

TECHNICAL MEMORANDUM

TO: Ron Phillips
North Village Special Service District

COPIES: File

FROM: Megan Weber
Zions Public Finance, Inc.

DATE: June 11, 2018

SUBJECT: NVSSD July 2018 Water Impact Fee Analysis Amendment

INTRODUCTION

North Village Special Service District, Utah (the District, NVSSD) commissioned Zions Public Finance, Inc. (Zions) to calculate the District's culinary water impact fees in accordance with Utah State Law, which resulted in an Impact Fee Analysis (IFA) in September 2015. An impact fee is a one-time charge to new development to reimburse the District for the cost of developing new culinary water system capacity that will allow development to occur. In conjunction with this project, Bowen Collins & Associates (BC&A) prepared the NVSSD Impact Fee Facilities Plan (IFFP) dated June 2015. In March 2017 BC&A and Zions amended the IFFP and IFA, respectively, to accommodate some changes within the District.

Since that time, BC&A has again amended the IFFP in a technical memorandum dated May 2018 to keep it up-to-date with District growth patterns and the latest planning efforts. In response to this amendment, the District has commissioned Zions to similarly amend the IFA, which is the purpose of this memo.

IFA AMENDMENTS

Based on the changes to the IFFP by BC&A, this memorandum hereby amends the March 2017 NVSSD Water Impact Fee Analysis (IFA) as follows:

1. Delete Figures ES.1, ES.2, and ES.3 from page 4 and replace them with Figure ES.1 that is appended to this memo. Figure names ES.2 and ES.3 shall go unused.
2. Amend the second and third paragraphs in the Production/Treatment Costs and Capacities section of Chapter 3 on page 10 as follows:

New development that does not have dedicated capacity, known as unbonded users, will need to pay an impact fee towards the Keetley Water Treatment Plant expansion, Victory Wells Phase I or the new water treatment plant. The cost for each production source varies. Therefore, the production/treatment component of the impact fee calculation will vary according to which source capacity is available at the time of impact fee assessment. Keetley WTP capacity will be utilized first, followed by Victory Wells Phase I, and finally capacity in the new water treatment plant.

The cost per ERU of each of the production sources is shown in the figure below.

3. Replace Figure 3.1 on page 10 with the figure of the same name that is appended to this memo.

4. Replace Figure 3.2 on page 11 with the figure of the same name that is appended to this memo.
5. Replace Figure 4.1 on page 14 with the figure of the same name that is appended to this memo.
6. Delete the second paragraph on page 14 in its entirety.

~~The tables above and below show the base impact fee using the Keetley Water Treatment Expansion as the primary source at a cost of \$1,517 per ERU. The final fee tables shown in Figures 4.4 and 4.5 assumes a different source cost (Victory Well or the new water treatment plant) as was discussed in Chapter 3. Figures 4.3 through 4.5 show the final impact fee according to which production source is being utilized at the time the of impact fee assessment. The only difference between each impact fee shown is the production cost. Costs of all other infrastructure stay the same regardless of which impact fee is being assessed. JSSD will determine which capacity is available at the time of impact fee assessment. Keetley capacity will be used first, once no Keetley capacity remains then Victory Well Phase I will be used, and so forth.~~

7. Replace Figure 4.2 on page 15 with the figure of the same name that is appended to this memo.
8. Delete Figures 4.3, 4.4, and 4.5 from pages 15 and 16 and replace them with Figure 4.3 that is appended to this memo. Figure names 4.4 and 4.5 shall go unused.

This amendment does not propose any changes to level of service, the planning period, overall system growth projections, or general analysis methodology. As a result, all other components of the IFA are unchanged.

CERTIFICATION

In accordance with Utah Code Annotated, 11-36a-306(2), Zions Public Finance, Inc., makes the following certification:

Zions Public Finance, Inc. certifies that the attached impact fee analysis:

1. includes only the cost of public facilities that are:
 - a. allowed under the Impact Fees Act; and
 - b. actually incurred; or
 - c. projected to be incurred or encumbered within six years after the day on which each impact fee is paid;
2. does not include:
 - a. costs of operation and maintenance of public facilities;
 - b. cost of qualifying public facilities that will raise the level of service for the facilities, through impact fees, above the level of service that is supported by existing residents;
 - c. an expense for overhead, unless the expense is calculated pursuant to a methodology that is consistent with generally accepted cost accounting practices and the methodological standards set forth by the federal Office of Management and Budget for federal grant reimbursement;
3. offset costs with grants or other alternate sources of payment; and
4. complies in each and every relevant respect with the Impact Fees Act.

