Heritage at Risk Case Study: Barrel Well Rescue

Instructions

Read the following story about a barrel water well found by the South Carolina Institute of Archaeology and Anthropology's Underwater Archaeology Division at Fort Frederick Heritage Preserve. When finished reading, discuss the three management options for the barrel well. As a group, discuss the pros and cons of the option you think is best and brainstorm what some of the short-term and long-term consequences of your option might be. Remember to answer the questions on the back of the paper and be ready to share your solution with the class.

Fort Frederick Barrel Well

Uh oh! During the Port Royal Sound Survey, archaeologists discovered an old barrel water well near the ruins of Fort Frederick in Beaufort County, South Carolina. The barrel well was found eroding into the river and if nothing is done, will be washed away by water and waves. People living in the past relied on water wells like the one at Fort Frederick for freshwater, and many people still get their water from wells today. This well was built by digging a hole down to the water table and placing barrels with the bottoms and tops removed on top of each other. The wooden barrels prevented the well from collapsing and prevented saltwater from contaminating the well's water. The archaeologists are unsure how old the well is, but it was very important for the people who lived at Fort Frederick a long time ago.

The archaeologists observed that only the top barrel is exposed and appears to be mostly intact, which means the other barrels beneath it are probably intact too. However, when visiting at low tide, the archaeologists noticed that waves from passing boats were crashing into the barrel, causing more erosion! To protect the barrel well and to give the archaeologists more time to come up with a plan, sandbags were placed over and around the exposed barrel. Unfortunately, during a later visit to the barrel well, the archaeologists noticed that the sandbags they placed carefully around the barrel to protect it were in a mess. Visitors to Fort Frederick might have moved the sandbags to see what was underneath, or the waves and high tides might have caused the sandbags to come loose. Now the remains of the barrel well are even more exposed.

Waves and erosion caused by boats, storms, and tides will continue to destroy the barrel well. The

Above: Archaeologist Jim Legg from the South Carolina Institute of Archaeology and Anthropology poses next to the Fort Frederick Barrel Well.

Brainstorm: What do you think archaeologists can do in this situation? How can archaeologists protect cultural resources, like the barrel well, from the effects of sea level rise and coastal erosion?

Options

Not sure what to do? Consider the three options below. Keep in mind that each option has different pros and cons. Remember you can always come up with your own solution!

Option 1: Stabilization

Using sandbags and other construction materials, the Underwater Archaeology Division will build a wall around the barrel well to protect it from waves and erosion.

Questions

1) What option did your group pick? Why? Or did you come up with your own solution?

2) What are some of the pros or positive impacts of your solution?

3) What are some of the cons or potential drawbacks of your solution?

4) How might your option contribute to a better understanding of climate change and protecting cultural sites from threats like coastal erosion and sea level rise?