0000.0180.0800.1740.2320.1200.0000.0000.0000.0000.0000.000
10    7.3   0.4930.0000.0250.0800.1430.1880.0580.0000.0000.0000.0000.0000.000
10    7.5   0.2080.0000.0110.0390.0760.0690.0130.0000.0000.0000.0000.0000.000
10    7.7   0.0160.0000.0010.0040.0070.0050.0000.0000.0000.0000.0000.0000.000
10    7.9   0.0030.0000.0000.0010.0010.0010.0000.0000.0000.0000.0000.0000.000
Principal Sources (faults, subduction, random seismicity having > 3% contribution
WUSmap_2014_fixSm.ch.in (opt):
  Percent Contributed: 2.75
  Distance (km): 20.340892
  Magnitude: 6.2417512
  Epsilon (mean values): 0.40384734
noPuget_2014_fixSm.ch.in (opt):
  Percent Contributed: 2.75
  Distance (km): 20.340885
  Magnitude: 6.2417511
  Epsilon (mean values): 0.40384719
WUSmap_2014_fixSm.gr.in (opt):
  Percent Contributed: 2.75
  Distance (km): 20.18789
  Magnitude: 6.2388424
  Epsilon (mean values): 0.39893167
noPuget_2014_fixSm.gr.in (opt):
  Percent Contributed: 2.75
  Distance (km): 20.187882
  Magnitude: 6.2388423
  Epsilon (mean values): 0.39893152
noPuget_2014_adSm.ch.in (opt):
  Percent Contributed: 2.17
  Distance (km): 19.356412
  Magnitude: 6.2088371
  Epsilon (mean values): 0.36978971
WUSmap_2014_adSm.ch.in (opt):
  Percent Contributed: 2.17
  Distance (km): 19.353967
  Magnitude: 6.2087742
  Epsilon (mean values): 0.36971718
noPuget_2014_adSm.gr.in (opt):
  Percent Contributed: 2.17
  Distance (km): 19.247657
  Magnitude: 6.2067274
  Epsilon (mean values): 0.36624433
WUSmap_2014_adSm.gr.in (opt):
  Percent Contributed: 2.17
  Distance (km): 19.245357
  Magnitude: 6.206667
  Epsilon (mean values): 0.36617664
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
```

vs30 = 537 m/s (Site class C)
return period: 2475 yrs.
#This deaggregation corresponds to: GMM: Atkinson & Macias (2009) : Interface
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:
  Return period: 2475 yrs
  Exceedance rate: 0.0004040404 yr^{-1}
  PGA ground motion: 0.18539539 g
Recovered targets:
  Return period: 2555.6443 yrs
  Exceedance rate: 0.00039129076 yr^{-1}
Totals:
  Binned: 0 %
  Residual: 0 %
  Trace: 0 %
Mean (over all sources):
  m: null
  r: null km
  ε_0: null σ
Mode (largest m-r bin):
  m: null
  r: null km
  ε_0: null σ
  Contribution: 0 %
Mode (largest m-r-ε_0 bin):
  m: null
  r: null km
  ε_0: null σ
  Contribution: 0 %
Discretization:
  r: min = 0.0, max = 1000.0, Δ = 20.0 km
  m: min = 4.4, max = 9.4, Δ = 0.2
  ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
  ε0: [-∞ .. -2.5)
  ε1: [-2.5 .. -2.0)
  ε2: [-2.0 .. -1.5)
  ε3: [-1.5 .. -1.0)
  ε4: [-1.0 .. -0.5)
  ε5: [-0.5 .. 0.0)
  ε6: [0.0 .. 0.5)
  ε7: [0.5 .. 1.0)
  ε8: [1.0 .. 1.5)
  ε9: [1.5 .. 2.0)
  ε10: [2.0 .. 2.5)
  ε11: [2.5 .. +∞]
Closest Distance, rRup (km) Magnitude (Mw) ALL_ε ε=(-∞,-2.5) ε=[-2.5,-2)ε=[-2,-1.5)ε=[-1.5,-1) ε=[-1,-0.5)ε=[-0.5,0) ε=[0,0.5) ε=[0.5,1) ε=[1,1.5) ε=[1.5,2) ε=[2,2.5) ε=[2.5,∞)

Principal Sources (faults, subduction, random seismicity having > 3% contribution
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
vs30 = 537 m/s (Site class C)
return period: 2475 yrs.

#This deaggregation corresponds to: GMM: BC Hydro (2012) : Interface
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:
  Return period: 2475 yrs
  Exceedance rate: 0.0004040404 yr^{-1}
  PGA ground motion: 0.18539539 g
Recovered targets:
  Return period: 2555.6443 yrs
  Exceedance rate: 0.00039129076 yr^{-1}
Totals:
  Binned: 3.4 %
  Residual: 0 %
  Trace: 0.03 %
Mean (over all sources):
  m: 9
  r: 346.65 km
  ε_0: 1.98 σ
Mode (largest m-r bin):
  m: 9.34
  r: 323.7 km
  ε_0: 1.59 σ
  Contribution: 0.89 %
Mode (largest m-r-ε_0 bin):
  m: 9.34
  r: 323.7 km
  ε_0: 1.59 σ
  Contribution: 0.89 %
Discretization:
  r: min = 0.0, max = 1000.0, Δ = 20.0 km
  m: min = 4.4, max = 9.4, Δ = 0.2
  ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
  ε0: [-∞ .. -2.5)
  ε1: [-2.5 .. -2.0)
  ε2: [-2.0 .. -1.5)
  ε3: [-1.5 .. -1.0)
  ε4: [-1.0 .. -0.5)
  ε5: [-0.5 .. 0.0)
  ε6: [0.0 .. 0.5)
  ε7: [0.5 .. 1.0)
  ε8: [1.0 .. 1.5)
  ε9: [1.5 .. 2.0)
  ε10: [2.0 .. 2.5)
  ε11: [2.5 .. +∞]

Closest Distance, rRup (km)	Magnitude (Mw)	ALL_ε	ε=(-∞,-2.5)	ε=[-2.5,-2)	ε=[-2,-1.5)	ε=[-1.5,-1)	ε=[-1,-0.5)	ε=[-0.5,0)	ε=[0,0.5)	ε=[0.5,1)	ε=[1,1.5)	ε=[1.5,2)	ε=[2,2.5)	ε=[2.5,∞)
450	8.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
430	8.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
430	8.5	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
410	8.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
410	8.3	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
410	8.5	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007
410	8.7	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
390	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
390	8.1	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
390	8.3	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.013
390	8.5	0.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001

0.024
390 8.7 0.131 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.070
0.061
390 9.1 0.114 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.114
0.000
370 7.9 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000
370 8.1 0.002 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.002
370 8.3 0.002 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.002
370 8.5 0.041 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.008
0.033
370 8.7 0.222 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.222
0.000
370 8.9 0.254 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.254
0.000
370 9.1 0.492 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.492
0.000
350 7.9 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000
350 8.1 0.002 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.002
350 8.3 0.001 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.001
350 8.5 0.026 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.026
0.000
350 8.7 0.026 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.026
0.000
350 8.9 0.042 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.042
0.000
330 7.9 0.003 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.003
330 8.1 0.008 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.004
0.005
330 8.3 0.006 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.006
0.000
330 8.5 0.048 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.048
0.000
330 8.7 0.073 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.073
0.000
330 8.9 0.416 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.416 0.000
0.000
330 9.1 0.550 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.550 0.000
0.000
330 9.3 0.887 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.887 0.000
0.000
Principal Sources (faults, subduction, random seismicity having > 3% contribution
sub0_ch_bot.in:
  Percent Contributed: 1.79
  Distance (km): 323.70483
  Magnitude: 9.1386856
  Epsilon (mean values): 1.7386296
Cascadia Megathrust - whole CSZ Characteristic:
  Percent Contributed: 1.79
  Distance (km): 323.70483
  Magnitude: 9.1386856

Epsilon (mean values): 1.7386296
Azimuth: 287.96053
Latitude: 46.3
Longitude: -123.4132
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
vs30 = 537 m/s (Site class C)
return period: 2475 yrs.
#This deaggregation corresponds to: GMM: BC Hydro (2012) : Slab
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:
Return period: 2475 yrs
Exceedance rate: 0.0004040404 yr^{-1}
PGA ground motion: 0.18539539 g
Recovered targets:
Return period: 2555.6443 yrs
Exceedance rate: 0.00039129076 yr^{-1}
Totals:
Binned: 0.12 %
Residual: 0 %
Trace: 0.07 %
Mean (over all sources):
m: 7.31
r: 242.94 km
ε_0: 2.26 σ
Mode (largest m-r bin):
m: 7.12
r: 230.18 km
ε_0: 2.44 σ
Contribution: 0.02 %
Mode (largest m-r-ε_0 bin):
m: 7.12
r: 249.7 km
ε_0: 2.66 σ
Contribution: 0.02 %
Discretization:
r: min = 0.0, max = 1000.0, Δ = 20.0 km
m: min = 4.4, max = 9.4, Δ = 0.2
ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
ε0: [-∞ .. -2.5)
ε1: [-2.5 .. -2.0)
ε2: [-2.0 .. -1.5)
ε3: [-1.5 .. -1.0)
ε4: [-1.0 .. -0.5)
ε5: [-0.5 .. 0.0)
ε6: [0.0 .. 0.5)
ε7: [0.5 .. 1.0)
ε8: [1.0 .. 1.5)
ε9: [1.5 .. 2.0)
ε10: [2.0 .. 2.5)
ε11: [2.5 .. +∞]
Closest Distance, rRup (km) Magnitude (Mw) ALL_ε ε=(-∞,-2.5) ε=[-2.5,-2) ε=[-2,-1.5) ε=[-1.5,-1) ε=[-1,-0.5) ε=[-0.5,0) ε=[0,0.5) ε=[0.5,1) ε=[1,1.5) ε=[1.5,2) ε=[2,2.5)

ε=[2.5,∞)
290 7.1 0.001 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.001
290 7.3 0.002 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.002
290 7.5 0.002 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.002
0.000
270 7.1 0.008 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.008
270 7.3 0.006 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.003
0.003
270 7.5 0.008 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.007
0.000
270 7.7 0.002 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.001 0.001
0.000
270 7.9 0.001 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.001 0.000
0.000
250 6.9 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000
250 7.1 0.016 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.001
0.016
250 7.3 0.007 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.006
0.000
250 7.5 0.008 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.003 0.004
0.000
250 7.7 0.002 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.002 0.000
0.000
250 7.9 0.003 0.000 0.000 0.0000.0000.0000.0000.0000.0000.0000.0030.0000.000
230 6.9 0.0030.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.003
230 7.1 0.0200.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0130.006
230 7.3 0.0060.0000.0000.0000.0000.0000.0000.0000.0000.0000.0020.0040.000
230 7.5 0.0060.0000.0000.0000.0000.0000.0000.0000.0000.0000.0060.0000.000
230 7.7 0.0020.0000.0000.0000.0000.0000.0000.0000.0000.0000.0010.0000.000
230 7.9 0.0020.0000.0000.0000.0000.0000.0000.0000.0000.0020.0010.0000.000
210 6.7 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
210 6.9 0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.001
210 7.1 0.0050.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0050.000
210 7.3 0.0020.0000.0000.0000.0000.0000.0000.0000.0000.0000.0020.0000.000
210 7.5 0.0020.0000.0000.0000.0000.0000.0000.0000.0000.0010.0020.0000.000
210 7.7 0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0010.0000.0000.000
210 7.9 0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0010.0000.0000.000
190 6.5 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
190 6.7 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
190 6.9 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
190 7.1 0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0010.0000.000
190 7.3 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
190 7.5 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
190 7.7 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
190 7.9 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170 6.3 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170 6.5 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170 6.7 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170 6.9 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170 7.1 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170 7.3 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170 7.5 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170 7.7 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000

170 7.9 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150 6.3 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150 6.5 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150 6.7 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150 6.9 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150 7.1 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150 7.3 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150 7.5 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150 7.7 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150 7.9 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130 6.1 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130 6.3 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130 6.5 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130 6.7 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130 6.9 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130 7.1 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130 7.3 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130 7.5 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130 7.7 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130 7.9 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110 7.1 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110 7.3 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110 7.5 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110 7.7 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110 7.9 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
90 7.9 0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
Principal Sources (faults, subduction, random seismicity having > 3% contribution
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
vs30 = 537 m/s (Site class C)
return period: 2475 yrs.
#This deaggregation corresponds to: GMM: Zhao et al. (2006) : Interface
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:
  Return period: 2475 yrs
  Exceedance rate: 0.0004040404 yr^{-1}
  PGA ground motion: 0.18539539 g
Recovered targets:
  Return period: 2555.6443 yrs
  Exceedance rate: 0.00039129076 yr^{-1}
Totals:
  Binned: 0.56 %
  Residual: 0 %
  Trace: 0 %
Mean (over all sources):
  m: 9.19
  r: 326.25 km
  ε_0: 2.2 σ
Mode (largest m-r bin):
  m: 9.34
  r: 323.7 km
  ε_0: 2.01 σ
  Contribution: 0.34 %
Mode (largest m-r-ε_0 bin):

m: 9.34
r: 323.7 km
ε_0: 2.01 σ
Contribution: 0.34 %
Discretization:
r: min = 0.0, max = 1000.0, Δ = 20.0 km
m: min = 4.4, max = 9.4, Δ = 0.2
ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
ε0: [-∞ .. -2.5)
ε1: [-2.5 .. -2.0)
ε2: [-2.0 .. -1.5)
ε3: [-1.5 .. -1.0)
ε4: [-1.0 .. -0.5)
ε5: [-0.5 .. 0.0)
ε6: [0.0 .. 0.5)
ε7: [0.5 .. 1.0)
ε8: [1.0 .. 1.5)
ε9: [1.5 .. 2.0)
ε10: [2.0 .. 2.5)
ε11: [2.5 .. +∞]

Closest Distance, rRup (km)	Magnitude (Mw)	ALL_ε	ε=(-∞,-2.5)	ε=[-2.5,-2)	ε=[-2,-1.5)	ε=[-1.5,-1)	ε=[-1,-0.5)	ε=[-0.5,0)	ε=[0,0.5)	ε=[0.5,1)	ε=[1,1.5)	ε=[1.5,2)	ε=[2,2.5)	ε=[2.5,∞)
370	9.1	0.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.025
350	8.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
350	8.9	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005
330	8.5	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
330	8.7	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006
330	8.9	0.064	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.064
330	9.1	0.125	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.125	0.000
330	9.3	0.340	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.340	0.000

Principal Sources (faults, subduction, random seismicity having > 3% contribution
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
vs30 = 537 m/s (Site class C)
return period: 2475 yrs.
#This deaggregation corresponds to: GMM: Zhao et al. (2006) : Slab
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:
Return period: 2475 yrs
Exceedance rate: 0.0004040404 yr^{-1}
PGA ground motion: 0.18539539 g
Recovered targets:
Return period: 2555.6443 yrs
Exceedance rate: 0.00039129076 yr^{-1}
Totals:
Binned: 0.01 %
Residual: 0 %
Trace: 0.09 %
Mean (over all sources):
m: 7.77
r: 221.31 km
ε_0: 1.9 σ
Mode (largest m-r bin):

m: 7.91
r: 229.83 km
ε_0: 1.75 σ
Contribution: 0 %
Mode (largest m-r-ε_0 bin):
m: 7.92
r: 230.55 km
ε_0: 1.76 σ
Contribution: 0 %
Discretization:
r: min = 0.0, max = 1000.0, Δ = 20.0 km
m: min = 4.4, max = 9.4, Δ = 0.2
ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
ε0: [-∞ .. -2.5)
ε1: [-2.5 .. -2.0)
ε2: [-2.0 .. -1.5)
ε3: [-1.5 .. -1.0)
ε4: [-1.0 .. -0.5)
ε5: [-0.5 .. 0.0)
ε6: [0.0 .. 0.5)
ε7: [0.5 .. 1.0)
ε8: [1.0 .. 1.5)
ε9: [1.5 .. 2.0)
ε10: [2.0 .. 2.5)
ε11: [2.5 .. +∞]

Closest Distance, rRup (km)	Magnitude (Mw)	ALL_ε	ε=(-∞,-2.5)	ε=[-2.5,-2)	ε=[-2,-1.5)	ε=[-1.5,-1)	ε=[-1,-0.5)	ε=[-0.5,0)	ε=[0,0.5)	ε=[0.5,1)	ε=[1,1.5)	ε=[1.5,2)	ε=[2,2.5)	ε=[2.5,∞)
270	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
270	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
250	7.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
250	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
250	7.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
230	7.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
230	7.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
230	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
230	7.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000
210	7.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
210	7.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
210	7.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
210	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
210	7.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000
190	6.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	7.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	7.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	7.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	6.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	6.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	7.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	7.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	7.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	6.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	6.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

