S.O.S. Oceanside! is a local group of advocates for sustainable sandy beaches in Oceanside.

Working with local, regional, state, and federal authorities, we will encourage the City to seek a solution which will protect and preserve our beaches from coastal erosion and winter storms. A scientific solution will consider environmental issues, safe access, migrating sand, and wave dynamics. Support from local communities, businesses, and residents is essential.
Key Points in timeline:

- **1922 Lake Henshaw Dam** – no longer steady flow of river sand to sea via San Luis Rey River and others (only Santa Margherita)
- **1942/1961 Boat Basin/Harbor construction** - disrupts littoral sand flow to Oceanside beaches from the North
- **1942 – present Continued replenishment** – Millions of yards of sand = $$$$ over decades
  - 2001/2012 major beach nourishment efforts
- **2016 - Unfinished study by USACE** – Mike Levin and city pushing USACE to finish study – no action to date
- **May 2019 SoS established** - Teaming citizens with City leadership to solve Oceanside’s beach sand issue
- **Oct 2019 - Oceanside City Council votes to fund a study for sand replenishment & retention project**
Oceanside Beach Sand Sources

- Oceanside Beach Sand could from three sources:
  1. Erosion of cliffs and shorelines
  2. Rivers carrying sand down to the sea
  3. Littoral transport/ocean current deposit

Beach Nourishment – Since 2012, only minimal nourishment provided to Oceanside beaches and only as a by-product of dredging the Oceanside Harbor mouth for vessel safety purposes.

Beach Sand Retention Systems – Although multiple studies, SANDAG 2009, USACE study recommends retention system, no action to move forward on this recommendation/solution has been taken to date.
Consequences of Beach Nourishment without Retention

- Sudden, Input of massive amounts of sand kills ~ 50% of beach sand dwelling animals.

- During nourishment:
  - Beach becomes major construction zone. Heavy machinery kills beach animals and disturbs wildlife.
  - The new sand (if not the same as native sand) can change the habitat that beach animals rely upon.
  - Beach ecosystem time to recover is not known

- Sand nourishment may not sustain beaches over time.

Information from: Explore Beaches website – University of California Santa Barbara
Historical pictures showing Oceanside’s *once* expansive beaches

1940
Oceanside beached have suffered from decades of coastal erosion

2019
Newport Beach CA showing results of beach retention and nourishment – healthy, robust beaches!

1934

- Newport Beach has restored their beaches with an engineered retention system - engineered groins to retain sand

2019
Section 30235 Construction altering natural shoreline:

“Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion, and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply.”
SOS advocates for sound & sustainable sand retention solutions

- Retention systems:
  - Breakwaters – Structures placed parallel to the facing beach
  - Jetties/Groins - Structures placed perpendicular to the facing beach
  - Other systems – Dunes & reef systems
    - Dunes such as those installed in Cardiff – may not be suitable for Oceanside’s coastal area

- Solution must be tailored to Oceanside shore dynamics – potential ways forward:
  - Study (Oceanside RFP announced) with data collection to inform engineers of best solution – key for any proposed solution
  - Potential option – *Oceanside shoreline could be a test case/system installation with data collection/analysis period to validate design.*
    - SOS recommends Oceanside be the focus area/study area for retention solutions
  - Design modifications as needed based on data analysis
  - Move towards a larger data/analysis validated retention system installation
S. O. S. Goal Summary

- Oceanside’s unique coastline & beaches are negatively affected by structures to the North (Camp Pendleton Boat basin, Oceanside Harbor) and dammed rivers.

- S.O.S advocates for continued engagement with Oceanside city leadership in developing solution(s) for a sustainable beach sand retention plan that will provide for:
  - A healthy, well preserved, safe and sustainable beach for all beachgoers
  - Biological enhancement – both sea life, waterfowl/other beach dwelling organisms
  - Improved economic benefits for our City through the return of a robust beach for all

- City of Oceanside on Local Coastal Plan review – *Managed Retreat strategy is not practical.*

- S.O.S continues to expand communications with sister beach cities for collaboration and mutual support on beach sand strategies and solutions for sustainable beaches for all.