



THE STATE OF THE SAN DIEGO RIVER 2025



A MESSAGE FROM THE CEO

WHAT DOES THIS REPORT TELL US?

We first put together the State of the River Report to try and answer one of the most commonly asked questions we receive:

“Is the River healthy?”

The San Diego River is a large and complex natural system with many factors affecting its overall health and vitality. The River plays an important role in sustaining wildlife, supporting recreation, and providing water for a thirsty region. Despite the critical roles the River plays in our community, it also faces some **distressing trends and challenges**.

Throughout the year, The San Diego River Park Foundation coordinates volunteers to collect data that informs the State of the San Diego River Report. This data is related to trash, invasive nonnative plants and water quality.

Because these impacts are most often associated with urban influence, this report focuses on data collected in the Lower San Diego River from the eastern boundary of the City of Santee to the Pacific Ocean, which is

the section of the river where there is typically perennial surface water.

The San Diego River Park Foundation compiles and interprets this data into easy-to-understand letter grades for each data point and each segment of the Lower River. These segments are then grouped into eight sections, defined by similar geography and land use.

These letter grades form an annual Report Card that provides a tool for determining good watershed management.

The State of the River Report is designed to present a snapshot of the condition of the River and has been the guiding force behind The San Diego River Park Foundation’s award-winning Clean River program. The data used for the Report Card establishes the action plan for restoring and improving the San Diego River in the coming year.

Read on to learn more about the data collection, factors that affect the health of the River and what the data tell us this year.



More than 25 years ago, a small group of us came together in the wake of a devastating moment: a 34-million gallon spill of untreated sewage pouring into the river. What we discovered in the days that followed was even more alarming: the lower section of the San Diego River was among the most polluted waterways in the entire county. In some circles, it was simply written off as dead.

But we refused to accept that.

Instead, we chose to act. We set out with a simple but powerful goal: to bring people together and spark real, meaningful change for the river we love. Step by step, year by year, that commitment began to make a difference.

Today, the health of that stretch of the river has improved to a D. It may not sound like much, but it represents progress where many once believed none was possible. Still, it also reminds us that our work is far from finished. Before this river can truly thrive—before it is safe and vibrant for people, fish and other wildlife—we still have significant challenges ahead.

We continue to monitor the upper river and its tributaries, and the good news is that much of it remains in strong health. That’s why we focus so much of our energy on restoring the lower river—because every river deserves the chance to recover.

I still believe we can bring this river to an A. Maybe that makes me a dreamer. But every meaningful change begins with someone willing to believe it’s possible. In the coming year, we’re expanding our work—focusing on plastics in the river, conducting bioassessments, and using environmental DNA (eDNA) to better answer the question we all care about: Is the river truly healthy?

What inspires me most is seeing how many people are now part of this effort. What started with just a handful of voices has grown into a community of people who care deeply about this river and its future.

To everyone who has helped along the way—thank you. Your commitment is what keeps this movement alive.

And if you haven’t joined us yet, we invite you to take action with us. The river’s story isn’t finished—and together, we can help write its recovery.

Sincerely,

Rob Hutsel
President and CEO

USING INDICATORS TO DETERMINE HEALTH

The health and condition of the San Diego River is influenced by many different factors, such as presence of trash or invasive plants in or near the river and the quality of the water itself.

Each factor we have selected is a tool to measure of health of the River. Together, these serve as indicators that point to the condition of the entire Lower River.



TRASH:

We categorize trash into the six of the most common categories, defined by source: encampments (active and inactive), litter, stormwater debris, illegal dumping and special removal needed. The higher the trash volume per acre, the lower the grade.



INVASIVE PLANTS:

We evaluate canopy coverage of certain invasive, non-native species in the riverbed like Brazilian peppertree, giant reed (also called Arundo), eucalyptus, pampas grass, Canary Island date palm, Mexican fan palm, castor bean and tamarisk. High invasive plant canopy cover means a lower grade.



WATER QUALITY:

We collect data at multiple locations along the San Diego River and then aggregate data of the four key water quality parameters below. This is then integrated into an index value. Low index values result in a lower grade.



