



Special Public Session of March 1, 2016

**Santa Cruz Port Commission
MINUTES**

Commission Members Present

Toby Goddard	Chairman	Bill Lee	Commissioner
Dennis Smith	Vice-chairman	Reed Geisreiter	Commissioner
Stephen Reed	Commissioner		

SPECIAL PUBLIC SESSION – 4:00 PM

Chairman Goddard brought the special public session to order at 4:00 PM at the Santa Cruz Harbor Public Meeting Room, 365 A Lake Avenue, Santa Cruz, CA 95062.

1. Oral Communication *(There was no discussion during Oral Communication.)*
2. Consideration of Purchase of 75hp Toyo Pump for Entrance Dredging Augmentation

Discussion: Port Director Ekers introduced Devon Greer and Mike Croom of Process Equipment Company, who are available to answer technical questions about the Toyo pump system.

Port Director Ekers explained that the Commission's emergency action of February 4, 2016, authorized expenditure of up to \$100,000 for contract work to supplement the current entrance dredging operation, but it did not authorize purchase of equipment. The subsequent Commission action of February 23, 2016, authorized purchase of a 50hp Toyo pump, though there was considerable discussion about whether a 75hp pump might be a better option. The purpose of this meeting is to consider whether to purchase a 50hp or 75hp pump system, and authorize the expenditure.

Mr. Greer stated that the cost of a 75hp pump, with add-ons is approximately \$85,000.

The jet ring attachment, which costs \$5,000 was discussed. Port Director Ekers explained that while regulators tend to think that the jet discourages fish from being in the area and becoming entrained in the pump, that is not substantiated – Toyo videos clearly show fish swimming in the vicinity of the pump. Mr. Greer added that the jet ring is not recommended for applications like the harbor, which has already been dredged – the jet ring is designed for mining-type operations in which hard-packed material and substrate is loosened and broken up by the high-pressure jets. Port Director Ekers stated

they do not recommend purchasing the jet ring, but noted that it may generate some questions by regulators when it is excluded from the modified dredge plan.

Port Director Ekers reported that she has reached out to the Corps seeking regulatory relief relative to emergency shoaling of the federal entrance channel.

Port Director Ekers reviewed a graphic depicting the reach the District's current crane would have if set up along the harbor's east jetty. Commissioners and staff discussed other options for deploying the Toyo pump, including a floating platform, larger crane, and vessel-mounted A-frame. Facilities Maintenance and Engineering Manager Kerkes noted that loading from the weight of the generator needed to power the pump must be factored in when considering use of a barge or vessel.

A discussion ensued about the pump's ability to handle kelp without clogging. Mr. Greer explained that the metal screen and impellor will prevent clogging. He added that your hand can be within 1' of the pump when in operation and no strong pull will be felt. Mr. Greer did not believe that kelp would present clogging issue for the pump.

There was a follow-on discussion about what action is needed to clean the pump in the event of a clog. Mr. Greer explained that the low voltage on the control panel's amperage meter will be indicative of a clog or that material is encountered that is too dense to be pumped. Mr. Greer explained that there is no backflow to clear clogs. Mr. Greer stated Toyo recommends daily cleaning of the pump. Commissioner Lee pressed Mr. Greer for a more exact explanation of how a clog is cleared from the pump. Mr. Greer stated that to remove the clog the equipment needs to be placed horizontally and the screen needs to be removed to access the impellor. He suggested that the screen can be replaced at the same time, and the oil can be changed (which also requires the pump to be placed horizontally). Mr. Greer did not know how many bolts need to be removed.

In response to a question posed by Commissioner Goddard, Mr. Greer stated that a cubic yard per hour production volume can be calculated using an assumption that there is 70% sand content at maximum production in one gallon of slurry.

A detailed discussion ensued between Mr. Greer and Commissioner Lee about how far a 50hp unit can pump versus a 75hp unit, and at what point the District may need to boost the disposal. Mr. Greer explained that their engineering department will take site specific information and calculate the

maximum pumping distance for each unit, with 6" and 8" discharge pipelines, and provide that information to the District.

Further discussion ensued about the options, including replacement of the 65' standard power cord, desirability of a cutter head (which Commissioner Lee noted would be prone to clogging by kelp), the jet ring and advantages of a VFD versus a soft start – it was noted a VFD's sensors will automatically stop the pump and provide more protection for the equipment.

In addition to daily cleaning of the pump, Mr. Greer stated Toyo recommends the oil be examined after each use, and if milky, the seals should be replaced.

MOTION: Motion made by Commissioner Lee, seconded by Vice-chairman Smith, to authorize staff to purchase a 75hp Toyo pump at a cost of \$85,000. If it is determined that a 50hp pump will work for the District's application, staff is authorized to downsize.

Discussion: Port Director Ekers suggested increasing the authorized amount to \$100,000.

Commissioner Goddard noted that the pump is being acquired to augment emergency dredging operations, and suggested that be included in the motion.

Commissioner Lee amended his motion.

MOTION: Motion made by Commissioner Lee, seconded by Commissioner Reed, to authorize staff to purchase a 75hp Toyo pump to augment emergency dredging operations at a cost of up to \$100,000. If it is determined that a 50hp pump will work for the District's application, staff is authorized to downsize.
- *Motion carried unanimously.*

Discussion: Funding for the \$100,000 acquisition was briefly discussed following approval of the motion. Port Director Ekers stated that there is cash available that doesn't tap reserves, or it could be funded out of the Dredge Intermediate Fund, which would carry a negative balance into FY 18.

Chairman Goddard adjourned the regular public session at 5:30 PM.



Toby Goddard, Chairman