Chapter 2 - Appendix A

Converting Risk Model Scores
**Converting Risk Model Scores**

As of January, 2015, 50 PAWSA sessions have been held. The risk assessment model used during those sessions has evolved over time. For those communities who are doing a follow-on risk assessment to an earlier PAWSA session, there is the ability to compare the risk level scores produced in that earlier session to the scores derived using the methodology and the Waterway Risk Model described in this guide. This section tells how to insert the risk level scores from that earlier session into the quantitative assessment Excel™ workbook, so that those earlier scores can be compared to the results obtained from the present session.

In the table below, look up the date of the earlier PAWSA session and note both which risk model was used and the number of the assessment book that was used to evaluate the risk levels that existed at the time of the earlier session.

<table>
<thead>
<tr>
<th>PAWSA Session Name</th>
<th>Workshop Dates</th>
<th>Risk Model Used</th>
<th>Risk Level Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobile, Alabama</td>
<td>9 – 10 August 1999</td>
<td>Original</td>
<td>Book 4</td>
</tr>
<tr>
<td>Pascagoula, Mississippi</td>
<td>11 – 12 August 1999</td>
<td>Original</td>
<td>Book 4</td>
</tr>
<tr>
<td>Corpus Christi, Texas</td>
<td>30 – 31 August 1999</td>
<td>Original</td>
<td>Book 4</td>
</tr>
<tr>
<td>Port Lavaca, Texas</td>
<td>1 – 2 September 1999</td>
<td>Original</td>
<td>Book 4</td>
</tr>
<tr>
<td>Port Arthur, Texas</td>
<td>22 – 23 September 1999</td>
<td>Original</td>
<td>Book 4</td>
</tr>
<tr>
<td>Charleston, South Carolina</td>
<td>13 – 14 October 1999</td>
<td>Original</td>
<td>Book 4</td>
</tr>
<tr>
<td>San Francisco, California</td>
<td>16 – 17 November 1999</td>
<td>Original</td>
<td>Book 4</td>
</tr>
<tr>
<td>Honolulu, Hawaii</td>
<td>13 – 14 December 1999</td>
<td>Original</td>
<td>Book 4</td>
</tr>
<tr>
<td>Houston, Texas</td>
<td>25 – 26 January 2000</td>
<td>Original</td>
<td>Book 4</td>
</tr>
<tr>
<td>San Juan, Puerto Rico</td>
<td>7 – 8 February 2000</td>
<td>Original</td>
<td>Book 4</td>
</tr>
<tr>
<td>Ponce, Puerto Rico</td>
<td>9 – 10 February 2000</td>
<td>Original</td>
<td>Book 4</td>
</tr>
<tr>
<td>Morgan City, Louisiana</td>
<td>3 – 4 April 2000</td>
<td>Original</td>
<td>Book 4</td>
</tr>
<tr>
<td>Port Fourchon, Louisiana</td>
<td>5 – 6 April 2000</td>
<td>Original</td>
<td>Book 4</td>
</tr>
<tr>
<td>Lake Charles, Louisiana</td>
<td>25 – 26 April 2000</td>
<td>Original</td>
<td>Book 4</td>
</tr>
<tr>
<td>Boston, Massachusetts</td>
<td>19 – 20 June 2000</td>
<td>Original</td>
<td>Book 4</td>
</tr>
<tr>
<td>Miami, Florida</td>
<td>24 – 25 July 2000</td>
<td>Revised</td>
<td>Book 4</td>
</tr>
<tr>
<td>Port Everglades, Florida</td>
