Assessing the Coastal Bays of Maryland and Virginia: A comparison of approaches

2008 Coastal Bays report card

The Coastal Bays report card was released for the first time in 2008, and will be an annual event. The report card is based on the previous year’s monitoring data and has a fast turnaround time once appropriate data QA/QC has been performed. The six indicators (total nitrogen, total phosphorus, chlorophyll a, dissolved oxygen, hard clam density, and seagrass distribution) were measured against ecologically relevant thresholds and given scores of 20%, 40%, 60%, 80%, or 100% attainment. The resulting score for each indicator is combined over each of the six reporting regions to give an average score for each region, which was translated to a report-card-style letter grade.

An advantage to this report card approach is the relative ease with which this analysis can be performed each year with updated data, facilitating trend analysis over time. The report card is an excellent communication tool, which is understandable and accessible to a wide audience, particularly with updated data, facilitating trend analysis over time. The Coastal Bays report card was released for the first time in 2008 Coastal Bays report card.

Assateague Island National Seashore assessment

Assateague Island National Seashore (asis) forms the eastern boundary of the Maryland and Virginia Coastal Bays. The ASIS assessment is being performed as one of the National Park Service’s Natural Resource Condition Assessments. The framework behind this assessment is habitat-based. Relevant GIS data layers (vegetation maps, land use, etc.) have been identified and aggregated into seven high-level habitat classifications (forest–shrubland, saltmarsh, etc.). Through a process of consultation with park personnel, a conceptual framework was developed which visualized desired and degraded conditions for each habitat, then appropriate indicators were identified for use in assessing each habitat. These indicators are being measured against relevant ecological thresholds to assess the state of each habitat in Assateague Island National Seashore and surrounding region.

This assessment is a comprehensive, collaborative process. The process was highly consultative over several months with input and analysis from NPS personnel. The data used was from 2000 onwards and ranged in resolution from satellite imagery to on-the-ground horse counts. Because of this process, this assessment is not suitable to re-perform each year (unlike the report card), but is a more comprehensive and wide-ranging assessment that aims to be a useful tool for resource managers and scientists.

The habitat-based nature of this assessment provides a practical framework for comparing the condition of specific habitats (e.g., forests) across different systems that may not initially appear to be comparable for reasons such as latitude, rainfall, etc. The framework can also be applied to smaller-scale questions comparing status of habitat patches within the park.