

North Village Special Service District Secondary Water Impact Facilities Analysis

DRAFT

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EXECUTIVE SUMMARY SECONDARY IMPACT FEE ANALYSIS

Introduction

An impact fee is a one-time fee, not a tax, imposed upon new development activity as a condition of development approval to mitigate the impact of the new development on public infrastructure. The purpose of the impact fee analysis (IFA) is to calculate the allowable impact fee that may be assessed to new development in accordance with Utah Code.

Why Assess an Impact Fee?

Until new development utilizes the full capacity of existing facilities, the City can assess an impact fee to recover its cost of latent capacity available to serve future development. The general impact fee methodology divides the available capacity of existing and future capital projects between existing and future users. Capacity is measured in terms of Irrigated Acres, or IA's, which represents the demand that development places on the system.

How Are Impact Fees Calculated?

A fair impact fee is calculated by dividing the cost of existing and future facilities by the amount of new growth that will benefit from the unused capacity. Only the capacity that is needed to serve the projected growth within in the next ten years is included in the fee. Costs used in the calculation of impact fees include:

- New facilities required to maintain (but not exceed) the proposed level of service identified in the Impact Fee Facilities Plan; only those expected to be built within ten years are considered in the final calculations of the impact fee.
- Historic costs of existing facilities that will serve new development
- Cost of professional services for engineering, planning, and preparation of the Impact Fee Facilities Plan and Impact Fee Analysis

Costs not used in the impact fee calculation:

- Operational and maintenance costs
- Cost of facilities constructed beyond 10 years
- Cost associated with capacity not expected to be used within 10 years
- Cost of facilities funded by grants, developer contributions, or other funds which the City is not required to repay
- Cost of renovating or reconstructing facilities which do not provide new capacity or needed enhancement of services to serve future development

Impact Fee Calculation

Impact fees for this analysis were calculated by dividing the proportional cost of facilities required to service 10-year growth by the amount of growth expected over the next 10-years based on irrigated acres. Calculated impact fees by component are summarized in Table ES-1.

Table ES-1
Impact Fee Calculation per Irrigated Acre

System Components	Total Cost of Component	% Serving 10-Year Growth	Cost Serving 10-Year Growth	10-Year Irrigated Acres Served	Cost per Irrigated Acre
Storage Improvement Projects					
Existing Facilities	--	--	--	150	--
10-year Projects	\$7,003,000	50.2%	\$3,518,247	150	\$23,405
Credit for User Fees Paid Toward Existing	--	--	--		-\$2,422
<i>Subtotal</i>					\$20,983
Transmission System Improvements					
Existing Facilities	\$2,380,715	38.8%	\$924,374	150	\$6,149
10-year Projects	\$3,965,613	52.3%	\$2,075,490	150	\$13,807
Credit for User Fees Paid Toward Existing	--	--	--		-\$2,065.31
<i>Subtotal</i>					\$17,891
Source Improvements					
Existing Facilities	\$32,700	39.5%	\$12,903	150	\$86
10-year Projects	\$3,042,000	45.6%	\$1,386,663	150	\$9,225
Credit for User Fees Paid Toward Existing	--	--	--		-\$964
<i>Subtotal</i>					\$8,347
Building & Administrative					
Existing Facilities	\$85,596	12.0%	\$10,308	150	\$69
10-year Projects	\$181,800	12.0%	\$21,894	150	\$146
Credit for User Fees Paid Toward Existing	--	--	--		-\$22
<i>Subtotal</i>					\$192
Projects Subtotal	\$7,003,000		\$3,518,247		\$47,413
2029 Capital Facilities Plan	\$35,000	45.6%	\$15,959	150	\$106
2029 Impact Fee Facilities Plan	\$10,000	100.0%	\$10,000	150	\$67
2029 Impact Fee Analysis	\$10,000	100.0%	\$10,000	150	\$67
Subtotal	\$55,000		\$35,959		\$239
Total	\$7,058,000		\$3,554,206		\$47,652

Per Table ES-1, the calculated impact fee for secondary in NVSSD is \$47,652/Irrigated Acre. This is the legal maximum amount that may be charged as an impact fee. A lower amount may be adopted if desired, but a higher fee is not allowable under the requirements of Utah Code.

