

Agenda Item 8A

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STAFF REPORT

TO: Board of Directors

PREPARED BY: Steven Palmer, PE, CSDM, General Manager *SP*

SUBJECT: Staff Update and Board Discussion Regarding Alternative Procedures for Calculating Wastewater Utilization

RECOMMENDATION

Staff recommends that the Board of Directors receive the update from staff, discuss, and potentially provide direction on next steps.

BACKGROUND

At the June 16, 2026 Board meeting, the General Manager presented a list of suggestions raised by customers regarding the calculation of rates and asked the Board for direction on analyzing those suggestions. Of those suggested items, the Board directed that the General Manager first review alternative procedures for calculating wastewater utilization (e.g., equivalent dwelling unit (EDU) calculations) and evaluate the potential impact on rates. This report summarizes the work performed to date.

DISCUSSION

The first step in this process is to research how other agencies calculate wastewater utilization and compare them to how the District performs those calculations. To start with, a summary of the District's methodology as described in Ordinance 94-5 is provided below:

7.2(A)(5). The wastewater generation rate for one EDU is based on a peak occupancy flow of 420 gallons per day and a weighted average occupancy flow of 342 gallons per day.

7.2(A)(6). A single family residence, defined as one household and one kitchen, is rated as one EDU without regard to the size of the household as long as it is designed for living by only one family.

7.2(A)(7). A commercial building on its own assessor's parcel has a minimum rating of one EDU.

7.2(A)(8). Lodges, bed and breakfast inns, motel units with kitchens or any other similar building or unit rented for overnight sleeping with one or more meals served or kitchen privileges available shall be rated at 1/6 EDU per single bed, 1/4 EDU per double or larger bed, or 1/3 EDU per bedroom, whichever is greater. Owner, permanent resident, manager or caretaker quarters shall be rated on the same basis. Sleeping areas such as lofts or finished attics or basements that are used for guest sleeping shall be considered as one bedroom (1/3 EDU) or rated according to the number of beds in the sleeping area, whichever is greater. Dormitory-style lodges that do not provide linen service nor have laundry facilities available to guests are rated at 70% of the respective EDU rating based on bed count.

7.2(A)(9). Hotel or motel rooms without kitchens and which do not provide any meals as part of the rental or room rate and which do not have kitchen privileges shall be rated at 1/6 EDU per bed of any size, or 1/4 EDU per room with two beds, whichever is less.

7.2(A)(10). Club cabins or lodges shall be rated at 1/6 EDU per single bed, 1/4 EDU per double or larger bed, 1/3 EDU per bedroom, whichever is greater. Sleeping areas such as lofts, finished attics, or basements shall be considered as one bedroom (1/3 EDU) or rated according to the number of beds in the sleeping area, whichever is greater. Dormitory type lodges or clubs which do not provide linen service nor have laundry facilities available to guests shall be rated at 70% of the respective EDU rating based on bed count.

7.2(A)(11). Trailer parks and commercial hookups for trailers and/or recreational vehicles shall be rated at 1/2 EDU per space with sewer hookup.

7.2(A)(12). Single family homes with attached separate living quarters such as in-law quarters, apartments, duplexes or similar rentals with separate kitchens shall be rated at one EDU for the main living unit plus 1/3 EDU per bedroom or sleeping area for the separate living quarters.

7.2(A)(13). Single family homes with detached living units on the same assessor's parcel shall be rated at one EDU for the main living unit and a minimum of 2/3 EDU up to a maximum of one EDU for each separate detached living unit based on 1/3 EDU per bedroom.

7.2(A)(14). Commercial units that cannot be rated based on occupancy load shall be rated on Uniform Plumbing Code unit rating with 20 plumbing fixture units equal to 1 EDU.

7.2(A)(18). Ski areas shall be rated based on the peak number of skiers (average of the highest 3 consecutive days), multiplied by .046, then divided by 6, to yield the EDU rating. The .046 multiplication factor is based on 3.2 gallons per skier divided by 70 gallons per residential person.

7.2(A)(19). Restaurants shall be rated by number of seats in the bars and/or restaurant. The total number of seats is multiplied by 7.5% to yield the EDU rating.

