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Council meeting letter 4/6/26

Mac Even <mac@evenbetterhomes.com> Mon, Apr 6, 2026 at 3:22 PM
To: recorder@ci.sandy.or.us, Tyler Deems <tdeems@ci.sandy.or.us>, japrati@ci.sandy.or.us

To Whom it may Concern:

I am the manager of the Sandy Housing Authority ("SHA"). Enclosed are comments from Brendan Buckley of Johnson Economics concerning the City's proposed system development charge methodology for water and sewer, prepared by FCS. Stated simply, Mr. Buckley has determined that, among other things, the growth rate(s) that FCS assumes are incorrect, resulting in an overestimate of the proportion of these facilities that is SDC eligible.

In addition to Mr. Buckley's comments, SHA offers the following additional comments.

1. The sewer SDC methodology is not based on an approved CIP, in violation of ORS 223.304(2)(a)(A), which provides as follows:

"(2) Improvement fees must:
(a) Be established or modified by ordinance or resolution setting forth a methodology that is available for public inspection and demonstrates consideration of:
(A) The projected cost of the capital improvements identified in the plan and list adopted pursuant to ORS 223.309 [plans for capital improvements financed by system development charges] that are needed to increase the capacity of the systems to which the fee is related."

Instead, the sewer SDC Methodology is based on discussions with "City Staff." This is very important because the methodology assumes construction of a new Sandy River outfall. It is our understanding that the City's preferred approach to its sewer deficiencies is now to construction a sewer transmission main to the City of Gresham rather than to construct a new outfall.

2. The proposed water and sewer system upgrades appear to address existing system deficiencies, rather than accommodating new growth. This is very apparent in view of the City's Consent Decree with the Oregon Department of Environmental Quality (DEQ), which, on page 99, identifies options for addressing existing deficiencies that must be considered by the City regardless of growth. The Consent Decree addresses existing violations, which means that one or more of the major system improvements that Sandy must evaluate must be constructed regardless of growth, just to get the City back into compliance with its NPDES Permit.

3. It is also worth noting that the costs of an outfall are fairly insensitive to the amount of projected growth, meaning that it is likely that the full costs of this or any other major improvement will be incurred regardless of whether those facilities are sized for growth or not.

4. For the reasons above, SHA believes that the SDC eligibility determinations noted on Exhibit 3.2 of the SDC Methodology (pg. 11) greatly over-allocate the share of required system upgrades to future development. This is particularly the case with costs that must be occurred regardless of whether new development occurs or not, which includes but is not limited to the following "phases": A1330, A1340, A1350 (Outfall to Sandy River); A1360, A1370, A1380 (Existing WWT Facility Upgrades), and all collection system improvements.
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4.

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2 attachments

Sandy SDC Methodology Review - JohnsonEcon 4_6_26.pdf
378K

sandy_cd_signed_and_entered_-_9.11.2023.pdf
3472K

JOHNSON ECONOMICS

April 6, 2026

To: Garrett Stephenson
Schwabe Williamson & Wyatt
From: Johnson Economics

SUBJECT: Sandy Water and Sewer System Development Charges Methodology Review

A. EXECUTIVE SUMMARY

JOHNSON ECONOMICS was retained to review the methodology and assumptions behind recent System Development Charge (SDC) analysis completed for the City of Sandy, Oregon. The City contracted with FCS, a Bowman Company to produce the SDC analysis and provide a report titled "City of Sandy Water and Sewer SDCs" dated February 2026 (SDC Report). The report provides a review of the methodology of the analysis and arrives at recommended SDC rates for water and sewer. Johnson Economics was asked to review this report, and make comments if any on the methodology, approach, and findings. This memo summarizes Johnson Economics findings and opinions.

The Johnson Economics review of the SDC Report and the methodology used in the analysis suggests that there are multiple possible deficiencies that would impact the final calculation of fair SDC rates for water and sewer. The major considerations are summarized as follows:

1) **Population:** The analysis relies on older master planning documents that use outdated growth forecasts. Furthermore, two different growth rates are used for water and sewer meaning that at least one is sure to be inaccurate. However, the most up-to-date forecast projects more modest growth in coming decades, suggesting a lower "growth share" of total future demand. Therefore, both rates used in the analysis are probably too high.