IMPACT FEE ANALYSIS

INTRODUCTION

North Village Special Service District (District or NVSSD) has retained Bowen Collins & Associates (BC&A) to prepare an impact fee analysis (IFA) for its secondary water system based on a recently completed impact fee facilities plan. An impact fee is a one-time fee, not a tax, imposed upon new development activity as a condition of development approval to mitigate the impact of the new development on public infrastructure. The purpose of an IFA is to calculate the allowable impact fee that may be assessed to new development in accordance with Utah Code.

Service Areas

For the purpose of impact fee calculations, the District system will be treated as a single service area.

Requirements

Requirements for the preparation of an IFA are outlined in Title 11, Chapter 36a of the Utah Code (the Impact Fees Act). Under these requirements, an IFA shall accomplish the following for each facility:

1. Identify the impact of anticipated development activity on existing capacity
2. Identify the impact of anticipated development activity on system improvements required to maintain the established level of service
3. Demonstrate how the impacts are reasonably related to anticipated development activity
4. Estimate the proportionate share of:
 - a. Costs of existing capacity that will be recouped
 - b. Costs of impacts on system improvements that are reasonably related to the new development activity
5. Identify how the impact fee was calculated
6. Consider the following additional issues
 - a. Manner of financing improvements
 - b. Dedication of system improvements
 - c. Extraordinary costs in servicing newly developed properties
 - d. Time-price differential

The following sections of this report have been organized to address each of these requirements.

IMPACT ON SYSTEM - 11-36a-304(1)(a)(b)

Growth within the District's service area and projections of secondary water demands resulting from said growth is discussed in detail in the District's Impact Fee Facilities Plan. For the purposes of impact fee calculation, growth in the system has been expressed in terms of secondary irrigated acres (IAs). An IA represents the demand that a typical single-family residence places on the system. Growth in IAs projected for the service area is summarized in Table 1.

Table 1
Projected North Village Special Service District
Secondary Water System Growth

Year	Total Secondary Irrigated Acres	Annual Demand (ac-ft)	Average Day (gpm)	Peak Day (gpm)
2022	8.9	26.6	16.5	66.0
2023	10.9	32.8	20.3	81.2
2024	50.9	152.6	94.6	378.5
2025	60.9	182.8	113.3	453.3
2026	72.4	217.3	134.7	538.9
2027	85.4	256.3	158.9	635.5
2028	99.8	299.4	185.6	742.5
2029	115.4	346.3	214.7	858.7
2030	132.0	396.1	245.6	982.3
2031	149.3	447.9	277.7	1,110.8
2032	166.9	500.6	310.3	1,241.4
2033	184.3	552.9	342.8	1,371.0
2034	201.2	603.6	374.2	1,496.9

As indicated in the table, projected growth for the 10-year planning window of this impact fee analysis is 150.3 irrigated acres. To maintain the established level of service, projected future growth will be met through a combination of available excess capacity in existing facilities and construction of additional capacity in new facilities. Use of excess capacity and required system improvements are detailed in the Impact Fee Facilities Plan.

RELATION OF IMPACTS TO ANTICIPATED DEVELOPMENT - 11-36a-304(1)(c)

To satisfy the requirements of state law, it is necessary to show that all impacts identified in the impact fee analysis are reasonably related to the anticipated development activity. This has been documented in detail in the Impact Fee Facilities Plan. In short, only that capacity directly associated with demand placed upon existing system facilities by future development has been identified as an impact of the development. The steps completed to identify the impacts of anticipated development are as follows.

