

Timpanogos Special Service District  
Administrative Board  
Electronic Meeting Minutes  
6400 North 5050 West Utah County, Utah

**APPROVED**

March 16, 2023 6:00 p.m. Conference Room/Electronic Meeting

**Board Members:**

**Present:** Sullivan Love (Chair) Brian Braithwaite David Bunker  
Mark Christensen Lon Lott Chandler Goodwin  
\*Blaine Thomas

**Electronic:** Mack Straw Chris Condie \*Richard Nielson  
Craig White \*Jay Meacham (Vice Chair)

**Excused:** Neal Winterton

**District Staff:** Richard Mickelsen, District Manager Shannon Hansen, Administrative Manager  
David Barlow, District Engineer Danette Smith, Board Secretary

**Others:** Mark Bell, Hayes Godfrey Bell Japheth McGee, Zions Public Finance  
Eric Hunter, Chapman and Cutler Brandon Wyatt, Bowen Collins Associates  
Ryan Bench, Carollo Engineers Wade Stinson, Aqua Engineering  
Kasey Chesnut, Horrocks Engineers

**Call to Order**

Sullivan Love, Board Chair, called the meeting to order 6:05 p.m.

**Public Hearing**

**1. Public Hearing relating to the issuance of up to \$35 million of sewer revenue bonds; and related matters.**

Sullivan Love, Chair, asked for a motion to open the public hearing.

Lon Lott made a motion to open the public hearing. Brian Braithwaite seconded the motion. Brian said he did not think we needed a motion to go into a public hearing.

Sullivan Love, Chair, opened the public hearing relating to the issuance of up to \$35 million of sewer revenue bonds; and related matters. Sullivan asked if there was any public comment. There was no public comment. The Public Hearing was closed.

**2. Public Comment**

There was no public comment.

**Approval of Minutes**

**1. Approval of the February 16, 2023 Administrative Board Meeting Minutes**

Brian Braithwaite made a motion to approve the minutes of the February 16, 2023 Administrative Board Meeting as presented. Lon Lott seconded the motion. Those voting "Aye" – Sullivan Love, Lon Lott, Mark Christensen, Craig White, Chris Condie, Brian Braithwaite, Blaine Thomas, David Bunker, Chandler Goodwin, Richard Nielson, and Mack Straw. The motion passed unanimously.

**Consent Calendar**

- 1. TSSD Check Register**
- 2. CL-N1: Sundt Pay Request No. 5**

- 1     **3. Purchase of Backhoe - \$80,050.00**
- 2     **4. Bruder Construction \$55,450.00 from CL-N1**

3  
4     **David Bunker made a motion to approve all items on the Consent Calendar as presented. Richard Nielson**  
5 **seconded the motion. Those voting “Aye” – Those voting “Aye” – Sullivan Love, Lon Lott, Mark Christensen,**  
6 **Craig White, Chris Condie, Brian Braithwaite, Blaine Thomas, David Bunker, Chandler Goodwin, Richard**  
7 **Nielson, and Mack Straw. The motion passed unanimously.**

8  
9     **\*Jay Meacham joined by electronic meeting. 6:07 p.m.**

10     **Finance**

11     **1. Financial Report**

12     Rich Mickelsen said we are still in the process of doing the audit and there are some entries being corrected. Rich  
13 said to minimize confusion and make those corrections appropriately, we will delay the financial report until next  
14 month.

15  
16     Sullivan Love said he, Rich and Shannon met with the financial consultants this morning and had two presentations  
17 for the bond ratings. It seemed to go well.

18  
19     **Action Items**

20     **1. TSSD Business Reuse**

21     Rich gave some of the key points of HB 349 -Water Reuse Projects Amendments, which just passed. Rich said it  
22 blocks access to use municipal water rights for water reuse within the Great Salt Lake watershed; the city/municipality  
23 must prove that diverted water will not affect the Great Salt Lake water levels (1:1 ratio), a conservation plan must be in  
24 place, and it excludes federal water rights. The District’s member cities who want to use this water as effluent reuse need  
25 to get the water rights determined in their individual cities, and work with the District to file an application with the  
26 State Engineers Office by November 1<sup>st</sup> for approval. Rich said we have been working on this water rights project and  
27 being able to do reuse here for about the last four years.

