

EPA's Beach Report: 2021 Swimming Season

Introduction

This report summarizes information that states, territories, and tribes with coastal and Great Lakes beaches submitted to EPA reporting beach closings and advisories for the 2021 swimming season. The information in this report covers January 1 through December 31, 2021 and includes data submitted to EPA as of June 10, 2022. Three territories and one tribe¹ had not submitted complete data sets when this report was created; the beaches without data comprise about three percent of the universe of U.S. beaches. A version of this report incorporating any updated data since this report was released can be generated at <https://ofmpub.epa.gov/apex/beamcon2/f?p=BEACON2:DNR>.

The Beaches Environmental Assessment and Coastal Health (BEACH) Act of 2000 authorizes EPA to provide grants to eligible states, territories, and tribes to monitor their coastal recreational waters for bacteria that indicate the possible presence of disease-causing pathogens and to notify the public when there is a potential risk to public health. EPA awarded approximately \$9.2 million in grants in 2020 for the 2021 season; more information can be found at <https://www.epa.gov/beach-tech/beach-grants>. The BEACH Act requires that grant recipients report their monitoring and notifications data for coastal recreational waters to EPA and that EPA maintain an electronic database of that data, accessible to the public. This report is based on that data. Information on grouped or individual jurisdictions or beaches can be found at <https://watersgeo.epa.gov/BEACON2/about.html>.

2021 Swimming Season Results

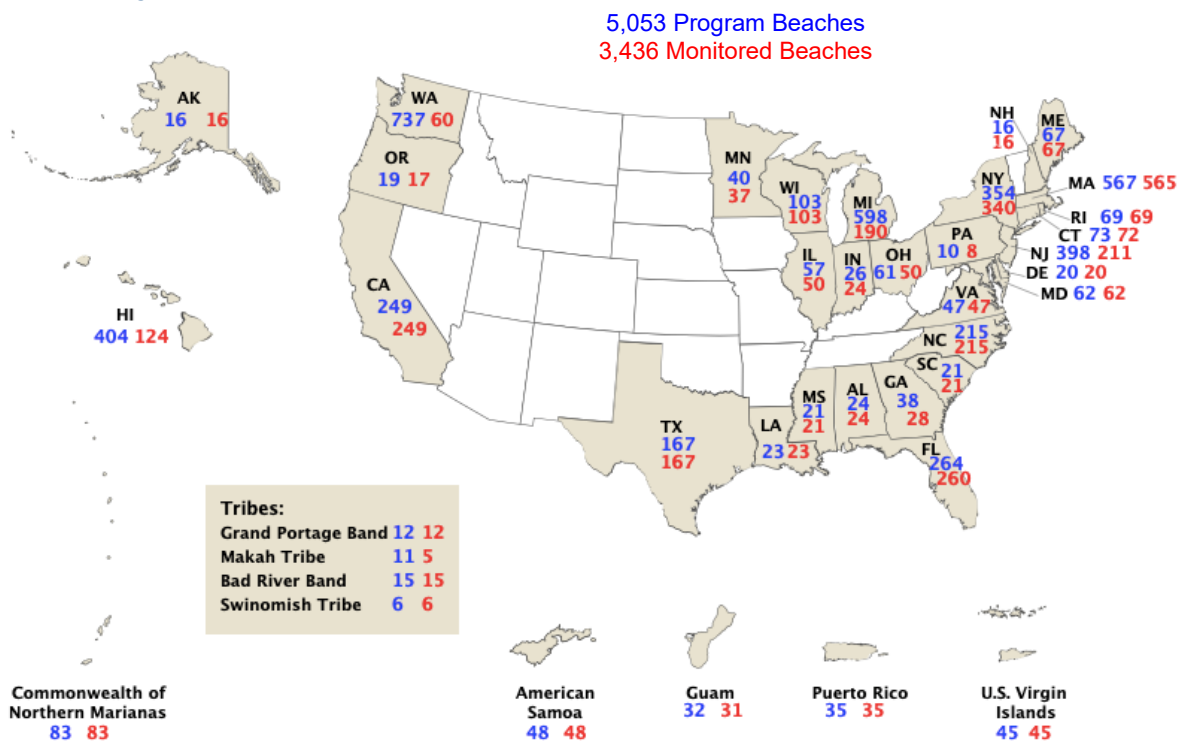
States, territories, and tribes take water samples to monitor the water at swimming beaches to see if levels of specific indicator bacteria (for example, enterococci) exceed the water quality standards or beach advisory thresholds that apply to that water. "Program beaches" have, at minimum, a program to notify the public if swimming in the coastal water is unsafe, and most also have a program to routinely monitor the water quality. There are 6,352 coastal and Great Lakes beaches in the United States, and 5,053 (80%) of those are "program beaches." In 2021, 68 percent of the program beaches were monitored for bacteria. Chart 1 shows the number of beaches that were monitored and the total number of program beaches in each state, territory, and tribe in 2021.