1. **Existing Demand** – The demand existing development places on the system was estimated based on historic demand records.
2. **Existing Capacity** – The capacities of existing facilities were calculated based on the level of service criteria established for each type of facility in the Impact Fee Facilities Plan.
3. **Existing Deficiencies** – Existing deficiencies in the system were looked for by comparing defined levels of service against calculated capacities. If existing deficiencies exist, projects were identified to eliminate the deficiencies. Costs associated with existing deficiencies were not assigned to impacts of development.
4. **Future Demand** - The demand future development will place on the system was estimated based on development projections as discussed in the Impact Fee Facilities Plan.

5. **Future Demand Use of Existing Capacity** – Whenever possible, excess capacity in existing facilities has been used to serve future demands. Where this occurs, the amount of capacity used by future growth has been calculated as described in detail in the Impact Fee Facilities Plan.
6. **Future Deficiencies** – Where excess capacity is inadequate to meet projected demands, future deficiencies in the system were identified using the same established level of service criteria used for existing demands.
7. **Recommended Improvements** – Needed system improvements were identified to meet demands associated with future development.

PROPORTIONATE SHARE ANALYSIS - 11-36a-304(d)

A comprehensive proportionate share analysis associated with anticipated future development and its impact on the system was completed as part of the Impact Fee Facilities Plan. A summary of that analysis is contained here with additional discussion of the costs of facilities impacted by growth.

Excess Capacity to Accommodate Future Growth

The District secondary system has several existing assets with excess capacity with costs that are eligible for recovery under impact fees. These existing assets and costs are summarized in Table 2.

Table 2
NVSSD Secondary System Existing Assets

Project ID	Project Name	Estimated System Level Cost	Percent to Existing	Percent to 10-yr	Percent to Beyond 10-yr
Storage Assets					
--	--	--	--	--	--
Transmission Assets					
*Exst. B-1	Pressure Zone 1 South Booster	\$1,700,000	10.86%	39.46%	49.68%
**Exst. P-1a	Pressure Zone 1 South Transmisson	\$392,474	10.86%	39.46%	49.68%
**Exst. P-4a	Pressure Zone 1 Distribution South Connection	\$97,815	10.33%	34.25%	55.42%
**Exst. P-4b	Pressure Zone 1 Distribution South Connection	\$26,142	10.33%	34.25%	55.42%
**Exst. P-5a	Pressure Zone 2 Distribution	\$164,285	10.33%	34.25%	55.42%
Source Assets					
***Exst. O-1	New Coyote Lane Diversion	\$32,700	10.86%	39.46%	49.68%
Building & Administrative Assets					
Exist. -1	Administration Building	\$85,596	0.00%	12.04%	87.96%
Total or Average		\$2,498,912	10.70%	37.89%	51.42%

*Booster station is anticipated to be commissioned within a month or two of this IFPP. Exact final cost is not yet known.

** Received system level costs from developers.

***Accounting has not yet completed final costs for this project. This is an estimated cost from the secondary master plan.

Future Improvements

In addition to using available existing capacity, demand associated with projected future development will be met through the construction of additional capacity in new facilities. A primary focus of the Impact Fee Facilities Plan was the identification of projects required to serve new development. The results of the Impact Fee Facilities Plan are summarized in Table 3. Included in the table are the costs of each required project and the portion of costs associated with development in the planning window.