```
150   6.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150   7.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150   7.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150   7.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150   7.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150   7.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   6.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   6.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   6.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   6.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   7.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   7.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   7.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   7.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   7.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110   7.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110   7.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110   7.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110   7.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110   7.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
90    7.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
Principal Sources (faults, subduction, random seismicity having > 3% contribution
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
vs30 = 537 m/s (Site class C)
return period: 2475 yrs.
#This deaggregation corresponds to: Source Type: Grid
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:
  Return period: 2475 yrs
  Exceedance rate: 0.0004040404 yr⁻¹
  PGA ground motion: 0.18539539 g
Recovered targets:
  Return period: 2555.6443 yrs
  Exceedance rate: 0.00039129076 yr⁻¹
Totals:
  Binned: 95.34 %
  Residual: 0 %
  Trace: 0.21 %
Mean (over all sources):
  m: 6.18
  r: 20.55 km
  ε₀: 0.45 σ
Mode (largest m-r bin):
  m: 5.5
  r: 11.41 km
  ε₀: 0.3 σ
  Contribution: 6.93 %
Mode (largest m-r-ε₀ bin):
  m: 5.1
  r: 9.73 km
  ε₀: 0.75 σ
  Contribution: 2.07 %
Discretization:
```

r: min = 0.0, max = 1000.0, Δ = 20.0 km
m: min = 4.4, max = 9.4, Δ = 0.2
ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
ε0: [-∞ .. -2.5)
ε1: [-2.5 .. -2.0)
ε2: [-2.0 .. -1.5)
ε3: [-1.5 .. -1.0)
ε4: [-1.0 .. -0.5)
ε5: [-0.5 .. 0.0)
ε6: [0.0 .. 0.5)
ε7: [0.5 .. 1.0)
ε8: [1.0 .. 1.5)
ε9: [1.5 .. 2.0)
ε10: [2.0 .. 2.5)
ε11: [2.5 .. +∞]

Closest Distance, rRup (km)	Magnitude (Mw)	ALL_ε	ε=(-∞,-2.5)	ε=[-2.5,-2)	ε=[-2,-1.5)	ε=[-1.5,-1)	ε=[-1,-0.5)	ε=[-0.5,0)	ε=[0,0.5)	ε=[0.5,1)	ε=[1,1.5)	ε=[1.5,2)	ε=[2,2.5)	ε=[2.5,∞)
210	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	7.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	7.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	7.5	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
150	7.7	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
150	7.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
130	7.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	7.3	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005
130	7.5	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.007
130	7.7	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.001
130	7.9	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000
110	6.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
110	7.1	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.013
110	7.3	0.041	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.019	0.022
110	7.5	0.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.034	0.007
110	7.7	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.004	0.000
110	7.9	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.002	0.001	0.000
90	6.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
90	6.5	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003
90	6.7	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.014
90	6.9	0.048	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.011	0.037	
90	7.1	0.099	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.075	0.024	
90	7.3	0.157	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.034	0.118	0.005	
90	7.5	0.113	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.076	0.036	0.000	
90	7.7	0.021	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006	0.013	0.001	0.000	
90	7.9	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.002	0.000	0.000	
70	5.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
70	5.9	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
70	6.1	0.017	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.017
70	6.3	0.072	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.016	0.056	
70	6.5	0.130	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.075	0.055	
70	6.7	0.161	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.125	0.035	
70	6.9	0.242	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.065	0.171	0.007	
70	7.1	0.326	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.219	0.107	0.000	
70	7.3	0.427	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.083	0.325	0.019	0.000	

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70    7.5   0.2750.0000.0000.0000.0000.0000.0000.0000.0010.1460.1280.0000.000
70    7.7   0.0440.0000.0000.0000.0000.0000.0000.0000.0080.0320.0040.0000.000
70    7.9   0.0140.0000.0000.0000.0000.0000.0000.0000.0070.0060.0000.0000.000
50    5.1   0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.001
50    5.3   0.0120.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.012
50    5.5   0.0700.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0160.054
50    5.7   0.1360.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0680.068
50    5.9   0.2180.0000.0000.0000.0000.0000.0000.0000.0000.0000.0030.1410.073
50    6.1   0.4080.0000.0000.0000.0000.0000.0000.0000.0000.0000.0770.2690.063
50    6.3   0.6080.0000.0000.0000.0000.0000.0000.0000.0000.0000.2950.2940.019
50    6.5   0.7260.0000.0000.0000.0000.0000.0000.0000.0000.0320.4940.1960.004
50    6.7   0.7650.0000.0000.0000.0000.0000.0000.0000.0000.1670.5010.0960.000
50    6.9   0.8750.0000.0000.0000.0000.0000.0000.0000.0000.4490.4140.0120.000
50    7.1   0.9770.0000.0000.0000.0000.0000.0000.0000.0810.6950.2010.0000.000
50    7.3   1.0460.0000.0000.0000.0000.0000.0000.0000.3980.6100.0390.0000.000
50    7.5   0.6030.0000.0000.0000.0000.0000.0000.0320.3660.2040.0010.0000.000
50    7.7   0.0850.0000.0000.0000.0000.0000.0000.0230.0540.0080.0000.0000.000
50    7.9   0.0260.0000.0000.0000.0000.0000.0010.0120.0120.0010.0000.0000.000
30    5.1   0.9420.0000.0000.0000.0000.0000.0000.0000.0000.0000.3740.4400.127
30    5.3   1.4160.0000.0000.0000.0000.0000.0000.0000.0000.1400.7320.4350.109
30    5.5   2.1200.0000.0000.0000.0000.0000.0000.0000.0370.6500.9440.4430.046
30    5.7   2.3190.0000.0000.0000.0000.0000.0000.0000.2110.9400.8270.3140.027
30    5.9   2.3930.0000.0000.0000.0000.0000.0000.0000.3821.0990.7180.1880.006
30    6.1   2.8270.0000.0000.0000.0000.0000.0000.0000.9901.1530.6230.0610.000
30    6.3   3.1200.0000.0000.0000.0000.0000.0000.1181.5081.1150.3780.0000.000
30    6.5   2.8110.0000.0000.0000.0000.0000.0000.4941.2930.9230.1000.0000.000
30    6.7   2.4190.0000.0000.0000.0000.0000.0310.5851.0990.6830.0210.0000.000
30    6.9   2.5350.0000.0000.0000.0000.0000.1430.9441.0740.3730.0000.0000.000
30    7.1   2.4500.0000.0000.0000.0000.0210.3091.0950.9410.0850.0000.0000.000
30    7.3   2.3810.0000.0000.0000.0000.0590.5271.1480.6380.0090.0000.0000.000
30    7.5   1.2600.0000.0000.0000.0000.0570.3790.6420.1810.0000.0000.0000.000
30    7.7   0.1270.0000.0000.0000.0010.0110.0500.0580.0060.0000.0000.0000.000
30    7.9   0.0280.0000.0000.0000.0010.0040.0140.0090.0000.0000.0000.0000.000
10    5.1   6.6230.0000.0000.0000.0000.0000.7011.4462.0741.6610.6740.0680.000
10    5.3   6.9180.0000.0000.0000.0000.2411.0941.8961.9441.4960.2420.0050.000
10    5.5   6.9260.0000.0000.0000.1970.3971.6062.0091.8150.8750.0260.0000.000
10    5.7   5.8140.0000.0000.0000.3040.4571.4661.7731.4360.3780.0000.0000.000
10    5.9   4.7250.0000.0000.0000.2130.6381.3371.3981.0890.0490.0000.0000.000
10    6.1   5.8100.0000.0000.0000.5381.5331.3561.7260.6560.0000.0000.0000.000
10    6.3   4.9600.0000.0000.0170.8491.1921.5161.3450.0410.0000.0000.0000.000
10    6.5   4.2350.0000.0000.1780.8501.0411.2430.9030.0200.0000.0000.0000.000
10    6.7   3.5580.0000.0080.2690.6460.9880.9870.6590.0000.0000.0000.0000.000
10    6.9   2.8210.0000.0130.2160.5670.9090.9670.1480.0000.0000.0000.0000.000
10    7.1   2.3090.0000.0180.1870.4890.8020.7860.0280.0000.0000.0000.0000.000
10    7.3   1.8070.0000.0250.1780.3840.6620.5570.0000.0000.0000.0000.0000.000
10    7.5   0.7590.0000.0110.0860.1870.2880.1870.0000.0000.0000.0000.0000.000
10    7.7   0.0600.0000.0010.0080.0180.0240.0080.0000.0000.0000.0000.0000.000
10    7.9   0.0120.0000.0000.0020.0040.0050.0010.0000.0000.0000.0000.0000.000
Principal Sources (faults, subduction, random seismicity having > 3% contribution
WUSmap_2014_fixSm.ch.in (opt):
  Percent Contributed: 11.85
  Distance (km): 20.846083
  Magnitude: 6.1818869
  Epsilon (mean values): 0.47112429
PointSourceFinite: -119.420, 45.506:
  Percent Contributed: 1.01
  Distance (km): 6.2765438
```