<td>26 – 27 July 2000</td>
<td>Revised</td>
<td>Book 4</td>
</tr>
<tr>
<td>Texas City, Texas</td>
<td>21 August 2000</td>
<td>Revised</td>
<td>Book 4</td>
</tr>
<tr>
<td>Coos Bay, Oregon</td>
<td>7 September 2000</td>
<td>Revised</td>
<td>Book 4</td>
</tr>
<tr>
<td>Lower Columbia River, Oregon</td>
<td>11 – 12 September 2000</td>
<td>Revised</td>
<td>Book 4</td>
</tr>
<tr>
<td>Cook Inlet, Alaska</td>
<td>10 – 11 October 2000</td>
<td>Revised</td>
<td>Book 4</td>
</tr>
<tr>
<td>Philadelphia, Pennsylvania</td>
<td>11 – 12 December 2000</td>
<td>Revised</td>
<td>None</td>
</tr>
<tr>
<td>Cincinnati, Ohio</td>
<td>18 January 2001</td>
<td>Revised</td>
<td>Book 4</td>
</tr>
<tr>
<td>Baltimore, Maryland</td>
<td>21 – 22 February 2001</td>
<td>Revised</td>
<td>Book 4</td>
</tr>
<tr>
<td>Los Angeles / Long Beach, CA</td>
<td>21 March 2001</td>
<td>Revised</td>
<td>Book 4</td>
</tr>
<tr>
<td>Portland, Maine</td>
<td>1 – 2 May 2001</td>
<td>Revised</td>
<td>Book 4</td>
</tr>
<tr>
<td>Hampton Roads, Virginia</td>
<td>27 – 28 June 2001</td>
<td>Revised</td>
<td>Book 4</td>
</tr>
<tr>
<td>PAWSA Session Name</td>
<td>Workshop Dates</td>
<td>Risk Model Used</td>
<td>Risk Level Results</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>----------------------</td>
<td>-----------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>Louisville, Kentucky</td>
<td>13 – 14 February 2002</td>
<td>Final</td>
<td>Book 3</td>
</tr>
<tr>
<td>Haro Strait / Boundary Pass, WA</td>
<td>25 – 26 February 2002</td>
<td>Final</td>
<td>Book 3</td>
</tr>
<tr>
<td>Tampa, Florida</td>
<td>7 – 8 January 2003</td>
<td>Final</td>
<td>Book 4</td>
</tr>
<tr>
<td>Detroit, Michigan</td>
<td>12 – 13 February 2003</td>
<td>Final</td>
<td>Book 4</td>
</tr>
<tr>
<td>San Diego, California</td>
<td>12 – 13 March 2003</td>
<td>Final</td>
<td>Book 4</td>
</tr>
<tr>
<td>Buzzards Bay, Massachusetts</td>
<td>9 – 10 September 2003</td>
<td>Final</td>
<td>Book 4</td>
</tr>
<tr>
<td>Torres Strait, Australia</td>
<td>22 – 23 March 2004</td>
<td>Final</td>
<td>Book 4</td>
</tr>
<tr>
<td>Narragansett Bay, Rhode Island</td>
<td>7 – 8 September 2004</td>
<td>Final</td>
<td>Book 4</td>
</tr>
<tr>
<td>Long Island Sound, NY / CT</td>
<td>3 – 4 May 2005</td>
<td>Final</td>
<td>Book 4</td>
</tr>
<tr>
<td>Aleutian Islands, Alaska</td>
<td>24 – 25 July 2006</td>
<td>Final</td>
<td>Book 4</td>
</tr>
<tr>
<td>Passamaquoddy Bay, Maine</td>
<td>3 – 4 October 2006</td>
<td>Final</td>
<td>Book 4</td>
</tr>
<tr>
<td>Cincinnati, Ohio</td>
<td>29 – 30 July 2008</td>
<td>Final</td>
<td>?</td>
</tr>
<tr>
<td>New York Harbor, New York</td>
<td>9 – 10 September 2008</td>
<td>Final</td>
<td>?</td>
</tr>
<tr>
<td>San Francisco, California</td>
<td>12 – 13 August 2008</td>
<td>Final</td>
<td>?</td>
</tr>
</tbody>
</table>

