San Diego's Wetlands are fighting back and here's how

If you have driven along San Diego's coast lately, you may have noticed stretches of muddy, reedy terrain that don't quite look like a beach. These are wetlands, the soggy often overlooked transition zones between land and sea that filter pollutants, buffer against flooding, support wildlife and sequester carbon. During the 20th century, San Diego County's wetlands experienced a lot of degradation due to urban development. Now, thanks to a wave of restoration projects, the wetlands in the county are slowly recovering.

ECOSD's Resilient Wetlands Campaign has been tracking progress across more than a dozen active restoration sites, from the Mexican border all the way up to Carlsbad. This article will cover the recent developments to the wetland restoration projects.

At the southernmost edge of the county, the Tijuana River Estuary has long been one the most ecologically valuable coastal wetlands in California. However, years of sediment build up, altered water flow, and cross-border pollution have degraded much of what was once a thriving expanse of salt marsh and tidal mudflats. However, the Southwest Wetlands Interpretive Association has been leading a restoration project for this delicate ecosystem and in May 2023, the project cleared a critical legal milestone when a Record of Decision was issued, formally approving a long-awaited restoration plan. Phase 2 of the effort will restore approximately 80 to 87 acres of coastal wetlands and upland habitat. The approach is methodological with crews excavating new intertidal channels connecting to existing sloughs, restoring tidal flows to areas cut off for decades and carefully layer low marsh zones beneath higher marsh buffer zones. These designs allow the estuary to rise with sea level rather than drown beneath it. The habitat improvements are expected to benefit endangered and migratory species that depend on the estuary, including birds that use the Pacific Flyway.

A few miles north, the Otay River Estuary Restoration project has already broken ground. Grading on the two project sites is complete and they have been opened to tidal influence for the first time in years. Because the land previously served as a salt evaporation pond, residual salinity in the soil required crews to hold off on planting while tidal flows gradually reduced the salinity in the ground. Native plant installation is now planned for fall 2026, with additional planting to follow in 2027.

On the southern edge of San Diego Bay, an inactive evaporative salt pond known as Pond 20 has emerged as a potential centerpiece of urban wetland recovery. The South San Diego Bay Wetland Mitigation Bank at Pond 20 is working to establish roughly 76 acres of salt marsh habitat with a focus on re-introducing tidal connection to San Diego Bay by excavating new tidal channels and installing native plant species. The proposed project's objective is to establish coastal salt marsh habitat that will consist of planting native marsh species such as pickleweed. Pickleweed is a dense groundcover that forms the backbone of coastal salt marsh ecosystems, and with it a habitat for two rare species of birds: Belding's savannah sparrow and the light-footed Ridgway's rail.

A few miles up the coast, Mission Bay's northeastern corner is the site of one of the most community driver restoration campaigns in the region. After years of advocacy by residents, conservationists, and stakeholder coalitions, the San Diego City Council voted in May 2024 to approve the De Anza Natural

Amendment to the Mission Bay Park Master Plan. The plan envisions more than 140 acres of new wetlands replacing underused paved and developed areas, alongside camping, boating and improved recreational access for what could be over 200,000 visitors annually. The proposal is now before the California Coastal Commission for review. This would be a key regulatory hurdle before any shovels hit the ground.

Los Peñasquitos Lagoon, nestled between the Torrey Pines area and the communities of Carmel Valley, is the subject of a large-scale restoration project now in the design phase. The Los Penasquitos Lagoon Restoration Project includes habitat restoration and sediment and flood control measures in the lagoon, Carroll Canyon Creek, and Sorrento Creek. The project is driven by Regional Water Quality Control Board requirements to achieve a 67% sediment reduction in the Total Maximum Daily Load (TMDL) and restore 84 acres of salt marsh. Lagoon restoration Phase 1 project focuses on revitalizing approximately 49 acres of degraded tidal and non-tidal salt marsh in the western portion of the lagoon. This work includes creating new tidal channels, improving tidal flow, removing invasive vegetation, and reestablishing native salt marsh plants. The project aims to restore ecological processes and improve the lagoon's resilience to climate change, while setting the foundation for future restoration efforts throughout the upper lagoon.