The General Manager researched other local agencies since they are most likely to face similar challenges such as high absentee owners, ski resorts, vacation visitors, and high snowfall. Wastewater utilization calculations were obtained from the following agencies:

- Tahoe-Truckee Sanitation Agency (TTSA).
 - TTSA provides only wastewater treatment and not collection.
 - Reference: Sewer Connection Fee Study, May 2024 by HDR.
- Truckee Sanitary District (TSD).
 - TSD provides only wastewater collection. Treatment is provided by TTSA.
 - Reference: Ordinance 1-2021.
- Northstar Community Services District (NCSD).
 - Provides only wastewater collection. Treatment is provided by TTSA.
 - Reference: Connection Fee Schedule.
- Tahoe City Public Utility District (TCPUD).
 - Provides only wastewater collection. Treatment is provided by TTSA.
 - Reference: Sewer Ordinance No. 255.
- North Tahoe Public Utility District (NTPUD).
 - Provides only wastewater collection. Treatment is provided by TTSA.
 - Reference: Sewer Ordinance No. 397.

- Olympic Valley Public Service District (OVPSD).
 - Provides only wastewater collection. Treatment is provided by TTSA.
 - Reference: 2025-2026 Sewer Fee Schedule.
- South Tahoe Public Utility District (STPUD).
 - Provides both wastewater collection and treatment.
 - Reference: Water and Sewer Capacity Charges, June 2022 by HDR.

A table summarizing the wastewater calculation methodologies for the District and the other agencies is included as Attachment 2.

ANALYSIS

It is immediately apparent that the District's Ordinance 94-5 is much more detailed and robust than those of other agencies in the region. Notably, no other agency provides standard rating calculations for ski clubs, lodges, or ski areas. At other agencies, these types of facilities would be rated on a case-by-case basis and presumably charged based on fixture units or treated like a hotel or motel.

The following observations can be made from the attached Summary Table:

1. Four of the eight agencies surveyed do not publish the assumed flow rate per EDU.
2. Seven of the eight agencies bill customers based on EDUs. OVPSD is the one agency that bills sewer based on treated water consumption.
3. Only DSPUD provides detailed instructions on how to calculate rates for ski clubs, lodges, or ski areas.
4. All agencies except OVPSD rate commercial users based on plumbing fixture units (PFUs). The PFUs per EDU range between 8 and 20 and not all agencies use the same schedule for PFUs per fixture. For example, TTSA rates fixtures to use 1/3 to 1/2 as much water as the District's ratings, while TSD and TCPUD's ratings are consistent with the District.
5. The ratings for restaurants/bars range from a low of 1/20 of an EDU per seat (TCPUD) to a high of 1/10 of an EDU per seat (TTSA & NTPUD). The District is right in the middle at 7.5% (approximately 1/13), along with TSD and NCSD.
6. The ratings for motel/hotel without kitchen range from a low of 1/4 per bedroom (DSPUD and NCSD) to a high of 1/2 (TTSA).
7. The ratings for motel/hotel with a kitchen range from a low of 1/3 per bedroom (DSPUD and NCSD) to a high of 2/3 (TTSA).

Staff reached the following conclusions:

- The District's methodology is more rigorous when calculating for ski clubs, lodges, and ski areas.
- The District's methodology is consistent with the other local agencies.

Staff does not recommend any changes to Ordinance 94-5 based on this analysis.

If the Board would like more research and analysis of Ordinance 94-5, a logical next step would be to evaluate the rating calculations for the uses that are not listed in the Table, notably ski clubs, lodges, and ski areas.

FISCAL IMPACT

There is no direct fiscal impact related to this item. There is indirect fiscal impact in that this work requires time from the General Manager, which reduces the time available to work on other goals

such as delivering capital projects, reviewing new connection applications, training and hiring staff, updating Board policies, implementing the cross-connection prevention program, and implementing administration improvements.

CEQA ASSESSMENT

This action is not a project under the California Environmental Quality Act (CEQA). CEQA review is not required.

