September 12, 2022

RE:

2022 SARGASSUM SEASON RESPONSE AND EVENTS

FROM: JA QUINONES, ESQ

PHA EXECUTIVE DIRECTOR

TO:

PALMAS DEL MAR COMMUNITY

## Dear PHA Community:

Sargassum accumulation negatively effects everyone in Palmas by making many of our beaches and large swaths of our coast difficult to use for several months of the year, interior regions are also affected by the unfortunate smell emitted as sargassum dries in the sun. As large amounts of sargassum are continuing to reach our shores, the PHA has recently substantially increased its efforts to remove sargassum from our beaches and coastal areas and is continuing to explore ways to keep sargassum offshore.

## In the last 6 months, the PHA has:

- 1. Conducted active Sargassum Collection at our coastal zone shoreline, from Marbella to Shellcastle Beach, employing contracted services of a beach raker and tractor, hand collection and use of specialty equipment designed for our coastal zone conditions. The Slip Owners Association (SOA) has been employing a unique design of a floating conveyor belt and collection barge to clean the inner harbor from sargassum.
- On a routine basis we are in communication with our municipal, state and federal allies at the 2. Commonwealth Department of Natural Resources, the Environmental Protection Agency, the Environmental Quality Board, Regional US Fish and Wildlife Service, NOAA (Area Mapping and GIS), and Army Corps of Engineering, among others, to help manage the sargassum situation.
- 3. PHA has received the unconditional support, free of cost, of many Not-for-Profit Corporations, Non-Governmental Organizations, Research Institutes, and other field experts, such as Sea Grant Puerto Rico, Texas A&M University HARTE Research Institute, CARICOOS, and the University of Puerto Rico (Mayaguez, Rio Piedras and Humacao Campus).
- 4. PHA and university researchers have established monitoring stations for water and air quality and will be working in the near future to install underwater aerators at the Palmas del Mar inner harbors (SOA), an installation that was delayed as prompted by the Army Corps of Engineers. Once complete, this installation should substantially clear up water at inner harbor.
- 5. Collection areas include coastal zones (PHA), Barriers and surface collection (SOA), employing numerous collection methods. Challenges include constantly changing conditions including currents, rain, hurricane season, winds, sun, tides and other variables that are outside of our control. These challenges affect consistency and nature of the sand, as our Coastal Zone has two cycles of ebb/tide maintaining wet sand 24/7 at sargassum accumulation areas. Further, our permits are employed in a way that is monitored by state and federal agencies, in a way that such collection will not cause erosion damages to our fragile coastal zone, nor affect seasonal endangered species seeking safe refuge.

Our efforts start with our Habitat Conservation Plan, a unique tool that has a Fish and Wildlife Section 7 Consultation to Municipal, State and Federal agencies, under the Endangered Species Act (ESA). PHA has the appropriate permits to reduce the impact of Sargassum within our coastal zones, and are actively employing numerous methos of collection, all in accordance with the Commonwealth of Puerto Rico Department of Natural Resources Guidelines (Published 2015). In addition, PHA under the leadership of HARTE Institute, participated within the 2022 Virtual Legal Considerations on the Removal of Sargassum from the Coasts of Puerto Rico, assisting local state and federal agencies to develop "an all approach" process for monitoring, collection, and disposal of sargassum. The current model used by Palmas del Mar community has spearheading numerous efforts within Puerto Rico coastal areas, serving as a starting guide for state and federal environmental agencies as well.

PHA has invested over \$65,000.00 this season to collect and dispose sargassum from our coastal zone, and the Palmas Slipowners Association (SOA) at least \$140,000.00 since the season started back in March 2022 [Differences in Costs Prompted by Specialized Equipment for Shore/Water Collection]. That amount could easily be double if we counted the volunteer hours from scientists, research students, national/international subject matter experts, and most importantly our community volunteer leaders who were engaged on this problem throughout the season and who are helping us with long term planning for years to come.

Long term plans are being looked at with numerous experts, to include a Biodiesel generation site requiring fresh sargassum to be collected, but, additional permits from the Environmental Protection Agency are required as the floating sargassum is considered a biomass with potential endangered species using to feed and nest. The named all comprehensive plan is being put in place by our municipal, state and federal authorities, perhaps under the Stafford Act that will allow for added funds. In the interim, members of our PHA Board of Directors will be seeking additional funds and looking ahead to the upcoming season to prepare a more active response, with the assistance of private funds from residents [Endowments/Trusts/Etc.] and Non-for-Profit organizations.

A succinct description of sargassum monitoring, collection and disposal efforts was provided, but, the best so far has been witnessing an unprecedented comradery within our Palmas del Mar Residential/Resort community, teaming up to make our Coastal Zone the most pristine and biodiverse location for our residents/tourists to enjoy.

Respectfully Yours I Remain,

JA Quinones, Esq.

[Clean Up Efforts Photos, Presentations, and Ongoing Legal Documents will be Posted at PHA Website]