

**CITY COUNCIL WORK SESSION  
MINUTES  
Peirce Island Wastewater Treatment Facility Project**

April 14, 2014 – 7:00 p.m.

Eileen Dondero Foley Council Chambers

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City Council Present: Mayor Lister, Assistant Mayor Splaine (arrived at 7:30 p.m.) Councilors Kennedy, Lown, Dwyer, Morgan, Spear, and Thorsen

City Council Absent: Councilor Shaheen

Staff Present: Deputy City Manager Dave Allen, Public Works Director Peter Rice, Public Works Deputy Director Brian Goetz, City Engineer Terry Desmarais, Deputy City Attorney Suzanne Woodland

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Mayor Lister called the Work Session to order at 7:10 p.m.

Deputy City Attorney Woodland began the presentation with a review of the background of both the Peirce Island and Pease sites. She reviewed the water quality framework, the Peer Review Report process and Peer Review Report Results which stated that eelgrass losses exist but the link between nitrogen and eelgrass loss was not established. It also determined that the DES approach was too simple and they didn't look at other factors and a new approach is needed. She continued that Post Peer Review, Negotiations with Regulators there is an invigorated dialogue with DES and they will no longer use numeric nutrient thresholds in water quality listings. She stated that the DES is seeking a new regulatory approach with the City participating in the discussion with the goal of opportunities for dialogue with the EPA with good science guiding permitting decisions.

City Engineer Desmarais reviewed the Hydrodynamic model of how the water flows in the estuary which will help with regulatory decisions. He stated the conclusions were that the Great Bay Estuary system is very complex and the major items impacting Algae growth and accumulation are light and residence time. He stated the next steps include working with regulators and other stakeholders to use the hydrodynamic model and additional water quality monitoring to support the model.

Next, City Engineer Desmarais discussed the Peirce Island Wastewater Treatment Facility Project stating that they will be looking for Council input on the height of the Biological Aerated filter (BAF). He further reviewed the projection orientation, regulatory driven upgrades, maintenance upgrades, rate projections and sustainable components. He concluded by reviewing the timeline.

Deputy Public Works Director Goetz reviewed the public process history stating that there have been over 40 presentations given and a webpage has been created dedicated to the issue. He stated that at this point Phase 1, Final Design has been completed, Phase 2, Final

Design is ongoing, Value Engineering will take place in the summer of 2014, Final Design – Phase 3 and then bidding and construction anticipating to begin in September 2015.

City Engineer Desmarais continued the presentation with reviewing the existing site stating that the existing facility will continue running while the new one is built and that the sludge thickeners and primary clarifiers should be replaced prior to beginning construction. He then discussed the BAF height. He stated that due to the constraints of the consent decree, fenced area and small footprint, we may have to go deeper. He stated that it was going to be 30' height but the goal was to maintain it to be similar to the existing facility height of 17'. He stated that in order to do this we would have to determine how far into the ground, but there is a lot of rock which is expensive to remove and there is the issue of having to pump out water which would add another \$5 million to the project and require long-term maintenance. He stated if we go to 25' we don't have to pump out water and there would be less excavation required.

Deputy Public Works Director Goetz reviewed the rate projections stating the current water and sewer rate model provides the ability to forecast project impacts to the sewer rate. Also, 30-year bonding on half of the anticipated project debt is warranted – saving approximately \$400,000 a year in debt payments. Next, he stated that regarding the sustainable components, they will update the Council after Value Engineering in early fall. Finally regarding the Exeter and Stratham request for service at Pease, after Council approval to allow the City Manager to proceed and report back, the towns have hired their own consultant to evaluate and there will be not cost to the City. Deputy Public Works Director Goetz concluded that the next update will be in August 2014 and will include layouts/renderings, results of the value engineering, updated opinion of project cost and additional analysis of sustainable components.