ATTACHMENTS

1. District Ordinance 94-5
2. Summary Table

Attachment 1

ORDINANCE NO. 94-5

DONNER SUMMIT PUBLIC UTILITY DISTRICT AMENDING AND MODIFYING SECTION 7 OF ORDINANCE NO. 81-9 AS MODIFIED BY ORDINANCES NO. 84-2, 85-3, 86-3, 93-2, 94-2, AND 94-3 APPLICABLE TO THE METHOD OF RATING SEWER SERVICE AND TO ESTABLISH SEWER SERVICE RATES, CHARGES AND FEES

WHEREAS, the Board of Directors has analyzed, considered and reviewed the method of rating commercial customers, also know as Supplemental Sewer Services charges and ratings; and

WHEREAS, pursuant to the above, the Board of Directors deems it necessary and appropriate to modify and clarify the method of rating commercial customers; and

WHEREAS, the Board of Directors deems it necessary and appropriate to base sewer service rating on (maximum consecutive three day average) potential flow; and

WHEREAS, the Board of Directors has analyzed and considered the current and projected costs of maintenance and operations of its sewer service facilities and the costs and expenses of providing such services; and

WHEREAS, pursuant to the above, the Board of Directors deems it necessary and appropriate, and redetermines sewer service rates to meet the costs and expenses for providing sewer service and maintaining and operating its sewer service facilities;

NOW THEREFORE, BE IT ENACTED BY THE BOARD OF DIRECTORS OF THE DONNER SUMMIT PUBLIC UTILITY DISTRICT, as follows:

- 1) That Section 7 of Ordinance 81- 9, as previously amended and modified by Ordinances 84-2, 85-3, 86-2, 93-2, 94-2, and 94-3, is amended and modified to read as follows:

"SECTION 7. SEWER SERVICE RATES AND CHARGES

7.1 Applicability - Within the District, the following service rates and charges are established for sewer service.

7.2 Computation of Rates – The sewer rate schedule set forth below is computed on the basis of existing capacity, to be made available to the various types of properties and uses thereof, taking into consideration, among other

things, additions to and replacements of existing sewer collection, treatment, and disposal facilities, providing funds to service debts incurred in reference thereto, including without limitation, maintenance and operation expenses.

7.2(A) Definitions and Method of Rating – In regards to commercial services and business premises, including but not limited to, lodges, hotels, motels, “club” cabins, apartments, retail stores, offices, multi-use buildings or facilities, resorts, ski areas, day use recreational facilities, restaurants, or similar commercial uses, an annual computation has been made and will be made, each year hereafter while this ordinance is in effect, to determine the potential usage made by each customer, or capacity made available, and expense incurred thereto, to provide such capacity for each such type of usage on a basis equivalent to a single family residence.

7.2(A) 1 An Equivalent Dwelling Unit (EDU) is the sewer flow rating given to a single family residence. All structures with plumbing are rated in comparison to the flow rating given to a single family residence.

7.2(A) 2 One EDU is based on a potential occupancy of 6 persons (e.g., 3 bedrooms at 2 persons per bedroom). When peak data or maximum occupancy is used for rating, this higher occupancy load shall be used. A peak period is based on the average of the three (3) highest consecutive days.

7.2(A) 3 The weighted average occupancy, in consideration of varying sizes and actual occupancy loads, is based on 4.88 persons per EDU. When “averaged” data is used for rating, this lower occupancy load shall be used.

7.2(A) 4 One residential person shall be considered to produce 70 gallons of sewer flow per day (gpd).

7.2(A) 5 Therefore, one EDU equates to a potential (peak or maximum) of 420 gallons per day (6 persons X 70 gpd per person); for a weighted (average) flow of 342 gallons per day (4.88 persons X 70 gpd per person.)

7.2(A) 6 A single family residence, defined as one household with one kitchen on its own assessor’s parcel, shall have a rating of one EDU. The exact size of the household shall not be considered, so long as it is designed for living by only one family.

7.2(A) 7 A building used for commercial purposes, on its own assessor’s parcel, shall have a minimum rating of one EDU.

