TIMPANOGOS SPECIAL SERVICE DISTRICT
ADMINISTRATIVE BOARD MEETING MINUTES

APPROVED

October 19, 2017 6:00 p.m. Conference Room

Board Members Present:	David Bunker	Brian Braithwaite	Lynn Walker
	Tracy Wallace	Sullivan Love	Chandler Goodwin
	Chris Condie	Mack Straw	Mark Christensen (phone)
Excused:	Mark Johnson	Dale Ihrke	Commissioner Bill Lee
	Craig White		

District Staff: Jon Adams, District Manager,
David Barlow, District Engineer
Shannon Hansen, Human Resource
Danette Smith, Board Secretary
Joe Martin, CPA

Others: Brandon Heidelberger, Brown & Caldwell
Trevor Lindley, Brown & Caldwell

Call to Order

David Bunker, Board Vice Chair, called the meeting to order. 6:01 p.m.

Public Comment

There was no public comment.

Approval of Minutes

1. **Approval of the September 21, 2017 Administrative Board Meeting Minutes**
2. **Approval of the Amended August 17, 2017 Administrative Board Meeting Minutes**

The August 17, 2017 minutes were amended to show the correct names/time in the motion to adjourn.

Brian Braithwaite made a motion to approve the minutes from the August 17, 2017 Administrative Board Meeting and the September 21, 2017 Administrative Board Meeting Minutes. Lynn Walker seconded the motion. Those voting "Aye" – David Bunker, Mack Straw, Mark Christensen, Brian Braithwaite, Lynn Walker, Tracy Wallace, Sullivan Love, and Chandler Goodwin. Chris Condie abstained. The motion passed.

Consent Calendar

1. **Approval of Amended Board Meeting Minutes from August 17, 2017 – Adjournment Motion amended to reflect correct Board Member names/time.**

This was taken care of under Approval of Minutes.

Financial Report

Joe Martin presented the financials to the Board. Joe said the payment went through for the Impact Fee settlement. That is no longer showing as an outstanding liability. The cash flow statement shows a cash payment of over $32 million; the sum of those settlements, both paid out in this fiscal year. On the budget to actual schedules, everything is under budget except revenues; we are over what we originally budgeted. Impact Fees are quite a bit over. Last year at this time we were around $5 million. This year we are at $6.7 million. Joe said there is document on dropbox which shows the impact fee balance, and what we have spent related to impact fee qualified expenses.

This is to track and make sure we pay ourselves back. Joe said this includes the impact fee lawsuit settlement. We are about $42 million in the hole to ourselves. Brian Braithwaite asked Joe if that includes the cost lawsuit or the settlement payment. Joe said just the settlement cost, not any professional services, just the payout. The impact fee report shows that we have not received anything from Lehi City for August or September. Chris Condie said he would check on that.

Action Item

1. Set date for 2018 Budget Work Session

David Bunker said the date of November 9th has been proposed. Brian Braithwaite said he would like to have a Finance Committee meeting before the work session. Brian said he would send out an email to determine a date that would work for everyone, and give Joe enough time to work on the budget in between now and then.

Chris Condie made a motion to set a date for a Work Session to work on the Proposed 2018 Budget for November 9, 2017 at 6:00 p.m. Brian Braithwaite seconded the motion. Those voting "Aye" – David Bunker, Mack Straw, Mark Christensen, Brian Braithwaite, Chris Condie, Lynn Walker, Tracy Wallace, Sullivan Love, and Chandler Goodwin. The motion passed with a unanimous vote.

Communication

1. Asset Management Update – Brown and Caldwell

Jon said Brown and Caldwell would give the asset management update. There are also two scopes they will review with the Board. Jon said Dale Ihrke is not present, but the Engineering Committee met and reviewed those scopes and wanted the Board to look at them. There is no action required tonight, but we want the scopes explained, as they would allow us to move on a couple of key issues that have been identified. If the board chooses to do that, it could be put on the agenda for the work session.

