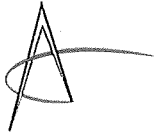


STANSBURY PARK IMPROVEMENT DISTRICT
MAILING ADDRESS: 30 PLAZA, STANSBURY PARK, UTAH 84074

AGENDA

NOTICE IS HEREBY GIVEN that the Stansbury Park Improvement District will hold a Special Board Meeting on April 2, 2024 at 4:00 p.m. at the Stansbury Park Office, 30 Plaza. One of the three Board Members may participate and join the Board Meeting through electronic means. The agenda will be as follows:

1. CALL TO ORDER
2. PRESENTATION OF AVAILABLE WATER AND SEWER CONNECTIONS
3. DISCUSS WATER AND SEWER SERVICE REQUEST FOR OQUIRRH POINT DEVELOPMENT AND POSSIBLE APPROVAL
4. MOTION FOR ADJOURNMENT



MEMORANDUM

March 29, 2024

To: Brett Palmer, District Manager
Stansbury Park Improvement District

From: Brendan Thorpe, P.E.
Ward Engineering Group

Project: Oquirrh Point Development

Subject: Request For Services, Dated March 17, 2024

Attachments: Oquirrh Point Request for Services, March 17, 2024
Follow-Up Email Correspondence
Memorandum, April 21, 2023, Prepared by Ward Engineering Group
Sewer Service Area Exhibit, Board Meeting August 15, 2023
Water Service Area Exhibit, Board Meeting June 19, 2023

Ward Engineering Group (WARD) received a copy of the proposed inquiry, attached as *Request for Services* (dated March 17, 2024), provided by EHD Investment, LLC. WARD also received a copy of the email correspondence pertinent to the proposal, also attached. It is our understanding that EHD has petitioned the Board for both water and sewer services based on the conditions and proposal contained in the 'Request' document. As there have been many discussions, meetings, board presentations, and variations of the water and sewer service areas over the past two years in connection with the Oquirrh Point Development Annexation, it may be helpful to clarify some of the ERU/ERC estimations and system capacities mentioned in both the Request document and email correspondence. Perhaps this technical memorandum will help the Board understand both the system potential and limitations in considering and evaluating the request at the special board meeting scheduled April 2, 2024.

2500 AVAILABLE SEWER CONNECTIONS

Both the Request for Services and the email correspondence indicate that it was determined in a board meeting that SPID has 2500 available sewer connections. It is important to clarify that when the District sewer system capacity has been discussed, it has always been done by differentiating the collection system capacity from the treatment system capacity. Each system has separate available and limiting capacities.

Sewer Collection System

Most of the discussions regarding sewer capacity over the past two years have been focused on the collection system. This was mainly due to the urgency in establishing the alignment, size, point of connection, review, and approval of the developer's Sagewood Sewer Line design, which was the new trunk line proposed to serve Oquirrh Point. Plans were submitted from the developer with the request to commence the sewer line construction. This led to a number of discussions and considerations, including the appropriate service area, size and upsize diameters of the Sagewood Trunk Line, the temporary use of the District's Basin 7 trunk

line through Sagewood Subdivision, the size and timing of the required outfall sewer line from Village Blvd to the Treatment plant, the interlocal agreement and coordination with Erda City, the District's review and approval process of the submitted construction plans, and an operating permit issued by the Utah Division of Water Quality. From these discussions, the District's collection system capacity has always been tied to a proposed temporary connection to the District's existing Basin 7 Trunk Line. It has always been the Basin 7 Line capacity that was the limiting factor. In a memorandum written to the District a year ago (dated April 21, 2023, attached), intended to provide recommendations for consideration in drafting the initial framework for the "Will Serve Letter" to the Oquirrh Point Partners; the Basin 7 Sewer Line has a calculated capacity of 1,433 ERUs, with an available capacity of 1,028 ERUs. Therefore, there is not a possibility when speaking about the existing Basin 7 Trunk Line, for 2,500 temporary ERUs to be "borrowed" by the Oquirrh Point Development.

In regards to the developer's proposed Sagewood Trunk Line from Oquirrh Point to Sagewood, and the Outfall Sewer Line from Sagewood to the treatment plant, either of these proposed sewer lines can be sized and constructed with the capacity to serve 2,500 ERUs, more or less. Both of these lines have been evaluated, modeled, and sized multiple times based on continuing revisions and modifications to the Erda Area Sewer Service Area. At the June 19, 2023 board meeting, it was determined that the Erda Sewer Service Area should be modified to include only the Oquirrh Point Development (more concisely: IHC, Oquirrh Point, Tealby Development, & Erda Estates – i.e., Oquirrh Point). The master-planned number of ERU's was 2,130. The Sagewood Trunk Line was reduced to a 15-inch diameter pipeline, with an approximate limiting capacity of 2830 ERUs. It is noted that additional consideration was requested to add other properties, such as the motorview property, LDS church property, and others back into the service area. Work on this commenced, but was suspended based on the uncertainty of continuing with the Oquirrh Point Annexation process.

Sewer Treatment System

In the April 21, 2023 memorandum previously cited, the District's sewer treatment system was described as having a limiting capacity primarily based on biologic treatment and hydraulic limitations [although other unit process also contributed to the effective capacity of the treatment plant]. The combined system capacity of the existing treatment plant is 1.5 MGD. This has not changed at any time during the annexation process of Oquirrh Point. This is equivalent to approximately 5350 ERUs [derived in the design documents of the treatment plant prepared by Aqua Engineering]. It is estimated that approximately 5000 ERUs are currently connected to the existing treatment plant, as estimated from the number of residential and commercial water accounts. The number of ERUs connected to the system was also estimated based on a sewer generation of 300 gallons per day per Equivalent Residential Unit (ERU). The calculated available capacity for future connections to the treatment plant is therefore 350 ERUs.