2) **Development Moratorium:** The impact of the development moratorium in place since 2022 has also significantly stunted growth in a way that will carry on through the forecasting period. The forecasts provided in the master planning documents for water and sewer are already out of date as of 2026, meaning the SDC analysis is beginning from an inadequate baseline. The aggressive growth rates are applied immediately, including over the next few years when development is still likely to be very modest under the moratorium.

3) **Project Eligibility:** More review is needed of the capital projects included in the report, to ensure that they meet statutory requirements of providing increased capacity with no double counting. The water project list appears to have been borrowed from the Water Systems Master Plan without additional analysis of which types of improvements increase capacity and are therefore

eligible. In addition, it appears that in some categories new development is being asked to pay for the needed capacity through a reimbursement fee, but also new improvement projects providing capacity beyond what the new growth requires.

4) **Project Eligibility:** The project list must also reflect the actual improvements being planned. If these lists have evolved since the master plans they are sourced from, or since the development of this SDC analysis, the calculations of SDCs based on inaccurate project lists or cost estimates will be inaccurate as well. Of particular concern is the potential sewer pipeline project to Gresham wastewater treatment facilities. This project is not reflected in the SDC methodology, or calculation of SDCs. It is not possible to conclude that the SDC calculations included in this methodology are sound if the included capital project lists are not accurate.

5) **Project Capacity:** There is no documentation that the project list is scaled to the exact capacity needs of the future growth by 2050/2040. The project capacity must be scaled to the actual need of the forecasted growth, or any excess capacity created by these projects must be accounted for and charged to post-2050 development via a future reimbursement fee.

   The capacity of the capital projects must be matched to the forecasted future growth. Because it is difficult, and imprudent planning, to precisely match future capacity this way (projects should be built with excess capacity) then the share of project cost should be scaled to reflect just the capacity needed for the 2050 forecast (*before* the growth share is factored). If the improvements provide additional future capacity, beyond the 2050 growth, then post-2050 development should bear part of the cost as well.

B. BACKGROUND

The City is planning for major improvements to its water and wastewater treatment infrastructure to solve existing deficiencies in its system and provide capacity for future growth. The City has faced longstanding challenges from the current demand on its sewer collection and treatment system. The combination of population growth and inflow-and-infiltration (I&I) from surface water led to discharges from the treatment plant in excess of permitted levels (Clean Water Act, OR DEQ, EPA). As a result of these violations, the City entered into a consent decree with DEQ and EPA to remediate the issue.

As the City has attempted to address the violations, it adopted a moratorium on new development beginning in late 2022 and has since extended it multiple times as remediation activities have been carried out. (The consent decree allowed approval of a set number of new connections to the sanitary sewer system, but these are now allocated.) To add capacity to the water and sewer system and allow for the resumption of development activity, the City must complete repairs, reductions in I&I, and upgrade existing infrastructure and add new capital improvements.

Over the course of 2024 and 2025, the City developed updated methodology to determine new rates of System Development Charges (SDCs) for water and sewer. SDCs are applied to new development projects to pay for the new land user's estimated consumption of existing and future capacity in the system. Based on the Water System Master Plan (2022), and the Wastewater System Facilities Plan (2019), the City has a list of capital improvement projects that are needed to increase capacity by 2050, and 2040 respectively.

The newly determined Water and Sewer SDC levels are meant to ensure the new development pay for a calculated share of remaining capacity in existing facilities (a reimbursement fee), and growth in future capacity (improvement fee).

C. POPULATION FORECASTS & CAPACITY NEED FORECAST

The methodologies used in the SDC Report forecast growth in water and sewer need to 2050 and 2040 respectively. The growth forecasts are drawn from the two most recent relevant master plan documents: the Water System Master Plan (2022) and the Wastewater System Facilities Plan (2019). These two plans, developed at different times, used two different sources for their population growth forecasts. They also have two different end dates for the planning period considered in the plan. The water plan forecasts through 2050, while the sewer plan forecasts through 2040.

The population growth rate assumptions used in both cases are high compared to the most recent population growth forecast from the PSU Population Research Center (PRC), and considering the development moratorium that has now been in place for roughly 2.5 years.

Sewer Growth Forecast: the Wastewater System Facilities Plan was developed in 2019 and relied on growth forecast from the even older Sandy Urbanization Study of 2015. The forecast of 2.8% annual growth rate (AGR) derives from the Urbanization Study that is now over 10 years old. In the ensuing years, PSU has developed multiple updated forecasts that forecast a more moderate growth rate.