TEMPERATURE:

How hot or cold the water is, measured in °Celsius



CONDUCTIVITY:

Ability of the water to pass an electrical current, which is directly related to the concentration of ions in the water (used as a measurement of dissolved solids, like salts and minerals), measured in $\mu\text{S}/\text{cm}$



FLOW:

How much water is moving past a point at a given time, this represents the speed and amount of water moving in the river, measured in cubic feet per second (cfs)



DISSOLVED OXYGEN:

How much oxygen is dissolved or carried in the water, measured in mg/L

WHERE DOES THE DATA COME FROM?

Community science is research conducted by nonprofessional and/or amateur scientists using scientific protocols, and in this case, under the guidance of our professional scientists.

The data provided by community scientists through the River Park Foundation's programs is valuable and extensive, allowing us to create and advance a work plan to promptly address issues.

Data is collected by volunteers through:

River Blitz:

Each year, volunteer teams are led by trained leaders to map all trash in the riverbed over a two weekend period, providing the most accurate and comprehensive snapshot of the trash condition in the San Diego Riverbed. Volunteers use our custom smartphone app powered by Mapper to complete this comprehensive survey each October at the beginning of the wet season.

River Assessment Field Team:

The River Assessment Field Team volunteers visit different segments in the riverbed on a rotating schedule, surveying at least twice weekly to update data by adding new trash sites, updating existing data, and removing trash sites that have been successfully cleaned. This team greatly increases the accuracy of our trash maps, which informs clean-up efforts by us and others.

RiverWatch:

RiverWatch volunteer teams collect water quality data using an electronic sonde, field forms and nutrient test kits. RiverWatch monitoring follows strict protocols (QA/QC procedures). Data used in this report was collected by volunteers during our monthly RiverWatch water quality monitoring for Water Year 2025 (Oct 2024 - Sept 2025).



IMPACT program:

The Invasive Management, Plant Assessment and Conservation Team (IMPACT) maps invasive plants through a combination of ground surveys and aerial imaging to assign a rating to each segment based on percent cover of invasive plant species.

To view complete data on trash, invasive plants, and water quality, please visit our Online Information Center by scanning QR code or visiting: https://bit.ly/online_info_center