28     The scope of work for Package B includes a chemical building, secondary effluent pump station, tertiary filter  
29 building, and a UV facility. That will all be located at the south end of the plant and leaves room for growth in the  
30 future. We have to put pump stations in because we are so close to the water. The estimated construction costs are \$108  
31 million. Rich said the Utah Lake water quality study is underway and DWQ will report by January 1, 2024, on the new  
32 limit requirements for the District. This flocculation/sedimentation tank is planned for the future and will be needed if  
33 we get a low-level requirement on our effluent phosphorus. That may or may not happen, depending on the requirement  
34 limit. That process will cost \$45-\$50 million. Rich said all the member cities of the District will benefit from Package  
35 B. Once the water is cleaned to this level, it doesn’t matter to the District whether we send the water to reuse or to the  
36 lake. Mark Christensen asked if that is an accurate statement. Rich said it is 90% correct. Mark said he was interested  
37 in the 10%. Rich said if the limit is down to .5 mg/L and the cities take this water reuse then the District and the  
38 member cities benefit because we would not need to add this flocculation process. We can use the chemical building and  
39 our filter building to get to .5 mg/L. If we get a limit of .2 mg/L we will need to put in the flocculation, whether the  
40 cities take the reuse or not. Rich said he is asking for board direction whether they want to come get the reuse water  
41 (discussion on how to do that) or have TSSD put together a pressurized irrigation trunk line that serves more than one  
42 entity. With the pressurized irrigation line, there would be an interlocal agreement, cost sharing, and a way to handle  
43 O&M costs on an ongoing basis and capital costs going forward.

44     Reuse flows currently available: TSSD - .4 mgd, East side - 8.3 mgd (Alpine, Cedar Hills, American Fork, Highland,  
45 Suncrest, Pleasant Grove), West side - 12.4 mgd (Saratoga Springs, Eagle Mountain, Lehi). Rich said CUWCD also has  
46 water they provide to some entities of the District, so they have some reuse available too. Rich presented high-level  
47 estimated costs. Costs with CUWCD water: capital costs of \$18,000 per acre to develop/treat and yearly O & M costs of  
48 \$190 per acre. Costs with TSSD reuse water: capital costs of \$2,545 per acre to develop/treat and yearly O & M costs of  
49 \$190 per acre. Rich said the high-level cost estimates of the PI line to the west side is \$20 million. Power costs are  
50 estimated at \$230,000/year with other yearly O & M costs.

1 Rich said American Fork would like the pressurized line to follow the Pony Express line. In doing that, the District  
2 would install this reuse pond and pumping system to get to those areas. The pond system will not be installed until 2030  
3 as it would take time to acquire the easement rights and work through wetland mitigation. Ideas need to be addressed  
4 for the interlocal agreement. Rich would like to have something by May 1, 2023 as a rough draft, for city councils to  
5 review, and be able to meet the deadline of November 1, 2023. Mark said there was discussion of the possibility of not  
6 building the flocculation tank which is a savings of \$45 million. Rich said that is still correct. Mark said they also  
7 discussed something in a \$10 million range to pressurize and get that water out to the member cities. Rich said that was  
8 until we knew that American Fork needed their pressure increased from 100psi to 140psi, which would increase pump  
9 size and pipe thickness. Rich said engineers did a rough calculation that bumped it from \$10 million to \$20 million.  
10 David Bunker said if we take flow where the Pony Express would cross and the American Fork line would tie in, it  
11 could be a lower pressure, and could potentially lower the cost. David said he did not know if Lehi or Saratoga Springs  
12 needs it at a pressure to enter their systems. Mark said Lehi and Saratoga springs were both interested in taking it at  
13 pressure and understood they would be paying the pumping cost associated to take that. Chris Condie said Lehi is very  
14 much in favor of this, but he needs to get more detailed information on the PSI they would need.

15 Ryan Bench, Carollo Engineers, said if you get a .2 mg/L limit and are reusing you may not need to build the  
16 flocculation tank but if you get a .05 mg/L you will need to build it regardless. David Bunker said he wanted to be clear,  
17 if it is more than .05 mg/L, we potentially may not need have to build this flocculation tank? Ryan said it depends on  
18 how much reuse is happening. David Bunker asked if there are other costs for the District to incur to treat to send to the  
19 lake, other than the flocculation. Ryan said there are yearly chemical costs in the range of \$200k-\$300k, in order to  
20 meet that lower level.

