Determining a PGA Using the New USGS Tool

April 2017
The URL for the new PGA tool is: 
https://earthquake.usgs.gov/hazards/interactive/

The new website looks like this:
Calculating PGA

Ensure the appropriate selections are made in the drop-down menus for **Edition** and **Spectral Period** as indicated below:

<table>
<thead>
<tr>
<th>Edition</th>
<th>Spectral Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dynamic: Conterminous U.S. 2014 (v4.1.0)</td>
<td>Peak ground acceleration</td>
</tr>
</tbody>
</table>

**Location**

<table>
<thead>
<tr>
<th>Latitude</th>
<th>Decimal degrees</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Time Horizon**

<table>
<thead>
<tr>
<th>Return period in years</th>
</tr>
</thead>
<tbody>
<tr>
<td>475</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2% in 50 years (2,475 years)</th>
<th>10% in 50 years (475 years)</th>
</tr>
</thead>
</table>
To determine the **Location** of the property, enter the address by selecting the link for *Choose location using a map*:

The latitude/longitude will automatically be entered based on the address.
Calculating PGA

The **Time Horizon** field will be automatically populated when you select the **10% in 50 years** button:

<table>
<thead>
<tr>
<th>Edition</th>
<th>Spectral Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conterminous U.S. 2014 (v4.0.x)</td>
<td>Peak ground acceleration</td>
</tr>
</tbody>
</table>

**Location**

- **Latitude**
  - Decimal degrees
  - [Choose location using a map](#)

- **Longitude**
  - Decimal degrees, negative values for western longitudes
  - [Site Class](#)

**Time Horizon**

- Return period in years: 2475
- 2% in 50 years (1,499 years)
- 10% in 50 years (176 years)
Select the appropriate **Site Class** based on the property’s location as indicated below:

- **259 m/s (Site class D)** for properties located in California, Nevada, Oregon or Washington
- **760 m/s (B/C boundary)** for properties all other locations
Calculating PGA

Scroll down to the Deaggregation section and select “Compute Deaggregation”
Calculating PGA

The output will look similar to this:
Calculating PGA

The PGA is noted as the Exceedance IML.

Exceedance IML: 0.57615269 g
Calculating PGA

Use your browser’s print function to print the webpage to PDF for upload to DMS.

If you use the “Download Deaggregation Report” button, the result is a difficult to read text file: