Heal the Bay

2020-2021

Beach Report Card

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We would like to acknowledge that Heal the Bay is located on the traditional lands of the Tongva People and pay our respect to elders both past and present.

Heal the Bay is an environmental non-profit dedicated to making the coastal waters and watersheds of Greater Los Angeles safe, healthy and clean. To fulfill our mission, we use science, education, community action and advocacy.

The Beach Report Card program is funded by grants from:

SIMA Surf Industry Manufacturers Association

SWAIN BARBER FOUNDATION

SONY PICTURES

World Surf League

We at Heal the Bay believe the public has the right to know the water quality at their beaches.
We are proud to provide West Coast residents and visitors with this information in an easy-to-understand format.
We hope beachgoers will use this information to make the decisions necessary to protect their health.

2020-2021 CONTENTS

WELCOME

Gray Whale Cove, San Mateo County

photo: Ryan Searcy

North Salmon Beach / Sonoma County

California beaches had excellent water quality during the summer months of 2020. Out of over 500 beaches across the state, 93% earned good marks (A's & B's) in the summer. Rainfall this past year was drastically below average, which usually leads to better water quality because reduced amounts of pollutants flow into the ocean. However, wet weather grades were worse than average this year, likely due to the fact that most wet weather data was collected during the first major rain events, which carry more pollution.

- **The Tijuana River Mouth** and the beach less than a mile north both landed on our Beach Bummer list. These San Diego County beaches are impacted by sewage flowing from the Tijuana River and Punta Bandera Treatment Plant. The sewage originates from impaired and insufficient sewage infrastructure in the City of Tijuana.

- **San Mateo County** continues to struggle with water quality as three beaches in the Foster City area landed on the Beach Bummer list: Erckenbrack Park, Gull Park, and Marlin Park. Erckenbrack Park appeared on the Bummer list last year along with five other San Mateo County beaches. Four of those 2019 Beach Bummers were not monitored at all in 2020. This is alarming as this stretch of coastline has experienced high levels of fecal pollution and is very popular with beachgoers who are now without any information on potential contamination.

- **Capitola Beach in Santa Cruz County** is the number three Beach Bummer this year. Soquel Creek flows into the ocean near this beach, discharging bacteria pollution from throughout the watershed. This beach has been a Beach Bummer periodically since the Beach Report Card began.
- **Los Angeles County's** sole Beach Bummer is Marina Del Rey Mother's Beach, which is no stranger to the list of most polluted beaches in the state. This beach is enclosed and experiences little wave action so bacteria pollution does not get flushed away from the shore.
- **Clam Beach in Humboldt County** has now received Beach Bummer status in seven of the last 11 years. Water quality at this Northern California beach is negatively impacted by agricultural runoff that flows into the ocean via Patrick Creek and Strawberry Creek.
- **San Francisco's Candlestick Point** at Windsurfer Circle is making a return to the list after a seven year hiatus. Candlestick Point is located in San Francisco Bay, and while it is not an enclosed area, it likely does not experience as much water circulation as an open ocean beach.
- **East Beach in Santa Barbara** is making its first splash onto the Beach Bummer list. Bacteria pollution from the Santa Barbara area flows into the ocean at East Beach through Mission Creek.

Oregon beaches were not monitored frequently enough to receive a Summer Dry Grade, and no beaches were monitored during the winter months. Only four Oregon counties received Wet Weather grades, which were lackluster and far below the state's Wet Weather average of 82% receiving A and B grades.

Washington Summer Dry Grades were superb with 96% of the beaches receiving A and B grades. Wet Weather Grades were exceptional and above average with 91% receiving A and B grades. No Washington beaches were monitored during the winter months so we could not calculate Winter Dry Grades.

Summer 2020 was the first year beaches in Tijuana, Mexico were included in the Beach Report Card. El Faro and El Vigia beaches both received a B for Summer Dry Grades, while Playas Blanca received a D. Winter Dry Grades showed a similar pattern where El Faro and El Vigia both received D's, and Playas Blanca received an F. All three beaches received F's for Wet Weather. This stretch of coastline sees millions of beach visitors annually, and is heavily impacted by sewage pollution year-round, even during dry weather. The main source is the Punta Bandera treatment plant located south of Tijuana, which regularly releases untreated or partially treated sewage into the ocean.

The Beach Report Card focuses on water quality at ocean beaches. However, monitoring water quality at freshwater sites, like rivers, lakes, and streams, and making that information available to the public is also important to protect public health at freshwater recreation sites. Heal the Bay created the River Report Card to inform the public about water quality in our rivers and streams. Heal the Bay collects samples and analyzes water quality at six recreation sites in L.A. County; compiles monitoring data from an additional 22 L.A. County locations; and transforms the data into easily understood, color-coded grades. Before heading to a freshwater recreation area in Los Angeles County, check out our River Report Card at healthebay.org/riverreportcard, which is updated regularly during the summer months. Heal the Bay is also sponsoring Assembly Bill 1066 (Bloom) in California, which is the first step in ensuring freshwater recreation sites in the State are monitored for fecal pollution and that the public is notified.

INTRODUCTION

The beach is where we go for relaxation and recreation, where friends gather to have fun, and where families bond. The vital role the beach plays in our lives became clearer than ever during the height of the COVID-19 pandemic. L.A. County and other places along our coast recorded millions more beachgoers in summer 2020 than in previous years.

With the stress and uncertainty of the pandemic, and restrictions on traveling, it is no surprise that people sought out their local beaches. Beaches are part of California's open space and serve some of our densest urban centers as well as our remote retreats. It is critical that we keep our ocean and beaches clean and accessible to all.

We are excited to mark one year of providing water quality grades for Tijuana beaches and their many visitors. However, our excitement is bittersweet as our grades reflect the significant pollution issues facing Tijuana. None of Tijuana's beaches received high marks even during the dry summer months because the Punta Bandera treatment plant discharges untreated or partially treated water into the ocean on a regular basis. We hope that the Beach Report Card helps keep Tijuana beachgoers safe from these highly hazardous discharges, but more needs to be done. We will continue to bring attention to this issue and advocate for water quality improvements in Tijuana.

Summer 2020 was also a grave reminder about the ever-present and growing impacts of climate change. All regions of California are experiencing extreme or exceptional drought conditions in 2021. Although decreases in rainfall generally improve water quality, our beaches and ocean ecosystems are still threatened by sea level rise, ocean acidification, and other pollution sources. This is alarming as we expect people to increasingly seek out ocean beaches and freshwater swimming holes to cool off as local temperatures rise. Heal the Bay will continue to fight for the health of people and our ecosystems by doing our part to combat climate change.

Dr. Shelley Luce
Heal the Bay
CEO & President

Beach Report Card Basics

The BRC uses a simple A-to-F letter grading system to provide water quality information to the public. This annual report issues cumulative grades for beaches on the West Coast, and provides information about other important water quality events that occurred in the past year such as sewage spills and major rainfall events.

Grades are based on routine water quality sampling conducted by County health agencies, State agencies, Tribal agencies, sanitation departments, and dischargers on the West Coast. For recreational health protection, water samples are analyzed for three fecal indicator bacteria (FIB): total coliform, fecal coliform (*E. coli*), and *Enterococcus* species. These FIB, in significant quantities, indicate the presence of harmful pathogens in the water.

This report assigns three separate grades for each beach:

Summer Dry Grade
(April through October 2020)

This is the prime recreation season in California when beaches are most active. County governments are required to sample during this period according to the California Beach Bathing Water Quality Standards, as defined in Assembly Bill 411 (AB 411).[1] Samples taken during wet weather are not used for these grades.

Winter Dry Grade
(November 2020 through March 2021)

AB411 does not mandate water quality monitoring for recreational purposes during winter months leading many Counties and States to halt water quality monitoring in the winter season. Additionally, recreation generally decreases at beaches during the winter. Therefore, the winter season is graded separately. Samples taken during wet weather are not used for these grades.

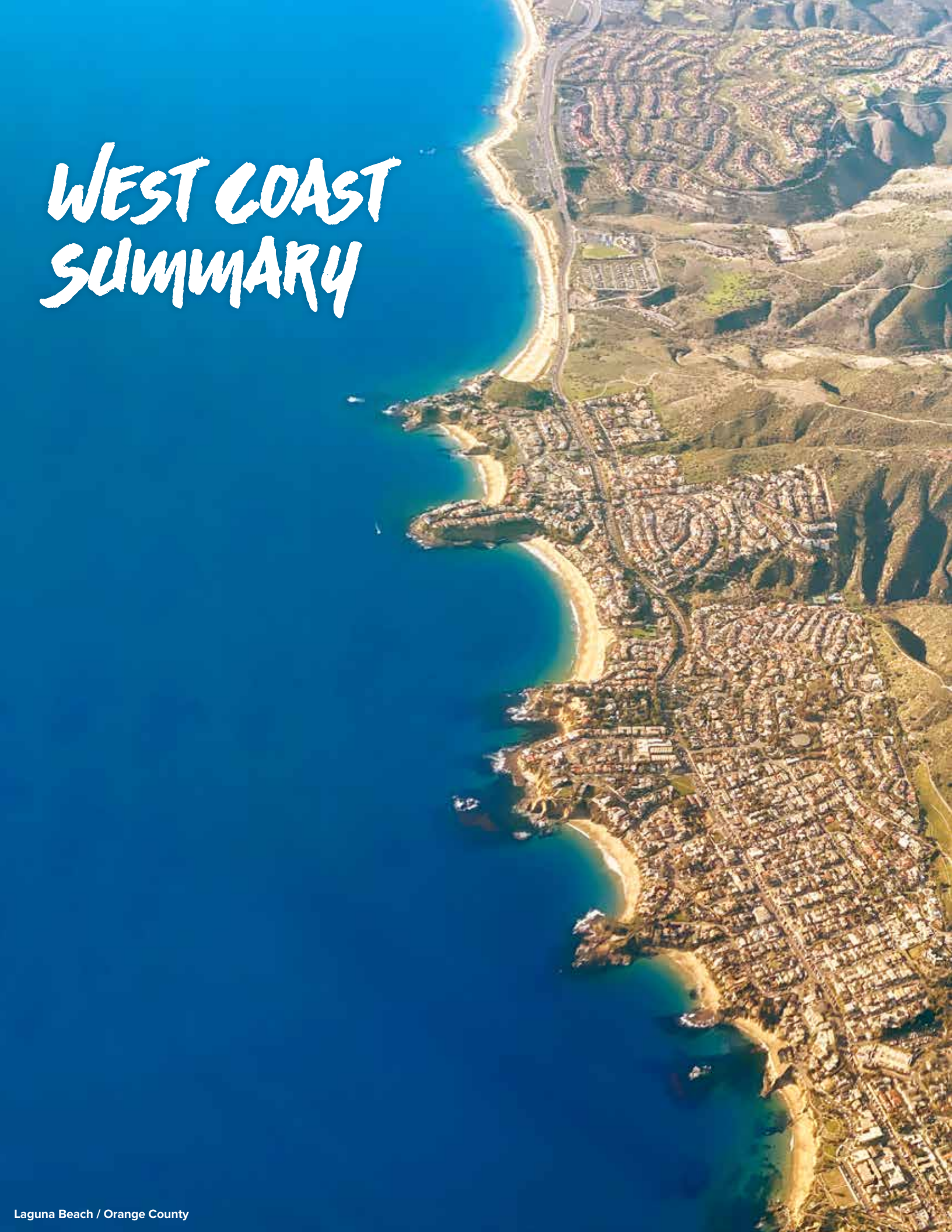
Wet Weather Grade
(April 2020 through March 2021)

Rain flushes contaminants and pollution, including bacteria from our streets directly into the ocean through storm drains, rivers and streams, and over impermeable surfaces such as concrete. This untreated stormwater decreases water quality by increasing the amount of pathogens in the ocean to potentially unsafe levels. Wet Weather Grades consist of samples taken during or three days following a rain event greater than 0.10 inches.

Beachgoers who visit beaches during or after a rain event have an increased risk of contracting ear infections, eye infections, upper respiratory infections, skin rashes, and gastrointestinal illnesses.[2,3,4] Swimmers are advised to stay out of the water for a minimum of three days following a significant rain event (0.1 inches or greater).[5]

1 https://www.waterboards.ca.gov/bacterialobjectives/
2 Haile, R.W., J.S. Witte, M. Gold, R. Cressey, C. McGee, R.C. Millikan, A. Glasser, N. Harawa, C. Ervin, P. Harmon, J. Harper, J. Dermand, J. Alamillo, K. Barrett, M. Nides, G. Wang. The health effects of swimming in ocean water contaminated by storm drain runoff. 1999. Epidemiology Vol. 10 No.4 355–363.
3 Colford, J.M., T.J. Wade, K.C. Schiff, C.C. Wright, J.F. Griffith, S.K. Sandhu, S. Burns, M. Sobsey, G. Lovelace, S.B. Weisberg. 2007. Water quality indicators and the risk of illness at beaches with nonpoint sources of fecal contamination. Epidemiology Vol. 10 No. 1 27–35.
4 Arnold, B.F., K.C. Schiff, A. Ercumen, J. Benjamin-Chung, J.A. Steele, J.F. Griffith, S.J. Steinberg, P. Smith, C.D. McGee, R. Wilson, C. Nelsen, S.B. Weisberg, J.M. Colford. 2017. Acute illness among surfers after exposure to seawater in dry-and wet-weather conditions. American Journal of Epidemiology Vol. 186 No. 7 866–875.
5 https://www.ioes.ucla.edu/wp-content/uploads/2013healthebayproject-1.pdf

West Coast Summary



Laguna Beach / Orange County

Note: All averages below refer to the five-year-average unless otherwise indicated.

Summer Dry Grades were excellent across the State this year but lower than average with 93% of California beaches receiving A and B grades. Winter Dry Grades were slightly better than average with 92% of the beaches receiving A and B grades. Wet Weather Grades for the past year were a little below average with 57% of the beaches receiving A and B grades.

Rainfall across coastal Counties in California was 41 percent lower than the historical average. Below average rainfall usually results in improved Wet Weather Grades because reduced amounts of pollutants, including bacteria, are flushed into the ocean in those years. However, we observed lower than average rainfall coupled with below average Wet Weather Grades this past year. There are a few factors that might explain this. First, we found that there were approximately 1,500 fewer Wet Weather bacteria samples collected in this year's data compared to the previous year, and five counties did not have any samples collected during wet weather. That may have caused a skew in our data. Second, it could also be explained by the "first flush" effect where stormwater from the first significant rain event of the season has a higher concentration of pollutants that have built up in the dry season.[6] The amount of rainfall last wet season was so low that a higher proportion of the Wet Weather samples collected were highly concentrated "first flush" samples.

CALIFORNIA

2020–2021	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	402	83%	368	85%	169	48%
B	49	10%	31	7%	34	10%
C	17	4%	15	3%	21	6%
D	7	1%	9	2%	34	10%
F	9	2%	12	3%	97	27%
A+B	451	93%	399	92%	203	57%
C,D,F	33	7%	36	8%	152	43%

5 YEAR AVERAGE	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	2002	89%	1398	81%	1122	49%
B	142	6%	142	8%	252	11%
C	54	2%	78	5%	187	8%
D	27	1%	27	2%	137	6%
F	36	2%	79	5%	606	26%
A+B	2144	95%	1540	89%	1374	60%
C,D,F	117	5%	184	11%	930	40%

6 https://www.ioes.ucla.edu/wp-content/uploads/2013healthebayproject-1.pdf


Shell Beach / Marin County

Northern California

Northern California consists of all counties from Del Norte County to Marin County.

Summer Dry Grades in this region were excellent with 95% of beaches receiving A and B grades, which is slightly above average.

Only one beach in Del Norte County was sampled during Wet Weather, and it received a C. The other four counties in Northern California did not have Wet Weather Grades. The five year average of Wet Weather A's and B's is 83%.

For a second consecutive year, only one beach in Northern California (Crescent City Beach at Battery Point Lighthouse) was monitored frequently enough in the 2020–2021 winter months to receive a Winter Dry Grade. This beach received an A+.

The Northern California region received 43 percent less rainfall than the historical average. Since most of the rain fell during the winter months when most of these beaches are not monitored, the full impact of the decreased rainfall is unknown.

NORTHERN CALIFORNIA

2020–2021	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	38	90%	1	100%	0	0%
B	2	5%	0	0%	0	0%
C	1	2%	0	0%	1	100%
D	0	0%	0	0%	0	0%
F	1	2%	0	0%	0	0%
A+B	40	95%	1	100%	0	0%
C,D,F	2	5%	0	0%	1	100%

5 YEAR AVERAGE	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	185	89%	2	100%	158	75%
B	10	5%	0	0%	17	8%
C	7	3%	0	0%	10	5%
D	2	1%	0	0%	11	5%
F	5	2%	0	0%	15	7%
A+B	195	93%	2	100%	175	83%
C,D,F	14	7%	0	0%	36	17%


Point Lobos / Monterey County

Central California

Central California consists of all counties from San Francisco County to San Luis Obispo County.

Summer Dry Grades were very good and just above average with 91% of beaches receiving A and B grades. However, the Central California region has once again dominated the Beach Bummer list, taking five of the 10 slots.

Winter Dry Grades were less than stellar with 79% of the beaches receiving A and B grades. The five year average is 85% A and B grades.

Wet Weather Grades were poor and similar to average with 60% of the region's beaches receiving A and B grades.

Central California Counties received 43 percent less rainfall in the rainy season of 2020–2021. Some counties showed below average Wet Grades, while others were above average. The impact of the decrease in rainfall differs regionally by County.

CENTRAL CALIFORNIA

2020–2021	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	52	79%	54	67%	38	49%
B	8	12%	10	12%	9	12%
C	1	2%	8	10%	6	8%
D	0	0%	3	4%	9	12%
F	5	8%	6	7%	16	21%
A+B	60	91%	64	79%	47	60%
C,D,F	6	9%	17	21%	31	40%

5 YEAR AVERAGE	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	315	76%	254	77%	224	46%
B	57	14%	26	8%	78	16%
C	16	4%	19	6%	54	11%
D	11	3%	5	2%	25	5%
F	15	4%	26	8%	105	22%
A+B	372	90%	280	85%	302	62%
C,D,F	42	10%	50	15%	184	38%

Southern California

Southern California consists of all counties from Santa Barbara County to San Diego County.

Summer Dry Grades were excellent but just a little lower than average with 94% of the beaches receiving A and B grades.

Winter Dry Grades were excellent and higher than average with 95% of the beaches receiving A and B grades.

Wet Weather Grades were lackluster and similar to the five year average with only 57% of the beaches receiving A and B grades when it rained.

Southern California Counties saw a 26 percent dip in the amount of rainfall compared to the historical average. A decrease in rainfall usually results in improved Wet Weather Grades; however, we think the first flush effect impacted a significant amount of the Wet Weather data this year.

SOUTHERN CALIFORNIA

2020–2021	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	312	84%	313	89%	131	48%
B	37	10%	21	6%	25	9%
C	15	4%	7	2%	14	5%
D	6	2%	4	1%	25	9%
F	3	1%	5	1%	78	29%
A+B	349	94%	334	95%	156	57%
C,D,F	24	6%	16	5%	117	43%

5 YEAR AVERAGE	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	1503	92%	1142	82%	741	46%
B	75	5%	116	8%	157	10%
C	31	2%	59	4%	123	8%
D	14	1%	25	2%	101	6%
F	16	1%	53	4%	486	30%
A+B	1578	96%	1258	90%	898	56%
C,D,F	61	4%	137	10%	710	44%

Will Rogers Beach / Los Angeles County

Ocean Beach / San Francisco

To earn a spot on the Honor Roll, a beach must be monitored weekly all year and must receive an A+ for all seasons and weather conditions (Summer Dry, Winter Dry, Wet Weather).

This year, 35 out of over 500 monitored beaches made it on the Honor Roll, compared to 42 last year. The Honor Roll is typically dominated by Southern California beaches, in part because many Northern and Central California Counties do not monitor beach water quality year-round.

