

TIMPANOGOS SPECIAL SERVICE DISTRICT  
ADMINISTRATIVE BOARD MEETING MINUTES

APPROVED

June 21, 2018                      6:00 p.m.                      Conference Room

Board Members

Present:

David Bunker	Dale Ihrke	Craig White
Jay Meacham	Mark Christensen	Sullivan Love
*Lynn Walker	*Chris Condie	*Blaine Thomas

Excused:

Commissioner Bill Lee	Chandler Goodwin	Mack Straw
Brian Braithwaite		

District Staff:

Shannon Hansen, Human Resource	David Barlow, District Engineer
Danette Smith, Board Secretary	Alan Robinson, Maintenance Coordinator
Joe Martin, CPA	David Land, Pretreatment Coordinator
Michael Scheetz, Lab Director	

Others:

Craig Carlile, Ray Quinney and Nebeker	Mark Johnson
Brandon Wyatt, Bowen Collins & Assoc.	Trevor Lindley, Brown and Caldwell
Pete Zemke, Brown and Caldwell	Bryan Mansell, Brown and Caldwell
Randy Zollinger, Jacobs	Brian Verwer, IM Flash Technologies
Ryan Mills, IM Flash Technologies	Nathan Hyde, IM Flash Technologies
Marty Banks, IM Flash Technologies	Mark Illum, IM Flash Technologies

**Call to Order**

David Bunker, Board Chair, called the meeting to order. 6:06 p.m.

David Bunker said we would not be able to take any action until there is a quorum; we will start with the Engineering update from Brown and Caldwell.

**\*Lynn Walker arrived. 6:08 p.m.**

**Communication**

**1. Engineering Update – Brown and Caldwell**

Trevor Lindley, Brown and Caldwell, said data was collected around the plant in March and April. There is computer model that mimics the performance of the plant. Having one of these models in place is the best way to predict what is happening, to make changes as well as anticipate the oxygen demand for the new blowers. Trevor said the data has been collected and put in the model. They found that there was a challenge with the effluent phosphorus; there are excursions in the summer. Trevor said the District is in compliance for the year because it is an average limit but it still makes the operating staff uncomfortable. Trevor said they have some ideas of what is going on and have asked staff to take a few additional samples in some targeted areas to test a couple hypothesis as to why that is occurring.

Mark Christensen, asked what their hypothesis is for why this is happening in the summer. Trevor said in the summer, the water temperatures get warmer and the oxygen does not dissolve as well. Potentially, in the sludge holding tanks there may be an oxygen deficiency in the warm water conditions and it is creating some localized anaerobic conditions in your aerated sludge holding tanks, where you waste your bugs. They should be aerated with plenty of oxygen, if we are getting deficiencies of oxygen because the warm water, you are potentially releasing that phosphorus and it is coming back around in the system and recycling in the plant instead of getting wasted out the back of the plant. Trevor said that is the first theory they have, but there are a couple others they are testing.

1 Trevor said they have looked at different blowers throughout March and April. The blowers being evaluated are  
2 IGT, (Integrally Geared Turbos) and MSC (Multi-Stage Centrifugal). Trevor said the IGT blowers are run at a high  
3 speed, are high efficiency, used a lot on larger systems, and are fairly intuitive for an operator to maintain. There are  
4 some maintenance steps that would have to be outsourced periodically, but essentially it is a proven higher efficient  
5 technology. Many plants along the Wasatch Front use this technology.

6 **\*Chris Condie arrived. 6:15 p.m.**

7 Trevor said the MSC blowers are about a 70-80 year plus technology. These are they are not as efficient as the  
8 IGT blowers. These cost less to buy but more to operate. These are still being used because they are a workhorse.  
9 David Bunker asked which one has a higher power consumption. Trevor said the MSC. They are easier to maintain  
10 by District staff. Mark Christensen asked how much time is needed for the purchase of the blowers. Trevor said the  
11 IGT are custom made and may take a little longer about 6 + months and the MSC are off the shelf and would be  
12 about 4-6 months.