Zions Public Finance, Inc. makes this certification with the following caveats:

1. All of the recommendations for implementations of the Impact Fee Facilities Plan (IFFP) made in the IFFP or in the impact fee analysis are followed in their entirety by District staff and Board in accordance to the specific policies established for the Service Areas.
2. If all or a portion of the IFFP or impact fee analysis are modified or amended, this certification is no longer valid.
3. All information provided to Zions Public Finance, Inc., its contractors or suppliers is assumed to be correct, complete and accurate. This includes information provided by North Village Special Service District and outside sources. Copies of letters requesting data are included as appendices to the IFFP and the impact fee analysis.

Dated: June 11, 2018

ZIONS PUBLIC FINANCE, INC.

APPENDIX

Figure ES.1: Maximum Impact Fee Schedule per ERU

| COMPONENT | BONDED USERS | | UNBONDED USERS | |
|---------------------------------|--------------|--------------|----------------|--------------|
| Production Facilities | \$ | 3,907 | \$ | 3,907 |
| Storage/Transmission Facilities | | 910 | | 2,529 |
| Credits | | (730) | | (730) |
| Professional Expenses | | 80 | | 80 |
| Cost per ERU | \$ | 4,167 | \$ | 5,786 |

Figure 3.1: Cost per ERU for Water Treatment/Production

| Supply | 2016 Cost | FV Cost | % to Source | Source Cost | Supply Capacity | Cost per ERU |
|---------------------------|--------------|--------------|-------------|--------------|-----------------|--------------|
| New Water Treatment Plant | \$ 4,340,660 | \$ 4,340,660 | 100% | \$ 4,340,660 | 1,111 | \$ 3,907 |

Figure 3.2: Future Capital Project Costs

| Project Name | Year to be Constructed | 2016 Cost | Construction Cost with Inflation |
|---|------------------------|---------------------|----------------------------------|
| Production System | | | |
| New WTP SP-11 2 MGD | 2025 | 4,340,660 | 4,340,660 |
| Production System Subtotal | | \$ 4,340,660 | \$ 4,340,660 |
| Storage/Transmission Facilities | | | |
| HWY 32 Tank | 2015 | \$ 1,142,126 | \$ 1,142,126 |
| System Loop Transmission Pipeline | 2023 | 1,730,000 | 2,331,444 |
| Storage/Transmission Subtotal | | \$ 2,872,126 | \$ 3,473,570 |
| Miscellaneous | | | |
| Impact Fee Facility Plan and Impact Fee Analysis Update | 2017 | \$ 40,000 | \$ 40,000 |
| Miscellaneous Total | | \$ 40,000 | \$ 40,000 |
| Ten Year Culinary Water | | \$ 7,252,786 | \$ 7,854,230 |

Figure 4.1: Water Impact Fee Calculation Service Areas A, B North, B South Unbonded

| BONDED USERS | Total Cost to Component | % that will Serve Ten Year Demand | Dollar Amount that will Serve Ten Year Demand | Impact Fee Cost | ERUs to be Served | Cost per ERU |
|--|-------------------------|-----------------------------------|---|---------------------|-------------------|--------------------|
| Production Facilities | | | | | | |
| Future 10 Year Capital Projects | \$ 4,340,660 | 23.13% | \$ 1,003,995 | \$ 1,003,995 | 257 | \$ 3,906.60 |
| Future Production Related Bonds | - | 0.00% | - | - | 257 | - |
| Existing Production Projects | - | 0.00% | - | - | 257 | - |
| Existing Production Related Debt - OUTSTANDING (Includes Interest) | - | 0.00% | - | - | 257 | - |
| Credit for Existing Users' and Non-Qualifying Capital Expense | | | | | | (456) |
| Subtotal | \$ 4,340,660 | | \$ 1,003,995 | \$ 1,003,995 | | \$ 3,450.33 |
| Storage/Transmission Facilities | | | | | | |
| Future 10 Year Capital Projects | \$ 3,473,570 | 11.42% | \$ 396,623 | \$ 396,623 | 436 | \$ 910 |
| Future Transmission Related Debt to be Issued | - | 0.00% | - | - | 436 | - |
| Existing Transmission Projects | - | 0.00% | - | - | 436 | - |
| Existing Transmission Related Debt - OUTSTANDING (Includes Interest) | - | 0.00% | - | - | 436 | - |
| Credit for Existing Users' and Non-Qualifying Capital Expense | | | | | | (274) |
| Subtotal | \$ 3,473,570 | | \$ 396,623 | \$ 396,623 | | \$ 636 |
| Miscellaneous | | | | | | |
| IFFP and Impact Fee Analysis Update | \$ 40,000 | 50% | \$ 34,880 | \$ 34,880 | 436 | \$ 80 |
| Unspent Impact Fee Funds | - | 0.00% | - | - | 436 | - |
| Subtotal | \$ 40,000 | | \$ 34,880 | \$ 34,880 | | \$ 80.00 |
| Total Impact Fee Per ERU | \$ 7,854,230 | | \$ 1,435,498 | \$ 1,435,498 | | \$ 4,166.40 |

