**Vulnerability Workshop**

**Instructions for Exercise One – Exposure & Sensitivity**

**Step 1** **Area of concern –** In the second column of Exercise One (next page) write the built, natural, social, economic, or cultural systems that could be affected for each of the changing climate conditions pre-listed in the far left column of the Exercise One matrix. If you need more space or would like to think about changing climate conditions not listed on the sheet, feel free to add rows.

**Step 2** **Current climate/weather impacts -** Identify how existing and historic changes in weather and climate have affected the items you identified in Step 1 and input your answers in the third column of Exercise One.

**Step 3** **Non-climate stressors -** Identify any non-climate factors that currently affect (positively or negatively) the systems you identified in Step 1. Write your answers in the fourth column of Exercise One.

**Step 4** **Significance -** Identify why or how the system you selected in Step 1 is significant for your community and write your answers in the fifth column of Exercise One.

**Step 5** **Assign sensitivity -** Using the orange colored sensitivity table located on page 5, input how sensitive you believe the system you identified in Step 1 is to the changing climate conditions listed in the far left row. Input your answer (based on the options in the orange sensitivity table on page 5) into the last column listed in Exercise One.

**Step 8** **Repeat steps 1-5** for each of the changing climate conditions listed in the first column of Exercise One. Additionally, feel free to add more rows or another changing climate condition if you feel one is missing.

**Vulnerability Workshop**

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|  | **Exercise One: Exposure and Sensitivity** | | | | |
| **Changing Climate Condition** | **What Built, Natural, Social, or Cultural Assets Could be Affected By These Changes** | **How Do Weather or Climate Currently Affect This System** | **What Additional Non-Climate Factors Currently Affect This System?** | **What is the Significance of This System to the Tribe?** | **Sensitivity Ranking** |
| Temperature Increases Between 3-5.5oF by 2050 | **Example:** Natural Systems: Pitch pine-scrub oak  Public Health: higher asthma and pathogen rates | Trees may no longer be found in traditional locations.  Growing asthma rates have been a concern in the region for sometime | Invasive species, low genetic diversity, low tolerance for change  Growing rates of obesity and higher pollution rates | Pitch pine-scrub-oak is a very rare and important ecosystem  Good health is critical to happiness and wellbeing | **S2**  **S3** |
| Temperature Increases Between 3-5.5oF by 2050 |  |  |  |  |  |
| Temperature Increases Between 3-5.5oF by 2050 |  |  |  |  |  |
| More intense rainfall events |  |  |  |  |  |
| 10% change in annual precipitation |  |  |  |  |  |
| Increased likelihood of summer droughts |  |  |  |  |  |
| Other |  |  |  |  |  |

**Vulnerability Workshop**

**Instructions for Exercise Two – Adaptive Capacity**

**Step 1** **Area of concern -** Turn this paper over. In the second column of Exercise Two (next page) write each of the built, natural, social, economic, or cultural systems that you analyzed in column two of Exercise One (see example).

**Step 2** **Ability to adapt -** Identify what attributes or assets the systems listed in column one have that will help them adapt to the changing climate condition listed in the first column of Exercise Two. Write your answers in column three.

**Step 3** **Resources needed -** Identify any external resources or actions that the system listed in column two will need to adapt to the changing climate condition listed in column one. Input your answer into the fourth column.

**Step 4** **Critical need -** Of the needs listed in Step 3, identify which is (or which ones are) of the highest importance to ensuring the item listed in column two can adapt to the changing climate condition. Input your answer into the fifth column.

**Step 5** **Adaptive capacity -** Using the purple colored adaptive capacity table located on page 5, input how much adaptive capacity you believe the system you identified in Step 1 (listed in column two) is to the changing climate conditions listed in the far left row. Input your answer (based on the options in the purples adaptive capacity table on page 5) into the last column listed in Exercise Two.

**Step 6** **Repeat steps 1-5** for each of the changing climate conditions listed in the first column of Exercise Two. Additionally, feel free to add more rows or an additional changing climate condition if you feel one is missing.

**Vulnerability Workshop**

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| **Exercise Two: Assessing Adaptive Capacity** | | | | | |
| **Changing Climate Condition** | **Built, social, natural, or cultural asset from Exercise One** | **What Does This Person or System Currently Have That Will Help it to Adapt** | **What Does This System or Person Need in Order to Adapt** | **Of These Needs Which Are of the Highest Priority** | **Adaptive Capacity Ranking** |
| Temperature Increases Between 3-5.5oF by 2050 | **Example:** Natural Systems: Pitch pine-scrub oak  Public Health: higher asthma and pathogen rates | Natural systems: moderately large protected areas for species migration  Health: high social connectivity allowing for easy distribution of educational materials | Natural systems: removal of invasive species & monitoring  Health: more physical-activity programming, education, change outdoor rec. times. | Removal of invasive species  Education | Natural: **AC1**  Health: **AC2** |
| Temperature Increases Between 3-5.5oF by 2050 |  |  |  |  |  |
| Temperature Increases Between 3-5.5oF by 2050 |  |  |  |  |  |
| More intense rainfall events |  |  |  |  |  |
| 10% change in annual precipitation |  |  |  |  |  |
| Increased likelihood of summer droughts |  |  |  |  |  |
| Other |  |  |  |  |  |

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| **Adaptive Capacity Levels** | |
| **AC0** | System is not able to accommodate or adjust to impact |
| **AC1** | System is minimally able to accommodate or adjust to impact |
| **AC2** | System is somewhat able to accommodate or adjust to impact |
| **AC3** | System is mostly able to accommodate or adjust to impact |
| **AC4** | System is able to accommodate or adjust to impact in a beneficial way |

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| **Sensitivity Levels** | |
| **S0** | System will not be affected by the impact |
| **S1** | System will be minimally affected by the impact |
| **S2** | System will be somewhat affected by the impact |
| **S3** | System will be largely affected by the impact |
| **S4** | System will be greatly affected by the impact |

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| **Vulnerability Ranking Table** |
| Potential Opportunity |
| Low Vulnerability |
| Medium-Low Vulnerability |
| Medium Vulnerability |
| Medium-High Vulnerability |
| High Vulnerability |

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| --- | --- | --- | --- | --- | --- | --- |
|  |  | **Sensitivity**: Low 🡪 High | | | | |
|  |  | **S0** | **S1** | **S2** | **S3** | **S4** |
| **Adaptive Capacity:** Low  🡫  High | **AC0** |  |  |  |  |  |
| **AC1** |  |  |  |  |  |
| **AC2** |  |  |  |  |  |
| **AC3** |  |  |  |  |  |
| **AC4** |  |  |  |  |  |