21 Chandler Goodwin asked what phosphorus levels looks like in the 6 months of reuse versus not reusing. Rich said  
22 due to the biology in our systems, during the warmer months our system does not remove as much phosphorus, so it is  
23 double what we put in during the cooler months. Chandler said he would like to know for sure, if we are reusing the  
24 water, that it will lower the phosphorus level and there will be a real benefit to the District. The worst-case scenario to  
25 him is to pay to reuse the water and still have to do all these other things to get down to .2 mg/L. David Bunker said  
26 before the cities can really make a decision, they need to know the cost. David knows this is pretty high level and there  
27 are going to be more discussions, but the costs are really critical. Mark said he agreed, but time is not on our hands. We  
28 have a November 1, 2023 deadline to have our application completed and submitted.

29 Mark said, from Saratoga Springs' perspective, they realize there is value in that reuse water amounting to a lot of  
30 money and resources that just aren't there. Mark said all of our communities should be looking at their water rights to  
31 see how they can reuse, even on a limited scale, because that is water they will not have to re-purchase from a different  
32 source. Right now, water is very expensive, and it is escalating. It would be incredibly short sighted to not look at  
33 putting that asset we already right back into our systems. David Bunker said he agrees, but every city has a different  
34 water portfolio, and some may not be as strong as others. For some of the cities to say they are willing to pay for that  
35 water at any cost, is erroneous. David said if he had to make this decision without information the answer would be no.  
36 We need detail and the full ramification of what that is.

37 Sullivan said Vineyard is in situation different from the other cities. The only source of water they have is CUWCD,  
38 other than two small culinary wells that produce enough to water a couple of parks. Sullivan said if they do not get more  
39 water, Vineyard's growth will be done once they reach their water limits. If there is reuse water available that would  
40 allow them to decrease the amount of culinary on lawns, it would be advantageous to put in the PI system. Mark said  
41 anyone that has water rights and the legal ability to reuse that should be determining whether that is a benefit to them or  
42 a way to monetize for other communities that need those resources. David Bunker asked if there is any indication of  
43 where DWQ are headed with the limits. Rich said yes, that was part of the discussions about the Utah Lake Water  
44 Quality Study. Rich sat on that steering committee and participated in a few of the science panel meetings. He pushed  
45 and pushed to tell his position. Rich said he has tried to tell them to not go any lower than 1.0 mg/L effluent  
46 phosphorus. That is why we are doing our Limno Corral studies to show and provide data of the right direction. Rich  
47 said the thoughts of 9 out of 10 science panel members are to "just go lower", not just with phosphorus but with nitrogen  
48 as well. Rich said he has tried to educate the legislators, but that is not necessarily going to do any good, that is why we  
49 are doing the study. Rich said, in his opinion, it is likely they will end up at .3 mg/l. They are supposed to be giving us  
50 a report by January 2024, and we will have to 2030 to achieve that limit.

1 Ryan Bench said there is a good chance that this will be a yearly load to the lake, so reuse would help you send less  
2 pounds of phosphorus to the lake as a year load. Ryan said he needs to design this as if reuse isn't happening at all right  
3 now. Reuse would help the district meet that limit a lot easier and save on chemical costs. David said in the past it has  
4 been an annual loading and it is now; what would cause DWQ to do a month-by-month limit. Ryan said reuse wouldn't  
5 help enough with that because you would have to meet that monthly load in the winter when not doing reuse, so we  
6 would need to do the flocculation plant anyway.

7 Brian asked if you could look at it like every share you are buying you are getting a portion back in the future as well.  
8 Mark said depending on how the state legislation pans out it may only be water rights we have as of today. That is a  
9 legal question. Mark said there is no way we get to build out conditions that they want us to reach unless we are taking  
10 reuse and it becomes an integral part of that landscape environment. If there is no reuse then we are going to be short  
11 water, especially on the west side. Sullivan clarified the decision is applicable to water rights as they are known and  
12 established now; if we continue to get new rights this wouldn't apply. Rich said the cutoff is November 1<sup>st</sup> and you have  
13 to identify what water rights you are going to use. Inside that water right is a consumptive percentage so you will only  
14 be able to use the consumptive percentage. David said Highland may have a lot of water rights they are not fully  
15 utilizing but would still want those evaluated and included in this November 1<sup>st</sup> submission so it would allow for some  
16 growth, potentially, of water rights that you are not fully using right now. David said if you get another water right after  
17 the November 1<sup>st</sup> date, then those new water rights you acquire are not eligible for reuse. Ryan said they are eligible  
18 there is just a lot of red tape you have to jump through.

