**Solution Prioritization Action 3 Worksheet: Solution Priorities and Costs**

Worksheet Last Updated By: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Worksheet Last Updated On: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Step 1: Identify and Weight Criteria for Decision-Making

The TRN uses risk reduction potential as a default criterion for solution prioritization; however, it will be important to also consider other site priorities when evaluating resilience solutions. Consider the prioritization criteria at the site and record the prioritization criteria that will be used for decision-making in the table below. Possible solution prioritization criteria may include items such as:

* Urgency of addressing resilience gap
* Ease of implementation
* Alignment with existing project and/or site priorities
* Satisfaction of organizational policies
* Alignment with sustainability standards
* Alignment with energy and/or water efficiency standards
* Alignment with environmental management standards.

Items such as life, health, and safety should not be included as stand-alone prioritization criteria, as they should already be captured in criticality weighting factors from the Site-Level Planning and Risk Assessment modules. Similarly, solution cost should not be included as a stand-alone prioritization criterion, as it will be addressed separately in the activity below. As a practical matter, the TRN does not recommend considering more than six total prioritization criteria (risk reduction potential included) to ensure that the weights provide an actionable outcome.

Once prioritization criteria have been identified, assign each criterion a weight. These weights determine the relative importance of each criterion in determining the resilience potential of each solution. The weights of all prioritization criteria, including risk reduction potential, should sum to 1.

|  |  |
| --- | --- |
| **Criteria** | **Criteria Weight** |
| Risk Reduction Potential |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
| **TOTAL** | 1 |

For offline users, this table is used as input in **Tab 3** in the Solution Prioritization Excel workbook.

Step 2: Estimate Costs

Develop a rough order of magnitude range (e.g., under $100,000, $200,000–$500,000, and so on) for each category to fill in the table below. The TRN uses a default 10-year total cost category, but the TRN Solution Prioritization Excel model allows you to choose alternative time periods, such as 20 years. Update the table header below if your site will use another time period for consideration of total cost.

|  |  |
| --- | --- |
| **Cost Category** | **10-Year Total Cost** |
| High |  |
| Moderate |  |
| Low |  |
| Minimal |  |

Based on professional judgement and previous experience, estimate the initial rough order of magnitude cost and ongoing annual cost for each of the solutions from the previous action.

|  |  |  |  |
| --- | --- | --- | --- |
| **Solution**  **#** | **Solution** | **Estimated Initial Cost** | **Estimated Ongoing Annual Cost** |
| 1 | *Relocate the current facility to avoid predicted increases in storm surge inundation and associated repetitive damages and losses.* |  |  |
| 2 |  |  |  |
| 3 |  |  |  |
| 4 |  |  |  |
| 5 |  |  |  |
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| 16 |  |  |  |
| 17 |  |  |  |
| 18 |  |  |  |
| 19 |  |  |  |
| 20 |  |  |  |

For offline users, these tables are used as an input into the Solution Prioritization Excel file (**Tab 4**) to automatically categorize solutions by cost alongside risk reduction potential and other prioritization criteria developed above.