

WATER SUPPLY AND DEMAND ANALYSIS WORKSHEET OVERVIEW

The Water Supply and Demand Analysis Worksheet is an Excel spreadsheet tool that EPD is proposing for use by public water supply systems whose primary source of water is surface water to adjust numeric water use reduction targets that may be required by the proposed Rules for Drought Management that are currently being discussed. The Water Supply and Demand Analysis Worksheet is also being considered as a tool that would be used by water systems who are seeking a variance from outdoor watering restrictions that may be established under these proposed Rules.

Permittees with reservoirs would use the spreadsheet to evaluate the response of storage in their reservoir to water demand by assuming that the same level of water use that occurred in the year immediately preceding a Level 3 drought will continue for 24 months from a Level 3 drought declaration, and that the same reservoir inflows and releases that occurred between January 2007 through December 2008 will occur over that same 24 month period. Permittees would enter these data into the spreadsheet which plots a graph showing the response of the reservoir to these conditions. Under the proposed Rules currently under discussion, if the graph shows reservoir storage remaining above 70% of total reservoir capacity during those 24 months, permittees would be eligible to adjust their default Drought Response Level 3 numeric water use reduction target downward by 2.5%. If storage falls below 70% but remains above 50% of total reservoir capacity during those 24 months, permittees would be eligible to adjust their default Drought Response Level 3 numeric water use reduction target downwards by 1.0%. Permittees whose storage falls below 50% would not be eligible for an adjustment.

Permittees without reservoir storage would use the spreadsheet to assess the effect of water use on their water source and their ability to continue being able to withdraw water from the source during drought by using the same assumptions regarding water use and streamflow conditions (the same level of water use that occurred in the year immediately preceding a Level 3 drought will continue for 24 months from a Level 3 drought declaration, and the same stream flows that occurred between January 2007 through December 2008 will occur over that same 24 month period). Permittees would enter these data into the spreadsheet which plots a graph showing the permittee's withdrawals as a percentage of streamflow. If withdrawals as a percentage of streamflow do not exceed 0.75%, then the permittee would be eligible to adjust their default Drought Response Level 3 numeric water use reduction target downward by 2.5%. If withdrawals as a percentage of streamflow are greater than 0.75% but less than 1.25%, the permittee would be eligible to adjust their default Drought Response Level 3 numeric water use reduction target downward by 1.0%. If withdrawals as a percentage of streamflow exceed 1.25%, the permittee would not be eligible for an adjustment.