Magnitude: 5.6530336
Epsilon (mean values): -0.53475732
Azimuth: 0
Latitude: 45.506386
Longitude: -119.42
noPuget_2014_fixSm.ch.in (opt):
Percent Contributed: 11.85
Distance (km): 20.84608
Magnitude: 6.1818868
Epsilon (mean values): 0.47112423
PointSourceFinite: -119.420, 45.506:
Percent Contributed: 1.01
Distance (km): 6.2765438
Magnitude: 5.6530336
Epsilon (mean values): -0.53475732
Azimuth: 0
Latitude: 45.506386
Longitude: -119.42
WUSmap_2014_fixSm.gr.in (opt):
Percent Contributed: 11.81
Distance (km): 20.684332
Magnitude: 6.1788179
Epsilon (mean values): 0.4658691
PointSourceFinite: -119.420, 45.506:
Percent Contributed: 1.01
Distance (km): 6.2765438
Magnitude: 5.6530336
Epsilon (mean values): -0.53475732
Azimuth: 0
Latitude: 45.506386
Longitude: -119.42
noPuget_2014_fixSm.gr.in (opt):
Percent Contributed: 11.81
Distance (km): 20.684329
Magnitude: 6.1788179
Epsilon (mean values): 0.46586905
PointSourceFinite: -119.420, 45.506:
Percent Contributed: 1.01
Distance (km): 6.2765438
Magnitude: 5.6530336
Epsilon (mean values): -0.53475732
Azimuth: 0
Latitude: 45.506386
Longitude: -119.42
noPuget_2014_adSm.ch.in (opt):
Percent Contributed: 9.34
Distance (km): 19.848355
Magnitude: 6.1518603
Epsilon (mean values): 0.43154439
WUSmap_2014_adSm.ch.in (opt):
Percent Contributed: 9.33
Distance (km): 19.846124
Magnitude: 6.1518043
Epsilon (mean values): 0.43146885
noPuget_2014_adSm.gr.in (opt):
Percent Contributed: 9.31
Distance (km): 19.731835

Magnitude: 6.1496154
Epsilon (mean values): 0.4277012
WUSmap_2014_adSm.gr.in (opt):
Percent Contributed: 9.31
Distance (km): 19.729766
Magnitude: 6.1495623
Epsilon (mean values): 0.42763106
WUSmap_2014_fixSm_M8.in (opt):
Percent Contributed: 2.95
Distance (km): 22.873818
Magnitude: 6.3199307
Epsilon (mean values): 0.45769109
noPuget_2014_fixSm_M8.in (opt):
Percent Contributed: 2.95
Distance (km): 22.873594
Magnitude: 6.3199281
Epsilon (mean values): 0.45768764
noPuget_2014_adSm_M8.in (opt):
Percent Contributed: 2.3
Distance (km): 21.608288
Magnitude: 6.2784486
Epsilon (mean values): 0.41607904
WUSmap_2014_adSm_M8.in (opt):
Percent Contributed: 2.3
Distance (km): 21.603947
Magnitude: 6.2783394
Epsilon (mean values): 0.4159682
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
vs30 = 537 m/s (Site class C)
return period: 2475 yrs.
#This deaggregation corresponds to: Source Type: Slab
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:
Return period: 2475 yrs
Exceedance rate: 0.0004040404 yr^{-1}
PGA ground motion: 0.18539539 g
Recovered targets:
Return period: 2555.6443 yrs
Exceedance rate: 0.00039129076 yr^{-1}
Totals:
Binned: 0.13 %
Residual: 0 %
Trace: 0.1 %
Mean (over all sources):
m: 7.33
r: 241.96 km
ε_0: 2.25 σ
Mode (largest m-r bin):
m: 7.12
r: 230.18 km
ε_0: 2.44 σ
Contribution: 0.02 %
Mode (largest m-r-ε_0 bin):

m: 7.12
r: 249.7 km
ε_0: 2.66 σ
Contribution: 0.02 %
Discretization:
r: min = 0.0, max = 1000.0, Δ = 20.0 km
m: min = 4.4, max = 9.4, Δ = 0.2
ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
ε0: [-∞ .. -2.5)
ε1: [-2.5 .. -2.0)
ε2: [-2.0 .. -1.5)
ε3: [-1.5 .. -1.0)
ε4: [-1.0 .. -0.5)
ε5: [-0.5 .. 0.0)
ε6: [0.0 .. 0.5)
ε7: [0.5 .. 1.0)
ε8: [1.0 .. 1.5)
ε9: [1.5 .. 2.0)
ε10: [2.0 .. 2.5)
ε11: [2.5 .. +∞]