13 There are 20 blowers now and we would only need to purchase about half that. Trevor said the cost would be  
14 almost twice as much for the IGT, but the life cycle cost of the MSC would be more because they use quite a bit  
15 more energy. Many people install the MSC to run steady to a low flow condition or a small tank and they do not  
16 want to worry about fancy controls. You can put a variable frequency drive (VFD) on these units and vary the motor  
17 speed that will result in a lower energy cost but sometimes that is hard to predict because it is influenced by how the  
18 rest of your system behaves. If we went with MSC we would likely consider VFDs which would put the total life  
19 cycle cost in the range of the IGT.

20 Chris Condie asked if the 20 blowers we have now are all running, or are some of those in a backup or reserve  
21 mode? David Barlow said we have two sides of the plant. Alan Robinson said there are 3 down per side so there are  
22 6 down out of the 20. Chris asked how we are able to purchase only half of what we have now, is that because these  
23 blowers we have are inefficient? David Barlow said they met with the state to talk about the air demand and we feel  
24 we do not need as many as we did on the initial design. Trevor confirmed there would be enough for 30 mgd with  
25 these units, with two extra for redundancy. David Barlow said they would like two stand-bys per side. Mark  
26 Christensen said we could contemplate a stage transition where we replace all on one side, use the parts from those  
27 and keep those as spare back up parts for the other side. David Barlow said the blowers on one side are 300 hp and  
28 the other are 400 hp. You could not take one from one side and move it to the other side, the basins are a different  
29 depth.

30 Pete Zemke, Brown and Caldwell, said they have 300 hp on the east side and 400 hp on the west. The reason for  
31 that is to minimize the number of blowers we have to maintain for each side. We could look at having identical 300  
32 hp on both sides but we would be looking at more blowers on the west side. Trevor said it looks like both blowers  
33 would fit in the buildings fairly well. The IGT's weigh quite a bit less than the MSC. In general, the building is  
34 going to work, there will be some additional electrical work, but it is not a major modification to get these in here.

35 Trevor gave a schedule of the procurement and installation process. Trevor said if they procure early and make an  
36 award that would allow for shop drawings and help with the design. We can start putting blowers in their production  
37 cycle, so when the contractor is ready to go next spring/summer the blowers will be arriving shortly after. Right  
38 now, they are working with staff between the IGT and MSC; they have put out the pros and cons of each. Both of  
39 these are being installed in other plants around the country right now. It is going to come down to staff preference.  
40 Trevor said there was discussion with the engineering committee whether this is something the new manager would  
41 like to weigh in on. There is going to be one more workshop with staff and the Engineering Committee early in July  
42 to make a choice. Mark Christensen asked what way the engineering committee is leaning? Dale Ihrke said they are  
43 waiting for the process to finish out, staff is doing some calls and visits, going through a rating sheet with pros and  
44 cons. Dale said his personal opinion is he likes the IGT, but we are waiting for this process to finish in July. Dale  
45 said he believes we should make a decision and go to the market with that particular technology.

46 Mark Christensen said he is anxious to get it moving. David Bunker asked if there is any way to compress this  
47 schedule. Dale said if staff says we are ok for the next couple of years, then he would take the time to do it right;  
48 when you compress it, it can cost a little bit more money. Chris Condie asked David Barlow his opinion. David  
49 Barlow said they are planning on meeting July 2, 2018 to finalize with staff and pick their preference. Chris asked  
50 who is making that decision. David Barlow said himself, the maintenance coordinator, electrician, and operations

1 supervisor. David said he will not be working on them, so we want to make sure those who are working on and  
2 using them are buying off as well.

