

The purpose of this testimony is to advocate for increased funding for the Oregon Climate Change Research Institute (OCCRI). OCCRI is an indispensable asset for helping Oregon municipalities prepare to mitigate the impacts of climate change on their water resources and water systems. This is a challenge that continues to gain relevance as we experience increased rates of harmful algal blooms (HABs) throughout the region that have contaminated our water supplies, which may be linked to climate change.

Carollo Engineers has had the opportunity to partner with OCCRI in their mission to cultivate climate-informed communities during the development of the City of Corvallis' Water Distribution and Treatment Facility Master Plan. OCCRI's projections of seasonal climate conditions for the planning period that were based on state-of-the-art models, such as the Willamette Water 2100 model, were used to inform the City of Corvallis of potential impacts due to climate change of the quantity of their water resources, quality of their water supply, and customer water demand. Our work predicts that due to climate change alone, single family water consumption may increase as much as 5 percent by 2050. Furthermore, flows in the Willamette River are predicted to decrease during the summer, jeopardizing Corvallis access to its water rights that are junior to minimum perennial stream flows and fish persistence conditions. It's critical to expand on the work done for the City of Corvallis to other municipalities to help them understand the specific water quantity and quality challenges they need to prepare for.

Carollo has also been partnering with OCCRI in a mission to develop and deploy water quality forecasting tools to help utilities predict, plan for, and mitigate water quality challenges (particularly HABs) throughout the Willamette Watershed. Our vision is to merge the capabilities of OCCRI for long-term climate modeling with machine learning algorithms for short-term HAB prediction to develop decadal HAB forecasting. This work is in its infancy, but is urgent as the risk of HABs contaminating our water supplies increases.

OCCRI helps communities in our region understand the specific threats that climate change poses to their water supplies and make actionable plans for mitigation. OCCRI is a local asset that deserves our funding.