# ****Earth 107 Course Capstone Project: Stage 2 - Physical System Audit Worksheet****

## Assignment Description: You will recall that at the end of Section 1 of the course (i.e., Capstone Project Stage 1), you downloaded the Coastal Vulnerability PowerPoint file. You will use that file to build your final Capstone product. There are multiple sections that you will fill in as you complete each module of the course. By the end of the course, you should be able to complete all sections and produce a PowerPoint presentation that will be turned in for your Capstone grade – 25% of class grade. This worksheet is meant for compiling notes that will be used to populate your PowerPoint. To make things easier at the end of the semester, begin to populate your PowerPoint as you go, rather than leaving it all to the end. You can polish it at the end.

## **At this point (end of Section 2 – Module 6) you should be able to complete the following worksheet with notes about your chosen coastal city. Complete each section with relevant notes about your location.**

## Submission Instructions: Submit your completed worksheet to Canvas by the end of Module 6 (see the Course Calendar for the due date). Please employ the following naming convention: Last Name\_First Name Stage2Worksheet.docx.

## ****Progress Update on Stage 2****

## ****Name of your chosen coastal city\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_****

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| Geographic and Geologic Setting |
| Site Location |  Selected City: | Approved by my instructor? |
| ***Topical Areas of the Audit*** | ***Ask yourself:***  1. *Have I collected and recorded* ***adequate*** *information on each of these elements? and*
2. *Do I* ***understand*** *each component so that I can adequately* ***explain******it and demonstrate******my knowledge*** *for the course capstone submission?*

If the answer to the questions above is NO for either 1 or 2 for any of the following topical areas of the audit, then you should revisit/reread the modules in the section, consult with your fellow students and, if necessary, contact the instructor to help improve your understanding.  |
| **Site Geography** Describe the coastal setting, shore orientation, landforms present, etc.  May want to produce a labeled map of the site showing key features. |  |
| **Climatic Setting** (Tropical, Sub-Tropical, Arid, Temperate, sub-Polar, Polar, etc.) |  |
| **Tectonic Setting** (proximity to tectonic plate boundaries, active tectonic features, passive margin, etc.) |  |
| **Topographic Profile** (from inland to offshore) Use Google Earth to produce a profile you can use. (see Module 1 lab for method) |  |
| Other Notes |  |

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| **Physical Vulnerability Assessment** |
| **Coastal Geomorphology** Barrier islands, barrier reefs, sounds, estuaries, mangroves, etc. |  |
| Topographic/ Bathymetric Considerations |  |
| **Coastal Processes** Describe the nature of coastal processes in the region (i.e., waves, tides, nearshore current configuration, common storm trajectories, etc.) |  |
| **Common Local Coastal Hazards** (Coastal flooding, storm surge, water table positions, wave run-up, storm waves, shoreline erosion rates, landslides, etc.) |  |
| **Regional Coastal Hazards** (Volcanism, earthquakes, tsunami, cyclone, etc.) |  |
| **Coastal Vulnerability & Exposure**(hazard recurrence interval(s), rate of sea-level rise/fall. |  |

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| **Site Specific Concerns or Considerations** |
| Item 1 | At this juncture, you should probably have identified at least 2 or 3 site-specific topics/issues/concerns etc., for your site and begin listing them on your vulnerability audit. |
| Item 2 |  |
| Item 3 |  |
| Item 4 |  |
| Item 5 |  |
| Item 6 |  |

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| **References and Key Resources** |
| Include web links, newspaper articles, citations to primary literature, databases, personal communications, etc.  | Item 1 |
| Item 2 |
| Item 3 |
| Item 4 |
| Item 5 |