

Question from	Question	Distilled Question	Category	Flood Control District's Response
Adrian Cotter	the Wood Rogers report proposed a set of protocols for tide gate opening. What are the County's current protocols by which gates are opened or closed (wet or dry weather). By what measure are these assessed?	When/why to open and close gates?	open and close factors	The station is remotely operated through our SCADA system and operates in 5 modes. Modes 1-4 are various configurations set up for specific operation results, Mode 5 is fully automated to handle rain events and tide conditions. There are no time constraints, day or night, for operation. Rainfall amounts and tidal action determine operation. Configuration is regularly set up to accommodate the tidal action of estuary natural flows and the flushing of the lake. The District's practice is to operate the station in a manner that balances natural water flows while providing flood protection to the surrounding urban areas during peak times for potential flooding (king tides of 6.8 feet and higher and heavy rainfall predicted by the National Weather Service for Oakland and surrounding area).
Damon Tighe	What are the factors that the District currently uses to decide how to operate the tide gates?	factors for how to operate?	open and close factors	
John Bowers	What are the Flood Control District's protocols for opening and closing the tide gates in the flood control station?	protocols for open and closing tide gates	open and close factors	
John Bowers	Does the Flood Control District manage the tide gates in relation to maximum and minimum lake water elevations?	tide gate and max and min water levels	open and close factors	
John Bowers	We need protocols for both wet and dry seasons.		open and close factors	
Damon Tighe	What is the algorithm that guides decisions around opening and closing of the gates and how automated is the execution of these directives?	wet and dry season protocols	open and close factors	
Katie Noonan	Is there capability to modify flow when both channels are open to cut off problematic high high tides?	high tide management	open and close factors	
Katie Noonan	Please explain the capabilities of the new SCADA system in regards to remote adjustment of tide gate positions from the Hayward main office to enact a protocol requiring changes outside the hours when personnel are available on site at the FCS.	SCADA	open and close factors	
Katie Noonan	Please explain the role and importance of staff discretion in operation of the tide gates in addition to application of the protocols.	staff discretion in tide gate operation	open and close factors	
John Bowers	If any of the 4 tide gates are open, does the district consider the Flood Control Station to be "open?"	definition of open. Binary or gradient?	open terminology	
John Bowers	For clarity of discussion, can the District refer to the degree to which the Flood Control Structure is open? 0 (all closed), 1, 2, 3, 4 depending on the # of tide gates open	Degrees of open of Flood Control Station	open terminology	
Adrian Cotter	How does the County feel the pump station could further contribute to better water quality?	Pump station and water quality	dissolved oxygen	The Lake Merritt pump station is designed for flood control purposes only. Water quality issues in the Lake should be addressed with the City of Oakland
Damon Tighe	Who decides the weight of the factors in the algorithm and how high up is dissolved oxygen for Lake Merritt?	weight of factors, dissolved oxygen	dissolved oxygen	
Josiah Albertsen	What emergency processes could be put in place to rapidly increase DO levels in the event of another potential die-off?	emergency increase to dissolved oxygen?	dissolved oxygen	
Josiah Albertsen	Were the groups involved to come up with a comprehensive oxygenation and monitoring plan, would their group be able to assist and participate with planning and/or contribute to a shared pit of potential budgetary resources? (Either private, public, or both)	dissolved oxygen stakeholder monitoring and resourcing	dissolved oxygen	
Jennie Gerard	Did the limitation on tidal flow of having by default, only 1 gate open contribute to the oxygen depletion that may have led to the recent fish die-off?	low d.o. from just one open gate?	dissolved oxygen	
Damon Tighe	Short term: funds available to monitor Lake Merritt for a season using what LakeTech deployed briefly soon after the die off? My assumption is all bigger decisions will take a while due to the nature of their funding gravity and it seems a year long data collect of the variables that were on the LakeTech bouy would better inform any of these bigger long term decisions.	short term dissolved O2 monitoring funds	dissolved oxygen	
Katie Noonan	Will there be further ongoing monitoring of dissolved oxygen levels in the lake and how will they be used by the City and the FCS? Up to date data relating to the situation under consideration are needed and should be shared.	monitoring dissolved oxygen	dissolved oxygen	