Orange County had the most beaches on the Honor Roll with 10, which is half of what it had last year. Most of the Honor Roll beaches are concentrated in the Newport and Balboa Peninsula area. Newport Beach at 52nd/53rd Street and Treasure Island Beach have now earned Honor Roll status two years in a row.

San Diego County had three beaches on the Honor Roll this year compared to 10 in the last report. Carlsbad at Encina Creek, Carlsbad at Palomar Airport Road, and Solana Beach at Solana Vista Drive all made the Honor Roll list this year.

Los Angeles County had seven beaches make the cut this year. The list is typically dominated by Palos Verdes beaches, but only one, Royal Palms State Beach, appeared on the list this year. Most Los Angeles County Honor Roll Beaches are in the Malibu area.

Seven Ventura County beaches received high marks in every category, which is an improvement from last year when only one beach made the Honor Roll. Five of the seven beaches are located in the Oxnard area.

Honor Roll status was awarded to three San Luis Obispo County beaches: Sewers at Silver Shoals Drive, Morro Bay City Beach at Atascadero, and Pismo Beach North of the Pier.

Guadalupe Dunes in Santa Barbara County made the Honor Roll for a third straight year. El Capitan State Beach also made the grade.

We are encouraged to see some Bay Area representation on the Honor Roll list this year. Ocean Beach at Lincoln Way and the iconic China Beach at Sea Cliff Avenue are located in San Francisco. Alameda County's Crown Beach at Sunset Road is representing the East Bay on the list this year.

Guadalupe Beach / Santa Barbara County

HONOR ROLL 2020-2021

BEACH NAME	COUNTY
Crown Beach, at Sunset Rd.	Alameda
Royal Palms State Beach	Los Angeles
Leo Carrillo Beach, at Arroyo Sequit Creek	Los Angeles
Puerco State Beach, at creek mouth	Los Angeles
Las Flores State Beach, at Las Flores Creek	Los Angeles
Broad Beach, at Trancas Creek	Los Angeles
Escondido State Beach, at Escondido Creek	Los Angeles
Nicholas Beach, at San Nicholas Canyon Creek	Los Angeles
Newport Bay, Promontory Point	Orange
Crystal Cove (CSDOC)	Orange
Newport Beach, at Orange Street	Orange
Newport Beach, at 52nd/53rd Street	Orange
Balboa Beach Pier	Orange
Balboa Beach, The Wedge	Orange
Crystal Cove	Orange
1000 Steps Beach, at 9th St.	Orange
North Aliso County Beach	Orange
Treasure Island Beach	Orange
Carlsbad, at Encina Creek	San Diego
Carlsbad, at Palomar Airport Rd.	San Diego
Solana Beach, Tide Beach Park at Solana Vista Dr.	San Diego
Guadalupe Dunes	Santa Barbara
El Capitan State Beach	Santa Barbara
China Beach, at Sea Cliff Ave.	San Francisco
Ocean Beach, at Lincoln Way	San Francisco
Sewers at Silver Shoals Dr.	San Luis Obispo
Morro Bay City Beach, at Atascadero	San Luis Obispo
Pismo State Beach, 330 yards north of Pier Ave.	San Luis Obispo
Hollywood Beach, at Los Robles St.	Ventura
C.I. Harbor, at Hobie Beach Lakeshore Dr.	Ventura
Oil Piers Beach, south of storm drain	Ventura
Silverstrand, at Sawtelle Ave.	Ventura
Ormond Beach, 50 yards north of Oxnard Industrial drain	Ventura
Ormond Beach, at Arnold Rd.	Ventura
Faria County Park, at stairs	Ventura

BEACH BUMMERS

Tijuana River / San Diego County

Unfortunately, not every beach makes the Honor Roll. The beaches that received the ten poorest Summer Dry Grades are called Beach Bummers. This year's summer Beach Bummers are:

1. Tijuana Slough at Tijuana River Mouth

(San Diego County)

Topping this year's Beach Bummer list is the Tijuana River Mouth. Impaired and insufficient sewage infrastructure in the City of Tijuana sends millions of gallons of sewage into the Tijuana River and out into the Pacific Ocean south of Imperial Beach, California. Additionally, beaches along this part of the coast are impacted by the Punta Bandera treatment plant outfall south of Tijuana. This treatment plant discharges millions of gallons of lightly treated wastewater into the ocean which gets carried north by ocean currents. The sewage pollution problem is so prevalent that the beaches between Imperial Beach and Tijuana are closed for 200–300 days per year. The beaches close to the Tijuana River do not typically top the Beach Bummer list because they are open beaches.

2. Foster City, Erckenbrack Park

(San Mateo County)

Erckenbrack Park is appearing on the Beach Bummer list for a second consecutive year. This area of the San Francisco Bay has had a known record of poor water quality. This beach lies within an engineered patchwork of enclosed channels which are impacted by dry weather runoff from the surrounding residential and commercial development. Nearby, Gull Park and Marlin Park are also Beach Bummers this year. In recent years, Aquatic Park and Lakeshore Park beaches have landed on the Beach Bummer list.

3. Capitola Beach, West of Jetty

(Santa Cruz County)

Capitola Beach is no stranger to the Beach Bummer list having earned Bummer designation regularly since the Beach Report Card began — its last appearance was in 2016. The Soquel Creek flows into the ocean near this beach, discharging bacteria pollution from throughout the watershed.

4. Foster City, Gull Park

(San Mateo County)

Gull Park is making its debut appearance on the Beach Bummer list at the number four spot. This beach is within the same enclosed network of channels where Erckenbrack Park and Marlin Park are located. These channels receive urban runoff from surrounding development, and there is likely very little water circulation which can keep pollution nearshore. This is the second of three San Mateo County Beach Bummers this year.

5. Marina Del Rey Mother's Beach

(Los Angeles County)

We are disheartened to see Mother's Beach back on the Beach Bummer list. This beach has been a perennial on the Beach Bummer list for decades. Unfortunately, the characteristics that make this beach a great destination for families also make it prone to bacteria pollution. This beach is enclosed within Marina Del Rey so there is little wave action or water circulation. That means bacteria pollution does not get flushed away from the shore as it does at open ocean beaches. Los Angeles County has implemented many water quality improvement projects in the area, but the physical features here make it hard to eliminate the high levels of pollution.

6. Tijuana Slough, North of Tijuana River Mouth

(San Diego County)

Tijuana Slough, North of Tijuana River Mouth, is impacted by sewage pollution from Punta Bandera and the Tijuana River, which carries many additional pollutants like toxins and plastics. Although the beaches close to the Tijuana River do not typically top the Beach Bummer list, they suffer from high amounts of sewage pollution year-round. Sewage flowing from the Tijuana River has impacted public health in beach communities for decades, and major water quality improvements are long overdue. The United States and Mexican governments must work to address this problem together.

7. Clam Beach, at Strawberry Creek

(Humboldt County)

Another all-too-familiar Beach Bummer is Clam Beach, which has now received Bummer status in seven of the last 11 years. Water quality at this Northern California beach is negatively impacted by agricultural runoff that flows into the ocean via Patrick Creek and Strawberry Creek. Humboldt County officials conducted a source identification study designed to identify the origin of fecal pollution at this beach and are waiting for results. This is a good first step to finding where the pollution is coming from so it can be mitigated.

8. Foster City, Marlin Park

(San Mateo County)

The eighth spot on the Beach Bummer list is occupied by another first-timer, Marlin Park. This is the third San Mateo Beach Bummer this year. Regrettably, the Foster City area and San Mateo County as a whole have been plagued with poor water quality in recent years. Last year, six San Mateo County beaches earned spots on the Beach Bummer list. With four of those unmonitored by the County this year, fewer have made the list but the problem of fecal bacteria pollution remains.

9. Candlestick Point, Windsurfer Circle

(San Francisco County)

Windsurfer Circle is making a return to the list after a seven year hiatus, having last appeared on the Beach Bummer list in the 2013–2014 report. Candlestick Point is located in the San Francisco Bay, and while it is not an enclosed area, it likely does not experience as much

water circulation as an open ocean beach. The local monitoring agency has stated that there are no flowing storm drains in the area, and a bacteria pollution source has not been identified.

10. East Beach at Mission Creek

(Santa Barbara County)

Making its first splash onto the Beach Bummer list is East Beach located near downtown Santa Barbara. Bacteria pollution from the Santa Barbara area flows into the ocean at East Beach through Mission Creek. The last Santa Barbara County Beach Bummer was Arroyo Burro in 2011.

Mother's Beach / Los Angeles County

BEACH BUMMERS 2020-2021

RANK	LOCATION	SUMMER DRY GRADE	COUNTY	BEACH TYPE
1	Tijuana Slough, Tijuana River mouth	F	San Diego	Storm Drain Impacted
2	Foster City, Erckenbrack Park	F	San Mateo	Enclosed
3	Capitola Beach, west of jetty	F	Santa Cruz	Storm Drain Impacted
4	Foster City, Gull Park	F	San Mateo	Enclosed
5	Marina del Rey Mothers' Beach, between Lifeguard Tower and Boat dock	F	Los Angeles	Enclosed
6	Tijuana Slough NWRS, 3/4 miles north of Tijuana River	F	San Diego	Open
7	Clam Beach County Park, at Strawberry Creek	F	Humboldt	Storm Drain Impacted
8	Foster City, Marlin Park	F	San Mateo	Enclosed
9	Candlestick Point, Windsurfer Circle	F	San Francisco	
10	East Beach, at Mission Creek	D	Santa Barbara	Storm Drain Impacted

IMPACT OF BEACH TYPE

Butterfly Beach / Santa Barbara County

Not all beaches are the same when it comes to water quality. We have categorized California's beaches into three groups for analysis: 1) open beaches, 2) storm drain, stream, and river beaches, and 3) enclosed beaches.

Open Beaches

Open beaches do not have obstructions between the beach and open water. They experience more wave action and greater water circulation than an enclosed beach. These beaches do not have storm drains, streams, or rivers flowing into them. As a result, open beaches tend to have better water quality than enclosed or storm drain, stream, or river beaches. Ninety-one open beaches received grades this year.

- Summer Dry Grades were great with 92% of the beaches receiving A and B grades, but this is below the average of 99%.
- Winter Dry Grades were excellent with 94% of the beaches receiving A and B grades.
- Wet Weather Grades were mediocre and below average with 71% of the beaches receiving A and B grades.
- As indicated by the poorer Wet Weather Grades, open beaches are still impacted by stormwater. We advise people to avoid contact with ocean water for at least three days at all beaches following a significant rain event.

Storm Drain, Stream, and River Beaches

Beaches with storm drains, streams, or rivers flowing into them receive runoff that carries bacteria. We recommend swimming at least 100 yards away from storm drains, streams, and rivers at the beach. Also, avoid contact with the water for at least three days following a rain event. This year we issued grades to 241 of these beaches.

- Summer Dry Grades were very good with 93% of the beaches receiving A and B grades.
- Winter Dry Grades were excellent and above average with 93% of the beaches receiving A and B grades.
- Wet Weather Grades were substandard this year with 60% of the beaches receiving A and B grades.
- Four of this year's Beach Bummers were impacted by runoff through a storm drain, river, or stream.
- Surprisingly, 20 of the 35 beaches on this year's Honor Roll are impacted by a storm drain, stream, or river.

Enclosed Beaches

Enclosed beaches have obstructions like a land mass or jetty blocking the beach from the open water. They are often associated with lagoons, marinas, and harbors. Enclosed beaches have little wave action and poor water circulation, which leads to generally worse water quality. Due to their calm waters, enclosed beaches are inviting for small children, and they are frequently preferred by parents and given names like Baby Beach or Mothers Beach. We calculated grades for 109 enclosed beaches this year.

- Summer Dry Grades for enclosed beaches were excellent with 91% receiving A and B grades.
- Winter Dry Grades were also good with 86% of the beaches receiving A and B grades.
- Wet Weather Grades were abysmal with only 20% of the beaches receiving A and B grades.
- Four of this year's Beach Bummers were enclosed beaches.

Newport Harbor / Orange County
photo: D. Ramey Logan


Seal Beach / Orange County

GRADES BY TIME PERIOD & BEACH TYPE

OPEN

2020–2021	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	78	89%	64	90%	42	62%
B	3	3%	3	4%	6	9%
C	4	5%	1	1%	5	7%
D	2	2%	1	1%	6	9%
F	1	1%	2	3%	9	13%
A+B	81	92%	67	94%	48	71%
C,D,F	7	8%	4	6%	20	29%

5 YEAR AVERAGE	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	392	97%	298	89%	260	62%
B	10	2%	12	4%	64	15%
C	3	1%	10	3%	30	7%
D	0	0%	5	2%	16	4%
F	1	0%	8	2%	52	12%
A+B	402	99%	310	93%	324	77%
C,D,F	4	1%	23	7%	98	23%

STORM DRAIN

2020–2021	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	186	81%	178	86%	84	49%
B	28	12%	15	7%	19	11%
C	8	3%	10	5%	8	5%
D	4	2%	2	1%	15	9%
F	3	1%	2	1%	45	26%
A+B	214	93%	193	93%	103	60%
C,D,F	15	7%	14	7%	68	40%

5 YEAR AVERAGE	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	961	88%	683	80%	548	48%
B	63	6%	73	9%	110	10%
C	36	3%	43	5%	104	9%
D	15	1%	20	2%	72	6%
F	23	2%	37	4%	298	26%
A+B	1024	93%	756	88%	658	58%
C,D,F	74	7%	100	12%	474	42%

ENCLOSED

2020–2021	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	76	77%	68	75%	9	15%
B	14	14%	10	11%	3	5%
C	5	5%	3	3%	3	5%
D	0	0%	4	4%	12	20%
F	4	4%	6	7%	34	56%
A+B	90	91%	78	86%	12	20%
C,D,F	9	9%	13	14%	49	80%

5 YEAR AVERAGE	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	359	83%	220	71%	127	31%
B	43	10%	44	14%	23	6%
C	9	2%	22	7%	25	6%
D	8	2%	3	1%	25	6%
F	12	3%	23	7%	212	51%
A+B	402	93%	264	85%	150	36%
C,D,F	29	7%	48	15%	262	64%

Crescent City Beach / Del Norte County

Note: All averages below refer to the five-year-average unless otherwise indicated.

Del Norte County

Del Norte County is the northernmost coastal County in California, and there is only one beach that was monitored: Crescent City Beach at Battery Point Lighthouse. This beach received an A for Summer Dry and an A+ for Winter Dry Grades, which is normal for this site. The C it received for Wet Weather was lower than usual.

This County received 48 inches of rain this past year, which is more than any other County in California. But, this was still 15% below the County's historical average of 56 inches. All Northern California counties had below average rainfall this year.

There were two sewage spills reported across the County, but neither reached any bodies of water.

DEL NORTE COUNTY

2020–2021	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	1	100%	1	100%	0	0%
B	0	0%	0	0%	0	0%
C	0	0%	0	0%	1	100%
D	0	0%	0	0%	0	0%
F	0	0%	0	0%	0	0%
A+B	1	100%	1	100%	0	0%
C,D,F	0	0%	0	0%	1	100%

5 YEAR AVERAGE	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	5	100%	2	100%	5	100%
B	0	0%	0	0%	0	0%
C	0	0%	0	0%	0	0%
D	0	0%	0	0%	0	0%
F	0	0%	0	0%	0	0%
A+B	5	100%	2	100%	5	100%
C,D,F	0	0%	0	0%	0	0%

Humboldt County

Summer Dry Grades were poor yet still above average this year with only 60% of the beaches receiving A and B grades.

No monitoring data was classified at Wet Weather this past year so no grade was issued. Humboldt County does not monitor its beaches in the winter months so there were no Winter Dry Grades and no beaches were eligible for the Honor Roll.

Clam Beach at Strawberry Creek was the number seven Beach Bummer this year, marking the seventh time in 11 years it has been among California's most polluted beaches.

Humboldt County received 30 inches of rain, which is 26% lower than the historical average of 40 inches. Most of the rain fell during the winter months when the beaches are not monitored, so we do not know the full impact of the reduced rainfall. This major decrease in rainfall also might account for the fact that no Wet Weather Grades were issued.

Two reported sewage spills discharged 38,815 gallons into the Eel River, which flows into the ocean south of Eureka. No beaches were closed as a result of the spill.

Mendocino County

For a second straight year, all beaches received A's for Summer Dry Grades which is outstanding.

No Wet Weather Grades were issued over the past year. Mendocino County does not monitor its beaches in the winter months so there were no Winter Dry Grades and no beaches were eligible for the Honor Roll.

Mendocino County only received 10 inches of rain according to our methods, which is 75% lower than average. No other county in California saw such a large deviation from the average. This drastic decrease in rainfall may explain why no Wet Weather data was collected in 2020–2021.

Three reported sewage spills impacted waterways in Mendocino County. One spill sent 1,000 gallons into the ocean near Arena Point.

HUMBOLDT COUNTY

2020–2021	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	1	20%	NO DATA	NO DATA	NO DATA	NO DATA
B	2	40%	NO DATA	NO DATA	NO DATA	NO DATA
C	1	20%	NO DATA	NO DATA	NO DATA	NO DATA
D	0	0%	NO DATA	NO DATA	NO DATA	NO DATA
F	1	20%	NO DATA	NO DATA	NO DATA	NO DATA
A+B	3	60%	NO DATA	NO DATA	NO DATA	NO DATA
C,D,F	2	40%	NO DATA	NO DATA	NO DATA	NO DATA

5 YEAR AVERAGE	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	11	44%	NO DATA	NO DATA	7	28%
B	1	4%	NO DATA	NO DATA	8	32%
C	6	24%	NO DATA	NO DATA	3	12%
D	2	8%	NO DATA	NO DATA	3	12%
F	5	20%	NO DATA	NO DATA	4	16%
A+B	12	48%	NO DATA	NO DATA	15	60%
C,D,F	13	52%	NO DATA	NO DATA	10	40%

MENDOCINO COUNTY

2020–2021	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	5	100%	NO DATA	NO DATA	NO DATA	NO DATA
B	0	0%	NO DATA	NO DATA	NO DATA	NO DATA
C	0	0%	NO DATA	NO DATA	NO DATA	NO DATA
D	0	0%	NO DATA	NO DATA	NO DATA	NO DATA
F	0	0%	NO DATA	NO DATA	NO DATA	NO DATA
A+B	5	100%	NO DATA	NO DATA	NO DATA	NO DATA
C,D,F	0	0%	NO DATA	NO DATA	NO DATA	NO DATA

5 YEAR AVERAGE	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	27	96%	NO DATA	NO DATA	23	77%
B	1	4%	NO DATA	NO DATA	3	10%
C	0	0%	NO DATA	NO DATA	3	10%
D	0	0%	NO DATA	NO DATA	1	3%
F	0	0%	NO DATA	NO DATA	0	0%
A+B	28	100%	NO DATA	NO DATA	26	87%
C,D,F	0	0%	NO DATA	NO DATA	4	13%

Sonoma County

Sonoma County beaches have been at the top of the class for a third straight year now earning 100% A's for Summer Dry Grades.

Similar to the other Northern California counties, no Wet Weather Grades were issued this year. Sonoma County does not monitor its beaches in winter months so no Winter Dry Grades were generated and no beaches from this County were eligible for the Honor Roll.

Sonoma County received 10 inches of rain, which is 68% lower than the historical average of 31 inches and more characteristic of a Southern California County. Sonoma County saw the second largest drop in rainfall behind Mendocino County.

A total of 6,970 gallons of sewage were spilled into waterways from two spills. Both occurred in the same area, sending sewage into streams that flow into San Pablo Bay. This is a major improvement over last year when 2.8 million gallons of sewage were spilled into waterways.