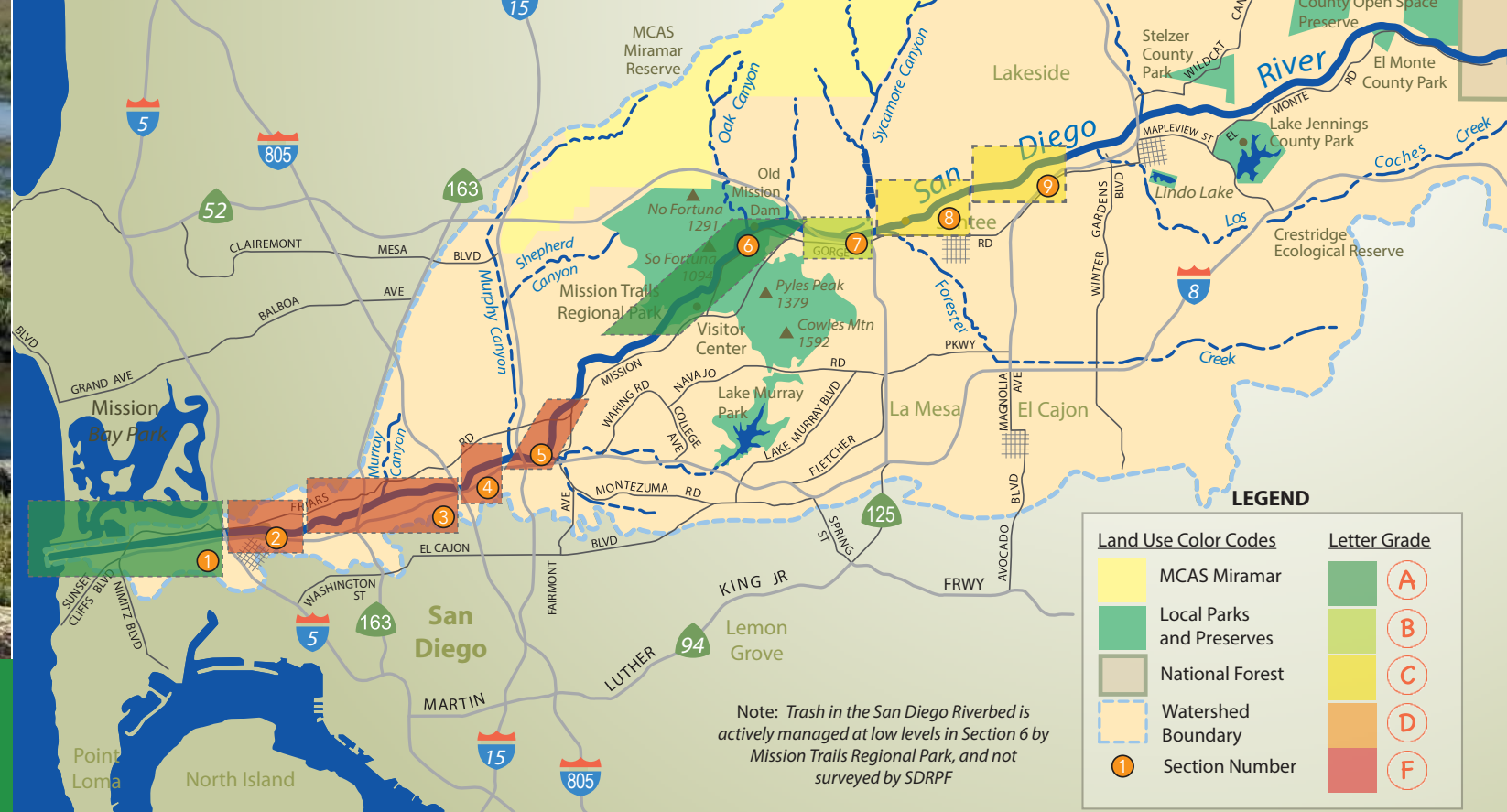
Our volunteers, interns and career training program cohort show the power of community science and make this data collection possible.

THANK YOU!



TRASH:

Reducing trash from its source



TRASH GRADES BY SECTION

RESULTS:

In fall 2025, our annual survey documented 135,940 pounds of trash in the floodplain along the mainstem of the San Diego River. While still a staggering amount, **this represents the lowest trash amount in documented in the last 5 years**, when trash peaked at 236,040 in 2022.

GRADE:



Why is the trash level improving? There are several factors. In water year 2025 (Oct. 2024 - Sept. 2025), SDRPF volunteers removed 226,175 pounds of trash from the riverbed. Further, hundreds of thousands of pounds were removed by partners informed by our data, such as by the City of San Diego, City of Santee, and other community partners. Significantly, this lower count also comes after several years of concerted efforts to reduce sources of trash, including efforts to end homelessness in the riverbed. Please see pages 10-11 for a special feature about these efforts.

Overall, a score of "D" is still a huge cause for concern. Our next plan of action is to target harder to reach trash sites (like sites requiring special tools for removal), and to work collaboratively with private properties along the riverbed to address chronic issues of trash in their segments.

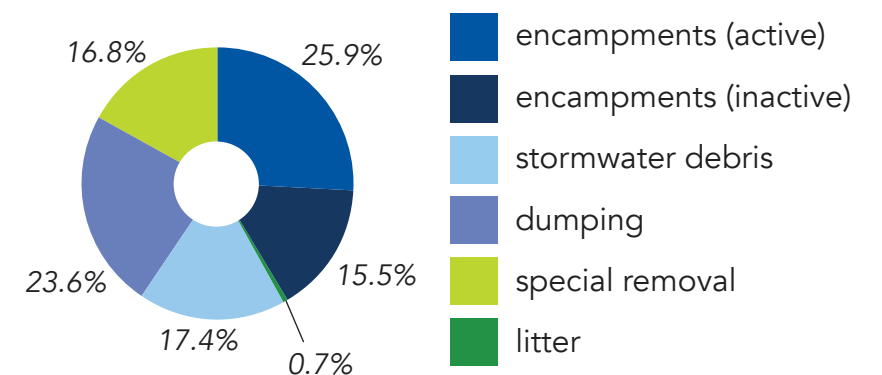
QUICK FACTS:

- Strategic partnerships in Santee since 2020 have resulted in significant improvements in trash accumulation within the City of Santee, where trash was reduced by 59% in just one year.
- The estuary segment, one of the most environmentally vulnerable ecosystems along the river, saw an 84% decrease in trash from 2024 to 2025.

SECTIONS	1	2	3	4	5	6	7	8	9
Size (acres)	334	104	123	98	80	147	76	127	194
Trash quantity (pounds)	5,670	18,375	34,895	21,665	22,435	0	3,325	10,990	18,585
Trash density (pounds/acre)	16.98	176.68	276.94	221.07	280.44	0	43.75	86.54	95.80
Cumulative Grade	A	F	F	F	F	A	B	C	C

TRASH SOURCES:

In order to work on long-term solutions, we must know the sources of trash issues along the River. Sourcing gives us critical information to advocate to policymakers so resources are allocated for addressing significant issues impacting the health of the River. This year, the two largest sources were homelessness and stormwater debris, accounting for 58.8% of the trash identified in October 2025 River Blitz surveys.





WATER QUALITY:

Drought conditions continue to stress water quality



INVASIVE PLANTS:

Mapping used to advance restoration segment by segment



RESULTS:

The Lower San Diego River has a very urbanized watershed. Water enters the San Diego River from rain and springs. Pollution from streets and neighborhoods are carried to the river via stormdrains and canyons. During dry weather, runoff comes from over-irrigation, pipe leaks, sewer spills and other sources.

Dissolved oxygen values are highest during the winter months when rainfall introduces fresh water, increasing flow and mixing. Both specific conductivity and temperature are greatest during the summer and extending into early autumn. The pH values show very little overall seasonal variation.

The poorest water quality (this year and every year since 2008) is recorded in the Upper Santee Basin. In this reach, the river passes through ponds left from old sand mining operations, where excessive algal growth (eutrophication) results in very low dissolved oxygen.

GRADE:



QUICK FACTS:

- Volunteers sampled monthly at 16 locations from Santee to the edge of the estuary near I-5.
- Water quality values in the Lower San Diego River in the Water Year 2025 were lower than the previous two water years, primarily due to less total annual rainfall and therefore lower streamflow.
- In partnership with the US Bureau of Reclamation, we installed a continuous monitoring device in Mission Valley to better understand and interpret the Lower River water quality.

RESULTS:

Invasive, non-native species in the San Diego River Watershed negatively impact the river's ecosystem. Many were intentionally introduced from other parts of the world for ornamental landscaping and agriculture, while others arrived unintentionally, transported on shoes, clothing, livestock, vehicles, boats, firewood, and other materials. When brought to a region where they have no natural competitors, they are able to spread rapidly and outcompete many native species. Without human intervention, their impacts will continue to intensify over time.

Since the last State of the River Report, significant restoration efforts have been accomplished on private properties in Mission Valley, such as at Grant Park, Fashion Valley Mall, and Town and Country Resort, and public properties such as the Mission Valley Preserve and the mitigation project south of Snapdragon Stadium.

GRADE:



QUICK FACTS:

- The City of Santee will soon begin a large-scale invasive removal project to reduce flammable, non-native fuels in the riverbed, with funding from FEMA and the San Diego River Conservancy, which will reduce invasive canopy cover in the Santee portions of the riverbed.
- Giant reed (Arundo) and Brazilian peppertree continue to be the dominant invasive species.
- In water year 2025, SDRPF survey teams modified invasive plant survey protocols to include a visual rating combined with reviewing aerial imaging to update estimates of canopy cover.