7.2(A) 8 Lodges, bed and breakfast inns, motel units with kitchens, or any other similar building or unit rented for overnight (guest) sleeping with one or more meals served, or kitchen privileges available, shall be rated at 1/6 (one sixth) EDU per single bed, 1/4 (one quarter) EDU per double or larger bed, or 1/3 (one third) EDU per bedroom, whichever is greater. Owner, permanent resident, manager or caretakers quarters shall be rated on the same basis. Sleeping areas, such as lofts or finished attics or basements that are used for guest sleeping shall be considered as one bedroom (1/3 EDU), or rated according to the number of beds in the sleeping area, whichever is greater

Dormitory type lodges, which also do not provide linen service nor have laundry facilities available to guests, shall be rated at 49 gallons per person per day, or 70% (49/70ths) of the respective EDU rating based on bed count, as above.

7.2(A) 9 Hotel or motel rooms without kitchens, and which do not provide any meals as part of the rental or room rate, and which do not have kitchen privileges, shall be rated at 1/6 (one sixth) EDU per bed (of any size), or 1/4 (one quarter) EDU per room with 2 beds, whichever is less.

7.2(A) 10 "Club" cabins or lodges shall be rated a 1/6 (one sixth) EDU per single bed, 1/4 (one quarter) EDU per double or larger bed, or 1/3 (one third) EDU per bedroom, whichever is greater. Sleeping areas, such as lofts, finished attics or basements, shall be considered as one bedroom (1/3 EDU), or rated according to the number of beds in the sleeping area, whichever is greater.

Dormitory type lodges or clubs, which also do not provide linen service nor have laundry facilities available to guests, shall be rated at 49 gallons per person, or 70% (49/70ths) of the respective EDU rating based on bed count, as above.

7.2(A) 11 Trailer parks and commercial hookups for trailers and/or recreational vehicles, shall be rated at 1/2 (one half) EDU per space with sewer hookup.

7.2(A) 12 Single family homes with attached separate living quarters (such as in-law quarters, apartments, duplexes or similar rental units with separate kitchens), shall be rated at one EDU for the main living unit plus 1/3 (one third) EDU per bedroom or sleeping area for the separate living quarters. Separate kitchen facilities (stove and sink) shall define a separate living quarters. If there is no separate kitchen, the house shall be considered a single family residence and rated at one EDU.

7.2(A) 13 Single family homes with detached living units on the same assessor's parcel shall be rated at one EDU for the main living unit (house) and 2/3 (two-thirds) EDU minimum to a maximum of one EDU for each separate detached living unit based on 1/3 (one third) EDU per bedroom. Sleeping areas (such as lofts and finished attics or basements) shall be considered as one bedroom each.

7.2(A) 14 Commercial units that cannot be rated based on occupancy load, shall be rated on uniform plumbing code unit rating (as per Schedule A, below), with 20 units equal to one EDU.

SCHEDULE A: Plumbing Fixture Units		
Type of fixture	Number of fixture units	
	private	public
bathtub (with or without shower)	2	4
drinking fountain (each head)		1
dishwasher	2	4
hot tub	2	4
laundry tub/clotheswasher	2	6
lavatory (bathroom sink)	1	2
shower (each head)	2	4
sink (kitchen)	2	4
sink (bar)	1	2
sink (flush rim)		10
sink (wash up, each pair faucets)		2
sink (wash up, circular spray)		4
urinal (stall, wall)		5
urinal (flush tank)		3
urinal (trough, per 18" length)		4
water closet (toilet, flush tank)	3	5
water closet (toilet, flushometer)	6	10

7.2(A) 15 When a commercial unit's rating cannot be logically based on Uniform Plumbing Code fixture unit rating (e.g., significant public use of bathroom facilities), the rating shall be at the sole discretion of the District taking into consideration all relevant factors.

7.2(A) 16 A commercial building with multiple uses or units shall be rated based on the sum of its component uses or unit ratings. Living quarters or apartments shall be based on 1/3 (one third) EDU per bedroom. Offices, retail stores or shops with plumbing facilities available for employees and customers shall be rated at 1/2 (one half) EDU. Stores, shops or facilities with larger public use shall be rated higher at the sole discretion of the District. Retail stores, shops or public day-use

facilities which share bathroom facilities with a lodge, restaurant, or similar separately rated unit or facility, shall be rated as if they had their own bathroom facilities.