Table 3
Impact Fee Eligible Capital Projects

Project ID	Project Name	Estimated System Level Cost	Percent to Existing	Percent to 10-yr	Percent to Beyond10-yr
Storage Improvements					
S-2	Pressure Zone 2 South Tank	\$3,100,000	10.86%	39.46%	49.68%
S-4	Pressure Zone 1 North Tank	\$3,903,000	0.00%	58.80%	41.20%
Transmission System Improvements					
B-4	Pressure Zone 1 North Booster Upgrade	\$982,000	23.03%	55.28%	21.69%
*P-1b	Pressure Zone 1 South Transmission	\$365,003	10.86%	39.46%	49.68%
P-2	Coyote Lane Zone 0 Distribution	\$296,000	15.80%	52.24%	31.96%
P-3	Wasatch Canal Distribution	\$252,000	15.80%	52.24%	31.96%
*P-4c	Pressure Zone 1 Distribution South Connection	\$69,610	10.33%	34.25%	55.42%
P-9	Pressure Zone 1 North Transmission	\$511,000	23.03%	55.28%	21.69%
P-13	Pressure Zone 0 Transmission Upsize	\$241,000	36.86%	63.14%	0.00%
P-14	Pressure Zone 1 Distribution North	\$31,000	0.00%	58.80%	41.20%
P-15	Pressure Zone 2 North Transmission	\$1,218,000	48.54%	51.37%	0.09%
Source Improvements					
O-2	New NVSSD Secondary Well	\$3,042,000	15.44%	45.58%	38.98%
Building & Administrative					
Admin-1	Shop Building	\$181,800	0.00%	12.04%	87.96%
Total or Average		\$14,192,413	13.94%	49.33%	36.74%

All cost estimates contained in this IFA have been taken directly from the IFFP. The basis of these estimates is documented in the IFFP.

IMPACT FEE CALCULATION - 11-36a-304(1)(e)

Using the information contained in the previous sections, impact fees can be calculated by dividing the proportional cost of facilities required to service 10-year growth by the amount of growth expected over the next 10-years. Calculated impact fees by component are summarized in Table 4.

Table 4
Impact Fee Calculation per Irrigated Acre

System Components	Total Cost of Component	% Serving 10-Year Growth	Cost Serving 10-Year Growth	10-Year Irrigated Acres Served	Cost per Irrigated Acre
Storage Improvement Projects					
Existing Facilities	--	--	--	150	--
10-year Projects	\$7,003,000	50.2%	\$3,518,247	150	\$23,405
Credit for User Fees Paid Toward Existing	--	--	--		-\$2,422
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Subtotal	\$55,000		\$35,959		\$239
Total	\$7,058,000		\$3,554,206		\$47,652

Planning and Engineering Costs

Utah Code allows for the cost of planning and engineering associated with impact fee calculations to be recovered as part of an impact fee. The cost of applicable studies completed by the District directly associated with planning for future growth have been included in Table 4. Only the actual costs, incurred by the District, related to planning and engineering for new growth have been included in this document. No future costs or projections have been added.

Included in the table is the calculated portion of the studies dedicated to planning for future growth (based on hours spent) and the number of irrigated acres served during the expected useful life of the planning documents (five years).

Credit for User Fees

In some cases, an impact fee facility plan may include some portion of bonding being used for projects that have at least a portion of their costs that benefit existing users. For projects where this is the case, future users will pay for their portion of capacity via impact fees. They cannot also be expected to pay through user rates the portion of future bonds that will be used to build capacity or remedy deficiencies for existing users. This often creates the need for a credit for future users.

NVSSD will be utilizing approximately \$803,400 in cash reserves and \$199,000 from secondary impact fee reserves to fund a portion of the infrastructure identified in the IFFP. The existing user proportional share of the projects being funded by the planned bond is \$1,977,977. With existing deficiencies being funded through user rates a credit for future users has been calculated in Tables 4.

Recommended Impact Fee

Per Table 4, the calculated impact fee for secondary water in North Village Special Service District is \$47,652 per irrigated acre¹. This is the legal maximum amount that may be charged as an impact fee. A lower amount may be adopted if desired, but a higher fee is not allowable under the requirements of Utah Code. This is separate from any additional charges levied by the District for hookup costs or for other reasonable permit and application fees.

ADDITIONAL CONSIDERATIONS - 11-36a-304(2)

MANNER OF FINANCING - 11-36a-304(2)(a-e)

As part of this Impact Fee Analysis, it is important to consider how each facility has been or will be paid for. Potential infrastructure funding includes a combination of different revenue sources.