SPECIAL FEATURE:

Ending Homelessness in the Riverbed

Working toward a trash-free river is an obvious element of The San Diego River Park Foundation's mission. The leap to actively engaging with ending homelessness in the riverbed is the next logical step. [Here's why.](#)

Every year, through the data collection efforts you have just been reading about document that over around 60% of the trash in the river is related to people living in areas not meant for human habitation, without access to sanitation or proper trash disposal, and with only makeshift shelter from the elements.

Not only is this a critical social issue, but these sensitive environments cannot bear the burden. The San Diego River's important ecosystem functions are negatively impacted when we fail to provide adequate options for people experiencing homelessness and fail to protect our river.

With data and boots on the ground, SDRPF gives the river a voice and makes those living in the riverbed less invisible through:

- Twice weekly surveys to document encampments in the riverbed, make connections with people experiencing homelessness and distribute hygiene kits
- Using the rapport built through these interactions to make referrals and share knowledge with service providers
- Using our knowledge of the river to help train outreach workers and other providers
- Mobilizing flood notification volunteers at low-lying camps before storms
- Tracking trends over time to better understand what influences the population of people living in the riverbed



WHAT CAN YOU DO?
 Learn more about volunteering in the field or making hygiene kits, how to organize a donation drive, or sign up for advocacy alerts!
 Visit: <https://bit.ly/sandiegoriver> or or scan:



IMPACT

Thankfully, we are seeing success. In partnership with the County, Cities of San Diego and Santee, and Caltrans, SDRPF data was used to bring \$17M in state funds to provide services and housing options to people living in the riverbed. **Over 300 temporary and permanent housing placements have been made**, thanks to this funding and the tireless partnership from service providers like Healthcare in Action, NAMI, and especially PATH San Diego.

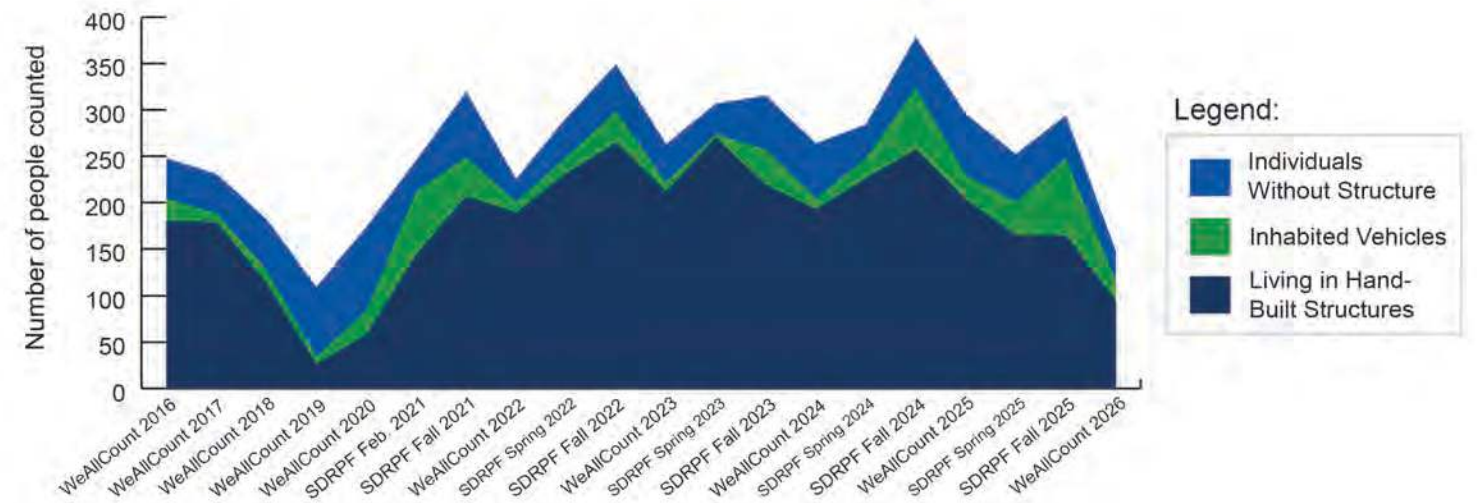


THANK YOU!