SONOMA COUNTY

2020–2021	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	7	100%	NO DATA	NO DATA	NO DATA	NO DATA
B	0	0%	NO DATA	NO DATA	NO DATA	NO DATA
C	0	0%	NO DATA	NO DATA	NO DATA	NO DATA
D	0	0%	NO DATA	NO DATA	NO DATA	NO DATA
F	0	0%	NO DATA	NO DATA	NO DATA	NO DATA
A+B	7	100%	NO DATA	NO DATA	NO DATA	NO DATA
C,D,F	0	0%	NO DATA	NO DATA	NO DATA	NO DATA

5 YEAR AVERAGE	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	35	100%	NO DATA	NO DATA	34	97%
B	0	0%	NO DATA	NO DATA	1	3%
C	0	0%	NO DATA	NO DATA	0	0%
D	0	0%	NO DATA	NO DATA	0	0%
F	0	0%	NO DATA	NO DATA	0	0%
A+B	35	100%	NO DATA	NO DATA	35	100%
C,D,F	0	0%	NO DATA	NO DATA	0	0%

Marin County

Summer Dry Grades were exemplary for a third consecutive year with all 24 of Marin County beaches receiving A and B grades.

No Wet Weather Grades were calculated this past year potentially due to the decrease in rainfall. Marin County does not monitor its beaches in winter months so no Winter Dry Grades were calculated and no beaches from this County were eligible for the Honor Roll.

Marin County received 9 inches of rain, which is a 56% decrease from the historical average of 21 inches. However, most of the rain fell during the winter months when the beaches are not monitored, so we do not know if there was an impact on water quality.

Health advisories were issued after four separate spills discharged into Richardson Bay. Eleven spills reportedly impacted bodies of water, and a total of 111,525 gallons were spilled.

MARIN COUNTY

2020–2021	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	24	100%	NO DATA	NO DATA	NO DATA	NO DATA
B	0	0%	NO DATA	NO DATA	NO DATA	NO DATA
C	0	0%	NO DATA	NO DATA	NO DATA	NO DATA
D	0	0%	NO DATA	NO DATA	NO DATA	NO DATA
F	0	0%	NO DATA	NO DATA	NO DATA	NO DATA
A+B	24	100%	NO DATA	NO DATA	NO DATA	NO DATA
C,D,F	0	0%	NO DATA	NO DATA	NO DATA	NO DATA

5 YEAR AVERAGE	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	107	92%	NO DATA	NO DATA	89	77%
B	8	7%	NO DATA	NO DATA	5	4%
C	1	1%	NO DATA	NO DATA	4	3%
D	0	0%	NO DATA	NO DATA	7	6%
F	0	0%	NO DATA	NO DATA	11	9%
A+B	115	99%	NO DATA	NO DATA	94	81%
C,D,F	1	1%	NO DATA	NO DATA	22	19%


Ocean Beach / San Francisco County

San Francisco County

93% of San Francisco's Summer Dry Grades were either A's or B's this year. While those are great marks, San Francisco beaches average a little higher at 96%.

Wet Weather Grades were good this year with 81% receiving A and B grades. The average is far lower at 48%.

Winter Dry Grades were also decent with 87% of the beaches receiving A and B grades, which is above average.

China Beach and Ocean Beach at Lincoln were two of the cleanest beaches in California last year. Unfortunately, Candlestick Point at Windsurfer Circle was among the dirtiest earning the number nine slot on our Beach Bummer list.

San Francisco County received 9 inches of rain, which is a 56% decrease from the historical average of 21 inches. San Francisco has a combined sewer system meaning rain runoff flows into the sewer system and gets treated instead of flowing into the ocean. Despite this system, water quality is still negatively impacted when it rains because some pollution makes its way to the ocean in creeks and over surfaces. If it rains enough, the sewers can also overflow, sending sewage into the ocean.

Six sewage spills across San Francisco sent a total of 25,411 gallons into the ocean. The majority of the sewage was spilled into the Bay in one event on Treasure Island.

SAN FRANCISCO COUNTY

2020–2021	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	12	80%	11	73%	10	63%
B	2	13%	2	13%	3	19%
C	0	0%	1	7%	1	6%
D	0	0%	0	0%	0	0%
F	1	7%	1	7%	2	13%
A+B	14	93%	13	87%	13	81%
C,D,F	1	7%	2	13%	3	19%

5 YEAR AVERAGE	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	63	83%	59	76%	22	24%
B	10	13%	6	8%	21	23%
C	2	3%	2	3%	14	16%
D	1	1%	2	3%	7	8%
F	0	0%	9	12%	26	29%
A+B	73	96%	65	83%	43	48%
C,D,F	3	4%	13	17%	47	52%

East Bay: Alameda County and Contra Costa County

The East Bay had outstanding water quality over the last year with 100% of the beaches earning either an A or a B for all grade categories. Grades were far above the five year averages.

Crown Beach at Sunset Road landed on the Honor Roll meaning it had excellent water quality year-round during dry and wet weather.

Alameda County and Contra Costa County received 9 inches of rain, which is 56% lower than the historical average of 21 inches. Less rainfall usually results in better water quality because fewer pollutants are washed into the ocean. This may partially explain the above-average grades this year.

There were 53 sewage spills across both Counties that sent a total of 442,742 gallons into bodies of water. A 5,973 gallon spill in May 2020 temporarily closed Keller Beach.

EAST BAY COUNTIES

2020–2021	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	6	86%	2	100%	2	100%
B	1	14%	0	0%	0	0%
C	0	0%	0	0%	0	0%
D	0	0%	0	0%	0	0%
F	0	0%	0	0%	0	0%
A+B	7	100%	2	100%	2	100%
C,D,F	0	0%	0	0%	0	0%

5 YEAR AVERAGE	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	24	57%	5	63%	20	45%
B	12	29%	2	25%	8	18%
C	4	10%	1	13%	5	11%
D	2	5%	0	0%	3	7%
F	0	0%	0	0%	8	18%
A+B	36	86%	7	88%	28	64%
C,D,F	6	14%	1	13%	16	36%

Crown Beach / Alameda County

San Mateo County

San Mateo County had another disappointing year in terms of water quality. Only 57% of the County's beaches received an A or B for the Summer Dry Grade, which is below average and the lowest percentage in the state for a second consecutive year.

Wet Weather Grades were extremely poor with only 14% of the beaches receiving A and B grades.

Winter Dry Grades were also bottom of the class and below the five year average with only 45% receiving A and B grades.

Three San Mateo County beaches made it on our Beach Bummer list: Foster City, Erckenbrack Park, Foster City, Gull Park, and Foster City, Marlin Park. All are enclosed beaches on the bay side.

We observe a troubling trend of poor water quality and reduced monitoring in San Mateo County in recent years. There have been at least two Beach Bummers from this County in the previous three reports and there was a high of six last year. Four of the six Beach Bummers from 2019 were not monitored at all in 2020. San Mateo County halted its entire monitoring program during April and May of 2020 due to a stay-at-home order, so a number of beaches were not sampled enough to be graded, and others were not monitored at all outside that timeframe. No justification was given for dropping some beaches from the monitoring regime, and no other county in the state halted water monitoring despite similar pandemic-related restrictions.

San Mateo County received 9 inches of rain, which is 56% lower than the historical average of 21 inches. Less rainfall usually results in better water quality because reduced amounts of pollutants are washed into the ocean, but this is not the case here.

There were 25 sewage spills into bodies of water adding up to 198,475 gallons. No beaches were reportedly impacted by sewage spills.

Beach Park, Foster City / San Mateo County

SAN MATEO COUNTY

2020–2021	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	2	29%	7	32%	3	14%
B	2	29%	3	14%	0	0%
C	0	0%	5	23%	1	5%
D	0	0%	3	14%	7	32%
F	3	43%	4	18%	11	50%
A+B	4	57%	10	45%	3	14%
C,D,F	3	43%	12	55%	19	86%

5 YEAR AVERAGE	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	58	59%	45	55%	37	31%
B	17	17%	8	10%	15	13%
C	8	8%	11	13%	14	12%
D	4	4%	2	2%	9	8%
F	12	12%	16	20%	44	37%
A+B	75	76%	53	65%	52	44%
C,D,F	24	24%	29	35%	67	56%

Santa Cruz County

Summer Dry Grades were lackluster and a little below average this year with 83% of the beaches receiving A and B grades.

Wet Weather Grades were also below average with only 54% of beaches receiving A and B grades.

Rounding out a below average year in terms of water quality, Winter Dry Grades were also subpar with 77% of the beaches receiving A and B grades.

Santa Cruz County received 21 inches of rain, which is below the historical average of 28 inches. This did not appear to result in better grades for the County which typically happens in drier than average years.

Two spills discharged a total of 3,979 gallons into waterbodies across the County. One 3,800 gallon spill occurred upstream from the Santa Cruz Wharf yet no health advisories were reportedly issued.

SANTA CRUZ COUNTY

2020–2021	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	7	58%	7	54%	3	23%
B	3	25%	3	23%	4	31%
C	1	8%	2	15%	2	15%
D	0	0%	0	0%	1	8%
F	1	8%	1	8%	3	23%
A+B	10	83%	10	77%	7	54%
C,D,F	2	17%	3	23%	6	46%

5 YEAR AVERAGE	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	47	71%	48	80%	45	45%
B	11	17%	7	12%	15	15%
C	2	3%	3	5%	15	15%
D	3	5%	1	2%	4	4%
F	3	5%	1	2%	20	20%
A+B	58	88%	55	92%	60	61%
C,D,F	8	12%	5	8%	39	39%

Monterey County

Monterey County's beaches all received A's for Summer Dry and Winter Dry Grades. Wet Weather Grades were not issued because no samples met the criteria for wet weather. This may be due to the below average rainfall over the past year.

Monterey County received 13 inches of rain, which is 25% lower than the historical average of 17 inches. This County has historically had very good water quality through both dry and wet years.

Only one sewage spill of 6,216 gallons made it into a body of water across Monterey County. The spill was inland, and no beaches were reportedly impacted.

MONTEREY COUNTY

2020–2021	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	6	100%	4	100%	NO DATA	NO DATA
B	0	0%	0	0%	NO DATA	NO DATA
C	0	0%	0	0%	NO DATA	NO DATA
D	0	0%	0	0%	NO DATA	NO DATA
F	0	0%	0	0%	NO DATA	NO DATA
A+B	6	100%	4	100%	NO DATA	NO DATA
C,D,F	0	0%	0	0%	NO DATA	NO DATA

5 YEAR AVERAGE	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	38	95%	7	88%	34	85%
B	2	5%	1	13%	0	0%
C	0	0%	0	0%	3	8%
D	0	0%	0	0%	0	0%
F	0	0%	0	0%	3	8%
A+B	40	100%	8	100%	34	85%
C,D,F	0	0%	0	0%	6	15%

San Luis Obispo County

Summer Dry Grades were outstanding with 100% of the beaches receiving A grades.

Wet Weather Grades were very good with 89% of the beaches receiving A and B grades, which is on par with average.

Winter Dry Grades were also exemplary and above average with 100% of the beaches receiving A and B grades.

Morro Bay City Beach at Atascadero, Pismo State Beach North of the Pier, and Sewers at Silver Shoals Drive made it on the Honor Roll this year.

San Luis Obispo County received 10 inches of rain, which is 14% below the average historical rainfall total.

There were 5 sewage spills into water bodies amounting to 14,348 gallons. A total of 7,300 gallons were spilled into Santa Rosa Creek, which flows into the ocean adjacent to unmonitored beaches near Cambria.

SAN LUIS OBISPO COUNTY

2020–2021	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	19	100%	18	95%	15	79%
B	0	0%	1	5%	2	11%
C	0	0%	0	0%	1	5%
D	0	0%	0	0%	1	5%
F	0	0%	0	0%	0	0%
A+B	19	100%	19	100%	17	89%
C,D,F	0	0%	0	0%	2	11%

5 YEAR AVERAGE	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	85	93%	90	96%	66	70%
B	5	5%	2	2%	19	20%
C	0	0%	2	2%	3	3%
D	1	1%	0	0%	2	2%
F	0	0%	0	0%	4	4%
A+B	90	99%	92	98%	85	90%
C,D,F	1	1%	2	2%	9	10%

Santa Barbara County

Summer Dry Grades were excellent but slightly lower than average with 94% of the beaches receiving A and B grades.

Wet Weather Grades were poor yet above the average this year with 44% receiving A and B grades.

Winter Dry Grades were superb and above average with 100% of the beaches earning A and B grades for a second straight year.

Guadalupe Dunes returned to the Honor Roll for a third consecutive year. El Capitan also made it on the list of cleanest beaches in the state.

Santa Barbara County received 8 inches of rain, which is below the historical average of 13 inches. This may account for the improved Wet Weather Grades, and potentially the Winter Dry Grades because poor water quality tends to linger after rain events.

Five sewage spills totaling 8,065 gallons flowed into storm drains, rivers, lakes, or the ocean. One 6,200 gallon spill occurred at Guadalupe Dunes, but no health warnings were issued.

SANTA BARBARA COUNTY

2020–2021	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	13	81%	15	94%	6	38%
B	2	13%	1	6%	1	6%
C	0	0%	0	0%	2	13%
D	1	6%	0	0%	1	6%
F	0	0%	0	0%	6	38%
A+B	15	94%	16	100%	7	44%
C,D,F	1	6%	0	0%	9	56%

5 YEAR AVERAGE	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	55	86%	62	82%	22	28%
B	6	9%	7	9%	10	13%
C	3	5%	3	4%	10	13%
D	0	0%	0	0%	11	14%
F	0	0%	4	5%	27	34%
A+B	61	95%	69	91%	32	40%
C,D,F	3	5%	7	9%	48	60%

Ventura County

Even though Summer Dry Grades were superlative with 98% of the beaches receiving A and B grades, they were still slightly below the five year average of 100%. We are heartened that Ventura County sets such a high bar for summer water quality.

Wet Weather Grades were great and above average this year with 92% of the beaches receiving A and B grades.

Winter Dry Grades were also very good but a little below average with 92% of the beaches receiving A and B grades.

Seven Ventura County beaches made the Honor Roll list, which is an improvement over last year when only one earned a spot.

Ventura County received 5 inches of rain, which is far below to the historical average of 12 inches.

Ventura County had two sewage spills reach bodies of water totalling 4,343 gallons. No beaches were reportedly impacted.

VENTURA COUNTY

2020–2021	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	39	98%	11	92%	11	92%
B	0	0%	0	0%	0	0%
C	1	3%	0	0%	0	0%
D	0	0%	1	8%	1	8%
F	0	0%	0	0%	0	0%
A+B	39	98%	11	92%	11	92%
C,D,F	1	3%	1	8%	1	8%

5 YEAR AVERAGE	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	198	100%	84	93%	133	72%
B	0	0%	3	3%	17	9%
C	0	0%	2	2%	17	9%
D	0	0%	1	1%	2	1%
F	0	0%	0	0%	17	9%
A+B	198	100%	87	97%	149	80%
C,D,F	0	0%	3	3%	36	19%

Los Angeles County

Los Angeles County had excellent Summer Dry Grades with 94% of the County's beaches receiving A and B grades.

Wet Weather Grades were flunking with only 45% of the beaches receiving A and B grades, which is just above average for the County.

Winter Dry Grades were good and markedly above average with 93% of the beaches receiving A and B grades.

Seven Los Angeles County beaches made it on the esteemed Honor Roll list. Most of them are in the Malibu area.

Marina Del Rey Mother's Beach was the only Beach Bummer from Los Angeles County this year. This beach is a Beach Bummer mainstay.

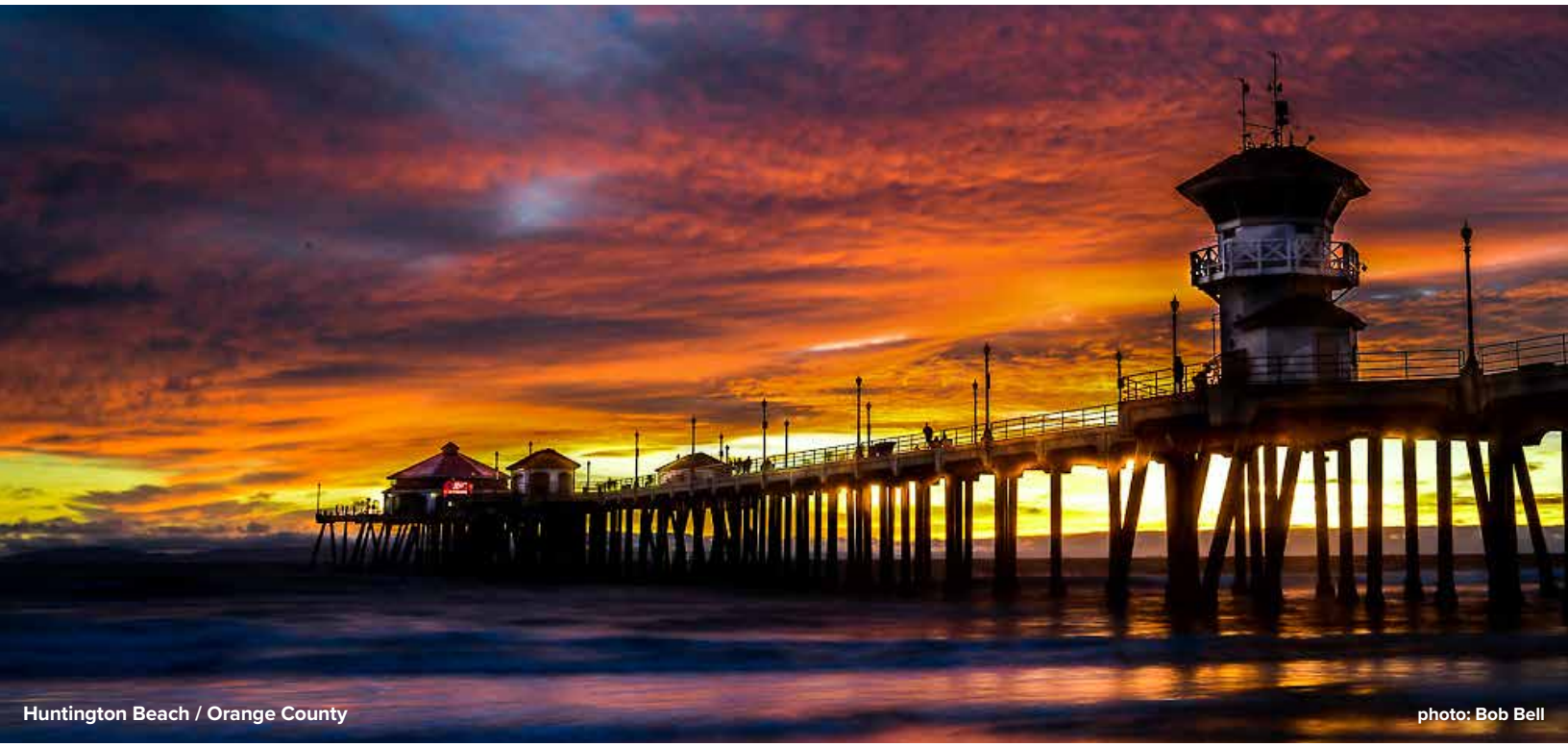
L.A. County received 8 inches of rain, which is below the historical average of 11 inches. This lower than average rainfall might account for the improved Wet Weather and Winter Dry Grades.

Seventy-five sewage spills sent a total of 346,888 gallons into rivers, lakes, and streams. One 222,542 gallon spill in February 2021 closed all the beaches in Long Beach. A total of 39,621 gallons were spilled into the Los Angeles River, and 140 gallons were spilled into Las Virgenes Creek; both waterways are monitored in our River Report Card.

