

Nipomo Mesa Management Area 2023 Key Wells Index

Severe Water Shortage Conditions

The Nipomo Mesa Management Area Technical Group ("NMMA TG") established groundwater level and groundwater quality criteria to track overall basin conditions within the NMMA. The criteria include the Key Wells Index ("KWI"), which combines groundwater level data from eight selected wells distributed throughout the inland portion of the Management Area. Water level measurements are made in NMMA groundwater wells representing the basin as a whole and are used to compute the KWI during the spring of each year.

The TG uses the KWI to help identify trends in basin groundwater levels and has compiled KWI data for the period from 1975 to the present. The NMMA KWI has changed over time and in the last eleven years is lower than at any other time in the record (Figure 1).

One of the NMMA TG's court-required duties is to determine when conditions of "Potentially Severe Water Shortage Conditions" or "Severe Water Shortage Conditions" have been reached. The 2023 KWI value of 17.3 feet mean sea level (ft msl) is a significant increase from the previous year (7.5 ft msl, corrected value). The 2023 KWI value is not sufficient to meet the criteria set forth in the NMMA Water Shortage Conditions and Response Plan (April 22, 2009). Severe Water Shortage Conditions remain in place. This is the ninth consecutive year the KWI value is in Severe Water Shortage Conditions, which signifies a Stage IV NMMA Water Shortage Response.

The Water Shortage Conditions and Response Plan requires that the Severe Water Shortage Conditions remain in effect until groundwater elevations as indicated by the Key Wells Index are 10 ft above the Severe criterion (which calculates to 26.5 feet msl). Alternatively, the NMMA Technical Group may determine that the Severe Water Shortage Condition no longer exists when the Key Well Index is above the Severe criterion of 16.5 ft msl and conditions warrant this conclusion.

Details of the KWI, as well as the established responses to Potentially Severe Water Shortage Conditions and Severe Water Shortage Conditions, are explained in the NMMA TG's annual report of groundwater conditions. The report's appendices include a Water Shortage Conditions and Response Plan (Appendix B), and the NMMA Well Management Plan and the NMMA Water Shortage Response Stages (Appendix C). The NMMA annual report for calendar year 2022, including appendices, is available as a digital document at <http://ncsd.ca.gov/resources/reports-by-subject/#nmma>.

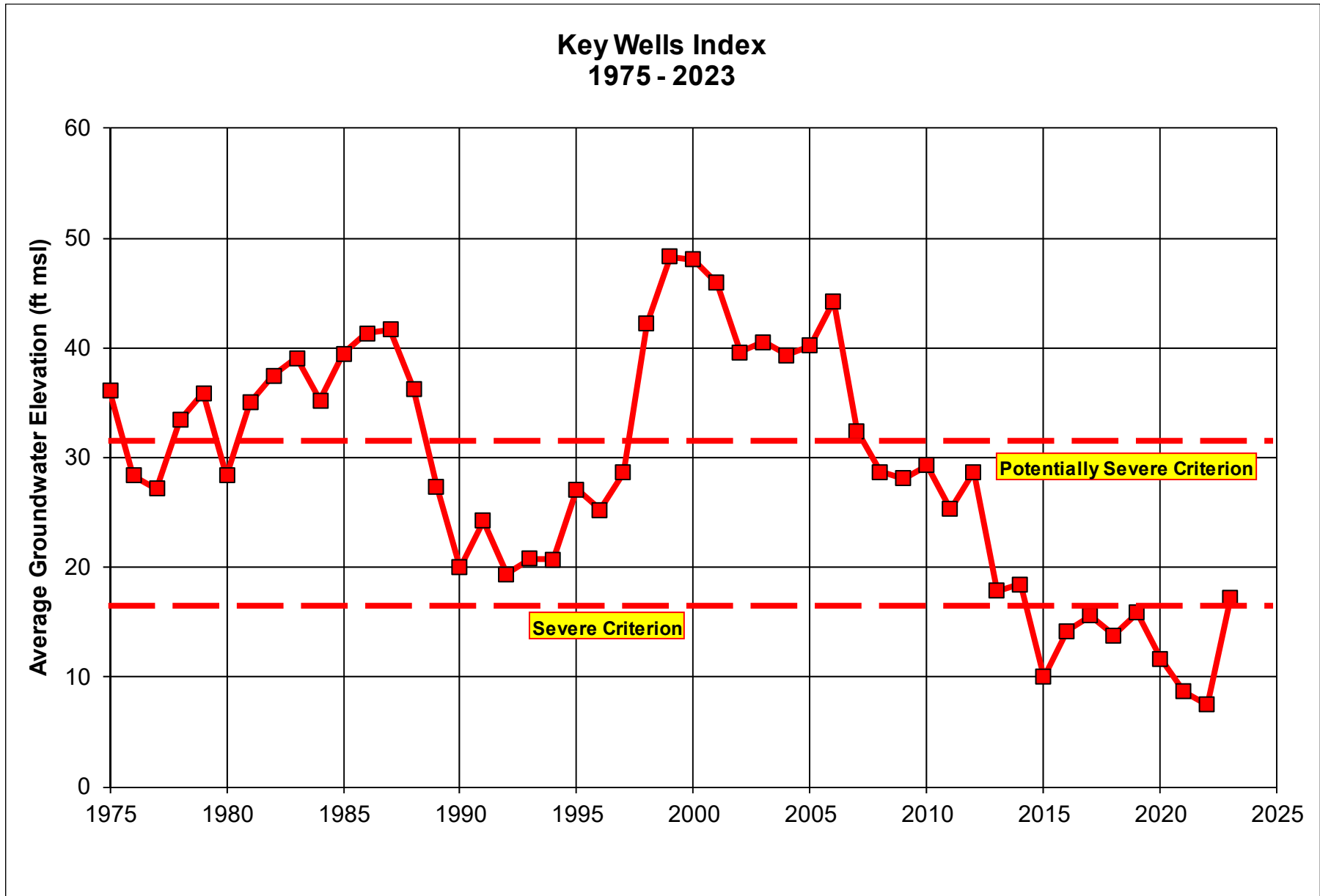


Figure 1