3 **\*Blaine Thomas arrived. 6:40 p.m.**

4 Trevor said DWQ has come back with a few questions on the variance request. The state has asked to propose an  
5 interim limit and a schedule. They have looked at the data for the District from the last few years. Trevor said  
6 Brown and Caldwell ran some statistics and proposed 2.6 mg/L, which the District could reliably meet month over  
7 month. Trevor said he thinks the state is hoping it is lower, they have the same data and if it is all averaged out, it is  
8 more like 1.2 mg/L. The state is trying to push for something less than 2 mg/L and we are trying to push back on  
9 that. They do not want to give us until 2025, they would like to see something more like 2023. We pointed out that  
10 we are trying to do this step wise process, where we fix the blowers, adjust some of the process parameters, and see  
11 how it performs. We make some adjustments, and watch it for 6-12 months before we spend unneeded money. They  
12 understand that but they are looking to make all the fixes necessary upfront and be done with it.

13 Trevor said an hour before the July board meeting is a one-hour workshop on the biosolids alternatives.  
14

## 15 **Public Comment**

16 There was no public comment.  
17

## 18 **Approval of Minutes**

### 19 **1. Approval of the May 17, 2018 Administrative Board Meeting Minutes**

20 **Mark Christensen made a motion to approve the minutes from the May 17, 2018 Administrative Board**  
21 **Meeting. Sullivan Love seconded the motion. Those voting “Aye” – David Bunker, Mark Christensen, Lynn**  
22 **Walker, Blaine Thomas, Chris Condie, Craig White, Dale Ihrke, and Sullivan Love. Jay Meacham abstained.**  
23 **The motion passed.**  
24

## 25 **Consent Calendar**

26 There were no items on the consent calendar.  
27

## 28 **Finance**

### 29 **1. Financial Report**

30 Joe Martin presented the financials. Joe said compared to last year at this time wastewater treatment income is  
31 around \$300,000 less. Joe said staff looked at that and it is mostly attributed to the reduction in flow from IM Flash.  
32 Joe said we are 41% of the way through the year and almost all the budget items are below that in the expense  
33 categories. Mark Christensen said the lab was at 43%, he assumes that has more of an annual flat operation. Joe  
34 said he is not sure the details on that. Sometimes there are larger expenses that happen at different times of the year.  
35 He doesn't know if that one is consistent every month. Joe said there are two cities that have not turned in their  
36 impact fees for May, but they are not late until the end of June. Joe said there is an impact fee schedule that shows  
37 where we are at in paying ourselves back for those qualified impact fee expenses. We are almost at \$50 million in  
38 money we have spent in impact fee qualified expenses that we owe ourselves. David Bunker thanked Joe and said  
39 this is a very important calculation to make sure we know where these qualified funds are going and what our  
40 balance is.  
41

## 42 **Action Item**

### 43 **1. Resolution 2018-01 Public Entity Resolution – PTIF Account Management**

44 David Bunker said Brian Braithwaite was not present and asked Craig White to give an update on the resolution.  
45 Craig White said this was brought to the board last month and approved but we are bringing it back to the board  
46 because it has not yet been submitted to the state. We wanted to suggest a few changes to what was approved last  
47 month. Craig said section 1 authorizes the District Manager or Interim District Manager, the District Financial  
48 Manager or the Board Treasurer to access the TSSD PTIF Funds for the purpose of transferring funds between  
49 accounts. Craig said section 2 authorizes the board chairman, manager, interim district manager and the finance  
50 committee chairman to be able to add, delete, modify or change who has access to these funds. Craig said they have

1 looked at this and believe there are proper internal controls with how this is set up so they are recommending this be  
2 approved. David Bunker said the additional language is “for the purposes of adding or changing bank accounts, add  
3 or delete users, open or close PTIF accounts and execute any necessary forms in connection with such  
4 responsibilities”. That additional language was recommended by the Finance Committee.