7.2(A) 17 Commercial parcels with more than one structure shall have a minimum rating of one EDU for the main structure, and a minimum rating of $\frac{2}{3}$ (two thirds) EDU for each additional structure with plumbing facilities. If a separate structure does not have plumbing facilities but is used as an office, retail store, shop, or similar use, and employees and customers use the bathroom facilities in the main structure, the separate structure shall be rated as if it had such bathroom facilities.

7.2(A) 18 Ski Areas shall be rated based on the peak number of skiers (average of highest three consecutive days) multiplied by .046, then divide by 6 to yield the EDU rating. (The .046 multiplication factor is based on the 1984 facility plan's rating of 3.2 gallons/skier divided by 70 gallons per residential person. Since peak data is used, a dividing factor of 6 (persons per EDU) is used.)

7.2(A) 19 Restaurants shall be rated by counting the number of seats in the bars and / or restaurants. The total number of seats is multiplied by 7.5% to yield the EDU rating. (The 7.5% factor is based on an average of the surrounding basin districts' seat equivalency.)

7.2(A) 20 Rating above one shall be rounded to the nearest tenth of an EDU (e.g., 2.44 shall equal 2.4; 2.45 shall equal 2.5).

~~7.2(B) Sewer Service Charges The monthly sewer charge shall be \$02.14 per EDU.~~

MODIFIED BY ADOPTION OF SUBSEQUENT RATE ORDINANCES

7.2(C) Commercial Sewer Service

7.2(C) 1 All commercial buildings and premises, and any customer with an EDU rating above one (1), shall be rated as a Commercial Sewer Service.

7.2(C) 2 The billing for Commercial Sewer Service, based on Section 7.2(A) through 7.2(B) above, shall be submitted in advance in accordance with the billing procedures outlined in Ordinance 81.9

7.2(C) 3 In the event of a protest of the charge by a customer with Commercial Sewer Service, the amount of the protest shall first be paid as billed, and the protestant may then follow the protest or appeal procedure as set forth in Section 12 of Ordinance 81-9

7.2(C) 4 At least once each service year, the District shall review each premises and use subject to Commercial Sewer Service, and redetermine the equivalency basis thereof, and the District will advise each customer of the premises as to any change in sewer service (EDU) rating, and the reasons therefore. Customers or property owners may protest or appeal such determinations in accordance with Section 12 of Ordinance 81-9.

7.2(C) 5 New Construction – In the event new construction is undertaken of a building or structure which is subject to a Commercial Sewer Service, concurrently with the application to the District for sewer service, a computation shall be made by the District as to the DEU rating to which the premises shall be subject for the balance of the current service year, and upon which a charge shall be made, on a prorated basis for the balance of the billing period, and paid concurrently with such application. Thereafter the Commercial Sewer Service EDU rating applicable thereto shall be subject to annual review and adjustment as set forth above in this Ordinance.

7.2(C) 6 Unclassified Sewer Service – For premises and customers to which Section 7.2(A) through 7.2(A) 19 do not apply, or where the same may be inapplicable, such as to a recreational complex with premises under governmental ownership or control, or due to other characteristics deemed to render the premises unique or unusual, as determined by the Board of Directors of the District, sewer service thereto shall be deemed unclassified and the rates therefore shall be established in each instance by the District taking into consideration all relevant factors, including without limitation, fixture units, volume and type of sewage, seasonal usage, equivalent usage, location, and service thereunder shall then be provided by contract.

7.2(C) 7 Change in Premises – Notice to District – Owners, customers or applicants shall notify the District within not less than ten days prior to commencement of any work, additions, modifications, or deletions to buildings or premises, or changes to the type of business or occupancy, which would effect the volume or type of sewer discharge therefrom, whereupon the District shall determine whether any classification or change of sewer service EDU rate is warranted. If such change is warranted as determined by the District, applicant, owner or customer shall be notified thereof within 30 days, and such changed sewer rate or charge shall be reflected in the next billing by the District, prorated to the date of substantial completion of the work, or completion of any work on the plumbing facilities, or date of change in type of business or occupancy, which result in a change in the discharge of sewage, whichever shall come first.

