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Hypothetical scenario exercises to improve planning and readiness for drinking water quality management during extreme weather events

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14 Abstract

15 Two hypothetical scenario exercises were designed and conducted to reflect the increasingly extreme 16 weather-related challenges faced by water utilities as the global climate changes. The first event was 17 based on an extreme flood scenario. The second scenario involved a combination of weather events, 18 including a wild forest fire ('bushfire') followed by runoff due to significant rainfall. For each scenario, a 19 panel of diverse personnel from water utilities and relevant agencies (e.g. health departments) formed 20 a hypothetical water utility and associated regulatory body to manage water quality following the 21 simulated extreme weather event. A larger audience participated by asking questions and contributing 22 key insights. Participants were confronted with unanticipated developments as the simulated 23 scenarios unfolded, introduced by a facilitator. Participants were presented with information that may 24 have challenged their conventional experiences regarding operational procedures in order to identify

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