TABLE 1: GROWTH RATE COMPARISONS (SEWER)

	Annual Growth Rate	
SDC Report Forecast (to 2040)[1]:	2.80%	AGR
PSU PRC Pop. Forecast (to 2040)[2]:	1.05%	AGR
Actual Growth Rate 2020 - 2025[2]:	0.82%	AGR

1: Rate from 2019 Wastewater System Facilities Plan, drawn originally from 2015 Sandy Urbanization Plan.

2: Most recent adopted PSU forecast for Clackamas Co. including Sandy (2024)

The SDC Report analysis updates the 2024 population estimate to reflect PSU's latest estimate for that year but then applies the 2.8% annual growth rate derived from the 2015 Urbanization Study to forecast growth

to 2040. The most up-to-date PSU forecast for Clackamas County, including the Sandy UGB, was also completed in 2024. That forecast estimates a much more modest rate of growth of 1.05% annually between now and 2040. This results in a much lower finding of future demand and capacity for the system.

Furthermore, the impacts of the moratorium have also significantly slowed growth, impacting the accuracy of the forecasts used in the report. Between 2020 and 2025, the population of the Sandy UGB has grown at an estimated 0.8% per year, much lower than the assumption of 2.8% per year. This creates a new lower baseline from which future growth will begin.

Water Growth Forecast: the Water System Master Plan was developed in 2022 and relied on a growth forecast from the 2020 PSU forecast cycle. That forecast estimated a future growth rate of 2.1% per year between 2022 and 2045, and a lower rate of 1.65% between 2045 and 2050 (the end of the plan period). This results in a blended growth rate of roughly 2.0% assumed in the SDC Report.

While 2.0% is a more moderate growth rate than 2.8% used in the sewer forecast, it is still much higher than the latest adopted PSU forecast and also doesn't reflect the impact of the development moratorium as discussed above.

TABLE 2: GROWTH RATE COMPARISONS (WATER)

	Annual Growth Rate	
SDC Report Forecast (to 2050)[1]:	1.99%	AGR
PSU PRC Pop. Forecast (to 2050)[2]:	1.24%	AGR
Actual Growth Rate 2020 - 2025[2]:	0.82%	AGR

1: Rate from 2022 Water System Master Plan, based on PSU 2020 forecast.

2: Most recent adopted PSU forecast for Clackamas Co. including Sandy (2024)

Differing Growth Rates: Aside from not using the most recent growth rates in the analysis, the methodology also relies on two different growth rates for future water (2.0%) and sewer (2.8%) needs. Besides the impossibility of the population growing at two different rates in Sandy, the water and sewer systems are connected and generally should scale together over time. Ideally, these analyses would be using the same growth rate, and that growth rate would be more closely associated with the most up-to-date growth forecast available from PSU.

Impacts of Aggressive Growth Rates: The implication of overestimating future growth is that the projects identified in the water and sewer master plans, and included in the SDC Report, are not properly scaled to the actual growth that will be achieved. If the projects are scaled for greater growth, and will actually provide overcapacity, then newly added units should not contribute to that unused future capacity. This is discussed more below.

Development Moratorium: The impact of the development moratorium in place since 2022 has also significantly stunted growth in a way that will carry on through the forecasting period. The forecasts provided in the master planning documents for water and sewer are already out of date as of 2026, meaning the SDC analysis is beginning from an inadequate baseline. The aggressive growth rates are applied immediately, including over the next few years when development is still likely to be very modest under the moratorium.

D. PROJECTS, COSTS, AND ELIGIBILITY

The SDC Report provides a list of capital improvement projects (CIP) for water and sewer. It also provides analysis of the remaining capacity of existing facilities that can be applied to future growth. SDCs for new development projects can include an "improvement fee" for new facilities and capital improvement to existing facilities that add capacity, and a "reimbursement fee" to pay for the usage of capacity that remains in existing facilities.

The SDC Report draws its list of water system projects from the Water System Master Plan (2022). The list of needed sewer projects is credited to city staff and presumably reflects the recent planning to meet the needs of the consent decree and update sewer capacity.

