

CS Energy Callide Power Station

Inferred Groundwater PFOS + PFHxS Concentration Zones 1 to 6 (27 July 2023)



Legend

- Callide Power Station site boundary
- Inferred Aquifer Extent (DES Groundwater Dependent Ecosystem - Unconsolidated Sedimentary Aquifer)
- Areas not sampled

Offsite investigation areas

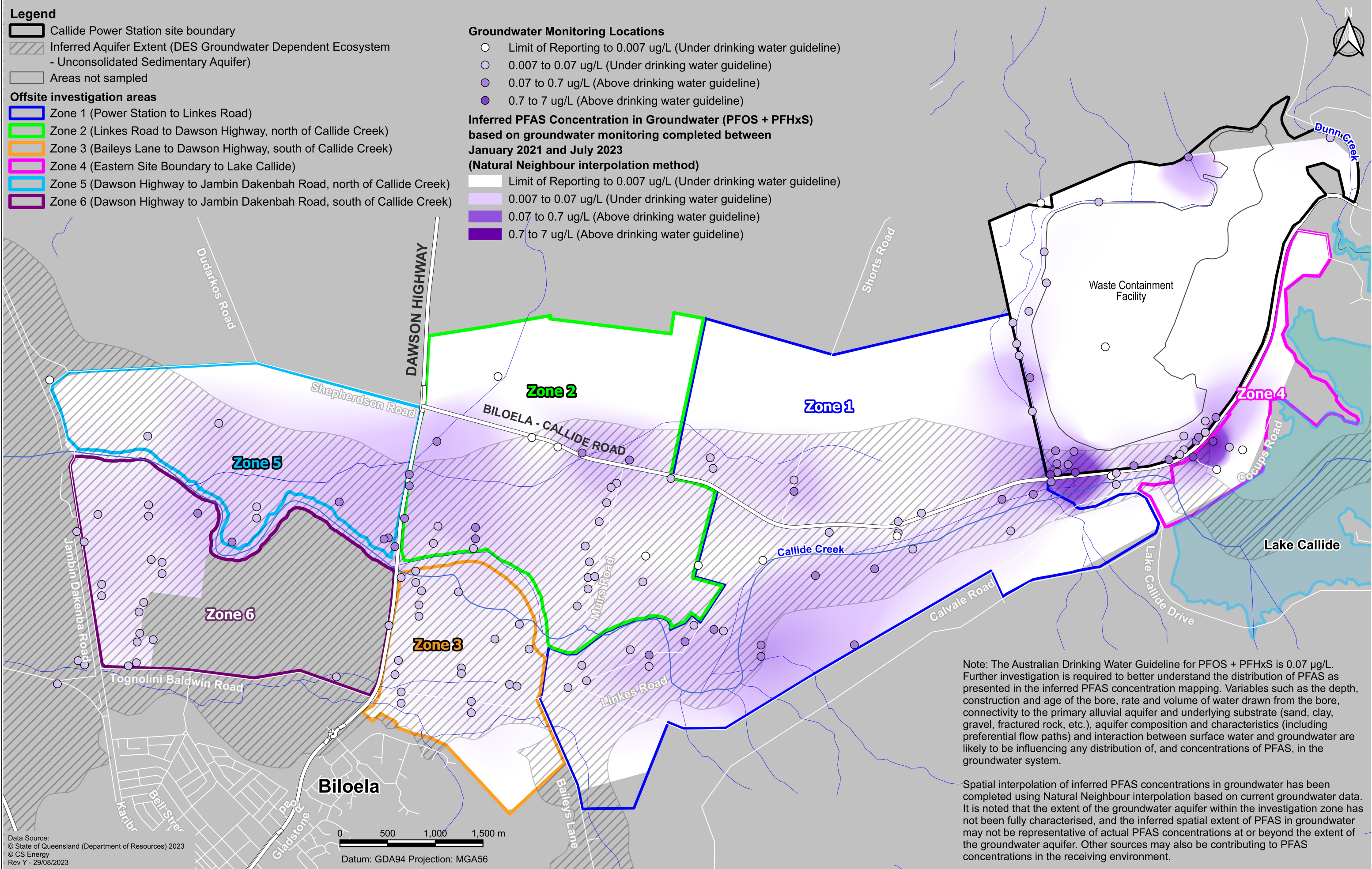
- Zone 1 (Power Station to Linkes Road)
- Zone 2 (Linkes Road to Dawson Highway, north of Callide Creek)
- Zone 3 (Baileys Lane to Dawson Highway, south of Callide Creek)
- Zone 4 (Eastern Site Boundary to Lake Callide)
- Zone 5 (Dawson Highway to Jambin Dakenbah Road, north of Callide Creek)
- Zone 6 (Dawson Highway to Jambin Dakenbah Road, south of Callide Creek)

Groundwater Monitoring Locations

- Limit of Reporting to 0.007 ug/L (Under drinking water guideline)
- 0.007 to 0.07 ug/L (Under drinking water guideline)
- 0.07 to 0.7 ug/L (Above drinking water guideline)
- 0.7 to 7 ug/L (Above drinking water guideline)

Inferred PFAS Concentration in Groundwater (PFOS + PFHxS) based on groundwater monitoring completed between January 2021 and July 2023 (Natural Neighbour interpolation method)

- Limit of Reporting to 0.007 ug/L (Under drinking water guideline)
- 0.007 to 0.07 ug/L (Under drinking water guideline)
- 0.07 to 0.7 ug/L (Above drinking water guideline)
- 0.7 to 7 ug/L (Above drinking water guideline)



Note: The Australian Drinking Water Guideline for PFOS + PFHxS is 0.07 µg/L. Further investigation is required to better understand the distribution of PFAS as presented in the inferred PFAS concentration mapping. Variables such as the depth, construction and age of the bore, rate and volume of water drawn from the bore, connectivity to the primary alluvial aquifer and underlying substrate (sand, clay, gravel, fractured rock, etc.), aquifer composition and characteristics (including preferential flow paths) and interaction between surface water and groundwater are likely to be influencing any distribution of, and concentrations of PFAS, in the groundwater system.

Spatial interpolation of inferred PFAS concentrations in groundwater has been completed using Natural Neighbour interpolation based on current groundwater data. It is noted that the extent of the groundwater aquifer within the investigation zone has not been fully characterised, and the inferred spatial extent of PFAS in groundwater may not be representative of actual PFAS concentrations at or beyond the extent of the groundwater aquifer. Other sources may also be contributing to PFAS concentrations in the receiving environment.