5 **Craig White made a motion to approve Resolution 2018-01 as modified. Lynn Walker seconded the**  
6 **motion. Those voting “Aye” – David Bunker, Mark Christensen, Lynn Walker, Blaine Thomas, Chris**  
7 **Condie, Craig White, Dale Ihrke, Jay Meacham and Sullivan Love. The motion passed unanimously.**

#### 8 9 **1. IM Flash Technologies Permit Limit Modification/Fee**

10 David Barlow said staff has looked at this following last month’s board meeting. David Barlow said the District’s  
11 Pretreatment Coordinator, David Land, was present if the board had questions for him. David Barlow said IM Flash  
12 came to the board last month with concerns about potentially going over their limit of 3.2 mgd. David said there  
13 was memo of understanding with the role of pretreatment, and what is in the current IM Flash Permit. Their permit  
14 limit of 3.2 mgd is measured per day as a monthly average. The recommended modification to their permit “the  
15 permittee shall not discharge an average daily flow greater than 3.5 mgd (based on a monthly average). Any flow  
16 exceeding 3.2 mgd (based on a monthly average) is subject to a fee payable to TSSD as outlined in Section 2.2 of the  
17 2014 Permit Renewal Agreement.” David said if they exceed a flow of 3.2 mgd, as outlined in their permit, there  
18 will be a fee issued, but they cannot exceed 3.5 mgd. David said they came up with a proposed permit modification  
19 fee based off the current impact fee of \$1,708/ERU and 248.9 gpd/ERU, the impact fee for 100,000 gallons of  
20 capacity for 1 month over a 10-year planning window. That equals to \$5,718.49 per 100,000 gallons per month.  
21 The fee can be adjusted for additional flow over 100,000 gallons and additional time period over 1 month. David  
22 Barlow said they used the 10 years because the IFFP is based off a 10-year planning window.

23 David Bunker asked IM Flash representatives if they are comfortable with this new proposal and language. Ryan  
24 Mills, IM Flash, said they haven’t had a chance to see it before tonight; they would like to take an opportunity to  
25 review this and they can do that within the next week. David Bunker said this an action item tonight, but if IM Flash  
26 has not seen it he would be hesitant to move forward until they have an opportunity to review it. Mark Christensen  
27 said the challenge we have is the projections show IM Flash could potentially hit that number right now. Mark  
28 thinks the board should approve it contingent upon IM Flash’s approval, so there is a release valve in place should  
29 they cross over their limit. Ryan Mills said when he presented to the board last month they were averaging about 2.4  
30 mgd, this month they are about 2.7 mgd. It is ramping quickly so they do have concern to get this resolved as  
31 quickly as possible, if there are other mechanisms they could employ that would be great.

32 Chris Condie said he wants to help IM Flash and allow the additional flow to come in because we want to be good  
33 partners. Chris said to him it seems rational and fair so if staff is comfortable with this, he would be a proponent of  
34 approving this with a condition that IM Flash can come back with questions and modifications can be made if  
35 needed. Dale Ihrke said he appreciates who ever came up with this formula because it sounded like in the agreement  
36 they were going to get charged the entire impact fee and this is a prorating. Craig Carlile, said they talked about it  
37 and David Barlow did the calculation. This is on top of their normal flow, and treatment charges. Dale said he  
38 agrees with Chris and Mark to do something now and modify down the road if needed. Ryan Mills said they  
39 appreciate the time for the efforts put into this.

40 **Chris Condie made a motion to approve the IM Flash Technologies Permit Limit Modification/Fee, with**  
41 **the understanding that IM Flash has not had an opportunity to review this, they have an opportunity to**  
42 **review, and come back to the board with concerns or questions to request modification but will be passed**  
43 **tonight as presented. Dale Ihrke seconded the motion. Those voting “Aye” – David Bunker, Mark**  
44 **Christensen, Lynn Walker, Blaine Thomas, Chris Condie, Craig White, Dale Ihrke, Jay Meacham and**  
45 **Sullivan Love. The motion passed unanimously.**

46 David Bunker said he would like to move the Closed Session up on the agenda.

#### 47 48 **Closed Meeting**

49 **Sullivan Love made a motion to go into closed session to discuss litigation, property acquisition, or**  
50 **personnel in the Conference Room of the District Administrative Building. Chris Condie seconded the**

1 **motion. David Bunker called for a roll call vote. Those voting “Aye” – David Bunker, Mark Christensen,**  
2 **Chris Condie, Blaine Thomas, Lynn Walker, Craig White, Dale Ihrke, Jay Meacham, Sullivan Love. The**  
3 **motion passed unanimously. 7:02 p.m.**