#### QUESTIONS:

Councilor Spear began by stating the permitting process by the DES and EPA were based on the 2009 nutrient study and the staff have been diligent in questioning that study and have taken a lot of heat because of it. He continued that Portsmouth is a leader of sustainability and environmental issues and feels that the results of the peer review was complete validation of the position the city staff has taken over the last 5 years and that we are doing the right thing for the ratepayers and the Bay. He continued that we still need to be cautious going forward because we still don't know what the models will actually show not only for nitrogen but stormwater as well. He stated going forward, we should take any opportunities to take a public leadership position for the region.

Councilor Dwyer asked about the hydrodynamic modeling and is it the same as adaptive management or is it different. Deputy Public Works Director Goetz stated that the Town of Durham is pursuing adaptive management combining stormwater and sewer permit into one and is a pilot program as they have a bigger land component. He explained that for us Hydrodynamic is the way to go as there is better data and better science. He stated we will learn more on Friday.

Discussion ensued regarding the height of the building and different vegetation to camouflage the building.

Councilor Kennedy stated she is disappointed with the height of the building as she was told it could be buried. City Engineer Desmarais stated that it was indicated on April 8, 2013 that the height would be 30' above ground. Councilor Kennedy asked where global warming fit into a 50 year plan, and has this been considered. City Engineer Desmarais stated yes, there is a hydrolic profile and a constant resiliency study that takes into account the rise in sea level but he doesn't have the exact values at this time.

Councilor Kennedy continued asking if the truck traffic will increase for sludge removal. City Engineer Desmarais stated currently there are approximately 4 trucks per week and it is estimated to double to 7-9 a week with the new facility. Councilor Dwyer asked if we have looked at removing sludge with barges. City Engineer Desmarais stated yes, but it is not cost-effective.

Councilor Thorsen discussed the additional cost to keep the BAF height at 17' and the effect on the rate projections.

Assistant Mayor Splaine stated that for the difference of having a 25' height versus the 17' height we can come up with concepts of how to cover the building. Secondly, he asked about odor mitigation as there had been problems in the past. City Engineer Desmarais stated the existing system is more efficient than the old one and more odor control is in the schematic and can be adjusted.

Councilor Spear stated that the sustainability committee had suggested methane digesters which turns sewage to gas to be used for onsite electricity and the sludge is then sterile and can be used as fertilizer. He asked why we cannot do this. City Engineer Desmarais stated that Peirce Island is too small. He stated that could have been an option if it was on Pease as part of the regionalization option and would require public/private partnerships to sell and market the product.

Councilor Spear stated that the City Council voted unanimously last year to build this on Peirce Island but there is still the question of Exeter/Stratham and the consent decree before it is definitive. Deputy Public Works Director Goetz stated that we have been on concurrent paths with Exeter/Stratham and there is progress.

Deputy City Attorney Woodland stated we are under a consent decree to go forward with Peirce Island but agrees we are on dual paths.

Councilor Kennedy asked if we have land on Pease to be able to investigate these technologies. City Engineer Desmarais stated yes we can consider these moving forward if they are cost effective.

Councilor Dwyer asked if the footprint is larger at Pease. Public Works Director Rice stated we met with the PDA in 2010 to discuss the option and they were open to it but the available footprint is loosely defined.

Councilor Kennedy stated if Exeter, Stratham and Greenland come forward we will need that land.

Deputy City Manager Allen asked if there is a consensus to go forward with the 25' height with screening.

Councilor Kennedy stated she is still processing the information.

Councilor Spear stated the decision needs to be voted on by the Council as a matter of record. Deputy City Manager Allen asked when the decision needs to be made.

City Engineer Desmarais stated we don't want to have to change paths later as we are in the design phase so need to know.

Deputy City Attorney Woodland stated that the decision of the height is a separate issue that needs to be decided sooner than later for the design team. She stated screening and architectural changes can be decided later.

Mayor Lister commended the staff for their leadership, collaboration and tenacity in advocating for the citizens of Portsmouth.

Meeting adjourned at 8:55 p.m.