Since 2010, North Atlantic right whales (NARWs) have undergone large-scale distribution shifts moving into areas with limited or no protection from vessel strikes. Our current understanding of NARW presence in New York (NY) waters is limited given these large-scale distribution shifts. Thus, the extent to which the Port of New York-New Jersey Seasonal Management Area (SMA) overlaps with current NARW distribution is also currently not well understood. To determine the acoustic presence and vocal activity of NARWs in NY waters, particularly while the SMA was inactive, we analyzed acoustic recordings from July 2016 – January 2020. The recordings were collected via a buoy moored ~30km from the SMA. The acoustic recordings were analyzed using a two-step process: 1) automatic detection of NARW calls via the low-frequency detection and classification system (LFDCS) and 2) human verification and augmentation. Daily vocal behavior was categorized into distinct vocal states by a hidden Markov model; peak, high, medium, low and no vocal activity. The diel pattern of vocal activity was determined by calculating average number of calls per hour and fitting a generalized additive model to the data. We acoustically detected NARW outside the SMA over several years, and medium or high vocal states occurred while the SMA was inactive suggesting whales were present when the SMA implicitly assumes whales are absent**.** We also found that NARW calling activity was greatest at night when NARW cannot be visually sighted, and we acoustically detected NARWs when concurrent aerial surveys did not visually detect them. The results of our study indicate additional protections are needed beyond the current SMA, as its spatio-temporal boundaries do not fully coincide with NARW presence. Dynamic management approaches activated by acoustic detections of NARWs may be a promising mitigation measure particularly at times when NARWs can be acoustically but not visually detected.