The preceding estimate has been considered conservative because it has been used continually in the context of master planning. It has also been discussed at board meetings that an actual measured influent flow rate may reveal a higher available capacity for future users such as the Oquirrh Point Development. At the August 15th, 2023 board meeting, influent data was thus collected and considered for years 2021, 2022, and 2023. The results were as follows:

Year	Highest Average Day Flow Based on Highest Month (MGD)	Total Yearly Average (MGD)
2021	1.08	1.01
2022	1.09	1.06
2023 (5 months only)	1.22	1.17

Understanding that more than half of the metered data from 2023 was not included; and understanding that subsequent Flodar measurements conducted in preparation for the board meeting held September 9th, 2023, there was an indication that the data above had a potential to be up to 12% low. Therefore, consideration was made and the average measured use was adjusted to account for these factors. A practical average day flow as measured from the partial data of 2023, may be 1.37 MGD rather than 1.22 MGD.

Based on these findings, the available treatment capacity for future users is approximately 130,000 gallons per day (1.50 MGD – 1.37 MGD = 0.13 MGD). Applying 300 gpd/ERU, the number of available connections is **433 ERUs**. Based on these revised numbers, the treatment plant is at approximately 91% capacity.

For additional comparison, a discussion was had at the September 19, 2023 board meeting of whether or not the historic unit flow of 300 gpd/ERU should be reduced. From the measurements taken at the headworks, a unit flow of 270 gpd/ERU may be the measured average unit flow. Using this unit flow is not recommended as an official change because it affects many correlated calculations, documents and reports; and it requires additional flow monitoring to fully substantiate. However, it indicates a maximum capacity that may be considered available in the existing treatment plant, which results in **482 ERUs** available.

At the June 19, 2023 board meeting, the size and nature of the District's future treatment plant was discussed. There were primary concerns that the extents of the proposed Erda Sewer Service Area were too large. Concern was previously expressed by the developer that recuperating the upside cost of the required sewer trunk and outfall lines was excessive, and potentially beyond a realistic recovery period. Both the developer and the board were also concerned that Erda City lacked interest and commitment in promoting development in the Erda Service Area, thus compounding the concern of the developer's reimbursement in a reasonable time frame. As a result the Erda Sewer Service Area was substantially reduced to the configuration illustrated in the attached Sewer Service Area Exhibit. All of this was driven by the trunk and outfall sewer lines. It was at this major shift, that the size of the future treatment plant was also discussed, which correlated to the future treatment system capacity. It was determined that the Erda Sewer Service Area was to be analogous with a future treatment plant upside capacity of 3.0 to 3.2 MGD. Keeping the future treatment plant to this size reflected a threshold of preventing significant upgrades across all unit process, with the potential of having to build a replacement treatment plant. Keeping the upside to a 3.0 to 3.2 MGD range may result in a less proportionate capital cost per ERU by upsizing only certain unit processes such as a new headworks building and adding additional aeration, etc. The treatment plant was again discussed at the subsequent August 15th, 2023 board meeting; reviewing the critical unit processes that had the most impact and restriction on upsizing for increased capacity. The discussion resulted in the decision to reduce the Erda Sewer Service Area. Additional work and discussion halted as the developer expressed interest in pursuing a separate sewer and water service district to accommodate Oquirrh Point.

It is important to reiterate that sewer capacity has always been expressed in terms of collection and treatment. It is not correct to assume that because there may be a 2500 ERU-capacity in the trunk or outfall line, there is equivalent capacity in any or all of the other sewer system constituents.

600 UNITS FOR TEMPORARY WATER SERVICE

The developer has requested borrowed capacity of 600 ERCs as connections to SPID's pressure zone 0; based on the statement that: "an interim water solution has already been designed..." At this time, only a schematic layout of the developer's temporary water connection has been created in conceptual form. This is attached as, Water Service Area Exhibit. There are a number of items to still resolve. For instance, it is indeterminate whether the temporary connection will remain until both a new tank and new well are constructed by the Mid-Valley Improvement District, or if the developer is staging the facilities and requires temporary use of SPID's facilities on differing time frames. The design of the water system will need to be submitted and reviewed, together with other design study requirements. The afore mentioned April 21, 2023 memorandum describes the District's existing water system capacities, together with recommendations for borrowed capacity should the District approve the developer's request.

RISKS TO THE DISTRICT

The developer's proposed, initial period for temporary sewer connection, is 10 years. This is well beyond the time frame in which SPID will need to upsize the treatment facility, for reasons previously explained. In order to accommodate any sewer connections from Oquirrh Point, the treatment plant will need to upsize to serve the number of ERUs requested, either temporarily or permanently.

The greatest risk to the District in providing any temporary water or sewer services, is by far tied to sewer treatment. It is likely to be the most expensive single capital investment that the District will make in the next decade or two. The District should consider whether or not it is prepared to serve a portion of Oquirrh Point indefinitely or not. Once connected to the treatment plant, the District cannot disconnect Oquirrh Point users unless and until the Mid-Valley Improvement District is approved, built, and commissioned. In this regard, it is recommended that the District consider building capacity in the upcoming treatment plant expansion to accommodate the proposed 10-year temporary service request, commensurate with the associated risk of service up to and potentially beyond a 10-year horizon. Obviously, the risk to the District is proportionate the number of temporary connections agreed upon.