4 David Bunker invited Mark Johnson to stay for the closed session.

5 **Chris Condie made a motion go out of closed session and back into regular session. Lynn Walker seconded**  
6 **the motion. Those voting “Aye” –David Bunker, Mark Christensen, Blaine Thomas, Chris Condie, Lynn**  
7 **Walker, Craig White, Dale Ihrke, Jay Meacham, and Sullivan Love. The motion passed unanimously. 7:16**  
8 **p.m.**

## 9

### 10 **2. Board Authorization for Pre-Qualified Engineering Firms from SOQs**

11 David Barlow said we sent out an RSOQ several months ago. There were 7 engineering firms that replied. At the  
12 last board meeting we talked about a \$50,000 limit, but David has since confirmed with the state procurement officer  
13 that it is \$100,000 per year, per consultant. The Engineering Committee met and went over each of the 7 proposals  
14 and evaluated them. All 7 firms have their own strengths; as a committee they felt all 7 firms should be approved as  
15 a consultant list for the District to use on small projects. When the District goes out and asks them to provide a scope  
16 and a fee for a project that will still come to the board for approval. This is open for other firms to come in and  
17 submit for the engineering committee to review. David Barlow said these are good for three years, after that they  
18 have to submit a new proposal. Chris said he likes that they each have their strengths, then when a project comes up,  
19 you can identify based on those strengths. Mark Christensen said his city currently uses this process, he would  
20 recommend if it is a small thing to do one firm, but if it is a sizable project he would get a few quotes to keep them  
21 competitive. Also, he is sensitive that we do not keep using the same firm until they are maxed out at their  
22 \$100,000, there is plenty of work to spread around.

23 **Chris Condie made a motion to accept Bowen Collins and Associates, Brown & Caldwell, Hansen Allen &**  
24 **Luce, Horrocks Engineers, Jacobs, Stantec and EEAT as the District’s approved Consultant list for small**  
25 **projects, the project amounts are not to exceed \$100,000 per year, and this agreement does not exceed 3 years.**  
26 **Dale Ihrke seconded the motion. Those voting “Aye” – David Bunker, Mark Christensen, Lynn Walker,**  
27 **Blaine Thomas, Chris Condie, Craig White, Dale Ihrke, Jay Meacham and Sullivan Love. The motion passed**  
28 **unanimously.**

### 29

#### 30 **4. Proposal from Horrocks Engineers**

##### 31 **A. 2018 Headworks Improvements**

##### 32 **B. 2018 Collections Shop Drainage**

33 David Barlow said these projects were budgeted for \$150,000 each for design and construction. There are some  
34 needed improvements to the headworks. There are some low spots around the collections shop, a storm drain to put  
35 in, and pavement. When we went through the SOQ’s, Horrocks was the only one who identified they are willing to  
36 do a small project and has a survey crew available. Staff recommends that Horrocks do the design and construction  
37 management for a fee not to exceed \$34,645.00. In the proposal they had almost \$4,000 in pavement design that may  
38 not be needed and around \$10,000 in construction management. That may be less depending on how much time  
39 David Barlow has to work on it.

40 **Lynn Walker made a motion to approve the Design and CMS Contract of the 2018 Headworks**  
41 **Improvement Project and 2018 Collections Shop Drainage Project with Horrocks Engineers for \$34, 645.00.**  
42 **Chris Condie seconded the motion. Those voting “Aye” – David Bunker, Mark Christensen, Lynn Walker,**  
43 **Blaine Thomas, Chris Condie, Craig White, Dale Ihrke, Jay Meacham and Sullivan Love. The motion passed**  
44 **unanimously.**

#### 45

#### 46 **5. Proposal from EEAT**

##### 47 **A. Electrical Safety/Compliance**

48 David Barlow said this is one of our capital projects. It has to do with electrical safety and compliance. One  
49 thing we need help with is our arc flash safety, this is in the project, also there is signage. In general, it is electrical  
50 safety and procedures we need to have at the plant. The proposal is for \$44,000. Dale said he understands that this is

1 the only firm that is qualified to this work out of the SOP's. David Barlow said there are other firms that have  
2 electrical strengths, but this is the only thing they do.

