The Mobile Harbor Operations and Maintenance Project

Thin Layer Placement of Dredged Material

Thin layer placement (TLP) is a controlled engineering method of beneficial use of dredged sediment that is monitored and designed to minimize impacts to the environment. Natural sediment dredged from the navigation channel is placed at least 2,500 feet from the channel in thicknesses less than 1 foot, and placement sites are rotated every 4-6 years to the greatest extent possible. TLP is performed in water depths ranging from 5-12 feet deep and in open areas devoid of protected habitats (i.e. oyster reefs and submerged aquatic vegetation (SAVs)), where the bay's natural wind and currents constantly mix the water from top to bottom, ensuring healthy oxygen levels are maintained throughout the placement area. Sediment dredged from the navigation channel is placed in designated areas away from sensitive habitats avoiding both direct and indirect significant impacts.

Example TLP Projects


Image Credit: Tiger Pass Project, Louisiana, J. Corbino, New Orleans District

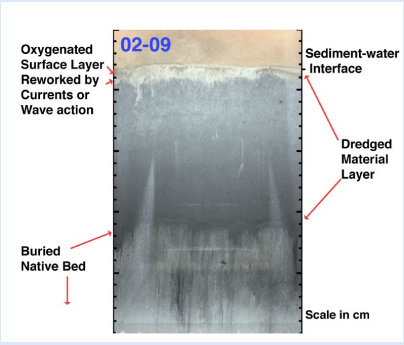

Image Credit: Sturgeon Island Phase 3, M. Chasten, Philadelphia District


Image Credit: Brick Township, NJ, S. Messur, Anchor QEA

What This Means for Mobile Bay:

TLP is NOT "mud dumping". It is an engineered placement method that is modeled, monitored, and scientifically proven to be a more responsible way to manage dredged sediments and promote a healthier, more resilient bay. The decision to conduct TLP in Mobile Bay was coordinated with local, State, and Federal entities through extensive collaboration and scientific efforts conducted in partnership with the Mobile Bay Interagency Working Group (IWG).

In 2014, a Sediment Profile Imaging (SPI) study was done in Mobile Bay to monitor potential impacts of TLP placements on ecological resources. The results showed that the material settles as a very thin, ephemeral layer, allowing bottom-dwelling organisms to recover quickly.



TLP is the "purposeful placement of thin layers of sediment (e.g., dredged material) in an environmentally acceptable manner to achieve a target elevation or thickness" (Berkowitz et al. 2019, 6). TLP is used for a variety of purposes, such as sediment management, beneficial use (BU) of dredged material, and ecological enhancement (Wilber, Clarke, and Rees 2007; Mohan et al. 2016; Smith and Niles 2016; Berkowitz, VanZomeren, and Piercy 2017).

To learn more about TLP; watch this Video: https://www.youtube.com/watch?v=JiPdU87lwl8&t=1s