Risks associated with temporary service via the sewer collection system, and the water system, are not as significant as service via the treatment system. The sewer collection system and water system both have more substantial available capacity that can be used on a temporary basis. This is detailed in the April 21, 2023 memorandum. Furthermore, the replacement or upsizing of such infrastructure is also proportionally much less than the cost to upsize the treatment plant.

TEMPORARY SERVICE FEES

Water

The District is presently entertaining a proposal to provide temporary water service to Granite Construction. Due to the large demand proposed, the District is in the process of formulating a provisional, standard agreement, which outlines the temporary connection fees. The fees in preliminary form may include the following elements:

- 1) Temporary Allocation of Existing Water System Capacity
This would not be an impact fee, although its derivation of cost may be based on the District's current adopted Impact Fee Facilities Plan, together with the associated

Impact Fee analysis. With some additional analysis and work, such studies already contain the baseline-available system capacity and the estimated capital recovery cost for temporary use of SPID's system infrastructure (i.e., Distribution, Source, and Storage Facilities).

2) Water User Rate

The District may or may not choose to use the existing, adopted water user rates. This should include operations and maintenance, facility replacement, administrative costs, and all other required costs and expenditures common to the District. Ideally, this would be in the resolution. The District may choose to create a special user rate for Oquirrh Point to consider costs unique to the connection and its required infrastructure, such as temporary pump station operations and maintenance fees, system decommissioning, etc.

3) Water Right Lease Rate

If the proposal requires the District to provide water without the transfer of water rights, the user rate should also include a lease rate based on the District's capacity to provide temporary use of its water rights.

One key difference between Granite Construction's request and Oquirrh Point's request for temporary service, is the ability of the District to disconnect service based on the terms of the agreement. When dealing with residential and commercial water customers, it becomes much more complicated to execute a disconnection, and recover the loss of impact fee revenue needed for increased capacity to serve beyond the specified period; or in the event that future development within the District's service area requires additional capacity.

Sewer

The developer proposes a contract fee of \$500.00 per ERU plus an \$8.00 per ERU per month maintenance charge. It is uncertain how these fees were calculated, and they do not coincide with any fees that have been established by the District or its consultants, or which have been estimated or proposed as part of any service agreement. As described, it is recommended that the sewer system be considered as two separate parts, collection and treatment. The reason for this is that Oquirrh Point has been required to construct an independent collection system, bypassing the District's existing trunk lines, to the treatment plant. In this regard, the developer would not be required to pay impact fees for collection. However, Oquirrh Point would connect to the treatment plant for service, and would be required to pay impact fees.

If temporary sewer service is proposed, temporary service fees should be considered separately as well, accounting for capital recovery from use, and other appropriate user fees. As already explained, temporary treatment service on the timetable of 10 years bears a significant risk. For any number of reasons, the District could be required to construct additional treatment facility capacity to serve the proposed Oquirrh Point connections on an indefinite basis. If the District collects a contract fee in lieu of an impact fee, the District may effectively construct and provide capacity not commensurate to the impact.

In regards to temporary collection system service, sufficient capacity exists to allow for temporary connections on the proposed time frame of 10 years. The District may consider allowing this under the same provisions afore mentioned.

STATUS OF CAPACITY EVALUATION

From the time the April 21, 2023 memorandum was written, a considerable amount of planning work has been done relating to both of SPID's sewer and water systems, which has been partially driven by the proposed Oquirrh Point Development. During the past twelve months, Impact Fee Facilities Plans (IFFPs) and Impact Fee Analysis (IFA) have been drafted for the overall water system and sewer collection system, pertaining to SPID's existing service areas. Both water and sewer modeling have been updated, service area boundaries have been marginally revised, and more recent growth information applied. As a result, it is advised that prior to entering into a development agreement with EHD, the forgoing recommendations of April 21, 2023 should be updated for the Board's consideration.

APPENDIX - ATTACHMENT

OQUIRRH POINT
REQUEST FOR SERVICES

RECITALS:

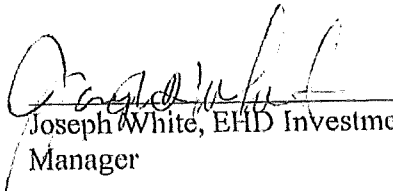
- A. WHEREAS, EHD Investment LLC owns a tract of land entitled as Oquirrh Point Master Plan Development.
- B. WHEREAS, EHD Investment and SPID began negotiations on January 2022 for SPID to serve certain utilities to the project area.
- C. WHEREAS, EHD is desirous to complete these negotiations and begin to construct the necessary off-site utilities.

EHD REQUEST FOR SEWER SERVICE

1. SEWER TREATMENT. In a recent SPID board meeting, it was determined that SPID had 2500 available connections available to serve the EHD projects in Erda. EHD proposes that a new municipal entity named Mid-Valley Improvement District construct and own the lift station and delivery lines and deliver to SPID sewer close to or around the SPID headworks. EHD believes that an interlocal agreement between SPID and the newly formed MVID would alleviate the concerns of owning and operating a mechanical system. SPID would still receive a treatment contract fee (\$500 per eru) and a treatment operations and maintenance fee each month (\$8 per eru). Serving the EHD property and surrounding properties by a lift station does not materially change the way SPID treats the delivery of sewage to the headworks. Nor does it substantially change the number of connections that the SPID allocated for EHD. We anticipate this interlocal agreement to be for an initial period of 10 years with the option of Mid-Valley to disconnect and treat its sewer by a newly constructed package plant on property located north of Pole Canyon Road. Exact fees to be negotiated.