Brandon Heidelberger said they are close to the end of initial phase of the asset management study. They are wrapping up and getting the final reporting to Jon and David Barlow. Brandon said they are also outlining some of the next steps the District might want to consider for next year for the implementation of a CMMS program that will support the asset management program moving forward.

2. Explanation of Biosolids and Blower Proposals – Brown and Caldwell

Brandon said there are two task orders being presented tonight. He would review Task Order TSSD 2017-02 Biosolids Management Evaluation. Brandon said right now, the District produces about 3600 dry tons of waste activated sludge per year. That is currently composted with green waste. As part of the odor settlement agreement, composting will no longer be an option here at the District past 2020. The intent of this scope of work is to evaluate what other disposal options are. Brandon said they would look at the options of offsite disposal, land application and also future operations like changes to the process such as anaerobic digestion and primary clarifiers. Right now, we want to look at what options to put in to place to meet that 2020 deadline.

Brandon, said first there would be a background review to get information they would need to do their evaluation. They would meet with the operations staff, David Barlow and Jon and go through what the goals of the evaluation will be and get a good understanding what the limitation and terms of the settlement agreement are. They would identify the short-term options for solids management, produce a technical memorandum outlining what those options will be and present those to the board. There will be an economic evaluation for those options, where they will look at economic factors and non-economic factors, such as the environmental aspects. Then they would have a review workshop with District staff and Board members to give their input. Before anything is implemented there would be regulatory approval from DEQ. The next phase would look at future solids processing and management. A final report would be reviewed with the Engineering Committee and the board.

David Bunker asked if these tasks were included in the original asset management study contract. Jon said no. David Bunker said this would probably need to come back as an action item in the future. Jon said the way this was presented you could actually amend the contract and satisfy all the procurement requirements, if the board desired to

do so. Brandon Heidelberger said as part of the asset management they negotiated a master of services agreement with the District and they can move forward on a task order basis. All of the rates have been pre-negotiated.

Jon said as part of the review process, based on experience, we should invite the neighbors to let them know the options we are considering. Brian asked if staff is ready to own this; has there been enough discussion, training and knowledge shared that we now own the maintenance management system, which is part of the asset management. Jon said this has made us more aware of what type of CMMS program we need. The one we have had for years will accomplish some of the tasks they are recommending. It would require an upgrade in the software and more training, which will be addressed as we move on.

Trevor Lindley, Brown and Caldwell, reviewed Task Order TSSD 2017-03 Phosphorus Removal Reliability Improvements. Trevor said it is their understanding that the system is largely set up for phosphorus removal and most of the time it is reliable. There are occasional times when you exceed the future total phosphorus limit of 1.0 mg/L. The District did an optimization study last year which showed some of the concerns that might be leading that. The first one is the blowers, which in themselves are their own issue. The first part would be to assist the District in fixing the blower issue. Trevor said Brown and Caldwell does not sell or install blowers, but understand a lot about how they work and which technologies are a better fit than others. Expensive pieces are done with a procurement step. They would write a specification with evaluation criteria, and a proposal document to go and procure blowers. It would take a few months and workshops with District staff to develop this document. It then would go out to would-be manufacturers and then they would come back in with their proposals to be evaluated. Price would be part of the evaluation as well as energy usage, local service representation, and experience would be factored into a value-added scoring. With that scoring the District would have a defensible position to go out for purchase.

Trevor said once we know what type of blower we are getting, that helps with design; then we would redesign the aeration system. That would include drawings, specifications, and control valves. There would be operator training on the biological phosphorus removal. Brown and Caldwell would support the District in applying for the waiver with the DWQ. The rule for compliance is January 1, 2020, unless applying for a waiver. Many Districts are applying for a waiver and putting steps in place to be in compliance by 2025. Once the blower improvements are going and a waiver is in place, you can start drilling down on the phosphorus removal, with additional sampling, a model calibration report and recommendations.