Our thanks to the many volunteers who participated in homelessness-related efforts, to the funders who have made this work possible, and the many partners who collaborate on this work.

TRENDS

Our census data helped to inform proposals for funding, and then once awarded, helped to implement outreach and services for people living in the riverbed. The below trends show the recent decline in the number of people living unsheltered in the San Diego Riverbed.



OVERALL GRADE FOR THE SAN DIEGO RIVER

SO... IS THE RIVER HEALTHY?

2025:



For the water year ending September 2025, the San Diego River received an overall grade of D, or **POOR**.

Breakdown of Grades by Section

SECTIONS	1	2	3	4	5	6	7	8	9	Overall Grade
	Estuary	Mission Valley (West)	Mission Valley (Central)	Mission Valley (East)	Grantville	Mission Trails Regional Park	Santee (West)	Santee (Mast Park)	Santee (East)	
Trash	A	F	F	F	F	A	B	C	C	D
Water Quality		C	C	C	D	C	C	F	D	D
Invasive Non-Native Plants	A	F	D	F	F	A	D	D	D	D
Cumulative Grade	A	D	D	D	F	B	C	D	D	D

Grading Criteria by Indicator

NARRATIVE	Grade	Invasive Plant Percent Cover	Trash Density (Pounds/Acre)	Water Quality Index (WQI)
Excellent	A	< 2%	< 35	> 75
Good	B	2.0 - 2.9%	35 - 69	50 - 74.9
Fair	C	3.0 - 3.9%	70 - 104	36 - 49.9
Poor	D	4.0 - 4.9%	105 - 139	25 - 35.9
Very Poor	F	> 5%	> 140	< 25

These grades are a planning tool that allows us to educate the public, landowners, stakeholders and policymakers to help to address these issues and ultimately, to improve this grade over time.

The preceding pages explained a breakdown of the methods and data points we use to present this evaluation of the current health of the San Diego River. Of course, the River is more than just water, and when we consider its health, we should also consider the entire ecosystem that depends upon the River.

The most simple answer to the question of whether the River is healthy is no. By evaluating trash, invasive plants, and water quality, the overall grade for this year's Report Card is D, which points to poor health.

The impacts of more than half a million people living in its watershed, the area that drains into the River, are significant. Some areas of the River are in great shape, and while we have

seen marked improvements in some segments in recent years, many of the urban sections still suffer.

Trash, water quality and invasive non-native plants tell part of the story of the River's health. There are other indicators too, such as bacteria levels, contaminant levels in fish tissue, benthic invertebrate community health and more.

Additional community-based monitoring can supplement public agency programs and help inform and engage citizens. There is a need to expand these programs to reach urban tributaries of the River to identify sources of the problems, to increase management of some areas, and to continue cleaning the River until long-term solutions can be found.

WHAT CAN WE DO?

Community involvement is critical to ensuring the River has a strong and powerful voice demanding a better future! In order to affect change, the River Park Foundation is dedicated to engaging community leaders, policymakers, scientists, agencies, researchers and the public to work hand in hand to advance the goals for improving the River's health.

How do we get the grade to an A? Additional funding, research, stewardship and resources are needed.

Join us as a volunteer, as a researcher, as an advocate or as a donor to help achieve this vision for the River and community.

Contact us to learn more about how you can get involved! Learn more: www.sandiegoriver.org

OUR THANKS TO:

All volunteers who participated in our citizen science, clean-up and restoration programs, especially these core volunteers and leaders:

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Project Leadership:
 The San Diego River Park
 Foundation

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Our thanks to the many sponsors who enable us to conduct these citizen science programs, including:



The San Diego River Park Foundation is a 501(c)3 nonprofit dedicated to creating a better future for the historic San Diego River.

To learn more or to get involved:

www.sandiegoriver.org

(619) 297-7380

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