Figure 4.2: Water Impact Fee Calculation Service Area C Unbonded

| UNBONDED USERS | Total Cost to Component | % that will Serve Ten Year Demand | Dollar Amount that will Serve Ten Year Demand | Impact Fee Cost | ERUs to be Served | Cost per ERU |
|--|-------------------------|-----------------------------------|---|---------------------|-------------------|--------------------|
| Production Facilities | | | | | | |
| Future 10 Year Capital Projects | \$ 4,340,660 | 23.13% | \$ 1,003,995 | \$ 1,003,995 | 257 | \$ 3,906.60 |
| Future Production Related Bonds | - | 0.00% | - | - | 257 | - |
| Existing Production Projects | - | 0.00% | - | - | 257 | - |
| Existing Production Related Debt - OUTSTANDING (Includes Interest) | - | 0.00% | - | - | 257 | - |
| Credit for Existing Users' and Non-Qualifying Capital Expense | | | | | | (456) |
| Subtotal | \$ 4,340,660 | | \$ 1,003,995 | \$ 1,003,995 | | \$ 3,450.33 |
| Storage/Transmission Facilities | | | | | | |
| Future 10 Year Capital Projects | \$ 3,473,570 | 4.66% | \$ 161,830 | \$ 161,830 | 64 | \$ 2,528.59 |
| Future Transmission Related Debt to be Issued | - | 0.00% | - | - | 64 | - |
| Existing Transmission Projects | - | 0.00% | - | - | 64 | - |
| Existing Transmission Related Debt - OUTSTANDING (Includes Interest) | - | 0.00% | - | - | 64 | - |
| Credit for Existing Users' and Non-Qualifying Capital Expense | | | | | | (274) |
| Subtotal | \$ 3,473,570 | | \$ 161,830 | \$ 161,830 | | \$ 2,254.98 |
| Miscellaneous | | | | | | |
| Unspent Impact Fee Funds | \$ - | 0.00% | \$ - | \$ - | 64 | \$ - |
| IFFP and Impact Fee Analysis Update | 40,000 | 13% | 5,120 | 5,120 | 64 | 80 |
| Subtotal | \$ 40,000 | | \$ 5,120 | \$ 5,120 | | \$ 80.00 |
| Total Impact Fee Per ERU | \$ 7,854,230 | | \$ 1,170,945 | \$ 1,170,945 | | \$ 5,785.30 |

Figure 4.3: Impact Fee per ERU

| COMPONENT | BONDED USERS | UNBONDED USERS |
|---------------------------------|-----------------|-----------------|
| Production Facilities | \$ 3,907 | \$ 3,907 |
| Storage/Transmission Facilities | 910 | 2,529 |
| Credits | (730) | (730) |
| Professional Expenses | 80 | 80 |
| Cost per ERU | \$ 4,167 | \$ 5,786 |



TECHNICAL MEMORANDUM

TO: Ron Phillips
North Village Special Service District

COPIES: File

FROM: Keith Larson, P.E. and Justin Dietrich E.I.T.
Bowen Collins & Associates
154 East 14000 South
Draper, UT 84020

DATE: June 11, 2018

SUBJECT: July 2018 Water Impact Fee Facilities Plan Amendment

INTRODUCTION

In order to prepare for future growth and provide water and sewer service to its residents, North Village Special Service District (NVSSD) retained Bowen Collins & Associates (BC&A) to prepare Impact Fee Facilities Plans for its water and sewer systems. The Water Impact Fee Facilities Plan (IFFP) was completed in June 2015. By March of 2017, several changes were observed in predicted development patterns that required additional projects to be constructed within the 10-year planning window. Therefore, BC&A assisted the District at that time in amending the District's water impact fees by creating an amendment to the District's IFFP.