Chris Condie asked if it is $406,000 for all of these tasks, and if that included in the original contract. Trevor said these are all new tasks. This is new work, for a new scope, under that master services agreement. Chris said we have been looking into blowers for quite a while, and had one or two companies come in and present to us about their blowers. Chris asked how much more these blowers are going to cost. His understanding was whoever we buy them from they come and install them, but it sounds like we are looking at purchasing the blowers then an independent contractor will come in and install the blowers. Jon said it looks like this will be less. When we first went out and looked and there were only one or two blower manufacturers that were comfortable coming in to retrofit our existing building. One of the plans presented to us was more of a maintenance plan, where you paid a hefty maintenance fee every year. It was also based on replacing all the blowers, and we do not know that is necessary. As we look into the automation, there are a few factors; the modeling done originally for the upgrade seems to not be hitting the mark. They are proposing we redo that. If we do that we will need to have certain things in place, to have a better idea of what the plant can do. Jon thinks this plan would end up with a reduced cost, as far as the blower replacement, and a more reliable system. Jon said in the breakdown there is $280,000 for design, that was to come out of the $4 million we had in capital.

One of the issues we ran into in the procurement was it is like a design build concept, but there are requirements from the state. We thought if we could select a manufacturer whose blowers would fit in here and have the capability to do the design, they could partner with a contractor. If you want to bond, you have to bond the contractor not the vendor, we ran into some issues there. We started to look into the automation of the system and we found some things we could do to give us better control that were not originally addressed during the expansion. Jon said originally the board was looking at process called the cannibal system. As phosphorus came on the table and that had to be addressed they moved and went to a Biological Nutrient Removal design. Also, the decision was made to not automate the system. What we are seeing now is, are those drop legs in the aeration system in the right place, are the

anaerobic zones and anoxic zones sized correctly? Brown and Caldwell are suggesting we go through that testing cycle to make sure we establish that.

Jon said the operator training is more than operator training, it is also called optimization. The state had come out and said, in regard to applying for the waiver; if you participate in this optimization program, you would have a better chance of showing them you are running it as well as possible. The biggest bulk of this is for design work that was not included in earlier scopes. This funding could come out of the $4 million blower account. When we started looking into replacing blowers it was based on replacing the K-Turbo blowers. We are now looking at other blower technologies that have since become available, which have different capabilities. Jon said he is not sure we can say how many blowers we need, but it looks like it would be a reduced number. When we bought the K-Turbo blowers, they were going to establish a North America presence, and have parts on site. There was a lot of stuff written in the agreement, none of that has happened. This would give us the ability to go back to a blower that wouldn't be proprietary such as if a motor goes out, our guys can put one in.

Tracy said we have the first part of this task, which is the redesign, remodel, and part two is the $40 thousand to meet compliance; the part he questions is the third phase of this task order. If we are going through all of this work in part one, how come we cannot incorporate a large chunk of part three into part one. There should be enough information out there within the system design and remodeling that we can address a lot of the phosphorus issues. It seems like we are going to remodel the system, make sure it meets compliance; then afterwards we are going to start playing with it and see what we can do for phosphorus. Why can't we step in there and do that at the same time? It seems like it would be a logical step to try and build that into the model ahead of time.

Trevor said when this was drafted the first time, phase three was at the beginning. Then there was concern that we had to get the blower thing going, so the blowers were moved ahead. The blowers, to an extent, are related to the phosphorus reliability, and to the performance of the plant. Trevor said there might be some other things, like the size of your anoxic zone, size of your anaerobic zone, or the characteristic of the wastewater coming in might be such that there has to be some other steps. That is really what comes out of phase three. It is more of a total system look versus just the blowers. Tracy said we should be able to optimize the nutrient removal within phase one, including some of the phosphorus removal. Trevor said he would agree, phase one is about the blowers, but the blowers are the heart of your system. One of the big things done in the study a year ago, was the concern that phosphorus removal reliability was the blower issue. Some areas there is too much air going into the system, because you do not have automation, so fixing that with the blower fixes should help that phosphorus piece. Tracy asked if a portion of phase three will be incorporated into phase one while going through this. Trevor said they are phase one, two and three, but they might go more in parallel.