Eligible Costs to Include in SDC Calculations: State statute describes what types of projects and costs can be included in setting SDCs for future development. The most important qualification is that improvement fees may be spent only on capital improvements, and they must increase capacity of the system. The following is a citation of ORS 223.307, with *emphasis added*:

> Improvement fees may be spent only on *capacity increasing* capital improvements, including expenditures relating to repayment of debt for such improvements. An increase in system capacity may be established if a capital improvement increases the level of performance or service provided by existing facilities or provides new facilities. *The portion of the improvements funded by improvement fees must be related to the need for increased capacity* to provide service for future users.
>
> - ORS 223.307(2)

The eligible costs to include in the SDC improvement fee are those that increase capacity and reflect only the share of that increase needed by the new users. For this reason, it is important to establish the nexus between each listed project and forecasted growth, and the end capacity expected from each project.

The methodology in the SDC Report arrives at a percentage of the total anticipated capacity that will be needed from new growth (as opposed to existing users). The growth is measured in meter capacity equivalents (MCEs), but these reflect the same annual population growth rates cited above (2.0% for water; 2.8% for sewer).

TABLE 3: ESTIMATED SHARE OF GROWTH IN TOTAL FUTURE NEED

	Current MCE	Annual Growth Rate	Total Future MCE	Growth in MCE	Growth Share of Total
Water System	5,195	1.99%	8,854 (2050)	3,659	41.3%
Sewer System	5,113	2.80%	7,954 (2040)	2,841	35.7%

Source: City of Sandy Water and Sewer SDCs, Exhibits 2.1 & 3.1

This "growth share" of total future need is then applied to listed projects in the CIP lists for water and sewer in the report. In limited cases, more precise data was available that allowed for the estimate of a different percentage (see Exhibits 2.3 and 3.2 in the report for more detail).

Project Eligibility: It is beyond the scope of this review to examine every project included in the two project lists, in detail, but it is important to emphasize that only those projects and project expenses related to *increasing capacity* are eligible for inclusion in SDC calculations. Especially in the case of the water CIP table (Exhibit 2.3 in the report), this list was taken directly from the Water System Master Plan. That plan does not have to distinguish between projects that will increase capacity, and those that are needed for other reasons; for instance, maintenance, replacement, and repair of existing facilities that do not increase capacity. Also, many studies and planning projects are included on this list and might require more explanation to establish a nexus to increasing capacity.

Projects on the water and sewer lists that do not increase capacity would not be eligible for inclusion in the SDC calculations by adding project costs that should not be attributed to growth. A closer review might be called for, especially because the water project list is taken unchanged from the 2022 master plan that wasn't required to make these distinctions.

The sewer capital improvement project list (Exhibit 3.2) is attributed to city staff but should also take the factors into consideration. In addition, it is our understanding that the capital improvement options to address the City's sewer capacity issues are still evolving. If this sewer project list does not match the current planning on what improvements will be needed (e.g. piping effluent to Gresham), then a methodology that establishes SDC rates based on an incomplete or inaccurate list will be invalid.

Repetition of Costs and Capacity: The two main parts of the SDC rate, the improvement fee and the reimbursement fee, may not replicate or double count the same capacity (emphasis added):

> A local government may establish and impose a system development charge that is a combination of reimbursement fee and an improvement fee, if the methodology demonstrates that the charge is *not based on providing the same system capacity.*
>
> - ORS 223.304(3)

The SDC report finds that there are no eligible reimbursement costs for sewer system capacity, as there is no remaining capacity for future growth to utilize. However, the analysis does find eligible reimbursement costs for existing water system capacity and adds these into the SDC calculation. These cost estimates are for remaining capacity in "pumping" and "transmission & and distribution" (Exhibit 2.4).

The analysis provides more detailed analysis of the current pumping capacity and projected future demand. This analysis finds that there is sufficient remaining capacity to accommodate all of the projected future demand, with some remaining excess capacity still left over.[1] Specifically, the analysis finds current pumping capacity of 4.68 millions of gallons per day (MGD) and a total need of 4.21 MGD by 2050, leaving excess capacity.

While there is sufficient capacity to meet future needs within existing facilities, there are two capital improvement projects related to pumping included in the project list. As ORS 223.307(2) and 223.304(3) above state, the methodology should only charge for capacity needed to serve the growth and should not replicate costs. If the future demand for pumping capacity is met wholly by existing facilities, future development should not be charged for other increases of pumping capacity.

Unfortunately, the reimbursement fee for "transmission & and distribution" does not provide the same amount of detail in its calculation and simply applies the share of growth factor of 41.33% (see Table 3 above). The case of pumping capacity suggests that this line item might also be citing excess capacity that is then provided for again by new capital projects in the project list. Any growth-related capacity need that is addressed by existing facilities should not be double counted as eligible capacity-increasing costs on the project list.