Since the time of the 2017 amendment's adoption, one of the District's sources has sold out, and the District learned that another source would not be available. Additionally, more detailed engineering lowered the projected cost of the next available water source. The purpose of this memorandum is to document these circumstances and amend the IFFP again accordingly.

CHANGES SINCE ADOPTION OF MOST RECENT IMPACT FEE AMENDMENT

Since the completion of the most recent impact fee amendment (March 2017), growth in the District and in the neighboring Jordanelle Special service District (which shares the same sources as NVSSD) has continued, additional analysis has been conducted, and additional information has become known. This has led to a change in the outlook for source capacity within the District. The following three sections describe the process by which this change has come about.

Source Block 1 (Keetley WTP Expansion)

Since the completion of the most recent impact fee amendment (March 2017), new unbonded development has continued to purchase capacity in the Keetley Water Treatment Plant (WTP), which was identified in the last amendment as Source Block 1. Since that time, the District has either sold, or is under commitment to sell, all the capacity previously available. Therefore, the previously available capacity in the Keetley WTP is now exhausted.

Source Block 2 (Utilize Victory Ranch Wells-Phase 1)

Preliminary analysis at the time of the last IFFP amendment identified excess capacity in the Victory Ranch wells as its next potential source. Almost immediately, more detailed investigation of the identified projects was begun and it revealed some difficulties in being able to complete these projects in a timely manner. The most significant of these is the apparent difficulty in being able to obtain an easement for Project SP-8 across privately owned land. After this became clear, the District investigated the possibility of conveying Project SP-8 across some adjacent public lands (wildlife refuge) and found this to likely be feasible. However, because of the nature of the lands, the permitting process will be quite time consuming. Both of these difficulties have the end result of significantly increasing the estimated cost and the required time of completion for Source Block 2.

Source Block 3 (New Water Treatment Plant)

As the difficulty in executing Source Block 2 improvements became clear, the District also began investigating in more detail the feasibility of constructing a new treatment plant below Jordanelle Reservoir (which was identified as Source Block 3 in the most recent impact fee amendment). This research revealed several previously unknown benefits of pursuing Source Block 3. These are as follows:

- New, updated cost estimates by Jackson Engineering showed an expected cost of constructing a new WTP below the preliminary planning estimates. The newest cost estimate is a total constructed cost of \$4,340,660 for a 2.0 MGD plant.
- The plant would have easy access to some District-owned water rights in Jordanelle Reservoir.
- There is a planned sewer improvement project for this year that will utilize the same alignment needed for a water transmission line to a new WTP. Installing both projects simultaneously is expected to save some costs. Furthermore, the alignment in question is across federal lands, which means that significant permitting time will be saved if the water transmission line is permitted simultaneously with the sewer line.

RECOMMENDED ACTIONS

Because of the changes outlined above, the District will now begin fully pursuing the New Treatment Plant as the District's next source. To do so, the following actions should be taken with regard to the administration and assessment of impact fees:

1. Recognize that no additional capacity can be sold in the Keetley Treatment Plant Expansion Project (Source Block 1).
2. Remove the Victory Ranch Wells Utilization Projects Phase 1 (Source Block 2) from the list of active upcoming source projects and do not sell capacity in those projects.
 - a. Note: This does not necessarily mean that these projects will not be a viable source for the District to pursue in the future, but it does mean that it should no longer be included in the District's current impact fee schedule as an upcoming source.
3. Identify the New Water Treatment Plant Project (Source Block 3) as the next District source and the only source available to purchase capacity in.
4. Amend the Source Block 3 water treatment/production cost component of the impact fee in accordance with the latest project cost estimate and project concept. The updated treatment/production cost component calculations are shown below in Table 1.

- a. Note: The execution of these actions will require an amendment to the District's IFFP (which is the purpose of this memo) and an amendment to the District's Impact Fee Analysis (IFA).