Brian Braithwaite asked how much of phosphorus control is tied to the blowers. Trevor said a lot. Tracy said we do not want to pay the $88 thousand for phase three to be told "it fixed itself." Trevor said that can be discussed, just getting the blowers automated and getting the right amount of air, you might be in a good spot. You also might find if it does not get you were you need to be, that is where that phase three comes in. Trevor said they talked with Jon about not even doing phase three for a few years. You get your blowers in a couple of years, run it for a year to see how it goes. Chris Condie said board would need to take an action item on these to amend the master agreement; is this bill as you go. Trevor said yes. Chris said if we see the that phosphorus is taking care of itself then we do not even get to the point that the $88 becoming an issue. Trevor said with the asset management study there was a budget, with monthly invoices, and they are generally under budget.

Mark Christensen suggested that the board spend some time at the budget work session to look at phase three at an earlier phase. It sounds like a great idea with some merit, but Mark would like Jon to have some time to prepare this item. David Bunker suggested the Engineering Committee get together and goes through each of these two proposals to ask some of these questions. Tracy said on the biosolids management, thinking of land applying, or trucking them away, he thinks there are better ways out there. We need to look at that before we go any further. Jon said on phase three of the phosphorus removal, we can decide what we want, but the reality is we have tried to do the best job when we initiated the expansion, and it was off. Part of this will show if we are still on track; you will not know if you are on track until you get to 30 mgd, but you will know what to do and how to prepare for it.

Jon said on the biosolids management, there are options we are looking into that we have asked Brown and Caldwell to include on the list. South Davis is putting in anaerobic digesters, they have asked if we will bring our

solids to them. They have contracted with Snyderville, Park City. How viable is that for us? If they look at anaerobic digestion for us and we get the benefit of doing that and the by-products or power from gas, does it make sense to haul it to them, or more sense to plan in the long term to do it ourselves? They are going to look at both the long and short-term options. Trevor said they hoped phase three would start to give the DEQ understanding that you have done these blower improvements. If we made the anaerobic zones bigger we could get lower, then if they drive us to .1mg/L we will have to go to filters. Jon said we have gone from just replacing blowers and getting them to fit in here, to automating and integrating these other concepts. It is a better more complete package when we get done. We should have a better idea of how everything is going to play out and he would see a lot of these going on simultaneously in order to meet certain deadlines. David Bunker said maybe the Engineering Committee can take these proposals and bring back a recommendation when we have this on an agenda for approval. Jon said yes, he talked with Dale Ihrke and they wanted the board to have this, talk and answer questions before any decisions were made.

Trevor said so the board is aware, if they want to go for the waiver letter to DWQ, which can give you until 2025, that waiver request is due January 1, 2018. Chris Condie asked if those waivers are granted pretty easily. Trevor said they helped Central Valley with one and it went through pretty well, Salt Lake City just submitted theirs. They are all mostly getting approved, it is taking a while to turn those around. Central Valley's took 6 months to get accepted.

3. Manager's Report

Brian Braithwaite said there were three more bodies of water announced today that have the algal bloom. Brian said he would be interested to know the response from DWQ. The whole point of dropping phosphorus was because there was this horrible algal bloom from the sewage treatment plants. There are now nine bodies of water and Brian only knows of one of those having treatment water put into it. Jon said this just goes back to what we are doing; if we do all this and there is enough atmospheric deposition that these things are going to continue; when you see these other water bodies having these you question that. You have to remember DWQ has chosen to use cell counts, but it doesn't mean there is any toxicity in there. Between that and identifying these bodies of water as Harmful Algal Bloom by definition; we are saying how bad is this water and isn't this evidence that there are other factors. Brian said that is the point he wanted to make, where is the evidence showing that it is not really tied to us in Utah Lake, but is a natural thing. Jon said he thinks that is one of the main factors why they were willing to drop the phosphorus issue until 2030. They realized they have got to do some good science.