EHD REQUEST FOR WATER SERVICE

1. TEMPORARY WATER SERVICE. It is anticipated that a newly formed Mid-Valley Improvement District is going to be the permanent water provider to the EHD properties. It may be necessary however for a temporary solution to serve the first 600 units of the OP Development. *An interim water solution has already been designed from SPID well 5 to a booster pump located within the Copper Cove Development.* It is anticipated that, should this option be needed that it would be for a period of 5 years with the right to disconnect anytime before that. Exact fees and other obligations from the developer to be negotiated.

 3.17.24
Joseph White, EHD Investment LLC
Manager

Brendan Thorpe

From: Brett Palmer <brettpalmer2007@yahoo.com>
Sent: Thursday, March 21, 2024 9:05 AM
To: Brendan Thorpe
Subject: Fw: Request for Services OP

FYI. below.

Best regards,

Brett Palmer
Manager
Stansbury Park Improvement District
10 Plaza,
Stansbury Park, UT 84074
435-882-7922

----- Forwarded Message -----

From: Joseph White <8303642@gmail.com>
To: Brett Palmer <brettpalmer2007@yahoo.com>
Cc: Jake Clegg <jclegg@ensigneng.com>; Brock Griffith <brockg@cgconst.com>; Neil Smart <neil@smartbenefits.co>
Sent: Thursday, March 21, 2024 at 08:59:08 AM MDT
Subject: Re: Request for Services OP

Brett,

Sorry to hear that you feel that way, it has been a frustrating experience (I am sure for both of us). We started this process more than two years ago. There have been several pivots along the way, most of them out of our control (meaning Oquirrh Point). The service area and number it could serve has changed many times. At first it was because Brendan said the state required that we include all possible acreage that could be served and when Erda City didn't want to pay any extra, it was determined that it would be better to scale down the service area.

The next road block became sewer outfall line. In a board meeting it was determined that there were 2200-2500 connections available. SPID also made its intentions clear that they did not want to upgrade their facilities to grow that number because of the large cost. Which I agree with the Board. As our discussions continued, the hurdle became the cost of the outfall line that SPID required to serve the 2500 ERU. Because of how flat the land is, a pipe size of 24"-30" would be required to provide this final stage to the headworks. The line had to be this size if it served one or 8000 connections. Without the ability to have more connections available this line is cost prohibitive (outfall line cost estimate is over \$3,500,000). This expense is more than the entire transmission line to OP. We suggested that a mechanical option be used to reduce the cost of getting the sewer to the headworks. We were then informed that SPID did not want to own or maintain any lift stations though they are widely used in the

industry. In trying to resolve this concern, yes, a Public Improvement District was requested by us to provide a way for a power lifted transmission line to the headworks that was not owned or maintained by SPID (trying to solve your lift station concern). State regulation prohibits private entities from owning treatment or transmission lines. We have never gone away from an understanding that we could come to some agreement for sewer service. The treatment fee I identified was a number that was used early on in our discussions and applied here as a non-refundable payment for the temporary use. \$500 x 2500 connections would be a \$1,250,000 fee paid to the district. I should have stated that more clearly. The purpose of our request was to finally try to identify exactly what we are needing and how to get there. You stated that SPID should be compensated for this temporary use, do you have another suggestion as to what this would be or look like? We have always had the mindset that developers should pay their way.

I believe that both of the parties have tried in good faith to work through these difficult issues. We have tried to provide clear alternatives to some of SPID's concerns. The newly formed district was not meant to compete with SPID but to help direct some of the responsibilities off of SPID. We have spent over \$250,000 dollars including a large fee to SPID for engineering and many renditions of SPID's Master Plan. We still don't know many things, but some items we are sure about, SPID has several thousand connections that are available, and it seemed reasonable to have a temporary connection as opposed to having SPID pay for unknowns in the future. Interlocal agreements are a standard practice in the industry. It would be better to have an interlocal agreement with a neighboring district then with a Developer. The 2200 connections does not serve the entire project including IHC, the LDS Church or the Peterson Property (Drive in) as well as over 50 acres of already approved commercial. Mid-Valley still has to solve the entire sewer issue and will work to complete that task.

Having belabored this email, I am not sure why it is an all or nothing decision. With all the future unknowns that are in question and studies that SPID would still have to model. It seems practical to lean on the items that we know and can be quantified. Serving Oquirrh Point temporarily seems a much easier proposition for SPID, greatly reducing its risk and workload. We are asking for your cooperation yes, I believe it is a win/win for the new community and for the entire valley to have multiple entities serving the people.

Joe

On Wed, Mar 20, 2024 at 6:17 PM Brett Palmer <brettpalmer2007@yahoo.com> wrote:
Hi Joe,

Thanks for the narrative. Remember, we do not know what the treatment impact fee is because the service area keeps changing. We went from sizing the sewer line to serve everything in Erda with the upsize component and when the board finally found out the cost of \$40,000,000 treatment upgrade, and OP's discussion of only wanting to pay for their capacity, and trying to figure out how to pay for the sewer line from Village to the sewer treatment plant for 2500 connections, we thought that solved your concern. After that you said the 2500 connections won't work for the other areas that you wanted to provide service to. We were then informed that you would create your own water and sewer district so we stopped work. In order for the impact fee study to be complete for both water and sewer, the areas with density need to be defined before it can be sent on for analysis.

