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## *Memorandum*

**Date:** May 29, 2025  
**To:** Buckman Direct Diversion Board  
**From:** Jay Lazarus, Peter Hunt, Glorieta Geoscience (GGI)  
**Subject:** Los Alamos National Laboratory Petition to New Mexico Water Quality Control Commission on Naturally Occurring Thermal Conditions Preventing Attainment of Coldwater Aquatic Life Use in the Perennial Reach of Sandia Canyon

For several years, Los Alamos National Laboratory (LANL) has been conducting a Use Attainability Analysis (UAA) on thermal conditions that have prevented LANL from attaining Coldwater Aquatic Life conditions in Upper Sandia Canyon. The Upper Sandia Canyon Assessment Unit (AU) was listed as not meeting the coldwater aquatic life use (ALU) and one of the listed causes for the impairment included temperature. NMED indicated the need for review of the water quality standard. Temperature is one of the three most common causes for surface water quality impairment in New Mexico.

A Use Attainability Analysis (UAA) is an assessment of factors affecting attainment of uses specified in the Clean Water Act. Under 40 CFR 131.10(g), a designated use, which is not an existing use may be removed if a UAA demonstrates the designated use is not feasible based on naturally occurring factors that prevent attainment of the use. After several years of study, and with concurrence/support from the New Mexico Environment Department (NMED), LANL submitted a UAA to the New Mexico Water Quality Control Commission (WQCC) to reclassify the upper/perennial reach of Sandia Canyon from coldwater to cool water. Flow in Sandia Canyon is effluent dependent, rarely reaches the Rio Grande, and there are no fish in Sandia Canyon.

The Sandia Canyon AU was listed as impaired for temperature under the Clean Water Act (CWA) 303(d)/305(b) 2018-2020 Integrated Report, and in subsequent integrated reports. The designated use for the upper Sandia Canyon AU was coldwater. Multiple lines of evidence indicated that the coldwater ALU is unattainable for the entire perennial reach. Air temperature has a significant influence on stream temperatures in Sandia Canyon, and the resulting attainable use.

LANL requested that Sandia Canyon be reclassified and split into two reaches: the upper segment as cool water and the lower segment as coldwater and NMED concurred. The WQCC unanimously approved the reclassification on May 13, 2025.

### **TAKEAWAYS**

Although Sandia Canyon flows into the Rio Grande below the BDD diversion, this action by the WQCC provides a glimpse into the future. Due to an increasingly warming climate, some stream segments classified as coldwater segments will not be able to attain these coldwater conditions. As air temperatures increase, the Board should anticipate additional petitions for reclassification of coldwater stream segments to cool water classifications.