19 Mark said every city that is sending sewer water here, and owns water rights, should be throwing them on this and  
20 getting them authorized for reuse for the future growth in this area. Lon asked if this reuse flow calculation comes from  
21 the city. Rich said yes, it is from February's flows. Rich said he has identified how many water rights the city needs to  
22 put into this program or exchange with somebody. Lon said he is confused why we wouldn't continue going with this  
23 application and make some of these other decisions later. Rich said he is not asking the board to make a \$30 million  
24 decision on the reuse line and pond, he needs the board to tell him how he should proceed to put this type of agreement  
25 together. TSSD is looking at the feasibility of this and paying for it. We want to possibly go into a 10% design, to see  
26 what this looks like cost wise. It can then be put on the shelf until 2028-2029 to do the finish part of this design for the  
27 reuse and trunk line.

28 Rich said there is federal money available from the Bureau of Reclamation. TSSD will pursue that money if the  
29 board wants Rich to continue with this. Ryan said there is up to \$30 million in grants available. Chandler asked if that  
30 covers the treatment necessary for reuse and the transportation. Ryan said yes, it can also be part of design and  
31 planning. Mark said, as a District, we are always looking for redundancies, and ways we can improve our situation.  
32 This just seemed consistent with that philosophy. Mark said we are not sure what that final number will be but just the  
33 ability to have this water right back into our systems seems like an asset we should be trying to preserve. Chandler said  
34 he agrees, but a timeline of May 1<sup>st</sup> seems pretty aggressive given that there is no agreement prepared. Chandler asked  
35 what a realistic timeline is to see an agreement, and will it be a come and get it plan or a TSSD trunkline plan. Rich said  
36 he is trying to persuade a TSSD pressurized irrigation line, put together with this new interlocal agreement which  
37 discusses how each member city is able to take advantage of that or not. We do not know what that actually looks like  
38 because some cities may not get the trunk line all the way to them. Mark said, theoretically, there are other ways to get  
39 it. Chandler said he is not worried about how to get the water exchanged in some other form, but to be fair to city  
40 councils and this board there has to be time to digest the agreement. Rich agreed, the May 1, 2023 deadline is for Jeff  
41 Appel to put together the agreement so the cities can start looking at it. David Bunker said it all depends on what is in  
42 the agreement. If it is saying you have to commit to paying the cost and take the water, that is a different then agreeing  
43 to continue to pursue this, submit our water rights to the state and wait to get the discharge limit in January and then  
44 have time to make decisions.

45 **\*Blaine Thomas left the meeting 7:10 p.m.**

46 Rich said we are doing package B to meet our permit level, regardless. We are laying out your water rights  
47 according to the law and the cities have to identify which ones to submit to the state, and if they want to participate.  
48 Brian said we just need to submit by November 1<sup>st</sup>; but it could take time to decide. We are not at a point where we  
49 have to commit to building the pond, we need to commit to whether the District is willing to continue this movement for  
50 cities that want to be involved. Rich said the cities also need to commit water rights they are willing to use to do this.

1 Brian said if you choose not to submit the water rights, they are going to go to the lake, so there is no downside to  
2 moving forward with this. The real issue is who should pay for it. Brian said he sees it as a positive for the District,  
3 moving forward with the potential of saving money, as well as the benefits to the member cities. Chandler said he agrees  
4 but what if there are a couple cities that say this isn't for them, how do you proceed with an agreement. Rich said that is  
5 why he has tried to lay it out like this to show all the cities benefit from the treatment. Rich said 90% it doesn't matter  
6 to the District if we send the water to reuse or to the lake, then we just have the discussion on the 10%. All the cities are  
7 going to benefit from this reuse portion. Rich said he is trying to put together a structure that those entities that want to  
8 participate and have gone through the application process, then you are basically participating. How that works  
9 financially is what has not been worked out yet. Rich said the engineers have put together a high-level review and  
10 estimate of \$28 million. The board needs to decide if they want Rich to continue what he is doing. This is in the scope  
11 of work and the District is paying for it, so unless the board tells Rich to stop, he is going to continue. When you get to  
12 the final design of what it looks like, Rich doesn't know what that is, until the cities have committed their water rights.