3 **Chris Condie made a motion to approve the proposal for the Electrical Safety/Compliance Project from**  
4 **EEAT for \$44,000.00. Lynn Walker seconded the motion. Those voting "Aye" – David Bunker, Mark**  
5 **Christensen, Lynn Walker, Blaine Thomas, Chris Condie, Craig White, Dale Ihrke, Jay Meacham and**  
6 **Sullivan Love. The motion passed unanimously.**  
7

8 Mark Christensen said the last few items seemed like they could be consent items in the future. From a staff  
9 standpoint, some of these things that could be on a consent calendar, as long as you are following procurement  
10 policy, within budget, Mark would suggest we use a consent calendar moving forward. David Bunker said we could  
11 consider that.

## 12 **Communication – Continued**

### 13 **2. Manager's Report**

14 David Barlow said we were issued the Platinum NACWA Peak Performance again this year. That is nine  
15 consecutive years of 100% compliance. David Barlow said he sits on the steering committee of The Utah Lake  
16 Water Quality Study. The science panel has been seated; there are five independent members and five ex-officio  
17 members. By the end of the summer the steering committee hopes to give the science panel the charge of what their  
18 direction will be for the study. They anticipate the study can take upwards of three years. Erica Gaddis, DWQ  
19 Director, Eric Ellis, Utah Lake Commission, and Leland Myers are planning to get together to write an op-ed piece  
20 that will go to the press. Erica would like the steering committee to review that. August 8<sup>th</sup> and 9<sup>th</sup> there will be tour  
21 here at the District, as part of this study. David Barlow said one thing he is pushing for is that there should be  
22 cost/benefit analysis as part of this study; Erica pushed back a little on that, but David said he will continue to push  
23 for that.  
24

25 David Barlow said as mentioned earlier the phosphorus is creeping up, but we are still in compliance of the  
26 proposed limit. Mark Christensen asked if it truly is a temperature thing and what can be done to water keep  
27 temperatures down. David Barlow said he ran a graph with effluent temperature phosphorus and it was right around  
28 15 to 20 degrees Celsius it started to go up. Unless we can find a way to chill the wastewater he does not know.  
29 David Bunker asked if the temperature is being taken at the headworks as it comes in; he would assume that  
30 temperature stays pretty stable. David Barlow said it fluctuates during the year.  
31

## 32 **Closed Meeting**

33 **Chris Condie made a motion to go into closed session in the Conference Room of the District**  
34 **Administrative Building for personnel matters. Blaine Thomas seconded the motion. David Bunker called**  
35 **for a roll call vote. Those voting "Aye" – David Bunker, Mark Christensen, Blaine Thomas, Chris Condie,**  
36 **Lynn Walker, Craig White, Jay Meacham, Dale Ihrke and Sullivan Love. The motion passed unanimously**  
37 **7:35 p.m.**  
38

39 **Adjourn: Chris Condie made a motion to adjourn. Dale Ihrke seconded the motion. All present "Aye".**  
40 **Meeting adjourned. 8:11 p.m.**

41 David Bunker reconvened the Administrative Board for one additional item. 8:15 p.m.  
42 Board Members present: David Bunker, Sullivan Love, Dale Ihrke, Craig White, Blaine Thomas, Chris Condie, and  
43 Mark Christensen.

44 **David Bunker took a voice vote to set up a special board meeting for Monday, June 25<sup>th</sup> at 6:00. Those**  
45 **voting "Aye" – Sullivan Love, Dale Ihrke, Craig White, David Bunker, Chris Condie, Blaine Thomas and**  
46 **Mark Christensen.**  
47

48 **Adjourn: Chris Condie made a motion to adjourn. Blaine Thomas seconded the motion. All present "Aye".**  
49 **Meeting adjourned. 8:17 p.m.**  
50