LOS ANGELES COUNTY

2020–2021	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	78	83%	77	85%	31	34%
B	10	11%	8	9%	10	11%
C	3	3%	1	1%	6	7%
D	2	2%	1	1%	11	12%
F	1	1%	4	4%	33	36%
A+B	88	94%	85	93%	41	45%
C,D,F	6	6%	6	7%	50	55%

5 YEAR AVERAGE	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	391	87%	321	74%	154	32%
B	28	6%	50	11%	48	10%
C	15	3%	34	8%	40	8%
D	9	2%	12	3%	33	7%
F	6	1%	18	4%	204	43%
A+B	419	93%	371	85%	202	42%
C,D,F	30	7%	64	15%	277	58%



Huntington Beach / Orange County

photo: Bob Bell

Orange County

Summer Dry Grades were excellent and just below the five-year average with 96% of the beaches receiving A and B grades.

Wet Weather Grades were substandard and far lower than average with only 42% of the beaches receiving A and B grades.

Winter Dry Grades were stellar and higher than the five-year average with 96% of the beaches receiving A and B grades.

A total of 10 beaches made it on the Honor Roll, which is more than any other county. Orange County had no beaches end up on the Beach Bummer list.

Orange County received 10 inches of rain, which is higher than the historical average of nine inches. Orange County is the only coastal county to receive a higher than average amount of rainfall. The increase in rainfall did not appear to impact Wet Weather Grades.

There were 18 sewage spills reported across the County that sent 10,719 gallons of sewage into bodies of water. One 94 gallon spill temporarily closed beaches in Huntington Harbor.

ORANGE COUNTY

2020–2021	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	118	88%	122	90%	24	31%
B	11	8%	9	7%	9	12%
C	4	3%	5	4%	2	3%
D	1	1%	0	0%	10	13%
F	0	0%	0	0%	33	42%
A+B	129	96%	131	96%	33	42%
C,D,F	5	4%	5	4%	45	58%

5 YEAR AVERAGE	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	545	93%	497	88%	243	42%
B	22	4%	36	6%	56	10%
C	6	1%	12	2%	41	7%
D	3	1%	6	1%	42	7%
F	8	1%	17	3%	191	33%
A+B	567	97%	533	94%	299	52%
C,D,F	17	3%	35	6%	274	48%

San Diego County

Summer Dry Grades were good but considerably lower than the five-year average with 88% of the beaches receiving A and B grades.

Wet Weather Grades were good and above average with 82% of the beaches receiving A and B grades.

Winter Dry Grades were outstanding with 95% of beaches receiving A and B grades, which is above average.

Solana Beach at Solana Vista Drive, Carlsbad at Palomar Airport Road, and Carlsbad at Encina Creek all made the Honor Roll.

Both Tijuana Slough locations ended up on the Beach Bummer list including the Tijuana River mouth, which was the number one Bummer. Each day, millions of gallons of untreated sewage flow into the ocean via the Tijuana River. Most of the sewage enters the river in the City of Tijuana where there are many sewage infrastructure impairments. The U.S. EPA recently committed $300 million for water quality improvement projects in the Tijuana River.[7]

San Diego County received a little under nine inches of rain, which is slightly lower than the historical average of nine inches. This decrease in rainfall may account for the above average Wet Weather and Winter Dry grades.

An alarmingly high 12.7 million gallons of sewage were spilled into waterways across San Diego County, and this is not counting sewage from the Tijuana River. One spill in June 2020 resulted in 11 million gallons getting discharged into the Sweetwater River, yet no health advisories were issued. Two spills totalling over 1 million gallons happened in the Oceanside-Carlsbad area, but no health advisories were reportedly issued because COVID-19 restrictions were in place. Health advisories should have been issued for spills of such magnitude even during COVID-19 restrictions.

Mission Bay / San Diego County

SAN DIEGO COUNTY

2020–2021	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	64	72%	80	92%	51	75%
B	14	16%	3	3%	5	7%
C	7	8%	1	1%	4	6%
D	2	2%	2	2%	2	3%
F	2	2%	1	1%	6	9%
A+B	78	88%	83	95%	56	82%
C,D,F	11	12%	4	5%	12	18%

5 YEAR AVERAGE	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	314	91%	178	79%	189	65%
B	19	6%	20	9%	26	9%
C	7	2%	8	4%	15	5%
D	2	1%	6	3%	13	4%
F	2	1%	14	6%	47	16%
A+B	333	97%	198	88%	215	74%
C,D,F	11	3%	28	12%	75	26%

7 https://www.epa.gov/sustainable-water-infrastructure/usmca-tijuana-river-watershed

Whaleshead Beach / Curry County

Note: All averages below refer to the five-year-average unless otherwise indicated.

Oregon's Department of Environmental Quality monitors water quality at ocean beaches between Memorial Day and Labor Day and tests for one fecal indicator bacteria, *Enterococcus*. This is in contrast to California, which requires three indicator bacteria to be tested from April 1 to October 31 every year. Funding for ocean beach monitoring in Oregon comes entirely from the U.S. EPA's Beaches Environmental Assessment and Coastal Health Act (BEACH Act).

OREGON

2020–2021	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	NO DATA	NO DATA	NO DATA	NO DATA	13	72%
B	NO DATA	NO DATA	NO DATA	NO DATA	0	0%
C	NO DATA	NO DATA	NO DATA	NO DATA	1	6%
D	NO DATA	NO DATA	NO DATA	NO DATA	0	0%
F	NO DATA	NO DATA	NO DATA	NO DATA	4	22%
A+B	NO DATA	NO DATA	NO DATA	NO DATA	13	72%
C,D,F	NO DATA	NO DATA	NO DATA	NO DATA	5	28%

5 YEAR AVERAGE	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	24	92%	NO DATA	NO DATA	34	69%
B	0	0%	NO DATA	NO DATA	6	12%
C	0	0%	NO DATA	NO DATA	2	4%
D	1	4%	NO DATA	NO DATA	3	6%
F	1	4%	NO DATA	NO DATA	4	8%
A+B	24	92%	NO DATA	NO DATA	40	82%
C,D,F	2	8%	NO DATA	NO DATA	9	18%

Most years (including last year 2019–2020), we are unable to grade the majority of Oregon beaches due to a lack of sampling. Our methodology requires that beaches must be sampled for at least 75% of the weeks in their summer season — defined as Memorial Day through Labor Day. We encourage the State of Oregon to provide additional funding for increased ocean water quality monitoring to meet this minimum requirement and be more protective of public health.

No Oregon beaches were monitored frequently enough to receive a Summer Dry Grade, and no beaches were monitored during the winter months. Only four counties received Wet Weather grades, which were lackluster and far below the state's average of 82% receiving A and B grades. We are disheartened by the lack of monitoring taking place in Oregon, and we urge state officials to devote more resources to this public health issue.

CLATSOP COUNTY

2020–2021	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	NO DATA	NO DATA	NO DATA	NO DATA	4	67%
B	NO DATA	NO DATA	NO DATA	NO DATA	0	0%
C	NO DATA	NO DATA	NO DATA	NO DATA	1	17%
D	NO DATA	NO DATA	NO DATA	NO DATA	0	0%
F	NO DATA	NO DATA	NO DATA	NO DATA	1	17%
A+B	NO DATA	NO DATA	NO DATA	NO DATA	4	67%
C,D,F	NO DATA	NO DATA	NO DATA	NO DATA	2	33%

5 YEAR AVERAGE	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	9	100%	NO DATA	NO DATA	7	88%
B	0	0%	NO DATA	NO DATA	1	13%
C	0	0%	NO DATA	NO DATA	0	0%
D	0	0%	NO DATA	NO DATA	0	0%
F	0	0%	NO DATA	NO DATA	0	0%
A+B	9	100%	NO DATA	NO DATA	8	100%
C,D,F	0	0%	NO DATA	NO DATA	0	0%

COOS COUNTY

2020–2021	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA
B	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA
C	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA
D	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA
F	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA
A+B	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA
C,D,F	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA

5 YEAR AVERAGE	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	3	100%	NO DATA	NO DATA	4	40%
B	0	0%	NO DATA	NO DATA	3	30%
C	0	0%	NO DATA	NO DATA	0	0%
D	0	0%	NO DATA	NO DATA	1	10%
F	0	0%	NO DATA	NO DATA	2	20%
A+B	3	100%	NO DATA	NO DATA	7	70%
C,D,F	0	0%	NO DATA	NO DATA	3	30%

LINCOLN COUNTY

2020–2021	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	NO DATA	NO DATA	NO DATA	NO DATA	7	100%
B	NO DATA	NO DATA	NO DATA	NO DATA	0	0%
C	NO DATA	NO DATA	NO DATA	NO DATA	0	0%
D	NO DATA	NO DATA	NO DATA	NO DATA	0	0%
F	NO DATA	NO DATA	NO DATA	NO DATA	0	0%
A+B	NO DATA	NO DATA	NO DATA	NO DATA	7	100%
C,D,F	NO DATA	NO DATA	NO DATA	NO DATA	0	0%

5 YEAR AVERAGE	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	9	82%	NO DATA	NO DATA	12	67%
B	0	0%	NO DATA	NO DATA	2	11%
C	0	0%	NO DATA	NO DATA	2	11%
D	1	9%	NO DATA	NO DATA	2	11%
F	1	9%	NO DATA	NO DATA	0	0%
A+B	9	82%	NO DATA	NO DATA	14	78%
C,D,F	2	18%	NO DATA	NO DATA	4	22%

TILLAMOOK COUNTY

2020–2021	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	NO DATA	NO DATA	NO DATA	NO DATA	2	100%
B	NO DATA	NO DATA	NO DATA	NO DATA	0	0%
C	NO DATA	NO DATA	NO DATA	NO DATA	0	0%
D	NO DATA	NO DATA	NO DATA	NO DATA	0	0%
F	NO DATA	NO DATA	NO DATA	NO DATA	0	0%
A+B	NO DATA	NO DATA	NO DATA	NO DATA	2	100%
C,D,F	NO DATA	NO DATA	NO DATA	NO DATA	0	0%

5 YEAR AVERAGE	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	3	100%	NO DATA	NO DATA	7	100%
B	0	0%	NO DATA	NO DATA	0	0%
C	0	0%	NO DATA	NO DATA	0	0%
D	0	0%	NO DATA	NO DATA	0	0%
F	0	0%	NO DATA	NO DATA	0	0%
A+B	3	100%	NO DATA	NO DATA	7	100%
C,D,F	0	0%	NO DATA	NO DATA	0	0%

CURRY COUNTY

2020–2021	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA
B	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA
C	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA
D	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA
F	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA
A+B	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA
C,D,F	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA

5 YEAR AVERAGE	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	NO DATA	NO DATA	NO DATA	NO DATA	1	33%
B	NO DATA	NO DATA	NO DATA	NO DATA	0	0%
C	NO DATA	NO DATA	NO DATA	NO DATA	0	0%
D	NO DATA	NO DATA	NO DATA	NO DATA	0	0%
F	NO DATA	NO DATA	NO DATA	NO DATA	2	67%
A+B	NO DATA	NO DATA	NO DATA	NO DATA	1	33%
C,D,F	NO DATA	NO DATA	NO DATA	NO DATA	2	67%

LANE COUNTY

2020–2021	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	NO DATA	NO DATA	NO DATA	NO DATA	0	0%
B	NO DATA	NO DATA	NO DATA	NO DATA	0	0%
C	NO DATA	NO DATA	NO DATA	NO DATA	0	0%
D	NO DATA	NO DATA	NO DATA	NO DATA	0	0%
F	NO DATA	NO DATA	NO DATA	NO DATA	3	100%
A+B	NO DATA	NO DATA	NO DATA	NO DATA	0	0%
C,D,F	NO DATA	NO DATA	NO DATA	NO DATA	3	100%

5 YEAR AVERAGE	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	NO DATA	NO DATA	NO DATA	NO DATA	3	100%
B	NO DATA	NO DATA	NO DATA	NO DATA	0	0%
C	NO DATA	NO DATA	NO DATA	NO DATA	0	0%
D	NO DATA	NO DATA	NO DATA	NO DATA	0	0%
F	NO DATA	NO DATA	NO DATA	NO DATA	0	0%
A+B	NO DATA	NO DATA	NO DATA	NO DATA	3	100%
C,D,F	NO DATA	NO DATA	NO DATA	NO DATA	0	0%

Cannon Beach / Clatsop County

WASHINGTON COUNTY SUMMARIES

Puget Sound Beach / Snohomish County

Note: All averages below refer to the five-year-average unless otherwise indicated.

Washington's Department of Ecology monitors water quality at ocean beaches between Memorial Day and Labor Day and tests for one fecal indicator bacteria, Enterococcus. This is in contrast to California, which requires three indicator bacteria to be tested from April 1 to October 31 every year. Approximately 80% of the funding for ocean beach monitoring in the State comes from the BEACH Act, and the remaining 20% of funding comes from the U.S. EPA's National Estuary Program's Pathogen Prevention, Reduction, and Control Grant. The Makah Tribe in Clallam County also conducts beach monitoring through separate BEACH Program Tribal funding. Unlike the rest of the state, the Makah Tribe monitors beaches on a weekly basis all year. We commend the Makah Tribe for their robust monitoring, and we call on the Washington Department of Ecology to increase monitoring across the rest of the state.

Summer Dry Grades were superb with 96% of the beaches receiving A and B grades. Wet Weather Grades were exceptional and above average with 91% receiving A and B grades. Unfortunately, no Washington beaches were monitored during the winter months so we could not calculate Winter Dry Grades. We urge the State of Washington and the Makah Tribe to ensure beaches are adequately monitored during winter months.

WASHINGTON

2020–2021	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	123	93%	NO DATA	NO DATA	144	89%
B	4	3%	NO DATA	NO DATA	4	2%
C	0	0%	NO DATA	NO DATA	9	6%
D	2	2%	NO DATA	NO DATA	4	2%
F	3	2%	NO DATA	NO DATA	1	1%
A+B	127	96%	NO DATA	NO DATA	148	91%
C,D,F	5	4%	NO DATA	NO DATA	14	9%

5 YEAR AVERAGE	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	762	93%	NO DATA	NO DATA	572	86%
B	21	3%	NO DATA	NO DATA	18	3%
C	16	2%	NO DATA	NO DATA	18	3%
D	9	1%	NO DATA	NO DATA	24	4%
F	15	2%	NO DATA	NO DATA	32	5%
A+B	783	95%	NO DATA	NO DATA	590	89%
C,D,F	40	5%	NO DATA	NO DATA	74	11%

CLALLAM COUNTY

2020–2021	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	3	100%	NO DATA	NO DATA	10	91%
B	0	0%	NO DATA	NO DATA	1	9%
C	0	0%	NO DATA	NO DATA	0	0%
D	0	0%	NO DATA	NO DATA	0	0%
F	0	0%	NO DATA	NO DATA	0	0%
A+B	3	100%	NO DATA	NO DATA	11	100%
C,D,F	0	0%	NO DATA	NO DATA	0	0%

5 YEAR AVERAGE	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	82	91%	45	100%	82	85%
B	4	4%	0	0%	6	6%
C	4	4%	0	0%	1	1%
D	0	0%	0	0%	6	6%
F	0	0%	0	0%	2	2%
A+B	86	96%	45	100%	88	91%
C,D,F	4	4%	0	0%	9	9%

KITSAP COUNTY

2020–2021	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	32	97%	NO DATA	NO DATA	29	88%
B	1	3%	NO DATA	NO DATA	0	0%
C	0	0%	NO DATA	NO DATA	3	9%
D	0	0%	NO DATA	NO DATA	1	3%
F	0	0%	NO DATA	NO DATA	0	0%
A+B	33	100%	NO DATA	NO DATA	29	88%
C,D,F	0	0%	NO DATA	NO DATA	4	12%

5 YEAR AVERAGE	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	167	98%	NO DATA	NO DATA	115	87%
B	4	2%	NO DATA	NO DATA	4	3%
C	0	0%	NO DATA	NO DATA	3	2%
D	0	0%	NO DATA	NO DATA	6	5%
F	0	0%	NO DATA	NO DATA	4	3%
A+B	171	100%	NO DATA	NO DATA	119	90%
C,D,F	0	0%	NO DATA	NO DATA	13	10%

SKAGIT COUNTY

2020–2021	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	3	100%	NO DATA	NO DATA	2	67%
B	0	0%	NO DATA	NO DATA	1	33%
C	0	0%	NO DATA	NO DATA	0	0%
D	0	0%	NO DATA	NO DATA	0	0%
F	0	0%	NO DATA	NO DATA	0	0%
A+B	3	100%	NO DATA	NO DATA	3	100%
C,D,F	0	0%	NO DATA	NO DATA	0	0%

5 YEAR AVERAGE	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	11	85%	NO DATA	NO DATA	9	56%
B	0	0%	NO DATA	NO DATA	0	0%
C	2	15%	NO DATA	NO DATA	0	0%
D	0	0%	NO DATA	NO DATA	1	6%
F	0	0%	NO DATA	NO DATA	6	38%
A+B	11	85%	NO DATA	NO DATA	9	56%
C,D,F	2	15%	NO DATA	NO DATA	7	44%

SNOHOMISH COUNTY

2020–2021	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	15	100%	NO DATA	NO DATA	14	78%
B	0	0%	NO DATA	NO DATA	2	11%
C	0	0%	NO DATA	NO DATA	1	6%
D	0	0%	NO DATA	NO DATA	1	6%
F	0	0%	NO DATA	NO DATA	0	0%
A+B	15	100%	NO DATA	NO DATA	16	89%
C,D,F	0	0%	NO DATA	NO DATA	2	11%

5 YEAR AVERAGE	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	74	99%	NO DATA	NO DATA	50	88%
B	0	0%	NO DATA	NO DATA	2	4%
C	1	1%	NO DATA	NO DATA	2	4%
D	0	0%	NO DATA	NO DATA	1	2%
F	0	0%	NO DATA	NO DATA	2	4%
A+B	74	99%	NO DATA	NO DATA	52	91%
C,D,F	1	1%	NO DATA	NO DATA	5	9%

WHATCOM COUNTY

2020–2021	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	1	17%	NO DATA	NO DATA	8	80%
B	2	33%	NO DATA	NO DATA	0	0%
C	0	0%	NO DATA	NO DATA	0	0%
D	1	17%	NO DATA	NO DATA	1	10%
F	2	33%	NO DATA	NO DATA	1	10%
A+B	3	50%	NO DATA	NO DATA	8	80%
C,D,F	3	50%	NO DATA	NO DATA	2	20%

5 YEAR AVERAGE	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	17	71%	NO DATA	NO DATA	23	74%
B	1	4%	NO DATA	NO DATA	0	0%
C	1	4%	NO DATA	NO DATA	2	6%
D	2	8%	NO DATA	NO DATA	0	0%
F	3	13%	NO DATA	NO DATA	6	19%
A+B	18	75%	NO DATA	NO DATA	23	74%
C,D,F	6	25%	NO DATA	NO DATA	8	26%

JEFFERSON COUNTY

2020–2021	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	6	100%	NO DATA	NO DATA	7	100%
B	0	0%	NO DATA	NO DATA	0	0%
C	0	0%	NO DATA	NO DATA	0	0%
D	0	0%	NO DATA	NO DATA	0	0%
F	0	0%	NO DATA	NO DATA	0	0%
A+B	6	100%	NO DATA	NO DATA	7	100%
C,D,F	0	0%	NO DATA	NO DATA	0	0%

5 YEAR AVERAGE	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	20	80%	NO DATA	NO DATA	18	95%
B	2	8%	NO DATA	NO DATA	0	0%
C	1	4%	NO DATA	NO DATA	1	5%
D	0	0%	NO DATA	NO DATA	0	0%
F	2	8%	NO DATA	NO DATA	0	0%
A+B	22	88%	NO DATA	NO DATA	18	95%
C,D,F	3	12%	NO DATA	NO DATA	1	5%

KING COUNTY

2020–2021	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	9	100%	NO DATA	NO DATA	27	90%
B	0	0%	NO DATA	NO DATA	0	0%
C	0	0%	NO DATA	NO DATA	2	7%
D	0	0%	NO DATA	NO DATA	1	3%
F	0	0%	NO DATA	NO DATA	0	0%
A+B	9	100%	NO DATA	NO DATA	27	90%
C,D,F	0	0%	NO DATA	NO DATA	3	10%

