In this paper, we present a scalable (i.e. lossy-to-lossless) watermark scheme based on a recently standardized scalable audio coder – AAZ [4]. The proposed framework enables the recovery of the original lossless audio after watermark embedding, and in the meanwhile, is able to make the watermark adaptive such that the watermark distortion to the lossy host audio is minimized. An encryption mechanism is further employed for restricting unauthorized access to lossless audio and watermark removal. Based on this framework, we elaborate its possible applications on high-quality audio archiving and streaming. Experimental results demonstrate the validity of our proposal.