As I discussed with you and Jake over lunch a few weeks ago, it is my opinion that there needs to be a cost for using SPID's excess capacity on a temporary basis, above impact fees, and user rates, if the board agrees to provide temporary service. There are many issues and concerns with agreeing to provide service on a temporary basis, and a risk to the District of not getting out of it if things go

bad for development, or your treatment plant project doesn't get built. As stated earlier, you indicated that you were going to do your own water and sewer system. At this point, as manager, I am not interested in providing service to Oquirrh Point or EHD as it has taken a lot of time and resource that could be spent on areas within the SPID boundaries. We went through this same thing with Jay Harwood and Staker several years ago where a lot of time and resource was put forth and they pulled out.

We have frustrated you and we cannot act fast enough for what you want to accomplish. My main priority is to look out for what's in the best interest of the District, we kept getting pushed to approve the original sewer line design without knowing the potential liability SPID would be committing to. It turns out it was a good thing we didn't give approval before knowing the potential costs to the treatment facility. Having expressed my concerns of not wanting to provide service to OP or EHD, ultimately, the decision is not mine. I will do whatever the board directs me to do moving forward.

I will wait for the board to direct me about convening the meeting on April 2 as you have requested. It sounds like Brock is okay to meet. Thanks!

Best regards,

Brett Palmer
Manager
Stansbury Park Improvement District
10 Plaza,
Stansbury Park, UT 84074
435-882-7922

On Wednesday, March 20, 2024 at 03:10:22 PM MDT, Joseph White <8303642@gmail.com> wrote:

Sorry, I have not explained it better. If a sewer impact fee is \$2,500 per ERU, then the treatment portion attributed to that fee is \$500.00. Likewise for the monthly fee, if the monthly sewer fee is \$24.00 then \$8 could be attributed to the treatment. So not on top of, but a component of the impact fee. These are just numbers I remember from our discussions. I'm sure you have updated numbers. If we build and own the delivery system, then SPID would only need to treat the waste and collect the proportionate amount attributed to treatment.

Joe

On Wed, Mar 20, 2024 at 2:53 PM Brett Palmer <brettpalmer2007@yahoo.com> wrote:

Joe,

I'm still a bit confused. I'm not sure where these numbers are coming from. Are you proposing \$500/ERU on top of an impact fee? Are you saying the \$8.00/month ERU is on top of an impact fee and user rate?

Best regards,

Brett Palmer
Manager
Stansbury Park Improvement District
10 Plaza,
Stansbury Park, UT 84074
435-882-7922

On Wednesday, March 20, 2024 at 02:12:00 PM MDT, Joseph White <8303642@gmail.com> wrote:

Those numbers were from discussions with Spid and Brendan on average costs of treatment, segregated from other monies allocated to an impact fee. I think there is a more current study that Ward has done?

Joseph White

On Mar 20, 2024, at 11:58 AM, Brett Palmer <brettpalmer2007@yahoo.com> wrote:

Thanks Joe,

Can you provide more detail on the \$500.00 per ERU treatment contract fee, and \$8.00/month O&M fee?

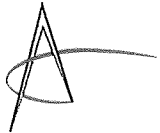
Best regards,

Brett Palmer
Manager
Stansbury Park Improvement District
10 Plaza,
Stansbury Park, UT 84074
435-882-7922

On Wednesday, March 20, 2024 at 09:53:22 AM MDT, Joseph White <8303642@gmail.com> wrote:

Brett & Jacob

I hope all is well, I have attached a letter requesting services from SPID for the OP development. I am hoping that the board would consider holding a special meeting April 2, 2024. Thanks for your help navigating this project.



MEMORANDUM

April 21, 2023

To: Stansbury Park Improvement District
Brett Palmer

From: Ward Engineering Group
Brendan Thorpe P.E.

Project: Oquirrh Point Development

Subject: Water and Sewer Service

Attachments: Capacity Worksheets

This memo is a follow-up to the general discussion at the District's Board meeting held April 19, 2023. Its purpose is to provide the calculation worksheets that were presented, and provide a summary of the findings and recommendations regarding allowed perpetual and temporary water and sewer connections.

WATER SYSTEM

O.P. proposes to make a temporary connection to the District's Pressure Zone 0 (PZ0) source capacity near Well No. 5. O.P. proposes to draw from the PZ0 source capacity to serve a specified number of Equivalent Residential Connections (ERCs) on a temporary basis; at which time, O.P. will be responsible to build a Pressure Zone 2 (PZ2) storage tank and well. Based on the attached capacity worksheet calculations, the following criteria is recommended as the maximum parameters for a temporary connection to the PZ0 source capacity.

Source Capacity

Total PZ0 Source Capacity = 6,491 ERCs
Existing PZ0 Used Capacity = 5,021 ERCs
Total Available PZ0 Capacity = 1,470 ERCs

Recommendation for Limits on Temporary Water Connections: The District may consider applying three parameters of restriction, with any of the three triggering a stop on connections, and construction / operation of a new well by the Developer.

- 1) Up to 500 ERCs
- 2) Up to 85% used source capacity in existing PZ0
- 3) Up to 5 years from the date of the first connection

Other Considerations: The above recommendations strictly represent available capacity in the system sources. However, other factors may be considered by the District that could further limit the number of connections, such as service reliability. It is our understanding that the proposal by O.P. is to construct a single low pressure transmission line from the PZ0 system to a temporary pump station, which will be used to boost the pressure and flow (including fire protection flow) to the development. Because the service line and pump station will be a single source, and there will be an absence of a gravity operated storage tank, the District may wish to further restrict the number of temporary connections. Furthermore, the Utah Division of Drinking Water will also review and permit the temporary water lines and pump

station, and may further impose restrictions on the number of allowed temporary connections without a gravity operated tank.