Closest Distance, rRup (km)	Magnitude (Mw)	ALL_ε	ε=(-∞,-2.5)	ε=[-2.5,-2)	ε=[-2,-1.5)	ε=[-1.5,-1)	ε=[-1,-0.5)	ε=[-0.5,0)	ε=[0,0.5)	ε=[0.5,1)	ε=[1,1.5)	ε=[1.5,2)	ε=[2,2.5)	ε=[2.5,∞)
290	7.1	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
290	7.3	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
290	7.5	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000
270	7.1	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.008
270	7.3	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.003
270	7.5	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.000
270	7.7	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000
270	7.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000
250	6.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
250	7.1	0.016	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.016
250	7.3	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006	0.000
250	7.5	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.004	0.000	0.000
250	7.7	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000
250	7.9	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.001	0.000	0.000
230	6.9	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000
230	7.1	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.013	0.006	0.000
230	7.3	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.004	0.000	0.000
230	7.5	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006	0.000	0.000	0.000
230	7.7	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000
230	7.9	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.001	0.000	0.000	0.000
210	6.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
210	6.9	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
210	7.1	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.000	0.000
210	7.3	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000
210	7.5	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.002	0.000	0.000	0.000
210	7.7	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000
210	7.9	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000
190	6.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	6.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	6.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	7.1	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000
190	7.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	7.5	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	7.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

```
190   7.9   0.0010.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170   6.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170   6.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170   6.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170   6.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170   7.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170   7.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170   7.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170   7.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
170   7.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150   6.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150   6.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150   6.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150   6.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150   7.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150   7.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150   7.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150   7.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
150   7.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   6.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   6.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   6.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   6.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   6.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   7.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   7.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   7.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   7.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
130   7.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110   7.1   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110   7.3   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110   7.5   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110   7.7   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
110   7.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
90    7.9   0.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.000
Principal Sources (faults, subduction, random seismicity having > 3% contribution
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
vs30 = 537 m/s (Site class C)
return period: 2475 yrs.
#This deaggregation corresponds to: Source Type: Interface
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:
  Return period: 2475 yrs
  Exceedance rate: 0.0004040404 yr⁻¹
  PGA ground motion: 0.18539539 g
Recovered targets:
  Return period: 2555.6443 yrs
  Exceedance rate: 0.00039129076 yr⁻¹
Totals:
  Binned: 3.96 %
  Residual: 0 %
  Trace: 0.02 %
Mean (over all sources):
```

m: 9.03
r: 343.75 km
ε_0: 2.01 σ
Mode (largest m-r bin):
m: 9.34
r: 323.7 km
ε_0: 1.7 σ
Contribution: 1.23 %
Mode (largest m-r-ε_0 bin):
m: 9.34
r: 323.7 km
ε_0: 1.59 σ
Contribution: 0.89 %
Discretization:
r: min = 0.0, max = 1000.0, Δ = 20.0 km
m: min = 4.4, max = 9.4, Δ = 0.2
ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
ε0: [-∞ .. -2.5)
ε1: [-2.5 .. -2.0)
ε2: [-2.0 .. -1.5)
ε3: [-1.5 .. -1.0)
ε4: [-1.0 .. -0.5)
ε5: [-0.5 .. 0.0)
ε6: [0.0 .. 0.5)
ε7: [0.5 .. 1.0)
ε8: [1.0 .. 1.5)
ε9: [1.5 .. 2.0)
ε10: [2.0 .. 2.5)
ε11: [2.5 .. +∞]

Closest Distance, rRup (km)	Magnitude (Mw)	ALL_ε	ε=(-∞,-2.5)	ε=[-2.5,-2)	ε=[-2,-1.5)	ε=[-1.5,-1)	ε=[-1,-0.5)	ε=[-0.5,0)	ε=[0,0.5)	ε=[0.5,1)	ε=[1,1.5)	ε=[1.5,2)	ε=[2,2.5)	ε=[2.5,∞)
450	8.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
430	8.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
430	8.5	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
410	8.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
410	8.3	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
410	8.5	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007
410	8.7	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
390	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
390	8.1	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
390	8.3	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.013
390	8.5	0.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.024
390	8.7	0.131	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.070	0.061	
390	9.1	0.114	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.114	0.000	
370	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
370	8.1	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
370	8.3	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
370	8.5	0.041	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.008	0.033	
370	8.7	0.222	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.222	0.000	
370	8.9	0.254	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.254	0.000	
370	9.1	0.518	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.492	0.025	
350	7.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
350	8.1	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
350	8.3	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
350	8.5	0.026	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.026	0.000
350	8.7	0.026	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.026	0.000

350 8.9 0.0470.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0420.005
330 7.9 0.0030.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.003
330 8.1 0.0080.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0040.005
330 8.3 0.0060.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0060.000
330 8.5 0.0490.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0480.001
330 8.7 0.0790.0000.0000.0000.0000.0000.0000.0000.0000.0000.0000.0730.006
330 8.9 0.4800.0000.0000.0000.0000.0000.0000.0000.0000.0000.4160.0000.064
330 9.1 0.6740.0000.0000.0000.0000.0000.0000.0000.0000.0000.5500.1250.000
330 9.3 1.2270.0000.0000.0000.0000.0000.0000.0000.0000.0000.8870.3400.000
Principal Sources (faults, subduction, random seismicity having > 3% contribution
sub0_ch_bot.in:
  Percent Contributed: 2.31
  Distance (km): 323.70483
  Magnitude: 9.1544681
  Epsilon (mean values): 1.8322232
Cascadia Megathrust - whole CSZ Characteristic:
  Percent Contributed: 2.31
  Distance (km): 323.70483
  Magnitude: 9.1544681
  Epsilon (mean values): 1.8322232
  Azimuth: 287.96053
  Latitude: 46.3
  Longitude: -123.4132
PSHA Deaggregation. %contributions.
site: Test
longitude: 119.420°W
latitude: 45.475°E
imt: Peak Ground Acceleration
vs30 = 537 m/s (Site class C)
return period: 2475 yrs.
#This deaggregation corresponds to: Source Type: Fault
Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:
Deaggregation targets:
  Return period: 2475 yrs
  Exceedance rate: 0.0004040404 yr^{-1}
  PGA ground motion: 0.18539539 g
Recovered targets:
  Return period: 2555.6443 yrs
  Exceedance rate: 0.00039129076 yr^{-1}
Totals:
  Binned: 0.57 %
  Residual: 0 %
  Trace: 0.01 %
Mean (over all sources):
  m: 7.16
  r: 69.12 km
  ε_0: 1.85 σ
Mode (largest m-r bin):
  m: 7.32
  r: 67.43 km
  ε_0: 1.64 σ
  Contribution: 0.14 %
Mode (largest m-r-ε_0 bin):
  m: 7.31
  r: 67.46 km
  ε_0: 1.67 σ
  Contribution: 0.12 %

Discretization:
  r: min = 0.0, max = 1000.0, Δ = 20.0 km
  m: min = 4.4, max = 9.4, Δ = 0.2
  ε: min = -3.0, max = 3.0, Δ = 0.5 σ
Epsilon keys:
  ε0: [-∞ .. -2.5)
  ε1: [-2.5 .. -2.0)
  ε2: [-2.0 .. -1.5)
  ε3: [-1.5 .. -1.0)
  ε4: [-1.0 .. -0.5)
  ε5: [-0.5 .. 0.0)
  ε6: [0.0 .. 0.5)
  ε7: [0.5 .. 1.0)
  ε8: [1.0 .. 1.5)
  ε9: [1.5 .. 2.0)
  ε10: [2.0 .. 2.5)
  ε11: [2.5 .. +∞]

Closest Distance, rRup (km)	Magnitude (Mw)	ALL_ε	ε=(-∞,-2.5)	ε=[-2.5,-2)	ε=[-2,-1.5)	ε=[-1.5,-1)	ε=[-1,-0.5)	ε=[-0.5,0)	ε=[0,0.5)	ε=[0.5,1)	ε=[1.5,2)	ε=[2,2.5)	ε=[2.5,∞)
130	7.3	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
130	7.5	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.002
130	7.7	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
110	6.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110	7.1	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
110	7.3	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.002
110	7.5	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
90	6.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
90	6.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
90	6.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
90	7.1	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
90	7.3	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.001
90	7.5	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.000
90	7.7	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000
70	6.5	0.022	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.013	0.009
70	6.7	0.070	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.065	0.005
70	6.9	0.076	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.015	0.061	0.000
70	7.1	0.130	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.109	0.021	0.000
70	7.3	0.135	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.020	0.115	0.000	0.000
70	7.5	0.077	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.055	0.022	0.000	0.000
70	7.7	0.029	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.025	0.003	0.000	0.000
70	7.9	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.002	0.000	0.000	0.000

Principal Sources (faults, subduction, random seismicity having > 3% contribution

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Attachment H-4. Response Spectrum – Site Class B "Rock"

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ASCE 7 Hazards Report

Address:
No Address at This Location

Standard: ASCE/SEI 7-10
Risk Category: I
Soil Class: B - Rock

Elevation: 2473.48 ft (NAVD 88)
Latitude: 45.47491
Longitude: -119.42

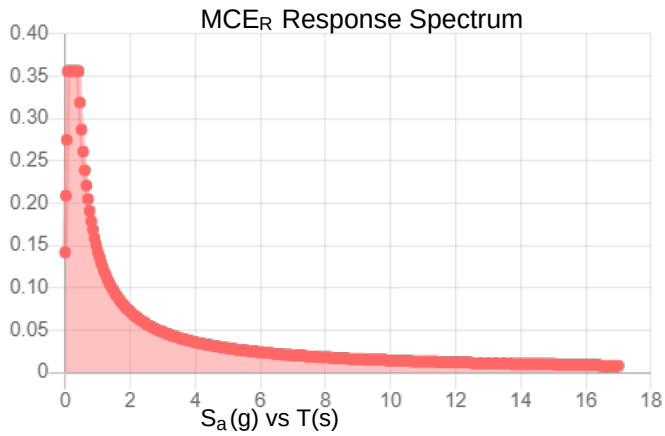
Seismic

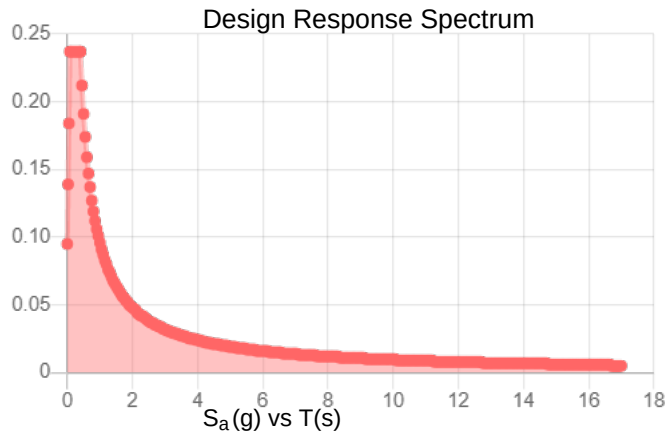
Site Soil Class: B - Rock

Results:

S_S :	0.356	S_{DS} :	0.237
S_1 :	0.143	S_{D1} :	0.096
F_a :	1	T_L :	16
F_v :	1	PGA :	0.149
S_{MS} :	0.356	PGA_M :	0.149
S_{M1} :	0.143	F_{PGA} :	1
		I_e :	1

Seismic Design Category B





Data Accessed: **Thu Oct 20 2022**

Date Source:

USGS Seismic Design Maps based on ASCE/SEI 7-10, incorporating Supplement 1 and errata of March 31, 2013, and ASCE/SEI 7-10 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-10 Ch. 21 are available from USGS.