Katie Noonan	The draft protocol asserts the existence of deep pockets of water that are unaffected by tidal action during most tidal cycles. To my knowledge, there is no data on DO in such hypothetical pockets. Have data been accessed or generated that show persistent (>48 hours) low-dissolved oxygen pockets at the specific locations and depths mentioned in the draft protocol? How have you taken into account turbulence and currents generated by tidal action in the whole lake and at depth?	dissolved oxygen in deep pockets	dissolved oxygen	
Josiah Albertsen	There is a lot of discussion of dredging in the review-but that hasn't been proposed very often in the meetings I've been in. It seems like strategically dredging certain areas might help with the concerns over boating usage, increasing the amount of water that the tidal gates can let in, and assist with cleaning up man-made sedimentation which has accumulated over the years. I know that LMI also has a fountain out which would require dredging near the pergola before it can function, is strategic dredging an option?	strategic dredging to increase flow and ensure aerator operability	dredging	
Adrian Cotter	Will the County be considering any of the Wood Rogers recommendations...?	Implementing Wood Rodgers recommendations	Wood Rodgers report	
Adrian Cotter	What changes at the station are anticipated over the next few years? And what is the current ongoing work?	Anticipated changes	Updates/Plans	
Adrian Cotter	Could the public have access to tidal data? It would be great if this were accessible over the web and allow for looking at historical data.	Public access for tide data	Data access	Title data is available on the web from several sources, one of which is NOAA. Typically some public libraries keep copies of Tide Books at the reference desk.
Adrian Cotter	The station itself is very "leaky": the pedestrian tunnels flood at least partially with water quite frequently. The tunnels themselves are a little scary, with poor lighting, and full of graffiti. The stairs around the station on either aide are also not in the best shape. Are there plans to address these chronic problems?	Repair tunnel	Repair tunnel	The district is investigating the ownership and responsibility of the tunnels
Adrian Cotter	What is the expected lifespan of the pump station?	Lifespan expectancy?	Lifespan	indefinite with continous maintenance
John Bowers	The passage of the notes that is of particular concern is the one that states that at a meeting on September 1 [2021] among representatives of the City and its consultants and the County "it was determined that modifying existing 7th St. pump station operations can only achieve marginal water quality benefits due to other significant flow restrictions in the Lake Merritt Channel [LMC]." This passage from the status note does not identify the cause or source of the "flow restrictions" to which it is referring. However, in oral remarks delivered to the Coalition at its September, 2021, meeting Kristin Hathaway identified the "flow restriction" that this statement refers to as that caused by the BART tunnel or tube that runs beneath and perpendicular to the channel. You may recall that, in a letter that Katie Noonan and I wrote to you in your capacity as coordinator of the Coalition just prior to the November, 2021, meeting of the Coalition, we addressed the issue of the degree to which the BART tube, given the height of its roof at -0.3 ft. NAVD, obstructs or restricts tidal flows in the LMC. Any such obstruction or restriction would only occur at the lowest tides. At higher tides the BART tube does not function as an obstruction or restriction of the flow of tidal water in the LMC because at such tidal elevations the water flow in the LMC is well above the top of the tube. With respect to even the lowest tides, our conclusion was that, given the fact that the prevailing low tides in the Oakland-Alameda Estuary just outside the mouth of the LMC are in the neighborhood of 0.0 ft. NAVD, the BART tube does not obstruct or restrict tidal flows in the LMC to any significant degree. Thus, the conclusion that the City's status notes states that the City and County reached at their meeting regarding the Lake Merritt/LMC tidal flow regime seems to be at clear variance with the essential facts of that regime.	the prevailing low tides in the Oakland- Alameda Estuary just outside the mouth of the LMC are ~0.0 ft. NAVD, the BART tube. the height of the BART tube roof is -0.3 ft. NAVD and does not significantly obstruct or restrict tidal flows in the Lake Merritt Channel. Please explain how City and County came do a different conclusion	BART obstruction	No Comment
John Bowers	Can discussions among the City, Coalition representatives, and the FCD be face-to-face and in person to allow for any necessary clarification of discussion points as well as allow for instantaneous follow-up questions?	face to face discussions	discussion format	Since water quality in Lake Merritt seems to be the focus, we suggest you discuss the matter with the City. The District will be available on as needed basis.