# Key Definitions related to Evaluating Oyster BMPs

Taken from the first report, oysterrecovery.org/oyster-bmp-first-report/

**Assimilation:** The process where oysters convert the nitrogen and phosphorus within absorbed food into substance of the body (e.g., tissue, shell).

**Biodeposition:** Organic matter (e.g., feces and pseudofeces from oysters) deposited on the bottom (i.e., sediment surface).

**Burial:** The process in which nutrients are trapped in the bottom sediment for long timescales (i.e., below the active zone where decomposition occurs).

**Cultch:** Material suitable for settlement of oyster larvae (e.g., oyster shell). Also, referred to as substrate.

**Cultchless oysters:** Single oysters produced by settling oyster larvae on pieces of substrate small enough to be indistinguishable from the adult shell at the time of harvest.

**Denitrification:** The process that reduces nitrates or nitrites to nitrogen gas, commonly by bacteria in the bottom sediment. Nitrogen gas ultimately escapes into the atmosphere.

**Diploid oyster:** Wild or hatchery-produced oysters containing two complete sets of chromosomes, one from each parent and capable of sexual reproduction.

**Hatchery-produced oyster:** Diploid or triploid oysters propagated outside their natural environment in private or State-run hatcheries.

**Oyster hatchery:** Private or State-run operations that produce diploid and/or triploid oyster larvae outside their natural environment for research, restoration, educational, and/or commercial uses.

**Oyster reef restoration:** Activities aimed to restore and/or protect oysters to increase the wild oyster population.

**Oyster sanctuary:** An area of bottom closed to oyster harvest usually with the intention of allowing oyster populations to recover.

**Oyster seed:** Refers to oysters below legally harvestable size and typically used in connection to oysters that are being moved from one location to another (e.g. from a hatchery to aquaculture operation or from an area with high natural recruitment to an area with lower recruitment).

**Oyster shell height:** The longest distance (parallel to the long axis) between the hinge and lip of the oyster.

**Oyster spat:** Typically refers to oysters that have settled (attached) onto substrate and are less than one year old.

**Ploidy:** The number of sets of chromosomes in a cell.

**Private oyster aquaculture:** Growing and harvesting diploid or triploid oysters in areas designated for oyster aquaculture where public fishing is not allowed (e.g., State-permitted oyster aquaculture leases to private oyster aquaculturists).

**Public fishery:** Managed fishery that is open to harvest by individuals holding the appropriate licenses.

**Quantile regression:** Type of regression analysis that estimates the conditional median or other quantiles of the response variable.

**Recruitment:** The number of individuals surviving to a certain size, age, or life stage (e.g., spat, reproductive maturity, etc.).

**Spat-on-shell planting:** Oyster larvae that have settled (attached) onto shell and have been placed on the bottom.

**Substrate:** Materials (e.g., shell, granite, etc.) that oyster larvae can attach to. Shell substrate is also referred to as cultch.

**Substrate addition:** The act of placing substrate (e.g., shell, granite, etc.) on the sediment surface to harden the bottom to enhance the potential recruitment of wild oyster larvae.

**Sufficient Science:** In the Panel's best professional judgment, data of sufficient quality and scope exist and can be used to generate a reasonably constrained estimate of the reduction associated with a particular oyster practice category.

**Suitable for Reduction Effectiveness Consideration:** In the Panel's best professional judgment, the reduction process could occur in association with a particular oyster practice category and involves an enhancement activity that could result in the production of new oysters (i.e., the reduction effectiveness can be attributed to the practice).

**Suspended sediment:** Very fine soil particles that remain in suspension in water for a considerable period of time without contact with the bottom.

**Triploid oyster:** Hatchery-produced oysters containing three sets of chromosomes, typically a result of hybridizing a diploid (2-set chromosome individual) with a tetraploid (4-set chromosome individual) via human manipulation. The resulting triploid oyster lacks reproduction capabilities.

**Unintended Consequence:** Potential unexpected negative or positive effects resulting from the practice. Positive unintended consequences are referred to as “ancillary benefits” in this report to match the terminology found in the BMP Review Protocol (CBP 2015).

**Verifiable:** In the Panel's best professional judgment, a practical method exists, or could be created, to track reduction effectiveness if the BMP is implemented.

**Wild oyster:** Diploid oysters produced in their natural environment without human involvement.