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MONITORING OYSTER VIABILITY AFTER REINTRODUCTION TO BOSTON HARBOR

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In October of 2008, the Massachusetts Oyster Project, a non profit organization dedicated to the reintroduction of oysters, released 150,000 oysters into Boston Harbor. The motivation of this reintroduction is to assist in regional water quality improvement efforts.

A single oyster can filter up to 30 gallons of water a day. Water filtration of an oyster bed this size, when fully matured, could potentially reach 4.5 million gallons of water daily. The oysters placed were approximately 6 months of age and 1.5 inches in length. The "drop zone" was predetermined and demarked for the oyster disbursal team.

A sample group of oysters was reserved from the placement population and fixed in order to establish stomach contents. A monitoring regimen has also been established to check on these oysters. A two member SCUBA dive team conducted an initial post-placement site survey, two weeks after the drop. Eight separately identifiable survey rings were placed on the bottom and a count made of the oysters inside. These rings will be rechecked on follow-up site inspections. Additional sample oysters were collected and fixed for continued study of stomach contents. Active filtering of oysters was observed as well as oyster closure in response to stimuli; demonstrating viability. Guidelines for future oyster placement projects will be established from periodic site observations and "lessons learned" from this initial placement.

Future work will involve subsequent dives to determine their viability, and to plant a group of adult oysters to facilitate better breeding activity. The Massachusetts oyster project has plans for future populations in other bays and the team will engage in pre-placement assessments of the areas in order to maximize the thriving of the new populations. Condition Engineering is assessing the feasibility of producing monitoring equipment for temperature and salinity to be used before and after oyster placement. This presentation will provide an overview of the oyster site, population, gastro-study, as well as the specific placement metrics that we hope to be established from this site.

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