It should be noted that because Source Block 1 will no longer be sold and Source Block 2 will not yet be available for sale, the only remaining source is Source Block 3. Thus, the District can henceforth drop the "source block" designation from the impact fee.

**Table 1
Cost Per ERU by Water Treatment/Production**

| Source | Cost | Capacity [ERUs] | Cost Per ERU |
|---------------------------------|-------------|-----------------|--------------|
| New 2 MGD Water Treatment Plant | \$4,340,660 | 1,111 | \$3,906.98 |

- a. Note: This represents only the treatment/production portion of the water impact fee. The total impact fee also includes a component for transmission and storage.

IFFP AMENDMENTS

Based on the changes discussed above, this document hereby amends the September 2015 Water Impact Fee Facilities Plan (IFFP) as amended in March 2017 as follows:

1. Amend the description of the Keetley WTP Expansion project in the bulleted list on page 6-4 of the IFFP (page 6 of the March 2017 IFFP amendment) as follows:
 - ~~SP-2: Keetley WTP Expansion – Future Developments that have not participated in one of the treatment/production bonds **have until recently been able to** will need to contribute to the expansion of the Keetley WTP. However, all remaining capacity in this project has either been sold or is committed to be sold, so is no longer available.~~ The total cost for the Keetley WTP expansion will be \$3,034,000 and is all attributable to future unbonded developments. The increase of capacity of the Keetley WTP will be 3.6 MGD which will be able to serve an additional 2,000 ERUs. ~~These ERUs are nearly sold out, but the next 257 of them are still available.~~
2. Amend the description of the Victory Ranch Wells Utilization Projects in the bulleted list on page 6-4 of the IFFP (page 6 of the March 2017 IFFP amendment) as follows:
 - ~~SP-8, SP-9, SP-10: Phase 1 of the Victory Ranch Wells Utilization Projects – As of the time of this amendment to the IFFP, there are 257 ERUs remaining to be sold in the Keetley WTP Expansion. After these units are sold, new unbonded users will acquire Treatment/Production capacity by paying the new impact fees associated with the following three projects. The anticipated total cost of these projects is \$3,987,740 and these projects will provide capacity for 1,121 ERUs. While these projects are promising, the extended permitting process required will add critical time to the project (as well as additional potential costs) and therefore have not been considered as the next available option for source capacity.~~
3. Amend the description of the new water treatment plant project SP-11 on page 6-4 of the IFFP (page 8 of the March 2017 IFFP amendment) as follows:
 - ~~SP-11: New Water Treatment Plant – A new treatment plant could serve additional JSSD and NVSSD demands after capacity in both the Keetley WTP Expansion and Phase 1 of the Victory Ranch Well Utilization Projects is exhausted. It is currently contemplated to construct the new plant downstream of Jordanelle Reservoir and eventually build it to be approximately the same size as the existing Keetley WTP~~

(8 MGD). This project is attributable only to unbonded users. The anticipated cost of this project is \$19,320,000 and will provide capacity for 4,444 ERUs. **SP-11 will consist of the first phase of construction of the plant (it will be expandable by other future phases). The first phase will be a 2 MGD plant and have capacity for 1,111 ERUs. The expected cost of this first phase is \$4,340,660.**

This amendment does not propose any changes to level of service, the planning period, overall system growth projections, or general study methodology. As a result, all other components of the IFFP are unchanged.

CERTIFICATION

This Amendment has been prepared in accordance with Utah Code Title 11 Chapter 36a (the "Impact Fees Act"), which prescribes the laws pertaining to Utah municipal impact fee facilities plans and impact fee analyses. The accuracy of this Amendment relies upon planning and other source data, which was provided by the District and its designees.