7.2(C) 8 Failure to Notify of Changes – In the event an owner, customer, or applicant fails to notify the District as required in Section 7.2(C) 7 of any such work, additions or modifications to the premises, or changes to the type of business or occupancy, which cause an increase in the volume or type of sewer discharge therefrom, then upon the District discovering or becoming aware of the same, the District shall recompute and determine the applicable sewer service charge and EDU rate and shall submit a supplemental billing to the owner, customer or applicant accordingly for such increase in charges or rates, if any.

The effective date of such increase, unless established otherwise to the satisfaction of the District, shall be the day next following the District's last inspection of the premises and shall extend from the effective date of the supplemental billing. From and after the supplemental billing date, the amount of the increase shall be added to and become a part of the regular sewer service charge and billing applicable to it's owner, customer or applicant.

As a penalty for failure to notify the District as specified above, there may be added to the aggregate amount of the supplemental billing referred to above, an amount equal to ten percent (10%) thereof.

The supplemental billing referred to above, together with penalty thereon, if any, shall be due and payable to the District within not more than 90 calendar days of the billing date and, if not so paid the same shall then become delinquent and subject to enforcement or collection by any other measures or procedures in effect established by the District rules, regulations or ordinances or as provided by the law with no such remedy, recourse or measure being exclusive of any other.

2. That except as modified hereby all other respects of the aforementioned Ordinances shall remain in full force and effect; and
3. That this Ordinance and modifications contained herein shall be come effective 30 days from the date of its enactment, and within one week before the expiration of said 30 days the same shall be posted or published as required by law.

PASSED and ADOPTED THIS 14TH DAY OF June, 1994 at a Special Meeting of the Board of Directors of the Donner Summit Public Utility District by the following vote:

AYES: Julie Davies, Mary Jane Lenhart, Dale Verner, Bob Sherwood
 Noel Charonnat

NOES:

ABSENT:

DONNER SUMMIT PUBLIC UTILITY DISTRICT

By: (signed Noel T Charonnat)
PRESIDENT OF THE BOARD OF DIRECTORS

ATTEST;

(signed Tamara Cooper)
EX-OFFICIAL SECRETARY THEREOF

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Attachment 2

Summary Table

July 21, 2026
Agenda Item: 8A
Attachment 2

Wastewater EDU Rating Calculations by Agency

Criteria	DSPUD	NCSD	NTPUD	OVPSD	STPUD	TCPUD	TSD	TTSA
EDU flow basis (gpd)	420 peak / 342 weighted avg.	Not identified	Not specified	Not specified	366 avg.	Not specified	Not to exceed 230	200 avg. (no peak basis)
Commercial — plumbing fixture units per EDU	20	~12	8 Fixture ratings not located	None Based on water usage; base rate 1.85× residential	15 Fixture ratings not located	20 Fixture ratings consistent with the District's	15 Fixture ratings consistent with the District's	10 Per-fixture ratings run 1/3–1/2 of the District's
Restaurant / bar — EDU per inside seat	0.075	1/13 (0.077)	1/10 (0.10)	No rating	1/12 (0.083)	1/20 (0.05)	1/13 (0.077)	1/10 (0.10)
Restaurant / bar — EDU per outside seat	0.075	1/25 (0.04)	1/30 (0.033)	No rating	No charge, first 20 outdoor seats	1/40 (0.025)	1/25 (0.04)	1/25 (0.04)
Motel / hotel without kitchen — EDU per unit	1/6 per bed or 1/4 per room with 2 beds, whichever is less.	1/4 (0.25)	1/3 (0.333)	No rating	No rating	0.395	1/3 (0.333)	1/2 (0.50)
Motel / hotel with kitchen — EDU per unit	1/6 per single bed, 1/4 per double or larger bed, or 1/3 per bedroom, whichever is greater.	1/3 (0.333)	2/5 (0.40)	No rating	No rating	0.435	2/5 (0.40)	2/3 (0.667)