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ASCE 7 Hazards Report

Address:
No Address at This Location

Standard: ASCE/SEI 7-10
Risk Category: II
Soil Class: B - Rock

Elevation: 2473.48 ft (NAVD 88)
Latitude: 45.47491
Longitude: -119.42

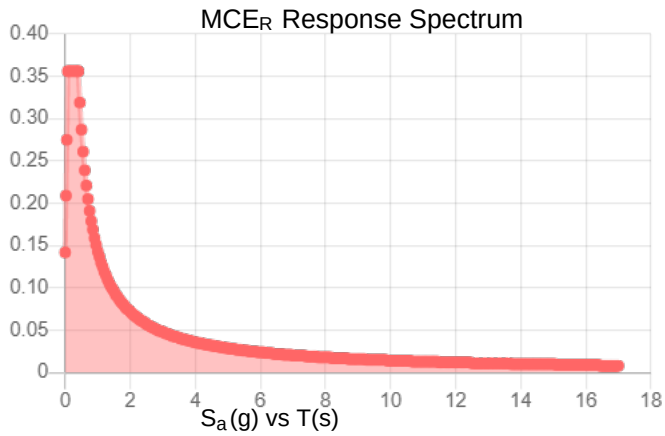
Seismic

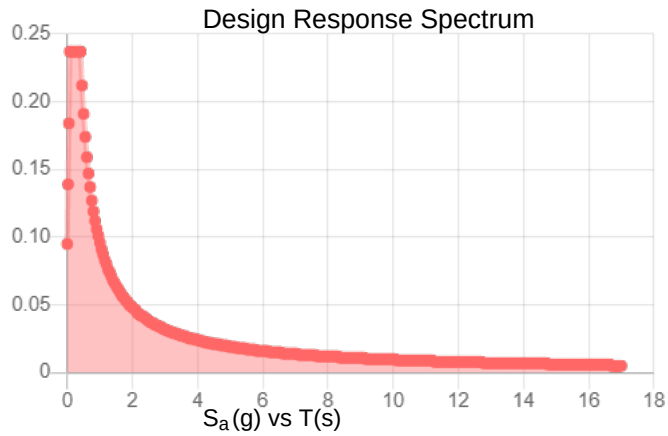
Site Soil Class: B - Rock

Results:

S_S :	0.356	S_{DS} :	0.237
S_1 :	0.143	S_{D1} :	0.096
F_a :	1	T_L :	16
F_v :	1	PGA :	0.149
S_{MS} :	0.356	PGA_M :	0.149
S_{M1} :	0.143	F_{PGA} :	1
		I_e :	1

Seismic Design Category B





Data Accessed: **Thu Oct 20 2022**

Date Source:

USGS Seismic Design Maps based on ASCE/SEI 7-10, incorporating Supplement 1 and errata of March 31, 2013, and ASCE/SEI 7-10 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-10 Ch. 21 are available from USGS.

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ASCE 7 Hazards Report

Address:
No Address at This Location

Standard: ASCE/SEI 7-10
Risk Category: III
Soil Class: B - Rock

Elevation: 2473.48 ft (NAVD 88)
Latitude: 45.47491
Longitude: -119.42

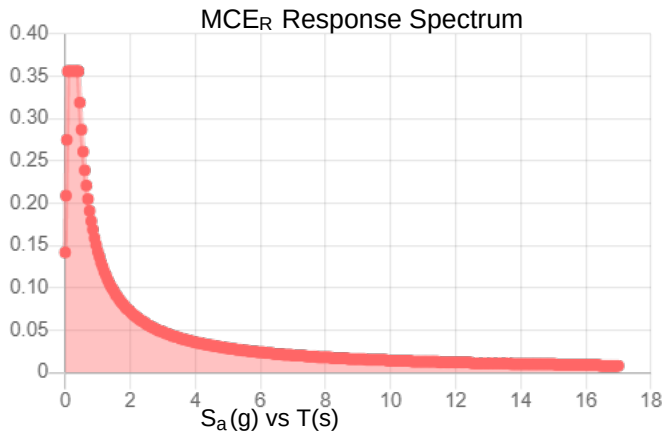
Seismic

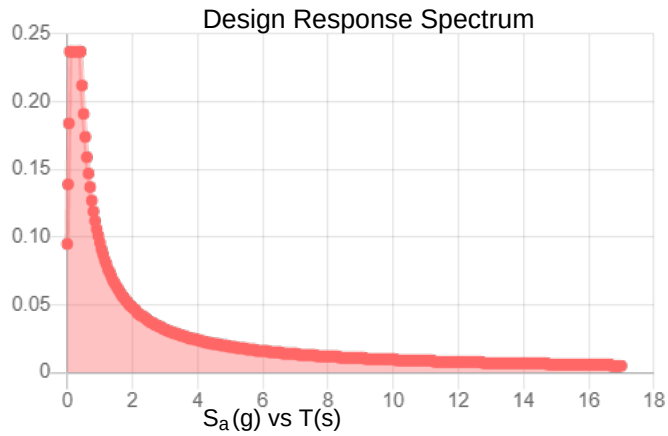
Site Soil Class: B - Rock

Results:

S_S :	0.356	S_{DS} :	0.237
S_1 :	0.143	S_{D1} :	0.096
F_a :	1	T_L :	16
F_v :	1	PGA :	0.149
S_{MS} :	0.356	PGA_M :	0.149
S_{M1} :	0.143	F_{PGA} :	1
		I_e :	1.25

Seismic Design Category B





Data Accessed: **Thu Oct 20 2022**

Date Source:

USGS Seismic Design Maps based on ASCE/SEI 7-10, incorporating Supplement 1 and errata of March 31, 2013, and ASCE/SEI 7-10 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-10 Ch. 21 are available from USGS.

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ASCE 7 Hazards Report

Address:
No Address at This Location

Standard: ASCE/SEI 7-16
Risk Category: I
Soil Class: B - Rock

Elevation: 2473.48 ft (NAVD 88)
Latitude: 45.47491
Longitude: -119.42

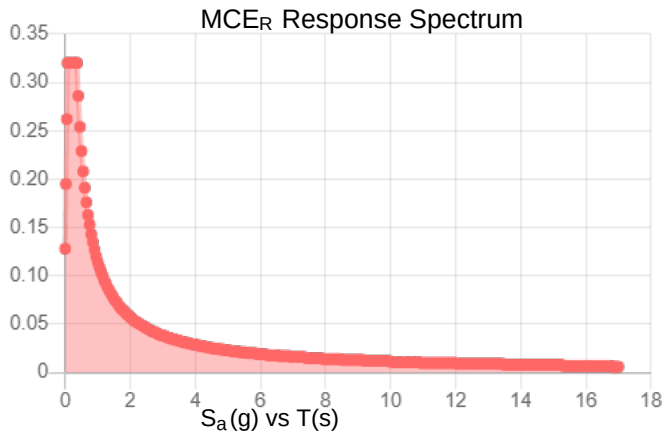
Seismic

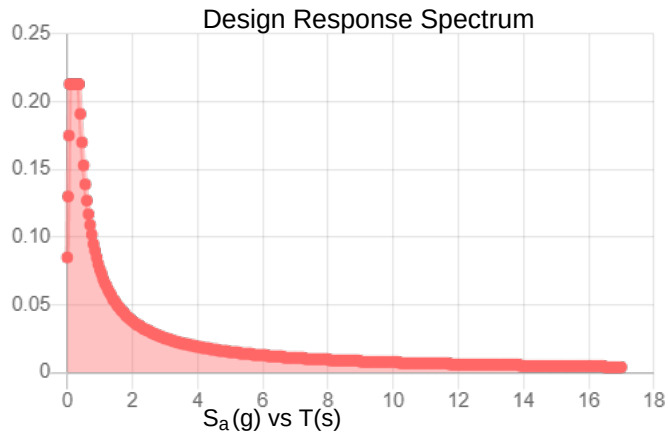
Site Soil Class: B - Rock

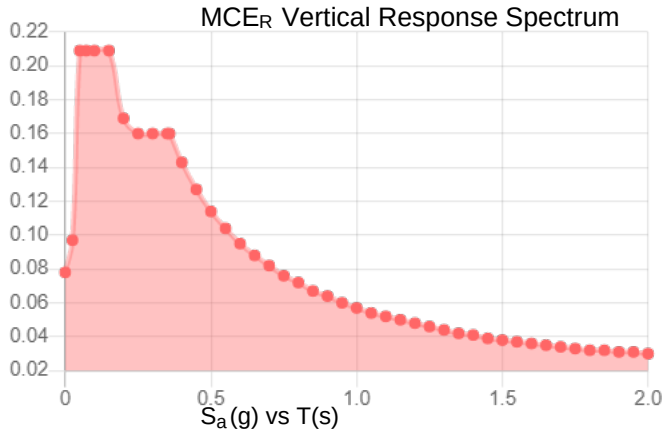
Results:

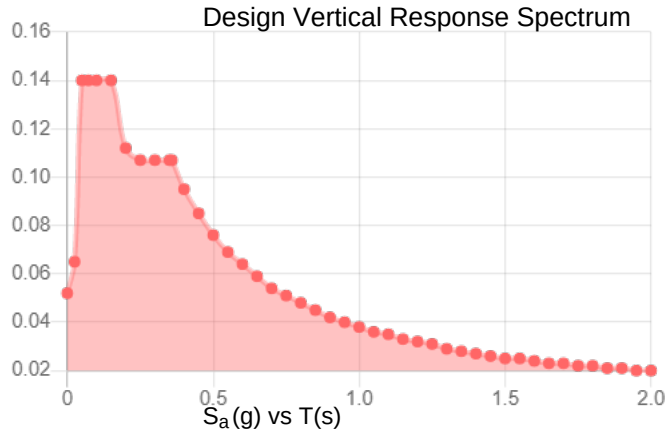
S_S :	0.355	S_{D1} :	0.076
S_1 :	0.143	T_L :	16
F_a :	0.9	PGA :	0.159
F_v :	0.8	PGA_M :	0.143
S_{MS} :	0.32	F_{PGA} :	0.9
S_{M1} :	0.114	I_e :	1
S_{DS} :	0.213	C_v :	0.818

Seismic Design Category B









Data Accessed: **Thu Oct 20 2022**

Date Source:

USGS Seismic Design Maps based on ASCE/SEI 7-16 and ASCE/SEI 7-16 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-16 Ch. 21 are available from USGS.