When monitoring results show exceedances for bacteria, states, territories, and tribes either issue a beach advisory that warns people of possible risks of swimming or a beach closing that closes the beach to public swimming. The states and local agencies that do not routinely

¹ American Samoa, Puerto Rico, U.S. Virgin Islands, and the Bad River Band of Lake Superior Chippewa

monitor water quality at program beaches use models or policies (for example, issue an advisory after a certain amount of rainfall) as a basis for issuing notification actions at beaches. The advisories or closings typically stay in effect until monitoring shows that levels of bacteria comply with applicable water quality standards or beach advisory thresholds.

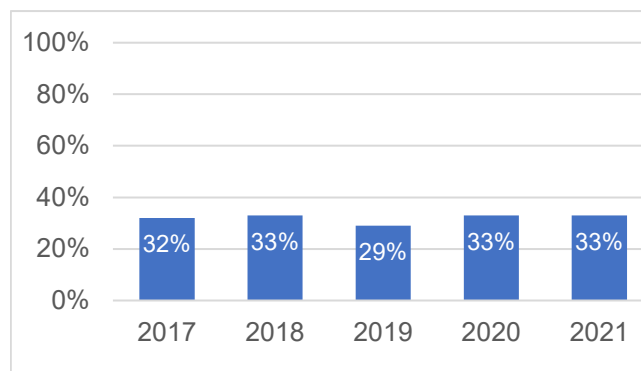
Chart 1: Number of total and monitored coastal and Great Lake program beaches by state/territory/tribe



How many beaches had notification actions?

In 2021, 33 percent of the nation’s program beaches (1,644 out of 5,053) had at least one notification action, which is either an advisory or a closing. Chart 2 shows the percent of program beaches with one or more advisories or closings in years 2017 through 2021.

Chart 2: Percent of nation’s program beaches with one or more notification actions

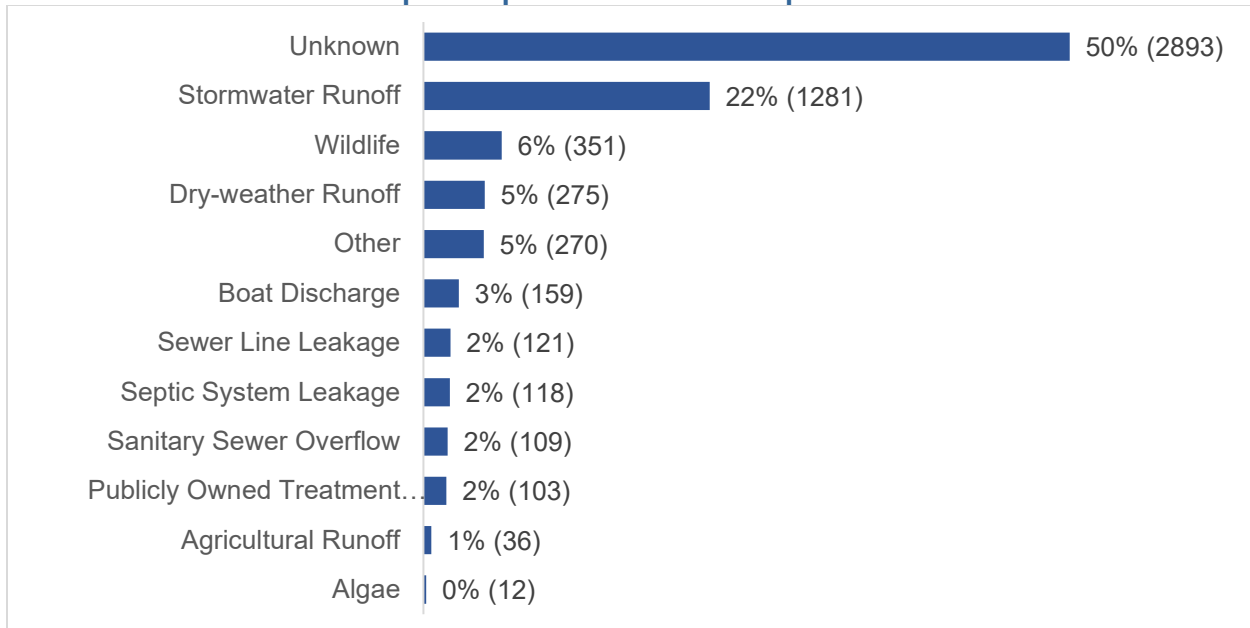


What are the possible pollution sources causing notification actions?