Further north, the San Dieguito Lagoon has already crossed the finish line on a major phase of work. Phase 2 of the San Dieguito Lagoon Wetland Restoration Project, funded primarily by SANDAG's TransNet environmental mitigation program, was completed in 2024. Designers deliberately included a transitional habitat zone between the restored marsh and the San Dieguito River channel, providing a natural buffer against the sea-level rise projected for coming decades. A new trail along the project's southeastern edge also improved public access to the area. SANDAG and Caltrans are now in a monitoring phase expected to continue until 2034.

North of Encinitas, several lagoons are in various stages of care and restoration.

At Baquitos Lagoon, WILDCOAST has worked for the past several years to restore 35 acres of habitat in coordination with long-term restoration and management conducted by the Batiquitos Lagoon Foundation. One of the high priority projects is restoring over 50 acres of habitat (primarily along the northern edge of the Lagoon) overgrown with invasive vegetation like eucalyptus and Canary Island date palms. Major barriers to this work include funding and the fact that over half of these trees are on private land immediately adjacent to the Lagoon, thus out of the jurisdiction of state agencies.

WILDCOAST worked several years ago to repair trails at La Costa Ave, and BLF still actively maintains existing trails, but the trail system is disjointed due to another large privately owned parcel at the northwest of the Lagoon. The sidewalk running north to south along La Costa Ave. is planned to be updated into a more nature focused sidewalk with additional habitat restoration also being done along that stretch. This is one of the elements of the City of Carlsbad's expansion of La Costa in that section.

Throughout the 600 acre salt marsh there is also highly invasive Algerian Sea Lavender that WILDCOAST, USFWS, and CDFW are working to eradicate.

Agua Hedionda Lagoon, in Carlsbad, is subject to a similar dynamic. Sand naturally migrates into the lagoon and builds up into a sandbar that restricts water flow, requiring dredging roughly every two to three years. In 2025, around 400,000 cubic yards of sand was extracted and placed on Carlsbad beaches between Pine Avenue and north of Cannon Road. Environmental assessments found that the dredging would not create significant impacts for sensitive species such as the California least tern, eelgrass or grunion. Alongside the dredging, the Agua Hedionda Lagoon Foundation, in 2026, maintained 3.5 miles of public access easements, oversaw stewardship of 132 acres of Coastal Zone land, installed 40 recycled oyster wattles to protect eroding coastal bluffs, and planted 317 native species.

Buena Vista Lagoon, also in the Carlsbad area, is in an earlier stage of planning. SANDAG began underwater sediment and depth surveys in January 2023, deploying a barge to collect core samples and map the lagoon's bathymetry. In 2025, SANDAG was analyzing that data and developing a preliminary design while actively seeking additional funding to carry the project to completion.

The Loma Alta Slough Wetlands Enhancement Project entered Phase 2 in April 2026, officially breaking ground in June 2026. The project is restoring and enhancing 5.8 acres of coastal wetlands, transitional habitats, and upland sage scrub—expanding coastal marsh habitat, improving connections to adjacent public parks, and supporting future upward wetland migration as conditions change. Construction is slated for completion in April 2027. This $6 million effort is generously funded by the U.S. Fish and Wildlife Service, the California State Coastal Conservancy, the National Fish and Wildlife Foundation, and the Ocean Protection Council.

Inland from Oceanside, the San Luis Rey River Estuary represents a different kind of wetland work that is focused more on riparian forest rather than tidal marsh. In 2025, the California Department of Fish and Wildlife issued an extension and amendment to an existing stream alteration agreement, clearing the way for restoration of approximately 49 acres of land. When complete, the site will include roughly 11.85 acres of southern cottonwood-willow riparian forest, 2.57 acres of coast live oak woodland, 1.89 acres of mulefat scrub and 13.18 acres of Diegan coastal sage scrub, forming a beautiful mosaic of habitat types.

Taken together, these projects represent hundreds of acres of coastal habitat either restored, in active restoration or moving steadily though the planning pipeline. They span 11 distinct sites, involve dozens of government agencies, nonprofits, and community partners and are funded through a patchwork of bond measures, federal grants, mitigation programs and private donations.

The motivations behind wetland restoration are both ecological and practical. Healthy wetlands act as a sponge during storm surges, buffer communities against flooding, filter agricultural runoff before it reaches the ocean and sequesters carbon. San Diego being a coastal city confronting sea-level rise, more intense storms and continued pressure on natural land requires, now more than ever, restoration of these ecosystems. It isn't just an environmental gesture, its infrastructure.