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ASCE 7 Hazards Report

Address:
No Address at This Location

Standard: ASCE/SEI 7-16
Risk Category: II
Soil Class: B - Rock

Elevation: 2473.48 ft (NAVD 88)
Latitude: 45.47491
Longitude: -119.42

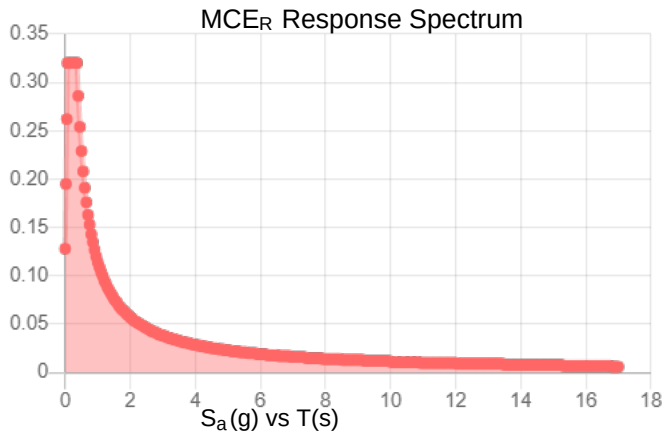
Seismic

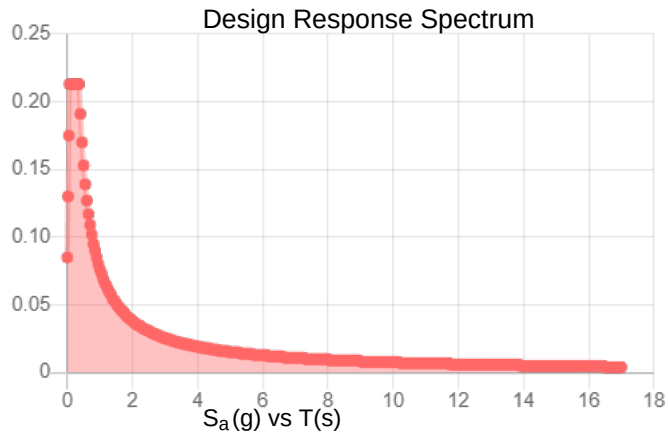
Site Soil Class: B - Rock

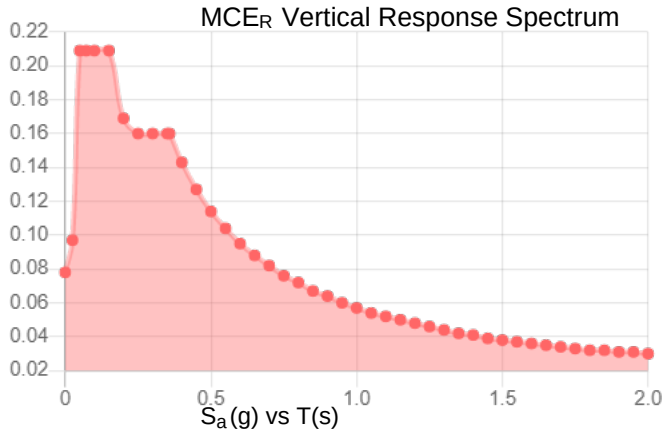
Results:

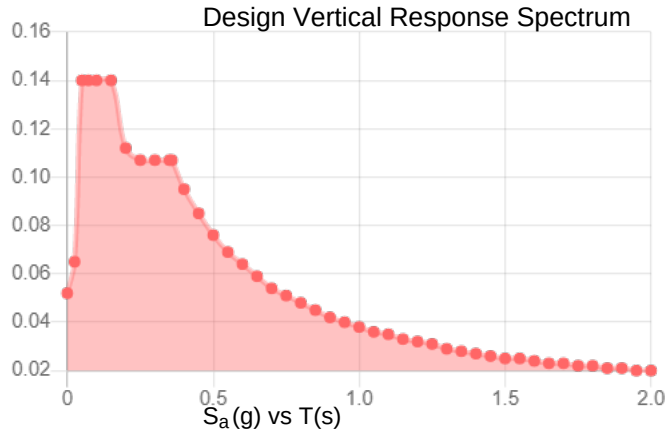
S_S :	0.355	S_{D1} :	0.076
S_1 :	0.143	T_L :	16
F_a :	0.9	PGA :	0.159
F_v :	0.8	PGA_M :	0.143
S_{MS} :	0.32	F_{PGA} :	0.9
S_{M1} :	0.114	I_e :	1
S_{DS} :	0.213	C_v :	0.818

Seismic Design Category B









Data Accessed: **Thu Oct 20 2022**

Date Source:

USGS Seismic Design Maps based on ASCE/SEI 7-16 and ASCE/SEI 7-16 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-16 Ch. 21 are available from USGS.

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ASCE 7 Hazards Report

Address:
No Address at This Location

Standard: ASCE/SEI 7-16
Risk Category: III
Soil Class: B - Rock

Elevation: 2473.48 ft (NAVD 88)
Latitude: 45.47491
Longitude: -119.42

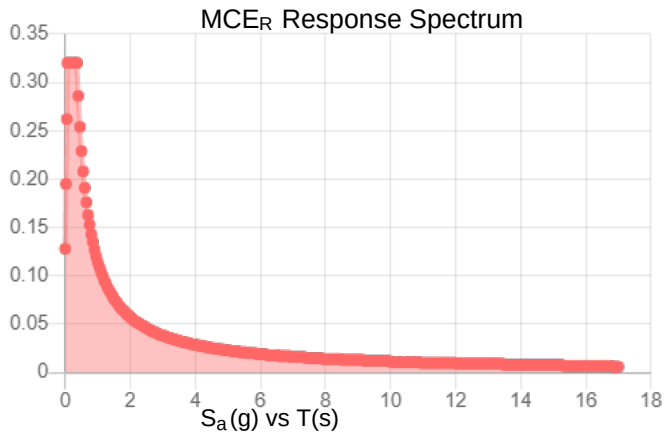
Seismic

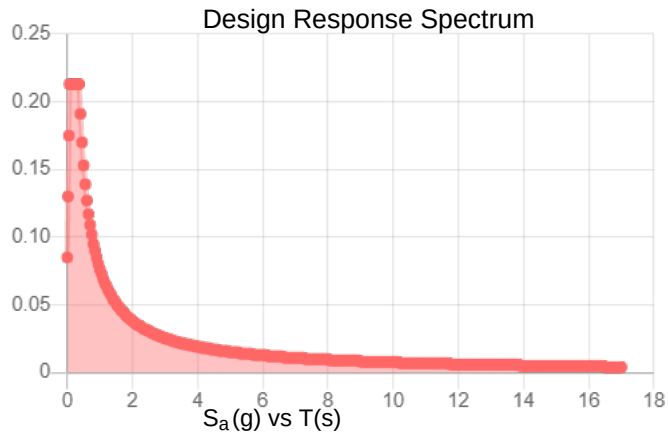
Site Soil Class: B - Rock

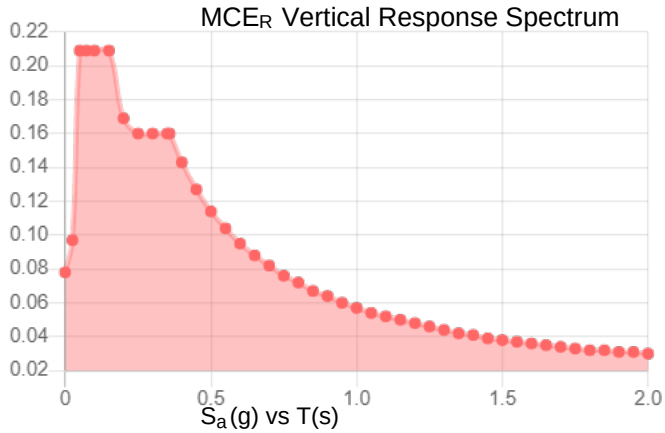
Results:

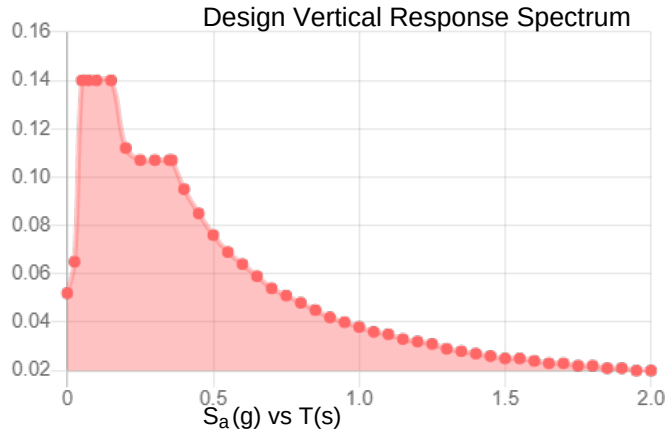
S_S :	0.355	S_{D1} :	0.076
S_1 :	0.143	T_L :	16
F_a :	0.9	PGA :	0.159
F_v :	0.8	PGA_M :	0.143
S_{MS} :	0.32	F_{PGA} :	0.9
S_{M1} :	0.114	I_e :	1.25
S_{DS} :	0.213	C_v :	0.818

Seismic Design Category B









Data Accessed: **Thu Oct 20 2022**

Date Source:

USGS Seismic Design Maps based on ASCE/SEI 7-16 and ASCE/SEI 7-16 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-16 Ch. 21 are available from USGS.