5 YEAR AVERAGE	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	140	94%	NO DATA	NO DATA	96	83%
B	4	3%	NO DATA	NO DATA	5	4%
C	1	1%	NO DATA	NO DATA	5	4%
D	2	1%	NO DATA	NO DATA	7	6%
F	2	1%	NO DATA	NO DATA	3	3%
A+B	144	97%	NO DATA	NO DATA	101	87%
C,D,F	5	3%	NO DATA	NO DATA	15	13%

MASON COUNTY

2020–2021	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	9	100%	NO DATA	NO DATA	6	100%
B	0	0%	NO DATA	NO DATA	0	0%
C	0	0%	NO DATA	NO DATA	0	0%
D	0	0%	NO DATA	NO DATA	0	0%
F	0	0%	NO DATA	NO DATA	0	0%
A+B	9	100%	NO DATA	NO DATA	6	100%
C,D,F	0	0%	NO DATA	NO DATA	0	0%

5 YEAR AVERAGE	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	43	96%	NO DATA	NO DATA	30	91%
B	1	2%	NO DATA	NO DATA	0	0%
C	1	2%	NO DATA	NO DATA	0	0%
D	0	0%	NO DATA	NO DATA	2	6%
F	0	0%	NO DATA	NO DATA	1	3%
A+B	44	98%	NO DATA	NO DATA	30	91%
C,D,F	1	2%	NO DATA	NO DATA	3	9%

ISLAND COUNTY

2020–2021	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	7	78%	NO DATA	NO DATA	9	100%
B	1	11%	NO DATA	NO DATA	0	0%
C	0	0%	NO DATA	NO DATA	0	0%
D	0	0%	NO DATA	NO DATA	0	0%
F	1	11%	NO DATA	NO DATA	0	0%
A+B	8	89%	NO DATA	NO DATA	9	100%
C,D,F	1	11%	NO DATA	NO DATA	0	0%

5 YEAR AVERAGE	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	21	58%	NO DATA	NO DATA	26	87%
B	3	8%	NO DATA	NO DATA	0	0%
C	4	11%	NO DATA	NO DATA	1	3%
D	1	3%	NO DATA	NO DATA	0	0%
F	7	19%	NO DATA	NO DATA	3	10%
A+B	24	67%	NO DATA	NO DATA	26	87%
C,D,F	12	33%	NO DATA	NO DATA	4	13%

Point Defiance Park / Pierce County

GRAY'S HARBOR COUNTY

2020–2021	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	9	100%	NO DATA	NO DATA	9	100%
B	0	0%	NO DATA	NO DATA	0	0%
C	0	0%	NO DATA	NO DATA	0	0%
D	0	0%	NO DATA	NO DATA	0	0%
F	0	0%	NO DATA	NO DATA	0	0%
A+B	9	100%	NO DATA	NO DATA	9	100%
C,D,F	0	0%	NO DATA	NO DATA	0	0%

5 YEAR AVERAGE	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	45	100%	NO DATA	NO DATA	35	97%
B	0	0%	NO DATA	NO DATA	0	0%
C	0	0%	NO DATA	NO DATA	0	0%
D	0	0%	NO DATA	NO DATA	1	3%
F	0	0%	NO DATA	NO DATA	0	0%
A+B	45	100%	NO DATA	NO DATA	35	97%
C,D,F	0	0%	NO DATA	NO DATA	1	3%

THURSTON COUNTY

2020–2021	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	3	100%	NO DATA	NO DATA	3	100%
B	0	0%	NO DATA	NO DATA	0	0%
C	0	0%	NO DATA	NO DATA	0	0%
D	0	0%	NO DATA	NO DATA	0	0%
F	0	0%	NO DATA	NO DATA	0	0%
A+B	3	100%	NO DATA	NO DATA	3	100%
C,D,F	0	0%	NO DATA	NO DATA	0	0%

5 YEAR AVERAGE	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	15	100%	NO DATA	NO DATA	6	67%
B	0	0%	NO DATA	NO DATA	0	0%
C	0	0%	NO DATA	NO DATA	2	22%
D	0	0%	NO DATA	NO DATA	0	0%
F	0	0%	NO DATA	NO DATA	1	11%
A+B	15	100%	NO DATA	NO DATA	6	67%
C,D,F	0	0%	NO DATA	NO DATA	3	33%

PIERCE COUNTY

2020–2021	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	26	96%	NO DATA	NO DATA	20	87%
B	0	0%	NO DATA	NO DATA	0	0%
C	0	0%	NO DATA	NO DATA	3	13%
D	1	4%	NO DATA	NO DATA	0	0%
F	0	0%	NO DATA	NO DATA	0	0%
A+B	26	96%	NO DATA	NO DATA	20	87%
C,D,F	1	4%	NO DATA	NO DATA	3	13%

5 YEAR AVERAGE	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	119	96%	NO DATA	NO DATA	74	96%
B	1	1%	NO DATA	NO DATA	1	1%
C	1	1%	NO DATA	NO DATA	1	1%
D	2	2%	NO DATA	NO DATA	0	0%
F	1	1%	NO DATA	NO DATA	1	1%
A+B	120	97%	NO DATA	NO DATA	75	97%
C,D,F	4	3%	NO DATA	NO DATA	2	3%

Playas de Tijuana, Mexico

The 2020 Beach Report Card is proud to introduce three new beaches to our program. All three are located in the city of Tijuana, Mexico and are important for recreation and tourism in a city of over 2 million people. We obtained weekly monitoring data from the County of San Diego for Playa El Faro, Playa El Vigia and Playas Blanca and found serious pollution impacts evident in low grades. El Faro and El Vigia both received a B for Summer Dry Grades, while Playas Blanca received a D. Winter Dry Grades showed a similar pattern where El Faro and El Vigia both received a D, and Playas Blanca received an F. All three beaches received an F for Wet Weather.

These poor marks are not good for local beachgoers or the tourism economy. This stretch of coastline is heavily impacted by sewage pollution year-round, even during dry weather. The main source is the Punta Bandera treatment plant located south of the city. This plant collects sewage from the city in several large ponds near the ocean, and periodically releases the untreated or partially treated sewage into the ocean[8]. Prevailing currents carry sewage pollution north to the Tijuana beaches, and even as far as Coronado, CA. There is an urgent need for Mexico and the United States to work together to address sewage pollution in Tijuana.

TIJUANA, MEXICO

2020–2021	Summer Dry		Winter Dry		Wet Weather	
GRADE	#	%	#	%	#	%
A	0	0%	0	0%	0	0%
B	2	67%	0	0%	0	0%
C	0	0%	0	0%	0	0%
D	1	33%	2	67%	0	0%
F	0	0%	1	33%	3	100%
A+B	2	67%	0	0%	0	0%
C,D,F	1	33%	3	100%	3	100%

8 https://wildcoast.org/wp-content/uploads/2019/08/Issue-Briefing-Tijuana-River-Pollution.pdf

Beach News

Mavericks Beach, Half Moon Bay / San Mateo County

photo: Ryan Searcy

AB 1066

The Beach Water Quality Act, Assembly Bill 411 (AB 411), passed in 1997 and created statewide standards for beach water quality, established a public notification and closure system, and mandated beach water quality monitoring at beaches that meet certain criteria. Heal the Bay was a sponsor of AB 411, and it was a major achievement in protecting the health of California ocean users. Unfortunately no such protections exist for the people and communities who swim, kayak, fish and wade in freshwater areas. As a result, many people get sick from freshwater recreation each year.[9]

Heal the Bay is leading an effort to protect the health for freshwater visitors. Assembly Member Richard Bloom, in partnership with Heal the Bay, has introduced legislation to address this public health issue: Assembly Bill 1066 (AB 1066). This bill will require the California Water Quality Monitoring Council[10] to define and identify high-use freshwater recreation sites across the state and recommend an appropriate monitoring program for these sites. This is not a monitoring and public notification mandate like AB 411, but it is a critical first step in achieving those health protections for freshwater. Once AB 1066 becomes law, Heal the Bay will introduce legislation requiring monitoring and public advisories for freshwater recreation areas.

Climate Emergency

All areas of California are currently experiencing drought[11] which is being driven in part by human-induced climate change.[12] Coastal areas in California experienced a dramatic depression in precipitation (a component of drought) in this reporting period compared to the previous year. Lower amounts of precipitation usually result in better water quality (not the case this year) because there are fewer rain events flushing pollutants into the ocean. It also means beaches are under rain advisories for less time. While this may sound appealing, the ocean you swim in during drought years may not be as healthy as you would like it to be even without stormwater runoff. Climate change is making the ocean warmer[13] and more acidic,[14] which is devastating to the ecosystem. Even if rainfall isn't washing pollutants into the ocean, there are dumping sites on the ocean floor leaching pollutants into the ecosystem regardless of the amount of precipitation on land.[15,16] Consequently, we must stay focused on protecting the ocean from pollution and climate change even if our Beach Report Card eventually assigns high marks to every beach.

Funding Shoreline Monitoring Programs

The U.S. EPA's Beaches Environmental Assessment and Coastal Health Act (BEACH Act) was passed in 2000 and provides funding for recreational water quality monitoring at ocean and Great Lakes beaches. Some states, such as Oregon, rely solely on this funding to sustain their monitoring program. Without the BEACH Act funding, many states would abandon their beach

9 https://www.cdc.gov/mmwr/volumes/69/wr/mm6925a3.htm#:~:text=Shigella%2C%20norovirus%2C%20STEC%2C%20and,vomit%20incident%20in%20the%20water
10 https://mywaterquality.ca.gov/monitoring_council/index2.html
11 https://www.drought.gov/states/california
12 https://www.pnas.org/content/pnas/112/13/3858.full.pdf
13 https://www.climate.gov/news-features/understanding-climate/climate-change-ocean-heat-content#:~:text=In%20the%20present%2C%20warming%20of,near%20coastlines%20around%20the%20world
14 https://www.noaa.gov/education/resource-collections/ocean-coasts/ocean-acidification
15 https://cumulis.epa.gov/supercpad/SiteProfiles/index.cfm?fuseaction=second.cleanup&id=0900993
16 https://www.latimes.com/projects/la-coast-ddt-dumping-ground/

monitoring programs, which would be devastating to public health. Millions of people could get sick by unknowingly exposing themselves to poor water quality. The economic cost would also be severe as coastal recreation and tourism generates well over $100 billion annually.[17]

Unfortunately, the amount of money congress allocates to the BEACH Act has not increased significantly since it was adopted in 2000. The Federal Government must increase funding for the BEACH Act so coastal states can keep their communities and visitors safe and healthy.

States will also likely need to take local action to maintain a robust recreational water quality program moving forward. California funds statewide beach monitoring programs with BEACH Act resources as well as Senate Bill 482 (SB 482), which funds two-thirds of the non-regulatory based shoreline monitoring in the State. SB 482 allocation is overseen by the SWRCB. However, the funds provided are not sufficient as there are many beaches that do not get monitored, and many counties do not conduct monitoring year round.

NowCast Update

For the seventh summer, Heal the Bay is providing daily water quality predictions for California Beaches at the Beach Report Card with NowCast website and app. NowCast predicts concentrations of bacteria in the water on a daily basis, thus providing additional information to the public and filling in the time gaps of traditional bacteria sampling. To make daily predictions, we use computer models to examine correlations between environmental conditions (such as temperature and tide) and historical bacteria concentrations. Our NowCast models then predict with a high accuracy how much bacteria are present in the water given the current local conditions and are verified with sampling data. Visit beachreportcard.org to find daily summer predictions for 25 beaches in California. The Beach Report Card with NowCast app is available for free on iOS and Android devices.

Playa del Rey / Los Angeles County

17 https://coast.noaa.gov/data/digitalcoast/pdf/econ-report.pdf

Seal Beach / Orange County

APPENDICES 2020-2021

SECTION V: APPENDICES

Last 10 Years Beach Bummers: 2010–2020

2010–2011	2011–2012	2012–2013	2013–2014
Avalon Catalina Island LOS ANGELES COUNTY	Cowell Beach, west of the wharf SANTA CRUZ COUNTY	Avalon Catalina Island LOS ANGELES COUNTY	Cowell Beach, west of the wharf SANTA CRUZ COUNTY
Cowell Beach, west of the wharf SANTA CRUZ COUNTY	Avalon Catalina Island LOS ANGELES COUNTY	Cowell Beach, west of the wharf SANTA CRUZ COUNTY	Marina Lagoon, Aquatic Park & Lakeshore Park SAN MATEO COUNTY
Cabrillo Beach Harborside LOS ANGELES COUNTY	Cabrillo Beach Harborside LOS ANGELES COUNTY	Poche Beach ORANGE COUNTY	Marina del Rey Mothers' Beach, between Lifeguard Tower and Boat dock LOS ANGELES COUNTY
Poche Beach ORANGE COUNTY	Topanga State Beach LOS ANGELES COUNTY	Cabrillo Beach Harborside LOS ANGELES COUNTY	Cabrillo Beach Harborside I LOS ANGELES COUNTY
Santa Monica Pier LOS ANGELES COUNTY	Poche Beach ORANGE COUNTY	Malibu Pier LOS ANGELES COUNTY	Stillwater Cove MONTEREY COUNTY
Colorado Lagoon LOS ANGELES COUNTY	Doheny State Beach, at San Juan Creek ORANGE COUNTY	Marina Lagoon, Aquatic Park & Lakeshore Park SAN MATEO COUNTY	Clam Beach, at Strawberry Creek HUMBOLDT COUNTY
Baker Beach, at Lobos Creek SAN FRANCISCO COUNTY	Arroyo Burro SANTA BARBARA COUNTY	Doheny State Beach, at San Juan Creek ORANGE COUNTY	Santa Monica Pier LOS ANGELES COUNTY
Capitolia Beach, west of jetty SANTA CRUZ COUNTY	Baker Beach, at Lobos Creek SAN FRANCISCO COUNTY	Redondo Beach Pier LOS ANGELES COUNTY	Pillar Point Harbor, at Westpoint Ave. LOS ANGELES COUNTY
Mission Bay, Visitor's Center at Clairemont Dr. SAN DIEGO COUNTY	Colorado Lagoon LOS ANGELES COUNTY	Windsurfer Circle SAN FRANCISCO COUNTY	Capitola Beach, west of jetty I SANTA CRUZ COUNTY
Will Rogers State Beach LOS ANGELES COUNTY	Capitola Beach, west of jetty SANTA CRUZ COUNTY	Tijuana River Mouth SAN DIEGO COUNTY	Windsurfer Circle SAN FRANCISCO COUNTY

2014–2015	2015–2016	2016–2017
Cowell Beach, west of the wharf SANTA CRUZ COUNTY	Cowell Beach, west of the wharf SANTA CRUZ COUNTY	Clam Beach, at Strawberry Creek HUMBOLDT COUNTY
Marina del Rey, Mothers' Beach, between Lifeguard Tower and Boat dock LOS ANGELES COUNTY	Clam Beach, at Strawberry Creek HUMBOLDT COUNTY	San Clemente Pier ORANGE COUNTY
Clam Beach, at Strawberry Creek HUMBOLDT COUNTY	San Diego Bay Shelter Island, Shoreline Beach Park SAN DIEGO COUNTY	Cowell Beach, west of the wharf SANTA CRUZ COUNTY
Aquatic Park SAN MATEO COUNTY	Monarch Beach, at Salt Creek ORANGE COUNTY	Newport Bay Abalone Avenue Beach ORANGE COUNTY
Mission Bay, Visitor's Center at Clairemont Dr. SAN DIEGO COUNTY	Santa Monica Pier LOS ANGELES COUNTY	Lakeshore Park, behind Rec Center SAN MATEO COUNTY
Santa Monica Pier LOS ANGELES COUNTY	Marina del Rey Mothers' Beach, between Lifeguard Tower and Boat dock LOS ANGELES COUNTY	La Jolla Cove SAN DIEGO COUNTY
Candlestick Point, Sunnydale Cove SAN FRANCISCO COUNTY	Redondo Municipal Pier, 100 yards south LOS ANGELES COUNTY	Santa Monica Pier LOS ANGELES COUNTY
Stillwater Cove, at Beach and Tennis Club MONTEREY COUNTY	Candlestick Point Sunnydale Cove SAN FRANCISCO COUNTY	Capitola Beach, west of jetty SANTA CRUZ COUNTY
Cabrillo Beach Harborside LOS ANGELES COUNTY	Pillar Point Harbor, end of Westpoint Ave. SAN MATEO COUNTY	Luffenholtz Beach, near Luffenholtz Creek HUMBOLDT COUNTY
Huntington State Beach, projection of Brookhurst Street ORANGE COUNTY	Pismo Beach Pier, 40 feet south of the pier SAN LUIS OBISPO COUNTY	Marina del Rey Mothers' Beach, between Lifeguard Tower and Boat dock LOS ANGELES COUNTY

2017–2018	2018–2019	2019–2020
Poche Beach, at creek outlet ORANGE COUNTY	San Clemente Pier ORANGE COUNTY	Fitzgerald Marine Reserve, at San Vicente Creek Outlet SAN MATEO COUNTY
Lakeshore Park, behind Rec Center SAN MATEO COUNTY	Clam Beach, at Strawberry Creek HUMBOLDT COUNTY	Poche Beach, at Creek Outlet ORANGE COUNTY
Linda Mar Beach, at San Pedro Creek SAN MATEO COUNTY	Linda Mar Beach, at San Pedro Creek SAN MATEO COUNTY	Pillar Point Harbor, at Capistrano Ave. SAN MATEO COUNTY
Clam Beach, at Strawberry Creek HUMBOLDT COUNTY	Long Beach City Beach, projection of Coronado Ave. LOS ANGELESCOUNTY	Foster City, Erckenbrack Park SAN MATEO COUNTY
Roosevelt Beach, south end of parking lot SAN MATEO COUNTY	Cowell Beach, west of the wharf SANTA CRUZ COUNTY	Topanga Beach, at Creek Outlet LOS ANGELES COUNTY
Luffenholtz Beach, near Luffenholtz Creek HUMBOLDT COUNTY	Monarch Beach, at Salt Creek ORANGE COUNTY	Pillar Point Harbor Beach SAN MATEO COUNTY
Santa Monica Pier LOS ANGELES COUNTY	Marina del Rey, Mothers' Beach, between Lifeguard Tower and Boat dock LOS ANGELES COUNTY	Linda Mar, at San Pedro Creek Outlet SAN MATEO COUNTY
Cowell Beach, west of the wharf SANTA CRUZ COUNTY	Cabrillo Beach Harborside LOS ANGELES COUNTY	Mission Bay, Vacation Isle North Cove SAN DIEGO COUNTY
Cabrillo Beach Harborside LOS ANGELES COUNTY	Keller Beach South Beach CONTRA COSTA COUNTY	San Clemente Pier ORANGE COUNTY
Surfer's Beach, southend of riprap SAN MATEO COUNTY	Aquatic Park SAN MATEO COUNTY	Pillar Point Harbor, at Westpoint Ave. SAN MATEO COUNTY