13 Ryan said they have designed it in a way that really nothing has changed on the right side of the diagram, you have to  
14 put in a filter to meet the lake limit, and then that becomes reuse type water. David Bunker said except for the  
15 flocculation tank and if we can save that \$45 million that is a big benefit to us. David said as far as water rights go, he  
16 would hope all the cities would throw all their water rights that they currently have in their portfolio into this review so  
17 they would all be eligible for reuse. Mark said every member city should think of it as losing 100% of the water rights  
18 you do not have on the table as of November 1<sup>st</sup>. David said you do not lose the water right, you just lose the right to  
19 reuse it. Mark said Vineyard, Saratoga Springs, Eagle Mountain, and Lehi will continue to need additional water to  
20 meet the build out demands. It shouldn't be complicated; there are opportunities for us to will, trade, exchange, or lease  
21 it unless you do not have it in the portfolio November 1<sup>st</sup>. Mack Straw said Eagle Mountain City has their own  
22 treatment plant and are currently investigating reuse for their plant. Mark said they should also look at the water they  
23 are losing to TSSD.

24 Chris Condie asked what TSSD is paying if the board directs Rich to continue. Rich said he did not have the  
25 breakdown on that, it is part of the scope of package B. David Bunker didn't think the board had to give a motion, just a  
26 general consensus to move forward. The other issues of cost, how it is built, psi can be decided at another time. David  
27 thinks Rich is looking at whether the cities want to keep moving forward, commit to get these water rights to Jeff Appel  
28 to start evaluating and see if it is even a viable project. David said he thinks we are all on board with that, he hasn't  
29 heard anybody say they are against reuse. The Board unanimously agreed for Rich to continue doing what he has been  
30 doing. Sullivan said board members should get with their cities and make sure they get those water rights to Jeff Appel.

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## 32 **2. April TSSD Board Meeting**

33 Rich said the April Board meeting is set for April 13, 2023 which is the 2<sup>nd</sup> Thursday of the month instead of the  
34 third. There are conflicts the third and fourth week of April, so we will keep it scheduled for April 13, 2023.

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36 **\*Richard Nielson left the meeting. 7:28 p.m.**

### 37 **Communication**

#### 38 **1. Manager's Report**

##### 39 **Plant Performance**

40 Rich said the effluent phosphorus ytd average is .39 mg/L and is .42 mg/L monthly average. The plant is running  
41 well. Our ammonia numbers are a little higher than Rich would like them, but still within our permit level. Mark asked  
42 Rich to send the plant performance graphs from the last couple of years so the board can see where the phosphorus  
43 spikes in the summer months.

44

45 David Bunker asked if this is Craig White's last meeting with the TSSD Board. Craig said it is. David thanked  
46 Craig for his service on the Board (almost twenty years). David said he appreciates Craig and that values him and his  
47 friendship. David wished Craig the best of luck with everything in the future. Sullivan seconded those comments.

48 Sullivan mentioned that Blaine Thomas would be going in for surgery next week and will not be able to participate  
49 personally in meetings while he is healing. Sullivan instructed Blaine to continue participating electronically when  
50 possible.

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**Closed Session**

**Lon Lott made a motion to go into closed session in the conference room of the District to discuss the Professional Qualifications of an individual. Brian Braithwaite seconded the motion. Sullivan Love, Board Chair, took a roll call vote. Those voting “Aye” - Sullivan Love, Lon Lott, Mark Christensen, David Bunker, Chandler Goodwin, Craig White, Chris Condie, Brian Braithwaite, Jay Meacham, and Mack Straw. The motion passed unanimously. 7:33 p.m.**

**Brian Braithwaite made a motion to go out of closed session and back into regular session. David Bunker seconded the motion. Those voting “Aye” - Sullivan Love, Lon Lott, Mark Christensen, Chris Condie, Brian Braithwaite, Craig White, Jay Meacham, David Bunker, Chandler Goodwin, and Mack Straw. The motion passed unanimously. 7:46 p.m.**

**Adjourn: Lon Lott made a motion to adjourn. Brian Braithwaite seconded the motion. All present “Aye.” Meeting adjourned. 7:49 p.m.**