

Protection from Shoreline Erosion

Many sections of the lake shoreline are prone to erode from wave action such as generated by wind and boat wakes. Such erosion is unsightly and result in land loss, trees toppling into the lake, and increased turbidity. Various methods are available to armor the shoreline to prevent such erosion. Selection of the method involves a balance of cost and aesthetics.

WATeR created a demonstration of various techniques for armoring shorelines along the water edge between the Tanasi Restaurant and entrance to the boat docks in Tellico Village. Included in this demonstration are reaches of riprap, coconut rolls, two types of rock gabions, and vegetation as shown below during construction:



WATeR has also installed two of these methods on two separate occasions. Although not used for preventing shoreline erosion, rock gabions were placed for boat docking at an entrance to the East Lakeshore Trail near the upstream end of Powerline Cove. This provided a solid platform with a flat surface to embark and disembark by boat to hike the trail.

Another application designed specifically for preventing shoreline erosion of Heron Island is visible from the 14th fairway of the Toqua Golf Course in Tellico Village. Boat wakes along the main channel of Tellico Lake near the Clear Creek Boat Ramp were causing severe erosion of the island which was a rookery for Blue Herons. WATeR independently raised \$40,000 to place riprap along 700 feet of badly eroding shoreline under the guidance of TVA.