CALIFORNIA GRADES BY COUNTY

		Summer Dry Grade	Winter Dry Grade	Wet Weather Grade
ALAMEDA COUNTY				
	Crown Beach, at 2001 Shoreline Dr.	A	A	A
	Crown Beach, at Bird Sanctuary	A	B	C
	Crown Beach, at Sunset Rd.	A+	A+	A+
	Crown Beach, at Windsurfer Corner	A	A+	A+
	Crown Beach, Crab Cove	A	A+	A+
	Crown Beach, at Bath House		A+	A+
CONTRA COSTA COUNTY				
	Keller Beach, North Beach	B	A	A
	Keller Beach, South Beach	A	A	A
DEL NORTE COUNTY				
	Crescent City, at Battery Point Lighthouse	A	A+	C
HUMBOLDT COUNTY				
	Clam Beach County Park, at Strawberry Creek	F		
	Luffenholtz Beach, at Luffenholtz Creek	C		
	Mad River Mouth-north	A+		
	Moonstone County Park (Little River State Beach)	B		
	Trinidad State Beach, at Mill Creek	B		
LOS ANGELES COUNTY				
	Alamitos Bay, at 2nd St. Bridge and Bayshore	A+	A	F
	Alamitos Bay, at 56th Place on bayside	A+	A+	F
	Alamitos Bay, at shore float	A	A	F
	Avalon Beach, 100 feet west of the Green Pleasure Pier	B		
	Avalon Beach, 50 feet east of the Green Pleasure Pier	A+		
	Avalon Beach, 50 feet west of the Green Pleasure Pier	A+		
	Avalon Beach, east of the Casino Arch at the steps	A		
	Back of main channel (at depth)	A	A	C
	Back of main channel (from surface)	A	A	F
	Basin D, near first slip outside swim area (at depth)	A	B	B
	Basin D, near first slip outside swim area (from surface)	A	A	A
	Basin E, center of basin (at depth)	A	A+	C
	Basin E, center of basin (from surface)	A	A	D
	Basin E, in front of Boone-Olive Pump Outlet	A		
	Basin E, in front of Boone-Olive Pump Outlet		B	F
	Basin E, in front of tide gate from Oxford Basin	A	A	F
	Basin F, center of basin (at depth)	A	A	A+
	Basin F, center of basin (from surface)		A	B
	Belmont Pier, west side	C	A	F
	Big Rock Beach, at stairs	A	A	A+
	Broad Beach, at Trancas Creek	A+	A+	A+
	Cabrillo Beach, harborside at boat launch	A	A	D
	Cabrillo Beach, harborside at restrooms	B	D	F
	Cabrillo Beach, ocean side	A+	A	A+
	Carbon Beach, at Sweetwater Canyon	A	A+	A
	Castle Rock Beach, at storm drain	A	A+	A+
	Colorado Lagoon-north	A	A	F
	Colorado Lagoon-south	B	A	F

	Dan Blocker County Beach, at Solstice Canyon	A	A+	A+
	Dockweiler State Beach, at Ballona Creek mouth	A	A	F
	Dockweiler State Beach, at Culver Blvd.	A+	A	F
	Dockweiler State Beach, at Grand Ave.	A+	A+	C
	Dockweiler State Beach, at Imperial Highway storm drain	A	A	F
	Dockweiler State Beach, at North Weschester storm drain	A+	A	F
	Dockweiler State Beach, at World Way	A+	A+	F
	Escondido State Beach, at Escondido Creek	A+	A+	A+
	Hermosa Beach Pier, 50 yards south of pier	A+	A	B
	Hermosa City Beach, at 26th Street	A+	A	C
	Herondo Street (Redondo Breakwater)	A	A	F
	Hyperion Treatment Plant, at One Mile Outfall	A+	A+	A
	Las Flores State Beach, at Las Flores Creek	A+	A+	A+
	Las Tunas County Beach, at Pena Creek	A+	A+	A
	Latigo Canyon Creek mouth	A+	A	A+
	Leo Carrillo Beach, at Arroyo Sequit Creek	A+	A+	A+
	Long Beach City Beach, at 10th Place	A	A	D
	Long Beach City Beach, at 55th Place	A	A	F
	Long Beach City Beach, at 5th Place	B	A	F
	Long Beach City Beach, at 72nd Place	A	B	F
	Long Beach City Beach, at Coronado Ave.	B	A	F
	Long Beach City Beach, at Granada Av.	B	B	D
	Long Beach City Beach, at Molino Av.	B	A	F
	Long Beach City Beach, at Prospect Ave.	B	C	F
	Long Beach Mothers' Beach, north end	B	B	F
	Malibu Pier, 50 yards east of pier	A	A	D
	Malibu Point	A	A	A+
	Manhattan Beach Pier	A	A	A
	Manhattan Beach, at 28th Street	A	A	F
	Manhattan State Beach, at 40th Street	A	A+	A
	Marie Canyon storm drain, at Puerco Beach	A	A	A+
	Marina del Rey Mothers' Beach, at lifeguard tower	C	F	F
	Marina del Rey Mothers' Beach, at playground	B	F	F
	Marina del Rey Mothers' Beach, between Lifeguard Tower and Boat dock	F	F	D
	Nicholas Beach, at San Nicholas Canyon Creek	A+	A+	A+
	Ocean Park Beach, at Ashland Ave. storm drain	A	A	B
	Palos Verdes Estates, at Malaga Cove rocks	A	A	A
	Palos Verdes Estates, at Malaga Cove trail outlet	A	A	A+
	Palos Verdes Estates, at Palos Verdes Cove	A	A	A+
	Paradise Cove Pier, at Ramirez Canyon Creek	A	A+	A+
	Puerco State Beach, at creek mouth	A+	A+	A+
	Rancho Palos Verdes, Abalone Cove Shoreline Park	A	A	A+
	Rancho Palos Verdes, Long Point	A+	A	B
	Rancho Palos Verdes, Portuguese Bend Cove	A+	A	A+
	Redondo Beach Pier, 100 yards south of pier	A	B	F
	Redondo State Beach, at Sapphire Street	A	B	F
	Redondo State Beach, at Topaz Street	A+	A+	B
	Royal Palms State Beach	A+	A+	A+

	Santa Monica Beach, at Montana Ave.	A	A+	F
	Santa Monica Beach, at Pico-Kenter storm drain	A	A	F
	Santa Monica Beach, at Strand St.	A+	A	C
	Santa Monica Beach, at Wilshire Blvd.	A	A	F
	Santa Monica Pier	D	F	F
	Surfrider Beach, at lagoon breach	C	B	D
	Topanga Beach, at creek mouth	D	A	B
	Torrance Beach, at Avenue I storm drain	A+	A	F
	Tuna Canyon	A+	A	A+
	Venice Beach, 50 yards south of Fishing Pier	A+	A	B
	Venice Beach, at Rose Ave.	A+	A	C
	Venice Beach, at Topsail St.	A+	A+	D
	Venice Beach, at Windward Ave.	A	A+	D
	Venice City Beach, at Brooks Ave. drain	A+	A	D
	Walnut Creek Outlet, at Wildlife Road	A	A+	A+
	Will Rogers State Beach, at Pulga Canyon storm drain	A+	A+	B
	Will Rogers State Beach, at Santa Monica Canyon	A	A	B
	Will Rogers State Beach, at Temescal Canyon	A	A+	D
	Will Rogers State Beach, Bel Air Bay Club	A	A+	A
	Zuma Beach, at Zuma Creek	A+	A+	A
MARIN COUNTY				
	Baker Beach, Horseshoe Cove NE	A+		
	Baker Beach, Horseshoe Cove NW	A		
	Baker Beach, Horseshoe Cove SW	A+		
	Bolinas Beach, at Wharf Rd.	A+		
	Chicken Ranch Beach, at Creek mouth	A		
	China Camp	A+		
	Dillon Beach	A		
	Heart's Desire	A		
	Lawson's Landing	A		
	McNears Beach	A		
	Miller Park	A		
	Millerton Point	A+		
	Muir Beach-Central	A		
	Muir Beach-North	A		
	Muir Beach-South	A		
	Paradise Cove	A+		
	Rodeo Beach-Central	A+		
	Rodeo Beach-North	A+		
	Rodeo Beach,-South	A+		
	Schoonmaker Beach	A+		
	Shell Beach	A+		
	Stinson Beach-Central	A		
	Stinson Beach-North	A		
	Stinson Beach-South	A		
MENDOCINO COUNTY				
	Big River at PCH	A+		
	Caspar Beach, at Caspar Creek	A+		
	Hare Creek	A+		

	Pudding Creek Outlet	A+		
	Van Damme State Park, at Little River	A+		
MONTEREY COUNTY				
	Asilomar State Beach, at Arena Av.	A+		
	Carmel City Beach, at Ocean Ave.	A	A	
	Lover's Point Park, at 16th Street	A	A	
	San Carlos Beach, at San Carlos Beach Park	A+		
	Spanish Bay (Moss Beach), at 17 mile drive	A+	A	
	Stillwater Cove, at Beach and Tennis Club	A	A	
ORANGE COUNTY				
	1000 Steps Beach, at 9th St.	A+	A+	A+
	2000 feet south of SERRA Outfall	A	A	A
	Aliso Creek Ocean Interface	A	A	F
	Aliso Creek, 1000 south of creek mouth	A+	A+	F
	Aliso Creek, at mouth	A	A	F
	Balboa Beach Pier	A+	A+	A+
	Balboa Beach, at 15th/16th Street	A+	A+	A
	Balboa Beach, The Wedge	A+	A+	A+
	Between Pearl & Agate Streets		A+	
	Bolsa Chica Reserve, at Flood Gates	A	A+	D
	Bolsa Chica Reserve, at south end of beach	A+	A+	D
	Camel Point	A+	A+	B
	Cleo Street	A	A	
	Corona Del Mar (CSDOC)	A+	A	A+
	Crescent Bay Beach	A+	A	
	Crystal Cove	A+	A+	A+
	Crystal Cove (CSDOC)	A+	A+	A+
	Dana Point Harbor Baby Beach, Buoy Line	B	B	
	Dana Point Harbor Baby Beach, East End	A	A	
	Dana Point Harbor Baby Beach, Swim Area	B	B	
	Dana Point Harbor Baby Beach, West End	B	B	
	Dana Point Harbor Fuel Dock	A+	A+	
	Dana Point Harbor Guest Dock	A	A	
	Dana Point Harbor Pier	A	A+	
	Dana Point Harbor Youth Dock	A+	A+	
	Dana Point Harbor, Harbor Patrol Dock	A+	A+	
	Dana Point Harbor, M Dock (East Basin)	A	A	
	Dana Point Harbor, Pilgrim Dock	A	A+	
	Dana Point, at Camino Estrella	A+	A+	
	Dana Point, Capistrano County Beach	A+	A+	
	Dana Point, South Capistrano Bay Community Beach	A+	A+	
	Dana Strands Beach (AWMA)	B	A	
	Diver's Cove	A+	A	
	Doheny Beach	A	A	A
	Doheny State Beach, at Last Campground	A	A+	A+
	Doheny State Beach, at San Juan Creek	A	A+	B
	Doheny State Beach, End of the Park	A	A+	A+
	Doheny State Beach, Mid Beach north of San Juan Creek	A	A	B
	Doheny State Beach, North Beach	B	C	F

	Doheny State Beach, Pedestrian Bridge	A	A	A+
	El Moro Beach	A+	A+	
	Emerald Bay Beach	A+	A+	
	Huntington City Beach, at 17th Street	A	A	F
	Huntington City Beach, at Beach Blvd.	A	A	D
	Huntington City Beach, at Bluffs	A	A	D
	Huntington City Beach, at Huntington St.	A+	A	F
	Huntington Harbor, 11th Street Beach	A	A+	
	Huntington Harbor, Coral Cay Beach	A	A+	
	Huntington Harbor, Davenport Beach	B	A	
	Huntington Harbor, Humboldt Beach	A+	A+	
	Huntington Harbor, Mothers Beach-Orange County	A	A	
	Huntington Harbor, Seagate Lagoon	A	A	
	Huntington Harbor, Trinidad Lane Beach	A	A	
	Huntington Harbour, Admiralty Drive Beach	A	A	
	Huntington Harbour, Anaheim Bay-Gas Dock	A	A+	
	Huntington Harbour, Anderson Street Marina	A	A	
	Huntington Harbour, Channel Beach	A	A	
	Huntington Harbour, Clubhouse Marina	A	A+	
	Huntington Harbour, Sunset Aquatic Park Beach	A	A	
	Huntington State Beach, at Brookhurst Street	A	A	C
	Huntington State Beach, at Magnolia Street	B	B	D
	Huntington State Beach, at Newland St. (SCE Plant)	A	A	A
	Laguna Beach, at Goff Island Beach	A	A	A+
	Laguna Hotel	A+	A	
	Laguna Lido	A+	A+	A
	Laguna Main Beach	A+	A	
	Linda Lane Beach	A+	A	
	Little Corona Beach	B	B	D
	Marine Science Institute Beach (SERRA)	A+	A+	
	Mariposa Beach	A+	A+	
	Monarch Beach, 150 feet north of Salt Creek mouth	A	A	
	Monarch Beach, at Salt Creek	B	C	
	Muddy Creek Beach	A+	A+	B
	Newport Bay, 10th Street Beach	A	A	F
	Newport Bay, 15th Street Beach	A	A	F
	Newport Bay, 19th Street Beach	A	A	F
	Newport Bay, 33rd Street Beach	A	A+	C
	Newport Bay, 38th Street Beach	A+	A+	F
	Newport Bay, 43rd Street Beach	A	A	D
	Newport Bay, Abalone Avenue Beach	C	A+	A
	Newport Bay, Alvarado/ Bay Isle Beach	A	A+	F
	Newport Bay, Bayshore Beach	A	A	F
	Newport Bay, De Anza Beach	A+	A+	F
	Newport Bay, Garnet Avenue Beach	A	A+	F
	Newport Bay, Grand Canal	A	A	F
	Newport Bay, Harbor Patrol Beach at Bayside Drive	A	A	D
	Newport Bay, Lido Yacht Club Beach	A	A	F
	Newport Bay, N Street Beach	A	A	F

	Newport Bay, Newport Blvd Bridge	A	A	F
	Newport Bay, Newport Dunes-East	A	C	F
	Newport Bay, Newport Dunes-Middle	A	B	F
	Newport Bay, Newport Dunes-North	A	B	F
	Newport Bay, Newport Dunes-West	A	A	F
	Newport Bay, North Star Beach	A	A	F
	Newport Bay, Onyx Avenue Beach	A	B	F
	Newport Bay, Park Avenue Beach	A	A	B
	Newport Bay, Promontory Point	A+	A+	A+
	Newport Bay, Rhine Channel Beach	A	A	F
	Newport Bay, Ruby Avenue Beach	A	A	D
	Newport Bay, Sapphire Avenue Beach	A	A	F
	Newport Bay, Via Genoa Beach	A	A	F
	Newport Beach, at 38th Street	A+	A+	B
	Newport Beach, at 52nd/53rd Street	A+	A+	A+
	Newport Beach, at Orange Street	A+	A+	A+
	Newport Slough at Lancaster/62nd Street Beach	A	A	
	Newport Slough, Grand Street Beach	A	A	
	North Aliso County Beach	A+	A+	A+
	Pelican Point Beach	A+	A	A+
	Pico drain at North Beach	B	B	
	Poche Beach	A	A	
	Poche Creek Outlet	D	C	
	Projection of Bluebird Canyon	A+	A+	
	Riviera Beach		A+	
	Salt Creek Beach	A	A+	
	San Clemente Pier	C	A	
	San Clemente Pier, Lifeguard Building north	A+	A	
	San Clemente Trafalgar Canyon	A	A	
	San Clemente, at Avenida Calafia	A+	A+	
	San Clemente, at Avenida Las Palmeras	A+	A+	
	San Clemente, at El Portal storm drain	A+	A+	
	San Clemente, North beach at Avenida Pico	A+	A+	
	San Clemente, South Linda Lane storm drain	A+	A	
	San Juan Creek	C	C	F
	Santa Ana River Mouth	A	A	A
	Santa Ana River mouth	A+	A	F
	Seal Beach Pier, 100 yards south of pier	A	A	F
	Seal Beach, at 14th Street	A	A+	F
	Seal Beach, at 1st Street	C	A	F
	Seal Beach, at 8th Street	B	A	F
	Sunset Beach, at Broadway	A+	A+	B
	Surfside Beach, at Sea Way	A	A+	D
	Table Rock	A+	A+	B
	Three Arch Bay	A	A	A+
	Treasure Island Beach	A+	A+	A+
	Victoria Beach	A+	A	
	West Street	A	A+	B

SAN DIEGO COUNTY				
	Border Field State Park, at Monument Rd.	C	F	F
	Border Field State Park, north side of Border Fence	C	D	D
	Cardiff State Beach, at Charthouse parking	A	A	A
	Cardiff State Beach, Las Olas (100 yds. south of Charthouse)	A	A+	A
	Cardiff State Beach, San Elijo Lagoon outlet	B	A	A+
	Cardiff State Beach, Seaside State Park	A	A	A+
	Carlsbad, at Batiquitos Lagoon outlet	A	A	
	Carlsbad, at Carlsbad Village Drive	A	A	
	Carlsbad, at Cerezo Drive	A	A	A+
	Carlsbad, at Encina Creek	A+	A+	A+
	Carlsbad, at Palomar Airport Rd.	A+	A+	A+
	Carlsbad, at Poinsettia Lane	A	A	A+
	Carlsbad, at Ponto Drive	A	A	A+
	Carlsbad, at Tamarack Av.	A	A	A+
	Coronado City beach at Avenida Lunar	A	A	A+
	Coronado, at Ave del Sol	A	A+	A+
	Coronado, at North Beach near Ocean Blvd.	A+	A	A+
	Coronado, Silver Strand	A	A	A
	Del Mar, at 15th Street	A	A	A+
	Del Mar, San Dieguito River Beach	B	A	A+
	Encinitas, Moonlight Beach, Cottonwood Creek	A	A	A+
	Encinitas, San Elijo State Park at Liverpool Dr.	A	A	A+
	Encinitas, San Elijo State Park at north end near stairs		A+	A
	Encinitas, San Elijo State Park, at Pipes surf break	A	A+	A
	Encinitas, Swami's Beach, Seacliff Park			A+
	Imperial Beach Pier	D	A	F
	Imperial Beach, at Carnation Ave.	C	A	C
	Imperial Beach, at Cortez Ave.	B	A	F
	Imperial Beach, at Seacoast Dr.	D	B	F
	La Jolla Ravina, south of Nicholson Pt.	B	A+	A+
	La Jolla Shores Beach, 1000 ft south of Scripps Pier	A	A	A+
	La Jolla Shores Beach, 250 feet sout of Scripps Pier	A	A	A+
	La Jolla Shores Beach, 500 feet north of Scripps Pier	A	A	A+
	La Jolla Shores Beach, Del Oro	A		A+
	La Jolla Shores, at Ave De La Playa	C	C	B
	La Jolla Shores, El Paseo Grande (near Scripps)	A		A+
	La Jolla, at Palomar Ave.	A	A	A+
	La Jolla, at Vallecitos	B	A	A+
	La Jolla, at Vista De La Playa	A	A+	A+
	La Jolla, Children's Pool site 2	C	B	B
	La Jolla, La Jolla Cove	B	B	
	La Jolla, South Casa Beach	A	A	A+
	La Jolla, Windansea Beach at Bonair St.	A	A+	A+
	Mission Bay, Bahia Point-northside at Gleason Rd.	A	A	
	Mission Bay, Bonita Cove north cove	A	A+	
	Mission Bay, Campland west of Rose Creek	C	A	F
	Mission Bay, Comfort Station north of Leisure Lagoon	C	A	
	Mission Bay, Crown Point Shores	A	A	

