

## **APPENDIX 1**

### Original flood damages multipliers

## Consequence Assessment Multipliers

| Land Use                 | Depth Class | Flood Level | Multiplier |
|--------------------------|-------------|-------------|------------|
| <b>Residential</b>       | 0 - 0.1     | Above Floor | 0.045      |
|                          |             | Below Floor | 0.021      |
|                          | 0.1 - 0.25  | Above Floor | 0.276      |
|                          |             | Below Floor | 0.032      |
|                          | 0.25 - 0.5  | Above Floor | 0.336      |
|                          |             | Below Floor | 0.042      |
|                          | 0.5 - 1.0   | Above Floor | 0.414      |
|                          |             | Below Floor | 0.084      |
|                          | 1.0 - 1.5   | Above Floor | 0.555      |
|                          |             | Below Floor | 0.138      |
|                          | 1.5 - 2.5   | Above Floor | 0.924      |
|                          |             | Below Floor | 0.297      |
| 2.5 - 5.0                | Above Floor | 2.013       |            |
|                          | Below Floor | 0.567       |            |
| <b>Commercial Office</b> | 0 - 0.1     | Above Floor | 0.330      |
|                          |             | Below Floor | 0.051      |
|                          | 0.1 - 0.25  | Above Floor | 0.414      |
|                          |             | Below Floor | 0.078      |
|                          | 0.25 - 0.5  | Above Floor | 0.504      |
|                          |             | Below Floor | 0.138      |
|                          | 0.5 - 1.0   | Above Floor | 0.621      |
|                          |             | Below Floor | 0.273      |
|                          | 1.0 - 1.5   | Above Floor | 0.828      |
|                          |             | Below Floor | 0.357      |
|                          | 1.5 - 2.5   | Above Floor | 1.386      |
|                          |             | Below Floor | 0.438      |
| 2.5 - 5.0                | Above Floor | 2.403       |            |
|                          | Below Floor | 0.681       |            |
| <b>Commercial Retail</b> | 0 - 0.1     | Above Floor | 0.438      |
|                          |             | Below Floor | 0.096      |
|                          | 0.1 - 0.25  | Above Floor | 0.552      |
|                          |             | Below Floor | 0.144      |
|                          | 0.25 - 0.5  | Above Floor | 1.872      |
|                          |             | Below Floor | 0.417      |
|                          | 0.5 - 1.0   | Above Floor | 3.047      |
|                          |             | Below Floor | 0.903      |
|                          | 1.0 - 1.5   | Above Floor | 5.296      |
|                          |             | Below Floor | 2.097      |
|                          | 1.5 - 2.5   | Above Floor | 8.770      |
|                          |             | Below Floor | 3.129      |
| 2.5 - 5.0                | Above Floor | 12.091      |            |
|                          | Below Floor | 4.519       |            |
| <b>Industrial</b>        | 0 - 0.1     | Above Floor | 0.364      |
|                          |             | Below Floor | 0.098      |
|                          | 0.1 - 0.25  | Above Floor | 0.489      |
|                          |             | Below Floor | 0.118      |
|                          | 0.25 - 0.5  | Above Floor | 1.046      |
|                          |             | Below Floor | 0.234      |
|                          | 0.5 - 1.0   | Above Floor | 1.476      |
|                          |             | Below Floor | 0.343      |
|                          | 1.0 - 1.5   | Above Floor | 2.185      |
|                          |             | Below Floor | 0.533      |
|                          | 1.5 - 2.5   | Above Floor | 3.419      |
|                          |             | Below Floor | 0.875      |
| 2.5 - 5.0                | Above Floor | 4.889       |            |
|                          | Below Floor | 0.547       |            |

| Land Use              | Depth Class | Flood Level | Multiplier |
|-----------------------|-------------|-------------|------------|
| <b>Institution</b>    | 0 - 0.1     | Above Floor | 0.110      |
|                       |             | Below Floor | 0.042      |
|                       | 0.1 - 0.25  | Above Floor | 0.149      |
|                       |             | Below Floor | 0.067      |
|                       | 0.25 - 0.5  | Above Floor | 0.236      |
|                       |             | Below Floor | 0.098      |
|                       | 0.5 - 1.0   | Above Floor | 0.384      |
|                       |             | Below Floor | 0.189      |
|                       | 1.0 - 1.5   | Above Floor | 0.551      |
|                       |             | Below Floor | 0.222      |
|                       | 1.5 - 2.5   | Above Floor | 0.833      |
|                       |             | Below Floor | 0.289      |
| 2.5 - 5.0             | Above Floor | 1.554       |            |
|                       | Below Floor | 0.391       |            |
| <b>Public Utility</b> | 0 - 0.1     | Above Floor | 0.110      |
|                       |             | Below Floor | 0.042      |
|                       | 0.1 - 0.25  | Above Floor | 0.149      |
|                       |             | Below Floor | 0.067      |
|                       | 0.25 - 0.5  | Above Floor | 0.236      |
|                       |             | Below Floor | 0.098      |
|                       | 0.5 - 1.0   | Above Floor | 0.384      |
|                       |             | Below Floor | 0.189      |
|                       | 1.0 - 1.5   | Above Floor | 0.551      |
|                       |             | Below Floor | 0.222      |
|                       | 1.5 - 2.5   | Above Floor | 0.833      |
|                       |             | Below Floor | 0.289      |
| 2.5 - 5.0             | Above Floor | 1.554       |            |
|                       | Below Floor | 0.391       |            |
| <b>Recreation</b>     | 0 - 0.1     | Above Floor | 0.057      |
|                       |             | Below Floor | 0.018      |
|                       | 0.1 - 0.25  | Above Floor | 0.285      |
|                       |             | Below Floor | 0.024      |
|                       | 0.25 - 0.5  | Above Floor | 0.333      |
|                       |             | Below Floor | 0.043      |
|                       | 0.5 - 1.0   | Above Floor | 0.501      |
|                       |             | Below Floor | 0.088      |
|                       | 1.0 - 1.5   | Above Floor | 0.689      |
|                       |             | Below Floor | 0.147      |
|                       | 1.5 - 2.5   | Above Floor | 0.994      |
|                       |             | Below Floor | 0.238      |
| 2.5 - 5.0             | Above Floor | 1.998       |            |
|                       | Below Floor | 0.571       |            |