

Elected  
Rick M. Crosby, Chair  
Susan I. Mellichamp, Vice-Chair  
H. Mac Jenkinson, Secretary-Treasurer  
Diane D. Lauritsen, Ph.D.  
John W. Burn



Ex-Officio  
Linda Page, Mayor  
Mark Smith, Chair  
Water Supply Committee, Town Council  
  
Clay Duffie, General Manager

September 15, 2016

Mr. Paul L. Bristol  
SCDHEC  
Bureau of Water  
2600 Bull Street  
Columbia, SC 29201

Re: Maguro Enterprises, LLC's Application for Groundwater Withdrawal Permit

Dear Mr. Bristol,

In accordance with DHEC's acceptance of comments to Maguro Enterprises, LLC's ("Maguro") Permit Request Application, the following comments are submitted on behalf of Mount Pleasant Waterworks ("MPW").

Currently, the Middendorf Aquifer, renamed McQueen Branch/Charleston Aquifer in 2010 by USGS' Groundwater Availability in the Atlantic Coastal Plain of North and South Carolina report, supplies most of East Cooper's drinking water. MPW has been relying on the Middendorf Aquifer for its water supply for decades. The Town of Mount Pleasant is one of the fastest growing areas of the country. As the Town grows, MPW's reliance on the Middendorf Aquifer will only increase. This aquifer is protected under the Capacity Use Designation and is a primary source of water supply for the Town of Mount Pleasant and surrounding Charleston County, serving over 80,000 citizens. It is an extremely important natural resource to the customers of MPW and must be protected.

Maguro seeks withdrawal of 1.5 million gallons of water per day for an estimated 549 million gallons of water per year to be used as non-contact cooling water at the Google facility in Moncks Corner, South Carolina. Maguro's decision to pursue a groundwater source for its cooling operation appears to have been based solely on an analysis to meet the needs of the applicant and does not take into account the negative impact on the aquifer, nor does it provide an analysis of alternative sources as required by law. A continuous 1.5 million gallon withdraw of water per day will deplete a natural resources that provides clean drinking water to citizens of this state.

For all the reasons set forth below, Mount Pleasant Waterworks opposes Maguro Enterprises, LLC's Permit Application and request that DHEC deny the same until an alternative analysis and geotechnical study is provided by the Applicant and MPW has an opportunity to further evaluate Maguro's Hydrogeologic report.

**A. Maguro's Permit Application Fails to satisfy S.C. Code Ann. § 49-5-20**

Section 49-5-20 of the South Carolina Code, titled Groundwater Use and Reporting Act, declares that the general welfare and public interest require that the groundwater resources of the State be put to the beneficial use to the fullest extent to which they are capable, subject to reasonable regulation, in order to conserve and protect these resources, prevent waste, and to provide and maintain conditions which are conducive to the development and use of water resources. The groundwater withdrawal application process established by DHEC is intended to assist the applicant in developing appropriate information necessary for DHEC to evaluate the potential effect of the proposed groundwater withdrawal on the water resources of the area. Maguro's permit provides no such information other than how the withdrawal meets the needs of Maguro. The effect on the water source and impact on other users' needs is not addressed.

Maguro's permit modifications conflict with the intent established by the General Assembly through the Groundwater Use and Reporting Act. Maguro's intended use of the natural water resource is non-contact cooling water for its equipment. This proposed intended use at 1.5 million gallons a day does not conserve or protect the natural resource for its fullest beneficial use. Maguro's proposed intended use is a waste of a valuable natural resource and not in the general welfare and public interest. Excessive groundwater withdrawal presents potential adverse effects to the natural resources and poses a threat to public health and safety. Maguro's intended depletion of the proposed natural resource is unnecessary as it is believed that alternative water sources and cooling options are available to Maguro that would not deplete the valuable source of clean drinking water as proposed.

Specifically, Maguro's permit application fails to establish a "Best Management Plan" as required by DHEC's Application Guide. Maguro is to provide a "Best Management Plan" for water use and water conservation designed to protect water quality and reduce consumption to include the following:

- Reasonable and appropriate conservation techniques; and
- Alternate sources of water, including but not limited to surface water and/or availability of treated effluent

Maguro has failed to provide any conservation techniques or any alternate sources of water. It is my understanding that other cooling techniques and other sources of water, including treated sewer water, could be used for Maguro's cooling needs rather than deplete the natural resources used by MPW to provide clean drinking water to residents and businesses of this state. An analysis of alternate sources of water as well as reasonable and appropriate conservation techniques should be submitted by Maguro before its permit application is given further consideration.