	Mission Bay, DeAnza Cove, mid-cove	A		
	Mission Bay, Fanuel Park at Fanuel St.	A	A	
	Mission Bay, Fiesta Island north west shore	A	A+	
	Mission Bay, Mariners Basin at Balboa Ct.	A	A	
	Mission Bay, San Juan Cove west of boat launch	A	A	
	Mission Bay, Santa Clara Cove at Portsmouth Ct.	A	A	
	Mission Bay, Tecolote Shores (swim area)	B	A	
	Mission Bay, Vacation Isle North Cove Beach	A	A	
	Mission Bay, Vacation Isle Ski Beach	A	A	
	Mission Bay, Ventura Cove	A	A+	
	Mission Beach, Belmont Park	A	A	A+
	Ocean Beach Pier, northside at Newport Ave.	A	A	A+
	Ocean Beach, at Bermuda Ave.	B	A	A+
	Ocean Beach, at San Diego River	B	A	D
	Ocean Beach, Ocean Pier at Narragansett Ave.	A	A	A+
	Ocean Beach, Stub Jetty	A	A	A+
	Oceanside, 500 feet North of Loma Alta Creek	A	A+	A
	Oceanside, at Cassidy Street	A	A	C
	Oceanside, at Forster Street	A	A+	A
	Oceanside, at San Luis Rey River outlet	A	A	B
	Oceanside, at Surfrider Way	B	A	
	Oceanside, at Tyson Street	A	A	A
	Oceanside, Buccaneer Beach at Loma Alta Creek	A	A	
	Oceanside, Harbor Beach at Harbor Drive	A	A	A+
	Oceanside, St. Malo Beach downcoast from St. Malo Road	A	A+	C
	Pacific Beach, at Grand Ave.	A	A+	A+
	Pacific Beach, Tourmaline Surf Park at Tourmaline St.	B	A	A+
	Point Loma, Lighthouse	A	A	A+
	Point Loma, Point Loma Treatment Plant	A	A	A+
	San Diego Bay, Bayside Park at J Street	B	A	
	San Diego Bay, Glorietta Bay Park at boat launch	A	A	A+
	San Diego Bay, Shelter Island (Shoreline Beach Park)	B	A	
	San Diego Bay, Silver Strand	A	A	
	San Diego Bay, Tidelands Park at Mullinix Dr.	A	A	
	Silver Strand State Beach at Guard Shack	A	A	C
	Silver Strand State Beach at Lifeguard Tower	A	A	B
	Solana Beach, Fletcher Cove at Lomas Santa Fe Dr.	A	A	B
	Solana Beach, Tide Beach Park at Solana Vista Dr.	A+	A+	A+
	Sunset Cliffs, at Ladera Street	A	A	A+
	Tijuana Slough NWRS, 3/4 miles north of Tijuana River	F	A	A+
	Tijuana Slough NWRS, Tijuana River mouth	F	D	F
	Torrey Pines, Los Penasquitos Lagoon outlet	B	A+	A+
	Windansea Beach, at Playa Del Norte	A	A	A+
SAN MATEO COUNTY				
	Aquatic Park	A		
	Bean Hollow State Beach		A+	A+
	Coyote Point		C	D
	Dunes Beach		F	F
	Foster City, Erckenbrack Park	F	F	D

	Foster City, Marlin Park	F	F	D
	Francis Beach, at stairs		C	F
	Gazos Beach, at Gazos Creek		A	D
	Gull Park Foster City	F	F	D
	Kiteboard Beach		A	D
	Lakeshore Park, behind Rec Center	B		
	Linda Mar Beach, at San Pedro Creek	B	B	F
	Oyster Point		A	C
	Pescadero State Beach, at Pescadero Creek		A	A+
	Pillar Point Harbor Beach, #9		D	F
	Pillar Point Harbor, at Westpoint Ave. (# 7)		D	F
	Pillar Point Harbor, Capistrano Ave. Beach (# 5)		B	F
	Pillar Point, Mavericks Beach at Westpoint Ave. (#8)		C	F
	Pomponio State Beach, at Pomponio Creek		A	D
	Rockaway Beach, at Calera Creek		C	F
	Roosevelt Beach, south end of parking lot		C	F
	San Gregorio State Beach, at San Gregorio Creek		A+	A
	Surfer's Beach, south end of riprap	A	B	F
	Venice Beach, at Frenchman's Creek		D	F
SANTA BARBARA COUNTY				
	Arroyo Burro Beach	A	A	B
	Butterfly Beach	A	A	F
	Carpinteria State Beach	A	A	F
	East Beach, at Mission Creek	D	B	D
	East Beach, at Sycamore Creek	A	A	C
	El Capitan State Beach	A+	A+	A+
	Gaviota State Beach	A	A	A+
	Goleta Beach	B	A	F
	Guadalupe Dunes	A+	A+	A+
	Hammond's Beach	B	A	F
	Hope Ranch Beach	A+	A	F
	Jalama Beach	A	A	A+
	Leadbetter Beach	A	A	F
	Refugio State Beach	A	A+	A
	Sands, at Coal Oil Point	A+	A	A+
	Summerland Beach	A	A	C
SANTA CRUZ COUNTY				
	Capitola Beach, east of jetty	B	B	D
	Capitola Beach, west of jetty	F	F	F
	Cowell Beach, at Lifeguard Tower 1	B	A	C
	Cowell Beach, at the Stairs	A+	B	F
	Cowell Beach, west of the wharf	C	C	B
	Mitchell's Cove Beach	A	B	C
	Natural Bridges State Beach	A	A	A
	Rio Del Mar Beach		A	A+
	Santa Cruz Main Beach, at the Boardwalk	B	C	B
	Santa Cruz Main Beach, at the San Lorenzo River	A	A	F
	Seabright Beach	A	A	B

	Seacliff State Beach	A	A	A+
	Twin Lakes Beach	A	A	B
SAN FRANCISCO COUNTY				
	Aquatic Park Beach, 211 Station	A	A+	B
	Baker Beach East, Ocean #15 East	A	A	A
	Baker Beach West, Ocean #16	A+	A	A
	Baker Beach, Lobos Creek	B	C	A+
	Candlestick Point, Jackrabbit Beach	A	B	A+
	Candlestick Point, Sunnydale Cove	B	B	B
	Candlestick Point, Windsurfer Circle	F	F	F
	China Beach, at Sea Cliff Ave.	A+	A+	A+
	Crissy Field Beach East, 202.4 Station	A	A	B
	Crissy Field Beach West, 202.5 station	A	A+	A
	Fort Funston, near Lake Merced overflow structure			A+
	Islais Landing at Islais Creek	A	A	C
	Mission Creek Park, at Mission Creek	A+	A+	F
	Ocean Beach, at Balboa Ave.	A+	A+	A
	Ocean Beach, at Lincoln Way	A+	A+	A+
	Ocean Beach, at Sloat Blvd.	A+	A	A+
SAN LUIS OBISPO COUNTY				
	Avila Beach 350 yards west of pier, at Creek	A	A	A+
	Avila Beach, at San Luis Street	A	A	A+
	Cayucos Beach, North of pier at storm drain	A+	A	B
	Cayucos State Beach, downcoast of the pier	A	A	C
	Hearst Memorial State Beach, 100 yards west of the pier at creek outfall	A	A	D
	Morro Bay City Beach, 75 feet north of main parking lot	A	A	A+
	Morro Bay City Beach, at Atascadero	A+	A+	A+
	Morro Bay City Beach, at Morro Creek	A	A+	A+
	Morro Strand State Beach, at Beachcomber Drive	A+	A	A
	Olde Port Beach (Harford Beach)-North	A	B	A
	Pismo Beach, 40 feet south of the pier	A	A	A+
	Pismo Beach, at Ocean View	A	A	A+
	Pismo Beach, at Wadsworth Street	A	A+	A+
	Pismo State Beach, 330 yards north of Pier Ave.	A+	A+	A+
	Pismo State Beach, 571 yards south of Pier Ave.	A+	A	A+
	Pismo State Beach, at Pier Ave.	A+	A	A+
	San Simeon State Beach, at Pico Ave.	A+	A	A+
	Sewers at Silver Shoals Dr.	A+	A+	A+
	Studio Drive parking lot near Old Creek	A+	A+	B
SONOMA COUNTY				
	Black Point Beach	A+		
	Campbell Cove State Park Beach	A		
	Doran Regional Park Beach	A+		
	Goat Rock State Park Beach	A+		
	Gualala Regional Park Beach	A+		
	Salmon Creek State Park Beach	A+		
	Stillwater Cove Regional Park Beach	A		

TIJUANA				
	El Faro	B	D	F
	El Vigia	B	D	F
	Playas Blanca	D	F	F
VENTURA COUNTY				
	C. I. Harbor, Beach Park at South end of Victoria Ave.	C	D	D
	C.I. Harbor, at Hobie Beach Lakshore Dr.	A+	A+	A+
	County Line Beach	A	A+	A+
	Emma Wood State Beach, 50 yards South of first drain	A+	A	A+
	Faria County Park, at stairs	A+	A+	A+
	Hobson County Park, at stairs	A+		
	Hollywood Beach, at La Crescenta St.	A+		
	Hollywood Beach, at Los Robles St.	A+	A+	A+
	La Conchita Beach, at Ocean View Rd.	A+		
	Mandos Cove storm drain	A+		
	Marina Park, north end of playground	A		
	Oil Piers Beach, south of storm drain	A+	A+	A+
	Ormond Beach, 50 yards north of Oxnard Industrial drain	A+	A+	A+
	Ormond Beach, at Arnold Rd.	A+	A+	A+
	Ormond Beach, at J Street	A+	A	A+
	Oxnard Beach Park, at Falkirk Ave.	A+		
	Oxnard Beach Park, at Starfish Dr.	A+		
	Oxnard Beach, at 5th Street	A+		
	Oxnard Beach, at Outrigger Way	A+		
	Peninsula Beach, North of South Jetty	A		
	Point Mugu Beach, at parking lot	A		
	Port Hueneme Beach Park, 50 yards north of the pier	A	A	A+
	Promenade Park, at Figueroa St.	A	A	A
	Promenade Park, at Redwood Apts.	A+		
	Promenade Park, south of drain at California St.	A		
	Rincon Beach, 25 yards south of the creek mouth	A	A	A
	Rincon Beach, at the end of the footpath	A		
	San Buenaventura Beach, south of drain at Dover Ln.	A+		
	San Buenaventura Beach, south of drain at Kalorama St.	A+		
	San Buenaventura Beach, south of drain at San Jon Rd.	A	A	A+
	San Buenaventura Beach, south of drain at Weymouth Ln.	A		
	Silverstrand , at San Nicholas Ave.	A+	A	A+
	Silverstrand, at Santa Paula Dr.	A	A+	A+
	Silverstrand, at Sawtelle Ave.	A+	A+	A+
	Solimar Beach, south at end of gate access road	A+	A	A+
	Staircase Beach, bottom of staircase	A+		
	Surfer's Knoll, at parking lot	A	A	A+
	Surfer's Point at Seaside	A	A	A+
	Sycamore Cove Beach, 50 yards south of the creek mouth	A+		
	Thornhill Broome Beach, at parking lot	A+		

OREGON GRADES BY COUNTY

		Summer Dry Grade	Winter Dry Grade	Wet Weather Grade
CLATSOP COUNTY				
	Cannon Beach at Ecola Creek mouth (2nd Avenue)			A+
	Cannon Beach projection of Gower Ave. storm outflow			A+
	Seaside Beach at Broadway turn around			A+
	Seaside Beach at U Avenue			F
	Tolovana State Park Beach 50m north of Chisana Creek			C
	Tolovana State Park Beach 50m south of Chisana Creek			A+
LANE COUNTY				
	Heceta Beach at north runoff			F
	Heceta Beach at south runoff			F
	Heceta Beach middle			F
LINCOLN COUNTY				
	Beverly Beach 0.1 km North of ramp			A+
	Beverly Beach 0.2 km West of creek mouth			A+
	D River Beach at North corner of parking lot			A+
	Nye Beach Turnaround west of discharge pipe (marine water)			A+
	Seal Rock State Wayside Beach at mouth of Hill Creek			A+
	Seal Rock State Wayside Beach at mouth of Little Creek			A+
	Seal Rock State Wayside Beach at north access			A+
TILLAMOOK COUNTY				
	Short Sand Beach at Short Sand creek (Oswald State Park)			A+
	Twin Rocks Beach			A+

WASHINGTON GRADES BY COUNTY

		Summer Dry Grade	Winter Dry Grade	Wet Weather Grade
CLALLAM COUNTY				
	Cline Spit County Park-mid			A+
	Cline Spit County Park-north			A+
	Cline Spit County Park-south			A+
	Hollywood Beach-east	A		B
	Hollywood Beach-mid	A+		A+
	Hollywood Beach-west	A+		A+
	Port Williams Boat Launch-mid			A+
	Port Williams Boat Launch-north			A+
	Port Williams Boat Launch-south			A+
	Salt Creek Recreation Area-north			A+
	Salt Creek Recreation Area-south			A+
GRAYS HARBOR COUNTY				
	Westhaven State Park Half Moon Bay-mid	A+		A+
	Westhaven State Park Half Moon Bay-north	A+		A+
	Westhaven State Park Half Moon Bay-south	A+		A+
	Westhaven State Park South Jetty-mid	A+		A+
	Westhaven State Park South Jetty-north	A+		A+
	Westhaven State Park South Jetty-south	A+		A+
	Westport-The Groynes-east	A+		A+
	Westport-The Groynes-mid	A+		A+
	Westport-The Groynes-west	A+		A+
ISLAND COUNTY				
	Dave Mackie Park Beach in tidal lagoon	A+		A+
	Dave Mackie Park Beach-north	A		A+
	Dave Mackie Park Beach-south	A		A+
	Freeland County Park Holmes Harbor-east	F		A+
	Freeland County Park Holmes Harbor-mid	A		A+
	Freeland County Park Holmes Harbor-west	A		A+
	Oak Harbor Lagoon-mid	A+		A
	Oak Harbor Lagoon-north west	A		A+
	Oak Harbor Lagoon-south east	B		A+
JEFFERSON COUNTY				
	Fort Worden State Park-mid	A+		A+
	Fort Worden State Park-north	A+		A+
	Fort Worden State Park-south	A		A+
	Herb Beck Marina-east	A		A+
	Herb Beck Marina-mid	A+		A+
	Herb Beck Marina-west	A+		A+
	Mystery Bay State Park east end of dock			A+
KING COUNTY				
	Alki Beach Park-mid			A+
	Alki Beach Park-north			A+
	Alki Beach Park-south			A+
	Carkeek Park-mid			A+
	Carkeek Park-north			D
	Carkeek Park-south			A+

	Dash Point State Park-east	A+		A+
	Dash Point State Park-mid	A+		A+
	Dash Point State Park-west	A+		A+
	Golden Gardens-mid			A+
	Golden Gardens-north			C
	Golden Gardens-south			A+
	Lincoln Park-mid			A+
	Lincoln Park-north			A+
	Lincoln Park-south			A+
	Redondo County Park-mid	A+		A+
	Redondo County Park-north	A		C
	Redondo County Park-south	A+		A+
	Richey Viewpoint-mid			A+
	Richey Viewpoint-north			A+
	Richey Viewpoint-south			A+
	Richmond Beach Saltwater Park-mid			A+
	Richmond Beach Saltwater Park-north			A+
	Richmond Beach Saltwater Park-south			A+
	Saltwater State Park-mid	A+		A+
	Saltwater State Park-north	A+		A+
	Saltwater State Park-south	A+		A+
	Seahurst (Ed Munro) Park-mid			A+
	Seahurst (Ed Munro) Park-north			A+
	Seahurst (Ed Munro) Park-south			A+
KITSAP COUNTY				
	Arness County Park-mid	B		A+
	Arness County Park-north	A		A+
	Arness County Park-south	A+		A+
	Fay Bainbridge State Park-mid	A+		A+
	Fay Bainbridge State Park-north	A+		A+
	Fay Bainbridge State Park-south	A+		A+
	Illahee State Park-mid	A+		A+
	Illahee State Park-north	A+		A+
	Illahee State Park-south	A+		A+
	Indianola Dock-east	A+		D
	Indianola Dock-mid	A+		C
	Indianola Dock-west	A		C
	Joel Pritchard Park-east	A+		A+
	Joel Pritchard Park-mid	A+		A+
	Joel Pritchard Park-west	A		A+
	Kitsap Memorial State Park-mid	A+		A+
	Kitsap Memorial State Park-north	A+		A+
	Kitsap Memorial State Park-south	A+		A+
	Lions Park-mid	A+		A+
	Lions Park-north	A+		A+
	Lions Park-south	A		A+
	Point No Point Lighthouse Park-mid	A+		A+
	Point No Point Lighthouse Park-north	A+		A+

	Point No Point Lighthouse Park-south	A+		A+
	Pomeroy Park-Manchester Beach-mid	A+		A+
	Pomeroy Park-Manchester Beach-north	A+		C
	Pomeroy Park-Manchester Beach-south	A+		A+
	Scenic Beach State Park-east	A+		A+
	Scenic Beach State Park-mid	A+		A+
	Scenic Beach State Park-west	A+		A+
	Silverdale County Park-east	A+		A+
	Silverdale County Park-mid	A+		A+
	Silverdale County Park-west	A+		A+
MASON COUNTY				
	Belfair State Park	A+		
	Belfair State Park	A+		
	Belfair State Park	A+		
	Potlatch State Park-mid	A+		A+
	Potlatch State Park-north	A+		A+
	Potlatch State Park-south	A+		A+
	Twanoh State Park-point	A+		A+
	Twanoh State Park-west of dock	A+		A+
	Twanoh State Park-west of point	A		A+
PIERCE COUNTY				
	Dash Point County Park-east	A		A+
	Dash Point County Park-east of pier	A+		A+
	Dash Point County Park-west of pier	A+		C
	Jack Hyde Park-east	A		
	Jack Hyde Park-mid	A+		A+
	Jack Hyde Park-west	A+		
	Kopachuck State Park-mid	A+		A+
	Kopachuck State Park-north	A+		A+
	Kopachuck State Park-south	A+		A+
	Owens Beach-Point Defiance Park-mid	A+		A+
	Owens Beach-Point Defiance Park-north	A+		A+
	Owens Beach-Point Defiance Park-south	A+		A+
	Penrose Point State Park-east	A+		A+
	Penrose Point State Park-mid	A+		A+
	Penrose Point State Park-west	A+		A+
	Purdy Sandspit County Park-east	A+		A+
	Purdy Sandspit County Park-mid	A+		A+
	Purdy Sandspit County Park-west	A+		A+
	Ruston Way north-projection of Warner St	A+		A+
	Sunnyside Beach Park-mid	A+		A+
	Sunnyside Beach Park-north	A+		A+
	Sunnyside Beach Park-south	A+		A+
	Titlow Park-mid	D		C
	Titlow Park-north	A		A+
	Titlow Park-south	A		C
	Waterfront Dock/ Ruston Way-north	A		
	Waterfront Dock/ Ruston Way-south	A+		

WASHINGTON GRADES BY COUNTY

SKAGIT COUNTY				
	Bayview State Park-mid	A+		A
	Bayview State Park-north	A+		A+
	Bayview State Park-south	A+		B
SNOHOMISH COUNTY				
	Edmonds Underwater Park-mid	A+		A+
	Edmonds Underwater Park-north	A+		A+
	Edmonds Underwater Park-south	A+		A+
	Howarth Park-mid			A+
	Howarth Park-north			B
	Howarth Park-south			D
	Kayak Point County Park-mid	A		A+
	Kayak Point County Park-north	A		C
	Kayak Point County Park-south	A		B
	Marina Beach Edmonds (No Dogs)-mid	A+		A+
	Marina Beach Edmonds (No Dogs)-north	A+		A+
	Marina Beach Edmonds (No Dogs)-south	A+		A+
	Mukilteo Lighthouse Park-mid	A+		A+
	Mukilteo Lighthouse Park-north	A+		A+
	Mukilteo Lighthouse Park-south	A+		A+
	Picnic Point County Park-mid	A+		A+
	Picnic Point County Park-north	A+		A+
	Picnic Point County Park-south	A+		A+
THURSTON COUNTY				
	Burfoot County Park-mid	A+		A+
	Burfoot County Park-north	A		A+
	Burfoot County Park-south	A+		A+
WHATCOM COUNTY				
	Bellingham Marine Park-outer			A+
	Birch Bay County Park-mid			A+
	Birch Bay County Park-north			A+
	Birch Bay County Park-south			A+
	Larrabee State Park Wildcat Cove-mid	B		A+
	Larrabee State Park Wildcat Cove-south	A+		A+
	Larrabee State Park Wildcat Cove-west	B		A+
	Little Squalicum Park at creek outlet	D		A
	Little Squalicum Park-east	F		D
	Little Squalicum Park-far west of pier	F		F

About Heal the Bay's Annual Beach Report Card

Heal the Bay is a nonprofit environmental organization, dedicated to making the coastal waters and watersheds safe, healthy and clean. We use science, education, community action and advocacy to pursue our mission.

