

South OC Beach Coalition Meeting Notes and Summary - January 21, 2026

This summary is based on the presentation and discussion regarding coastal sediment dynamics, the impact of the Dana Point Harbor, and ongoing erosion challenges.

Key Reports and Historical Context

- **T-Sheets Analysis (1885 Coastline):** Historical data from T-Sheets were presented to provide a baseline understanding of the natural coastal system before significant development.
- **Dana Point (DP) Harbor Survey Report (September 15, 1961):**
 - The original purpose of the harbor was for recreation, navigation, and economic benefits.
 - The report concluded the harbor would have no major impact on local beaches, stating that beaches are supplied with sediment from streams (like San Juan Creek) and that the sand predominantly moves down the coast with No identifiable sand to come around the Dana Point Headlands.
 - The report later recommended post-construction nourishment of 23,000 cubic yards (CY) per year, with material placed near San Juan Creek.
- **1993 Weigle Report:**
 - This assessment raised concerns about sand potentially entering the harbor.
 - It estimated 50,000 CY of sand moving around Dana Point, but it was unclear if this estimate was for shallow or deep water transport.
 - The report claimed no evidence of down-drift erosion, a finding that current evidence appears to contradict.
 - The construction of the harbor initially added 1.5 Million CY of sand to the beaches south of the harbor.

Current Sediment Budget and Erosion Analysis

- **Sediment Source:** Approximately 90% of the time, rivers provide negligible sediment. Big storms account for most of the sand supply.

- **Estimated Annual Sand Movement:**
 - 18,000 CY around Dana Point
 - 60,000 CY at San Juan Creek
 - 25,000 CY at San Mateo
- **Long-Term Trends:** Aerial imagery analysis (1930s-1990s) with transects along the OC coast every 100 meters showed that the width of the San Juan Creek area peaked following the harbor construction (growing from 50m to 75m) but has been trending downward to present day.
- **Nourishment History:** Over the years, 1.5 Million CY has been used for nourishment efforts to fill the system with sand. These efforts have led to a "wave of sand" making it down the coast, with small rebounds noted after subsequent nourishment events.
- **Erosion Contributors:**
 - North-facing beaches show significant sand loss, which is thought to be related to armoring and delayed beach recovery.
 - Extended periods with no major storms are considered the single biggest contributor to sand loss.

Recommendations and Next Steps

- **Next Coalition meeting:** February 18th at 4pm
- **Sediment Gap:** It was noted that the sediment gap (historically 120,000 CY/year, current gap 70,000 CY/year) appears to be a solvable problem.
- **Sampling Storm Events:** Recommended to sample and monitor sediment movement during storm events.
- **Doheny as Feeder Beach:** Doheny State Beach was identified as the optimal location for future nourishment efforts, serving as a "feeder beach" for down-coast beaches. This is where RBSPIII is proposed.
- **Infrastructure:** A survey of blocked sediment and existing infrastructure is required.
- **Mitigation Funding:** The Coalition should explore the idea of a development impact fee to fund sand replenishment projects and studies.