Storage Capacity

Total PZO Storage Capacity = 7,345 ERCs
Existing PZO Used Storage Capacity = 5,021 ERCs
Total Available PZO Capacity = 2,324 ERCs

Recommendation for Limits on Temporary Water Connections: Storage is not the most restrictive water system component. Therefore, refer to the limiting recommendations for Source Capacity.

SEWER SYSTEM

O.P. proposes to construct the *Sagewood Drive to Erda Way Trunk Line Sewer* as depicted in the Sewer Report submitted to the Utah Division of Water Quality, Department of Environmental Quality (DEQ), dated January 23, 2023, and as may be depicted in any addenda that are approved by the Stansbury Park Improvement District Board of Trustees (Board), and/or the DEQ. O.P., like the water system connections, may make provisional and temporary connections at the Sagewood Subdivision, to the District's existing *Basin 7 Sewer Trunk Line* (Basin 7 Line), as identified in the current, adopted Impact Fee Facilities Plan.

Note: the existing treatment system has capacity constraints and should be considered independently from the collection system (i.e. Basin 7 Trunk Line temporary connection).

Basin 7 Trunk Line

Total Line Capacity = 1,433 ERUs
Existing Line Used Capacity = 405 ERCs
Total Available Line Capacity = 1,028 ERCs

Recommendation for Limits on Temporary Sewer Connections at Sagewood Subdivision: The District may consider applying three parameters of restriction, with any of the three triggering a stop on individual connections, and construction / operation of the Outfall Sewer from Sagewood Subdivision to the Treatment Plant, as depicted DEQ Report, dated January 23, 2023.

- 1) Up to 600 ERCs
- 2) Up to 85% used line capacity in the Basin 7 Trunk Line
- 3) Up to 5 years from the date of the first individual connection

Treatment Plant

Total Treatment Capacity = 5,350 ERUs
Existing Treatment Used Capacity = 5,000 ERUs
Total Available Treatment Capacity = 350 ERCs

Recommendation for Limits on Sewer Connections at Existing Treatment Plant:

- 1) Up to 350 ERUs before treatment plant capacity is increased.

Calculation Worksheets

Existing Water Source Capacity	
Storage is not the limiting factor. Equivalent ERCs for storage and source will be made available	
Source	Existing Capacity (ERCs)
Well #1	1,844
Well #2	1,475
Well #3 (Clegg Well)	590
Well #4	1,107
Well #5	1,475
*Total =	6,491
*Source: Approved State Demand Letter	
Percent Used	ERCs Used
77.3%	5,021
Percent Remaining	ERCs Remaining
22.6%	1,470
The System at 85% Use	
Year	ERCs Used in System
2028 (2nd Quarter)	5,517
ERCs Available for Borrowing from 2023-2028	
5517 - 5021 = 496	
Existing storage capacity not applicable, no storage will be borrowed.	
The ability to deliver ERCs is modeled and acceptable at the value above. However, reliability is not addressed by this modeling	

Existing Wastewater Capacity	
Basin 7, at the southwest corner of The Sagewood development, is where the proposed connection will be made. The Limiting pipe for basin 7 is a 15" pipe along Montauk Ln and all used/ total capacities will be measured at that point.	
Existing Pipe Capacity	
Measurement	ERUs
Total Capacity of Basin 7 (Based on limiting 15" pipe stretch)	1,493
Used Capacity (2023)	405
Used Capacity at Buildout	1,237
85% Buildout of Total Capacity (2034, 4th Quarter)	1,218
Approximately half of buildout is assumed to manifest in 10 yrs (by 2033). Therefore, the following equation is how many Erus may be borrowed in the next 10 yrs, while remaining under 85% used capacity in Basin 7.	
ERUs Available for Borrowing from 2023-2034	
Up to 600	
Existing Treatment Capacity	
Measurement	ERUs
Treatment Capacity Total	5,350
Treatment Capacity Used (2023 Calculated, not Measured)	5,000
Treatment Capacity remaining	350

Table 4: Existing Storage Tank Capacity		
Storage Tank	Volume (Mill. Gal)	Existing Source Capacity (ERCs)
Reservoir #1	1.43	1,742
Reservoir #2	1.60	1,948
Reservoir #3	3.00	3,654
Total	6.03	7,345

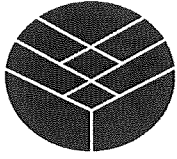
Current Used ERCs (2023)	85% of Existing (2028)	85% of Buildout (2029)	Buildout ERCs
5021	6243	6,416	7549.00
Percent Remaining in Existing Infrastructure			
68%	85%	87%	103%
Available Storage at 85% of Existing			
6243 - 5021 = 1222			

August 16, 2022 SPID Sewer Treatment Status

Treatment Process	Existing Capacity	Used Capacity (as of 2021)	Percent Used Capacity (%)	Expansion of Capacity
Biologic Treatment (BOD)	⁽¹⁾ 4,853 ERU	⁽⁹⁾ 4,756 ERU	98.0%	⁽⁵⁾ 8,494 ERU
Hydraulic System (Headworks)	⁽²⁾ 1.5 MGD 5,350 ERU	⁽⁹⁾ 4,756 ERU	88.9%	⁽⁶⁾ Not Evaluated
Disinfection (Chlorination)	⁽³⁾ 1.5 MGD 5,350 ERU	⁽⁹⁾ 4,756 ERU	88.9%	⁽⁷⁾ 1.8 MGD 6,421 ERU
Total Suspended Solids (TSS)	⁽⁴⁾ 2.72 MGD 8,494 ERU 6,795 lbs/day	⁽⁹⁾ 4,756 ERU	56.1%	⁽⁸⁾ Not Evaluated