What is the Beach Report Card?

The Beach Report Card transforms complicated water quality data into an easy-to-understand A–F grading format so the public can know where and when it is safe to go in the ocean. Grades are based on fecal bacteria pollution concentrations in the wave-wash. Water samples are analyzed for bacteria that indicate pollution from numerous sources, including fecal waste. The better the grade a beach receives, the lower the risk of illness to ocean users.

The BRC should be used like the SPF ratings in sunblock — beachgoers should determine what they are comfortable with in terms of relative risk, and then make the necessary decisions to protect their health. Heal the Bay urges coastal beachgoers to use this information before they visit beaches on the West Coast.

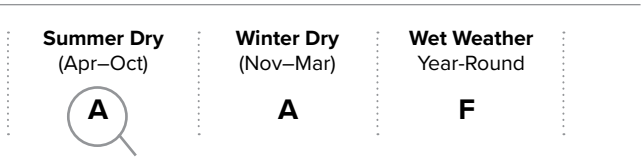
What is the history of the BRC?

Heal the Bay's first Beach Report Card was published in 1991 (with data from 1989 & 1990) and covered about 50 monitoring locations in Los Angeles County from Leo Carrillo Beach (near the Ventura County line) to Cabrillo Beach in San Pedro. At that time, beachgoers knew little about the health risks of swimming in polluted waters or the water quality at any of their favorite beaches in Los Angeles County. Beach water quality was a known public issue only when a substantial sewage spill occurred. Although beaches were routinely monitored, the data were either inaccessible or incomprehensible to the general public.

Since then, an immense amount of work has been completed and resources invested to reduce urban runoff pollution and sewage spills at our local beaches. Heal the Bay is proud to have played an active role in putting legislation and policies in place to help protect public health.

What do the grades mean to the beach user?

Coming into contact with waters with elevated bacteria concentrations has been associated with increased risks to human health. The higher the grade a beach receives, the better the water quality at that beach. The lower the grade, the greater the health risks. Potential illnesses include gastrointestinal illness, eye/ear infections, upper respiratory infection and major skin rash (full body). The known risks of contracting illnesses associated with each threshold are based on a one-time, single day of exposure (head immersed while swimming) to polluted water. Increasing frequency of exposure or the magnitude of bacteria densities may significantly increase an ocean user's risk of contracting any of these illnesses.



Beach Report Card's water quality grade
(See Appendix D for complete methodology)

How are grades calculated?

Heal the Bay's grading system takes into consideration the magnitude and frequency of exceedances above allowed bacterial levels over the course of the specified time period. Each BRC year contains three time/weather periods:

- Summer Dry = Samples taken during dry weather between April 1 and October 31
- Winter Dry = Samples taken during dry weather between November 1 and March 31
- Wet Weather = Samples taken during or within 72 hours of a rain event*

Water quality typically drops dramatically during and immediately after a rainstorm but often rebounds to its previous level within a few days. For this reason, year-round wet weather data throughout California were analyzed separately in order to avoid artificially lowering a location's grade, and to provide a better understanding of statewide beach water quality impacts. For complete methodology, see Appendix D.

NOTE: *Heal the Bay utilizes a definition of a 'rain event' in California as precipitation greater than or equal to one tenth of an inch (≥ 0.1") accumulated over a period of 72 hours. Oregon and Washington criteria for a rain event is ≥0.2" of precipitation

How current are the weekly grades?

It is important to note that the grades from the Beach Report Card represent the most current information available to the public, but they do not represent real-time water quality conditions. Currently, laboratory analyses of beach water quality samples take 18 to 24 hours to complete; then the data must be entered into a database before they are sent to Heal the Bay for a grade calculation. For weekly grades, Heal the Bay releases grades every Friday throughout the year based on the most recent available sample data for the entire west coast. Weekly grades and more can be found at www.beachreportcard.org.

What type of pollution is measured?

Pollution is measured by sampling types of fecal indicator bacteria (FIB) including total coliform, fecal coliform, and *Enterococcus* spp. California measures all three FIB, but Oregon and Washington only measure *Enterococcus*. Runoff from creeks, rivers and storm drains are sources of pollution to California, Oregon and Washington beaches. Runoff may contain toxic heavy metals, pesticides, fertilizers, petroleum hydrocarbons, animal waste, trash, and even human sewage.

The amounts of fecal indicator bacteria present in runoff, and consequently at the beach, is currently the best indication of whether or not a beach is safe for recreational water contact. The link between swimming in waters containing elevated levels of indicator bacteria and health risk was confirmed in the 1995 epidemiological study conducted by the University of Southern California, Orange County Sanitation District, the City of Los Angeles and Heal the Bay, under the auspices of the Santa Monica Bay Restoration Project.

Indicator bacteria themselves do not usually cause bather illness. Instead, their presence indicates the potential for water contamination with other pathogenic microorganisms such as bacteria, viruses and protozoa that do pose a health risk to humans. At present, the report card contains no information on toxins or trash in the water or on the beach.

ABOUT INDICATOR BACTERIA

The most common types of indicator bacteria include:

- **Total coliform**
- **Fecal coliform (or *E. coli*)**
- ***Enterococcus***

Total coliform, which contains coliform of all types, originates from many sources including soil, plants, animals and humans. Fecal coliform and *Enterococcus* bacteria are found in the fecal matter of mammals and birds. This fecal bacteria does not always come from humans; however, human sewage does regularly end up in the ocean through sewage infrastructure failure and storm drains.

Why is storm drain pollution so significant?

Storm drain runoff is the largest source of pollution for ocean beaches. Storm drains flow untreated to the coast and are often contaminated with motor oil, animal waste, pesticides, yard waste and trash. After a rain, FIB densities often far exceed state health criteria for recreational water use. Health officials and Heal the Bay recommend that beach users never swim within 100 yards on either side of a flowing storm drain, creek, or river in any coastal waters during a rainstorm, and to stay out of the water for at least three days after a storm has ended.

Children often play directly in front of storm drains and in runoff-filled ponds and lagoons. Monitoring at “point zero” (the mouth of storm drains or creeks) is the best way to ensure that the health risks to all swimmers are minimized. This Heal the Bay recommendation was finally adopted by the State Water Resources Control Board (SWRCB) for the 2015 swimming season. In fact, the SWRCB made point zero monitoring a criterion for receiving beach water quality monitoring funds. This was great news for beachgoers and families going to the beach last summer. For more on storm drain impacted beaches, see “Analysis of Beach Types”.

Are beaches monitored year-round?

In California, water quality samples are collected by the appropriate health agency at a minimum of once a week from April through October as required under the California Beach Bathing Water Quality Standards (AB 411) and recommended by EPA’s National Beach Guidance and Performance Criteria for Recreational Waters (EPA’s BEACH program). Some agencies conduct year-round sampling, while others scale back their monitoring programs dramatically from November through March, despite the fact that many oceangoers are in the water year-round.

The majority of Oregon and Washington water quality monitoring occurs during the summer swimming season (Memorial Day through Labor Day). The Makah Tribe in Clallam County Washington monitors water quality on a weekly basis year-round.

Why not test for viruses?

A common question asked by beachgoers is: “if viruses cause many of the swimming-associated illnesses, why don’t health agencies monitor directly for viruses instead of indicator bacteria?” Although virus monitoring is incredibly useful in identifying sources of fecal pollution, there are a number of drawbacks to available virus measurement methods. There have been tremendous breakthroughs in the use of DNA to analyze water samples for virus or human pathogenic bacteria, but these techniques are still relatively expensive, and not quantitative. In addition, interpretation of virus monitoring data is difficult because, unlike bacterial indicators, there are no data available to link health risks associated with swimming in beach water to virus densities.

Many epidemiology studies have been conducted on the West Coast and have found a strong correlation between illness rates and FIB concentrations so measuring FIB is a robust way to protect public health. However, research must be continued to refine how water quality is measured.

Beach Report Card Grading and Methodology

The Beach Report Card Grading Methodology translates complex shoreline bacteria data into a grade format that is meaningful and useable by all California beachgoers.

METHODOLOGY: CALIFORNIA

Heal the Bay's Beach Report Card grading system is endorsed by the SWRCB and the Beach Water Quality Workgroup as an effective way to communicate beach water quality to the public

Past amendments to the grading methodology have included:

- The inclusion of the geometric mean into the calculation
- A firm zero-to-100 point scale
- Greater weight for *Enterococcus* and the total to fecal ratio relative to total coliform and fecal coliform

The methodology retains past modifications to the report card, such as the inclusion of new indicator bacteria thresholds (namely the total-to-fecal ratio), developed by the Santa Monica Bay Restoration Commission in the 1996 health effects studies of Santa Monica Bay beachgoers. It also retains the implementation of standard deviations for each indicator bacteria threshold, which was developed by the Southern California Coastal Water Research Project and Orange County Sanitation Districts during the 1998 Southern California Bight Study. Each threshold is based on the prescribed standards set in the California Department Health Service's Beach Bathing Water Standards.

As seen in Table 5-1 the methodology uses a standard A through F grading system, and grades are based on the following formula:

$$\text{\% Grade} = \frac{\text{'TOTAL POINTS AVAILABLE'} - \text{'TOTAL POINTS LOST'}}{\text{'TOTAL POINTS AVAILABLE'}}$$

[Note: The Annual and End-of-Summer Beach Report Card methodology is modified slightly to accommodate the longer time period. For example: no greater significance is given to the most recent samples.]

Total Points Available

'Total Points Available' is derived from adding together two point components (if applicable): the Geometric Mean and the Single Sample Standard. The points for each component are listed in Table 5-2.

In order for the points in each component to become available, certain criteria must be met. (For example, the geometric mean points will be added to the 'Total Points Available' only if there are a minimum of four dry weather samples collected within the allotted time frame). Wet weather data is graded separately from dry weather data, and does not currently include a geometric mean component. Therefore, it is possible for 'Total Points Available' to be less than 100. The new grading methodology allows for a relative grade to be determined based on the actual monitoring completed.

Once the 'Total Available Points' has been determined for a specific location, then the 'Total Points Lost' can be calculated for the applicable grade components.

Total Points Lost

Separate calculations are used to quantify 'Total Points Lost' for each applicable component from the 'Total Available Points'. The following describes the two calculations.

Geometric Mean

Calculating the 'Total Points Lost' for the geometric mean component involves using the rolling 30-day geometric mean values calculated for each sample day (see Table 5-3).

Each geometric mean criterion exceeded is assigned a specific percentage of points lost. Non-exceedances are given 0%. The percentage of points lost from each of the three criteria divided by the number of sample days are multiplied by the 'Total Available Points' (any sum of percentages exceeding 100% automatically loses all 50 points available in the geometric mean component).

Single Sample Standard

Calculating the 'Total Points Lost' for the Single Sample Standard component is similar to the calculation used for deriving the points lost for the Geometric Mean. However, the Single Sample Standard component uses a gradient to calculate the 'Total Points Lost'. The gradient of percentage points lost used in calculating the number of points lost is derived from work completed by the Southern California Coastal Water Research Project and Orange County Sanitation District as part of the 1998 Southern California Coastal Bight Study (see Table 5-4).

'Percentage of points lost' is allocated depending upon the threshold exceeded by each of the four criteria. Each single sample criterion exceeded is given a 'percentage of points lost'. These amounts are presented in Table 5-4.

The 'percentage of points lost' from each of the four criteria for each sample during the time period are added together and divided by the total number of samples. Once this number is calculated (total 'percentage of points lost' divided by total number of samples), it is multiplied by the 'Total Available Points'. In the Single Sample Standard component, more points are lost as the magnitude or frequency of exceedances increases.

Points lost from the Single Sample Standard component are added to the points lost in the Geometric Mean component (if applicable) and this sum becomes 'Total Points Lost'. Once the 'Total Points Available' and the 'Total Points Lost' are calculated, a grade for a particular sample site can be determined.

Determining a Grade

$$\text{\% Grade} = \frac{\text{'TOTAL POINTS AVAILABLE'} - \text{'TOTAL POINTS LOST'}}{\text{'TOTAL POINTS AVAILABLE'}}$$

Most dry and wet weather annual grades are calculated with 100 'Total Available Points', although there is no Geometric Mean component for wet weather grading. Wet weather grades are calculated by the total 'percentage of points lost' divided by the total number of samples and then multiplied by 100. This gives the location's score for wet weather 'Total Points Lost'. This number is then subtracted from 100 to give the percentage grade.

METHODOLOGY: OREGON AND WASHINGTON

The Oregon and Washington state grade methodology (using *Enterococcus* standards) was adapted from the seven standard California methodology (see Appendix A1).

Total Points Available

As seen in Table 5-2, the methodology uses a standard A through F grading system, and grades are based on the following formula:

$$\text{\% Grade} = \frac{\text{'TOTAL POINTS AVAILABLE'} - \text{'TOTAL POINTS LOST'}}{\text{'TOTAL POINTS AVAILABLE'}}$$

Note: The Annual and End-of-Summer Beach Report Card methodology is modified slightly to accommodate the longer time period. (For example: no greater significance is given to the most recent samples.)

Wet weather data (>=0.2 inches of rain in previous 72 hours) is graded separately from dry weather data and does not currently include a geometric mean component.

'Total Points Available' is derived from adding together two point components (if applicable): the Geometric Mean and the Single Sample Standard. The points for each component are listed in Table 5-2. In order for the points in each component to become available certain criteria must be met. Oregon and Washington Summer Beach Report Card methodology calculations only include Geometric Mean scores when four or more dry weather samples are available in determining a location's 30-day geometric mean. Therefore, it is possible for 'Total Points Available' to be less than 100. The grading methodology allows for a relative grade to be determined based on the actual monitoring completed.

Once the 'Total Available Points' has been determined for a specific location, then the 'Total Points Lost' is calculated for the applicable grade components.

Total Points Lost

Separate calculations are used to quantify 'Total Points Lost' for each applicable component from the 'Total Available Points'. The following describes the two calculations:

Geometric Mean

Calculating the 'Total Points Lost' for the Geometric Mean component involves using EPA's beach bathing indicator density of 35 for the geometric mean. If there are four or more samples included in the 30-day geometric mean calculation then the 50 points for the Geometric Mean component become available. Oregon and Washington Beach Report Card methodology calculates the percentage of geometric mean exceedance days based on the number of valid (four or more) geometric means scored during the extended time period. The percentage of geometric exceedance sample days out of valid geometric mean sample days is multiplied by the 50 available points to determine the 'Total Points Lost' for the Geometric Mean component.

Single Sample Standard

The Single Sample Standard component uses a gradient to calculate the 'Total Points Lost'. The gradient of percentage of points lost used in calculating the number of points lost is derived from the EPA's Ambient Water Quality Criteria for Bacteria and is found in Table 5-6.

'Percentage of points lost' is allocated depending upon the threshold exceeded. The penalties for threshold exceedances are presented in Table 5-7. Non-exceedances lose zero points. The 'percentage of points lost' for each sample during the time period are added together and divided by the total number of samples and multiplied by the 'Total Available Points'. More points are lost as the magnitude or frequency of exceedances increases.

Points lost from the Single Sample Standard component are added to the points lost in the Geometric Mean component (if applicable) and this sum becomes 'Total Points Lost'. Once the 'Total Points Available' and the 'Total Points Lost' are calculated a grade for a particular sample site can be determined.

Determining a Grade

$$\% \text{ Grade} = \frac{\text{'TOTAL POINTS AVAILABLE'} - \text{'TOTAL POINTS LOST'}}{\text{'TOTAL POINTS AVAILABLE'}}$$

Most dry and wet weather annual grades are calculated with 100 'Total Available Points', although there is no Geometric Mean component for wet weather grading. Wet weather grades are calculated by the total 'percentage of points lost' divided by the total number of samples and then multiplied by 100. This gives the location's score for wet weather 'Total Points Lost'. This number is then subtracted from 100 to give the percentage grade.

TABLE 5-1: GRADING SYSTEM

A	B	C	D	F
100%–90%	89%–80%	79%–70%	69%–60%	<60%

TABLE 5-2: TOTAL POINTS AVAILABLE BY COMPONENT

Geometric Mean	50 points
Single Sample Standard	50 points
Total	100 points

TABLE 5-3: CALCULATING THE TOTAL POINTS LOST FOR THE GEOMETRIC MEAN COMPONENT

Indicator Exceeded	Calif. Beach Bathing Water Standard	% of Total Available Points Lost** Due to Exceedance	Total Avail. Points
Enterococcus	35	80%	50
Fecal Coliform	200	40%	
Total Coliform	1000	20%	

** Colony forming units per 100 milliliters of ocean water*

TABLE 5-4: SINGLE SAMPLE GRADIENT THRESHOLDS IN CFU/100ML*

Indicator Bacteria	SLIGHT T – 1 SD	MODERATE T + 1 SD	HIGH > T + 1 SD	EXTREME Very High Risk
Total Coliform	6,711–9,999	**10,000**–14,900	> 14,900	N/A
Fecal Coliform	268–399	**400**–596	> 596	N/A
Enterococcus	70–103	**104**–155	> 155	N/A
Total: Fecal Ratio (when total ≥ 1,000)	10.1–13	7.1–**10**	2.1–7	< 2.1

** Colony forming units per 100 milliliters of ocean water. N/A = Not applicable*
SD = Standard Deviation. ***Bold*** *= California State Health Department standards for a single sample*

TABLE 5-5: CALCULATING THE TOTAL POINTS LOST FOR THE SINGLE SAMPLE STANDARD COMPONENT

Indicator Exceeded	SLIGHT % Points Lost	MODERATE % Points Lost	HIGH % Points Lost	EXTREME % Points Lost	Total Available Points
Total Coliform	10%	30%	40%	N/A	50
Fecal Coliform	10%	30%	40%	N/A	
Enterococcus	20%	40%	60%	N/A	
Ratio (when total > 1,000)	25%	50%	75%	100%	

TABLE 5-6: SINGLE SAMPLE GRADIENT THRESHOLDS IN CFU/100ML*

Indicator Bacteria	SLIGHT T – 1 SD	MODERATE T + 1 SD	HIGH > T + 1 S
Enterococcus	70–103	**104**–155	>155

** Colony forming units per 100 milliliters of ocean water*
SD = Standard Deviation. ***Bold*** *= California State Health Department standards for a single sample*

TABLE 5-7: CALCULATING THE TOTAL POINTS LOST FOR THE SINGLE SAMPLE STANDARD COMPONENT

Indicator Exceeded	SLIGHT % Points Lost	MODERATE % Points Lost	HIGH % Points Lost	Total Available Points
Enterococcus	25%	75%	100%	50

Acknowledgements & Credits

The entire Beach Report Card program would not be possible without the cooperation of the many monitoring agencies across the West Coast. These agencies include:

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Mendocino County Environmental Health Department
Sonoma County Environmental Health & Safety
Marin County Environmental Health Services
San Francisco Public Utilities Commission
East Bay Regional Park District
San Mateo County Health
Santa Cruz County Environmental Health
Monterey County Health Department
San Luis Obispo County Environmental Health Services
Santa Barbara County Environmental Health Services
Ventura County Environmental Health Division
City of Los Angeles Environmental Monitoring Division
Los Angeles County Sanitation Districts
County of Los Angeles Department of Public Health
County of Los Angeles Department of Public Works
City of Redondo Beach
City of Long Beach Department of Health and Human Services
South Orange County Wastewater Authority
County of Orange Environmental Health
Orange County Sanitation District
San Diego County Department of Environmental Health
San Elijo Joint Powers Authority
City of San Diego
City of Oceanside
Encina Wastewater Authority
Port of San Diego
State Water Resources Control Board

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