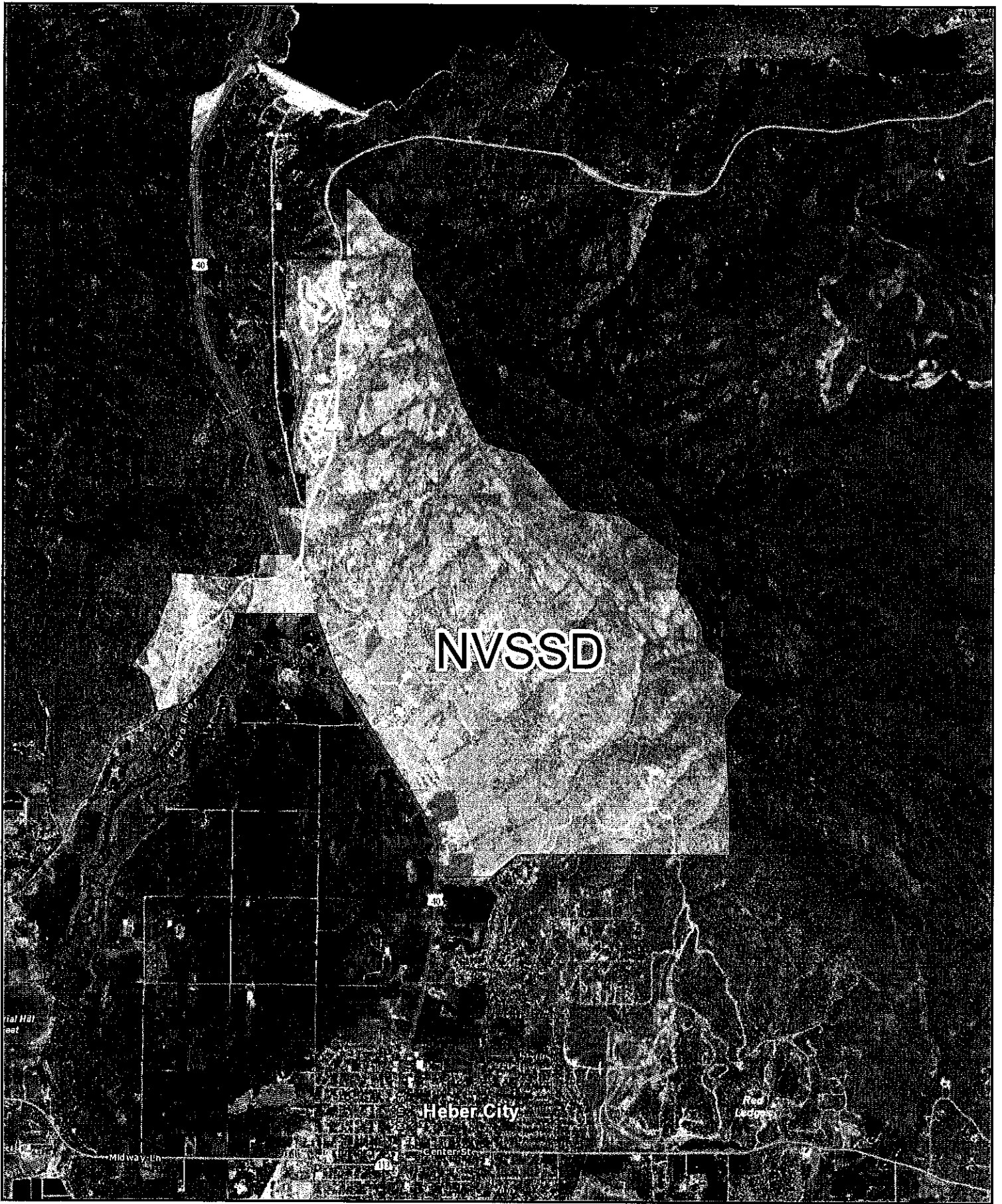
In accordance with Utah Code Annotated, 11-36a-306(1), Bowen Collins & Associates makes the following certification:

I certify that the attached impact fee facilities plan:

1. Includes only the costs of public facilities that are:
 - a. allowed under the Impact Fees Act; and
 - b. actually incurred; or
 - c. projected to be incurred or encumbered within six years after the day on which each impact fee is paid;
4. Does not include:
 - a. costs of operation and maintenance of public facilities;
 - b. cost for qualifying public facilities that will raise the level of service for the facilities, through impact fees, above the level of service that is supported by existing residents; or
 - c. an expense for overhead, unless the expense is calculated pursuant to a methodology that is consistent with generally accepted cost accounting practices and the methodological standards set forth by the federal Office of Management and Budget for federal grant reimbursement; and
5. Complies in each and every relevant respect with the Impact Fees Act.




Keith J. Larson, P.E.




**Bowen Collins
& Associates, Inc.**
 CONSULTING ENGINEERS

**NVSSD SERVICE
BOUNDARY**
North Village Special Service District
IMPACT FEE AMENDMENT

NORTH:




SCALE:
 0 2,000 4,000
 Feet

FIGURE NO.
1