Notes

(1) BOD Loading = 0.17 lbs/day/cap per UAC R317 Treatment system designed 3,300 lbs per day per Biolac Design Study Report Allowed ERUs = 4,853 based on 4 cap per ERU from Aqua 2014 Master Plan which is 75 gpd/capita
(2) Based on existing headworks pump capacity of 1,040 gpm, derived from Aqua design (average day flow)
(3) From Aqua design
(4) Based on 2.72 MGD per WARD's 2009 design study report Based on 0.25 lbs/cap/day per UAC R317
(5) Not considered in Aqua 2014 Master Plan Not in 2018 IFFP and not funded within 10-year planning period
(6) Not considered in Aqua 2014 Master Plan Not in 2018 IFFP and not funded within 10-year planning period <ul style="list-style-type: none"> - Physical headworks allows for upsizing of pump only - No room to expand wet or dry well (i.e., no additional pump expansion) - Discharge line from headworks to cell 1 is only sized for 1.5 MGD and will need to be replaced
(7) Project #16 in the 2018 IFFP (funded by Impact fees and scheduled for construction in 2025)
(8) Not considered in Aqua 2014 Master Plan Not in 2018 IFFP and not funded within 10-year planning period
(9) Based on 2021 (year ending) residential connection count and the 2018 commercial, industrial, institutional derivations plus a 5% inflated adjustment.



STANSBURY PARK IMPROVEMENT DISTRICT
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BOARD MEETING MINUTES
April 2, 2024

CALL TO ORDER:

The Stansbury Park Improvement District Board of Trustees meeting was held at the Oquirrh Mill building, 30 Plaza, on the above date. Mr. Griffith called the meeting to order at 4:04 p.m.

ATTENDANCE:

Brock Griffith, Board Chair; Neil Smart, Trustee; Jacob Clegg, Trustee; Brett Palmer, District Manager; Brendan Thorpe, Ward Engineering Group; Joe White, Ironwood; Cami Thorpe, Minutes; Resident, Derald Anderson.

PRESENTATION OF AVAILABLE WATER AND SEWER CONNECTIONS:

Mr. White is requesting up to 2,500 temporary sewer and water connections for up to ten years. Mr. Thorpe explained the constraints on the sewer collection capacity. The Sagewood trunk line and the outfall line to the treatment plant could be sized for 2,500 connections. There is limited capacity to make a temporary connection to the Basin 7 line, which has about 1,400 ERUs.

An analysis completed for the will-serve letter and development agreement proposed up to 600 connections.

Mr. Thorpe explained that the sewer treatment system is comprised of several separate processes that all have limited capacities. The system is substantially limited to collecting 1.5 million gallons per day. Upgrades to the separate units could be made to increase the capacity. Upgrades to the hydraulic and biologic components will be the most expensive. Master planning parameters were used to define the capacity. There are around 350 connections available before the treatment plant is at capacity. To verify flow, three years of meter data were collected at the headwork station, which showed there could be around 433 available connections. Flodar readings from manholes were compared to the headwork's meter which showed there was a 12 percent discrepancy higher than the headwork meter. Data from the headwork meter was adjusted up by 12 percent. The unit flow showing 300 gallons per day per ERU was conservative and 270 gpd/ERU would be a more accurate number. Previous criteria show there are 350 ERUs of treatment capacity. The new criteria show that there are about 482 ERUs capacity at the treatment facility without upgrading.

The sewer treatment plant could theoretically be upsized to treat 3.2 million gallons per day rather than constructing a new mechanical treatment plant. The costs to upsize the current plant are significantly less per ERU than to build the mechanical plant.

Mr. Thorpe explained the requirements for temporary connections to water service for source and storage. The developer would provide an independent distribution system.

Sewer treatment would need to be upgraded regardless if the connections are temporary or permanent.

DISCUSS WATER AND SEWER SERVICE REQUEST FOR OQUIRRH POINT DEVELOPMENT AND POSSIBLE APPROVAL:

Mr. White believed that based on previous Board discussions there are between 9,000 and 12,000 connections before the lagoons are at capacity and a mechanical plant would be needed. Based on the potential connections within the District's service area, the treatment facility is already undersized and would need to be upgraded without the Oquirrh Point temporary connections. Mr. White's belief was incorrect. Studies have been based on capacity in the sewer collection system not treatment.

Upgrades to the treatment plant are included in the proposed master plan, which do not include servicing Oquirrh Point.

Mr. White would like to know the specific number of connections that would be available for Oquirrh Point in the upsized treatment plant.

Mr. Thorpe explained that the upgrades would be incremental and be based on a twenty-year growth projection. There is an impact to the system if the connections are not removed.

Mr. White believes that the connections would be for ten years. He would like to know what the estimated cost for treatment per connection.

The costs should not be based on current impact fee numbers because treatment and collection are not separated in the current sewer impact fee assessment, and Oquirrh Point cannot fully be served from the existing treatment system. An updated cost will not be known until after the impact fee studies are completed and adopted.

Mr. White said he is willing to pay a flat fee to connect which could help upgrade the treatment system. When the temporary connections are removed, the District would keep the fees.