Beach advisories and closings can result from a variety of pollution sources: stormwater runoff after rainfall; pet and wildlife waste; waste from boats; leaking septic systems; malfunctions at wastewater treatment plants or broken sewer lines; overflows from sewer systems; or harmful algal blooms. One way EPA is helping to minimize the risk to beachgoers is by helping communities improve sewage treatment plants and reduce adverse impacts from rainfall as much as possible by providing water infrastructure investment loans.

States, territories, and tribes reported the possible sources of pollution shown in Chart 3 that resulted in beach advisories or closings or were identified in beach surveys at program beaches in 2021. Stormwater runoff was the known source reported most often. Half (50%) of the sources were reported as unknown.

Chart 3: Reported possible sources of pollution in 2021

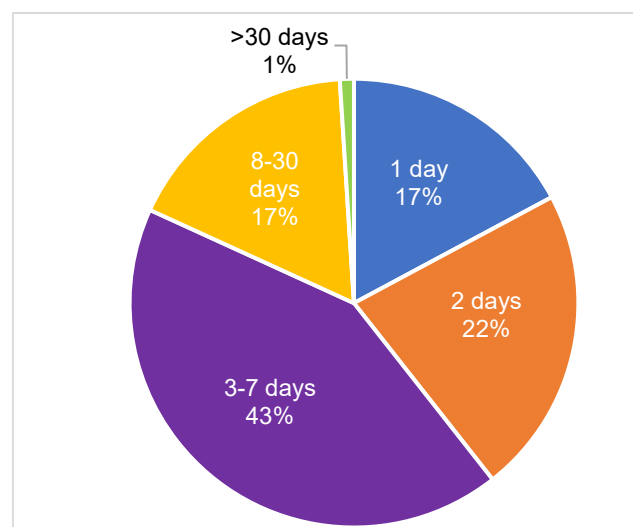


(Note: The percentages are rounded to the nearest whole number, and the numbers in parentheses are the reported number of sources associated with advisories and closings.)

How many notification actions were issued and how long did they last?

Among the 1,644 program beaches with notification actions, states, territories, and tribes issued 9,382 advisories or closings during the 2021 swimming season. An advisory or closing is typically removed when follow-up water quality monitoring shows that bacteria levels comply with applicable water quality standards or beach advisory thresholds. For 82 percent of the notification actions in 2021, bacteria levels in coastal recreational waters no longer exceeded applicable water quality standards or beach advisory thresholds and beaches were deemed safe for swimming within a week (Chart 4). In 2021, 17 percent of the notification actions lasted only one day, and 22 percent ended between one and two days.

Chart 4: Duration of beach notification actions in 2021



What percentage of days were beaches open and safe for swimming?

Program beaches on U.S. coasts and along the Great Lakes were open and safe for swimming 92 percent of the time in 2021. Chart 5 shows the percentage of beach days that the nation's program beaches were open and without any advisories in years 2017 through 2021. EPA calculates the total available beach days and the number of beach days with advisories or closings to better track trends over time. To calculate total available beach days, EPA adds the length of the beach season (in days) for every program beach in each state, territory, and tribe.

For 2021, EPA determined that 723,783 beach days were associated with the swimming seasons of the 5,053 beaches with monitoring and/or notification programs. Notification actions were reported on 54,578 days out of those 723,783 beach days (8%). Of these reported notifications, closings of three beaches in two jurisdictions were related to COVID-19. The Makah Tribe closed one beach for a total of 364 days, and the Commonwealth of the Northern Mariana Islands closed two beaches for a combined total of 397 days due to COVID-19.

Where Can I Find More Information?

To find out more about what you can do to help protect beaches, visit <https://www.epa.gov/beaches/act-beach>.

To find out more about what affects beach health, visit <https://www.epa.gov/beaches/learn-what-affects-beach-health>.

For general information about beaches, visit <https://www.epa.gov/beaches>.

For current information about a specific beach, visit <https://www.epa.gov/beaches/state-territorial-tribal-and-epa-beach-program-contacts>.

For beach information that states, territories, and tribes have reported to EPA, visit <http://watersgeo.epa.gov/beacon2>.

Chart 5: Percent of days the nation's program beaches were open and safe for swimming