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Attachment H-5. Response Spectrum – Site Class C "Very Dense Soil and Soft Rock"

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ASCE 7 Hazards Report

Address:
No Address at This Location

Standard: ASCE/SEI 7-10
Risk Category: I
Soil Class: C - Very Dense Soil and Soft Rock

Elevation: 2473.48 ft (NAVD 88)
Latitude: 45.47491
Longitude: -119.42

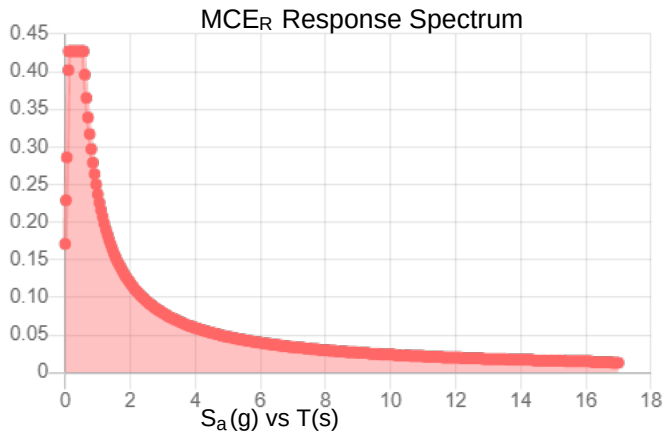
Seismic

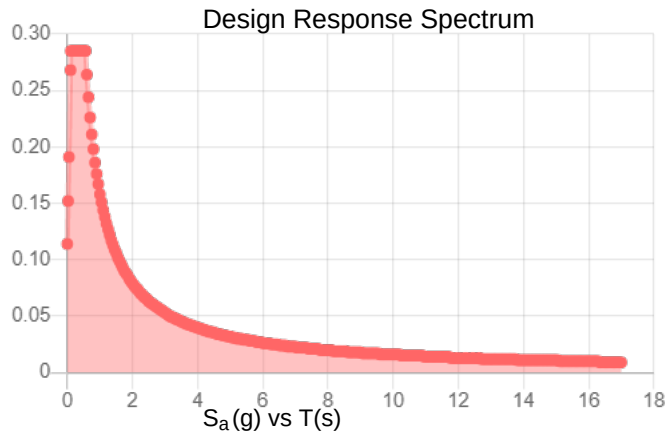
Site Soil Class: C - Very Dense Soil and Soft Rock

Results:

S_S :	0.356	S_{DS} :	0.285
S_1 :	0.143	S_{D1} :	0.158
F_a :	1.2	T_L :	16
F_v :	1.657	PGA :	0.149
S_{MS} :	0.427	PGA_M :	0.179
S_{M1} :	0.237	F_{PGA} :	1.2
		I_e :	1

Seismic Design Category C





Data Accessed: **Thu Oct 20 2022**

Date Source:

USGS Seismic Design Maps based on ASCE/SEI 7-10, incorporating Supplement 1 and errata of March 31, 2013, and ASCE/SEI 7-10 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-10 Ch. 21 are available from USGS.

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ASCE 7 Hazards Report

Address:
No Address at This Location

Standard: ASCE/SEI 7-10
Risk Category: II
Soil Class: C - Very Dense Soil and Soft Rock

Elevation: 2473.48 ft (NAVD 88)
Latitude: 45.47491
Longitude: -119.42

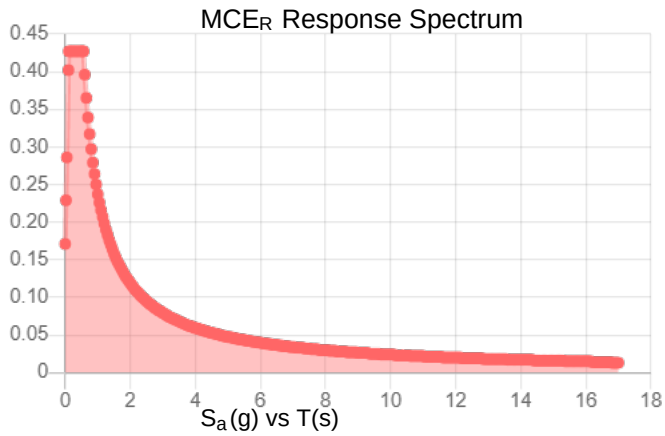
Seismic

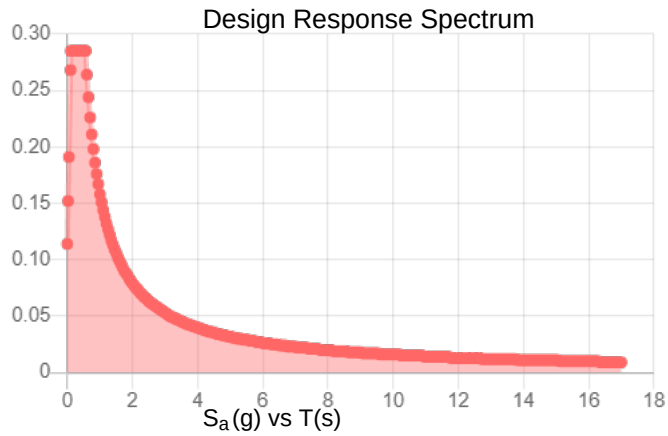
Site Soil Class: C - Very Dense Soil and Soft Rock

Results:

S_S :	0.356	S_{DS} :	0.285
S_1 :	0.143	S_{D1} :	0.158
F_a :	1.2	T_L :	16
F_v :	1.657	PGA :	0.149
S_{MS} :	0.427	PGA_M :	0.179
S_{M1} :	0.237	F_{PGA} :	1.2
		I_e :	1

Seismic Design Category C





Data Accessed: **Thu Oct 20 2022**

Date Source:

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ASCE 7 Hazards Report

Address:
No Address at This Location

Standard: ASCE/SEI 7-10
Risk Category: III
Soil Class: C - Very Dense Soil and Soft Rock

Elevation: 2473.48 ft (NAVD 88)
Latitude: 45.47491
Longitude: -119.42

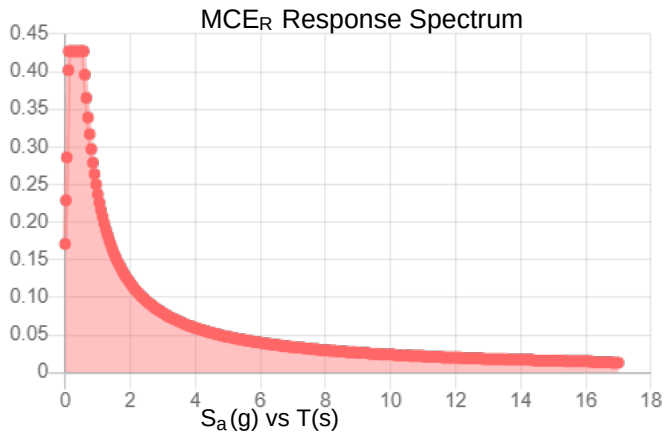
Seismic

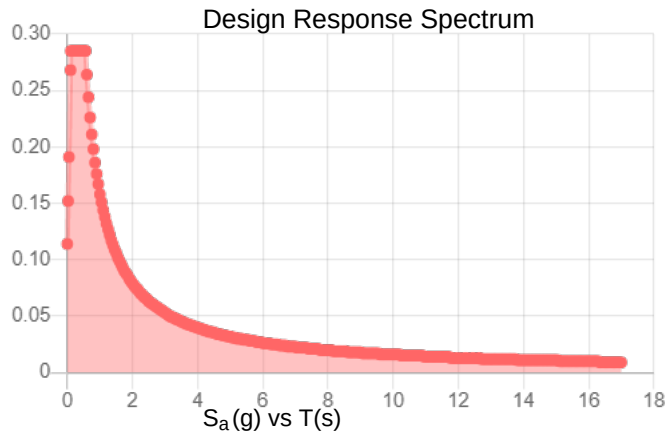
Site Soil Class: C - Very Dense Soil and Soft Rock

Results:

S_S :	0.356	S_{DS} :	0.285
S_1 :	0.143	S_{D1} :	0.158
F_a :	1.2	T_L :	16
F_v :	1.657	PGA :	0.149
S_{MS} :	0.427	PGA_M :	0.179
S_{M1} :	0.237	F_{PGA} :	1.2
		I_e :	1.25

Seismic Design Category C





Data Accessed: **Thu Oct 20 2022**

Date Source:

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ASCE 7 Hazards Report

Address:
No Address at This Location

Standard: ASCE/SEI 7-16
Risk Category: I
Soil Class: C - Very Dense Soil and Soft Rock

Elevation: 2473.48 ft (NAVD 88)
Latitude: 45.47491
Longitude: -119.42

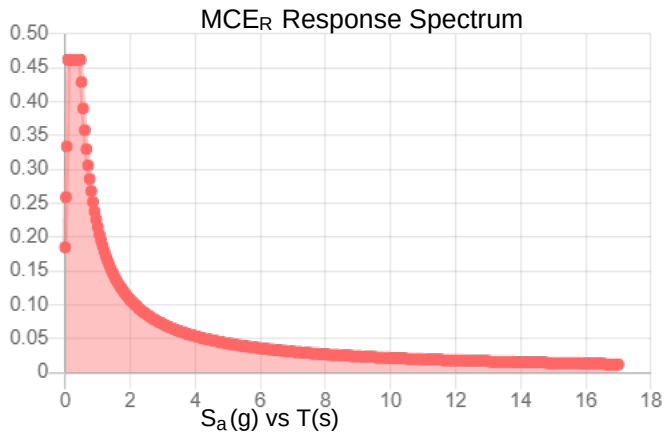
Seismic

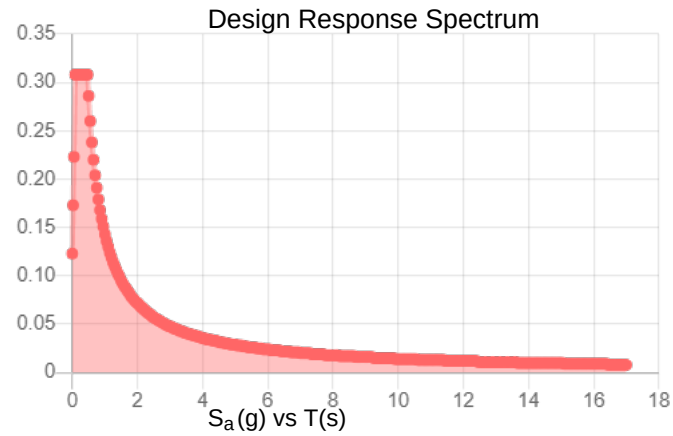
Site Soil Class: C - Very Dense Soil and Soft Rock

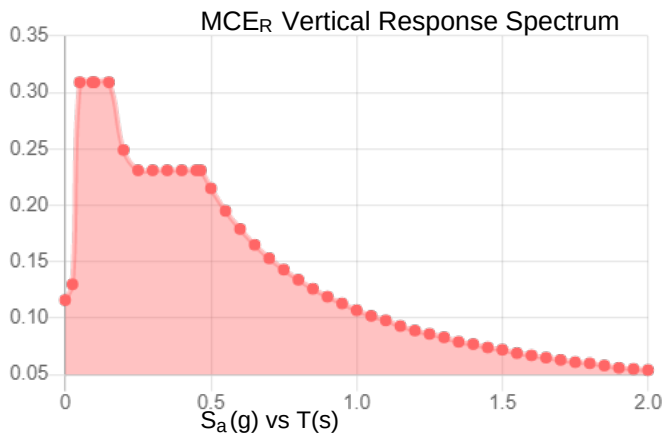
Results:

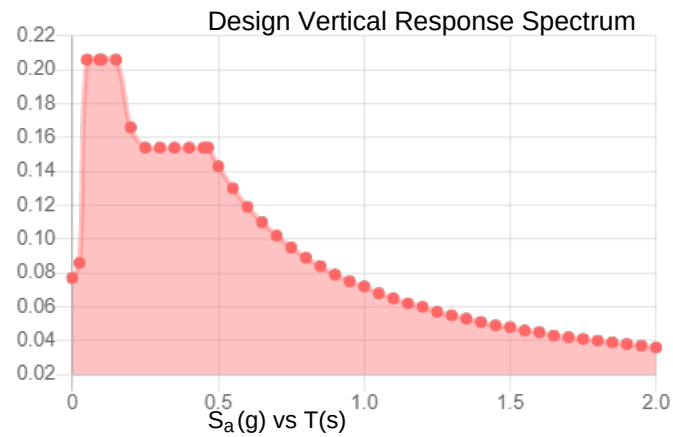
S_S :	0.355	S_{D1} :	0.143
S_1 :	0.143	T_L :	16
F_a :	1.3	PGA :	0.159
F_v :	1.5	PGA_M :	0.197
S_{MS} :	0.462	F_{PGA} :	1.241
S_{M1} :	0.215	I_e :	1
S_{DS} :	0.308	C_v :	0.837

Seismic Design Category C









Data Accessed: **Thu Oct 20 2022**

Date Source:

USGS Seismic Design Maps based on ASCE/SEI 7-16 and ASCE/SEI 7-16 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-16 Ch. 21 are available from USGS.