## **B. Assessment of DHEC's R. 61-113 Factors**

DHEC's Regulation 61-113, Groundwater Use and Reporting sets forth a number of factors for DHEC's consideration when considering a withdrawal permit request. One consideration to be given is "the number of persons using the aquifer and the object, extent, and necessity of their respective withdrawals or uses". The Middendorf Aquifer is MPW's essential water source to provide clean drinking water to its customers. Mount Pleasant Waterworks pulls an average of approximately 1,400 million gallons of water a year from the Middendorf Aquifer. MPW is also aware of surrounding areas such as Kiawah Island, and Isle of Palms that rely heavily on the Middendorf Aquifer as well.

Further, DHEC is to consider the kinds of business or activities to which various uses are related. Maguro's proposed use is for non-contact cooling of equipment. Clean, fresh water from the Middendorf Aquifer is not a necessity for that purpose. Other sources of water, including surface water or treated sewer water could accomplish the same purpose. Maguro has provided no support for why the use of this natural water source is necessary for this purpose, other than it is a free source that is available. DHEC must also consider "the relative importance and necessity of uses claimed by permit holders and permit applicants and the extent of injury or detriment caused or reasonably expected to be caused to other water uses, including public use". MPW's use of the Middendorf Aquifer affects the public health, safety and welfare. Maguro's intended use affects none of those uses.

Maguro's continuous withdrawal of 1.5 million gallons a day from the Middendorf Aquifer can reasonably be expected over time to impact the overall availability of water from MPW's essential source for providing clean drinking water. MPW periodically contracts with the USGS to provide updated groundwater modeling of the Middendorf, and has a study presently underway. We believe as responsible users of the resource it is necessary to monitor and predict the condition of the aquifer, so that we are better able to manage our sources of water supply. MPW also purchases water from Charleston Water System in order to minimize MPW's impact on the Middendorf Aquifer. Through the use of USGS modeling, MPW has analyzed what it can safely draw from the Middendorf Aquifer on a yearly basis. It does not appear that Maguro has given such consideration in its proposal.

Maguro has not demonstrated that the groundwater withdrawal requested is reasonable and necessary, nor have they demonstrated that there is no unreasonable adverse effect on other water users like Mount Pleasant Waterworks. In fact, the opposite is true. Less desirable water quality could be used to satisfy the needs of Maguro. The water needed by Maguro has no essential specific characteristics. Its intended use is non-contact cooling. To protect against adverse impacts on other water users like Mount Pleasant Waterworks and waste of natural resources, DHEC should deny Maguro's permit application.

### **C. DHEC has Failed to Establish an Effective Groundwater Management Plan**

Pursuant to Section 49-5-40 of the South Carolina Code, in order to carry out the Groundwater Use and Reporting Act policy declared by the General Assembly, DHEC was to establish and implement an effective statewide groundwater management plan. As part of the statewide plan, DHEC was to initiate or take action to develop capacity use areas and have an approved groundwater management plan for each designated capacity use area. DHEC is then authorized to issue groundwater withdrawal permits in accordance with the approved plan. Each capacity use area is to be designated based on scientific studies and evaluation of groundwater resources and may or may not conform to political boundaries.

The Capacity Use Areas in South Carolina are designated as Pee Dee, Waccamaw, Trident and Low Country. The Capacity Use Area was designated in Charleston in 2002. It is my understanding based upon independent research and conversations with DHEC representatives that no groundwater management plan has ever been approved for any of the Capacity Use Areas in our State. In a state where excessive groundwater withdrawal presents severe adverse effects to the natural resources, which ultimately could have a negative impact on public health, safety and economic welfare, such a groundwater management plan is essential. Without such a groundwater management plan in place, DHEC should not even entertain Permit Applications as submitted by Maguro. With no approved plan, DHEC has no guideline for whether to accept or deny the requested permit. Without an approved plan, the goals and objections of our legislatures in establishing S.C. Code Ann. 49-5-20 cannot be adhered to.

