

“Science Sprints” To Support Regulation

TOPIC FACT SHEET

BEACH NOURISHMENT



Sprint Duration:

March 2022 – December 2022

Scope:

Beach nourishment is the intentional addition of sand and gravel to replenish marine shoreline sediment. Nourishment is used for multiple purposes including erosion control, recreational enhancement, and wildlife habitat enhancement. A central habitat mitigation and restoration objective of beach nourishment is to reestablish and maintain sediment conditions that benefit forage fish spawning and fully functioning beach profiles that support drift logs and wrack accumulation, and consequently, provide benefits for nearshore dependant species such as ESA-listed Chinook salmon.

Partners: This sprint is supported by funding from Puget Sound Partnership and technical assistance from three branches of the National Marine Fisheries Service: West Coast Region Protected Resources, Restoration Center Pacific Region, and NW Fisheries Science Center.

Methods: Our scientists will aggregate evidence from diverse sources – e.g., journal articles, government reports, unpublished data, expert opinion – and then digest and synthesize the various lines of evidence within the documentation. The “sprint” component of this work emphasizes a rapid timeline that encompasses dialog with regulators, evidence accumulation and synthesis, and product dissemination in 6-8 months so that the best available science is provided to regulators in a timely manner relative to the expressed need.

Justification: Sediment placement is a frequent mitigation measure proposed by WDFW for various projects including the construction of a new bulkhead. However, there remains uncertainty as to the basis for beach nourishment guidance and recommendations. Uncertainty around beach nourishment includes when nourishment is needed, what the duration of benefit and area of benefit are (e.g., site, drift cell, tidal elevation), what frequency of re-nourishment is needed, where should nourishment be placed in a drift cell, and what the potential positive and negative consequences to marine vegetation and shellfish are. We aim to support improvement of NOAA’s Nearshore Conservation Calculator so that it quantifies beach nourishment’s habitat value consistent with best available science.

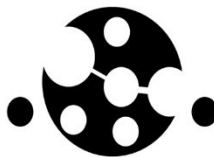
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