Geocaching Course – Exploring Human Impacts on the Ecosystem

\*At each station complete the task and use the paper stamp to mark your paper!

\*Directions for setting up Garmin eTrex GPS unit:

1. Select Waypoints on the main menu
2. Select desired Waypoint from the list by scrolling down
3. Select “Go”
4. Map will appear on screen
5. Press back button (top right side) to get back to the main menu
6. Open the Compass app
7. Compass will tell you your distance to the waypoint in the top right of the screen as well as the direction to travel. Be sure to stay on trail as long as possible!

**Waypoint 1 – LNT**

TASK: Review the Leave No Trace pamphlet

Answer: Which of the 7 Leave No Trace Principles do you think is the most important to follow while on your hike at CBEC today? Explain why.

**Waypoint 2 – Birds**

TASK: All of CBEC’s birds of prey were injured and have been rehabilitated. They are non-releasable due to their injuries. Briefly read the article “Bird deaths from car crashes number in millions” and answer the following question.

Answer: Why do you think car-related accidents involving wildlife are increasing?

**Waypoint 3 – Land**

TASK: Follow the directions included with the equipment at this station to test and then compare how water infiltrates the ground at both flags near this waypoint. Then review the infographic and map on impervious surfaces to answer the second question.

Answer:

1. Complete data table

|  |  |  |
| --- | --- | --- |
|  | Location 1 | Location 2 |
| Describe the ground/soil at this location |  |  |
| Infiltration Description(consider rate of infiltration, amount of water that infiltrates the ground, how ground/soil appears after test, etc) |  |  |

1. Look at the map of the Chesapeake Bay watershed showing forecasted urban growth. What do you predict will happen to the percentage of impervious surfaces in the watershed by 2025? Explain.

**Waypoint 4 – Beach**

TASK: Find and collect one piece of trash per person on the beach. Can’t find any? Look for tiny pieces of plastic! Then review the infographics.

Answer: 1) Hypothesize how one of these pieces of trash entered the waterway and 2) what was the most common item collected during the International Coastal Cleanup in 2016?

**Waypoint 5 - Pier**

TASK: Use the Secchi disk to measure water clarity.

Directions for using Secchi disk:

1. Lower Secchi disk slowly into the water, holding onto the line, until it disappears from view
2. Slowly pull the disk up until you can just see it again
3. Record the depth of water clarity (from the surface of the water to the disk) by counting the marks on the line that were submerged. Each mark is 1 foot. Record depth to the nearest half foot.

Answer:

1. What is the depth of water clarity? \_\_\_\_\_\_\_ feet
2. Why is water clarity important?