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ASCE 7 Hazards Report

Address:
No Address at This Location

Standard: ASCE/SEI 7-16
Risk Category: II
Soil Class: C - Very Dense Soil and Soft Rock

Elevation: 2473.48 ft (NAVD 88)
Latitude: 45.47491
Longitude: -119.42

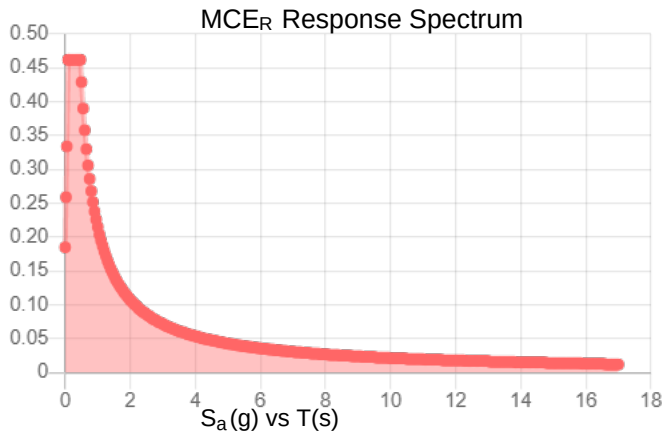
Seismic

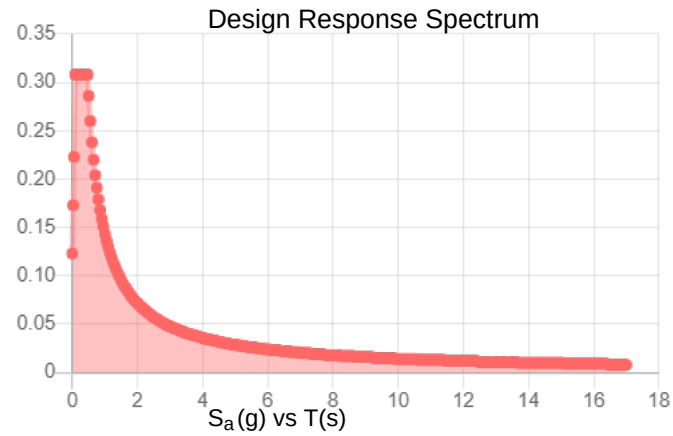
Site Soil Class: C - Very Dense Soil and Soft Rock

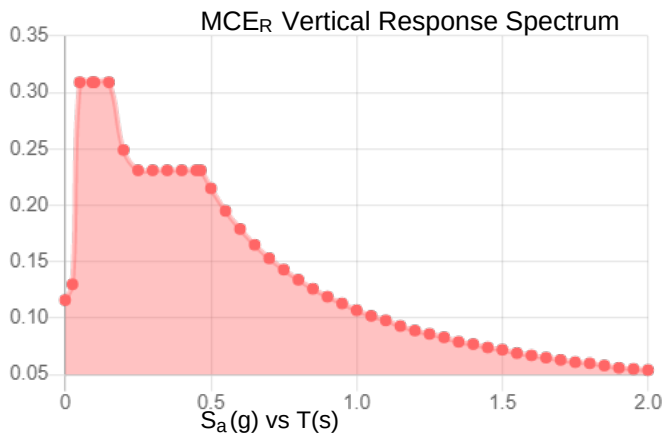
Results:

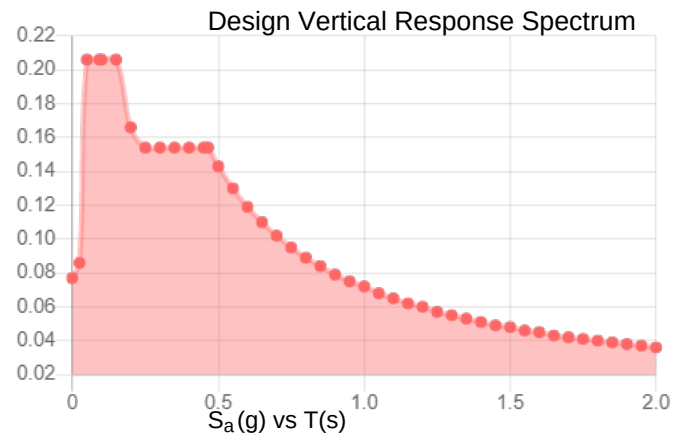
S_S :	0.355	S_{D1} :	0.143
S_1 :	0.143	T_L :	16
F_a :	1.3	PGA :	0.159
F_v :	1.5	PGA_M :	0.197
S_{MS} :	0.462	F_{PGA} :	1.241
S_{M1} :	0.215	I_e :	1
S_{DS} :	0.308	C_v :	0.837

Seismic Design Category C









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ASCE 7 Hazards Report

Address:
No Address at This Location

Standard: ASCE/SEI 7-16
Risk Category: III
Soil Class: C - Very Dense Soil and Soft Rock

Elevation: 2473.48 ft (NAVD 88)
Latitude: 45.47491
Longitude: -119.42

Seismic

Site Soil Class: C - Very Dense Soil and Soft Rock

Results:

S_S :	0.355	S_{D1} :	0.143
S_1 :	0.143	T_L :	16
F_a :	1.3	PGA :	0.159
F_v :	1.5	PGA_M :	0.197
S_{MS} :	0.462	F_{PGA} :	1.241
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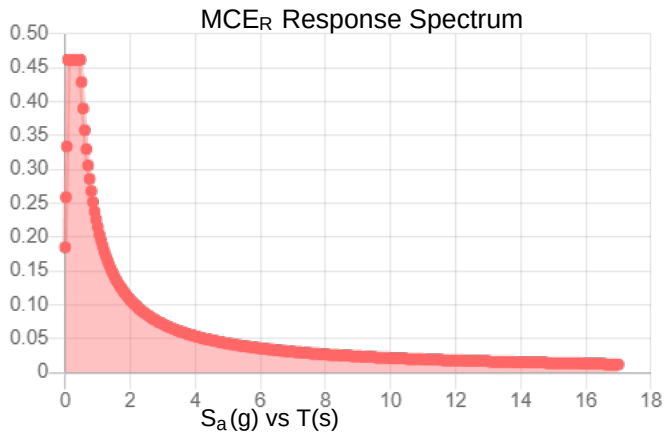
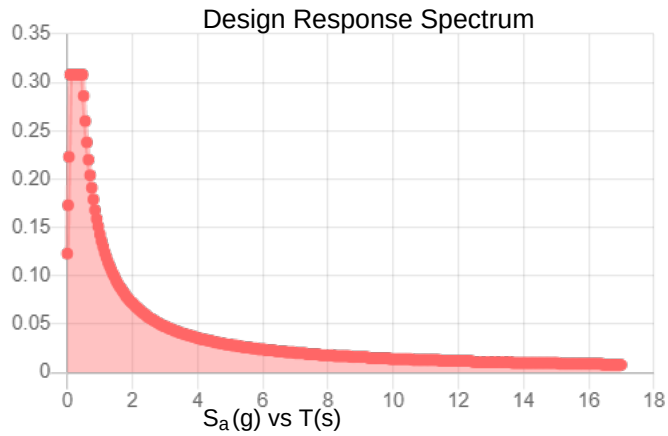
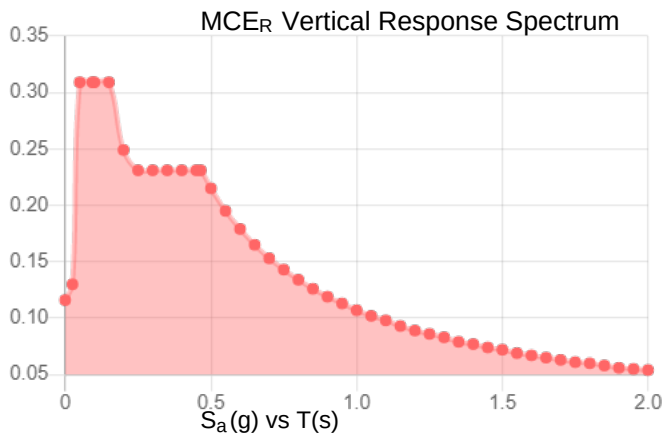
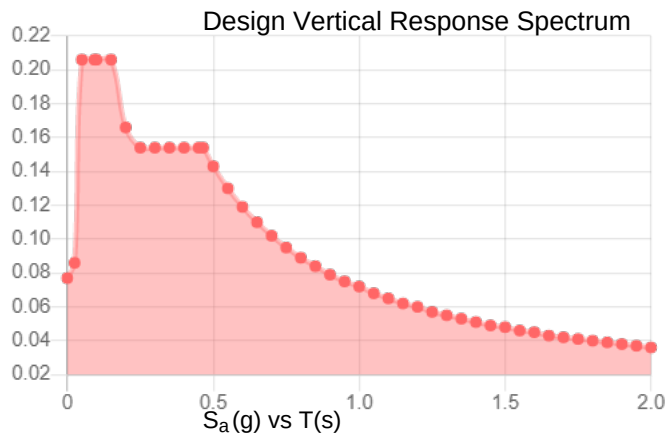
Seismic Design Category C









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