The Board suggested using the current treatment facility costs to provide an estimate for the developers. This is not recommended. The impact fee study should be determined to know the true cost of the impact. The study can be completed once a service area has been established. Once the service area has been identified, the study can commence. The developer suggested a penalty could be charged if the connections stay longer than ten years. Mr. Palmer explained that there are legal constraints to providing temporary service and residential connections cannot be disconnected if there isn't another treatment facility to receive the flows.

Mr. Clegg asked if planning on the upgrades to the treatment system has begun. Mr. Thorpe explained that the service area needs to be determined, a design study report needs to be completed, specific upgrades to the system need to be decided, and cost estimates can then be completed before completing the IFFP.

Mr. White asked about the difference between the service area and units. He feels the service area should not matter if the number of ERUs is capped.

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Mr. Clegg suggested that the developer pay a fee for 2,500 connections for treatment. A penalty can be charged if fewer connections are used.

Mr. Thorpe explained that a capital recovery cost is not the same as an impact fee. The capital recovery cost is unknown at this time and should be identified.

The District will need to upgrade the treatment plant in order to serve the current service area over the next ten years. Mr. Griffith believes there is an opportunity for the District to make revenue by providing temporary services through Granite Construction leasing water and Oquirrh Point temporarily connecting to the treatment plant. The revenue will help the District financially in the end. The contracts can be written to protect the District from risk.

Mr. Palmer stated that he is not opposed to the temporary 600 connections. There is not enough information to make a decision and the District cannot move as fast as Mr. White would like.

Mr. Thorpe explained there is a risk that the temporary connections end up not being temporary, and the District would then need to expand the treatment facility to serve any future connections.

Mr. Palmer would like to take adequate time to complete studies. Serving Oquirrh Point is the driving force for upgrading the treatment facility. The District could postpone upsizing the treatment facility if Oquirrh Point is not served.

The previous Board meeting discussions on upsizing the treatment facility were schematic and not actual plans to upgrade. The total number of connections the treatment plant could serve with upgrades would be about 9,000 to 10,000 ERUs and treat 3.2 MGD.

Mr. White suggested that he could provide \$500,000 upfront to be used for upsizing the treatment plant. There needs to be a justified basis for receiving funds, the District cannot arbitrarily receive funds without proper justification. Mr. Thorpe is unsure of how many upgrades could be made with \$500,000. There is still a risk that the connections become permanent, which would take up capacity from future houses included in the service area. The District could not force a resident to disconnect from treatment if alternative treatment was not provided by Oquirrh Point.

Deciding where to connect a collection line to the treatment system depends on borrowed capacity in the collection system. There would be a use fee for borrowing capacity in the Basin 7 Trunk Line for ten years.

Mr. White paid Ivory Homes in Sagewood Gardens to upsize the line they are constructing to the Basin 7 line.

Mr. Thorpe explained how depreciation of the system affects the future impact fee amount.

The District cannot take a double payment for the capacity of one connection. The District cannot charge developers for the borrowed capacity and then charge the developer the same dollar amount in an impact fee to connect permanently once Oquirrh Point disconnects.

Upgrades to the treatment plant would provide roughly 4,000 additional connections.

SPID MEETING MINUTES

April 2, 2024

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Mr. Thorpe asked why Oquirrh Point is not willing to connect permanently. There is as much effort and cost to the District to figure out the temporary connections as the permanent connections. There would be less cost to the developer for permanent connections. Mr. White did not believe the District could provide 2,500 connections. The proposed Mid Valley Improvement District would provide a collection system to the treatment plant.

Mr. Clegg believed the District wanted to reserve capacity that would serve areas closer to the District.

There was discussion about growth and with growth comes capital improvement costs. Mr. Palmer said, the District can support what it's currently serving, nothing new would have to be built. Generally, the District's impact fees collected have not funded the full cost of construction of the capital improvement.

Mr. White added that the cost to construct a gravity sewer to the outfall line is too expensive. If Mid Valley constructed a force main to the District's headwork, it can be done for half the cost. Mid Valley would own the collection system to the treatment plant and the District would provide treatment. The cost to construct a mechanical line with pump stations to the headwork is less than half the cost of constructing the outfall line.

Mr. White is frustrated that the discussion on serving Oquirrh Point began in 2022 and progress has not been made. He would like to know how many connections for treatment are available, how much needs to be paid upfront, and what the impact fee would be.

The Board would like to consider permanent service rather than temporary.

Mr. Palmer would like more information before making an agreement. It will be six months before the IFFP studies are complete. Numbers on the treatment facility need to be quantified.

Mr. Anderson suggested having a temporary number to start with. The cost can be adjusted once the studies are completed. Mr. White would like to know how many connections are available. The project would be designed on the number of available connections.

The Board suggested identifying the number of connections and assigning an amount of funds that can be provided upfront.

Mr. White needs to provide a master plan that includes the number of connections he is requesting.

Mr. Palmer would prefer temporary connections. He would also like more information before making a decision on what is best for the District. He will consider both temporary and permanent connections for treatment and bring more information to the next Board meeting.

The Board suggested expediting the process by using estimates to determine the treatment cost for temporary or permanent connections.

Mr. White needs to know the number of ERUS, the point of connection, and the sewer delivery method.

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Mr. Palmer and Mr. Thorpe will have estimates by the next Board meeting.

Mr. Thorpe asked Mr. White what he would need for temporary water service. Mr. White will have more information at the next Board meeting. He would like separate agreements for water and sewer.

MOTION FOR ADJOURNMENT:

MOTION: Mr. Smart moved to adjourn. Mr. Clegg seconded the motion. All were in favor. The meeting adjourned at 6:20 p.m.

APPROVAL:



Brock Griffith, Chairman