Next, review the Workshop Report (sometimes called the After Action Report) from that earlier session and find the results for the risk level evaluation, i.e., the results for the book number found in the table above. Using the table below, determine the values to be used for each factor in the Waterways Risk Model. Insert those values into cells A4:F10 of the All Books (waterway name) / Previous PAWSA template. Leave empty the cell(s) for any risk factor(s) shown below as [Not Addressed].

<table>
<thead>
<tr>
<th>Waterway Risk Model</th>
<th>Final Port Risk Model</th>
<th>Revised Port Risk Model</th>
<th>Original Port Risk Model</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Average of: (Mariner Proficiency or Deep Draft Mariner Proficiency) ** and ** (Seaworthiness or Vessel Quality)</strong></td>
<td>Percentage of High Risk Deep Draft and High Risk Shallow Draft</td>
<td>% High Risk Deep Draft Cargo &amp; Passenger Vessels</td>
</tr>
<tr>
<td>Deep Draft Vessel Quality</td>
<td><strong>Average of: (Mariner Proficiency or Deep Draft Mariner Proficiency)</strong> and ** (Seaworthiness or Vessel Quality)**</td>
<td>Percentage of High Risk Deep Draft and High Risk Shallow Draft</td>
<td>% High Risk Deep Draft Cargo &amp; Passenger Vessels</td>
</tr>
<tr>
<td>Shallow Draft Vessel Quality</td>
<td><strong>Average of: (Mariner Proficiency or Shallow Draft Mariner Proficiency)</strong> and ** (Seaworthiness or Vessel Quality)**</td>
<td>Percentage of High Risk Shallow Draft</td>
<td>% High Risk Shallow Draft Cargo &amp; Passenger Vessels</td>
</tr>
<tr>
<td>Commercial Fishing Vessel Quality</td>
<td><strong>Average of: (Mariner Proficiency or Shallow Draft Mariner Proficiency)</strong> and ** (Seaworthiness or Vessel Quality)**</td>
<td>Percentage of High Risk Shallow Draft</td>
<td>% High Risk Shallow Draft Cargo &amp; Passenger Vessels</td>
</tr>
<tr>
<td>Waterway Risk Model</td>
<td>Final Port Risk Model</td>
<td>Revised Port Risk Model</td>
<td>Original Port Risk Model</td>
</tr>
<tr>
<td>---------------------</td>
<td>------------------------</td>
<td>------------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>Small Craft Quality</td>
<td>Average of: (Boater Proficiency or Recreational Boater Proficiency) and (Seaworthiness or Vessel Quality)</td>
<td>Percentage of High Risk Shallow Draft</td>
<td>% High Risk Shallow Draft Cargo &amp; Passenger Vessels</td>
</tr>
<tr>
<td>Volume of Small Craft Traffic</td>
<td>Recreational or Volume of Recreational Traffic</td>
<td>Volume of Fishing &amp; Pleasure Craft</td>
<td>Volume of Fishing &amp; Pleasure Craft</td>
</tr>
<tr>
<td>Traffic Mix</td>
<td>Traffic Mix</td>
<td>[Not addressed]</td>
<td>[Not addressed]</td>
</tr>
<tr>
<td>Congestion</td>
<td>Congestion</td>
<td>Traffic Density</td>
<td>Traffic Density</td>
</tr>
<tr>
<td>Winds</td>
<td>Winds</td>
<td>Wind Conditions</td>
<td>Wind Conditions</td>
</tr>
<tr>
<td>Water Movement</td>
<td>Water Movement or Currents</td>
<td>Tide &amp; River Currents</td>
<td>Currents, Tides and Rivers</td>
</tr>
<tr>
<td>Visibility Restrictions</td>
<td>Visibility Restrictions</td>
<td>Visibility Conditions</td>
<td>Visibility Conditions</td>
</tr>
<tr>
<td>Obstructions</td>
<td>Obstructions</td>
<td>Ice Conditions</td>
<td>Ice Conditions</td>
</tr>
<tr>
<td>Visibility Impediments</td>
<td>Visibility Impediments</td>
<td>Visibility Obstructions</td>
<td>Visibility Obstructions</td>
</tr>
<tr>
<td>Dimensions</td>
<td>Dimensions</td>
<td>Channel Width</td>
<td>Passing Arrangements</td>
</tr>
<tr>
<td>Bottom Type</td>
<td>Bottom Type</td>
<td>Bottom Type</td>
<td>Channel and Bottom</td>
</tr>
<tr>
<td>Configuration</td>
<td>Configuration</td>
<td>Waterway Complexity</td>
<td>Waterway Complexity</td>
</tr>
<tr>
<td>Personnel Injuries</td>
<td>Injuries or Personal Injuries</td>
<td>Volume of Passengers</td>
<td>Number of People on Waterway</td>
</tr>
<tr>
<td>Petroleum Discharge</td>
<td>Hazardous Discharge or Petroleum Discharge</td>
<td>Volume of Petroleum</td>
<td>Volume of Petroleum Cargoes</td>
</tr>
<tr>
<td>Mobility</td>
<td>Mobility or [Not addressed]</td>
<td>[Not addressed]</td>
<td>[Not addressed]</td>
</tr>
<tr>
<td>Waterway Risk Model</td>
<td>Final Port Risk Model</td>
<td>Revised Port Risk Model</td>
<td>Original Port Risk Model</td>
</tr>
<tr>
<td>---------------------</td>
<td>-----------------------</td>
<td>-------------------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>Health and Safety</td>
<td>Health and Safety</td>
<td>Health &amp; Safety Impacts</td>
<td>Health and Safety Impacts</td>
</tr>
<tr>
<td>Environmental</td>
<td>Environment or</td>
<td>Environmental Impacts</td>
<td>Environmental Impacts</td>
</tr>
<tr>
<td>Aquatic Resources</td>
<td>Aquatic Resources</td>
<td>[Not addressed]</td>
<td>[Not addressed]</td>
</tr>
<tr>
<td>Economic</td>
<td>Economic</td>
<td>Economic Impacts</td>
<td>Economic Impacts</td>
</tr>
<tr>
<td>Significant Vessels</td>
<td>[Not addressed]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Property Damage</td>
<td>[Not addressed]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Port Impact</td>
<td>[Not addressed]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Column B of the *All Books (waterway name) / Bk 4 Rslts* spreadsheet will show either the risk level results from the previous PAWSA session or, if one or more cells in the *All Books (waterway name) / Previous PAWSA* spreadsheet is empty because that risk factor was [Not Addressed], the *All Books (waterway name) / Bk 4 Rslts* spreadsheet will show the results from Book 3: Baseline Risk Levels. If the risk level results from the present workshop are higher than the results from the previous PAWSA session for any risk factors, then Column G:H of the *All Books (waterway name) / Bk 4 Rslts* spreadsheet will say **RISING**. **Note:** This red flag also will occur if the Book 4: Mitigation Effectiveness results are higher than the Book 3: Baseline Risk Levels results for any factor.