

INFORMATIONAL SHEET

Manzanita Tidal Flooding

Highway 101 at Highway 1 (Shoreline Highway)

WHAT'S THE PROBLEM? Tides can flood Manzanita at the Highway 101 and Highway 1 interchange, leading to lane and road closures, flooding of the Caltrans park & ride lot, and also affecting transit routes which serve the area.

WHY DOES IT OCCUR? Much of the Richardson Bay shoreline was developed at a relatively low elevation on top of earthen fill which has since subsided. The elevation of roads, parking lots and some buildings are now lower than some higher tides and flooding occurs.

WHEN DOES IT OCCUR? Tidal flooding can begin to encroach on roadways and parking areas starting at an elevation of around 6.2 feet as measured in the mean lower low water (MLLW) datum at the San Francisco (Golden Gate) gage. High tides are affected by several factors, can occur at any time of the year, and may be especially high during certain astronomical cycles. Tides which occur during these cycles are often referred to as King Tides. And observed tides may be higher than predicted due to high winds, warmer than normal sea surface temperatures, atmospheric pressure, and sea-level rise, among other factors.

WHAT CAN BE DONE TO FIX THE PROBLEM? Stopping tidal flooding is a very complex and costly problem with no quick or easy fix. And while possible long term improvement alternatives are being assessed, it is clear that any solution will be costly to implement and require years to complete.

WHAT CAN BE DONE NOW? We must all learn to be aware of and have a plan to respond to tidal conditions and flooding in order to reduce the impacts it may have on our lives. This may include using alternative routes and/or allowing extra time for your trip – especially during peak times of commuter and holiday travel. Resources which can help you plan ahead include:

- Checking tide predictions and observed water levels at the San Francisco (Golden Gate) gage: tidesandcurrents.noaa.gov/stationhome.html?id=9414290
- Monitoring current traffic conditions and transit information at [511.org](https://www.511.org)
- Following Caltrans on Twitter at twitter.com/CaltransD4 for information on possible road and parking lot closures or visiting www.dot.ca.gov/dist4/
- Signing up for public safety alerts at [Nixle.com](https://www.nixle.com)

Caltrans routinely closes Highway 1 at the Highway 101 interchange when high tides either threaten or are expected to threaten the safety of motorists. This may also include closure of the park and ride lot. In addition to their website and Twitter, information is provided in advance of closures via posted signs.