Sullivan asked what we can do to educate the public. The general public is seeing the news clips and agreeing with them. Is there a way we can turn that around, so we are not the bad guys? Jon said we have participated in public relations, they are talking about mailers, postings and we had the legislative tour down here. We just keep up our efforts. We have infiltrated the ranks of the Utah Lake Commission and Jon thinks we have had an impact on that; especially when they form the science and steering committee. Jon said he thinks you are going to see this play a little differently in the future than they had hoped, and on a much longer time frame. The other thing we are bringing in through legislators is the cost to the public, and what benefit for that cost. Realistically it is unfolding to where there is more accountability, they are going to hold the regulatory agencies more accountable than they have in the past.

Jon said we are still continuing, we have drafted a letter of understanding with those regulators resolving squabbles over data they will accept. We will keep working on that. Jon reminded the Board of the NACWA conference next week. Jon said there is an update on the grinder. He spoke with the Board Chair and Vice Chair, about the opportunity to look at a grinder originally owned by Weber County, which they sold to a private business. This grinder is a size smaller than the one we had, but the engine and grinding tub is basically the same size. They did not use it as anticipated, so they were eager to sell it and it was priced below market price. We went to see it, it ran and then stopped. Wheeler Machinery looked at it and put in a regulator switch and exhaust manifold gasket and it ran well. The vendor for this is Holland Equipment, so as part of the deal, for $575 the owner agreed to haul it down to Holland Equipment. We want to go through, check the wiring, controls and do any refurbishment. We negotiated a price and bought the grinder for $35,000. Because of the size of our other grinder and the market value around the country, the insurance claim check we get will be $242,000. We got $30,000 from the insurance to pay

for our grinding costs which is exactly what they were. In the budget you will see one-line item for $30,000 because there was no money budgeted for outside grinding; we will deposit that money into the account. Jon said he is excited about this, it will be more than adequate for the time we have left and still have resale value.

The plant was in compliance for the month of September. Jon said Mark Christensen had requested to see a year to date average. We are at 1.2 mg/L effluent phosphorus, we can be sailing along and be below 1 mg/L and we could have a power outage, and we will lose phosphorus treatment. Jon said you have to keep in mind this is a living system. That is another reason why you would stick something on the end of the process to add chemical, if there was a deviation, because you are going to lose phosphorus removal no matter how well you are doing if the system goes down for more than 6-8 hours. If we can reliably, with the blower replacement, run this at .6 mg/l we could still be looking at the possibility of violating if we lose power, or have a mechanical problem. Right now, it is a yearly average, which gives us some comfort, but as we move forward, and they start ratcheting it down, the chemical addition is just a safeguard. David Bunker said even in the future they are not going to have an hourly discharge limit or a daily limit. Jon said they actually could have a daily. Right now, they imposed a daily ammonia limit on the District. He said he can meet the monthly average, but exceed the daily and we would be in violation. Right now, they are talking yearly average and Jon thinks you would see it come from a yearly average, to a monthly average.

Chris Condie made a motion to go into closed session regarding the purchase of property on October 19, 2017 at Timpanogos Special Service District Administration Building. Sullivan Love seconded the motion. David Bunker called for a roll call vote. Those voting Aye – Chandler Goodwin, Sullivan Love, Tracy Wallace, David Bunker, Lynn Walker, Chris Condie, Brian Braithwaite, Mack Straw, and Mark Christensen. The motion passed with a unanimous vote.

Closed Meeting

Brian Braithwaite made a motion to go out of closed session. Chris Condie seconded the motion. Those voting Aye – Chandler Goodwin, Sullivan Love, Tracy Wallace, David Bunker, Lynn Walker, Chris Condie, Brian Braithwaite, Mack Straw, and Mark Christensen. The motion passed with a unanimous vote.

Adjourn: Chris Condie made a motion to adjourn. Lynn Walker seconded the motion. All present "Aye". Meeting adjourned. 7:19 p.m.