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Summary statement on use of EPA's 2016 Drinking Water Health Advisory values for PFOA and PFOS as a Groundwater Quality Standard

Note: At the Dec 2, 2019 meeting, the Secretaries' Science Advisory Board (SSAB) provided a lot of feedback on the charge to "review and comment on the Division of Water Resources' recommendation to use the 2016 EPA Drinking Water Health Advisory values for PFOA and PFOS as a Groundwater Quality Standard." The SSAB was asked at the meeting for a more formal summary statement; the members crafted it orally, and a draft was subsequently circulated for review. This is the summary statement from that review.

The SSAB reviewed the information provided by the DEQ regarding the development of a draft rule for establishing a groundwater standard for PFOA and PFOS as referred for consideration by the Environmental Management Commission's Groundwater/Waste Management Committee. The SSAB reviewed the 2016 EPA technical support documents for PFOA and PFOS and reviewed the technical basis for PFOA and PFOS standards in other states and other countries. At its December 2nd meeting, the SSAB heard overviews of studies conducted by researchers in North Carolina and elsewhere since the EPA 2016 Drinking Water Health Advisory values were established for 70 ng/L (ppt) for each chemical individually and their additive value.

It was acknowledged that EPA's Health Advisory work was developed with rigorous scientific peer review and remains relatively current. The only concerns expressed were: 1) the value of reviewing mammalian toxicology studies published since those available during EPA's review (which used scientific literature through December 2015), 2) the value of examining the points of departure used in other entities' PFOA and PFOS hazard assessments, and 3) there are many other PFAS chemicals to which people may be exposed that would remain unaddressed in setting a 70 ng/L standard for just two PFAS chemicals (however, it was acknowledged that there are not health advisory levels for all of the relevant PFAS chemicals and there is not consensus on which could be grouped based on similar toxicity mechanism(s) that would lend to having their concentrations added to PFOA and PFOS for a standard based on their values in total).

The SSAB members present voiced consensus on the establishment of a toxicological science-based standard for PFOA and PFOS in preference to a Practical Quantitation Level value*. A majority of members present indicated using the EPA 2016 Drinking Water Health Advisory level was a reasonable step to improve the current situation of having a much higher IMAC for PFOA of 2,000 ng/L and no standard for PFOS. Members strongly voiced a recommendation for DEQ to continue to evaluate research (with an emphasis on mammalian toxicity studies and epidemiological data published after 2015) during the anticipated yearlong rulemaking process to determine if a lower value is warranted, and to make these chemicals a high priority for revisiting their standard(s) by monitoring the work being done by other states in addition to EPA, using a shorter timeframe than the normal triennial evaluation.

*For other PFAS compounds, for which such data are lacking, the PQL is an appropriate approach.