Maguro Enterprises, LLC (Google) Groundwater Withdrawal Permit Request and Application

On February 15, 2019, the South Carolina Department of Health and Environmental Control (DHEC) received an application from Maguro Enterprises, LLC (Maguro or Google) requesting an increase in their groundwater withdrawal limit under the Groundwater Use and Reporting Act.

The current approved permit limit for groundwater withdrawal by the company is **182.5** million gallons per year (MGY). The new application requests an increase to **549 MGY.**

DHEC's Role
Under the state's Groundwater Use and Reporting Act, groundwater users who are in designated capacity use areas of the Coastal Plain are required to request a permit from DHEC to construct and/or operate any well, or system of wells, which will use **over 3 million gallons in any one month**. DHEC reviews groundwater withdrawal permit requests to assess a permit's potential impact on the surrounding users as well as potential to have adverse effects on the resources. Decisions are made based on the best available scientific data. **Permits for use are subject to review and renewal every 5 years, at which time the permit will be reevaluated.**

Proposed Water Use
Maguro Enterprises plans on expanding its data center in South Carolina near Monck's Corner. Maguro proposes to use the requested groundwater in a closed-loop cooling system for the servers used to run the data center. Water circulates in the system and is replaced as it is lost through evaporation. Under the proposed permit, water would not be re-injected to the aquifer from which it was withdrawn or discharged back into the environment.

Historic Annual Water Use in Millions of Gallons (MG):

2015: 0
2016: 0
2017: 0
2018: 35.5

Groundwater Flow Model and Evaluation of Potential Impact
A 2017 groundwater flow model developed by the USGS for Mount Pleasant Waterworks was evaluated to determine the potential impact of Maguro's request to increase their groundwater withdrawal rate. The model simulates hydraulic head and groundwater flow through the year 2050. Simulation scenarios from this model were used to compare the impact of the existing and requested groundwater withdrawal rates on the existing cone of depression beneath Mt. Pleasant, S.C., by evaluating the impact on SC Department of Natural Resources Monitoring Well CHN-14—located on the eastern shore of the Charleston peninsula. The Maguro well is located approximately 22 miles from the center of the cone of depression. Simulation results suggest that the requested withdrawal rate of 1.5 MGD by Maguro would lower the water level in CHN-14 by approximately 5 feet from 2017 to 2050. The 5-foot drawdown over a 30 plus-year period is not significant over the 5-year permit cycle.

During the permit cycle, **Maguro Enterprises will be expected to continue its work to secure alternate surface water sources for its industrial cooling needs.**

Next Steps

As part of the groundwater permit process, DHEC held a public comment period from May 13, 2019 and June 12, 2019. The department issued a draft permit on August 22 and sent the draft to the Trident Technical Advisory Committee (TAC). A meeting is currently in the process of being scheduled. The department will present the permit to the TAC concerning the draft permit's adherence the Trident Groundwater Management Plan.