MPW has been instrumental in acquiring the protection of this aquifer and the groundwater resources in the coastal plain of South Carolina. We have dedicated substantial resources to data acquisition for groundwater modeling, joint funded projects with the USGS on ground water modeling and information gathering, conducted private groundwater supply studies, provided comment and input into the development of the regional management plan and groundwater legislation. A chronology and supplemental information is attached as an appendix as evidence of our efforts. All of this work by MPW has been in an effort to protect the natural resources of this state that support the health, safety and welfare of our state's citizens through the Capacity Use Designation and we hope to see it implemented and enforced as it is intended.

While MPW certainly supports economic development and job creation in our region, we cannot support using a pristine water resource for cooling machines when other adequate alternatives are believed to be available. These resources should be protected for human consumption first and foremost. MPW offers to work cooperatively with DHEC and the applicant

Mr. Paul L. Bristol  
September 15, 2016  
Page 5

as they seek to secure an alternative source of water for cooling their systems. We also offer to meet with the applicant and DHEC at your earliest convenience to further discuss these comments. In addition to requiring an alternative analysis, reasonable and appropriate conservation techniques should be developed and presented by the applicant. Furthermore, MPW respectfully request that we have an opportunity to conduct an independent assessment of the findings in Maguro's Hydrogeologic Report prior to the Department making a decision on the permit application to expand its use of the Middendorf Aquifer.

I look forward to hearing from you on this matter.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Clay Duffie", written in a cursive style.

Clay Duffie  
General Manager  
Mount Pleasant Waterworks

CC: MPW Commissioners

**Chronology of Request  
for Capacity Use  
Mount Pleasant Waterworks**

<u><b>Date</b></u>	<u><b>Correspondence</b></u>
April 5, 1988	Letters to Governor, local legislative delegation and other officials from Commission Chairman Charles Hindman concerning ground water research. Letter outlined Commission's reliance on groundwater and need to commit to a 30-year capital improvement program using groundwater.
April 27, 1988	Letter from Governor Carroll Campbell advising that the Water Resources Commission was considering designating Charleston, Berkeley, and Dorchester County area as a Capacity-Use area.
July 13, 1988	Letter from Mary Sowell, Staff Counsel, SC Water Resources Commission. Ground Water Use Act of 1969 submitted with letter. Advised of time frame for adoption of regulations for a new capacity use area.
July 15, 1988	Memorandum from Manager Ronald Bycroft concerning his investigation of Capacity Use Area designation for the tri-county area.
<b>August 15, 1988</b>	<b>Letter to Eric Ficken, Chairman, SC Water Resources Commission (SCWRC), from Chairman Charles Hindman requesting capacity use area designation of the East Cooper area of Charleston County.</b> Advised of Mount Pleasant Waterworks plans to use reverse osmosis water. Submitted Technical Memorandums on aquifers as prepared by CH2M Hill Engineers.
September 28, 1988	Letter from Alfred Vang advising that the Water Resource Commission (WRC) had voted to have WRC staff begin investigation to determine whether area should be designated capacity use or not.
<b>May 1, 1989</b>	<b>Letter to Alfred Vang, SC Water Resources Commission, from Manager Clay Duffie again requesting capacity use permitting designation for the East Cooper area and possible the Tri-county area.</b>
May 22, 1989	Memorandum to Commissioners from Manager Clay Duffie advising of personal presentation to Water Resources Commission on May 17, 1989 reiterating the Commission's interest in obtaining capacity use in the Charleston area.
May 24, 1989	Letter from Alfred Vang, SCWRC, acknowledging letter of May 1 <sup>st</sup> and advising of support from House and Senate to initiate a groundwater management program in Trident area.

