



To: Ipswich Planning Board  
From: Nancy Baker and Robert Baker  
CC: Ethan Parsons  
Date: April 26, 2022  
Re: Special Permit for Ora, (Section J.2.b. iv. and vii.)

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In consideration of a special permit for the Ora project under *Section IX. J.*, the planning board will need to address criteria in *J.2.b.iv*: the adequacy of utilities and public services, which includes the water supply system; and *J.2.b.vii*: minimization of water demand consistent with the Board of Water Commissioners' Water Use Mitigation Program regulations.

A Water Demand and Supply Evaluation, prepared by AECOM (2019) for Ipswich was reviewed to understand the existing public water supply. The study identified existing insufficiencies in the water supply system and proposed alternative water supply sources to address those deficiencies. AECOM notified the town the, "(c)urrent supplies are insufficient and new sources of supply must be identified." The report indicated that the current average daily demand for water ranges from 1.01 million gallons per day (MGD) to 3 MGD. However, in years like 2016 with drought conditions, the water supply available can be as low as 0.96 MGD, which leaves a deficit of at least 0.05 MGD based on current daily demands.

The study also identified proposed developments and their water needs to understand their impact on the system. The ORA project was not one of them.

These new developments are estimated to add another 0.05 MGD to the town's daily demand for water. In other words, new development proposed by 2019 would double the existing water deficit without improvements to the water supply system prior to completion of those projects, excluding the more recently proposed ORA project for which water needs and supporting information in compliance with *J.2.b.vii*. do not appear to be available publicly.

To date, no additional studies or decisions have been made regarding any alternative water supply projects needed to address the current or future town's water supply deficits. It is likely that water deficiencies in Ipswich will continue to worsen for years to come before new supplies can be brought on line. Typically, it can take many years from planning to completion of projects of the magnitude identified by the study<sup>1</sup>.

None of these alternatives will be inexpensive; the estimated costs range from 2.6 million to 25 million based on 2019 dollars. Depending on the actual and anticipated increases in water demand in the town, it may be necessary to undertake several supplemental water projects.

This leaves the planning board in an unenviable position. Given current conditions of the town's water supply, a decision to approve additional new development projects, including ORA would increase water demands irrespective of whether future documentation demonstrates Ora's compliance with criterion *J.2.b.vii*. Any added demand for water would further stress an already stressed system, contrary to the requirements of the special permit criterion, *J.2.b.iv*. More importantly, there would be less water available to residents, businesses, and emergencies for the foreseeable future at a time when climate instability and unpredictability contribute to extreme weather including drought conditions.

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<sup>1</sup> The alternative projects identified include: new wellfields, four reservoir expansion options, desalination, wastewater reuse, and interconnections with surrounding communities.

Baker  
26 April 2022  
Smeeth, Hamilton