Scaling of Projects to Match Growth: The final, but important observation, is that more documentation is needed that the projects and project costs are scaled to the estimated growth by 2050/2040. (For the sake of brevity, we will refer to 2050 as the plan end-date, understanding that 2040 is the end date of the sewer facilities plan.)

If the projects are being engineered to over-supply capacity, which would be prudent planning, this would leave excess capacity in the system as of 2050. Any excess capacity in the system should be charged to future development, *above and beyond* the development forecasted 2050. In other words, post-2050 development would pay for this via reimbursement fees.

The cost of any such excess capacity, beyond what is needed for the growth by 2050, should not be included in eligible project costs.

As an example, the water project costs should be directly scaled to the growth in water capacity needs by 2050 (+3,659 MCEs) estimated in the plan. If any of the projects provide additional capacity beyond 3,659 MCEs, those costs should not be included. If for instance, new capital improvements will have the capacity to serve 5,000 additional MCEs, the full cost of those improvements should not be used in the SDC calculation.

There is not sufficient documentation that the capital project design, scale, future capacity, and costs have been scaled to precisely match the forecasted growth by 2050 and no more. It is possible that this is what the master plan reflects, but doubtful.

Especially if the forecasted growth rate is updated to be significantly more moderate than the growth rates used in the SDC analysis, then the planned projects are likely to provide excess capacity above and beyond

[1] City of Sandy Water and Sewer SDCs, Page 7, FCS, February 2026.

that needed for growth by 2050. Therefore, the SDCs charged for development between today and 2050 should not reflect the full cost of these capital improvements. (Application of the 41.33% share of growth factor does not remedy this. The actual cited project costs that the factor is applied to should be lower.)

E. SUMMARY OF FINDINGS

The Johnson Economics review of the SDC Report and the methodology used in the analysis suggests that there are multiple possible deficiencies that would impact the final calculation of fair SDC rates for water and sewer. The major considerations are summarized as follows:

1) **Population:** The analysis relies on older master planning documents that use outdated growth forecasts. Furthermore, two different growth rates are used for water and sewer meaning that at least one is sure to be inaccurate. However, the most up-to-date forecast projects more modest growth in coming decades, suggesting a lower "growth share" of total future demand. Therefore, both rates used in the analysis are probably too high.
2) **Development Moratorium:** The impact of the development moratorium in place since 2022 has also significantly stunted growth in a way that will carry on through the forecasting period. The forecasts provided in the master planning documents for water and sewer are already out of date as of 2026, meaning the SDC analysis is beginning from an inadequate baseline. The aggressive growth rates are applied immediately, including over the next few years when development is still likely to be very modest under the moratorium.
3) **Project Eligibility:** More review is needed of the capital projects included in the report, to ensure that they meet statutory requirements of providing increased capacity with no double counting. The water project list appears to have been borrowed from the Water Systems Master Plan without additional analysis of which types of improvements increase capacity and are therefore eligible. In addition, it appears that in some categories new development is being asked to pay for the needed capacity through a reimbursement fee, but also new improvement projects providing capacity beyond what the new growth requires.
4) **Project Eligibility:** The project list must also reflect the actual improvements being planned. If these lists have evolved since the master plans they are sourced from, or since the development of this SDC analysis, the calculations of SDCs based on inaccurate project lists or cost estimates will be inaccurate as well. Of particular concern is the potential sewer pipeline project to Gresham wastewater treatment facilities. This project is not reflected in the SDC methodology, or calculation of SDCs. It is not possible to conclude that the SDC calculations included in this methodology are sound if the included capital project lists are not accurate.
5) **Project Capacity:** There is no documentation that the project list is scaled to the exact capacity needs of the future growth by 2050/2040. The project capacity must be scaled to the actual need of the forecasted growth, or any excess capacity created by these projects must be accounted for and charged to post-2050 development via a future reimbursement fee.

The capacity of the capital projects must be matched to the forecasted future growth. Because it is difficult, and imprudent planning, to precisely match future capacity this way (projects should be built with excess capacity) then the share of project cost should be scaled to reflect just the capacity needed for the 2050 forecast (*before* the growth share is factored). If the improvements provide additional future capacity, beyond the 2050 growth, then post-2050 development should bear part of the cost as well.