Chronology of Request for Capacity Use  
Mount Pleasant Waterworks

Sept. 18, 1989	Letter to Camille Ransom, SCWRC, from Manager Clay Duffie advising of decline in the water table and requesting what is needed to expedite the process to request capacity use area designation.
December 15, 1989	Letter to Charles Cuzzell, Summerville CPW, and Marc Hehn, Berkeley County Water & Sewer Authority from Manager Clay Duffie soliciting assistance in enacting legislation that will allow the Trident County area to be declared a "Capacity Use" area by the SCWRC to ensure protection of ground water resources.
February 5, 1990	Letter to Representative Harry Hallman from Clay Duffie reference House Bill 4038, Capacity Use Legislation, giving comments about proposed legislation and support for most of the bill.
February 7, 1990	Letter to Michael Jarrett, SCDHEC from Clay Duffie commenting on House Bill 4038, Capacity Use Legislation.
September 6, 1995	Letter from David Price, SCDHEC, to Clay Duffie relative to the delineation of Capacity Use Areas under the Ground Water Use Act and enclosing copy of the Act.
October 18, 1995	Letter to David Price, SCDHEC, from Commissioner Warren Player reference Nucor Steel and impact on Middendorf Aquifer.
October 23, 1995	Letter from David Price, SCDHEC, to Clay Duffie advising that they would pursue action to designate the entire Coastal Plain a groundwater management area.
<b>December 8, 1995</b>	<b>Letter to Lewis Shaw, SCDHEC, from Thomas Lavender, Nexsen Pruet Jacobs &amp; Pollard, LLP, requesting DHEC to undertake studies necessary to support a recommendation to adopt an emergency regulation designating Berkeley, Dorchester and Charleston counties as capacity use areas.</b>
April 9, 1996	Letter from Lewis Shaw, SCDHEC, to Clay Duffie providing an update on DHEC action to a capacity use designation.
July 1, 1996	SCDHEC published Coast Plain Capacity Use Investigation Report.
Summer 1996	Six public hearings held across various parts of the state to receive public comments on capacity use designation for Coastal Plan. [Conway 7/19/96; Aiken 7/30/96; Mount Pleasant 8/5/96; Florence 8/6/96; Beaufort 8/12/96; Orangeburg 8/19/96]

Chronology of Request for Capacity Use  
Mount Pleasant Waterworks

Fall 1996	Coastal Plain Capacity Use Area Task Force formed. (Clay Duffie, member of task force). Draft Guidance Document developed.
December 20, 1997	Memorandum to Task Force from Michael Bennett reference requirements for converting the draft guidance document to regulations and submitting draft review and comments.
January 23, 1997	Coastal Plain Capacity Use Area Task Force members sent copy of Draft Groundwater Management Act from Michael Bennett, SC DHEC.
March 31, 1997	Letter to Clay Duffie from Michael Bennett, submitting draft Groundwater Management Act with revisions after reviewing comments from SC Chamber of Commerce and SC Farm Bureau Federations.
October 20, 1997	Memorandum to Task Force from David Price sending revised draft made by DHEC after receiving public comments on proposed plan.
October 27, 1997	Letter to Michael Bennett from Clay Duffie enclosing comments to latest draft of the Groundwater Management Act.
November 19, 1997	Letter to John Burris, Chairman, SC DHEC Board, from Commission Chairman Bill Golightly, requesting opportunity to address Board concerning the proposed Act.
February 12, 1998	Commission Chairman and Manager address DHEC Board.
Spring 1998	Representative Chip Campsen introduces H.3434 Groundwater Use and Reporting Act. Referred to HANR Committing - No Action.
January 3, 1999	Representative Chip Campsen again introduces H.3434, referred to HANR Committee - No Action.
October 25, 1999	Letter to Bradford W. Wyche, Chairman, SCDHEC Board from Commission Chairman Bill Golightly requesting action by the DHEC Board relative to Capacity Use.
January 10, 2000	Letter to Commission Chairman Bill Golightly from Bradford W. Wyche, Chairman, SCDHEC Board. Enclosed memo from David Baize dated December 3, 1999 which addressed the main points in Dr. Golightly's letter dtd 10/25/99.
February 16, 2000	Letter to Clay Duffie from David Baize, SCDHEC, states SCDHEC will proceed with processing MPW's request for capacity use area designation.



Chronology of Request for Capacity Use  
Mount Pleasant Waterworks

July 2001	A Preliminary Assessment of the Groundwater Conditions in Charleston, Berkeley, and Dorchester Counties, South Carolina recommends approval of MPW's request to designate the Trident region a Capacity Use area.
August 8, 2002	SCDHEC Board declares BCD counties as the "Trident Capacity Use Area".