User Charges

Because infrastructure must generally be built ahead of growth, there often arises situations in which projects must be funded ahead of expected impact fee revenues. In some cases, the solution to this issue will be bonding. In others, funds from existing user rate revenue will be loaned to the impact fee fund to complete initial construction of the project and will be reimbursed later as impact fees

¹ Note, the impact fee is expressed colloquially in terms of irrigated acre, but the accurate definition is planned irrigable acre. The impact fee will be charged in accordance with planned irrigable area associated with, and approved for, development; it is not limited to what is actually irrigated at any point in time.

are received. Interfund loans should be considered in subsequent accounting of impact fee expenditures.

Bonds

None of the costs contained in the IFFP included bonding. Where District financial plans identify bonding will be required to finance impact fee eligible improvements, the portion of bond cost and interest expense attributable to future growth has been added to the calculation of the impact fee.

General Taxes

If taxes are used to pay for infrastructure, they should be accounted for in the impact fee calculation. Specifically, any contribution made by property owners through taxes should be credited toward their available capacity in the system. In this case, no taxes are proposed for the construction of infrastructure.

Federal and State Grants and Donations

Impact fees cannot reimburse costs funded or expected to be funded through federal grants and other funds that the District has received for capital improvements without an obligation to repay. Grants and donations are not currently contemplated in this analysis. If grants become available for constructing facilities, impact fees will need to be recalculated and an appropriate credit given. Any existing infrastructure funded through past grants has been removed from the system cost.

Planned Improvement District (PID) Dedications

Credit must be incorporated to the impact fee when costs are funded by PID bond proceeds. PID funding is currently not planned or incorporated in this analysis. If PID funding becomes available for constructing facilities, impact fees will need to be recalculated and appropriate credit given.

DEDICATION OF SYSTEM IMPROVEMENTS - 11-36a-304(2)(f)

Developer exactions are not the same as grants. As identified in the IFFP, if a developer constructs a system improvement or dedicates land for a system improvement identified in this IFFP or dedicates a public facility that is recognized to reduce the need for a system improvement, the developer may be entitled to an appropriate credit against that particular developer's impact fee liability or a proportionate reimbursement.

If the value of the credit is less than the development's impact fee liability, the developer will owe the balance of the liability to the District. If the recognized value of the improvements/land dedicated is more than the development's impact fee liability, the District may be required to reimburse the difference to the developer.

It should be emphasized that the concept of impact fee credits pertains to system level improvements only. Developers will be responsible for the construction of project improvements (i.e. improvements not identified in the impact fee facilities plan) without credit against the impact fee.

EXTRAORDINARY COSTS - 11-36a-304(2)(g)

The Impact Fees Act indicates the analysis should include consideration of any extraordinary costs of servicing newly developed properties. In cases where one area of potential growth may cost significantly more to service than other growth, a separate service area may be warranted. No areas with extraordinary costs have been identified as part of this analysis.

TIME-PRICE DIFFERENTIAL - 11-36a-304(2)(h)

Utah Code allows consideration of time-price differential in order to create fairness for amounts paid at different times. To address time-price differential, this analysis includes a conversion to present value cost for future expenditures. In the case of future construction costs, it has been assumed that the return rate on investment will be roughly equivalent to construction inflation and current construction estimates have been used in the calculation of impact fees. Per the requirements of the Code, existing infrastructure cost, if any, is based on actual historical costs without adjustment.

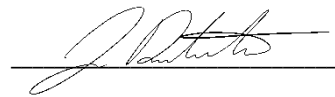
IMPACT FEE CERTIFICATION - 11-36a-306(2)

This IFA has been prepared in accordance with Utah Code Title 11, Chapter 36a (the "Impact Fees Act"), which prescribes the laws pertaining to the imposition of impact fees in Utah. The accuracy of this IFFP relies in part upon planning, engineering, and other source data, provided by the City and its designees.

In accordance with Utah Code Annotated, 11-36a-306(2), Bowen Collins & Associates, makes the following certification:

I certify that the attached impact fee analysis:

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;
2. Does not include:
 - a. costs of operation and maintenance of public facilities;
 - b. costs 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; 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
3. Complies in each and every relevant respect with the Impact Fees Act.



Justin Dietrich, P.E.